EXPERT REBUTTAL REPORT OF WILLIAM T. BIELBY

Derrick Satchell, et al. v. FedEx Express

September 1, 2006

1. My name is William T. Bielby. I am a Professor in the Department of Sociology at the University of Pennsylvania. I have been retained by the law firm of Lieff, Cabraser, Heimann & Bernstein, counsel for plaintiffs in *Derrick Satchell, et al. v. FedEx Express.* I have previously authored two Reports concerning *Derrick Satchell, et al. v. FedEx Express*, one in September 2004, submitted by plaintiffs in support of class certification ("Bielby-1"), and another in June 2006 ("Bielby-2"). I have been asked by plaintiffs' counsel to respond to the expert report of Dr. Philip Tetlock ("Tetlock Report") submitted in June 2006 and to comment on aspects of the analysis in Dr. Mary Baker's June 2006 expert report ("Baker Report") that relate to her characterization of certain features of the FedEx personnel system as "objective" versus "subjective" and her analysis of discipline. Dr. Tetlock and Dr. Baker are experts retained by the defendant.

2. Since submitting Bielby-2 on June 30, 2006, I have been provided with the deposition transcripts and documents listed in Appendix A. I have also received all of the expert reports submitted by plaintiffs' and defendant's experts in June 2006.

SUMMARY OF MY PRIOR REPORTS IN *SATCHELL, ET AL. V. FEDEX*

3. In Bielby-1, I described the structure of the Western Region of FedEx Express ("FedEx") personnel system and features of the company's policies and practices for making decisions about compensation, promotions, and performance assessment and for addressing equal employment opportunity (EEO). I also summarized the substantial

body of research by social scientists, management scholars, and human resources professionals about the features of personnel systems and decision-making contexts that create and minimize bias against persons of color (and against women). I summarized both the strengths and weaknesses of FedEx's system for minimizing bias and concluded that discretionary features, accompanied by inadequate monitoring and accountability, have created barriers to equal employment opportunity for African American and Hispanic employees. I also summarized statistical analyses demonstrating that managerial discretion in human resources policy and practices at FedEx is exercised in a way that has an adverse impact on minority employees.

4. The report I submitted in June of 2006, Bielby-2, is an updated analysis based on additional deposition testimony, documents, and statistical analyses. I also updated my summary of the relevant scientific and professional literature. The Bielby-2 report also includes a more detailed analysis of the deficiencies of FedEx's policies and practices regarding EEO and diversity (paragraphs 35 and 36) and of testimony regarding allegations of overt racism among senior managers at FedEx, based in part on materials that were not available to me at the time I prepared Bielby-1 (paragraphs 48 through 51).

5. My analysis of the FedEx system has been based on social science research in three areas in which I have expertise (in Bielby-1 that research is summarized in paragraphs 15 through 24, and an updated summary appears in paragraphs 15 through 27 and paragraphs 51 and 52 of Bielby-2). The research literature I relied upon and summarized included: (1) studies by sociologists and management scholars on passive, symbolic, and ineffective organizational approaches equal employment opportunity versus those that are effective in minimizing bias; (2) studies by social psychologists on

how discretionary decision-making contexts allow racial bias to influence how *both* objective and subjective criteria are weighed in making selection decisions; and (3) studies by social psychologists on racial (and gender) stereotypes and the ways they influence decision-making and how specific, written guidelines, oversight, and accountability minimize the impact of stereotypes. As I noted in Bielby-1 and Bielby-2, the research I rely upon has applied multiple methodologies in a variety of contexts, including experiments in controlled laboratory settings; ethnographies and case studies in "real world" organizations both large and small, public and private, and in a range of industries; surveys done with representative samples of workers and employers; and historical studies based on archival materials from the United States and abroad. It has widespread acceptance among social science and management scholars and provides a sound basis for analyzing FedEx's policies and practices.

THE TETLOCK REPORT

6. Dr. Tetlock's 53-page report is a critique of Bielby-1, and since my conclusions are substantially the same in Bielby-2, it is reasonable to assume that Tetlock would make similar criticisms of my more recent report. This is not the first time Dr. Tetlock has criticized my work in a litigation context. In April 2006 he submitted a report on behalf of defendants in *Nelson and Armstrong v. Wal-Mart Stores Inc. and Wal-Mart Transportation LLC.* ("*Nelson v. Wal-Mart*"). Large sections of the report submitted by Dr. Tetlock in this litigation are identical or nearly identical to the report he submitted in *Nelson v. Wal-Mart*. Paragraphs 1-15, 20-52, 54-59, 61-63, 65-68, 70-73, 77-79, 87, 89-90, and 94-96 of the Tetlock Report are substantially similar to passages in

the report he submitted in *Nelson v. Wal-Mart*, apart from brief illustrative references to this litigation's evidentiary record. Remarkably, as I explain below, much of what appears in these passages attacks me for arguments I have not made in this litigation. Otherwise, these passages concern differences between Dr. Tetlock and me concerning the scientific status of social psychological research on stereotyping, cognitive bias, and accountability and the appropriateness of applying it to a litigation context that includes allegations of discrimination due to discretionary policies and practices with inadequate monitoring and accountability. Not surprisingly, given the similarities between the expert report Dr. Tetlock submitted in the two cases, my response here on the overlapping issues is substantially similar to the response to Dr. Tetlock I submitted in *Nelson v. Wal-Mart*.

7. Mainly, what is different in the Tetlock Report compared to the one submitted in *Nelson v. Wal-Mart* are the citations to FedEx documents and testimony about its personnel system. The conclusions Dr. Tetlock draws from the testimony and documents are largely similar to those in his report in *Nelson v. Wal-Mart*. For the most part, there is little disagreement between Dr. Tetlock and me about what exists in the deposition testimony and documents. And in some ways, we agree on some aspects of FedEx's personnel system that represent sound human resources policy and practice (e.g. an emphasis of behaviorally-based decision-making criteria on some selection processes, fixed weights for combining criteria during some periods, underutilization analyses[1]), even when we differ on implementation. Our most significant differences regarding the

[1]For example, see p. 17-18, paragraph 25 of Bielby-1; p. 31-32, paragraph 46 of Bielby-2; p. 45-46, paragraphs 81-82 of Tetlock Report.

evidentiary record concern how social science research informs the conclusions that can be drawn from it.

8. In the paragraphs that follow, I describe how Dr. Tetlock mischaracterizes my opinions and the scientific and management literature that forms the basis for my opinions, how he ignores relevant organizational and social psychological research that is central to the conclusions I have drawn, how he mischaracterizes the way I and other experts have applied social science literature in litigation contexts, and how we differ in conclusions that can be drawn from the evidentiary record.

Tetlock Mischaracterizes the Scientific Status of Social Psychological Research on Stereotypes and Implicit Bias

9. In describing research on stereotyping and implicit racial bias, Tetlock uses the terms "controversy" and "controversial" nine times.[2] By invoking this mantra, Tetlock attempts to create the impression that the research is untested, unreliable, and lacks widespread acceptance in the scientific community. By characterizing those who contribute to this research as "activist psychologists"[3] with a "political agenda"[4] whose work lacks "intellectual honesty"[5] and moves into an "Orwellian realm,"[6] Tetlock seeks to discredit their science by labeling them as strident ideologues. In fact, research on stereotyping and implicit racial bias has general acceptance in the scientific community, and the social psychologists who developed the theories and methods and conducted research on this topic over the past two decades are among the most cited and highly respected scientists in the field.

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[2]Tetlock Report, p. 4, 7, 12 (two instances), 13, 14 (two instances), 15, and 22.
[3]Tetlock Report, p. 18.
[4]Tetlock Report, p. 19.
[5]Tetlock Report, p. 17.
[6]Tetlock Report, p. 17, 35.

10. For example, an article I relied upon and cited in my reports, "Stereotypes and Prejudice: Their Automatic and Controlled Components" by Patricia Devine, published in 1989 in the *Journal of Personality and Social Psychology*, is considered to be a key research study establishing implicit bias as an important area of research on stereotyping. Since its publication it has been cited nearly 1000 times in academic journals, with over 100 citations in the past year. Dr. Devine's 1995 article, "Are Racial Stereotypes Really Fading," which I rely upon and cite in my reports, has been cited more than 100 times. Another important early contribution in this research tradition that I cite, the 1986 article by John Dovidio and colleagues, "Racial Stereotypes: The Contents of Their Cognitive Representations," has been cited 163 times, with 18 citations since January 2005.[7] In his report, Tetlock cites to a 1998 article by Anthony Greenwald and colleagues as the source for one of the "controversial methods" used for studying implicit bias.[8] The article has been cited over 500 times in less than ten years and over a 100 times since January 2005, hardly a sign of lack of acceptance in the scientific community.

11. In sum, the social psychological literature on stereotypes and implicit racial bias that I rely upon has widespread acceptance in the scientific community. The studies on the topic with the greatest impact are published in top peer-reviewed journals and are widely cited in those journals. The field represents an active and vital area of research scholarship, and those who have contributed to this research are distinguished scholars with impeccable scientific reputations. This research tradition is incorporated into the leading textbooks used to educate undergraduate students about stereotypes and to train

[7]J. F. Dovidio, N. E. Evans, and R. B. Tyler, "Racial Stereotypes: The Contents of Their Cognitive Representations," *Journal of Experimental Social Psychology*, Vol. 22, 1986, p. 22-37. In Bielby-1 and Bielby-2 I inadvertently omitted Dr. Dovidio's name from the reference to the article.

[8]Tetlock Report, p. 15; A. G. Greenwald, D. E. McGhee, and J. L. L. Schwartz, Measuring Individual Differences in Implicit Cognition: The Implicit Association Test," *Journal of Personality and Social Psychology*, Vol. 74, 1998, p. 1464-1480.

the graduate students who will be the next generation of Ph.D.s to refine and extend this scholarship.[9]

12. Besides having widespread acceptance in the scientific community, the scholarship on stereotypes and implicit racial bias is increasingly recognized as important by human resources professionals. For example, in February of 2006, *HR Magazine*, the official publication of the Society of Human Resource Management, published a cover story titled "Detecting Hidden Bias" which explained why research on implicit bias is an important issue to be addressed by human resources practitioners.[10]

13. Of course, as in any scientific endeavor, the theories and findings on stereotyping and implicit racial bias are not incontrovertible. Science advances through debate and criticism that is addressed by ongoing empirical inquiry. While the fundamental assumptions of the field about automatic processing of information based on social categories such as race and gender are firmly established, research continues on the specific psychological and cognitive mechanisms involved in stereotyping, how social cues from the environment impact information processing, and so on.

14. And, as in any scientific field, there are some critics, Tetlock among them, who question fundamental assumptions of scholarship on stereotypes and implicit racial bias and its relationship to earlier concepts, theories, and methodologies. Rather than undermining a field, science advances when researchers debate such issues in a scientific

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[9]For example, see C. Stangor (ed.), *Stereotypes and Prejudice: Essential Readings*, Psychology Press, 2000.

[10]P. Babcock, "Detecting Hidden Bias," *HR Magazine*, Vol. 51, No. 2, February 2006. In the introductory section of the article, Ms. Babcock wrote about implicit bias:

> Such hidden biases can be disastrous for the employees who suffer as a result of them; they also can damage businesses by leading managers and employees to make flawed business decisions in a number of areas, including hiring, promotion, training opportunities and project assignments. For HR, the task is clear but daunting: Help uncover and address such bias before problems arise.

forum and address them with empirical research. Tetlock's criticisms of the field have been aired in a scientific forum, the journal *Psychological Inquiry*, and the leading researchers in the field have provided detailed responses in the same issue of the journal.[11] When debate focuses on scientific issues it provides the impetus for further empirical research, which moves the field forward. In contrast, simply labeling research as "controversial" and making attributions about the personal values and political attitudes of those who contribute to it impedes rather than advances scientific research.

15. Interestingly, the specific scholarship Tetlock criticizes in *Psychological Inquiry*, the "implicit association test" developed by Anthony Greenwald of the University of Washington and Mahzarin Banaji of Harvard University, is not work I cite in my report, yet, Tetlock devotes ten paragraphs of his expert report to repeating the attack on this line of research.[12] In contrast to his critique published in *Psychological Inquiry*, in the context of this litigation Tetlock embellishes his criticisms with provocative labels and attacks on the alleged politics and motives of those with whom he disagrees.[13]

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[11]H.R. Arkes and P. E. Tetlock, "Attributes of Implicit Prejudice, or "Would Jesse Jackson 'Fail' the Implicit Association Test?," *Psychological Inquiry*, Vol. 15, 2004, p. 257-278; M. R Banaji, B. A. Nosek, and A. G. Greenwald, " No Place for Nostalgia in Science: A Response to Arkes and Tetlock," *Psychological Inquiry*, Vol. 15, 2004, p. 279-310. Regarding criticisms of the "response latency" methodology used in implicit bias research, social psychologist Eugene Borgida and colleagues wrote:

> However, given the firm grounding of methodologies in cognitive psychology as well as consistency of response patterns found across numerous studies, there is no serious question within the psychological community about whether response latency methodologies are a useful means of studying stereotyping.

J. S. Hunt, E. Borgida, K. M. Kelley, and D. Burgess, "Gender Stereotyping: Scientific Status," pp. 384-426 in *Modern Scientific Evidence: The Law and Science of Expert Testimony*, edited by D. Faigman, D. H. Kaye, M. J. Sacks, and J. Sanders, West Publishing Co., 2002, quotation from p. 390.

[12]Tetlock Report, p. 14-19, paragraph 24-33. Tetlock's attack on the scholarship based on the implicit association test is almost identical to the one that appears in his report submitted in *Nelson v. Wal-Mart*.

[13]Tetlock's attack on the research of Greenwald, Banaji, and their collaborators has also appeared on the opinion page of the *Wall Street Journal*. See A. Wax and P. E. Tetlock, "We're All Racists at Heart," *Wall Street Journal*, December 1, 2005, p. A16.

Tetlock Ignores Relevant Organizational Research on Workplace Bias and Equal Employment Opportunity

16. Tetlock is silent about organizational research on effective and ineffective EEO responses. He devotes over thirteen pages of his report to the issue of accountability, but he limits his comments about scientific literature primarily to laboratory studies about psychological mechanisms conducted by social psychologists.[14] In that section, he claims that in laboratory studies weak accountability interventions can eliminate bias and asserts that "the lab is pallid imitation of the real world," to support his claim that FedEx has accountability structures and policies that are more than adequate for eliminating bias.[15] Remarkably, this section of Tetlock's report *completely ignores* the substantial body of research on "real world" organizations that demonstrates what kinds of accountability, monitoring, and oversight practices are and are not effective for minimizing bias. This large body of research is summarized and cited in paragraphs 23 and 24 of Bielby-1 and cover in more detail in paragraphs 25 through 27 Bielby-2. In those sections, I cite to articles, chapters, and books that are either specific studies done in organizational settings or are overviews of research in organizational settings. That research shows how in the "real world" of organizations, policies and practices that create bias become institutionalized and taken for granted, how those same policies and practices become imbued with inertia and persist in the absence of proactive monitoring and intervention, and how they can reinforce rather than undermine the psychological mechanisms identified in laboratory studies of stereotypes and implicit bias.

[14]Tetlock Report, p. 27-39, paragraphs 54 through 72.
[15]Tetlock Report, p. 30-32.

17. The Organizational studies I summarize and cite in the same sections describe the leeway organizations have to on the one hand act effectively in establishing and monitoring equal employment opportunity policies and practices, or, on the other hand, to decouple EEO and diversity functions from everyday decision-making and to act symbolically, "going through the motions," with little or no impact on reducing or eliminating bias. Tetlock ignores all of this research, even though it is central to the opinions expressed in my Reports and deposition testimony and to Dr. Tetlock's criticisms of my work and my conclusions.

Tetlock's View that Stereotypes and Cognitive Bias are Easily Circumvented is Inconsistent with Social Science Research

18. In his report, Tetlock asserts that experimental studies show that the impact of stereotypes is eliminated as soon as decision-makers acquire information about those they are evaluating.[16] In fact, it is only under very limited circumstances that "individuating information" eliminates stereotyping. In their contribution to the book *Modern Scientific Evidence: The Law and Science of Expert Testimony* social psychologist Eugene Borgida and his coauthors explain that individuating information regarding an individual's characteristics is considered only if it is inconsistent with the stereotype, and even then, the information about the individual is sometimes processed in a biased manner. Elaborating on this, Dr. Borgida and coauthors wrote (p. 409):

> "Without necessarily realizing it, perceivers tend to selectively process information about individuals that is consistent with group stereotypes, while inhibiting information that is inconsistent with stereotypes. Perceivers also use stereotypes when they interpret individuating information.... Thus, people tend to interpret ambiguous or internally contradictory (i.e. mixed) individuating information in stereotype-consistent ways. Only individuating information that is truly unambiguous is seen as stereotype-disconfirming. This process of biased

[16]Tetlock Report, p. 23-25.

> information-processing is particularly insidious because people believe they are judging others on the basis of personal characteristics, often unaware of the influence that stereotypes have on the interpretation of those characteristics."[17]

Dr. Borgida and his coauthors conclude their discussion of individuating information by noting that "the relationship between knowledge of individuating information and stereotype use is complex, depending on elements of the target, the perceiver, the individuating information, the relationship between the information and the group stereotype, and the particular decision being made" (p. 410).

19. Tetlock also asserts that so long as individuals have a motivation to "do the right thing" their decisions will not be affected by stereotyping and bias.[18] In the same chapter cited above Dr. Borgida and his coauthors address this issue and come to a very different conclusion. They summarize research on "intentional stereotype suppression," that is, "the ability of individuals to control their own use of gender (and other) stereotypes." The relevant scientific research summarized by Dr. Borgida and coauthors demonstrates that deliberate stereotype suppression is difficult to achieve in a workplace context:

> "Research suggests that the intentional stereotype suppression is a difficult process that can occur only under certain circumstances. Further, recent research has documented a rebound effect, in which stereotype use actually increases when a person ceases active efforts to inhibit stereotypes."[19]

The article notes that effective stereotype suppression requires "careful, deliberative thought" which in turn requires sufficient motivation to be free of bias (p. 418-419). As with the use of irrelevant individuating information, attempts to suppress stereotyping can

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[17]Hunt *et al*., *op cit*., p. 410.
[18]Tetlock Report, p. 25.
[19]Hunt *et al*., *op cit*., p. 418.

lead to subsequent "rebound effects" which increase rather than decrease the use of stereotyping.[20]

20. By ignoring organizational scholarship on substantive versus symbolic responses to EEO and the institutionalization of bias and by selectively interpreting the social psychological scholarship on individuating information and cognitive bias, Tetlock is able to "lower the bar" on what constitutes a sufficient response to minimizing workplace bias. To Tetlock, minimal familiarity among employees, the existence of written and verbal policy pronouncements about non-discrimination and diversity, an emphasis on shared culture, teamwork, and productivity, one-time training on appropriate human resources practices, and the existence of a complaint procedure provide sufficient incentives to guarantee that discrimination does not occur.[21] To Tetlock, apparently it matters little, if at all, whether and how policies and pronouncements are implemented and whether they are systematically monitored for their impact on equal employment opportunity. And despite Dr. Tetlock's emphasis on employees motivation to "do the right thing" as an effective check on bias,[22] he chose not to give any consideration to testimony alleging that in recent years top-level FedEx managers had used racial slurs and created an environment hostile to African Americans.

[20]As noted above at footnote 8, Dr. Borgida was designated by Wal-Mart as an expert in the *Dukes et al. v. Wal-Mart* litigation.
[21]Tetlock Report, p. 23-34 (paragraphs 46-47), p. 30-31 (paragraph 63), and p. 35-38 (paragraph 69).
[22]Tetlock Report, p. 25, paragraphs 49-50.

Contrary to Tetlock's Claim, I Have Offered No Hypothesis or Opinion About "Excessive Subjectivity" and I Do Not Offer A One-Sided Review of the Relevant Literature

21. Section IV of the Tetlock Report, nearly 10 full pages, is devoted to a critique of my portrayal of research on subjectivity, and my opinions about "excessive subjectivity" in FedEx's system for assessing performance.[23] That section of his report concludes with a passage claiming that I have given a biased and one-sided view of social science literature on the topic of subjectivity in performance reviews. According to Tetlock, I ignore literature that "disconfirms" my "core hypothesis that subjective performance reviews have greater adverse impact on protected groups."

22. In fact, I pose no such hypothesis in either of my reports. Nowhere in my report do I claim that FedEx is plagued by "excessive subjectivity" or that subjective assessments -- i.e. those requiring the exercise of judgment -- are inherently more biased than objective ones. In Bielby-1, I used the term "subjective" or "subjectivity" just three times. The first two instances are in paragraph 17 of Bielby-1, quoted here (with emphasis added and footnotes omitted):

> The Martocchio and Whitener meta-analysis focused specifically on field studies of performance assessment conducted in private sector firms. *The results of their analysis of ten field studies also indicated that race effects were larger on subjective than on objective measures of performance.* In an article published in 2003, Roth et al. replicated Kraiger and Ford's research on a larger sample of studies, and they found that overall, racial differences in performance ratings between African Americans and whites were comparable to those in the 1985

[23]Tetlock Report, p. 40-49, paragraphs 73-88.

> meta-analysis. *However, unlike earlier studies, they found that racial disparities on objective assessments could be as large or larger than those for subjective assessments.*[24]

I am at a loss to explain how Tetlock could read these passages and conclude that I have given a one-sided account of the findings of social science research.

23. In Bielby-2, I concluded my review of the literature on racial bias in performance reviews by noting that some studies fail to find racial bias in performance ratings. Paragraph 20 of Bielby-2 reads as follows (footnotes omitted, emphasis in original):

> Other studies and reviews suggest that in many organizational settings, performance reviews by supervisors are not subject to racial bias. For example, in a 1994 review article in the *Annual Review of Psychology*, Landy, Shankster, and Kohler state (p. 282-3) that "the field has been moving inexorably toward the final conclusion that *well-developed rating procedures accompanied by training of the raters* will produce ratings that are minimally biased by demographic characteristics of raters or ratees" (emphasis added). In a book published that same year, Latham and Wexley (p. 152) assert that "*when the appraiser uses behaviorally based appraisal scales*, ratee characteristics, such as age, race, and sex, have a negligible effect on the resulting performance appraisal" (emphasis added). The conclusions of Landy et al. and of Latham and Wexley are not inconsistent with the research cited above. It is indeed the case that appropriately

[24] The same quote appears in Bielby-2 at paragraph 17.

designed performance appraisal systems, carefully implemented and monitored, can be free of bias.[25]

In sum, I have presented a balanced review of the relevant literature that comes to a conclusion substantially similar to that of Defendant's expert, Dr. Michael Campion, in the literature review he offers in his Report Number 1.

Tetlock Ignores Relevant Research and Evidence About the Impact of Discretionary Decision-Making Contexts

24. The third and final instance of my use of the term "subjective" in Bielby-1 is in paragraph 20, where I stated: "A large body of social science research shows that personnel decisions such as decisions about promotion selections and performance assessment are vulnerable to stereotyping and bias *when they are based on the arbitrary*

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[25]Of course, Dr. Tetlock could not have known the contents of Bielby-2 before submitting his report in this litigation. On the other hand, the same passage appears in my report in *Nelson v. Wal-Mart*, and I gave deposition testimony on my opinions regarding subjectivity in that litigation. Since the Tetlock Report quotes both from my expert report and deposition testimony in *Nelson v. Wal-Mart*, Dr. Tetlock must have known my expert opinion on subjectivity in performance assessment. In my rebuttal declaration in *Nelson v. Wal-Mart*, I responded to Tetlock on this issue as follows (Rebuttal Declaration of William T. Bielby, Nelson v. Wal-Mart, p. 9-10):

> Such rating systems, which require the exercise of professional judgment, are often designed with specific criteria and guidelines for making those assessments, and they often include ongoing auditing of the process and monitoring of outcomes for disparate impact. In short, there is nothing inherently biased about an assessment system that involves the exercise of subjective judgment, so long as it includes specific criteria and guidelines and adequate oversight. I testified to this explicitly at my deposition, p. 220-221 (emphasis added):
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> A -- **no. And I'm not suggesting that Wal-Mart needs to have a system that relies only on objective criteria for hiring drivers.** I mean, you know, there are issues related to, say, reliability that perhaps can't be reduced to how many accidents you've had and that sort of thing.
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> **But to the extent that they do need to evaluate candidates on traits or qualifications that require the exercise of judgment, if that can be done within the kind of framework I've identified, then that subjectivity in that sense does not necessarily lead to bias.**

or discretionary use of subjective criteria" (emphasis added). Again, the key point here is not the exercise of subjective judgment per se but whether or not it is done so in a discretionary context. I summarized the relevant research on discretion and bias in paragraph 22 of Bielby-1, with a more detailed discussion in paragraphs 22 and 23 of Bielby-2, where I summarized research showing that "in a highly discretionary system with limited monitoring, even objective factors can be evaluated in a way that leads towards favoritism to the majority group and discrimination against minorities."[26] Dr. Tetlock ignores this body of research.

25. In my reports, I cite to evidence of discretionary aspects of the FedEx personnel system (e.g. Bielby-1 paragraphs 28 through 32, Bielby-2 paragraphs 30 through 34 and 38 through 40), and my review of the 30(b)(6) and "fact" deposition testimony taken since I submitted my second report is consistent with the evidence I relied upon in Bielby-1 and Bielby-2.

26. My opinions about discretion and bias in the FedEx personnel system are based in part on: (1) social science research and management scholarship on cognitive bias and on barriers to equal opportunity in the workplace; and (2) the evidentiary record regarding arbitrary and discretionary aspects of the FedEx personnel system; and (3) the evidentiary record regarding a lack of effective monitoring and oversight. Dr. Tetlock is not persuaded by this kind of analysis and offers a lengthy critique, alleging that my opinion is an "act of faith" that is devoid of any measure or metric of how that system produces racially biased outcomes (Tetlock Report, pages 41-48, paragraphs 76 through 86. In fact, in forming my opinions, I also relied upon explicit measurement of the bias produced by discretionary aspects of FedEx's personnel system. Specifically, I relied on

[26]Bielby-2, p. 15.

statistical analyses conducted by plaintiffs' statistical expert, Dr. Richard Drogin, on the exercise of discretion in the process for making promotions into hourly positions. Those analyses show that in this aspect of the FedEx personnel system, where the exercise of discretion can be explicitly identified and measured, it does indeed have a measurable and statistically significant adverse impact on minorities (Bielby-1 paragraphs 36 through 39 and Bielby-2 paragraphs 43 through 45). In Bielby-2 (paragraph 46) I also explained that the transition to the online performance review system provided an opportunity to assess whether reducing discretion resulted in an attenuation of racial disparities in performance ratings, since the online system incorporated automated, fixed weighting of some aspects of the performance review process in a way that was not possible under the earlier paper system. The results show that the transition to the less discretionary system is indeed accompanied by a reduction in the adverse impact against minorities.[27]

Tetlock Mischaracterizes How Scientific Research is Used in Social Framework Analysis

27. Finally, Tetlock opines at length about the so-called "flawed approach to scientific hypothesis testing" in Bielby-1.[28] My Reports are not efforts to test scientific hypotheses, and neither is Tetlock's. In fact, it would be extremely unusual for a social science expert to use materials from a case actually in litigation to conduct original research aimed at testing theories about stereotyping and racial bias. As I stated in Bielby-1 (p. 4-5, paragraph 7), my report is based on a social framework analysis. I reviewed testimony, documents, and other quantitative and qualitative information about

[27]Testimony and documents produced since I submitted Bielby-2 confirms that the online, less discretionary system was introduced throughout the company during the years 2001 and 2002; see Hayward July 2006 depo., p. 88-89, 117-118, 141-145, 252-253 and Attachment 3 to Exhibit 127; Rutherford depo., p. 158-159.

[28]Tetlock Report, p. 49-52.

the case in order to draw conclusions about how *extant* social science theory and research applies to the specific circumstances of the organizational setting where discrimination is alleged to have occurred. My opinions are based on an analysis of the specific features of FedEx's policies and practices against what that social science scholarship has shown to be factors that create and sustain bias and those that minimize bias. I am not using the testimony and evidence from this litigation to *test* the scientific research that I have relied upon. Social framework analysis relying on social science research on stereotyping and racial and gender bias has been recognized by the courts and applied in a variety of litigation contexts (see p. 5, paragraph 8 and footnote 1 of Bielby-2 for references).

28. Tetlock claims that I have deviated from scientific standards, so much so that Bielby-1 is "well outside the realm of science." His basis for this claim is his experience reviewing "hundreds of manuscripts for scientific journals" and "numerous grant proposals" for funding agencies. I have similar experience as a reviewer, and I must say that I have never seen a reviewer offer a purportedly scientific critique that use such inflammatory language, attacks work that is not present in the manuscript, ignores much of the work that is in the manuscript, and makes attributions about political motivations, not just of the manuscript's author but of those contributing to an entire research tradition.

Conclusions About the Tetlock Report

29. Tetlock accuses me of a using a "bait-and-switch" strategy (a term that appears three times in his report[29]) by introducing the concept of racial stereotypes and relying on contemporary peer-reviewed social science research which he rejects, instead of an older research tradition which he prefers. One might say that in his report Tetlock has engaged in his own strategy "bait-and-switch" -- attacking research I do not cite and

[29] Tetlock Report, p. 6, 16, 18.

ignoring research I do cite,[30] in order to create the misleading impression that my work is based on an incomplete and slanted view of the relevant scientific research.

30. Tetlock invokes the language of scientific objectivity to launch a shrill, selective, and misguided attack on my work and the social science I rely upon. He fail to address at all the social science research I rely upon regarding effective and ineffective organizational responses to equal employment opportunity, and regarding how discretionary decision-making contexts allow racial bias to influence selection decisions. He limits his critique to my use of social psychological studies of stereotyping and implicit bias. By repeatedly labeling that scholarship as "controversial" and implying that the scientists who produce it are politically motivated, he attempts to create the impression that the scientific research on stereotypes and implicit bias is unreliable and irrelevant.[31] In fact, the theories, methods, and research used in the field are widely accepted, have been published in top peer-reviewed journals, and coupled with the organizational research I rely upon (and which Tetlock ignores) provide a sound basis for understanding issues regarding allegations of racial bias in the FedEx Personnel System.

THE BAKER REPORT'S ANALYSIS OF RACIAL DISPARITIES IN DISCIPLINE AND PERFORMANCE RATINGS

31. Dr. Baker presents statistical results showing significant differences in performance ratings by race (Tables AP-1 and LP-1 in the Baker Report) and discipline by race (Tables AD-1 and LD-1). She then presents results showing that the ratings done by minority raters exhibit disparities as large as or larger than those done by white raters

[30]Tetlock expressed no opinion on the scientific research I rely upon and describe in paragraphs 15, 22, 23, and 24, and footnotes 16 and 33 through 35 of Bielby-1.
[31]Tetlock Report, p. 52, paragraph 94.

(Tables AP-2 through AP-4 and LP-2 through LP-4). Similarly, she presents results showing that disciplinary actions by minority supervisors exhibit disparities as large or larger than those taken by white supervisors (Tables AD-2 through AD-5 and LD-2 through LD-3). By assuming that ratings done by African American and Latino raters cannot possibly be contaminated by bias towards non-whites, Dr. Baker is able to draw the inference that there is no racial bias in performance ratings. A similar logic is part of the basis for her conclusion of no racial bias in disciplinary actions. Dr. Baker offers no rationale for her assumption, and as Dr. Anthony Greenwald explains in his expert report, there is no basis in social science research literature for making such an assumption. Dr. Greenwald also summarizes a large body of social science research that explains why members or racial minority groups can be biased in their evaluations of and actions towards other non-whites. Also relevant to this issue is the testimony I review in Bielby-2 regarding allegations of overt racial bias at FedEx (pages 32-35, paragraphs 48 through 51). If white senior managers who have witnessed instances of overt racism have been warned by top executives not to register complaints about racial bias, it is likely that minority managers and supervisors have learned the same lesson. Also, if as Janet Haynes alleges, minority supervisors have been enlisted to discipline minority employees in order to insulate the company from discrimination charges, it is plausible that a climate exists that also encourages minority supervisors to rate the performance of non-white employees and discipline them more harshly as well.

32. Dr. Baker also asserts that the pattern of disparities in "objective" versus "subjective" ratings and the correlations between the two types of ratings support the conclusion that it is deficiencies in the performance among persons of color, not racial

bias, that explains why whites are rated higher on average than non-whites. There are several problems with the analysis. First, as I note above in my response to Dr. Tetlock in paragraphs 22 through 26, both objective and subjective ratings can be vulnerable to bias, depending on the decision-making process and context, and either can be implemented in a way that effectively minimizes bias. Dr. Baker includes among her "objective" measures factors like attendance and punctuality for which managers have discretion both at the "front end," in deciding whether to document an infraction, and at the "back end," in deciding whether to make an exception to the rules for translating attendance and punctuality records into a rating score.[32] Simply assuming that all "objective" factors are free of bias is inconsistent with both social science research and the evidence from FedEx that the determination of some "objective" factors include discretionary features. Thus, showing that some of the racial disparity in "subjective" ratings is eliminated when "objective" factors are controlled does not support the inference that true differences between whites and minorities is responsible for the disparity.

33. Second, Dr. Baker asserts that a high correlation between "subjective" and "objective" ratings supports the inference that the former are free of bias (Baker Report, Footnote 14 and Appendices B and C). This is not true, as a simple example illustrates. Employees differ among themselves on performance, a factor we will call "P," but we cannot observe that factor directly (if we could, we would not need performance ratings). Instead, we rely on ratings of performance that correlate with the true performance factor P but are less than perfect measures of it. Suppose there are two ratings -- rating factor

[32]For example, see Hayward July 2006 depo., p. 133-136, 150, 290-291; Physic depo., p. 56-62, 64-68, 88, 94; McDonald depo., p. 103-104; Anderson depo., p. 28-50, 66-68; Hall depo., p. 35-38; Moulder depo., p. 50-59, 65-75; Welch depo., p. 25-29, 33-40, 99-100.

"U" ("unbiased") and rating factor "B" ("biased"). Factor "U" is highly correlated with "P" and is not subject to racial bias (whites and nonwhites with the same true performance are rated the same on this scale, on average). The biased factor "B" is also highly correlated with "P" -- for both whites and non-whites, those who perform better on "P" tend to get higher ratings on "B" -- but non-whites automatically get one point subtracted from their score on "B." In this example, ratings on "U" and "B" will be highly correlated with each other, even though one is explicitly biased and the other is free of bias. Dr. Baker's findings that "objective" and "subjective" ratings are significantly correlated simply means that the two types of ratings have some statistical relationship to the same underlying factor, it does not imply that either kind of rating is free of bias. Put another way, even on a racially biased rating scale, non-whites who are stronger performers are likely to be rated higher than non-whites who perform poorly, and likewise for whites. The biased rating will therefore be correlated with true performance, as will an unbiased rating.

34. In short, Dr. Baker's statistical analysis documents what Dr. Drogin has shown in his reports -- non-white employees receive lower performance ratings than do white employees and they are disciplined more harshly. Her analyses of "subjective" and "objective" ratings and of disparities by race of rater do not support the inference that racial disparities in performance ratings are completely due to inferior performance by FedEx's non-white employees. Similarly, her analysis of disciplinary actions by race of supervisor do not support the inference that racial disparities in discipline are completely due to a greater rate of infractions by nonwhites.

APPENDIX A: MATERIALS SUPPLIED TO ME SINCE SUBMITTING MY REPORT OF JUNE 30, 2006

Deposition transcripts:

Akins, Sheila
Alfredo, Ceja
Alvarado, Martin
Anderson, James III
Anderson, Scott
Aroz, Michael
Azevedo, Mark
Barajas, Cirilo
Barrett, Luis
Bartush, Jeff
Beaner, Dorinda
Becker, Tim
Benavidez, Mateo
Birkenbach, Paul
Bowersmith, Carl
Boykin, Kalini
Braly, Tim
Briggs, Jeremy
Brooks, David
Brown, Valerie
Bustillos, Miguel
Caraza, Jesse
Carcamo, Luis
Choquette, Judith
Clark, Bonta
Coleman, Paul
Correia, Dave
Craft, Nadia
Davis, Kelvin
Davis, Tamel
Deberry, Linda
Deharo, Olga
Delgado, William
Delgado, Yolanda (Canela)
Diaz, Felix
DiVirigillo, Annetta
Douglas, Phillips
Ellis, Alfonso

Flowers, Patricia
Flude, Roger
Foreman, Eric
Fuchs,Tebor
Garcia, Donna
Garcia, Donna
Gonzales, Amalia
Gonzales, Rick
Graham, Bobby
Grant, Ayana
Griffin, Maurice
Guerrero, Cynthia
Hall, Kathrine
Haskins, Samuel
Hater, John
Haynes, Janet
Hayward, Jerlyin
Healy, Sean
Hill, Eric J
Hoiland, Brett
Hoover, Chris
Hutchins, Rachel
James, Ingrid
Jones, Dante
Jones, Steve
Kelly, Michael
Lake, Steven
Latin, Zeno
Lebron, Cindy
MacQueen, Charles
Martinez, Albert
Martorano, Michael
Matthew, Chris
Mazzotti, Gino
McDonald, Eugene
Mendez, Robert
Merritt, Tyrone
Miller, Claudia
Moncrief, Rose
Montez, Robert
Motter, Robert
Moulder, Kathryn
Mudd, Dean
Munoz, Daniel
Munoz, David J.
Nishiguchi, Tom

Norris, Anthony
Olmos-Benyshek, Rosalinda
Padron, Joni
Perry, David
Phillips, James
Physic, Charles
Pryor, William
Rattner, Malcom
Rey, Everett
Richardson, Curtis
Rivas, Robert
Rutherford, Steve
Satchell, Derrick
Siguenza, Vincent
Silva, Anailde
Six, John
Skinner, John
Slawson, Lynn
Smith, Kelvin
Smith, Michael
Snyder, Michael
Stamm, Richard
Steel, Mimi
Stevenson, Ken
Suazo, Angela
Tachis, Donnell
Toperzer, Keith
Turenr, John
Turner, George
Van Galder, Robert “Robin”
Vandeberg, Craig
Vega, Victor
Ventre, Jeffrey
Walker, Susan
Weeden, Tong
Welch, Daniel
Wertner, Timothy
Wiggns, Curtis
Wright, Randy
Zamora, Raul
Zupkow, Amy
Exhibit 3 to Phillip Douglas Deposition, "How to Conduct Courier performance Review"

Expert Reports filed in June, 2006 filed by Plaintiffs and Defendant

30(b)(6) exhibits 130-150
OLPRMJAids 1-6
2-55PR 1-5
Defendant's Request for Admission Responses
Responses to Plaintiffs' Questions by Dr. Campion