

# Implicit Gender Bias in the Legal Profession: An Empirical Study

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## ABSTRACT

*Commentators have marveled at the continuing lack of gender diversity in the legal profession's most influential and honored positions. After achieving near equal numbers of male and female law school graduates for approximately two decades, the gap between men and women in law firms, legal academia, and the judiciary remains stark. Several scholars have argued that due to negative stereotypes portraying women either as workplace cutthroats or, conversely, as secretaries or housewives, decision-makers continue to subordinate women to men in the highest levels of the legal profession. Despite these compelling arguments, no empirical studies have tested whether implicit gender bias might explain the disproportionately low number of women attorneys in leadership roles.*

*In order to test the hypothesis that implicit gender bias drives the continued subordination of women in the legal profession, we designed and conducted an empirical study. The study tested whether law students hold implicit gender biases related to women in the legal profession, and further tested whether these implicit biases predict discriminatory decision-making. The results of the study were both concerning and hopeful. As predicted, we found that implicit biases were pervasive; a diverse group of both male and female law students implicitly associated judges with men, not women, and also associated women with the home and family. Yet the results of the remaining portions of the study offered hope. Participants were frequently able to resist their implicit biases and make decisions in gender neutral ways. Taken together, the results of the study highlight two conflicting sides of the ongoing gender debate: first, that the power of implicit gender biases persists, even in the next generation of lawyers; and second, that the emergence of a new generation of egalitarian law students may offer some hope for the future.*

## INTRODUCTION

Commentators have marveled at the continuing lack of gender diversity in the legal profession's most influential and honored positions. The passage of time, for years cited as a reason for hope, has failed to put a major dent in the huge disparities in both career advancement and pay. After achieving near

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equal numbers of male and female law school graduates for approximately two decades,<sup>1</sup> the gap between men and women in law firms, legal academia, and the judiciary remains stark. For example, only six percent of managing partners at the largest 200 American law firms are women<sup>2</sup> and approximately four out of five law school deans are men.<sup>3</sup> Scholarship focusing on the continuing gender gap has been detailed and interdisciplinary, offering a variety of potential explanations for the continued problem.<sup>4</sup> Of these explanations, the most convincing have been science-based, relying on the powerful role of implicit gender stereotypes. Scholars have argued that due to negative stereotypes portraying women either as workplace cutthroats or, conversely, as secretaries or housewives, decision-makers continue to subordinate women to men in the highest levels of the legal profession.<sup>5</sup> Despite these compelling arguments, many of which are grounded in social science theory, no empirical studies have tested whether implicit gender bias might explain the disproportionately low number of women attorneys in leadership roles.

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1. NATIONAL ASSOCIATION OF WOMEN LAWYERS & THE NAWL FOUNDATION, REPORT OF THE FOURTH ANNUAL NATIONAL SURVEY ON RETENTION AND PROMOTION OF WOMEN IN LAW FIRMS (2009) [hereinafter *Fourth Annual National Survey*]; see also Elizabeth H. Gorman & Julie A. Kmec, *Hierarchical Rank and Women's Organizational Mobility: Glass Ceilings in Corporate Law Firms*, 114 AM. J. SOC. 1428, 1429 (2009) (surmising that "the passage of time has undermined the view that not enough women have yet made their way through the 'pipeline' to higher organizational levels").

2. *Fourth Annual National Survey*, supra note 1, at 2.

3. Patti Abdullina, *Statistical Report on Law School Faculty and Candidates for Law Faculty Positions*, ASS'N. AM. LAW SCH., <http://www.aals.org/statistics/2009dlt/titles.html> (last visited Oct. 25, 2010).

4. See e.g., Deborah L. Rhode, *The Subtle Side of Sexism*, 16 COLUM. J. GENDER & L. 613 (2007) [hereinafter Rhode, *Subtle Side*]; Deborah L. Rhode, *Gender and Professional Roles*, 63 FORDHAM L. REV. 39 (1994); Susan Sturm, *From Gladiators to Problem-Solvers: Connecting Conversations about Women, the Academy, and the Legal Profession*, 4 DUKE J. GENDER L. & POL'Y 119, 122 (1997) (suggesting that the notion of "lawyer as gladiator," rather than "lawyer as problem-solver," heightens gender bias in the legal profession); Joan C. Williams, *The Social Psychology of Stereotyping: Using Social Science to Litigate Gender Discrimination Cases and Defang the "Cluelessness" Defense*, 7 EMP. RTS. & EMP. POL'Y J. 401, 439 (2003).

5. See Cynthia Fuchs Epstein et al., *Glass Ceilings and Open Doors: Women's Advancement in the Legal Profession*, 64 FORDHAM L. REV. 291, 295-96 (1995) (discussing the role of gender stereotypes in New York law firms); Iman Syeda Ali, Article, *Bringing Down the "Maternal Wall": Reforming the FMLA to Provide Equal Employment Opportunities for Caregivers*, 27 LAW & INEQ. 181, 182 (2009); Rhode, *Subtle Side*, supra note 4, at 615 ("[G]ender stereotypes and unconscious bias concerning female competence and appropriately feminine behavior constitute significant barriers, particularly to leadership positions."); Yvonne A. Tamayo, *Rhymes With Rich: Power, Law, and the Bitch*, 21 ST. THOMAS L. REV. 281, 282 (2009).

In order to test the hypothesis that implicit gender bias<sup>6</sup> drives the continued subordination of women in the legal profession, we designed and conducted an empirical study. The study tested whether people hold implicit gender stereotypes of women in the legal profession, and further tested whether these implicit stereotypes predict discriminatory decision-making. Specifically, the experiment consisted of several measures. First, based on the stereotype of male leaders and women clerical workers, we created and conducted a new Implicit Association Test (IAT), the “Judge/Gender IAT,” a reaction-time based measure that tests whether people<sup>7</sup> hold implicit associations between men and judges and women and paralegals. Next, due to the stereotype of men as professionals and women as homemakers, we employed a well-known IAT that tests whether people associate men with the workplace and women with the home and family. In addition to testing for implicit gender bias in the legal setting, we also tested whether gender stereotypes predict biased decision-making. We thus included three additional gender-based measures in our study: a law firm hiring measure (participants were asked to select a candidate to hire), a judicial appointments measure (participants were asked to rank the desirability of masculine and feminine traits in appellate judges), and a law student organization budget cut measure (participants were asked to reallocate funds in response to budget cuts).

The results of the study were both concerning and hopeful. As predicted, we found that a diverse group of both male and female law students implicitly associated judges with men, not women, and also associated women with the home and family. For these implicit measures, results of the study indicated that law students were much like other studied populations in related IAT studies: implicit gender biases were pervasive. In addition, the results showed that for both male and female participants, their implicit gender biases predicted some, but not all, of their decisions on the remaining studies. For example, the more strongly male participants associated judges with men in the Judge/Gender IAT, the more they preferred that appellate judges possess masculine (compared to feminine) characteristics. This result demonstrates that implicit gender biases can affect decision-making.

The results of the remaining studies offered hope, however. Participants were frequently able to resist their implicit biases and make decisions in gender-neutral ways. In fact, for the resume study, male law student participants even

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6. Many legal scholars have previously called this phenomenon “unconscious bias.” See, e.g., Charles R.

Lawrence III, *The Id, the Ego, and Equal Protection: Reckoning with Unconscious Racism*, 39 STAN. L. REV. 317, 331-36 (1987) (introducing the concept to legal scholarship). Because social scientists prefer the term “implicit” to “unconscious,” we will generally use this term except when referring to existing scholarship that uses the term “unconscious.” We mean the term “implicit” to describe attitudes, memories, and stereotypes that are outside of “conscious, attentional control.” See Anthony G. Greenwald & Linda Hamilton Krieger, *Implicit Bias: Scientific Foundations*, 94 CAL. L. REV. 945, 946 (2006); see also Jerry Kang, *Trojan Horses of Race*, 118 HARV. L. REV. 1489, 1497-1539 (2005) (explaining the foundations of scientific research on implicit attitudes). For an explanation of why psychologists prefer the term “implicit” to “unconscious,” see Russell H. Fazio & Michael A. Olson, *Implicit Measures in Social Cognition Research: Their Meaning and Use*, 54 ANN. REV. PSYCHOL. 297, 303 (2003).

7. In our study, we tested law students, a group that presumably should strive for gender neutrality.

preferred female candidates to male candidates and held other pro-female job attitudes. Additionally, for the budget cut study, law student participants were no more likely to cut funds from a women's organization than from other organizations. Taken together, the results of our study highlight two conflicting sides of the ongoing gender debate: first, that the power of implicit gender biases persists, even in the next generation of lawyers; and second, that the emergence of a new generation of egalitarian law students may offer some hope for the future.

This Article considers implicit bias based theories of gender inequality in the legal profession and details the empirical study we conducted. Section II delineates the seriousness of the problem by providing a statistical overview of gender disparities in the legal profession. It then examines scholarship linking implicit gender stereotypes to gender disparities in the legal profession. It notes that although much legal scholarship hypothesizes that gender stereotypes (particularly those linking women to the home or family, questionable workplace character traits, or low status jobs) play a pernicious role in subordinating women, none have tested the hypothesis empirically.

Section III begins by reviewing the few empirical studies that have investigated continuing gender disparities in the legal profession. These studies have tested a variety of worthy hypotheses, such as the connection between masculine job descriptions and subsequent hiring, but have yet to examine the potential role of implicit gender bias in the legal profession. The section then sets the stage for our empirical study by outlining our research goals for the study, as well as providing a scientific overview of the IAT in the legal context. Section IV provides the particulars of the empirical study we conducted, from methods to results. It describes in detail the law student participants we recruited and the materials we used in the study. The results confirm implicit gender biases among law students, but simultaneously offer hope that some of these biases may be resisted. Section V provides a roadmap for future research on implicit gender bias in the legal profession and considers the implementation of debiasing measures. Section VI concludes.

## II. GENDER STEREOTYPES AND THE LEGAL PROFESSION

### A. The Statistics

Startling statistics document the disappointing state of gender equality among high-level attorneys. According to a 2009 report by the National Association of Women Lawyers, women are grossly underrepresented in leadership roles in the legal profession.<sup>8</sup> The report, which tracked the progress of women in the nation's largest 200 firms, found that only six percent of firms have women managing partners,<sup>9</sup> fifteen percent of firms have at least one woman on their management committee, and fewer than sixteen percent of firm

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8. *Fourth Annual National Survey*, *supra* note 1, at 2-5.

9. *Id.* at 2. The report also notes that in 2006, just five percent of managing partners were women. *Id.* at 6.

equity partners are women.<sup>10</sup> Furthermore, males comprise the highest paid partners at ninety-nine percent of the nation's top firms.<sup>11</sup> This underrepresentation is particularly startling considering that law schools have been graduating equal numbers of women and men over the past two decades.<sup>12</sup>

The number of women in leadership roles in the nation's courts and law schools is only slightly better than in the private sector. Statistics show that less than thirty percent of judges in federal and state courts are women, including federal district court judges (25%),<sup>13</sup> federal appeals court judges (29%),<sup>14</sup> and state court judges (26%).<sup>15</sup> Within the leadership of legal academia, the gender gap is similarly stark. In 2008-2009, for example, there were four times more male than female law school deans.<sup>16</sup> In addition, women held less than thirty percent of coveted tenure track and tenured faculty positions (29%).<sup>17</sup>

The numbers make clear that the gender gap amongst leaders in the legal profession persists, and does so in an alarming fashion. Yet there is no scholarly consensus for the reasons behind the disparities. In the next subsections, we focus on a leading explanation—that implicit gender stereotypes lead to the continued subordination of women in the legal profession.<sup>18</sup>

## B. A Brief Primer on Gender Stereotypes

Before turning to legal scholarship linking gender stereotypes to the continuing subordination of women in the legal profession and beyond, we first provide a social science-based overview of gender stereotypes.<sup>19</sup> One of the most telling facts about stereotypes is that they emerge early in life, often influencing children as young as three years old.<sup>20</sup> These impressionable

10. *Id.* at 2. Even the female lawyers who are equity partners make substantially less than their male counterparts. *Id.* at 3.

11. *Id.* at 10.

12. *Id.* at 7.

13. NAT'L WOMEN'S LAW CTR., *Women in the Judiciary*, (2010), available at <http://lawprofessors.typepad.com/files/numberofwomeninjudiciary09.pdf>.

14. *Id.*

15. 2010 *Representation of United States State Court Women Judges*, NAT'L ASS'N WOMEN JUDGES, [http://www.nawj.org/us\\_state\\_court\\_statistics\\_2010.asp](http://www.nawj.org/us_state_court_statistics_2010.asp) (citing THE AMERICAN BENCH: JUDGES OF THE NATION (2010)).

16. Abdullina, *supra* note 3. According to the report, there were forty-one female deans and 158 male deans.

17. *Id.* By contrast, a majority of less elite non-tenure track positions are held by women. *Id.*

18. This sets the stage for our empirical study. See *infra* Section IV for a detailed description of the study.

19. Social science work on stereotypes is comprehensive. This section provides just an abbreviated summary of the relevant work. For more on stereotypes, their activation, and their effects, see generally Patricia G. Devine, *Implicit Prejudice and Stereotyping: How Automatic Are They? Introduction to the Special Section*, 81 J. PERSONALITY & SOC. PSYCHOL. 757 (2001); Daniel T. Gilbert & J. Gregory Hixon, *The Trouble of Thinking: Activation and Application of Stereotypic Beliefs*, 60 J. PERSONALITY & SOC. PSYCHOL. 509 (1991); Ziva Kunda & Steven 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).

20. Antony Page, *Batson's Blind-Spot: Unconscious Stereotyping and the Peremptory Challenge*, 85 B.U. L. REV. 155, 203-04 (2005).

children, who are constantly engaged in interpreting the world around them, quickly learn to ascribe certain characteristics to members of distinct ethnic and social groups.<sup>21</sup> Such associations derive from cultural and social beliefs, and are learned directly from multiple sources, including the children's parents, peers, and the media.<sup>22</sup> As the children grow older, their stereotypes harden.<sup>23</sup> Although they may develop non-biased (explicit) views of the world, their stereotypes remain largely unchanged and become implicit (or automatic).<sup>24</sup> In the context of gender stereotypes, children are likely to learn at an early age that men are "competent, rational, assertive, independent, objective, and self confident," and women are "emotional, submissive, dependent, tactful, and gentle."<sup>25</sup>

Once adults have ingrained implicit biases, the stereotypes they learned as children continue to affect the way they perceive the world. That is, people perceive information in ways that conform to their stereotypes.<sup>26</sup> Gary Blasi provides two brief exercises that help illustrate how the simple associations people learn as children affect the way they think about gender and career: First, "try to imagine, in sequence, a baseball player, a trial lawyer, a figure skater, and a U.S. Supreme Court justice - without a specific gender or race. . . ."<sup>27</sup> Did you succeed?<sup>28</sup> Next, "try to imagine a carpenter. When you have that image settled in your mind, describe the color of her hair."<sup>29</sup> Did you pause or do a double-take?<sup>30</sup> Blasi's exercises help illustrate the simple gender-based hurdles the mind must make in even basic career related situations. If we immediately picture a man when we think about a trial lawyer, for example, what might that mean for women seeking to reach the pinnacle of the profession?

Although Blasi's examples are concerning enough, gender stereotypes can play even more complicated mental tricks than the previous perception tasks illustrate. They have, for example, been shown to affect the way people make judgments about others and even change the way people remember information.<sup>31</sup> In a study testing how implicit gender stereotypes can change the way people evaluate others' traits and behaviors, Mahzarin Banaji and her colleagues primed gender stereotypes by exposing participants to phrases related to the female stereotype of dependence (e.g. some participants saw the

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21. Rhode, *Subtle Side*, *supra* note 4, at 618.

22. Page, *supra* note 20, at 203.

23. Justin D. Levinson, *Forgotten Racial Equality: Implicit Bias, Decisionmaking, and Misremembering*, 57 DUKE L.J. 345, 363 (2007).

24. Timothy D. Wilson et al., *A Model of Dual Attitudes*, 107 PSYCHOL. REV. 101, 104 (2000).

25. Diane L. Bridge, *The Glass Ceiling and Sexual Stereotyping: Historical and Legal Perspectives of Women in the Workplace*, 4 VA. J. SOC. POL'Y & L. 581, 604 (1997) (explaining "these characterizations of women nevertheless prevent women from sharing fully in all levels of society, including in the work environment, because the traits associated with men and women are valued differently").

26. Rhode, *Subtle Side*, *supra* note 4, at 618.

27. Gary Blasi, *Advocacy Against the Stereotype: Lessons From Cognitive Social Psychology*, 49 UCLA L. REV. 1241, 1256 (2002).

28. Blasi doubts it, and so do we. *See id.*

29. *Id.* at 1255.

30. Blasi predicts that most people will, and here again, we agree. *See id.* at 1255-56.

31. Williams, *supra* note 4. *See generally* Levinson, *supra* note 23 (providing evidence of the power of stereotypes on the way people remember and misremember facts).

phrase “never leaves home”).<sup>32</sup> Banaji and her colleagues predicted that this simple act, exposing participants to dependence related phrases, would trigger a broader set of female stereotypes that would affect the way participants would later evaluate women’s behaviors.<sup>33</sup> Thus, after telling participants that they were beginning an unrelated study,<sup>34</sup> the researchers asked participants to read short stories about a person (either male or female) and rate the person’s level of dependence, inhibition, insecurity, and passivity (all confirmed female stereotypes).<sup>35</sup> The results showed that study participants who previously had their gender stereotypes activated were more likely (than a control group whose stereotypes were not activated) to evaluate a woman’s behavior as dependent, inhibited, insecure, passive, and weak.<sup>36</sup> The study demonstrates the dangerousness and sensitivity of activated gender stereotypes, particularly their ability to change the way people interpret and attribute women’s behavior.<sup>37</sup>

A second study confirms the dangerousness of gender stereotypes, this time by focusing on how gender stereotypes can actually facilitate the creation of false memories.<sup>38</sup> In this study, Alison Lenton and her colleagues presented participants with a list of words.<sup>39</sup> Some of the word lists were stereotypic of women (such as secretary and nurse), and others were stereotypic of men (such as lawyer and soldier). After briefly distracting participants, the researchers asked the participants to identify the words they had seen.<sup>40</sup> Results showed that participants used gender stereotypes in creating false memories. That is,

32. Mahzarin R. Banaji et al., *Implicit Stereotyping in Person Judgment*, 65 J. PERSONALITY & SOC. PSYCHOL. 272, 274 (1993). Other participants were exposed to phrases related to the male stereotype of aggression (e.g. “threatens other people”). *Id.* Participants in the control conditions were exposed to neutral phrases (e.g. “crossed the street”). *Id.*

33. *Id.* at 273. Similarly, they predicted that exposing participants to the aggression-related phrases would trigger male stereotypes, and that these stereotypes would change the way people evaluated subsequent behaviors by men. *Id.*

34. *Id.* at 274. At the end of the study, the researchers confirmed that the participants did not suspect that the two studies were related. *Id.*

35. *Id.* The researchers also had the participants rate a variety of other traits, including unrelated positive and negative traits. *Id.* at 275.

36. *Id.*

37. This study also demonstrates that stereotypes need to be activated in order to be most harmful. Unfortunately, as the study and other studies show, stereotypes are activated very easily. *See, e.g.*, Devine, *supra* note 19, at 759; Justin D. Levinson & Danielle Young, *Different Shades of Bias: Skin Tone, Implicit Racial Bias, and Judgments of Ambiguous Evidence*, 112 W. VA. L. REV. 307, 327-28 (2010) (providing examples); B. Keith Payne, *Prejudice and Perception: The Role of Automatic and Controlled Processes in Misperceiving a Weapon*, 81 J. PERSONALITY & SOC. PSYCHOL. 181 (2001); Laurie A. Rudman & Matthew R. Lee, *Implicit and Explicit Consequences of Exposure to Violent and Misogynous Rap Music*, 4 GROUP PROCESSES & INTERGROUP REL. 133 (2002) (finding that simply playing music to participants can prime harmful stereotypes).

38. Much of this paragraph, and the description of the Lenton study (including footnotes), in particular, is more or less verbatim from Levinson’s work. *See* Levinson, *supra* note 23, at 379.

39. Alison P. Lenton et al., *Illusions of Gender: Stereotypes Evoke False Memories*, 37 J. EXPERIMENTAL SOC. PSYCHOL. 3, 5-6 (2001). All participants were shown seventy-five words that constituted gender-neutral roles and fifteen words that were gender stereotypes. Of these fifteen words, half of the participants received female stereotype roles and half received male stereotype roles. To obfuscate the gender context, the list of gender-specific stereotype roles was surrounded by the other sixty words. *Id.*

40. *Id.* at 6.

they more often (incorrectly) reported that they had seen gender stereotyped words than non-gender-stereotyped words.<sup>41</sup> Results also indicated that these false memories were elicited implicitly (i.e., automatically). Despite the nature of their errors, most participants were completely unaware of the gender stereotype theme of the word lists.<sup>42</sup> The researchers expressed concern that the implicit creation of stereotype-consistent false memories may help to explain the “self-perpetuating nature of stereotypes and their resistance to change.”<sup>43</sup>

Research on stereotype biased perception, information processing, and memory each demonstrate the dangerous potential that implicit gender biases may have in the employer-employee relationship.<sup>44</sup> We next turn to legal scholarship and review the ways legal scholars have argued that these gender stereotypes might explain continuing gender disparities.

### C. Do Gender Stereotypes Explain Gender Disparities?

Commentators have offered a variety of explanations for the continuing gender disparities, and the debate continues. Some of the most interesting scholarly arguments range from those downplaying the numbers in light of the potential promise of future amelioration (claiming the low number of women in law school thirty years ago explains the small number of women judges today)<sup>45</sup>

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41. *Id.* at 7.

42. *Id.* The researchers considered the low awareness level to support a theory of implicit activation of stereotype-consistent information. *Id.* at 10.

43. *Id.* at 11-12.

44. One study that helps explain how implicit gender stereotypes might affect various stages of the employee-employer relationship was conducted by Laurie Rudman and Richard Ashmore. Laurie A. Rudman & Richard D. Ashmore, *Discrimination and the Implicit Association Test*, 10 GROUP PROCESSES & INTERGROUP REL. 359, 361-65 (2007). The researchers were interested in whether implicit associations and stereotypes, as measured by the IAT, would predict the way study participants (in their study, undergraduate students) acted. *Id.* at 365. They examined this in two ways: (1) by testing whether participants’ implicit biases predicted their level of (self-reported) discriminatory acts in Study 1, and (2) by testing whether participants’ implicit biases predicted the way they would allocate funds when faced with a budget cut in Study 2. *Id.* at 361-65. In Study 2, participants were informed that a university-wide budget cut would affect student organizations’ budgets and were asked to reallocate budget amounts to various student organizations. *Id.* at 364. The researchers measured whether implicit stereotypes the participants had about certain groups (namely Jews, Blacks and Asians) would predict how much money they cut from the original budgets of those organizations. *Id.* Results of this study confirmed the researchers’ hypotheses in both studies. *Id.* at 368. Participants’ implicit stereotypes predicted both their levels of self-reported discriminatory acts, as well as the amount of money they cut from certain student organizations. *Id.* The stronger the implicit stereotypes they held, the more racial and ethnic bias they displayed in their actions and decisions. *Id.* at 368-69. We loosely based part of our empirical study (the budget-cut measure) on Rudman and Ashmore’s study.

45. See Gen. Bias in the Courts Task Force, *Gender Bias in the Courts of the Commonwealth: Final Report*, 7 WM. & MARY J. WOMEN & L. 705, 792 (2001). We expect that variations of the history argument will gain strength in light of the confirmation of Elena Kagan to the United States Supreme Court, raising the composition of women on the Supreme Court to thirty-three percent. During times of success for underrepresented individuals, it is typical to see resistance to the notion that inequality pervades. Thus, we would expect to see similar resurgence of the history argument as individual women enjoy various career successes. One example of the connection between history arguments and career success is the emergence of what some people call a “post-racial” America in the aftermath of President Obama’s election. For critiques of this “post-racial” notion, see generally

to relying on gender differences in intentional career choices (e.g. women disproportionately “opt out” of the leadership race).<sup>46</sup> Perhaps the most compelling subset of scholarship, however, focuses on the ways in which gender stereotypes about women may affect women’s hiring and career advancement and ultimately exclude large numbers of women from leadership positions.<sup>47</sup>

Legal scholarship discussing the impact of gender stereotypes on the leadership progression of women has been both diverse and comprehensive, and taken together it tends to support three main themes: first, stereotypes linking women to the home and family affect their prospects for career advancement; second, stereotypes about women’s work styles, character traits, and job competencies hinder their ability to land and advance in high level leadership positions; and third, because certain jobs are consciously or unconsciously perceived as male jobs, females will be evaluated less favorably for those positions. This subsection provides a brief overview of legal scholarship that connects gender stereotypes to women’s limited career advancement, focusing on the three main themes stated above.

The first theme that has emerged in legal scholarship is that stereotypes linking women to the home and family affect women’s prospects for hiring and career advancement.<sup>48</sup> Deborah Rhode, a leading scholar in examining gender disparities in the workplace, argues that this “subtle side of sexism” manifests in a variety of automatic ways that may be neither obvious nor intentional.<sup>49</sup> For

Mario L. Barnes et al., *A Post-race Equal Protection?* 98 GEO. L.J. 967 (2010); Camille A. Nelson, *Racial Paradox and Eclipse: Obama as a Balm for What Ails Us*, 86 DENV. U. L. REV. 743 (2009); Charles J. Ogletree, Jr. & Johanna Wald, *After Shirley Sherrod, We All Need to Slow Down and Listen*, WASH. POST, July 25, 2010, available at <http://www.washingtonpost.com/wp-dyn/content/article/2010/07/23/AR2010072304583.html>; Kathleen Schmidt & Brian A. Nosek, *Implicit (and Explicit) Racial Attitudes Barely Changed During Barack Obama’s Presidential Campaign and Early Presidency*, 46 J. EXPERIMENTAL SOC. PSYCHOL. 308 (2010) (showing psychological evidence that President Obama’s rise to the presidency did little to change implicit racial bias).

46. See Rhode, *Subtle Side*, *supra* note 4, at 615-17 (critiquing this scholarship) (citing Lisa Belkin, *The Opt-Out Revolution*, N.Y. TIMES MAG., Oct. 26, 2003, at 42; Ann Marsh, *Mommy, Me, and an Advanced Degree*, L.A. TIMES, Jan. 6, 2002, at 1; JOAN C. WILLIAMS ET AL., CTR. FOR WORKLIFE LAW, “OPT OUT” OR PUSHED OUT? HOW THE PRESS COVERS WORK/FAMILY CONFLICT 4-6 (2006), available at [http://www.uchastings.edu/site\\_files/WLL/OptOutPushedOut.pdf](http://www.uchastings.edu/site_files/WLL/OptOutPushedOut.pdf)).

47. See also David L. Faigman et al., *A Matter of Fit: The Law of Discrimination and the Science of Implicit Bias*, 59 HASTINGS L.J. 1389, 1389 (2008) (providing a review of social science research on implicit gender bias in the context of analyzing whether expert testimony on implicit bias might help finders of fact in Title VII employment discrimination litigation); see generally Rhode, *Subtle Side* *supra* note 4; Williams, *supra* note 4.

48. This is not just a theme in legal scholarship, but in broader social science discourse. See generally, Madeline E. Heilman, *Description and Prescription: How Gender Stereotypes Prevent Women’s Ascent Up the Organizational Ladder*, 57 J. SOC. ISSUES 657 (2001) (focusing on the descriptive and prescriptive expectations that gender stereotypes can generate); Linda Hamilton Krieger, *The Intuitive Psychologist Behind the Bench: Models of Gender Bias in Social Psychology and Employment Discrimination Law*, 60 J. SOC. ISSUES 835 (2004); Laurie A. Rudman & Stephen E. Kilianski, *Implicit and Explicit Attitudes Toward Female Authority*, 26 PERSONALITY & SOC. PSYCOL. BULL. 1315, 1315 (2000) (“To the extent that individuals associate men with career and women with domestic roles, they may view female authorities as violating traditional gender role assignments (e.g., family values).”).

49. See Rhode, *Subtle Side*, *supra* note 4, at 618. The argument that gender bias is unconscious and unintentional has triggered significant scholarly debate in the Title VII realm, particularly as it relates to the concept of “intentional” discrimination. Much of this work focuses not only on implicit

example, gender stereotypes connecting women to the home and family may cause colleagues to provide different attributions for men and women during a variety of common workplace circumstances. Rhode explains, “[I]f a working mother leaves the office early, her colleagues may infer that the reason involves family obligations. A working father’s absence may not trigger the same assumption.”<sup>50</sup> Relying on this example and others, Rhode argues that gender stereotypes account for a significant portion of the leadership gender disparity.<sup>51</sup>

Joan Williams also argues that the deeply held cognitive association connecting women to the home and family continually affects the workplace assumptions made by employers.<sup>52</sup> Williams uses the example of a traditional husband and wife couple who work for the same “high-hours employer”: “[a]fter she had a baby, she was sent home at 5:30 p.m. every night - she had a baby to take care of. He, on the other hand, was kept later than before the baby’s birth - he had a family to support.”<sup>53</sup> Williams also provides another example from case law: a woman who had children was not considered for a promotion because her superiors assumed she would not want a position that

gender bias and employment discrimination, but also on implicit racial bias. See Linda Hamilton Krieger, *The Content of Our Categories: A Cognitive Bias Approach to Discrimination and Equal Employment Opportunity*, 47 STAN. L. REV. 1161, 1164 (1995) (introducing the concept of unconscious discrimination to the employment discrimination realm); see also Samuel R. Bagenstos, *Implicit Bias, “Science,” and Antidiscrimination Law*, 1 HARV. L. & POL’Y REV. 477 (2007) [hereinafter Bagenstos, “Science” and Antidiscrimination Law]; Samuel R. Bagenstos, *The Structural Turn and the Limits of Antidiscrimination Law*, 94 CAL. L. REV. 1 (2006); Faigman et al., *supra* note 47; Linda Hamilton Krieger & Susan T. Fiske, *Behavioral Realism in Employment Discrimination Law: Implicit Bias and Disparate Treatment*, 94 CAL. L. REV. 997 (2006); Melissa Hart, *Subjective Decisionmaking and Unconscious Discrimination*, 56 ALA. L. REV. 741 (2005); Audrey J. Lee, *Unconscious Bias Theory in Employment Discrimination Litigation*, 40 HARV. C.R.-C.L. L. REV. 481 (2005); Ann C. McGinley, *¡Viva La Evolución!: Recognizing Unconscious Motive in Title VII*, 9 CORNELL J.L. & PUB. POL’Y 415 (2000); Deana A. Pollard, *Unconscious Bias and Self-Critical Analysis: The Case for a Qualified Evidentiary Equal Employment Opportunity Privilege*, 74 WASH. L. REV. 913 (1999).

50. Rhode, *Subtle Side*, *supra* note 4, at 618. Importantly, Rhode also notes that “[s]uch cognitive bias can operate even if individuals’ conscious beliefs are relatively free of prejudices.” *Id.*; see also Deborah L. Rhode, *Myths of Meritocracy*, 65 FORDHAM L. REV. 585, 587-91 (1996) (explaining the power of stereotypes in the workplace, including stereotypes that women are less committed and less competent than men).

51. Rhode, *Subtle Side*, *supra* note 4, at 615; see also Anna M. Archer, *From Legally Blonde to Miss Congeniality: The Femininity Conundrum*, 13 CARDOZO J.L. & GENDER 1 (2006) (focusing on the role of films in perpetuating gender stereotypes in the legal profession and beyond); Deborah L. Rhode, *Gender and the Profession: The No-Problem Problem*, 30 HOFSTRA L. REV. 1001 (2002) (discussing the self-reinforcing cycle of stereotypic expectations and calling for gender bias education); Laurie A. Rudman et al., *From the Laboratory to the Bench: Gender Stereotyping Research in the Courtroom*, in BEYOND COMMON SENSE: PSYCHOLOGICAL SCIENCE IN THE COURTROOM 83 (Eugene Borgida & Susan T. Fiske eds., 2008) (noting that in the workplace, a woman’s behavior will be interpreted as stereotype-consistent so long as there is any ambiguity).

52. Williams, *supra* note 4, at 406.

53. *Id.* at 426-27. Some scholarship focuses on the heightened stereotypes with which mothers must contend, connecting these stereotypes to statistics showing that mothers have a harder time in the labor market than other women. See, e.g., Stephen Benard et al., *Cognitive Bias and the Motherhood Penalty*, 59 HASTINGS L.J. 1359 (2008); Amy J. C. Cuddy et al., *When Professionals Become Mothers, Warmth Doesn’t Cut the Ice*, 60 J. SOC. ISSUES 701 (2004) (finding that mothers are perceived as less desirable to hire and promote); Joan C. Williams & Stephanie Bornstein, *The Evolution of “FReD”: Family Responsibilities Discrimination and Developments in the Law of Stereotyping and Implicit Bias*, 59 HASTINGS L.J. 1311 (2008).

required travel.<sup>54</sup> The impact of Rhode and Williams' examples is intuitive: if people automatically and unintentionally use stereotypes to help them evaluate women in the workplace, these stereotypes will undoubtedly have negative impacts on career opportunities.<sup>55</sup>

The second theme that has emerged in legal scholarship is that stereotypes about women's work styles, character traits, and job competencies hinder women's ability to land and advance in high level leadership positions. Although this theme is related to the first in that they are both based on gender stereotypes that hinder career advancement, it differs in that the first theme deals with women's perceived choices (commitment to the home and family), while the second theme relies on generalizations about women's personalities (work styles and character traits).<sup>56</sup> Williams provides two clear examples of how character or trait based gender stereotypes may arise in the workplace: first, assertiveness in a female makes her perceived as "a bitch," while for a male it is perceived as a sign of strength;<sup>57</sup> and second, social bonding behavior among men is considered to be work related (he's mentoring or rainmaking), but is considered to be frivolous among women (she's chatting or gossiping).<sup>58</sup>

These pervasive and pernicious character-related stereotypes begin a complex interaction in which women may attempt to dispel stereotypes by

54. Williams, *supra* note 4, at 427. Williams gives yet another example: "a Virginia employer terminated a woman's employment after she gave birth, reasoning that her 'place was at home with her child.'" *Id.* at 406.

55. See generally Ann Bartow, *Some Dumb Girl Syndrome: Challenging and Subverting Destructive Stereotypes of Female Attorneys*, 11 WM. & MARY J. WOMEN & L. 221; see also *id.* at 229-30 (2005) (noting that "[e]ssentializing female lawyers through detrimental acts of indiscriminate generalization is something that even profoundly feminist attorneys sometimes inadvertently or instrumentally engage in, despite the fact that doing so may be burdensome, and at times tremendously counterproductive").

56. Some social science work makes a similar distinction. See, e.g., Peter Glick et al., *What Mediates Sex Discrimination in Hiring Decisions?*, 55 J. PERSONALITY & SOC. PSYCHOL. 178, 180 (1988) (conducting a resume study and suggesting the importance of stereotypes both on the personality traits relevant to a job and the gender appropriate to that occupation). Another way social scientists distinguish different types of gender stereotypes is by breaking them down into two categories: descriptive and prescriptive. Descriptive stereotypes are "beliefs about the characteristics that women do possess," while prescriptive stereotypes are "beliefs about the characteristics that women should possess." Diana Burgess & Eugene Borgida, *Who Women Are, Who Women Should Be: Descriptive and Prescriptive Gender Stereotyping in Sex Discrimination*, 5 PSYCHOL. PUB. POL'Y & L. 665, 665-66 (1999) (arguing that these two types of stereotypes lead to different types of discrimination). Faigman and his colleagues summarize empirical studies of this trait-based research by stating, "gender stereotypes of men as agentic and women as communal are broadly shared in the population." Faigman et al., *supra* note 47, at 1426.

57. Williams, *supra* note 4, at 424-25. Rudman and her colleagues provide a similar example, noting that when women behave in ways that may be necessary for a high-powered job (such as exhibiting ambitious or dominant behavior), it can lead co-workers to reject them. Rudman et al., *supra* note 51, at 85.

58. Williams, *supra* note 4, at 416. Williams provides a related example focusing on stereotypes of part-time working women: "Take a fictional woman, Mary, who worked full time before she had children but cut her hours to part time thereafter. When Mary went part time, her employer decreased her hourly wage rate, on the theory that women who work part time are less committed and less competent." Joan C. Williams, *Correct Diagnosis; Wrong Cure: A Response To Professor Suk*, 110 COLUM. L. REV. SIDEBAR 24 (2010), [http://www.columbialawreview.org/sidebar/volume/110/24\\_Williams.pdf](http://www.columbialawreview.org/sidebar/volume/110/24_Williams.pdf).

changing workplace behavior. As Holning Lau proposes, a female lawyer concerned with stereotypes of female passivity, for example, may choose not to talk about her children “because her colleagues may be prone to infer that women who adhere to nurturing stereotypes also adhere to passivity stereotypes.”<sup>59</sup> Devon Carbado and Mitu Gulati present a similar perspective on the complexity of navigating stereotype-infused relationships.<sup>60</sup> If, for example, a woman partner on a law firm’s hiring committee suggests that the firm’s hiring practices discriminate against women (and assuming the employer harbors the stereotype that female employees are hypersensitive), the authors argue that:

[T]he employer may interpret the female employee’s criticisms of the existing hiring procedures as knee-jerk political correctness. Alternatively (or additionally), the employer may conclude that the employee’s criticism reflects unprofessional, crude, self-interested identity politics. Both interpretations reify the stereotype about the employee (that she is hypersensitive), and will likely cause the employer to disregard the criticism.<sup>61</sup>

These critiques reinforce the complexity of trait related stereotypes and underscore the near impossibility of combating them completely and effectively in the workplace.

The third theme that has emerged in legal scholarship is that because some jobs are consciously or unconsciously perceived as male jobs, females will be evaluated less favorably for those positions.<sup>62</sup> As Diane Bridge contends, because males have traditionally dominated certain positions, potential employers’ choices will be affected by gender stereotypes about the ideal candidate for those positions.<sup>63</sup> This type of stereotype effect becomes

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59. Holning Lau, *Identity Scripts and Democratic Deliberation*, 94 MINN. L. REV. 897, 906 (2010) (arguing that “identity scripts,” such as gender stereotypes, undermine democracy, and calling upon Equal Protection doctrine for help in restoring the democracy lost).

60. Devon W. Carbado & Mitu Gulati, *Conversations at Work*, 79 OR. L. REV. 103 (2000). Carbado and Gulati also argue that these relationships can actually create an economic incentive for firms to discriminate against stereotyped employees. They explain: “there is a rational economic reason to expect discrimination. Outsiders are not only more likely to say yes to [certain difficult] tasks, they are also more likely to be asked. This is likely to be so because: (1) outsiders are more likely to say yes to disconfirm negative stereotypes; (2) outsiders are susceptible to quick categorization (if they say no, it is easy to put them into the ‘bad’ category); and (3) to the extent that citizenship tasks have to be done by someone, the employer would rather that the outsiders perform them, since the employer may believe that outsiders are less likely to succeed anyway.” *Id.* at 140. These results, they explain, reinforce the initial stereotypes. *Id.* at 141-45.

61. *Id.* at 116.

62. Bridge, *supra* note 25, at 608. Bridge argues that this places women workers in a “double bind” situation: “women who behave in a stereotypical manner face underestimation of their competence and effectiveness; while women who deviate from sex stereotypes are viewed as displaying inappropriate masculine behavior and are labeled abrasive or maladjusted.” *Id.* at 607-08.

63. *Id.* at 606 (citing Benson Rosen & Thomas H. Jerdee, *Effects of Applicant’s Sex and Difficulty of Job on Evaluations of Candidates for Managerial Positions*, 59 J. APPLIED PSYCHOL. 511, 512 (1974); Michele A. Paludi & Lisa A. Strayer, *What’s in an Author’s Name? Differential Evaluations of Performance as a Function of Author’s Name*, 12 SEX ROLES 353, 359 (1985); Barry Gerhart, *Gender Differences in Current and Starting Salaries: The Role of Performance, College Major, and Job Title*, 43

magnified in leadership jobs.<sup>64</sup> Williams summarizes, “when a task or setting is stereotypically masculine, as are most ‘high-powered’ jobs, the setting will activate assumptions that associate competence with masculinity, thereby increasing the perceived competence of men.”<sup>65</sup> Thus, in addition to the litany of stereotypes that may hinder women professionals generally, the highest-level women professionals may face an additional layer of stereotypes related to the association between certain high-level jobs and masculinity.<sup>66</sup> One might expect these masculine stereotypes to be most potent in powerful legal jobs, such as appellate judge positions.<sup>67</sup>

Legal scholarship thus argues that women are hindered from career advancement by stereotypes that peg them as home and family-focused, as well as those that construe their personalities as weak and gossip-driven (or conversely, as workplace cutthroats). Additionally, women in contention for high-level positions are hindered by job-specific associations people have between certain jobs and the men that have historically held those positions. This powerful framework of stereotypes led us to develop our empirical study, which tested not only whether people hold many of the implicit gender biases described in this section, but whether those biases lead to discriminatory decision-making in the legal profession. Before detailing the study, however, we first describe existing empirical work that has investigated gender bias in the legal profession.

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INDUS. & LAB. REL. REV. 418, 430 (1990); Robert L. Dipboye et al., *Sex and Physical Attractiveness of Raters and Applicants as Determinants of Resumé Evaluations*, 62 J. APPLIED PSYCHOL. 288, 293 (1977)).

64. See, e.g., Rudman & Kilianski, *supra* note 48, at 1315-16 (surmising, “male dominance in powerful social roles (e.g., politics, law, religion, and the military) has produced an implicit male leader prototype. This prototype may be both cause and effect of a generalized belief that men are superior and thus deserve to control and receive more resources than do women.”) (internal citations omitted).

65. Williams, *supra* note 4, at 407. Psychological research on gender stereotypes and leadership evaluations supports this contention. See e.g., Alice H. Eagly et al., *Gender and The Evaluation of Leaders: A Meta-Analysis*, 111 PSYCHOL. BULL. 3 (1992); Alice H. Eagly & Steven J. Karau, *Role Congruity Theory of Prejudice Toward Female Leaders*, 109 PSYCHOL. REV. 573, 576 (2002); see also Marc R. Poirier, *Gender Stereotypes at Work*, 65 BROOK. L. REV. 1073, 1073-74 (1999) (pointing out that certain job categories can be gendered).

66. In our empirical study, we tested a similar concept, whether judges should have more masculine or feminine traits. See *infra* Section IV A. Similar stereotypes connecting males to high power legal positions may have effects outside of the hiring and promotion arena, for example, in the way jurors react to male and female lawyers. See, e.g., Peter W. Hahn and Susan D. Clayton, *The Effects of Attorney Presentation Style, Attorney Gender, and Juror Gender on Juror Decisions*, 20 LAW & HUM. BEHAV. 533 (1996); Janet Sigal et al., *The Effect of Presentation Style and Sex of Lawyer on Jury Decision-Making Behavior*, 22 PSYCHOL.: Q. J. HUM. BEHAV. 13 (1985).

67. The extra potency of male stereotypes in the judicial realm was addressed by Mary Clark. Mary L. Clark, *One Man’s Token Is Another Woman’s Breakthrough? The Appointment of the First Women Federal Judges*, 49 VILL. L. REV. 487, 541 (2004) (arguing that the appointment of female federal judges is particularly important because it “instructs present and future generations about women’s talents, thereby shattering stereotypes and modeling possibilities of women’s achievements”).

## III. EXAMINING GENDER DISPARITIES IN THE LAW

## A. Empirical Studies

As gender disparities among practicing lawyers and judges have continued despite twenty years of near numerical equality among law school graduates, a limited number of scholars have begun devising empirical studies designed to investigate the sources of these gender disparities. This subsection reviews the few existing empirical studies on gender disparities in the legal profession and also reviews related studies of gender disparities in academia.<sup>68</sup> This review concludes that women are disproportionately affected in the legal profession and academia due to workplace expectations of masculinity and in-group preferences among male hiring attorneys. No empirical studies, however, have examined implicit gender biases among members of the legal profession.

A fascinating study of gender bias in law firm hiring investigated the relationship between hiring criteria and ultimate hiring decisions. Elizabeth Gorman hypothesized that the masculinity and femininity of law firms' published hiring criteria would be related to gender disparities in hiring decisions.<sup>69</sup> To pursue this hypothesis in a sample of over 700 firms during one hiring year, Gorman first reviewed each firm's published hiring standards.<sup>70</sup> Using previously established research on masculinity and femininity in language, Gorman counted the number of stereotypically masculine (e.g. assertive, decisive, or energetic) and feminine traits (e.g. cooperative, friendly, or verbally oriented) in each firm's published standards.<sup>71</sup> She then compared the number of masculine and feminine traits for each firm's standards to the number of male and female associates they hired. The results of the study showed that for every additional masculine characteristic listed by a firm, a woman's chance of getting hired decreased by approximately five percent.<sup>72</sup> This finding was significant both for entry-level attorney hires as well as for

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68. For a review of empirical studies on gender bias outside of the legal profession, see Faigman et al., *supra* note 47, at 1416-17 (discussing several resume studies that have found gender bias in hiring) (citing Heather K. Davison & Michael J. Burke, *Sex Discrimination in Simulated Employment Contexts: A Meta-Analytic Investigation*, 56 J. VOCATIONAL BEHAV. 225, 232-34 (2000); Eagly et al., *supra* note 65, at 7-9; Judy D. Olian et al., *The Impact of Applicant Gender Compared to Qualifications on Hiring Recommendations: A Meta-Analysis of Experimental Studies*, 41 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 180, 180-95 (1988); Janet Swim et al., *Joan McKay Versus John McKay: Do Gender Stereotypes Bias Evaluations?* 105 PSYCHOL. BULL. 409, 414-19 (1989); Henry L. Tosi & Steven W. Einbender, *The Effects of the Type and Amount of Information in Sex Discrimination Research: A Meta-Analysis*, 28 ACAD. MGMT. J. 712, 713-19 (1985)).

69. Elizabeth H. Gorman, *Gender Stereotypes, Same-Gender Preferences, and Organizational Variation in the Hiring of Women: Evidence from Law Firms*, 70 AM. SOC. REV. 702, 705-06 (2005).

70. For example, one firm described its hiring criteria as follows: "High academic achievement, diversity, initiative, willingness to assume responsibility, maturity, judgment, nonacademic experience, extracurricular activities (including Law Review, Moot Court, other journals)." *Id.* at 709.

71. *Id.* (citing Sandra Bem, *The Measurement of Psychological Androgyny*, 42 J. CONSULTING & CLINICAL PSYCHOL. 155 (1974)).

72. *Id.* at 717.

lateral hires.<sup>73</sup> Gorman explains this result by focusing on the power of gender stereotypes. She claims:

[O]rganizational decision makers perceive male and female candidates through the lens of gender stereotypes and compare those distorted perceptions to the cultural role-incumbent schemas that prevail within their organizations. When those schemas are more stereotypically masculine, male candidates appear to offer a better fit and are more likely to be selected.<sup>74</sup>

Further analysis revealed that firms that relied on more feminine hiring criteria were only more likely to hire women attorneys at the entry level. They did not hire more female “lateral” (i.e. higher level) attorneys.<sup>75</sup> Gorman analyzed this result by focusing on the strength of gender stereotypes at the more senior levels of law firms. Although gender stereotypes at entry hiring levels may still pose a formidable obstacle for women, as her study showed, the additional connection between the highest level jobs and historically male roles may create an additional hurdle. Gorman explains:

[R]ole-incumbent schemas actually are somewhat different for jobs involving different levels of seniority and responsibility. Stereotypically feminine characteristics such as friendliness and cooperativeness may be more salient in lower-level positions, which often require ‘team play’ and cheerful obedience to superiors, than in higher positions, which are seen as demanding leadership.<sup>76</sup>

Finally, Gorman analyzed whether law firms with female hiring partners were more likely than firms with male hiring partners to hire women associates. The study’s results confirmed this hypothesis. Firms with women hiring partners were in fact more likely to hire more female entry-level candidates.<sup>77</sup> However, this effect diminished in firms where women had already achieved a greater gender balance among firm partners.<sup>78</sup> This result confirms that the gender of the primary decision-maker matters, an effect consistent with what social psychologists call “in-group bias.”<sup>79</sup>

In a separate project, Gorman collaborated with Julie Kmec to investigate women’s promotion to partner in corporate law firms.<sup>80</sup> Examining data on a national basis, Gorman and Kmec compared law firms’ hiring of incoming associates and tracked the firms’ partnership decisions when that associate group became eligible for partner.<sup>81</sup> The results of the study found consistent gender bias at the upper levels of the corporate firms. Women who were hired

73. *Id.* at 717-18.

74. *Id.* at 722. This explanation echoes the conclusions of the legal scholarship reviewed in Section II.C.

75. Lateral attorneys are those who have previously practiced law elsewhere. In Gorman’s study, she operationalized “lateral” hires as those attorneys who graduated law school at least two years prior to the graduating class being hired at the entry level. *See id.*

76. *Id.* at 722.

77. *Id.* at 719.

78. *Id.* at 719.

79. *Id.* at 707 (citing Marilyn B. Brewer & Rupert J. Brown, *Intergroup Relations*, in HANDBOOK OF SOCIAL PSYCHOLOGY 554 (Daniel T. Gilbert et al. eds. 1998)).

80. *See generally* Gorman & Kmec, *supra* note 1.

81. *Id.* at 1442-43.

as entry level associates by firms were much less likely than their male counterparts to be promoted to partner.<sup>82</sup> Gorman and Kmec predicted that these findings would likely hold true in other high level jobs both inside and outside of the legal field.<sup>83</sup> As long as decision-makers consciously or automatically rely on gender stereotypes in making hiring and promotion decisions, Gorman and Kmec concluded, continuing disparities should be expected.<sup>84</sup>

Outside of the few studies in the legal profession, empirical researchers have also focused on women's advancement in academia.<sup>85</sup> One particular study regarding women in academia helps highlight a phenomenon that might be present at the upper levels of the legal profession. This study, by Rhea Steinpreis and her colleagues, asked a sample of psychology faculty across the country to evaluate a *Curriculum Vitae* (CV).<sup>86</sup> The study was designed so that each professor evaluated one CV (thus, a "between subjects" design<sup>87</sup>): a female job applicant (recent Ph.D.), a male job applicant (recent Ph.D.), a female tenure candidate, or a male tenure candidate. Steinpreis and her colleagues drafted the CVs such that the job applicant CVs were identical (other than a female candidate name, Karen Miller, or a male candidate name, Brian Miller<sup>88</sup>) and the tenure candidate CVs were similarly identical.<sup>89</sup> The researchers hypothesized that CVs with male names would be evaluated more favorably than the identical

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82. *Id.* at 1455-56. Interestingly, a similar trend did not hold true for lateral partner hiring. *Id.*

83. *Id.* at 1466. For a study of gender differences in the career outcomes of men and women in a specific legal market, see generally Kathleen E. Hull & Robert L. Nelson, *Assimilation, Choice, or Constraint? Testing Theories of Gender Differences in the Careers of Lawyers*, 79 SOC. FORCES 229 (2000) (finding unexplained gender disparities in Chicago area lawyers).

84. Gorman & Kmec, *supra* note 1, at 1466. In addition to focusing on the harmful effects of both conscious and automatic stereotypes, Gorman and Kmec point to in-group favoritism (males hire males) and reliance on gender as an indicator of competence as other causal factors. *Id.*

85. Although there have been few empirical studies on the topic, an abundance of non-empirical work focuses on women's advancement in academia. See, e.g., Joe Alper, *The Pipeline is Leaking Women All the Way Along*, 260 SCIENCE 409 (1993); Mary Ann Mason & Marc Goulden, *Marriage and Baby Blues: Redefining Gender Equity in the Academy*, 596 ANNALS AM. ACAD. POL. & SOC. SCI. 86 (2004). Some work, however, is empirical in nature. See e.g., L.S. Fidell, *Empirical Verification of Sex Discrimination in Hiring Practices in Psychology*, 25 AM. PSYCHOLOGIST 1094 (1970); Gerhard Sonnett & Gerald Holton, *Career Patterns of Women and Men in the Sciences*, 84 AM. SCIENTIST 63 (1996).

86. Rhea E. Steinpreis et al., *The Impact of Gender on the Review of the Curricula Vitae of Job Applicants and Tenure Candidates: A National Empirical Study*, 41 SEX ROLES 509, 509-10 (1999).

87. It is a "between-subjects design" because each professor participated in only one of the four conditions (*i.e.*, reviewed one of the four CVs).

88. *Id.* at 515.

89. The researchers used the actual CV of a female professor, altering only a few small items. One interesting alteration the researchers made was that they removed any indicia of membership in female scientific groups. This was done, according to the researchers, to "to avoid inducing subjects to hire or tenure the person because of any political ideology they may appear to have." *Id.* at 515. If the researchers had retained such information, it would have either communicated different messages about the candidates (psychologists might react different to a female versus a male candidate belonging to a female scientific organization) or required the researchers to change the organization name to a male organization for the male CVs (in which case it is possible no such organization exists).

CVs with female names.<sup>90</sup> The results of the study confirmed this hypothesis.<sup>91</sup> Psychology faculty members were more likely to state that they would hire the male candidate than the female candidate.<sup>92</sup> Other results showed that the faculty members claimed to support their decisions by making biased evaluations of the candidates' accomplishments. For example, the faculty members were more likely to judge that the CV with the male name had stronger research experience compared to the same CV with a female name.<sup>93</sup> Similarly, the faculty members were more likely to state that, compared to the female candidate, the male candidate had stronger teaching and service experience.<sup>94</sup> Overall, the gender bias illustrated by the results was compelling—identical candidates were judged very differently based only on their apparent gender.

Considered together, the empirical evidence for gender bias in the legal profession and in academia is convincing. Notwithstanding this scholarly progress in empirically understanding gender inequality, studies have yet to investigate whether implicit biases might help explain the perpetuation of gender disparities within the legal profession. We thus devised an implicit social cognition-based empirical study designed to test the role of implicit gender stereotypes in the legal profession. The next subsection describes how we devised a study that attempted to bridge scholarly discourse on gender stereotypes with existing knowledge of gender disparities in the legal profession and academia.

## B. Crafting an Empirical Study that Responds to Gender Disparity Research

In planning our empirical study, we established two goals: first, test whether members of the legal community harbor implicit gender biases, and second, test whether gender stereotypes affect decision-making at various levels of the legal profession.<sup>95</sup> These goals, of course, were influenced by both the strengths and limitations of existing discourse. For the first goal, to test whether members of the legal community harbor implicit gender biases, we strived to respond as directly as possible to the themes set forth by legal scholars.<sup>96</sup> That is, we set out to craft a test that would examine whether members of the legal

90. Similar empirical studies using resumes that vary the name of the job applicant have been conducted outside of the legal profession and academia. *See generally supra* note 68.

91. Steinpreis et al., *supra* note 86, at 520-22.

92. *Id.* at 520.

93. *Id.* at 521.

94. *Id.* There were, however, no significant differences based on gender for the tenure candidates' CVs. The researchers explained this finding by indicating that they may have used a CV that was essentially too good. According to the researchers, the "vast majority" of faculty indicated that they would tenure the candidate. Thus, it might be true that while a less outstanding candidate might experience gender bias in tenure decisions, a top-notch candidate will be too good not to tenure. *Id.* at 524.

95. Admittedly, this second goal oversimplifies things somewhat. The second goal really had two parts: (1) to test whether people discriminate against women in the legal profession, and (2) to test whether this discrimination (if any) would be predicted by either implicit gender bias or explicit gender preferences.

96. These themes were outlined in Section II.C.

community implicitly associate women with home and family, as well as whether they associate certain high level legal positions (such as judges) with males.<sup>97</sup> As we describe in the next subsections, we turned to the science of implicit social cognition (and in particular, the Implicit Association Test) to find an empirical test that would allow us to achieve our goal.

For the second goal, to test whether gender stereotypes affect decision-making at various level of the legal profession, we responded to the literature by choosing to test three separate potentially discriminatory areas of the legal profession. First, in light of Gorman's findings demonstrating that masculine and feminine job-related expectations might be at least partially to blame for some of the legal profession's gender disparities,<sup>98</sup> we decided to test directly whether, for leadership positions in law, people believe that the best legal thinkers should have masculine rather than feminine characteristics. For this area, we decided to focus on the relationship between masculinity and femininity and one of the most renowned positions in the legal profession, the appellate judgeship. Second, considering that Rheinpreis and others have found that some decision-makers evaluate male-named CVs more favorably than identical female-named CVs,<sup>99</sup> we resolved to create our own resume test to see if members of the legal community display the same biases when evaluating law student resumes. And third, because implicit stereotypes have been shown to predict decisions such as economic decision-making (moving funds away from already disadvantaged groups),<sup>100</sup> we decided to test whether members of the legal community, during a hypothetical fund shortage, would disproportionately shift funds away from women's lawyers organizations. Each of these studies would also allow us to examine whether in-group biases affect male and female participants' decisions.

In creating our study, we also needed to decide whom to test.<sup>101</sup> In the case of gender bias in the legal profession, there are several possibilities. One might choose to focus on existing decision-makers (those professionals already making hiring and promotion decisions, such as law firm partners or members of a state judicial selection committee), or on future decision-makers (those who are likely to be making the key decisions in the future, such as young lawyers or law students). We were interested in both groups. However, due to practical considerations, such as the ease of participant recruitment, we chose to focus our

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97. Of the three themes in our literature review, the one theme that we did not test in this study is the theme connecting certain personality traits to women. This theme should be tested in future studies.

98. See Gorman, *supra* note 69, at 722.

99. See Steinpreis et al., *supra* note 86, at 520-22. Other resume studies have found similar results in the context of other stereotypes. See, e.g., Marianne Bertrand & Sendhil Mullainathan, *Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination*, 94 AM. ECON. REV. 991 (2004).

100. See Rudman & Ashmore, *supra* note 44, at 363.

101. The selection of a study's "population" is important in empirical research. If the researchers' goal, for example, is to study "teenagers," then a researcher needs to find a sample that reasonably approximates the entire teenage population (so, if "all teenagers" means all of the world's teenagers, or all of the country's teenagers, then the researcher would need to find a sample that represented those teenagers).

study on future decision-makers. Because we are university-based researchers, obtaining a law student sample—and based on recent history, likely a strong sample of future decision-makers<sup>102</sup>—would not be difficult.<sup>103</sup>

With our preliminary goals set and the law student sample selected, we began devising our first measure, the test of implicit gender biases. Fortunately, within the field of implicit social cognition, exciting new studies<sup>104</sup> have validated ways to test for implicit biases. One of the more exciting and flexible methodologies for testing implicit bias is the Implicit Association Test (IAT).<sup>105</sup> Because we decided to create our own IAT as well as implement a previously validated IAT, we provide an overview of the IAT.

### 1. Understanding the Implicit Association Test

The IAT measures implicit cognitions in a simple and compelling way.<sup>106</sup> It asks participants to categorize information as quickly as possible, and then calculates a participant's reaction time (in milliseconds)<sup>107</sup> and accuracy in completing the categorization task.<sup>108</sup> The wisdom behind the IAT holds that statistically significant speed and accuracy-based differences in a person's ability to categorize different types of information reflects something meaningful in that person's automatic cognitive processes.

102. Graduates from the University of Hawai'i William S. Richardson School of Law have attained leadership positions including governor (John D. Waihee III), member of the United States House of Representatives (Colleen Hanabusa), appellate judge (alumni who are current appellate judges in Hawai'i include Alexa Fujise, Katherine Leonard, and Lisa Ginoza), U.S. attorney (Florence Nakakune), lieutenant governor (James "Duke" Aiona, Jr.), law school dean (Lawrence Foster and John Gotanda), and numerous trial judges, law firm partners and more. It would be safe to predict that current law students will one day enter senior roles in the legal community.

103. As we discuss *infra* Section V, future studies should seek to test whether existing decision-makers rely on implicit gender biases in making decisions.

104. "New" in this context means new in the history of science. The tests referred to here were first described in scientific journals in the early and mid-1990's. See, e.g., Anthony G. Greenwald et al., *Measuring Individual Differences in Implicit Cognition: The Implicit Association Test*, 74 J. PERSONALITY & SOC. PSYCHOL. 1464 (1998).

105. Within legal literature, the IAT has become a familiar symbol of implicit bias for scholars of race because of the numerous compelling IAT-based studies that have uncovered implicit racial bias. See, e.g., Ivan E. Bodensteiner, *The Implications of Psychological Research Related to Unconscious Discrimination and Implicit Bias in Proving Intentional Discrimination*, 73 MO. L. REV. 83, 101-14 (2008); Jerry Kang & Mahzarin R. Banaji, *Fair Measures: A Behavioral Realist Revision of "Affirmative Action,"* 94 CAL. L. REV. 1063 (2006); Krieger & Fiske, *supra* note 49.

106. The following three paragraphs describe the Implicit Association Test in detail. These three paragraphs are reprinted almost verbatim, including footnotes, from Justin D. Levinson et al., *Guilty by Implicit Racial Bias: The Guilty/Not Guilty Implicit Association Test*, 8 OHIO ST. CRIM. L.J. 187 (2010).

107. Researchers call the measurement of reaction time "response latency." See, e.g., Greenwald et al., *supra* note 104; Mahzarin R. Banaji, *Implicit Attitudes Can Be Measured*, in THE NATURE OF REMEMBERING: ESSAYS IN HONOR OF ROBERT G. CROWDER 117, 123 (Henry L. Roediger III et al. eds., 2001).

108. Nilanjana Dasgupta & Anthony G. Greenwald, *On the Malleability of Automatic Attitudes: Combating Automatic Prejudice With Images of Admired and Disliked Individuals*, 81 J. PERSONALITY & SOC. PSYCHOL. 800, 803 (2001) (summarizing that, "[w]hen highly associated targets and attributes share the same response key, participants tend to classify them quickly and easily, whereas when weakly associated targets and attributes share the same response key, participants tend to classify them more slowly and with greater difficulty.")

The following is a detailed description of the way the IAT is typically conducted. Study participants, working on computers, press two pre-designated keyboard keys as quickly as possible after seeing certain words or images on the computer monitors. The words and images that participants see are grouped into meaningful categories. These categories require participants to “pair an attitude object (for example, man or woman. . .) with either an evaluative dimension (for example, good or bad) or an attribute dimension (for example, home or career, science or arts). . . .”<sup>109</sup> Participants complete multiple trials of the pairing tasks, such that researchers can measure how participants perform in matching each of the concepts with each of the other concepts. For example, in one trial of the most well-known IATs, participants pair the concepts Good/White together by pressing a designated response key and the concepts Bad/Black together with a different response key. After completion of the trial, participants then pair the opposite concepts with each other, here Good/Black and Bad/White.<sup>110</sup> The computer software that gathers the data<sup>111</sup> measures the number of milliseconds it takes for participants to respond to each task. Scientists can then analyze (by comparing reaction times and error rates using a statistic called “D-prime”<sup>112</sup>) whether participants hold implicit associations between the attitude object and dimension tested. Results of IATs conducted on race, for example, consistently show that “white Americans express a strong ‘white preference’ on the IAT.”<sup>113</sup>

As a measure, the IAT is quite flexible. Researchers have created dozens of different kinds of IATs. Some examples include: Gender/Science IAT, Gay/Straight IAT, Obama/McCain IAT, and the Fat/Thin IAT, among many others.<sup>114</sup> The Gender/Science IAT, for example, requires participants to group together male and female photos with science and liberal arts words. It consistently shows that people associate men with science and women with liberal arts. It is worth noting the flexibility of the IAT to test either evaluative dimension words (such as grouping Male/Female with Good/Bad), or attribute dimension words (such as grouping Male/Female with Career/Family). The IAT we created, the Judge/Gender IAT, requires participants to group together male and female names and Judge and Paralegal related words (attribute dimension words). As we will discuss, our empirical study of the IAT tested

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109. Levinson, *supra* note 23, at 355 (citing Banaji, *supra* note 107, at 123).

110. Because participants may naturally be quicker at responding with one of their hands, participants complete these tasks twice, once for each response key, to eliminate differences based on hand preference. The order of the IAT tasks is also usually randomized to reduce order effects.

111. In our empirical study, we used the software Inquisit, produced by Millisecond Software.

112. Anthony G. Greenwald et al., *Understanding and Using the Implicit Association Test: I. An Improved Scoring Algorithm*, 85 J. PERSONALITY & SOC. PSYCHOL. 197 (2003).

113. Jeffrey J. Rachlinski et al., *Does Unconscious Racial Bias Affect Trial Judges?*, 84 NOTRE DAME L. REV. 1195, 1199 (2009); see also Justin D. Levinson, *Race, Death, and the Complicitous Mind*, 58 DEPAUL L. REV. 599, 612 (2009) (citing Brian A. Nosek et al., *Harvesting Implicit Group Attitudes and Beliefs from a Demonstration Website*, 6 GROUP DYNAMICS 101, 105 (2002)).

114. See PROJECT IMPLICIT, <https://implicit.harvard.edu/implicit/demo/selectatest.html> (last visited Oct. 25, 2010).

both the Judge/Gender IAT and the Gender/Career IAT, both of which we will describe in detail.<sup>115</sup>

## 2. The IAT in Legal Studies

Although a handful of legal scholars have employed IATs in empirical work,<sup>116</sup> just two projects have created new IATs for application in the legal domain.<sup>117</sup> A brief description of these projects illuminates the possibilities and potential for using IATs in the context of gender discrimination. In one such project, Levinson, Cai, and Young desired to test whether there was an implicit presumption of guilt for black defendants on trial.<sup>118</sup> Noting the flexibility of certain social cognition measures (including the IAT) for adoption into relevant legal domains, and encouraging future projects to create new IATs, the researchers created a Guilty/Not Guilty IAT that tested whether people associate black people with criminal guilt. The results of the study confirmed the authors' hypothesis, finding first, that people implicitly associate black people (compared to white people) with guilty,<sup>119</sup> and second, that people's levels of implicit bias predicted the way they evaluated evidence in a criminal trial.<sup>120</sup>

In another project, Jerry Kang and his colleagues created an IAT in order to test whether jurors rely on implicit ethnic biases when evaluating the performance of litigators.<sup>121</sup> In particular, the researchers were interested in how mock jurors would evaluate Asian male litigators compared to white male litigators.<sup>122</sup> They hypothesized that participants would associate white males with traits commonly associated with successful litigators (for example, eloquent, charismatic, and verbal) relative to Asian males, who would be more likely to be associated with traits commonly assigned to successful scientists.

115. Greenwald et al., *supra* note 104.

116. See, e.g., Theodore Eisenberg & Sheri Lynn Johnson, *Implicit Racial Attitudes of Death Penalty Lawyers*, 53 DEPAUL L. REV. 1539, 1542-44 (2004) (using a paper and pencil version of the IAT to test whether capital defense attorneys harbor implicit racial biases); Rachlinski et al., *supra* note 113, at 1198-1208 (testing a large sample of judges for implicit racial bias).

117. See Rachlinski et al., *supra* note 113, at 1204-05 (citing Robert Livingston, *When Motivation Isn't Enough: Evidence of Unintentional Deliberative Discrimination Under Conditions of Response Ambiguity* 9-10 (2002) (unpublished manuscript) (on file with the Notre Dame Law Review); Arnd Florack et al., *Der Einfluss Wahrgenommener Bedrohung auf die Nutzung Automatischer Assoziationen bei der Personenbeurteilung [The Impact of Perceived Threat on the Use of Automatic Associations in Person Judgments]*, 32 ZEITSCHRIFT FÜR SOZIALPSYCHOLOGIE 249 (2001)).

118. Levinson et al., *supra* note 106.

119. *Id.* at 17.

120. *Id.* at 19 (explaining what the IAT did and did not predict).

121. Jerry Kang et al., *Are Ideal Litigators White? Measuring the Myth of Colorblindness*, 7 J. EMPIRICAL LEG. STUD. (forthcoming, 2010), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1442119](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1442119).

122. *Id.* at 10 (explaining that the researchers intentionally did not examine ethnicity effects for women attorneys. "Our strategy was not to ignore gender, but to control for it, based on past evidence showing that lawyers are expected to be men rather than women . . . . As such, we expected that implicit and explicit stereotypes about ideal lawyers would activate thoughts of White men more than Asian men, but would not much activate thoughts of women of either race." (internal citations omitted)).

The results confirmed their hypothesis.<sup>123</sup> Participants did in fact implicitly associate white males with traits commonly assigned to successful litigators. Furthermore, these implicit associations predicted their judgments of white and Asian litigators' performance in a mock trial.<sup>124</sup> That is, participants with higher levels of implicit bias were more likely to favor the white litigators' performances.

These two IAT-based projects demonstrate that, so long as the categories researchers are interested in fit the IAT paradigm (which is typically, although not always, dichotomous), new IATs may be created to test further law related hypotheses. We believed that testing implicit gender bias in the legal context (and specifically testing implicit associations between men and judges, compared to women and paralegals) was one endeavor that would be well served by the IAT. The next Section describes the study we conducted in detail, beginning with the IAT we created.

#### IV. THE EMPIRICAL STUDY

We designed an empirical study to test whether implicit gender biases may be driving gender discrimination in the legal profession. This Section reports on the details of study, including the research methods, study materials, and results.

The centerpieces of the empirical study were two IATs, the Judge/Gender IAT and the Gender/Career IAT, the first of which we created uniquely for this study and the second of which was adopted from a well-established social science test.<sup>125</sup> We developed the Judge/Gender IAT and selected the Career/Gender IAT for this study because they closely mirrored the themes of

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123. *Id.* at 16-20.

124. Mock jurors' explicit preferences also predicted evaluations of litigator performance. As these results show, the IAT is useful not just because it is a creative and reliable measure of implicit attitudes and stereotypes. It is also valuable because it has been shown to predict the way people behave and make decisions. See generally Anthony Greenwald et al., *Understanding and Using the Implicit Association Test: III. Meta Analysis of Predictive Validity*, 97 J. PERSONALITY & SOC. PSYCHOL. 17 (2009) (showing that the IAT predicts behaviors in many circumstances). It should be noted, however, that although the majority of research supports this claim, there has been vigorous debate over it. See e.g., Hart Blanton et al., *Strong Claims and Weak Evidence: Reassessing the Predictive Validity of the IAT*, 94 J. APPLIED PSYCHOL. 567 (2009) (disputing the results of prior articles that claim the race IAT predicts behaviors); Hart Blanton et al., *Transparency Should Trump Trust: Rejoinder to McConnell and Leibold* (2009) and Ziegert and Hanges (2009), 94 J. APPLIED PSYCHOL. 598 (2009) (maintaining skepticism about whether the IAT reliably predicts discriminatory behavior). But see, e.g., Allen R. McConnell & Jill M. Leibold, *Weak Criticisms and Selective Evidence: Reply to Blanton et al.* (2009), 94 J. APPLIED PSYCHOL. 583 (2009) (responding to Blanton et al.'s critique); Jonathan C. Ziegert & Paul J. Hanges, *Strong Rebuttal for Weak Criticisms: Reply to Blanton et al.* (2009), 94 J. APPLIED PSYCHOL. 590 (2009) (criticizing Blanton et al.'s critique of their prior data). Similar debates have appeared in the legal literature. See Bagenstos, "Science" and Antidiscrimination Law, *supra* note 49, at 484-90; Adam Benforado & Jon Hanson, *Legal Academic Backlash: The Response of Legal Theorists to Situationist Insights*, 57 EMORY L. J. 1087, 1135-43 (2008). See generally Kristin A. Lane et al., *Implicit Social Cognition and Law*, 3 ANN. REV. L. & SOC. SCI. 427 (2007); Gregory Mitchell & Philip E. Tetlock, *Facts Do Matter: A Reply to Bagenstos*, 37 HOFSTRA L. REV. 737 (2009); Gregory Mitchell & Philip Tetlock, *Antidiscrimination Law and the Perils of Mindreading*, 67 OHIO ST. L.J. 1023 (2006); Amy L. Wax, *The Discriminating Mind: Define It, Prove It*, 40 CONN. L. REV. 979 (2008).

125. Nosek et al., *supra* note 113, at 101 (reporting results from 600,000 IATs).

legal scholarship on implicit gender bias. Recall the first theme in the legal scholarship outlined in Section II—women are subordinated because they are typically assumed to place greater emphasis on the home and family.<sup>126</sup> The Career/Gender IAT allowed us to test whether law students implicitly associate males with work and females with home and family. Recall the third theme in the legal scholarship—certain high status leadership roles are assumed to be male jobs, and female applicants are thus automatically evaluated less favorably. The Judge/Gender IAT allowed us to test whether law students associate judges with males and paralegals with females. The IATs thus became the centerpieces of our study, because they allowed us to test whether members of the legal profession (here, law students) hold the implicit gender biases that scholars have been most concerned about.

We also developed further tests, both to determine whether law students display gender bias in decision-making, as well as to test whether implicit biases predict that discriminatory decision-making. These additional measures consisted of a judicial appointments measure, a law firm hiring measure, and student organization budget cut measure. We also included a measure of explicit gender bias: the Modern Sexism Scale. We ran these studies on a participant pool of law students.<sup>127</sup>

#### A. Measures

There were six major components to the study, including two IATs, a judicial appointments measure, a law firm hiring test, a budget cut task, and an explicit gender bias scale. Here, we provide specifics on each of the measures.

##### 1. Gender Implicit Association Tests

The first measure we designed was the Judge/Gender IAT. This test, like other IATs, requires participants to group together traits and attributes as quickly as possible and allows researchers to measure the strength of association between categories. We were specifically interested in whether members of the legal community consider judges, one of the most prestigious legal positions, as an “implicit male leader prototype.”<sup>128</sup> Thus, the Judge/Gender IAT requires participants to group together words representing judges and paralegals with male and female names.<sup>129</sup> We could therefore test whether participants held implicit associations between men and judges and women and paralegals, as we predicted they would.

We next included a well-established IAT: the Gender/Career IAT.<sup>130</sup> Although this test is not directly related to law, it tests implicit associations related to gender and the workplace, as well as gender and home. Running this

126. See *supra* notes 48-55 and accompanying text.

127. Students received candy, but no other compensation, for participating in the study.

128. See Rudman & Kilianski, *supra* note 48, at 1315-16.

129. The words used to represent “Judges” were: Make Decision, Court, Preside, Opinion, and Robes. The words used to represent “Paralegals” were: Notetaker, Legal Assistant, Filing, Answer Phone, and Helper. The names used were Josh, Brandon, Peter, Ian, and Andrew for men, and Emily, Donna, Debbie, Katherine, and Jane for women.

130. Nosek et al., *supra* note 113.

IAT on law students allowed us to test whether implicit gender stereotypes connecting women to home and family may be pervasive in the legal profession.<sup>131</sup> In the Career/Gender IAT, participants group together words representing career and home with male and female names.<sup>132</sup> Consistent with commentators' arguments, we predicted that study participants implicitly associate male with career and female with home. Participants completed the two IATs in counterbalanced order, such that some participants completed the Judge/Gender IAT first and some completed the Gender/Career IAT first.<sup>133</sup>

The next three measures were not specific measures of implicit associations or stereotypes, but were measures we designed to test other ways gender biases might function in the legal profession. We selected three distinct areas: (1) judicial appointments, (2) law firm hiring, and (3) budget cuts.

## 2. Judicial Appointments Measure

The Judicial Appointments measure was designed to test participants' gendered assessments of high-level legal positions. This measure asks participants to rate the characteristics most important in the appointment of appellate level judges. In designing the measure, we selected potential judicial characteristics that were masculine, feminine, and neutral in nature. A pre-test on separate participants confirmed which characteristics were masculine and which were feminine.<sup>134</sup> Masculine characteristics included, for example, firm and competitive.<sup>135</sup> Feminine characteristics included, for example, empathic and compassionate.<sup>136</sup> Participants were instructed: "Based on your experience studying law and reading numerous judicial opinions, we are interested in your perceptions of the qualities that appellate judges should possess. Please read the following attributes and indicate on a scale of 1-7 how important it is for a judge to possess each attribute. Once again, we are interested in the attributes that appellate judges (those at the court of appeals level and higher, both in the federal and state system) should possess." Participants then viewed the masculine, feminine, and neutral words one at a time,<sup>137</sup> and rated each characteristic on a 7-point scale, ranging from "not important" (1) to "very important" (7). With this methodology, we could evaluate whether members of the legal community believe that appellate judges should possess more

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131. Scholars have predicted as much. *See supra* notes 48-55 and accompanying text.

132. The words used to represent "Career" were: Management, Professional, Corporation, Salary, and Office. The words used to represent "Home" were: Home, Parents, Children, Family, and Relatives. The names used were Ben, John, Daniel, Paul, and Jeffrey for men, and Julia, Michelle, Anna, Emily, Rebecca for women.

133. In addition, the IATs were counterbalanced, such that within each IAT, participants encountered the tasks in varying orders. This counterbalancing was designed to eliminate order effects.

134. In the pre-test, we provided a separate group of participants with a list of words and asked them to rate the masculinity or femininity of those words on a seven-point scale. We only selected the masculine, feminine, and neutral words that had substantial pre-test agreement.

135. The other masculine characteristics were: Aggressive, Leader, Powerful, Risk-Taker, and Self-Assured.

136. The other feminine characteristics were: Cautious, Gentle, Sympathetic, Thoughtful, and Warm.

137. The words were presented in random order.

masculine or feminine traits. We predicted, first, that participants would select more masculine than feminine traits for appellate judges, and second, that the implicit bias measured by the IATs would predict these results.<sup>138</sup>

### 3. Law Firm Hiring Test

The Law Firm Hiring test was designed to measure whether gender affects hiring of law firm candidates. In this test, participants are informed that they are the hiring partner of a local law firm (with about 20 partners), and that there were two candidates vying for a final job slot as a summer associate. They are instructed: “There are two candidates remaining, and you plan to hire one of them. It is your job to choose the candidate. Please review both resumes in the envelope marked ‘Resumes’ on your desk, and answer the questions that will appear on your computer screen.” They then review the resumes of each of the candidates. The first names of the two candidates are varied, such that all participants see the same two resumes (which we call Resume A and Resume B), but some participants see Resume A with a woman’s name (Ashley), while other participants see Resume A with a man’s name (David).<sup>139</sup> All participants review the same two resumes.<sup>140</sup> After reviewing the resumes, participants are asked to recommend the hiring of one of the candidates, and are also asked specific questions about the strengths and weaknesses of the candidates. We predicted that men and women would be hired in equal numbers. We made this prediction because we believed the “glass ceiling” to be significantly above the summer associate level. Although we would have preferred to test resumes of more senior lawyers (e.g. associates on the partnership track),<sup>141</sup> due to our law student population, it was most realistic to ask about entry-level decisions.<sup>142</sup>

### 4. Budget Cut

The Budget Cut measure was designed to test whether participants would allocate resources away from a women’s law student organization and towards other student organizations in the face of a budget crisis. In this measure, participants are informed that budget cuts are occurring to national student

138. That is, we predicted that the greater the implicit bias measured by the IAT, the greater the selection would be of masculine traits.

139. Candidate A’s last name was Suzuki and Candidate B’s last name was Tanagawa. We intentionally chose Japanese-American surnames for the candidates because Japanese-American law students comprise one of the largest groups of law students at the University of Hawai‘i (along with European-Americans) and one of the largest groups of attorneys in the Honolulu market. There are, of course, relevant stereotypes to Japanese Americans in Hawai‘i, just as there are with European Americans. For more on local stereotypes in Hawai‘i, see Eric Yamamoto, *The Significance of Local, in SOCIAL PROCESSES IN HAWAII* 138, 138-49 (Peter Manicus ed., 1974). In light of the fact that gender and ethnicity each have unique stereotypes that would likely affect the evaluation of resumes, we controlled for ethnicity by selecting the same apparent ethnicity for both candidates. We believed that Japanese-American stereotypes would be more consistent than European-American stereotypes, and thus selected a Japanese-American name for the resume.

140. See *infra* App. A.

141. If we had done so, we would have predicted that men would be hired more than women.

142. Future studies should strive to test more relevant populations for investigating law firm decision-making at the partnership level, for example.

organizations and their input is needed as guidance for how to implement budget cuts. They are then provided with a list of six student organizations, including the Women Lawyers Association. The list contains “current” budget allocations (ranging from \$1650 to \$2750) for each of the organizations and provides a target amount of total cuts (20% or approximately \$2550 total). Participants then fill in new recommended amounts for each organization. Other than the Women Lawyers Association, the other student organizations listed in the measure include the Public Interest Law Association, The Criminal Justice Society, The Environmental Law Group, Moot Court (All Teams), and Law and Business Society. We predicted first that participants would reduce the budget of the Women Lawyer’s Association by a greater percentage than most of the other groups, and that these budget reductions would be predicted by the participants’ implicit gender biases.<sup>143</sup>

### 5. Modern Sexism Scale

Participants also completed a Modern Sexism Scale. This scale is designed to measure explicit, as contrasted with implicit, gender bias towards women.<sup>144</sup> The scale asks participants to respond to statements, such as “[d]iscrimination against women is no longer a problem in the United States.”<sup>145</sup> Participants respond to eight such statements on a numerical scale and their responses are tallied and converted into a final score.

Regarding these non-IAT measures, it is important to note that we could evaluate statistically not only the results of each of the measures, but also whether the IATs (or the results on the Modern Sexism Scale) predicted the responses on these measures. More specifically, we could examine whether implicit gender biases predicted judgments on the resume measure, the judicial appointment measure, and the financial allocation measure.

## B. Methods

Participants were recruited from the law school library at the University of Hawai’i William S. Richardson School of Law. Fifty-five participants completed the study. Data for five of the participants was dropped because those participants had lived outside of the United States for more than ten years.<sup>146</sup> The remaining fifty participants included eight 1L’s, thirty 2L’s, and twelve 3L’s.

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143. That is, we predicted that the greater the implicit bias measured by the IAT, the greater the budget cut would be for the Women Lawyers Association.

144. See Janet K. Swim et al., *Sexism and Racism: Old-fashioned and Modern Prejudices*, 68 J. PERSONALITY & SOC. PSYCHOL. 199, 212 (1995).

145. See *id.* (Other items in the Modern Sexism Scale include, “2. Women often miss out on good jobs due to sexual discrimination. 3. It is rare to see women treated in a sexist manner on television. 4. On average, people in our society treat husbands and wives equally. 5. Society has reached the point where women and men have equal opportunities for achievement. 6. It is easy to understand the anger of women’s groups in America. 7. It is easy to understand why women’s groups are still concerned about societal limitations of women’s opportunities. 8. Over the past few years, the government and news media have been showing more concern about the treatment of women than is warranted by women’s actual experiences.”).

146. Some of these participants were international LL.M. students. We dropped the data for these participants because, for this study, we were interested in stereotypes in the United States.

There was gender balance in the participant pool. Twenty-four of the participants were male and twenty-six were female. The population was ethnically diverse. Forty-six percent identified themselves as Asian American,<sup>147</sup> twenty-four percent as White/Euro-American, twelve percent as multi-racial, eight percent as Native Hawaiian, six percent as Pacific Islander, two percent as Latino/Hispanic, and two percent identified as Other. The mean age of the participants was 26.48. Two female research assistants recruited participants and conducted the study.<sup>148</sup> Participants completed the study in a laboratory with two separate computer stations.<sup>149</sup> Participants first completed the non-implicit measures, which were given to them in counterbalanced order.<sup>150</sup> Next, participants completed the IATs, which were also given to them in counterbalanced order.<sup>151</sup> At the end of the study the participants provided demographic information.

### 1. Limitations of the Study

A few limitations of the study should be clarified. First, it is important to highlight that the Research Assistants (who recruited participants and administered the study) were both female second year law students. There are several potential confounds that this method of recruitment introduced. First, it is possible that running the study with female research assistants (in a position of authority) altered the way participants responded to questions. For example, interacting with women functioning successfully in authority roles might temporarily help to combat implicit and explicit biases.<sup>152</sup> Second, it is also possible that interacting with the female research assistants created a confirmation bias. That is, if participants believed that the administrators were members of their University's women's lawyers group, for example, participants may have been more hesitant to cut funding to that group. Or, more simply, if the participants believed that the women research assistants wanted them to select the female resume, they may have acted in accordance with that expectation. Third, not only were the two female research assistants functioning in an authority role, but also at the time of the study they were successful students. Thus, using two academically successful female research assistants may have unintentionally created exemplar effects, such that it would be easier

147. Of the Asian participants (N=23), ten identified themselves as Japanese-American, six identified themselves as Chinese-American, three identified themselves as Korean-American, and four identified themselves as Other.

148. These research assistants were both second-year law students.

149. The computers were IBM desktop computers outfitted with Inquisit software. This software is one of the favorites used by reaction-time (such as the IAT) researchers.

150. The IATs were given after these measures so that participants would not be alerted as to the gendered theme of the study.

151. In addition, the IATs themselves were counterbalanced such that the order of the IAT tasks was presented differently.

152. See Nilanjana Dasgupta & Shaki Asgari, *Seeing Is Believing: Exposure to Counterstereotypic Women Leaders and Its Effect on the Malleability of Automatic Gender Stereotyping*, 40 J. EXPERIMENTAL SOC. PSYCHOL. 642, 645 (2004) (finding that certain types of exposure to female role models temporarily reduced implicit bias).

for participants to value judge's feminine characteristics or to hire a female summer associate.<sup>153</sup>

Future studies should thus avoid using only female recruiters and administrators, and should endeavor to use administrators who are less known to the law student community (e.g. non-law student confederates). It should also be noted that participants were only recruited as volunteers (candy was provided as a thank you) and were not paid for their participation. Thus, there may have been an altruism effect, whereby more altruistic students were more likely to participate in the study. These students might not proportionally represent the law student population with regard to their decision-making. For example, perhaps altruistic students would be more likely to favor a public interest student organization compared to a business law organization in the budget cut measure.

### C. Results

#### 1. Implicit Associations between Judge/Male and Paralegal/Female

As predicted, the first IAT, the Judge/Gender IAT, confirmed the hypothesis that law students hold implicit gender biases related to leadership positions in the legal profession.<sup>154</sup> Participants displayed a significant association between Judge and Male ( $M=822.48$ ) compared to Judge and Female ( $M=1035.18$ ), producing a significant IAT effect ( $D=.23$ ,  $t(49)=3.66$ ,  $p=.001$ ). The results support the conclusion that law students implicitly associate men with judges, and women with paralegals, and therefore harbor an "implicit male leader prototype" in the legal setting.<sup>155</sup>

#### 2. Implicit Associations between Work/Male and Home/Female

As hypothesized, the second IAT, the Gender/Career IAT, confirmed the hypothesis that law students hold implicit gender biases connecting women with the home and family. Participants displayed a significant association between Male and Career ( $M=850.37$ ) compared to Female and Career ( $M=1101.60$ ), producing a significant IAT effect ( $D=.33$ ,  $t(49)=6.87$ ,  $p>.001$ ). The results of this study support the conclusion that law students implicitly associate

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153. For more on the potential implicit bias reducing effects of exemplars, see Kang & Banaji, *supra* note 105.

154. In computing our results, we followed the scoring algorithms suggested by Greenwald and his colleagues. See Greenwald et al., *supra* note 112 (demonstrating that despite the complicated nature of the IAT and disagreement among social scientists about the best way to score it, scholars have generally agreed on an accepted algorithm since 2003); see also Levinson et al., *supra* note 106, at 17 (citing Greenwald et al., *supra* note 112) ("Greenwald, Nosek and Banaji's suggested improved scoring measure for the IAT, called a *D* score, has improved test-response detection (for instance, it throws out indiscriminate responses or responses that indicate a lack of attention) and incorporates an inclusive standard deviation for all congruent trials (for instance, both the practice and test block of white-guilty and black-not guilty). Mean latencies are computed for each block, and complimentary blocks are subtracted from each other (e.g., practice white-not guilty and black-guilty would be subtracted from practice white-guilty and black-not guilty). These two difference scores are divided by their inclusive standard deviation score, and the average of these two scores is called *D*.").

155. See Rudman & Kilianski, *supra* note 48, at 1315-16.

men with work and women with the home and family. These results replicated previous research outside of the legal profession.<sup>156</sup>

### 3. Relationship Between the Judge/Gender IAT and Gender/Career IAT

Because we created a new IAT, the Judge/Gender IAT, we were interested in whether it measured implicit constructs similar to the already established Career/Gender IAT. We thus conducted a correlational analysis. This analysis found that the two IAT scores (Judge/Gender, Career/Gender) were weakly, but significantly, correlated ( $R=.33$ ,  $p=.02$ ). This result suggests that while the two IATs tap into a similar general construct (gender bias), each IAT also measures a unique association.

### 4. The IATs and the Modern Sexism Scale

We also tested whether the responses to either of the IATs would be related to responses on the Modern Sexism Scale, in which participants report explicit gender attitudes. As predicted, neither of the IATs were correlated with the Modern Sexism Scale ( $p>.1$ ). This result is expected, first because implicit and explicit measures are intended to test different constructs, and second because the Modern Sexism Scale is designed to test responses to somewhat different societal issues than the IATs we implemented. The difference between the responses to the IATs and the Modern Sexism Scale demonstrates the importance of investigating both implicit gender biases and explicit gender attitudes.<sup>157</sup>

### 5. Judicial Appointments

For the judicial appointments measure, participants rated masculine and feminine judge attributes to be equally important ( $M_{diff}=.5$ ,  $t(49)=.47$ ,  $p>.1$ ).<sup>158</sup> However, individuals' scores were not correlated ( $R=.162$ ,  $p>.1$ ), suggesting that there were individual differences in how attributes were rated. We thus were able to investigate whether implicit biases from the IATs predicted gender bias in the responses to the judicial appointments measure, as we hypothesized they would. A difference score was created by subtracting feminine judge attributes from male judge attributes, so that higher difference scores indicated a preference for masculine judge traits. A multiple regression analysis was run to

156. See Nosek et al., *supra* note 113, at 105 (reporting results on the gender-career IAT). Due to the nature of the IATs we conducted (it may become quickly apparent what the researchers are testing), our experiment was constructed so that the non-implicit experimental measures were always conducted before the IATs were taken. Analysis suggests that the experimental manipulation of seeing a female paired with an international resume and a male paired with a general business significantly lowered both Judge/Gender ( $F=23.53$ ,  $p>.001$ ) and Career/Gender ( $F=16.17$ ,  $p>.001$ ) IATs.

157. Measuring explicit gender attitudes without also investigating implicit gender biases would overlook the science underlying the field of implicit social cognition.

158. Analysis suggested that eliminating two items from the Judge Attribute scale would increase reliability of the scale. The two words were "Cautious" and "Risk-Taker." The resulting Cronbach's alpha was acceptable ( $\alpha=.76$ ). The remaining terms were split into two groups based on pre-testing of words to create a Masculine Attribute Scale (Aggressive, Competitive, Firm, Leader, Powerful, Risk-taker, and Self-Assured) and a Feminine Attribute Scale (Compassionate, Empathic, Gentle, Sympathetic, Thoughtful, Warm).

determine if implicit scores (from both the Judge/Gender and the Gender/Career IATs) predicted an emphasis on feminine or masculine traits.<sup>159</sup>

The overall regression model was significant ( $F=6.06$ ,  $p>.001$ ), and explains 41% of the variance of the dependent variable ( $R^2=.41$ ). The main effects of gender of participant ( $b=5.307$ ,  $t=3.04$ ,  $p<.05$ ), Career/Gender IAT score ( $b=-18.42$ ,  $t=-4.93$ ,  $p<.05$ ), and Judge/Gender IAT score ( $b=9.727$ ,  $t=3.21$ ,  $p<.05$ ) all significantly predicted the difference between importance for masculine and feminine judge attributes. The interactions between participant gender and Career/Gender IAT ( $b=20.79$ ,  $t=3.753$ ,  $p<.05$ ) and participant gender and Judge/Gender IAT ( $b=-10.686$ ,  $t=-2.511$ ,  $p<.05$ ) were also significant predictors. Importantly, these interaction effects tell us that implicit bias predicted responses on the judicial appointments measure, but that the results differed depending on the gender of the participant.<sup>160</sup> Therefore, we report the results separately for male and female participants.

For the male participant regression model,<sup>161</sup> there were two interesting results demonstrating the IATs' predictive validity, but in different directions. First, as implicit associations between male and judge increased, ratings of masculine judge attributes increased as compared to female judge attributes ( $B=9.727$ ). That is, the more implicit bias the participants displayed linking judges to males, the more they preferred masculine judge attributes. This finding supported our hypothesis that implicit gender bias would predict biased decision-making. Second, as implicit associations between home and female increased on the Career-Gender IAT, ratings of feminine judge attributes increased as compared to masculine judge attributes ( $B=-18.416$ ). Put simply, the more implicit bias male participants displayed linking men to career, the more they preferred feminine judge attributes. The direction of this finding was thus not as we predicted.

For the female participant regression model,<sup>162</sup> there were also two results demonstrating predictive validity, but similar to the male participant regression, the results were in different directions. First, as implicit associations between female and home increased on the Career/Gender IAT, the gap between ratings of masculine and feminine judge attributes increased ( $B=2.375$ ). Put simply, the more implicit bias the participants displayed linking men to career, the more

159. Since preliminary analysis demonstrated that females had a higher ( $m=1.57$ ) preference for masculine attributes, while males had a higher ( $m=-2.75$ ) preference for feminine traits in judges, gender and gender's interactions with the two IAT scores were included in the model. To control for multicollinearity, the IAT scores were centered around their means. The regression model was: Judge Attribute Difference Score =  $-3.845 + (\text{Gender})^* 5.307 + (\text{Centered } d_{\text{home}})^* -18.416 + (\text{Centered } d_{\text{law}})^* 9.727 + (\text{gender}^*d_{\text{home}})^* 20.791 + (\text{gender}^*d_{\text{law}})^* -10.686$ .

160. Since the variable of gender is coded as either a 0 (male) or a 1 (female), there are, in effect, two regression models, one for male participants and one for female participants. These models are best interpreted separately.

161. Male Regression Model: Judge Attribute Difference Score =  $-3.845 + (\text{Centered } d_{\text{home}})^* -18.416 + (\text{Centered } d_{\text{law}})^* 9.727$ . For this model, males with an average implicit score for both IATs gave higher ratings of feminine judge attributes than masculine judge attributes.

162. Female Regression Model: Judge Attribute Difference Score =  $1.462 + (\text{Centered } d_{\text{home}})^* 2.375 + (\text{Centered } d_{\text{law}})^* -.959$ . For this model, females with average IAT scores (in this case slightly biased) rated masculine judge attributes slightly higher than female judge attributes ( $B=1.462$ ).

they preferred masculine judge attributes. The direction of this finding was as we predicted. Second, as implicit associations between male and judge increased on the Judge/Gender IAT, ratings of feminine judge attributes increased as compared to masculine judge attributes ( $B=-.959$ ). That is, the more implicit bias female participants displayed linking men to career, the more they preferred feminine judge attributes. The direction of this finding was thus not as we predicted. These interesting predictive validity results deserve further exploration, a task we will consider in subsection D.

## 6. Resume Study

Consistent with our hypothesis, participants hired the male and female job candidates at approximately the same rates, regardless of participant gender or the resume they saw ( $\chi^2=.00$ ,  $p>.05$ ;  $\chi^2=2.35$ ,  $p>.05$ ). Ashley was hired slightly more ( $N=31$ ) than David ( $N=19$ ) for the summer position, although the difference was not statistically significant. The gender of the participants was also not a significant factor in determining which candidate was hired. However, there was a trend here as well: male participants hired Ashley more ( $N=17$ ) than female participants ( $N=14$ ), while female participants hired David more ( $N=12$ ) than male participants ( $N=7$ ). Male participants decided to hire Ashley more often when she was paired with an international resume ( $N=14$ ) than with a business resume ( $N=4$ ), suggesting that something about the female candidate with an international interest<sup>163</sup> appeared to impress participants.

Ashley was rated higher than David on all ratings of the resume, though many of these differences were small. Paired t-tests demonstrated that participants rated Ashley as more likely to succeed as a summer associate ( $M_{diff}=.18$ ,  $t(49)=2.64$ ,  $p>.05$ ) and to receive an offer at the end of the summer ( $M_{diff}=.12$ ,  $t(49)=2.20$ ,  $p>.05$ ). Participants also gave Ashley a significantly higher overall rating ( $M_{diff}=.180$ ,  $t(49)=2.137$ ,  $p>.05$ ). These ratings demonstrate that law students do not penalize female entry-level law candidates, and in some cases prefer them. This was true, of course, despite the implicit biases displayed by the participants.

A logistic regression was run to determine if either implicit measure predicted hiring decisions. The model did not approach significance (all  $p$ 's $>.1$ ). This result indicates that participants' implicit biases did not likely affect their choice of resume.

## 7. Budget Cuts

Participants cut the budget in ways that were not equal across groups, but the cuts did not disadvantage the Women Lawyers Association in comparison to other groups. There were no gender differences on budget cuts; male and female participants made budget cuts similarly. The average amount cut from a group was 19%. Participants cut 15% from the Public Interest Law Association, 20% from Women Lawyers Association, 20% from Criminal Justice Society, 19% from the Environmental Law Group, 17% from Moot Court, and 25% from the Law and Business Society. The closeness of the cuts to the desired 20% cut demonstrates that participants preferred to make fairly equal cuts to all groups.

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163. See *infra* App. A.

The target group, Women Lawyers Association, did not differ significantly from the other budget cuts (Mdiff =.00,  $t(.58)$ ,  $p>.05$ ). IAT scores were not correlated with these differences, nor did it significantly predict them in a regression. This result indicates that participants' implicit biases did not likely affect their budget cuts.

#### D. Interpreting the Empirical Results

The results of our empirical study paint a picture of implicit gender bias in the legal profession that is both concerning and hopeful. The concerning part is that the law student participants consistently held implicit gender biases, and they did so on both the Judge/Gender IAT and the Career/Gender IAT. Contextualized within legal scholarship on gender stereotypes, these results confirm that law students associate men with career and women with home and family, as well as hold implicit male prototypes for the position of judge. Considered within the broader social science discourse, these findings document the existence of implicit gender bias in the legal profession, and also show that the job specific associations people hold can be implicit in nature.<sup>164</sup> The hopeful part of the results is that the participants were mostly able to resist their implicit biases and make decisions in non-biased ways. Namely, participants did not discriminate against women in the judicial appointments measure, the resume study, or the budget cut measure. In fact, in some instances, such as in the resume study, participants rated the female candidate more favorably than the male candidate. The remainder of this subsection interprets the results in more detail.

The results indicate that implicit gender bias affected the participants on both IAT measures. But what do these results mean? As social psychologists have surmised, implicit associations often predict the way people act and make important decisions.<sup>165</sup> For example, one study found that participants who showed more implicit bias on a White/Black IAT acted differently towards blacks,<sup>166</sup> and a subsequent study by different researchers found that it even predicted discriminatory behavior (such as making racial epithets).<sup>167</sup> A study on medical decision-making and race found that doctors with high implicit racial bias were less likely to order certain medical procedures for their black patients.<sup>168</sup> And, directly relevant to gender bias in the legal profession, a researcher found that employers in Sweden who harbored implicit biases related to Arabs were less likely to call Arab candidates for job interviews.<sup>169</sup> If

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164. Of some complication to our analysis is that participants' implicit biases only sometimes predicted their decisions, such as in the judicial appointments study, and that these results were multidirectional and difficult to interpret.

165. See Greenwald et al., *supra* note 124; Rudman & Ashmore, *supra* note 44.

166. John F. Dovidio et al., *Implicit and Explicit Prejudice and Interracial Interaction*, 82 J. PERSONALITY & SOC. PSYCHOL. 62, 65-67 (2002).

167. Rudman & Ashmore, *supra* note 44, at 361-63.

168. Alexander R. Green et al., *Implicit Bias Among Physicians and Its Prediction of Thrombolysis Decisions for Black and White Patients*, 22 J. GEN. INTERNAL MED. 1231 (2007).

169. See Siri Carpenter, *Buried Prejudice: The Bigot in Your Brain*, SCI. AM. MIND, May 2008, at 32, 37 (citing Dan-Olof Rooth, *Implicit Discrimination in Hiring: Real World Evidence* (Inst. for the Study of

law students hold the implicit biases that were documented in this study, we must wonder whether they are truly able to navigate their professional lives without acting on those stereotypes. Studies of gender bias in law firm partnership decisions, for example, heighten this concern.<sup>170</sup>

Building on the research linking implicit biases to discriminatory actions, we designed the non-implicit measures to test whether law student participants would act on their implicit biases or whether they might resist them. The majority of our results support the argument that our law student participants successfully resisted or compensated for the implicit biases we tested.<sup>171</sup> First, they did not act in a discriminatory manner to women. And second, the results of their IATs did not predict their decisions on the non-implicit measures, other than the judicial appointments measure. And even for that particular measure, only some of the results indicated that the IATs predicted gender discrimination in the expected manner. Other results showed that participants sometimes acted in ways directly contrary to their implicit biases. There are several possibilities that might explain why the participants in our study harbored implicit biases but for the most part did not act on them. Here, we briefly consider these possibilities, focusing on the two strongest rationales.

First, participants may have been successful in resisting their implicit biases if they were implicitly motivated to control the influence of prejudicial stereotypes. Researchers have found that some participants can overcome their implicit biases either because they have high implicit motivations to avoid prejudice or they are temporarily influenced by their egalitarian surroundings.<sup>172</sup> Jack Glaser and Eric Knowles, for example, had participants take unique IATs that were designed first to test people's implicit motivation to avoid prejudice, and second to test how much they implicitly considered themselves prejudiced.<sup>173</sup> They also had participants complete a "shooter bias" task, which measures how people respond to visual images of black and white men with guns and non-gun objects in a video game-like setting, asking them either to shoot armed men as quickly as possible or to press a "safety" button when unarmed men appear.<sup>174</sup> Glaser and Knowles found that the more the

Labor, Discussion Paper No. 2764, 2007), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=984432](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=984432).

170. See generally Gorman & Kmec, *supra* note 80.

171. It is also possible that the participants' implicit biases might better predict gender-biased behaviors that we did not include in our study.

172. Jack Glaser & Eric D. Knowles, *Implicit Motivation to Control Prejudice*, 44 J. EXPERIMENTAL SOC. PSYCHOL. 164 (2008); Adam R. Pearson et al., *The Nature of Contemporary Prejudice: Insights from Aversive Racism*, 3 SOC. & PERSONALITY PSYCHOL. COMPASS 1, 15 (2009).

173. Glaser & Knowles, *supra* note 172, at 166-67.

174. *Id.* at 166. See also Levinson, *supra* note 23, at 357 (citing Joshua Correll et al., *The Police Officer's Dilemma: Using Ethnicity to Disambiguate Potentially Threatening Individuals*, 83 J. PERSONALITY & SOC. PSYCHOL. 1314, 1321, 1325 (2002)) (describing shooter bias studies in more detail, "participants play a video game that instructs them to shoot perpetrators (who are holding guns) as fast as they can but not to shoot innocent bystanders (who are unarmed but holding a non-gun object, such as a cell phone). The 'shooter bias' refers to participants' propensity to shoot Black perpetrators more quickly and more frequently than White perpetrators and to decide not to shoot White bystanders more quickly and frequently than Black bystanders. Studies have also shown that participants more quickly identify handguns as weapons after seeing a Black face, and more quickly

participants were implicitly motivated to avoid prejudice, the less bias they displayed on the shooter bias measure.<sup>175</sup> Furthermore, they showed that the worst performers on the shooter bias measure were those who not only had low implicit motivation to control prejudice, but also did not implicitly consider themselves as prejudiced.<sup>176</sup>

The researchers therefore demonstrated that it is possible for people to hold harmful implicit biases and simultaneously hold egalitarian implicit norms that allow them to resist these biases. Related research has supported the idea that people who hold implicit egalitarian norms (even if they are only temporarily activated) can resist stereotypic thought activation.<sup>177</sup> Considered in the context of the results of our study, it is possible that a large part of our law student sample was implicitly motivated to resist gender bias. Although it might seem unlikely that the majority of our participants would hold such implicit views when the majority of the broader population likely does not, we might note that law students generally, and these law students in particular,<sup>178</sup> could have higher than average levels of implicit motivation to control prejudice.<sup>179</sup> After all, research has demonstrated that simply being in the presence of “egalitarian-minded others” can inhibit prejudice.<sup>180</sup> Without having tested for implicit motivation to control bias, however, we cannot speculate further as to whether that might account for the some of the results. Future studies on law students could test this possibility.

A second possible explanation why our participants were able to control the effects of their implicit biases is that they may have suspected the purpose of the study. In a study of implicit racial biases in trial judges, Jeffrey Rachlinski and his colleagues found that judges harbored implicit biases on the IAT favoring whites compared to blacks.<sup>181</sup> In a subsequent measure, when race was primed implicitly, the researchers found that white judges’ sentencing decisions were predicted by their IAT scores.<sup>182</sup> However, when race was made explicit in yet another measure, the white judges’ decisions were no longer predicted by

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identify other objects (such as tools) as nonweapons after seeing a White face. In these studies, participants are entirely unaware that they have even seen a White or Black face. The quick flashing image registers in the unconscious; participants are not consciously aware of the prime.”).

175. Glaser & Knowles, *supra* note 172, at 169-70.

176. *Id.* at 170.

177. Pearson et al., *supra* note 172, at 15.

178. There may be a unique emphasis on justice and egalitarian values at the University of Hawai‘i law school. For example, all entering law students take the following pledge: “In the study of law, I will conscientiously prepare myself: To advance the interests of those I serve before my own, [t]o approach my responsibilities and colleagues with integrity, professionalism, and civility, [t]o guard zealously legal, civil and human rights which are the birthright of all people, [a]nd, above all, [t]o endeavor always to seek justice. This I do pledge.” *Law Students’ Pledge*, WILLIAM S. RICHARDSON SCH. OF LAW, UNIV. OF HAW. AT MANOA, <http://www.law.hawaii.edu/students/law-students-pledge> (last visited Oct. 25, 2010).

179. See Williams, *supra* note 4, at 447 (making a similar point that could explain how some law students may have heightened ability to control their implicit biases: “stereotypes may be automatic, but when actors are under social pressure to control them, they tend to do so.”). Certain law school environments might create such a social pressure.

180. Pearson et al., *supra* note 172, at 16.

181. Rachlinski et al., *supra* note 113, at 1210.

182. *Id.* at 1215-16.

their IAT scores.<sup>183</sup> Interestingly, Rachlinski and his colleagues found that most of the judges they tested had suspected the purpose of their experiment was to test for race effects, even though the race-relevant goal of the study should not have been obvious. The researchers explained that when participants suspect the purpose of a study, they may take actions in response to that suspicion.<sup>184</sup> Such a response may include an increase in implicit or explicit motivation to control prejudice.<sup>185</sup>

Similar to Rachlinski and his colleagues' study, it is possible that here, too, participants suspected the purpose of the study. Two particular aspects of our methodology could have reinforced this belief: first, participants each saw one female resume and one male resume; and second, our study used only female law students as study administrators. Regarding the first possibility, other resume studies, such as Steinpreis' study of CVs, have only used one CV in a between subjects design.<sup>186</sup> In those studies, participants only see one CV, and therefore likely have no reason to suspect that gender is being tested. In our study, however, we created a forced choice by providing two somewhat comparable resumes, one with a male name and another with a female name. We chose this structure for the resume study because we believed it created a more realistic decision where participants would have more than one resume to review. Yet, its drawback may have been that it flagged the true purpose of the study to participants. Regarding the second possibility, it is also possible that participants' suspicions were created or heightened by the fact that our study was administered by two second year female law students.<sup>187</sup> Unfortunately, we did not include a measure that would have tested whether participants suspected the purpose of the study. The results of our study thus reinforce the dangers of implicit bias in the legal profession, as well as invigorate the hope that law students may have ways to compensate for their implicit biases. Future research should continue to investigate implicit bias in law schools specifically and in the legal profession more broadly. The next section makes specific

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183. *Id.* at 1217-19.

184. *Id.* at 1203 (citing Green et al., *supra* note 168, at 1237). Rachlinski and his colleagues considered that implicit motivation to control prejudice might have accounted for their results: "We believe that the data demonstrate that the white judges were attempting to compensate for unconscious racial biases in their decisionmaking. These judges were, we believe, highly motivated to avoid making biased judgments, at least in our study. When the materials identified the race of the defendant in a prominent way, the white judges probably engaged in cognitive correction to avoid the appearance of bias." *Id.* at 1223.

185. *See id.* at 1223 (considering that implicit motivation to control prejudice might have accounted for study results. "We believe that the data demonstrate that the white judges were attempting to compensate for unconscious racial biases in their decisionmaking. These judges were, we believe, highly motivated to avoid making biased judgments, at least in our study. When the materials identified the race of the defendant in a prominent way, the white judges probably engaged in cognitive correction to avoid the appearance of bias.").

186. *See* Steinpreis et al., *supra* note 86, at 515.

187. It should be noted that second-year law students are the typical candidates for summer associate positions and that the empirical study was conducted during the fall semester, the traditional hiring season for summer associate positions. Thus, participants might have believed that the study had some particular relevance or importance to the administrators, who were presumably taking part in the summer associate interview process.

recommendations for this research, and then discusses what to do about pervasive implicit gender biases in the legal profession.

## V. FUTURE DIRECTIONS

### A. The Next Generation of Research

Although our research provided detailed information about implicit gender biases of law school students, further empirical testing should continue to investigate implicit gender bias in the legal profession. Conducting additional empirical research would provide both an opportunity to test new hypotheses about implicit gender bias in the legal profession, as well as allow a chance to improve on the current study. Here, we suggest several simple but worthy amendments that would improve the current study for future testing. First, for studies focused on implicit bias in the law school setting, these studies should examine a broader group of law students across multiple law schools. Using a broader sample would eliminate the possibility that there was something unique about our one school sample that influenced participant responses.<sup>188</sup> Second, whether or not the studies are conducted in law schools, future studies should always be conducted using researchers who are completely unknown to the participants.<sup>189</sup> Doing so will reduce the possibility that participants will speculate about the purpose of the study, or attempt to (implicitly or explicitly) please the researchers with their responses. Third, future studies should employ both male and female test administrators, and subsequent to the studies, should test whether the gender of the researchers affected participants' responses.<sup>190</sup> Although we do not know if our particular research design was compromised by any undesired affects, taking the steps described above will help minimize such risks.

There are yet additional amendments to the current study worth pursuing. Expansion of empirical testing beyond the law school domain is an important step in investigating the role of implicit gender bias in the legal profession. Although student participants might be easier to recruit, future research should test at least two new participant groups: current decision makers (such as law firm partners) and future decision makers (perhaps those five to ten years out of

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188. There are some unique aspects of the University of Hawai'i law school that could influence how implicit biases predict decisions. For example, it is one of the most diverse law schools in the nation. See *University of Hawaii at Manoa William S. Richardson School of Law*, THE PRINCETON REVIEW, <http://www.princetonreview.com/UniversityofHawaiiatManoaSchoolofLaw.aspx> (last visited Nov. 12, 2010) (ranking the law school first nationally as "best environment for minority law students"). It is possible that the positive influences of diversity lead to motivations to resist implicit biases. The law school's mission also highlights the school's commitment to "social and economic justice," a theme consistent with the law school pledge that all first year students take. See THE UNIVERSITY OF HAWAII WILLIAM S. RICHARDSON SCHOOL OF LAW, <http://www.law.hawaii.edu> (last visited Nov. 13, 2010); see also *supra* note 178.

189. Using law student research assistants to conduct the study risks biasing the results, particularly if the students are known as exemplary students. Researchers should also seek to compensate student participants in order to minimize altruism effects.

190. See Daniel T. Gilbert & J. Gregory Hixon, *supra* note 19, at 515 (showing that simply exposing study participants to a researcher from a stereotyped group can have effects on the participants' decision-making).

law school). Conducting a study on these two groups would allow researchers to gain an understanding of whether there are differences in implicit gender bias at different levels of the legal profession.<sup>191</sup> It would also allow for adaptation of the resume study to encompass a job search for a more senior attorney position. Such a position, as the legal scholarship points out, is more likely to be subject to gender biases than entry-level positions, such as the summer associate hiring scenario we tested.<sup>192</sup>

Finally, future research can build on our study by adding a third implicit measure of stereotypes. Although we employed two implicit measures that specifically responded to two major themes of legal scholarship, there is one additional theme that remains untested. That theme—that gender biases relating to women’s traits and characteristics affect hiring and promotion opportunities—should also be included in empirical studies of implicit gender biases in the legal profession. Researchers have previously found that some implicit stereotypes can predict decision-making when non-stereotype related implicit associations fail to do so.<sup>193</sup> Thus, we recommend including an implicit stereotype measure in future studies.

## B. Addressing Implicit Gender Bias

Remedies are needed to counter the harmful effects of implicit gender bias in the legal profession. Legal scholars have already done a thorough job in proposing systematic responses to gender stereotypes in the workplace. Rhode, for example, calls for a multifaceted approach that includes screening of performance evaluations for gender stereotypes,<sup>194</sup> increased mentoring activities and women’s networks,<sup>195</sup> a redefinition of workplace assumptions to take into account female life patterns,<sup>196</sup> gender neutralizing policies like parental leaves and flexible schedules,<sup>197</sup> and a commitment to accountability from employers, complete with measurement systems.<sup>198</sup> This scholarship should serve as a jumping off point for discussions of remedies to implicit gender bias in the legal profession, as well as for the development of empirical tests that measure the efficacy of these remedies.<sup>199</sup> Encouraging law firms to implement gender-neutral policies, or asking that law schools, the American Bar Association, and the Association of American Law Schools support enrollment and course credit flexibility due to family status are straightforward solutions that should be considered and pursued.

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191. It might also reveal generational differences.

192. See *supra* notes 64-67 and accompanying text.

193. See Rudman & Ashmore, *supra* note 44, at 359 (finding that stereotype IATs predicted decision-making but attitude IATs did not).

194. Rhode *Subtle Side*, *supra* note 4, at 638.

195. *Id.* at 638-39 (pointing out the particular need to keep “talented women, particularly women of color, from falling through the cracks”).

196. *Id.* at 639-40.

197. *Id.* at 639.

198. *Id.* at 640-42. On a related note, Rhode argues that employers should be held responsible for the reinforcement of gender stereotypes concerning appearance. *Id.* at 642.

199. Rhode has made this later point. See *id.* at 637-38 (noting the conflicting results of workplace diversity training, and calling for more thorough studies).

Here, we propose two potential interventions aimed specifically at reducing implicit gender bias within law schools and throughout the legal profession.<sup>200</sup> These proposals are: first, implement a series of carefully crafted and empirically tested bias reduction training courses beginning in law school and continuing throughout law graduates' careers; and second, encourage law schools, firms, and other agencies to commit to hiring women for implicit male prototype jobs. Although neither of these suggestions will fully combat the harmful stereotypes that people form as children, both of them can be linked to social science research demonstrating the reduction of implicit bias. Thus, short of a more uniform solution to implicit gender bias, which would likely entail slow and steady cultural change,<sup>201</sup> we advocate for short-term bias reduction strategies.

Implementing a carefully crafted and empirically verified training that begins in law school and continues throughout attorneys' legal careers has the potential to reduce implicit gender biases of both law students and lawyers. The content of the trainings, undoubtedly its most important element, is nearly matched in significance by the necessity of implementing a consistent, continuous, and long-term training program. After all, most bias reduction strategies are only temporary measures. One cannot expect a simple training, or even a few sparse courses, to come close to permanently reversing the harmful effects of negative stereotypes. In fact, it is likely that the benefits gained even by a sustained program of trainings would be small, although measurable. Thus, the trainings must be regular and continue throughout attorneys' careers.<sup>202</sup>

Although bias-related training already exists and is prevalent in some industries,<sup>203</sup> here we note two elements that we believe should be incorporated in all training. These elements include diversity and multiculturalism training, as well as carefully confronting trainees with their own biases. Multiculturalism training in particular has been successful in reducing implicit biases. Jennifer Richeson and Richard Nussbaum designed a study where participants learned about either multiculturalism (celebrating differences across groups) or "color

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200. We hope and expect that these suggestions will overlap with scholars' suggestions regarding dealing with gender stereotypes outside of the legal profession. Here, we pursue them specifically from an implicit-bias-reduction standpoint.

201. We hope, of course, that such cultural change is possible.

202. We do not engage with the mechanics of this suggestion here, although working directly with bar associations to implement mandatory trainings would be a first step.

203. Fortunately, scholars in various fields have considered how to reduce the dangerous harms caused by implicit biases and stereotypes. Within the medical profession in particular, attention has been given to devising training programs geared towards eliminating health care disparities. A plan suggested by Diana Burgess and her colleagues, including social psychologist Jon Dovidio, set forth a systematic approach to reduce bias-driven health care disparities. Diana Burgess et al., *Reducing Racial Bias Among Health Care Providers: Lessons from Social-Cognitive Psychology*, 22 J. GEN. INTERNAL MED. 882, 882 (2007) (centering approach on five goals, each based on research on how to reduce the effects of biases on decisions: "1) enhance internal motivation to reduce bias, while avoiding external pressure; 2) increase understanding about the psychological basis of bias; 3) enhance providers' confidence in their ability to successfully interact with socially dissimilar patients; 4) enhance emotional regulation skills; and 5) improve the ability to build partnerships with patients."). Although this plan was designed for training medical students and doctors, much of its social-science wisdom can be applied to law students and lawyers.

blindness” (ignoring differences across groups).<sup>204</sup> After finishing the short lesson, participants completed a Black/White IAT. Richeson and Nussbaum found that participants who learned about multiculturalism displayed lesser implicit biases than those who learned about color blindness.<sup>205</sup> A related study by Laurie Rudman and her colleagues put participants through a fourteen-week diversity training course where participants learned about intergroup conflict, engaged in discussions, and maintained journals.<sup>206</sup> The researchers found that participants in the training displayed less implicit and explicit bias than participants in a control group.<sup>207</sup> Lessons from these studies could likely be extrapolated to combat gender biases, especially if gender is included as an element of the training.

Researchers have also found that carefully confronting people with their biases can reduce implicit bias. A study by Alexander Czopp and his colleagues on reducing racial stereotypes found that even though confrontations can create hostility toward a confronter, they can (at least temporarily) also reduce stereotypes.<sup>208</sup> The study asked participants to participate in an online chat.<sup>209</sup> During this chat, the experimenters asked participants to give their impressions about pictures and statements. These pictures and statements were designed deliberately so that participants would necessarily respond in a racially stereotype-consistent manner, thus allowing the experimenter to set up a confrontation.<sup>210</sup> After the participants gave their stereotype-consistent responses, a collaborator (who was posing as another participant in the online chat) confronted them about their potentially racist responses.<sup>211</sup> After the confrontation, participants were given a confidential stereotype test (participants were alone—no collaborator was present to influence or confront them). The researchers found that post-confrontation participant responses displayed significantly fewer stereotypes (compared to responses given before the confrontation). Although this study was conducted in the context of racial stereotypes rather than gender stereotypes, the theory behind it should hold true for reducing gender stereotypes as well. It should be cautioned, however,

204. See generally Jennifer A. Richeson & Richard J. Nussbaum, *The Impact of Multiculturalism Versus Color-Blindness on Racial Bias*, 40 J. EXPERIMENTAL SOC. PSYCHOL. 417 (2004). Participants read a lesson about their assigned topic and wrote about what they learned. *Id.* at 419.

205. *Id.* at 420.

206. Laurie A. Rudman et al., “Unlearning” Automatic Biases: The Malleability of Implicit Prejudice and Stereotypes, 81 J. PERSONALITY & SOC. PSYCHOL. 856 (2001).

207. *Id.* at 860-61.

208. Alexander M. Czopp et al., *Standing up for a Change: Reducing Bias Through Interpersonal Confrontation*, 90 J. PERSONALITY & SOC. PSYCHOL. 784, 799 (2006). The description of the study by Czopp and his colleagues, including footnotes, is taken substantially verbatim. See Levinson, *supra* note 23, at 413-14.

209. Czopp et al., *supra* note 208, at 787.

210. *Id.* at 787-88.

211. *Id.* at 792. For example, one such confrontation included the following: “but maybe it would be good to think about Blacks in other ways that are a little more fair? it [*sic*] just seems that a lot of times Blacks don’t get equal treatment in our society. you [*sic*] know what i [*sic*] mean?” *Id.* at 788. Whether in the form of low-level threats (such as the one quoted) or high-level threats (which involved mentioning that the participant’s responses sounded racist), confrontations successfully reduced “subsequent stereotypic responding.” *Id.* at 791.

that although these proposals are based on empirical research, they should be tested empirically before being implemented. This is particularly the case because some studies have found that certain bias reduction trainings might actually heighten some biases.<sup>212</sup> Confronting trainees with their biases, in particular, must be done in a thoughtful and controlled manner that fosters introspection and avoids defensive responses.

A second intervention for reducing implicit biases would be for members of the legal profession to commit to hiring women in counterstereotypical (implicit male prototype) roles.<sup>213</sup> Making such a policy choice for the purpose of implicit gender bias reduction can be supported by social science evidence.<sup>214</sup> Studies have demonstrated that exposing students to female exemplars, including women judges and professors, actually does reduce implicit gender biases. In a leading study on implicit gender bias reduction, Nilanjana Dasgupta and Shaki Asgari tested whether exposing female college student participants to women in counterstereotypic roles would reduce implicit gender biases.<sup>215</sup> The researchers tested their hypothesis by studying the effect of counterstereotypic exemplars on both short-term and long-term bias reduction. In the first study, they examined whether teaching female college students about female leaders would reduce their gender stereotypes of women as supporting figures (rather than leaders). To do this, the researchers had participants review photos and short biographies of counterstereotypic women, including Supreme Court Justice Ruth Bader Ginsburg.<sup>216</sup> They then conducted a stereotype/gender IAT in which participants had to group together male and female names with attributes of leaders and supporters.<sup>217</sup> They found that participants who had learned about the women leaders displayed less implicit gender bias than members of the control group<sup>218</sup>; these participants more quickly grouped together women with leadership attributes on the IAT.<sup>219</sup>

In the second portion of their study, Dasgupta and Asgari investigated whether implicit bias reduction benefits could be obtained naturally through potentially counterstereotype rich real-world settings, such as college campuses. They compared two groups of women participants, those in an all women's college with those in a coeducational college, hypothesizing that due to the underrepresentation of women leaders at co-ed colleges, women in a women's

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212. Rhode, *Subtle Side*, *supra* note 4, at 637.

213. For a discussion of specific counterstereotypic exemplars, see Kang & Banaji, *supra* note 105, at 1109.

214. There is also some precedent for making the commitment to hire more women for counterstereotypic roles. Although their actions have not been binding, the Hawai'i state senate adopted a resolution urging the appointment of more women judges. S. Res. 26, 25th Leg. (Haw. 2010).

215. See generally Dasgupta & Asgari, *supra* note 152.

216. *Id.* at 646. Other counterstereotypic leaders included business leaders, scientists, and politicians. *Id.* at 645.

217. *Id.* at 646.

218. *Id.* at 647. Members of the control group had seen photos of flowers and read descriptions of those flowers. *Id.* at 646.

219. *Id.* at 647. For the researchers' summary, see *id.* at 648 ("Situations that familiarize [women] with ingroup members who have succeeded in atypical leadership domains can have a strong impact on their automatic beliefs.").

college would display lesser implicit gender biases after one year of college.<sup>220</sup> To make sure that their participants had essentially equivalent levels of bias before college began, they tested the women both at the beginning of college and again after one year. They were thus able to conclude, when they analyzed the results, that although the women displayed nearly equal implicit gender biases upon beginning college, the women at the all women's college (but not the women at the co-ed college) displayed almost no automatic biases after one year.<sup>221</sup> In addition, they found that these results were driven by the number of women professors that the students had; the more female professors the students had, the less the implicit gender bias they expressed.<sup>222</sup> Dasgupta and Asgari's study demonstrates the exciting potential for real world situations to reduce real world biases; colleges that make a commitment to women faculty members will be sending a bias reducing message. Making a commitment to hire women in implicit male prototype positions in the legal profession will not only help reverse years of numerical disparities, but will likely have a bias reducing affect on the next generation.<sup>223</sup>

## VI. CONCLUSION

The continuing subordination of women in the legal profession must be challenged and remedied. We believe that one of the best ways to remedy an inequality is to understand it as fully as possible. The study we conducted began the empirical inquiry into implicit gender bias in the legal profession, and it confirmed that implicit gender bias is in fact widely present among a law student sample. Yet, it also showed that in some circumstances law students have the ability to control the effects of their own gender biases. This finding offers hope for future generations of attorneys, professors, and judges. Yet, it is not enough for the present day. Statistics demonstrate that decades of inequality in the legal profession have only shown slight amelioration. Further research must continue to examine these inequities and investigate pathways to gender equality.

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220. *Id.* at 645.

221. *Id.* at 651. In fact, implicit gender biases for the women in co-ed college went up, while implicit gender biases for the women in an all women's college were essentially gone. *Id.*

222. *Id.*

223. As Dasgupta and Asgari summarize, "the more frequently counterstereotypic exemplars occur in the social environment the greater may be the decrement in automatic stereotyping." *Id.* at 644.

APPENDIX A  
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EDUCATION

*William S. Richardson School of Law, University of Hawaii at Manoa, Honolulu, Hawaii*

Juris Doctorate candidate, expected graduation May 2011.

GPA: 3.56; Rank 19 out of 92

Honors and Awards:

- President, Law and Business Organization
- Staff Writer, Law Review
- Winner: Susan B. McKay Oral Advocacy Competition, Fall 2009

*Georgetown University, Washington D.C.*

- Bachelor of Business Administration, Focus on Real Estate Finance, May 2005
- Honors: Magna cum laude
- GPA: 3.74
- Wilson Scholarship Recipient
- 2nd Place Winner: Undergraduate Business Plan Competition

*London School of Economics, United Kingdom*

- Study abroad, Marketing & Management, Fall 2004

WORK EXPERIENCE

*Summer Intern, Office of the County Clerk, Hilo, Hawaii, Summer 2009*

- Researched and responded to legal inquiries from Council Members and the County Clerk.
- Briefed, catalogued, and organized Office of Information Practice opinions.

*Sales Manager, Hoku Scientific, Honolulu, Hawaii, Sept. 2005-July 2008.*

- Coordinated sales efforts in Asia-Pacific Region.
- Worked directly with executive team to generate sales strategy.
- Implemented multi-tiered sales strategy and met sales milestones.

*Real Estate Assistant, Caldwell Pacific Realty, Honolulu, Hawaii, Summer 2004*

- Researched and provided market analysis.
- Supported office operations.

LANGUAGES & ACTIVITIES

Fluent in Spanish. Trained in making presentations. Hobbies include calligraphy and tennis.

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## EDUCATION

University of Hawaii, William S. Richardson School of Law, Honolulu, HI

### **Juris Doctor Candidate, May 2011**

Class Rank: 17 of 92 GPA: 3.60

- Law Review, *Staff Writer*
- Pacific-Asian Legal Studies Organization, *President*

Honors:

- Top grade in Legal Practice II, Spring 2009

### **Columbia University, New York, NY**

#### **Bachelor of Arts in International Relations, May 2005**

GPA: 3.68 *Cum Laude*

- Minor in History
- Hawaii Club, *Vice President*

### **Waseda University, Tokyo, Japan**

International Exchange Program, 2005-2006

- Intensive Japanese language instruction

## EXPERIENCE

**Honorable Ian Johnson**, U.S. District Court for the Central District of California **Summer 2009**

*Judicial Extern*, Los Angeles, CA

- Conducted extensive research and drafted memoranda on various legal issues.
- Observed courtroom activities such as criminal trials and oral arguments.

### **Port of Kobe 2007-2008**

*Coordinator for International Relations*, Kobe, Japan

- Edited English articles written by Japanese Port Guides. Assisted in translating letters, e-mails, and speeches from Japanese into English.

### **Pacific Region Marketing Group 2005-2007**

*Marketing Manager*, Honolulu, HI

- Facilitated strategic planning sessions. Planned and executed special events and press conferences.

**Hawaii State Capitol Summer 2004**

*Summer Volunteer*, Honolulu, HI

- Fielded incoming telephone calls at the Governor's Office of Information and drafted letters on behalf of Governor Linda Lingle. Led tours of the Hawaii State Capitol.

**SKILLS AND INTERESTS**

Proficient in reading/writing/speaking Japanese. Enjoy hiking and playing soccer.