EXPERT REPORT OF CHRISTOPHER WINSHIP, PH.D.

Katherine Puffer v. Allstate Insurance Company

I have been retained by the Allstate Insurance Company to serve as an expert witness in Katherine Puffer v. Allstate Insurance Company (hereafter, referred to as Allstate.). I have been asked to review and evaluate the expert report of Dr. Barbara Reskin, submitted by the plaintiff in her case. In particular, I have been asked to ascertain the degree to which the analyses set forth in Dr. Reskin's report are consistent with reliable scientific method and generally accepted standards of argument, methodology, and evidence in the social sciences. I have not been asked to opine, nor does my report offer an opinion about, whether gender discrimination has occurred in this case. The sole goal of my analyses and this report is to ascertain the scientific reliability of the methods Dr. Reskin has used in reaching her opinions and in producing her report.

SUMMARY AND CONCLUSION

I have divided my report into three major components. The purpose of Part I is to provide an overall assessment of the reliability and scientific integrity of Dr. Reskin's report. I start by examining the logical structure of Dr. Reskins argument. I then summarize the reliability of different claims that it rests on. If these claims are wholly unreliable (as my analysis in Part II details and shows), then Dr. Reskin's overall argument is simply not reliable or viable. The problems with Dr. Reskin's claims constitute holes in her argument, each of which is sufficiently large that anyone of these holes standing alone renders her argument unsustainable and wholly without scientific reliability.

Part II of my report provides a detailed examination of the reliability of the components of Dr. Reskin's argument. Specifically, I examine Dr. Reskin's claim that there are gender disparities at Allstate, as well her assertion with respect to the existence of a paternalistic organizational culture at Allstate; that its practices and policies are uniform; the presence and importance of gender stereotyping and ingroup bias at Allstate and generally as a cause of gender disparities; the importance of individuating information generally and at Allstate in managerial decisions; and, the importance of subjectivity and discretion in managerial

decision making. In my opinion, there are serious issues of reliability in how Dr. Reskin moves from evidence to the assertion of each of these claims.

My Appendix to this report provides a more lengthy discussion of the methodological problems involved in Dr. Reskin's use of the scientific literature on stereotyping and her claims about the existence of stereotyping and ingroup bias at Allstate. I show that in both cases there are serious problems with the reliability with which Dr. Reskin moves from evidence to claims.

QUALIFICATIONS

I am currently the Diker-Tishman Professor of Sociology at Harvard University. I am also a member of the faculty in Harvard's Kennedy School of Government and in Harvard Business School's joint Ph.D. program in Organizational Behavior. I am a Faculty Associate in the Institute for Quantitative Social Science and in the Hauser Center for the Study of Nonprofits at Harvard. From July 1998 to June 2001, I was the Chair of the Department of Sociology at Harvard. I teach graduate courses in social science and statistical methods and undergraduate courses on American poverty, urban sociology, and statistics and public policy. My research specialties include quantitative methodology, poverty and social inequality, and social demography.

I received my Ph.D. in Sociology from Harvard University in 1977. I have a B.A. in Sociology and Mathematics from Dartmouth College. Before coming to Harvard in 1992, I was Chair of the Department of Sociology, and Professor of Sociology, Statistics, and Economics at Northwestern University. I was also a Research Associate in the Center for Urban Affairs at Northwestern University and in the Economics Research Center at the University of Chicago from 1981 to 1993. Among my former positions, I have been Director of the Program in Mathematical Methods in the Social Sciences at Northwestern University and Acting Director of the Economics Research Center at the University of Chicago. I also have had postdoctoral fellowships at the National Opinion Research Center at the University of Chicago and at the Institute for Research on Poverty at the University of Wisconsin.

I am a past chair of the Methodology Section of the American Sociological

Association from 1995 to 1998. In 2006 I received the American Sociology Association Methodology Section's Paul F. Lazarsfeld Award for distinguished contributions to the field of sociological methodology. I am the editor of *Sociological Methodology and Research*. I am an Associate Editor for *Mathematical Sociology* and *Society*. In the past I have been on the editorial boards of the *American Journal of Sociology* (1981 to 1983), the *American Sociological Review* (1992 to 1994), *The American Sociologist* (1995 to 1998), and *Sociological Methodology* (1989 to 1992). I have reviewed numerous articles for a variety of journals in sociology, economics, and statistics.

A copy of my curriculum vitae is attached to this report as Exhibit **A**. It includes a list of all publications I have authored. In the past-four years, I have testified by deposition as an expert witness in the following cases: *EEOC v. Morgan Stanley*, *Robert Wright et al. v. The City of New York Department of Parks and Recreation Department,DAG Petroleum Suppliers, L.L.C. v. BP p.l.c. and BP North America Inc.*, *Shelley Hnot et al. vs. Willis Group Holdings LTD.* For expert witness work, I currently charge an hourly fee of $700. A list of documents relating to this lawsuit that I considered relevant to my opinions is attached as Exhibit B. A bibliography of social science literature relevant to my opinions is attached as Exhibit C.

PART I

A. OVERVIEW

The purpose of Part I of my report is to make clear the deep and fatal flaws in Dr. Reskin's argument. I start by discussing six principles of scientific methodology, all of which are violated in Dr. Reskin's report. I then list the six core claims that Dr. Reskin makes both with respect to what is true at Allstate and what is supported by scientific literature. Following this, I first examine the logical dependence between Dr. Reskin's assertion that gender disparities in career outcomes exist at Allstate and each of the claims, as well as the logical interrelationship between the claims themselves. Second, with respect to each claim, I evaluate whether Dr. Reskin has reliably moved from evidence to each claim, and has done so in a way that is consistent with scientific methodology.

With one qualified exception, there are signifcant and fundamental flaws with how Dr. Reskin has attempted to support each of her claims. In the next section, I examine the overall viability of Dr. Reskin's argument. I show the components are unreliable. As such, the overall argument is totally unreliable. I conclude by discussing Dr. Reskin's own deposition testimony where she readily admits that her report cannot be considered a scientific document.

B. PRINCIPLES OF SCIENTIFIC METHODOLOGY

My understanding is that the United States courts require expert testimony to meet the same high standards of reliability as those required of published scientific research. For research to be scientifically reliable, it must be based on empirical data and be objective. Put in other words, "Science Demands (empirical) Evidence" and "Scientists Try to Identify and Avoid Bias" (American Association for the Advancement of Science, 1991). In being reliable, it must be the case that other researchers using the same procedures would be likely to reach the same findings and conclusions. Good scientific methodology requires:

1. Claims must be supported by scientific evidence in either the form of previous research and/or empirical findings. Otherwise they are no more than conjectures and speculation. In addition, it is the obiligation of the scientist to test the strength of support that the data provide for the claim(King et al. 1994).

2. Scientists must use methods and describe those methods in reporting their research in such a way that it would be possible for another researcher to replicate their findings. If there is no method, then it is not possible to replicate the scientist's findings, and the scientist's conclusion is not objective (King et al. 1994, Popper 1959).

3. Scientists actively attempt to search for evidence to discredit their claim. As such, they must examine and report on all relevant evidence, both evidence which is consistent and particularly evidence which potentially contradicts the claim (Popper 1999). Selective use of evidence renders any procedure biased and unreliable as other researchers are likely to reach different conclusions by the selective use of different evidence.

4. In order to minimize bias, scientists, in presenting evidence in support of a claim, need to indicate why and in what ways the evidence supports a claim and any qualifications to that support. This enables

others to examine whether the scientist's evidence, in fact, reliably supports the claim (King et al. 1994).

5. Scientists are required to consider all plausible alternative explanations for their empirical findings and to demonstrate that they can be ruled out (Popper 1999).

6. Scientists are required to consider the possible biases in the data or literature that they examine, and assess whether such biases render suspect any conclusions the scientist seeks to draw from the data or literature (Popper 1959).

At various and multiple points, Dr. Reskin's report fails with respect to all six of these points. As discussed below, and in Part II of this Report, Dr. Reskin provides no scientific evidence in support of her claims about: (1) paternalistic organizational cultures generally or at Allstate in particular; or (2) the presence of stereotyping and ingroup favoritism at Allstate. She fails to consider strong contradictory evidence with respect to her claims: (1) that Allstate has uniform policies and practices; (2) that managers lack individuating information in making decisions; (3) that there is excessive subjectivity and discretion in decision making at Allstate; (4) that subjectivity and discretion lead to bias; and (5) that there are in fact gender disparities in career outcomes at Allstate. Finally, Dr. Reskin is highly selective in her presentation of the scientific literature on stereotyping and ingroup bias.

Because Dr. Reskin's report fails in these multiple ways, it must be understood as wholly unreliable and as inconsistent with scientific methodology. Also, I note that while Dr. Reskin describes at least some of her analysis as a "social-framework analysis" in her report (¶ 1.7), this is apparently a legal term taken from a book authored by two law profesors. "Social-framework analysis" is not a scientific method.

C. Dr. RESKIN'S CORE CLAIMS

Dr. Reskin's single opinion is summarized in her report as follows:

"Based on the materials available to me at this time, it is my opinion that Allstate's paternalistic culture and the discretion it requires and permits decision makers have contributed to the systematic disadvantage of female managers at AP, including their lower compensation, bonuses and stock options and their under-representation in top-level managerial jobs." (¶ 2.5)

Based on the work and conclusions of plaintiff's other expert, Dr. Janice Madden, Dr. Reskin has purported to observe the presence of systemic gender disparities in certain personnel decisions at Allstate. In this opinion, Dr. Reskin refers to this outcome as "the systematic disadvantage of female managers" (¶ 2.5), and in another paragraph, Dr. Reskin refers to this outcome as "[g]ender disparities in career opportunities" between female and male managers at Allstate at or above salary grade 63. (¶ 2.2)

Dr. Reskin then offers a causal explanation for the gender disparities she claims exist. Her causal explanation is premised on six conditions which she asserts exist at Allstate:

- **Company Wide Paternalistic Culture**: Dr. Reskin claims that Allstate "has a uniform culture of paternalism across the company." (¶ 2.1)

- **Unconscious Processes and Implicit Associations**: Dr. Reskin claims "[c]ognitive science now recognizes that our preconscious 'implicit associations' between group membership and traits, .. can affect our decisions without our knowledge." (¶ 4.4) In other words, Dr. Reskin posits that unconscious mental processes affect how individuals behave.

- **Gender Stereotyping and Ingroup Favoritism**: Dr. Reskin posits that, absent checks by Allstate, on a systemic basis Allstate managers will engage in "ingroup favoritism and sex stereotyping" causing systematic gender disparities in personnel decisions. (¶ 2.3)[2]

- **Lack of Sufficient Individuating Information**: Dr. Reskin notes that "relevant 'individuating information'" makes it less likely a person

[2] As another example, Dr. Reskin states in her deposition that she "assume[s] in the aggregate, managers [at Allstate] hold stereotypes…." (p 272-273)

will engage in (descriptive) stereotyping. (¶ 4.7) Thus, a condition at Allstate on which Dr. Reskin's causation theory is premised is that Allstate managers on the whole engage in descriptive gender stereotyping because they have insufficient individuating information about the employees for whom they are making personnel decisions.

- **Uniform Practices and Policies**: Dr. Reskin claims Allstate's "policies and practices with respect to assessing, compensating, developing, transferring, and promoting personnel in salary grades 63 and above are uniform nationwide." (¶ 2.1)

- **Subjectivity and Discretion in Decision Making**: Dr. Reskin states that "subjective and discretionary decisions allow irrelevant characteristics such as employees' gender to bias their superiors' decisions," and she claims that certain Allstate personnel practices "require" managers "to use discretion and make subjective judgments" in assessing their subordinates. (¶ 2.3)

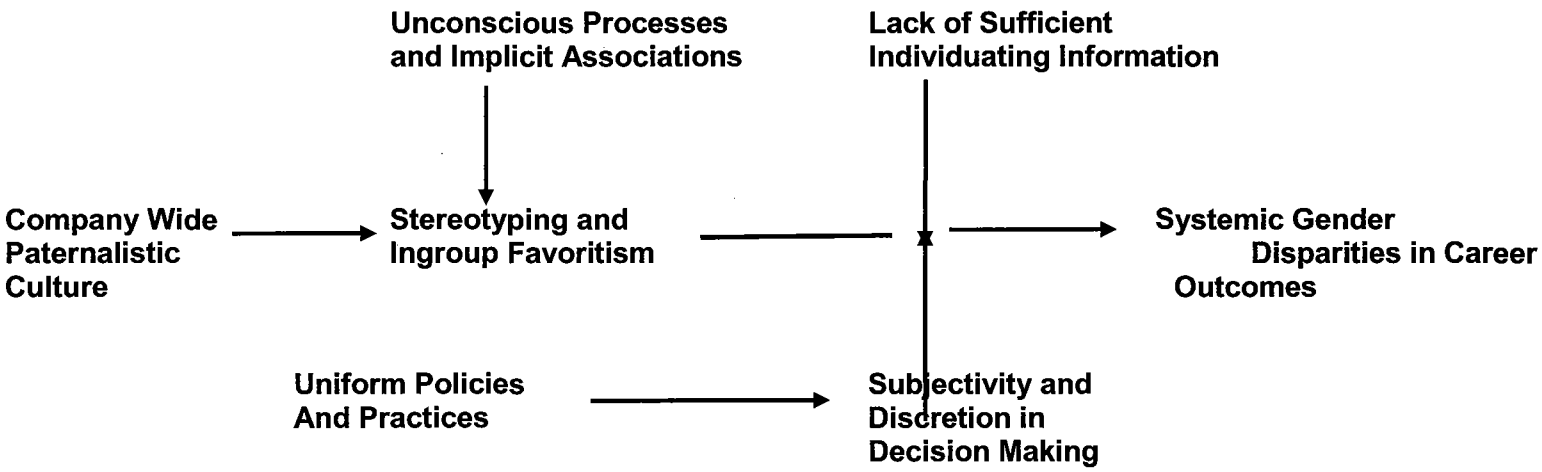
D. CAUSAL CONNECTIONS BETWEEN DR. RESKIN'S SIX CONDITIONS AND THE PURPORTED PRESENC E OF GENDER DISPARITIES IN PERSONNEL DECISIONS AT ALLSTATE

The six conditions Dr. Reskin asserts exist at Allstate are related to each other through a set of causal relations. It is these six conditions and the causal relationships between them that Dr. Reskin asserts which purportedly explains the asserted presence of systemic gender disparities across numerous outcomes at Allstate.

Below I have represented the relationship between her six different conditions and gender disparities at Allstate in terms of a causal diagram.

FIGURE 1

CAUSAL CONNECTIONS BETWEEN DR. RESKIN'S SIX CLAIMS



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Several comments are in order about this causal diagram. Note that there are two basic paths of causality that lead to purported gender disparities at Allstate.

First, there is a path from **Company Wide Paternalistic Culture** to **Stereotyping and Ingroup Favoritism** to **Systemic Gender Disparities**. Thus, Dr. Reskin claims it is a uniformly paternalistic culture at Allstate that leads to stereotyping and ingroup favoritism on a systematic basis by Allstate managers which then results in gender disparities in Allstate personnel decisions.

Second, there is a path going from **Unconscious Processes and Implicit Associations** through **Stereotyping and Ingroup Favoritism** to **Systemic Gender Disparities**. Dr. Reskin asserts unconscious processes and implicit associations generally held by Allstate managers lead to stereotyping and ingroup favoritism by the Allstate managers which results in gender disparities.

Thus, according to Dr. Reskin's argument, the initial causes of gender disparities at Allstate (referred to in the diagram as **Systemic Gender Disparities in Career Outcomes**) are either (1) a culture of paternalism (referred to in the diagram as **Company Wide Paternalistic Culture**) or (2) psychological processes involving unconscious processes (referred to in the diagram as **Unconscious Processes and Implicit Associations**).

According to Dr. Reskin's argument, either of these two variables, **Company Wide Paternalistic Culture** and/or **Unconscious Categories and Implicit Beliefs**, are the causes of **Stereotyping and Ingroup Favoritism**, which, in turn, may cause **Systemic Gender Disparities in Career Outcomes**. The fact that paternalism is assumed to be company wide and that unconscious categories and implicit associations are assumed to be a basic property of human cognition are presumably part of the justification for Dr. Reskin's claim that gender disparities at Allstate are systemic. Although neither the literature nor Dr. Reskin are precise on this point, paternalism is presumably important for what is known as prescriptive stereotyping. Unconscious categories and associations for what are know are descriptive stereotypes. I discuss this distinction below.

Now, consider in this diagram that the arrow going from **Stereotyping and**

Ingroup Favoritism to **Systemic Gender Disparities in Career Outcomes** contains a gap. This gap indicates that stereotyping and ingroup favoritism may not necessarily result in systemic gender disparities. According to Dr. Reskin's argument, either one of two conditions must occur for this causal relationship to be in effect. Either (1) there must be a lack of sufficient individuating information or (2) there must be subjectivity and discretion in (management) decision making.

In my diagram, the arrows from Lack of Sufficient Individuating Information and from Subjectivity and Discretion in Decision Making point into the gap and there is then an arrow from the gap to **Systemic** Gender Disparities **In Career Outcomes**. These arrows are intended to depict Dr. Reskin's claim that one or both of these conditions, that is, **Lack of Sufficient Individuating Information** and/or **Subjectivity and Discretion in Decision Making**, need to be present in order for the causal relationship between Stereotyping and **Ingroup Favoritism** and **Systemic** Gender Disparities **in Career Outcomes** to be present. Put in other words, for stereotyping and ingroup favoritism to result in systemic gender disparities, either there must be a lack of sufficient individuating information and/or subjectivity and discretion in decision making.

Finally, **Uniform Policies and Practices** are posited to be the initial cause of **Subjectivity and Discretion in Management Decision Making**. Presumably, this is the other logical basis for the claim that gender disparities are systemic.

Obviously, this is a complicated model.

E. EVALUATING THE SCIENTIFIC RELIABILITY OF DR. RESKIN'S OVERALL AUSATION OPTION AND THE SIX CONDITIONS ON WHICH IT IS PREMISED

The reliability of Dr. Reskin's overall causation argument rests on the reliability of its component parts. As stated in the "Scientific Methodology" section of my report, for a claim to be scientifically reliable it must be based on sufficient evidence (otherwise it is simply conjecture and speculation, or in the case where it is contradicted by the evidence, a false statment). Put in other words, the question is whether in making her argument has Dr. Reskin reliably gone from established evidence to the claims she makes or rather has she unjustifiably gone from dubious evidence to an unfounded conclusion.

The table below summarizes the evidentiary basis and Dr. Reskin's application of the evidence, both in terms of data available on Allstate and the existing social science literature, for each of Dr. Reskin's six core conditions and for the outcome she posits exists at Allstate -- systemic gender disparities. As the table reflects, the methodological deficiencies with Dr. Reskin's claims fall into multiple categories, as there are multiple ways that a claim can be unreliably arrived at:

- **No Scientific Evidence**: In several cases, there is simply no scientific evidence to serve as a basis for Dr. Reskin's claim. In these cases, there is not even a method to evaluate. Dr. Reskin's claim is no more than conjecture and speculation. In other words, its validity is unknown and undetermined. I have classified Dr. Reskin's "social science" claims about paternalism as falling with this category. Dr. Reskin's report suggests there is a "social science" literature on paternalism. (¶¶ 3.1, 3.1a,3.1b) There simply is no scientific literature concerned with gender disparities that examines the importance of paternalistic organizational cultures that either Dr. Reskin cites to or that I could find. In a literal sense, "there is no there there." Likewise, this is the case with Dr. Reskin's claims with respect to the existence of a company wide culture of paternalism at Allstate, as well as with respect to her claim of systematic stereotyping and ingroup favoritism by Allstate managers. Neither Dr. Reskin nor anyone else has conducted any study -- let alone a scientific study -- of Allstate's culture or the proclivity of Allstate managers to stereotype. Her claims are pure conjecture.

- **Contradicted By Scientific Evidence**: It is very troubling as a methodologist to see a researcher move unreliably from evidence to a claim by simply ignoring the fact that evidence contradicts the claim. When evidence contradicts a claim, the only reliable conclusion is that the claim is false. In the case of the multiple claims by Dr. Reskin, the evidence, either or both data on Allstate and the scientific literature, contradicts her claim. This is the case with the following conditions which underlie her causation opinion: (i) that employment policies and practices are uniform at Allstate; (ii) that there is insufficient individuating information at Allstate to block the effects of stereotyping; (iii) that decision making at Allstate is fully subjective and involves complete discretion; and (iv) that the social science literature supports the claim that subjectivity in decision making leads to gender disparities. Most importantly, this is also the case with regard to the outcome Dr. Reskin claims exists at Allstate -- systemic gender disparities in career outcomes. In fact, the data on Allstate career outcomes contradicts Dr. Reskin's claims. The scientific literature also increasingly indicates that gender disparities do not exist across a number of dimensions for organizations generally.

- **Selective Use Of Evidence**: Another possibility is that a researcher has been selective in his or her use of the evidence, either the literature or Allstate. If so, then the way that the researcher has arrived at a claim is unreliable in that other researchers might well base their claim on different evidence and potentially arrive at a different conclusion. As described below, Dr. Reskin's reliance on the literature on stereotyping and ingroup favoritism is selective.

- **No (Direct) Evidence By Definition**: By definition, there is no direct evidence of the use of unconscious categories and implicit associations by Allstate managers. Given that what is claimed here is unconscious, it is difficult to see how there ever could be direct evidence. Given this impossibility, this means that Dr. Reskin's claims about the importance of unconscious categories and implicit associations for gender disparities at Allstate are not testable.

- **Unreliable Use**: A peculiar case that I have labeled "unreliable use" is Dr. Reskin's discussion and use of the psychological literature on individuating information. Dr. Reskin correctly discusses how the presence of sufficient individuating information may blunt or even eliminate the effects of stereotyping. Given her causation opinion, she has assumed Allstate managers as a whole have insufficient individuating information about the employees they evaluate. In fact, however, Dr. Reskin makes no attempt to assess the extent of individuating information available to managers at Allstate, and evidence suggests Allstate managers have significantly more individuating information available to them than that which was found to be sufficient in the studies she cites.

- **Reliable Use**: A claim, either in terms of Allstate data or the scientific literature, could be labeled a "reliable use. In my judgment the only claim of Dr. Reskin's that meets this standard, subject to qualifications, is her use of the scientific literature to assert the existence in human cognitive process of unconscious processes and implicit associations.

Table 1
Scientific Status of Dr. Reskin's Claims with Respect to Evidence

	Company Wide Paternalistic Culture	**Unconscious Processes and Implicit Associations**	**Uniform Policies and Practices**	**Stereotyping and Ingroup Favoritisim**	**Lack of Individuating Information**	**Subjectivity And Discretion in Decision Making**	**Systemic Gender Disparities in Career Outcomes**
Allstate Data	No Scientific Evidence	No (Direct) Evidence By Definition	Contradicted By Evidence	No Scientific Evidence	Contradicted By Evidence	Contradicted By Evidence	Contradicted By Evidence
Scientific Literature	No Scientific Evidence	Reliable Application (Qualified)	[redacted]	Selective Use of Evidence	Unreliable Use	Contradicted By Evidence	Contradicted By Evidence

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F. VIABILITY OF DR. RESKIN'S CAUSATION OPINION

The above table indicates that there are multiple and serious problems with the reliability of the six core conditions underpinning Dr. Reskin's causation opinion, as well as with the outcome she posits -- the existence of gender disparities at Allstate. This raises the obvious question of the overall viability of her causation opinion. Given that the evidence shows that gender disparities did not even exist during the relevant time period, there is a fundamental question of whether it is worth even considering Dr. Reskin's causation theory at all. Putting that point aside for the moment, we can ask what the viability is of the other components of Dr. Reskin's causation opinion.

As discussed above, in Dr. Reskin's argument there are two causal pathways that result in purported gender disparities. The first causal pathway that Dr. Reskin posits starts with a claim of a **Company Wide Paternalistic Culture** which causes **Stereotyping And In Group Favoritism** by Allstate managers, which if unchecked by Allstate, leads to **Systemic Gender Disparities**. Given that there is no scientific literature examining the effects of paternalistic culture in organizations on gender disparities, that there is no evidence of a paternalistic culture at Allstate, that there is no evidence of the widespread presence of gender stereotypes, specifically prescriptive stereotypes, or in group favoritism at Allstate, this causal argument is without any scientific basis. To put it in colloquial terms, this argument does not even get off the ground before it crashes.

The other causal pathway that Dr. Reskin posits is from a claim of **Unconscious Processes And Implicit Associations** by Allstate managers which causes **Stereotyping And Ingroup Favoritism** and leads to **Systemic Gender Disparities**. This causal path only works if on a widespread basis there is a lack of individuating information available to Allstate managers about the employees they evaluate and/or if subjectivity and discretion in Allstate personnel practices do allow stereotypes and ingroup favoritism by Allstate managers to affect personnel decisions. Below, I note that it appears that there is considerable individuating information in managerial decision making at Allstate -- much more

than is available to subjects in the experiments which report this finding about individuating information. Furthermore, the social science literature suggests that subjectivity does not have the effects Dr. Reskin claims. Finally, there is not nearly the degree of discretion in managerial decision making that Dr. Reskin claims exists at Allstate. Thus, this argument, even if it appears to take off, quickly crashes. Even if I am wrong about the multiple problems with this argument, it should be noted that this causal pathway in Dr. Reskin's argument is about how unintentional processes result in gender disparities. Yet, as I understand it from Allstate lawyers, Ms. Puffer posits a case of intentional discrimination by Allstate, so the relevance of this causal pathway argument is unclear in any event.

In analyzing the scientific status of the different components of Dr. Reskin's argument, as well as the viability of her overall argument, my objective is to clarify the scientific status of each component of Dr. Reskin's argument, as well as the argument as a whole. Dr. Reskin is a highly regarded sociologist with a reputation for caring deeply about the scientific integrity of sociological research. She is certainly qualified to opine about the sociology of gender with respect to the workplace. (She, however, has no expertise that I am aware of in industrial psychology and, as such, is not qualified to opine about the design of organizational policies and practices.)

My only goal here is to clarify the scientific status of each component of Dr. Reskin's argument as well as the argument as a whole. As Dr. Reskin admits in her own deposition testimony, in many cases she did not or could not carry out scientific research on Allstate. Specifically Dr. Reskin makes the following statements about her work in this case:

- With regard to whether her opinion is the product of a scientific method, Dr. Reskin stated that her expert report "is not a scientific research product." (p 383) Dr. Reskin stated that role "is not that I'm doing or could do what I would see as a scientific analysis of Allstate. My role is to use my scientific expertise and to draw on social science knowledge to try …to understand what might be going on. I'm not drawing a scientific conclusion. I can't do that in this case." (p 77-78) Also, Dr. Reskin expressed her view that "the

scientific method is essentially precluded in a litigation context." (p 75-76)

- With regard to whether she would subject her opinion in this case to scrutiny by peer review, Dr. Reskin stated that she would not hold her causation opinion expressed in Paragraph 2.5 of her expert report up in front of colleagues and say "this is good science." (p 84-85) Dr. Reskin stated that she "would not dream of trying to publish Exhibits 2 or 3 or opinions in those reports in an article." Exhibits 2 and 3 are Dr. Reskin's original expert report and her revised expert report. (Reskin 80, 81) Dr. Reskin stated that she "would not publish" her causation opinion in Paragraph 2.5 of her report in a refereed journal. She explained that her causation opinion would not be accepted. (p 84-85) Also, Dr. Reskin stated that a year from now "I might well have that opinion or I might not." (p 85)

- With regard to data, Dr. Reskin stated, "I have an opinion about what I think is going on here, and I've made it clear that's what this opinion is. I don't have the data that I would want." (p 84-85) Dr. Reskin explained, referring to data she wanted or needed: "I got some things and some things I didn't get that I wanted." (p 97) Dr. Reskin also noted that there was an analysis she might have performed but she was told she "could not have the data" because another expert would be doing the analysis. (p 55-56)

Given the overall and specific problems with Dr. Reskin's argument and Dr. Reskin's own admissions, one must conclude that Dr. Reskin has failed to use sound scientific methodology in reaching the causation opinion in her report. As acknowledged by Dr. Reskin herself, her report does not meet the standards of relibability expected of published scientific research.

PART II

DETAILED ANALYSIS OF DR. RESKIN'S CORE CLAIMS

A. INTRODUCTION

As noted above, Dr. Reskin's report contains a claim about an alleged condition at Allstate (namely, that gender disparities in career outcomes exist at Allstate), and an opinion about the cause for this purported condition (¶¶ 2.2, 2.3, 2.4, 2.5). Dr. Reskin's causation opinion is premised upon six principle claims, which I summarized in Part I of this report. Here, I examine each of Dr. Reskin's core claims in detail. In each case, my goal is to determine whether Dr. Reskin has used reliable methodologies in going from evidence to the assertion of a claim. As I show below, Dr. Reskin's methodology is unreliable throughout. In some cases she makes claims based on selective evidence, in some she makes claims without any evidence, and in many cases she asserts claims despite the fact that the evidence actually contradicts the claim. These represent different ways in which she has unreliably moved from evidence to asserting a claim.

Dr. Reskin's argument can be thought of as containing two parts – an exterior, containing three premises and a conclusion, and an interior which links the premises and the conclusion consisting of three additional logically linked claims. The simplest parts of Dr. Reskin's argument are its exterior components. If the exterior part of an argument, that is, its premises and conclusion, are faulty, then the argument itself is without basis. For both reasons, I start by considering the exterior of Dr. Reskin's argument, specifically, its conclusion – that there are gender disparities in the career opportunities at Allstate and its three premises: (1) that Allstate has a nationwide paternalistic culture; (2) that its policies and practices are uniform; and (3) the cognitive processes of all human beings involve unconscious processes and implicit associations. I then discuss the interior components: (4) the purported effects of stereotyping and ingroup bias on gender disparities; (5) the potential importance of individuating information to check their effects; (6) the potential effects of subjectivity, discretion, and

accountability on stereotyping on ingroup bias.

B. DR. RESKIN'S EXTERIOR CLAIMS

DR. RESKIN'S CONCLUSION: SYSTEMATIC GENDER DISPARITIES IN CAREER OUTCOMES

Dr. Reskin's Claim: Female managers at Allstate in salary grades 63 and above have been "systematic[ally] disadvantaged" during the class period in that there are "[g]ender disparities in career opportunities and rewards." (¶¶ 2.2, 2.5)

Allstate Data: Dr. Reskin's gender disparity conclusion is decisively contradicted by the Allstate data. (Contradicted By Evidence)

Social Science Literature: Dr. Reskin's gender disparity conclusion is contradicted by social science literature. (Contradicted by Evidence)

Allstate Data. The purpose of Dr. Reskin's report is to explain gender disparities in career outcomes. Dr. Reskin did not perform any statistical analysis of Allstate data. She relies completely for her conclusion of gender disparities at Allstate on the work of plaintiff's statistician, Dr. Madden with the EConsult firm. (¶ 2.2t[1]).

To understand the available statistical analysis of Allstate data, I have reviewed Dr. Madden's expert report, Dr. Madden's deposition, additional analyses from Dr. Madden's firm not included in Dr. Madden's report provided to Dr. Reskin, Dr. Reskin's deposition, as well as the expert report of Allstate's statistical expert, Dr. Topel. Also, I was informed by Allstate's lawyers about the

[1] Dr. Reskin was asked at her deposition if there are "quantitative methods available to a sociologist for determining whether an organization's personnel systems are vulnerable to genderbias," and she responded, "I assume that a sociologist would compare males and females on a whole set of access to rewards and opportunities." Dr. Reskin was then asked "have you compared males and females on a whole set of rewards and opportunities in this case?" She responded, "No. I was told that I could not have the data, that Madden and --that Econsult would do that analysis. I could not have the data. Econsult did those analyses." (p 55-56) At her deposition, Dr. Reskin explained that in addition to Dr. Madden's report, for quantitative analysis of Allstate data she is also relying on some additional analyses of Allstate data not in Dr. Madden's report that Dr. Reskin asked for the E-consult firm to provide to her -- sex segregation indices and a table with job shift data. (p 56-58) I have reviewed Dr. Madden's expert report, as well as the additional analyses Dr. Madden's firm provided to Dr. Reskin. Additionally, Dr. Reskin performed some t-tests of the data provided to her which I have reviewed.

import of the Supreme Court's decision in *Ledbetter v. Goodyear Tire & Rubber Co.*, 127 S.Ct. 2162 (2007) and the Seventh Circuit Court of Appeals' decision in *Dasgupta v. University of Wisconsin Board of Regents*, 121 F.3d 1138 (1997). As I indicated in the "Qualifications" section of my report, my areas of specialty include quantitative methodology and I teach graduate courses in statistics.

Dr. Reskin's claim that there are gender disparities in career outcomes can be evaluated in two distinct, but complementary ways. One way is to assess whether there is a gender disparity in current compensation between men and women who started at Allstate with the same or similar salaries and in the same or similar jobs, or more relevant in the current case, who had the same salary and were in the same or similar jobs at the beginning of the class period. This approach provides an overall, global assessment of Dr. Reskin's argument. It is a particularly powerful way of assessing her claim, since if there are differences in the jobs men and women move into, one can ascertain whether these differences have resulted in differences in current compensation.

An additional advantage of assessing Dr. Reskin's argument globally is that it provides a way of determining the possible importance of factors that have not been -- or cannot be -- explicitly measured. Dr. Reskin argues that succession planning, the Chairman's Talent Review, and career development efforts more generally lead to gender disparities in career outcomes. Dr. Reskin provides no quantitative data in support of these claims. There may well be no such data. If her claims are valid, however, we should see gender disparities in current compensation even after taking account of gender differences in positions and salaries at the beginning of the career period. This is a global and the ultimate test of Dr. Reskin's argument. As I discuss below, Dr. Topel's analysis finds that there is no gender disparity in current compensation at Allstate once he has taken into account the initial position and salaries of individuals at the beginning of the class period.

The second way that Dr. Reskin's claim about gender disparities in career outcomes can be evaluated is by examining whether there are gender disparities in each component part. Specifically, one can examine whether there are gender

disparities in performance appraisal, salary increases, and/or promotions. Gender differences with respect to these dimensions would be clear evidence of potential gender differences in career opportunities. One could also examine gender differences in lateral job changes. Without additional evidence, however, there would be no reason to immediately believe that such differences if they existed were indicative of women being disadvantaged.

Below I first discuss the analysis that Dr. Topel reports that provides an overall, global test of Dr. Reskin's claim. As indicated above, Dr. Topel finds no gender disparity. I then discuss Dr. Topel's analysis with respect to the component parts of a career: performance evaluation, salary increases, promotions and other job shifts.

As a global test, Dr. Topel examined cumulative wage growth conditional on a person's initial job position and salary. Dr. Topel found that as far back as the end of 1997 the "[g]rowth rates of salaries and overall compensation of Allstate P&C managers has not favored men relative to women." (p 5) In addition, he finds that "[d]iscretionary awards of stock options have not disadvantaged women." (p 5). As Dr. Reskin indicated at her deposition, these findings are not disputed by Dr. Madden.[2]

These findings totally discredit Dr. Reskin's claim as to why there are gender differences in current compensation at Allstate. Rather, what Dr. Topel's analysis shows is that any current differences in compensation are a function of events affecting men and women at some time prior to 1998. Why these pre-existing differences occurred is both unknown and undiscussed by Dr. Reskin, Dr. Topel, or Dr. Madden. Dr. Topel does examine whether women hired during the class period are disadvantaged relative to men hired at the same time. He finds "[c]ompensation of new hires during the liability period has not

[2] Dr. Reskin was asked at her deposition if she was aware that Dr. Madden "had not rendered an opinion that females in the putative class received smaller rates of merit increase as compared to comparable males at Allstate," and she responded, "I believe that I recollect that without stopping to look back, that's consistent with my recollection." (p 233) Dr. Reskin was asked "[y]ou are aware, are you not, that Dr. Madden has not rendered an opinion that females in the putative class received smaller awards of stock options than comparable males at Allstate; isn't that true?" Dr. Reskin responded, "I can't recall specifically, but it's my impression that she did not address that issue." (p 233-34)

disadvantaged women – women and men hired into similar positions are paid similarly." (p 5)

As noted earlier, Dr. Reskin's argument can also be evaluated by assessing whether there are gender differences in the component parts of the career process: performance appraisal, salary increases, promotions, and job shifts. Below, I summarize the results of Dr. Topel's analyses:

- **Performance Evaluations**. Dr. Topel finds that "[p]erformance evaluation scores of Allstate P&C managers have not disadvantaged women – there is no evidence that women received lower average performance scores than men." (p 5) Neither Dr. Reskin nor Dr. Madden analyzed performance evaluation scores of male and female Allstate managers.[3]

- **Salary Increases**. Dr. Topel finds that growth rates of salaries do not favor men. This is true for every year in the class period, and at least as far back as 1998. (p 4)

- **Promotion**. Dr. Topel finds "[p]romotion rates of Allstate P&C managers have not disadvantaged women – there is no evidence that women were promoted less frequently than men." (p 5) Neither Dr. Madden, nor Dr. Reskin did any study of promotion rates.[4]

These more focused analyses of Dr. Topel also provide additional evidence that there are no gender disparities at Allstate. They also provide evidence against Dr. Reskin's claim that stereotyping and ingroup favoritism disadvantaged women at Allstate. If these stereotyping and in-group favoritism processes are as powerful and ubiquitous as Dr. Reskin claims, why is it that Dr. Topel finds no gender differences at Allstate with respect to performance appraisal, salary increases, and promotions? Dr. Topel's findings are strong evidence against Dr. Reskin's claim that stereotyping and ingroup favoritism

[3] Dr. Reskin stated at her deposition that she was not aware of any evidence that the performance evaluation ratings (referred to as PDS ratings) "that result from the performance evaluation process at Allstate" favor men over women. (p 370) And, while Dr. Reskin's report takes issue with Allstate's use of "critical success factors" ("CSFs") in connection with performance evaluations, Dr. Reskin stated at her deposition that she did not have access to any Allstate data relating to the CSF scores of Allstate managers, and that she "can't say there's any difference in the numerical ratings" of male and female managers. (p 236-37, 240)

[4] Dr. Madden confirmed at her deposition that she did not conduct any such analysis. (p 11-12) Dr. Reskin stated at her deposition "I know of no statistical evidence, that's true, that women were disadvantaged with respect to promotion. (p 239)

disadvantage women at Allstate.

In her report Dr. Reskin makes much of the fact that on average men are more likely to change jobs than women. She also claims that when women do change jobs that they are more likely to move to jobs that are disproportionately female and thus supposedly lower paying (¶ 5.11). If Dr. Reskin's "job shift" analysis were to have real relevance with regard to career opportunities, one would want to find that the more job code changes an Allstate manager undertakes, he or she is more likely to be promoted or paid more. But there is no such evidence. In fact, Dr. Topel finds if anything, women experienced "slightly larger pay increases than did men" as a result of job changes (p 5-6).

At her deposition, Dr. Reskin acknowledged that she "didn't do any study to determine if the more job code changes that occurred, the more likely it was for the employee to be promoted." (p 309) Dr. Reskin acknowledged that she cannot say empirically that "any difference in number of job code changes between men and women disadvantaged women in terms of promotions." (p 309) She stated she cannot "render an opinion that the number of job code changes that someone had better positioned that person for a promotion." (p 310)

Dr. Reskin's argument about job-shifts can also be evaluated by asking what are the more general implications of her argument. If men's job transfers advantage them relative to women in terms of career opportunities and women are more likely when they transfer to go to jobs that are a higher percent female and lower paying, then over time the difference in compensation between men and women should diverge. As already discussed, Dr. Topel finds no such divergence in compensation by gender. This is strong evidence against Dr. Reskin's claims that gender differences in job changes lead to gender disparities in career outcomes.

Social Science Literature. Dr. Topel's findings with regard to Allstate are quite consistent with recent social science research. A number of studies have shown that after controlling for human capital variables, firm and job category, race and gender effects, both for wages and promotion, are eliminated or nearly

so (Tomaskovic-Devey 1993, Petersen and Morgan 1995, Barnett et al. 2000, Petersen et al. 2000, Petersen and Saporta, 2004). This is literature that Dr. Reskin cites to in her report, but she fails to consider its obvious implications. (¶ 5.10a n.79, n.80) An underlying premise of Dr. Reskin's argument is that stereotyping and ingroup bias by managers manifesting in discrimination in pay and promotion practices is widespread at workplaces because of the proclivity of people to engage in such behaviors. If this were so, we would expect to see evidence of gender disparities in pay and promotion of employees at workplaces on a regular basis when social scientists examine such data. However, as in the case of Allstate, the statistical studies of personnel decisions at workplaces reported in the scienetific literature is evidence that stereotyping and ingroup bias are not widespread among managers at workplaces in terms of "interior" policies and practices, i.e., wage and promotion practices.

Most persuasive because it contains a large sample of firms from four different cities is the work of Hertz, Tilly and Massagli (2001) which analyzed pairs of individuals holding the same job in 317 different firms. They found that after controlling for human capital variables (education, experience, etc.) and the firm each pair of individuals worked in, there were no significant race or gender effects.

In a similarly large sample of firms, Tomaskovic-Devey's (1993) examines the importance of discrimination with jobs on gender and racial inequality. His study is based on a random sample of 795 employees in North Carolina. In Table 6.2 he reports a regression analysis of the effects of firm and job characteristics, human capital, and gender and race on hourly earnings. In his overall model, he finds that neither gender nor race have a significant effect on an individual's hourly wages after controlling for job characteristics and other individual characteristics.

As with Dr. Topel's finding on Allstate, the findings in the recent social science research are evidence against Dr. Reskin's claims that stereotyping and ingroup favoritism disadvantage women in the workplace. The findings in the literature are quite consistent with Dr. Topel's findings for Allstate.

DR. RESKIN'S FIRST PREMISE:
UNIFORM PATERNALISTIC CULTURE

Dr. Reskin's Claim: Allstate "has a uniform culture of paternalism across the company." (Reskin ¶ 2.1)

Social Science Literature: There is no social science literature relating to paternalistic organizational cultures. (No Scientific Evidence)

Allstate Data: There no scientific evidence for Dr. Reskin's claim of a uniform paternalistic culture at Allstate. (No Scientific Evidence)

Social Science Literature. In her discussion of paternalistic organizational culture, Dr. Reskin cites to a single academic reference, Mary Jackman's (1994) book, *The Velvet Glove.* The research in this book is based on 1975 national survey focused on individuals' attitudes about gender. There are two significant problems with the use of this book as the only science Dr. Reskin cites in her claim. First, the data reported in *The Velvet Glove* is 33 years old. Dr. Reskin fails to explain why this highly dated survey data should be considered relevant because there is substantial evidence that gender attitudes have changed considerably in recent decades. According to Brooks and Bolzendahl (2004, p 107-108), there is a consistent liberalizing trend in responses to eight gender role attitude items from the General Social Surveys.[5]

Second, Jackman's book is not about organizations. It is simply about the gender attitudes of individuals in 1975. Putting it starkly, Dr. Reskin cites to no scientific literature on paternalistic organizational cultures. As such, she offers no appropriate scientific literature in support of her claim.

In order to determine whether there was a literature relevant to Dr. Reskin's claim, I asked an advanced graduate student in organizational behavior

[5] Brooks and Bolzendahl (2004) report that: (1) In 1998, only 15% of the respondents agreed that men should run the country, compared with as many as 40% in 1977; (2) In 1998, as many as 85% of the respondents approved of married women working compared with only 67% in 1977; in 1936, only 18% of Americans approved of married women "earning money in business or industry;" (3) In 1998, as many as 94% of the respondents would support a qualified female candidate to become President, compared to only 79% in 1977; and (4) In 1998, only 23% of respondents believed that men were better than women compared with as many as 50% in 1977.

to examine as many textbooks on management and organizational behavior as he could find in the library at the Harvard Business School. He identified 18, which are listed in Exhibit Dto this report. All of these texts discuss issues of discrimination in organizations. None of them discuss paternalistic organizational cultures, much less do they claim or even suggest that such cultures lead to discrimination again women. [6]

Additionally, thet same graduate student went in search of books on organizational cultures and found 11 books. Those are listed in Exhibit E. There was only one passing reference to paternalism from Schein's (1992) book, *Organizational Culture and Leadership,* arguably the leading scholarly treatment of the book's subject. One of the multiple typologies of culture she uses is based on employee participation and involvement in organizations. In that context, she characterizes cultures as autocratic, paternalistic, consultative/democratic, participative and power sharing, delegative, and abdicative depending on what basic assumptions are shared in that organization about the nature of human relationships. Schein draws no links in that book between paternalistic cultures and sex discrimination.

The theme of paternalism is, however, common in the ideological feminist literature that focuses on theories of men's domination of women. A good example of feminist scholarship on paternalism is Hartmann's classic work "The Unhappy Marriage of Marxism and Feminism: Towards a More Progressive Union." Hartmann views the relationship between patriarchy and capitalism as the two main engines driving social structure and producing women's subjugation. Capitalism creates positions for workers at various levels, but gender and racial hierarchies determine who fills those spots. In Hartmann's view, jobs are segregated so that women cannot survive without men; thus, after they get married they are burdened with household chores that keep them subordinated to men.The development of the "family wage," for example, is the

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In addition to the articles reviewed there, see also Thornton et al. (1983), McHugh and Frieze (1997), McBroom (1987), Bolzendahl and Myers (2004) and Diekman and Eagly (2000).

[6] There is, however, a limited scientific literature on paternalism. For example, see Mead (1997) for a discussion of importance of paternalism in governmental poverty policy.

result of male mobilization to strengthen their position in the labor market. From the standpoint of capitalists, patriarchal social relations have the favorable effect of dividing the working class so that male workers are lured into participating in the system at the expense of female workers. Thus, job segregation by sex, by insuring that women have the lower-paid jobs, both assures women's economic dependence on men and reinforces notions ofappropriate sexual spheres. The arguments in Hartmann's paper mirror some of the arguments in Dr. Reskin's report. It is interesting and important to note that the ideological theories in the feminist literature on paternalistic organizational cultures are not even discussed in the mainstream organizational literature, much less have they been accepted as a consensus position.

In summary, as far as I have been able to determine, there is no empirical research in the standard organizational literature that documents a link between paternalistic organizational cultures and discrimination against women. If that literature existed, presumably Reskin would have cited it. Given this absence, one can conclude that the notion of a paternalistic organizational culture is not an accepted concept in the scientific literature on organizational culture. As such, there is no basis in the scientific literature for Dr. Reskin's assertions about the presence of a paternalistic culture at Allstate.

Allstate Data. Dr. Reskin provides no data to substantiate her claim that Allstate has a paternalistic organizational culture. Her analysis fails on three accounts. First, Dr. Reskin provides no procedure for determining whether Allstate has such a culture. Second, she fails to explain why the meager anecdotal testimony to which she she cites is evidence of paternalism. Third, she admits that she has not carried out the cultural audit that would be needed to determine whether Allstate had a paternalistic culture.

Measurement. To make a scientific claim that an individual or an organization posseses some attribute requires a precise definition of that attribute, and, just as importantly, specification of a measurement procedure or procedures that would allow one to reliably determine whether in fact the individual or organization in fact possesses that attribute. Nowhere in her report

does Dr. Reskin discuss how a researcher would reliably determine whether an organization has a paternalistic culture. As such, her claim that Allstate has a paternalistic culture cannot be regarded as scientific.

Dr. Reskin does point to attributes of Allstate's work conditions as evidence of a paternalistic culture. To quote: Allstate's "organizational culture is strongly paternalistic. Employees receive market pay, good benefits, job security, and –for some—advancement, lucrative bonuses, and stock options." (¶ 3.2) There are two problems with this claim. First, although a paternalistic culture might arguably produce the above employment conditions, these are attributes of Allstate's employment structure, not aspects of its culture. Furthermore, to argue that their existence is evidence of a paternalistic culture is to commit the logical fallacy of affirming the consequence. Other types of organizational cultures or structures might well produce the same set of employment conditions. For example, one might well imagine that in a highly competitive labor market were there is a shortage of good, skilled workers, a firm might offer attractive employment benefits such as those that Dr. Reskin describes at Allstate simply in order to successful compete for the best workers. Arguing that the overrepresentation of men in top management positions or the presence of any other structural feature of Allstate is evidence that it has a paternalistic culture is to again commit the same logical fallacy.

Unexplained Meager Evidence. Dr. Reskin offers one piece of evidence in an attempt to substantiate her claim that Allstate has a paternalistic culture: she quotes Allstate's President Thomas Wilson as saying "I hold all of our people accountable *to take care of our people.* Everybody's individual [sic] so *so you got to make sure you take care of them* and you promote them and you award them and develop them." [emphasis added by Reskin]. (¶ 3.2)

Good scientific methodology requires that one explain how and to what extent offered empirical evidence supports a particular claim. This is particularly important when the relationship between the claim and evidence is far from obvious. Why Mr. Wilson's statement would be considered evidence of paternalism is far from clear. Given the phrases that she has emphasized, Dr.

Reskin seems to believe that Mr. Wilson's statement about the need to take care of Allstate employees is evidence of paternalism. This could just as easily be evidence for Allstate having a maternalistic culture, or just that Allstate's culture, in part, consists of a norm that people should care about each other. Dr. Reskin's failure to explain why Mr. Wilson's statement supports her conjecture that Allstate has a paternalistic culture is inconsistent with good scientific methodology.

Culture Audit. Dr. Reskin's statement that Allstate "has a uniform culture of paternalism across the company" would seem to presume that she or other researchers had done a detail study of the cultural of Allstate. (¶ 2.1) In the organizational literature, this is sometimes referred to as doing a cultural audit of an organization (Fletcher 1989). In particular, given the claim here about the uniformity of Allstate's culture, one would suppose that Dr. Reskin or other researchers would have done separate studies of the different divisions and offices of Allstate to determine whether in fact there was cultural uniformity. As Dr. Reskin admits in her deposition testimony, however, she did not do a cultural audit of Allstate (p 150). Also, she acknowledges that she did not conduct any surveys of Allstate employes to ascertain the extent to which they agree or disagree with her assessment of Allstate's culture. (p 72-73, 149) Dr. Reskin does not reference any one else that has either conducted a cultural audit of Allstate or a survey of Allstate employees. Assuch, her claim that Allstate has a paternalistic culture has no scientific empirical basis.

Summary. Dr. Reskin's claim that Allstate has a uniform paternalistic culture is without any scientific foundation. As I have shown above, the notion of a paternalistic organizational culture is not even an accepted concept within the standard organizational literature. Furthermore, Dr. Reskin has failed to specify how one would go about measuring the characteristics of an organization in order to determine whether it had a paternalistic culture. In addition, the meager evidence she has presented fails to support her conjecture in any obvious way. Finally, neither she nor anyone else has done the type of cultural audit of Allstate that would be needed to determine whether it in general or its specific parts had

a paternalistic culture. Given all this, her claim that Allstate has a uniformly paternalistic culture is no more than pure speculation.

DR. RESKIN'S SECOND PREMISE: UNIFORMITY OF POLICIES AND PRACTICES

Dr. Reskin's Claim: Allstate's "policies and practices with respect to assessing, compensating, developing, transferring, and promoting personnel in salary grades 63 and above are uniform nationwide." (¶ 2.1) (Contradicted By Evidence)

Allstate Data: There are vast differences in both employment polices and practices across grades, particularly grades 63 and 64 as compared to higher grades, as well as large differences across Allstate's four divisions. (Contradicted By Evidence)

Allstate Data. Dr. Reskin's claim in her report of "uniform" policies and practices is perplexing in light of the statements she makes at her deposition acknowledging non-uniform aspects to these practices. While Dr. Reskin asserts in her report that certain of Allstate's personnel practices for salary grades 63 and above are "uniform nationwide," it is unclear what exactly it is she is purporting to have studied because she does not provide any definition.[7]

Dr. Reskin does not use any scientific method to study whether Allstate's particular practices were uniform or different and reach a conclusion. (¶ 2.1) For example, she did not undertake any case study of Allstate with interviews of its managers or in-depth review of personnel evaluation forms. Rather, it appears Dr. Reskin draws her uniformity claim from five depositions in this case.[8] But the "uniformity" conclusion she draws is unreliable in that other researchers reviewing the same materials would not be able to replicate her process and

[7] Take for example, this exchange at her deposition where Dr. Reskin is asked about whether there is a uniform practice with Allstate protection regarding succession planning. She responds, "There's uniform guidelines. There's uniform recommendations. There may not be uniform practice in how it's conducted within areas [of] responsibility. And indeed Mueller suggests ...exactly what you say, that there's variability." (p 255)

[8] These depositions are: (1) Thomas Wilson, Allstate's President, (2) Joan Crockett, Senior Vice President of Human Resources, addresses officer-level compensation and promotion questions, (3) Harriet Harty, from the HR compensation group, who addresses questions regarding compensation and broadbanding; (4) Mario Rizzo, addressing succession planning and promotion in the Finance division, and (5) Stacey Mueller, an HR official, addressing succession planning below the officer level.

results. This is demonstrated by Dr. Reskin's acknowlement at her deposition that she concluded from these depositions that there are non-uniform aspects to the practices she identified. Below, I point to Dr. Reskin's deposition testimony acknowledging non-uniform aspects to the practices she identified.

A review of those same depositions, declarations of female managers collected by Allstate, and sample PDSs of Allstate managers reveal that Dr. Reskin's uniformity conclusion is contradicted by the evidence. I have not attempted to undertake a comprehensive study of Allstate policies and procedures. Rather I highlight some of the differences in policies and practices to demonstrate that Dr. Reskin's conclusion is unreliable.

Relevant Background Regarding Allstate Property & Casualty. Dr. Reskin's uniformity claim focuses on personnel practices for managers in salary grades 63 and above. For context, there are six such salary grades: 63 (band D), 64 (band E), 77 (band F), 78 (band G), 80 (Assistant Vice Presidents) and 90/91 (Vice President/Senior Vice Presidents). (Topel p 7) According to Allstate's President Thomas Wilson, about 200 of these management jobs, are officer-level (those in grades 80 and above). (p 24-27, 81) Among these salary grades, at any point during the class period, about 80 percent of employees were concentrated in salary grades 63 and 64. (Topel p 7)

Managers in these pay grades work in four distinct departments within Allstate P&C as described in deposition testimony and Allstate declarations:

- **Claims**. Handles claims made by policyholders, and is the largest department with 17,000 employees. Claims has a large field organization with 16,000 employees in the field accepting, investigating, and resolving claims. The field is organized into regional Claim Service Areas led by a Claim Field Director (CFD) and Market Claim Offices within each CSA led by Market Claim Managers (MCMs). There is a Home Office claims operation where employees design and develop processes for the field and generally support the field. Also, supporting the field are fraud investigators, call centers, subrogation offices, and others.[9]

[9] Wilson p 19, Decl. 1 ¶¶ 4, 16, Decl. 3 ¶¶ 5, 6, 16, Decl. 6 ¶ 13, Decl. 8 ¶ 7, Decl. 14 ¶¶ 17, 43, Decl. 15 ¶ 16, Moore ¶ 5, Decl. 23 ¶ 6, Decl. 24 ¶ 20, Decl. 27 ¶ 2, 6, Decl. 29 ¶ 16

- **Distribution**. Responsible for promoting Allstate products which are sold through agents, and, thus, is primarily a sales organization. Jobs of Home Office employees include work drafting agent contracts, designing bonus and recognition programs, implementiong technology, designing agent education and training materials, and pricing. Field employees are divided into regions, each with a Field Vice President, responsible for attracting, supporting, retaining, and achieving sales through non-employee agents. There are about 2,000 field employees.[10]

- **Product Operations**: Determines policy prices, assesses risk, sets policy language, creates new products, and communicates with customers regarding their policies. Different groups within Product Operations include Pricing, Contract Strategy/Execution, Product Management & Design Risk Management, Research Analytics, and Talent Development Education & Communication. Many actuaries work in this department. Some employees work in the field, including a Risk Business Management Center in Ohio and fourteen Market Operating Committees which determine regional strategy.[11]

- **Finance**: Provides finance support to Allstate Protection with all employees in the Home Office. Different groups within the department include planning, strategy, capital and risk management, claims and field support. Jobs require strong analytical skills and many people with finance and accounting degrees work in this department. (Rizzo 14-43 & Exs 1-3, Decl. 22 ¶¶ 16, 19)

Compensation.

- **Different pay structure for officers and non-officers.** Although Dr. Reskin claimed in her report that Allstate has "uniform" compensation policies for managers in grade 63 and above, she acknowledged at her deposition that it was her "impression" that there were differences in eligibility for bonuses for managers in pay grades 63 and 64 as compared to higher pay grades. (p 238) In fact, managers in pay grades 77 and above are eligible for bonuses, stock options and other forms of incentive-based compensation that are not used in grades 63 and 64. (Topel p 8, Harty p 157-172) Under the bonus program Executive Incentive Plan "AEIP" for higher grades), managers are

[10] Wilson p 19, Decl. 11 ¶ 7, Decl. 17 ¶¶ 10, 13, 36, Decl. 21 ¶ 15, Decl. 26 ¶ 16, Decl. 30 ¶ 27, Decl. 31 ¶ 14, Decl. 34 ¶ 8

[11] Decl. 2 ¶ 3, Decl. 4 ¶¶ 17, 18, Decl. 13 ¶ 10, Decl. 12 ¶¶ 4, 7, 25, Decl. 25 ¶ 15

eligible to receive a percentage of their base salary in a bonus and the amount of the bonus increases with pay grade.[12]

- **Different decision-makers.** As Dr. Reskin acknowledged at her deposition, Allstate's President Wilson is not directly involved in determining salary for managers in grades 63, 64 or 77 or 78 for the most part. He is involved in such decisions for higher pay grades. (p 251-53) For non-officer level managers, merit increases are decided by the manager's supervisor with a one-over-one review by that supervisor's supervisor.[13] Managers receive guidelines referred to as a "merit matrix" which provide a recommended range of percentage increase for individuals based upon their performance evaluation rating and where the employee's current salary fits within the salary range, referred to as salary range relativity.[14] However, managers report that the percentage increase may be exceeded for a particular individual so long as the manager stays within the merit increase budget for his or her department.[15] Also, some managers indicate that in determing the merit increases for their direct reports they consider factors in addition to the employee's performance evaluation rating and salary range relativity.[16]

- **Differences across the four departments:** The depositions and Allstate declarations also indicate differences across the four departments. For example, there appear to be different measures used to calculate the officer-level AIP cash bonuses for the different departments in addition

[12] Harty p 21, 23, 123-132, 301& Exs. 38, 39, 40, 47; Crockett p 93-94; Decl. 1 ¶¶ (eligible for cash bonus up to 30% of her salary); Decl. 24 ¶ 11 (eligible for cash bonus up to 50% of her salary), Decl. 26 ¶¶ 31-32 (eligible for cash bonus up to 30% of her salary)

[13] Harty p 56-57; Decl. 1 ¶¶ 18, 40; Decl. 3 ¶ 26-27, Decl. 8 ¶¶ 18, 23, 25, 42, 44, Decl. 10 ¶¶ 36, Decl. 11 ¶ 20, Decl. 15 ¶ 20, 24, Decl. 19 ¶¶ 18, 29, Decl. 21 ¶ 24, Decl. 22 ¶ 24, 29

[14] Harty p 30-33, 44, 81-83 & Exs. 2, 5-8; Decl. 1 ¶¶ 23-24, Decl. 3 ¶ 22, Decl. 4 ¶ 30, Decl. 8 ¶ 25-26, Decl. 14 ¶ 25, Decl. 26 ¶ 25

[15] Decl. 1 ¶¶ 23-24, Decl. 3 ¶ 22, Decl. 4 ¶ 30, Decl. 6 ¶ 21, Decl. 7 ¶ 23, Decl. 8 ¶ 25, Decl. 14 ¶ 26, Decl. 15 ¶ 24, Decl. 21 ¶ 23, Decl. 26 ¶ 25

[16] Declarant 3, Subrogation Service Manager (band E) in Claims also considers peer review, extra-curricular activities, education, self-development, attitude, dependability, committee work, whether the employee volunteers for special assignments. (Decl. 3 ¶ 20) Declarant 29, a Claims Field Director, also considers whether the employee had exceptionally positive or challenging year, whether the manager's leadership results far exceeded others, and whether the manager's customer service results far exceeded others. (Decl. 29 ¶ 21) Other examples of factors considered by managers are found in the following declarations: Decl. 7 ¶19, Decl. 8 ¶ 23, Decl. 14 ¶ 24, Decl. 15 ¶ 22, Decl. 21 ¶ 21, Decl. 24 ¶ 26, Decl. 26 ¶ 23, Decl. 31 ¶ 20-24, Decl. 34 ¶ 30.

to a corporate component.[17] Also, it appears some departments have additional, unique incentive programs.[18]

Performance Evaluation.

- **Different evaluation criteria.** Allstate managers describe a general framework for conducting performance evaluations: (i) managers meet with their direct reports to set "major responsibilities" (MRs) and the measures, referred to as "performance standards," for evaluating the employees's performance of each MR, (ii) managers hold checkpoint meetings with their direct reports during the year to discuss performance, (iii) managers typically complete performance development summary (PDS) forms evaluating their direct reports, (iv) managers submit their proposed PDS ratings to their immediate supervisor for approval. What is vastly different, however, are the MRs and PSs upon which different managers and their superiors have agreed will be the focus of the evaluation. These differences in performance measurement criteria across PDSs really can only be appreciated by diving into the PDS forms and reviewing descriptions of the declarants of the performance measures on which they are evaluated. Even within department, the MRs and PSs are different for different managers.[19]

- **Different application of critical success factors (CSFs).** Employees in pay grades 63 and above are also evaluated using critical success factors. (Crockett p 40-41, Decl. 1 ¶ 19) At her deposition, Dr. Reskin acknowledged that "the weighting among individual critical success factors can vary according to the manager who's being evaluated," and that it is possible "the results of a given critical success factor might be

[17] (Harty p 15, 103-04, 106-08; Crockett p 109) For example, within Claims, field managers eligible for AIP report that their bonus is based on company results, regional results, ie customer satisfaction and profitability, and Claim-department specific results. (Decl. 14 ¶ 12, 31; Decl. 24 ¶ 11, Decl. 19 ¶ 15, 26) Within Distribution, Declarant 7, an AVP, stated her direct reports' AIP bonuses were calculated based on their performance evaluation rating and importance to Distribution in a formula provided by Home Office (Decl. 7 ¶¶ 2, 10, 15, 25), and Declarant 26, Regional Distribution Leader, reported that there was a discretionary component to the AIP this year for her direct reports. (Decl. 26 ¶¶ 31-32)

[18] There is reference to a "field distribution bonus" in the Distribution department (Harty p 21-22, Decl. 21 ¶ 26), and an incentive program in the Claims department for Market Claim Managers (Decl. 15 ¶¶ 5, 11).

[19] The Allstate declarant paragraphs where these MRs and PSs are discussed include: Decl. 1 ¶¶ 15, 18, Decl. 2 ¶ 16, Decl. 3 ¶ 17, Decl. 4 ¶¶ 7-13, 20-22, Decl. 10 ¶¶ 28-31, Decl. 13 ¶¶ 19, 20 26, Decl. 14 ¶ 19, Decl. 15 ¶¶ 15, 18, Decl. 17 ¶¶ 28-29, Decl. 21 ¶ 17, Decl. 22 ¶ 18, Decl. 23 ¶ 19, Decl. 24 ¶¶ 19, 23, Decl. 25 ¶ 14, Decl. 26 ¶¶ 15, 19, 20, Decl. 27 ¶¶ 16, 18, 19, Decl. 29 ¶¶ 15, 18, Decl. 31 ¶¶ 13, 16, Decl. 32 ¶ 21, Decl. 34 ¶¶ 20-22, 33. Also, I was provided with a disk containing 4,000 PDSs, and, while I did not conduct any scientific study of them, one can appreciate the differences in performance measures by reviewing some of these.

more consequential for one person in one job than the same factor would be for a different person in a different job." (p 241) This is confirmed by the Allstate declarations. Managers report that the weight given to the CSF score varies by manager level,[20] and that the number of CSFs upon which a manager is evaluated increases at the higher pay grades. (Decl. 2 ¶ 17)[21] Also, some managers report that some CSFs have more importance than others depending on the job.[22]

Succession Planning.

- **Different process for officers**. As Dr. Reskin acknowledged at her deposition, the Chairman's Talent Review does not include a review of employees in grades 63, 64 or 77. (p 188) Allstate President Wilson focuses only on succession planning at the officer level. (Wilson p 60-62) In contrast, there is no requirement that there be any succession planning process for non-officer level managers, and 2005 was the first year Allstate encouraged managers to do succession planning down to grade 63. (Mueller p 76-80)

- **Different approaches to succession planning at non-officer level**. Dr. Reskin admitted at her deposition that there are "nonuniform practices" within different departments relating to succession planning. (p 254-257) Indeed, Dr. Reskin acknowledged that Stacey Mueller, who testified about succession planning at Allstate, indicated that succession planning "may vary from area of responsibility to area of responsibility." (p 253-54) Ms. Mueller, whose HR group creates

[20] For example, Declarant 31, Distribution Support Leader (band F), evaluates her band D direct reports using 8 CSFs and their CSF rating accounts for 35% of their overall PDS rating whereas Declarant 31's CSF score makes up 50% of her overall PDS score. (Decl. 31 ¶ 17) "A different set and/or number of CSFs applies to employees in different salary bands." (Decl. 27 ¶ 22)

[21] Within Claims, apparently only 8 CSFs are mandatory for Frontline Performance Leaders (Band D) although some of their managers report evaluating FPLs on 16 CSFs; Market Claim Managers are rated on 16 CSFs; and Claim Field Directors are rated on 17 CSFs. (Decl. 8 ¶ 20, Decl. 6 ¶ 16, Decl. 14 ¶ 20, Decl. 24 ¶ 24) Within Distribution, Declarant 31, Distribution Support Leader (band F) evaluates her band D direct reports on 8 CSFs (Decl. 31 ¶ 17) while Decl. 21, Distribution Consultant Leader (band F) uses 16 CSFs for evaluating her new agent consultant direct reports. (Decl. 21 ¶ 18)

[22] Declarant 1, Claims Service Manager (CSM) running Allstate's fraud department nationwide identified as particularly important: execution (CSF #5), communicate effectively (CSF #13), promoting collaboration/building relationships (CSF #11) and influencing others/driving people (CSF #9) (Decl. 1 ¶ 20) Declarant 3, Subrogation Service Manager managing one of four subrogation offices within Claims, identified three CSFs are especially relevant: "communicate effectively," "inspire trust," and "build talent." (Decl. 3 ¶ 18) Similar examples of managers identifying certain CSFs as most relevant or important to the jobs performed by their direct reports include: Decl. 15 ¶ 20, Decl. 19 ¶ 17, Decl. 27 ¶ 22, Decl. 29 ¶ 19, Decl. 11 ¶ 17, Decl. 21 ¶ 18, Decl. 26 ¶ 21, Decl. 31 ¶ 16-17, Decl. 25 ¶ 18.

succession planning materials for managers, describes these materials as "only guidelines" and notes managers may choose not to enlist involvement of HR in their succession planning process. (Mueller p 79, 81, 84; Crocket p 52 "each of them do it a little differently, but each of them have very different needs.") Some managers describe meetings where groups of managers gather together to identify and assess the readiness of individuals to advance within Allstate. Different managers report focusing upon different criteria to assess readiness, and different managers describe different processes used to assess readiness of candidates.[23]

Promotion.

- **Different process for officers**. Dr. Reskin acknowledged at her deposition that Allstate's President is not directly involved in determining promotions for grades 63, 64 or 77, but is involved in such decisions for higher pay grades. (p 251-253) Ms. Crockett described a general process for filling officer-level positions (grades 80 and above), which relies in part on succession planning, and culminates in

[23]Within Claims, different managers described different process. Declarant 1, head of the Claims Special Investigation Unit, described meeting once per year with her direct reports and their direct reports to identify which of their reports are "high potential." Factors they consider include CSF scores, performance, work product quality, communication/people skills, initiative, mobility, and if the candidate has a 4-year college degree. (Decl. 1 ¶ 31) Declarant 8, a Market Claim Manager from 2005-07, describes having instituted a new succession planning program for her office called LEAD in which all employees were invited to attend monthly meetings and those in program were highlighted for succession planning. (Decl. 8 ¶¶ 35-38) Other examples include: Decl. 14 ¶¶ 36-38, Decl. 24 ¶ 36.

Within Product Operations, at least for part of the relevant period, there has been a group distinct from HR, Talent Development, Education & Communication (TDEC), which prepares succession planning spreadsheets and facilities the succession planning process. (Decl. 4 ¶¶ 33-34, Decl. 13 ¶¶ 27-34, Decl. 18 ¶¶ 27-31) Declarant 5, Product Operations Manager at Risk Management Business Center in Ohio, describes a process where 20 department managers meet twice a year and use color-coded blocks to indicate agreement or disagreement with your rating. (Decl. 5 ¶¶ 29-31)

Within Distribution, Declarant 26, Regional Distribution Leader, describes meeting twice per year with her immediate manager and HR to discuss Declarant 26's salary band F/S2 leaders, and participating in a larger meeting that includes her F/S2 leaders and other senior leaders throughout the region to discuss employees below band F/S2. She notes that they especially focus on mobility, identify some candidates "HiPo" meaning high potential mobile and others "HiPer" meaning could move up two levels but not mobile. (Decl. 26 ¶¶ 37-40) Declarant 30, Distribution Support Leader, reports that criteria for identifying high potential employees were distributed to all managers within her region. (Decl. 30 ¶¶ 35-36) Another example includes: Decl. 31 ¶¶ 28-29.

With Finance, Declarant 22, AVP, describes participating in a succession planning process along with other bonus level managers and each recommends promotions and rotations for their direct reports; group consensus is required; and the group uses red, yellow and green flags to vote until consensus is reached on an employee's readiness rating. (Decl. 22 ¶¶ 30-34) Mario Rizzo describes a "continuity process" within Finance in which there is one meeting to assess managers in bands D and E and another to assess bonus level managers, bands F and G.and then an officer group succession planning meeting (Rizzo p 81-96)

approval by the CEO. (p 30-37, 56-57) Allstate's President noted he does not make every officer decision but is involved in the conversation. (p 94-95, 100-01) Assistant Vice Presidents (grade 80) are appointed. Officers at the Vice President level and higher are elected by Allstate's Board of Directors. (Wilson p 81)

- **Differences between non-officer levels and across departments**. While generally managers consult succession plans when there are job openings for grades 63, 64, 77 and 78, different decision-making methods are described and different criteria are considered. Within Claims, some managers describe more autonomy to identify and select a candidate for pay grade 63 openings although still subject to the one-over-one review process as compared to openings at grade 64 (Band E), and different managers identify different practices for decision-making with regard to Band E (grade 64) and higher openings.[24]

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[24] Declarant 1, Claims Service Manager (CSM) for the Special Investigation Unit (SIU), indicates that for salary band D openings (grade 63), she consults her succession planning list and looks at CSF score, performance, quality of work product, communication/people skills, initiative, mobility, 4-year college degree. For Band E level employees, she notes that the Claim Vice Presidents (CVPs), who are aware of talent within Claims across the country, provide her manager with one or more candidates, and he presents them to her, and she is given the opportunity to reject a candidate. She also notes for Band E openings a candidate must be an independent thinker throughout the region to discuss employees below band F/S2. She notes that they especially focus on mobility, identify some candidates "HiPo" meaning high potential mobile and others "HiPer" meaning could move up two levels but not mobile. (Decl. 26 ¶¶ 37-40) Declarant 30, Distribution Support Leader, reports that criteria for identifying high potential employees were distributed to all managers within her region. (Decl. 30 ¶¶ 35-36) Declarant 31, Distribution Support Leader, reports meeting with 10 peers and the Field Vice President and HR to identify "high potential" employees twice a year. (Decl. 31 ¶¶ 28-29)

With Finance, Declarant 22, AVP, describes participating in a succession planning process along with other bonus level managers and each recommends promotions and rotations for their direct reports; group consensus is required; and the group uses red, yellow and green flags to vote until consensus is reached on an employee's readiness rating. (Decl. 22 ¶¶ 30-34) Mario Rizzo describes a "continuity process" within Finance in which there is one meeting to assess managers in bands D and E and another to assess bonus level managers, bands F and G.and then an officer group succession planning meeting (Rizzo 81-96)

[24] Declarant 1, Claims Service Manager (CSM) for the Special Investigation Unit (SIU), indicates that for salary band D openings (grade 63), she consults her succession planning list and looks at CSF score, performance, quality of work product, communication/people skills, initiative, mobility, 4-year college degree. For Band E level employees, she notes that the Claim Vice Presidents (CVPs), who are aware of talent within Claims across the country, provide her, have superior communication skills, and the ability to execute results. (Decl. 1 ¶¶ 39, 40-43) Declarant 19, an AVP in the Home Office, consults her succession plan for the department for openings below Band E, and for Band E openings she works with her manager to identify potential candidates and then they consult with the Claims officer group which provides final approval. (Decl. 19 ¶¶ 37-39) Declarant 24, Claim Field Director (salary G), consults most recent succession plan for her department. For an MCM opening (a band E job), she provides a suggestion to her manager and they search a nation-wide database for "ready now" MCM candidates. She notes her manager has accepted some of her suggestions, and in others she agreed with his selection after learning about a candidate. (Decl. 24 ¶¶ 42-45)

Within Product Operations, some managers note that the Talent Development, Education & Communication Department plays a role; that openings may be filled through "rotations discussions;" and that multiple managers may be involved in the decision[25] Within Distribution, some managers report differences between decisions for Band E openings and openings for lower grades.[26] Within Finance, openings may be filled laterally or by promotion, and for openings in Bands D and higher, the entire Finance officer group must align on who will fill the position. (Rizzo p 112-119)

DR. RESKIN'S THIRD PREMISE: UNCONSCIOUS PROCESSES AND IMPLICIT ASSOCIATIONS

Dr. Reskin's Claim: "Cognitive science now recognizes that our preconscious 'implicit associations' between group membership and traits, .. can affect our decisions without our knowledge" (¶ 4.4)

Scientific Literature. Dr. Reskin citations to the scientific literature in claiming that there are unconscious processes and implicit associations are reliable, with some qualification. (Reliable Application)

Allstate Data. Since the process asserted here are unconscious, by definition there is no relevant Allstate data. (No (Direct) Evidence By Definition)

Scientific Literature. Arguably one the greatest advances in social psychology in the last two decades has been the recognition that social cognition processes are in part unconscious, automatic and involve implicit associations (Fiske and Taylor 1991 is the classic reference, Fiske 1998, Wegner and Bargh 1998, and Dasgupta 2004 provide more recent reviews.) A considerable body of research has shown that people unconsciously categorize others in terms of stereotypes. Although the literature suggests that stereotyping is a universal

[25] Decl. 4 ¶ 43-44, 46, Decl. 5 ¶¶ 29, 32, Decl. 12 ¶ 31, Decl. 13 ¶¶ 15-16, 39-41)

[26] Declarant 26, Regional Distribution Leader, for openings in band E & F (now S3 and S2) looks to a country-wide "ready now" list of Distribution candidates maintained by the HR department, and, then consults peers for recommendations. She and her immediate manager interview each candidate when they get to narrowed list and together decide. (Decl. 26 ¶ 45-48) Decl. 21, Distribution Consultant Leader (Band F), consults the most recent succession plan, and will talk with peers of she does not find a suitable "Ready Now" candidate. She will give her manager information regarding the candidate she has selected, but does not need approval. (Decl. 21 ¶ 33, 35)

component of human cognition, this does not mean that it is always present, that what stereotype will be present is predetermined, or that people will necessarily act on stereotypes even when they are present. I discuss the literature on this later point at length in my Appendix.

Considerable research has emerged in the past several years that challenges the assumption that stereotypes are automatically activated (Fazio et al., 1995; Fein & Spencer, 1997; Lepore & Brown, 1997). This research demonstrates that many people may in fact not even access stereotypes in the first place, even in the case of such widely recognizable and highly visible categories as race or gender (Lepore & Brown, 1997; Gilbert & Hixon, 1991; Macrae et al., 1995). Blair (2002) and Kunda and Spencer (2003) provide reviews of the literature.

An important set of findings not discussed by Dr. Reskin is that research has shown that the categories people employ can be very malleable. Whether a stereotype is activated and what stereotype is activated can depend on both context and the characteristics of the target person. Blair (2002) in reviewing the literature discusses a variety of examples. For example, Macrae et al. (1995) found that slight changes in context changed how someone was stereotyped. A Chinese women putting on makeup was more likely to be perceived in feminine stereotypical terms, but Chinese stereotypes were more likely to be applicable if she were to hold chop sticks. In other research, Livingston and Brewer(2002) have shown that how likely a black person is to be seen in stereotypical terms depends on how Negroid their features are.

A somewhat newer literature has focused on the presence of implicit associations as measured by what is known as the IAT (Implicit Association Test) (Greenwald and Banaji 1995, Greenwal et al. 1998). The IAT involves individuals carrying out timed matching tasks in which they are required to match people's face to words. In one condition, the instructions involve "congruent" matching, for example, a white person's face with good, a black person's face with bad, a male face with strong, a female face with weak. In the incongruent condition, individuals are asked to match white person's face to bad, black

person's face to good, etc. An important finding in this literature is that when race is the focus individuals are able to match faster in the congruent than incongruent condition. This is true for most whites and many blacks.

In the case of females, however, the IAT research consistently shows that men are not implicitly prejudiced against women. Though, "women strongly prefer female gender when response latency techniques are used, men typically show neutral gender attitudes." (Rudman and Goodwin, 2004, p. 494-495, also see Richeson and Ambday 2001). Given the relevance of this later finding to Dr. Reskin's report, it is most surprising that she fails to discuss it. Also, as discussed in the next section, although many scholars who use the IAT in their research claim that it is a measure of latent, unconscious, prejudice, others vigorously dispute the claim that the research to date support this interpretation.

Summary. In claiming that there are unconscious processes and implicit associations that are important parts of human cognition, Dr. Reskin, with qualifications, reliably cites to the literature. As discussed in the next section, her claim that these processes result in gender (or race) stereotyping is far more problematic. The scientific literature generally recognizes that humans have unconscious processes and implicit associations. Not discussed by Dr. Reskin is that these processes may not be automatically activated. Furthermore, men do not have more positive implicit associations associated with men than women.

C. CLAIMS THAT ARE INTERIOR IN DR. RESKIN'S ARGUMENT

STEREOTYPING AND INGROUP FAVORITISM

Dr. Reskin's Claim: Gender stereotyping and ingroup favoritism are systemic at Allstateand unchecked, have lead to disparate gender outcomes. (¶ 2.4)

Scientific Literature: There is considerably more disagreement in the scientific literature about the nature of stereotyping and its effects on behavior. Given the present state of knowledge, no scientifically reliable claims are possible about the effects of stereotyping at Allstate. (Selective Use of Evidence)

Allstate Data: Dr. Reskin provides no direct evidence of stereotyping, either descriptive or prescriptive at Allstate. (No Scientific Evidence)

One of the most contentious areas of disagreement in the social sciences, particularly within psychology, is with regard to the importance of stereotyping and ingroup bias as factors contributing to gender and race differences in employment situations in organizations (for example, see the heated debate in *Psychological Inquiry* (2004), Vol 15, No. 4). Much of this debate has focused around the IAT (Implicit Association Test), though there has also been sharp disagreement in psychology about the importance of stereotypes more generally. In her report, Dr. Reskin is quite selective in citing to this literature, discussing only the literature that asserts that stereotyping is an important cause of discrimination.

Dr. Reskin describes two types of stereotypes as being important: descriptive stereotypes and prescriptive stereotypes. (¶¶ 4.5, 4.6) Descriptive stereotypes refer to the characteristics that individuals are thought to have because of other attribute that they have. For example, someone might believe that because someone was black, they were likely to be dangerous, or that because someone was a woman they were likely to be moody. Prescriptive stereotypes refer to how we think people should behave because of the particular group they belong to. Sociologists would consider prescriptive stereotypes as a form of norm. Thus, the expectation that blacks should be subservient or that women should be charming would both be examples of prescriptive stereotypes. In her report, Dr. Reskin asserts that both descriptive and prescriptive stereotypes are an important cause of gender disparities at Allstate. (¶¶ 4.5, 4.6) Neither she nor the scientific literature are clear about the distinct cognitive basis of each type of stereotype. Presumably, a paternalistic culture would be particularly important in supporting prescriptive stereotypes. Descriptive stereotypes are often the focus when unconscious cognitive processes are the concern.

The literature on stereotyping is vast, running hundreds if not thousands of articles. The issues involved are also multiple. It is far outside the scope of this report to provide a detailed discussion of these issues. Doing so would also distract the reader from the much more serious problems with the reliable

application of evidence in Dr. Reskin's report.

Appendix A to my report provides a detailed, but far from exhaustive discussion of the issues involved in Dr. Reskin's application of the psychological literature on stereotyping to Allstate. Here, I provide summary statements of my arguments. The one issue I do discuss here in Section II of my report is Dr. Reskin's failure to provide any evidence of stereotyping at Allstate. I examine this issue below.

- **Unreliable assumption of external validity.** Most all the research cited by Dr. Reskin are psychology laboratory experiments in which college students are exposed to pictures or images for seconds to minutes. Even Dr. Reskin admits at her deposition that workplaces are "vastly more complex than laboratory experiments." (p 41) Dr. Reskin wrote in an article published in 2000 that the "first task for sociologists …is to determine whether the cognitive processes that I have reviewed operate in the same way in work organizations as they do in the lab." (Reskin Ex. 1) Dr. Reskin provides no reliable basis for extrapolating from such studies to Allstate managers; she makes an unsupported leap of faith in assuming laboratory findings directly transfer to Allstate.

- **Unreliable application of stereotyping research to sustained interactions**: Psychology experiments find that stereotypes are primarily manifested in scenarios that simulate first encounters, and that stereotypes do not stay activated throughout lengthier or repeated exposures. Thus, there is significant academic literature which questions the applicability of stereotype research to social contexts where individuals have sustained social interactions. Thus, it is unreliable to assume from this research that Allstate managers, who have deep and sustained interactions with those they evaluate, would engage in stereotyping.

- **Unreliable claim stereotypical thoughts necessarily lead to discrimination**: Psychology experiments find that test subjects who hold stereotypical thoughts do not necessarily act upon them. The research literature posits that any causal link between holding stereotypical thoughts and acting upon them is likely to vary across individuals. Psychology experiments suggest the following factors play a role in whether stereotypes are acted upon: the degree of cognitive busyness, whether one's self-esteem is threatened, whether the stereotype is irrelevant to the task at hand; the extent to which an individual cares about being prejudiced, the extent to which an individual is low-prejudiced, whether the person holds a norm that basing evaluations on stereotypes is invalid. Thus, if anything, the research suggests a highly individualized analysis is required to determine whether in any given situation any given individual will act upon a stereotypical thought.

- **Unreliable claim that stereotyping leads to negative bias**: Dr. Reskin assumes that stereotyping uniformly leads to biases that will negatively impact stereotyped target persons. However, research suggests stereotype bias leads to more extreme evaluations of targeted persons, not necessarily more negative. In some cases, stereotype bias is shown to result in more positive evaluations.

- **Unreliable Application of the Literature on Implicit Associations**: Dr. Reskin cites to the literature on "implicit associations" in discussing the effects of stereotyping on gender disparities (¶ 4.4). Undiscussed by Dr. Reskin is the considerable controversy in the psychology literature on what measures of implicit association such as the IAT actually measure and whether it is actually predictive of prejudice or discrimination.

- **Unreliable Application of the Literature on Ingroup Bias**: In her report Dr. Reskin repeatedly asserts that ingroup bias is a source of gender disparities at Allstate (¶¶ 2.4, 4.0, 4.2, 4.3, 5.6, 7.1). Her description of this literature is seriously flawed. She also provides no direct evidence that ingroup favoritism is present at Allstate.

It is not necessary to decide which side one agrees with in the debate about the importance of stereotyping for discrimination to appreciate that Dr. Reskin's application of this literature is unreliable. Whatever side one takes, it is clear that there is no established consensus in psychology about the importance of stereotyping, particular unconscious stereotyping, for race or gender discrimination. Dr. Reskin has been quite selective in presenting this literature, only citing to that research that supports her positions. This amounts to an unreliable application in that another researcher, particularly any researcher that considered the literature in its entirety, might well reach a different conclusion than Dr. Reskin. Given the disagreements in the literature, it is impossible to make any general claims about when stereotyping will be present in an organization, much less when it will lead to gender bias.

Allstate Data. Dr. Reskin fails to present any reliable evidence of stereotyping at Allstate. In footnote 1 of her report, Dr. Reskin indicates that she did not rely on declarations collected by the plaintiff's lawyers in reaching her opinion. Rather, she states that she presents quotes from declarations simply as examples. Given that she did not consider the declarations in reaching an

opinion about the presence of stereotyping at Allstate, it is unclear what, if any, evidence she did rely upon. This appears to be another case where Dr. Reskin has made a claim without any evidence.

It is also far from clear why the quotes that Dr. Reskin takes from different declarations are evidence of stereotyping. For example, Dr. Reskin gives the following as examples of stereotyping (¶ 5.6):

> *'I don't see her as…', 'She is not the right fit ..' 'What is her image?' 'my manager...stated that 'I was fine where I was.'*

Why these are examples of gender stereotyping is far from clear. In her report, Dr. Reskin makes no attempt to explain. If anything these quotes would appear to be evidence of a lack of gender stereotyping at Allstate. Certainly, these statements are not evidence of a problem of widespread expressed, conscious stereotyping at Allstate.

Summary. Dr. Reskin fails to provide any direct evidence that stereotyping, either descriptive or prescriptive, is common at Allstate. And, the statistical evidence as analyzed by Dr. Topel, which finds no adverse treatment of women during the class period, is strong confirmatory evidence that there is no widespread stereotyping or ingroup bias at Allstate. Dr. Reskin also provides a very select discussion of the research literature on stereotyping, only citing to work that is supportive of her position. Dr. Reskin gives the impression that there is far more consensus in the literature than there is. Given the disagreements in the literature, it is impossible to make any general claims about when stereotyping will be present in an organization, much less when it will lead to gender bias.

LACK OF SUFFICIENT INDIVIDUATING INFORMATION

Dr. Reskin's Claim: "When we have all the information we need to behave toward or make a decision about an individual, we do not need to rely on stereotypes." (¶ 4.7)

Scientific Literature: Dr. Reskin acknowledges that sufficient individuating individual information may check the effects of stereotyping. She, however, fails to indicate how little is needed.

(Unreliable Use)

Allstate Data: Despite the acknowledgement, Dr. Reskin made no attempt to assess the extent of information available to managers in their decision making. (Contradicted By Evidence)

Scientific Literature. In her report Dr. Reskin acknowledges that sufficient individuating individual information may check the effects of stereotyping. This is a well established effect in the research literature (Kunda and Spencer 2003, Kunda and Sherman-Williams, 1993, Leyens, Yzerbyt, & Schadron, 1992; Locksley et al., 1982; Yzerbyt, Schadron, Leyens, & Rocher, 1994). The argument here is that a key reason that individuals rely on stereotypes is that they lack information on the individual of concern. If that information is present, stereotyping is cognitively unnecessary.

There is also evidence to support the conjecture that the greater the need for information in evaluation processes and the more it is available, the less likely bias is to occur (see Nieva & Gutek, 1980 for a review of early literature). Pheterson et al. (1971) found that when ambiguous information was provided to participants about written articles and paintings, the result was pro-male evaluation bias. When informational ambiguity was reduced by attaching ratings in the form of awards to the paintings of both sexes, sex bias of the evaluations of men and women's paintings was minimized. Deaux & Emswiller (1974) found no sex bias in performance ratings when objective criteria were available and Rosen & Jerdee (1974) also argue that evaluation bias is reduced when available information is increased. Terborg & Ilgen (1975) concluded that inadequate information about women increases the potential for bias and stereotypes.

An important observation about these experimental studies, not acknowledged by Dr. Reskin, is how little individuating information needs to be available to eliminate gender disparities. For example, in Pheterson et al. (1971) study which involved an assessment of the quality of paintings, all that had to be suggested was that a painting was a winner in order to eliminate any effect of artist's gender. In synthesizing the literature Kunda and Spencer (2003) conclude that even small amounts of individuating information, for example that

gained in a short interaction, may be sufficient to check stereotype thinking.

Research done in work settings supports the importance of individuating information. Frank & Drucker (1977) argue that the reason they found no sex differences in evaluations is that they provided sufficient data on managers' performances for the evaluation process. Hall & Hall (1976), who found no sex differences in evaluations, also attribute their finding to the availability of actual performance data (rather than a brief resume, as is typically the case), which reduced the extent to which participants needed to rely on other information, such as sex stereotypes, as a basis for evaluations (all discussed in Nieva & Gutek, 1980). Research demonstrates that when job-relevant information is available, gender stereotyping is abated (Heilman, 1984; Tosi and Einbender, 1985). When performance information is ambiguous, it is more likely that information may be distorted to conform to expectations that are consistent with stereotypes of women (Heilman et al., 1988).

Allstate Data. What is most peculiar about Dr. Reskin's report is that having acknowledged the importance of individuating information, she fails to take the obvious next step and evaluate whether managers at Allstate would have sufficient information about individuals they were making decisions about to either inhibit or totally block the effects of stereotyping.

A review of Allstate declarations and sample personal development summaries (PDSs) indicate that Allstate managers know much more information about the employees in pay grade 63 and above for whom they are making personnel decisions than do the subjects in the laboratory experiments that Dr. Reskin cites. Examples of individuating information available to Allstate managers include:

- **In person meetings to discuss performance and career objectives.** Allstate managers describe holding meetings at the start of a review period with each of their direct reports to identify and mutually agree upon the performance goals on which their direct reports will be evaluated. Allstate managers also report having one or more "checkpoint" meetings during the

review year with their direct reports to discuss job performance.[27] Additionally, Allstate managers describe having discussions with their direct reports about career objectives and aspirations.[28] Some of these managers report that their superiors (managers at higher pay grade levels) in turn have such conversations with them.

- **Direct observations of direct reports.** For the most part, the person evaluating an employee in pay grade 63 and above is his or her immediate supervisor subject to the one-over-one review process and any consensus discussions that may occur. Thus, the employee's evaluator is directly interacting with him or her on a regular basis. While some of the supervisors have large numbers of indirect reports, supervisors in the declarations generally report having fewer than fifteen direct reports. There are some differences in that supervisors are in the same office with all of their direct reports while other managers have some direct reports who are different locations.[29]

- **Data and reports provide feedback on employee performance.** A review of PDSs and Allstate declarations indicate that for many of the agreed upon performance goals a supervisor will have reports or other data from which to measure the employee's attainment of the mutually agreed upon performance goals.[30]

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[27] Decl. 1 ¶ 21, Decl. 3 ¶¶ 26, Decl. 4 ¶¶ 7-14, 20-22, Decl. 13 ¶¶ 18, 21, Decl. 14 ¶ 21, Decl. 15 ¶ 31, Decl. 17 ¶ 38, Decl. 18 ¶¶ 19, 21, Decl. 25 ¶ 25, Decl. 29 ¶ 18, Decl. 31 ¶ 18, Decl. 34 ¶ 20-29

[28] Decl. 1 ¶ 34, Decl. 3 ¶ 29, Decl. 5 ¶ 29, Decl. 6 ¶ 26, Decl. 7 ¶ 28, Decl. 8 ¶ 38, Decl. 11 ¶ 23, Decl. 12 ¶ 30, Decl. 14 ¶ 39, 42, Decl. 15 ¶ 13, 31, Decl. 17 ¶ 38, Decl. 19 ¶ 33, 36, Decl. 21 ¶ 30, Decl. 22 ¶ 31, Decl. 24 ¶ 37, Decl. 25 ¶ 28, Decl. 27 ¶ 34, Decl. 31 ¶ 30, 33, Decl. 32 ¶ 17-18, Decl. 35 ¶¶ 28 31-32

[29] (Decl. 3 ¶ 16, Decl. 5 ¶¶ 12, 16, 17, Decl. 11 ¶ 6, Decl. 14 ¶¶ 5, 17, Decl. 19 ¶ 15, Decl. 24 ¶¶ 5, 22, Decl. 26 ¶ 8, Decl. 29 ¶¶ 5, 17, Decl. 30 ¶ 28, Decl. 31 ¶ 15, Decl. 34 ¶¶ 8-10)

[30] Within Claims, for example, managers describe that their direct reports in the relevant pay grades will be evaluated on such factors as number of claims adjusted, average claim handling time, how quickly a claim is first touched, number of open claims as measured by weekly reports, efficient file flow (as measured by monthly reports), file quality (measured by file reviews conducted by Claims Process Specialists), achievement of cost and expense management measures (as measured by monthly reports), subrogation recovery (measured by a monthly subrogation report), number of calls abandoned due to long waiting time, number of compliance reviews, successful project implementation. (Decl. 1 ¶¶ 4, 15, 18, Decl. 3 ¶¶ 17, 21, Decl. 14 ¶ 19, Decl. 15 ¶¶ 15, 18, Decl. 23 ¶ 19, Decl. 24 ¶ 23, Decl. 27 ¶¶ 16, 18, 19, Decl. 29 ¶¶ 18, 18, Decl. 32 ¶ 21) Within Product Operations, for example, managers describe receiving relevant information such as whether the employee has passed various actuary exams, ability to achieve low combined-run ratio (profitability measure), increasing policies in force, whether a renewal automobile loss ratio was reduced by a certain percentage, whether cycle time for completion of projects was reduced. (Decl. 1 ¶¶ 2, 16, Decl. 4 ¶¶ 17-18, 21, Decl. 10 ¶¶ 28-31, Decl. 13 ¶ 26,) Within Distribution, for example, managers may have goals around obtaining sales results, agent retention rates, increasing numbers of Allstate agents, increasing the number of new policies written, exceeding financial goals. (Decl. 17 ¶ 36, Decl. 21 ¶ 17, Decl. 34 ¶¶ 20-22)

- **Surveys to assess employee's leadership and management qualities.** There appear to be a number of surveys which provide supervisors with feedback on the leadership and management abilities of their direct reports. For example, some managers discuss considering scores of their direct reports on Allstate's Quality Leadership Management Survey (QLMS), a survey in which managers are evaluated by their direct reports.[31] Some managers in Claims reference consulting customer satisfaction surveys for feedback on the performance of their direct reports.[32] Some managers in Distribution report taking into account feedback on their direct report managers from the Agency Relations Survey ("ARS") which is completed by agents.[33]

Summary. Despite the fact Dr. Reskin recognizes the potential for individuating individual information to check the possible effects of stereotyping and ingroup bias, Dr. Reskin makes no attempt to assess what information is available to managers at Allstate. Dr. Reskin's hypothesis that Allstate managers stereotype due to a lack sufficient individuating information is pure conjecture. Given the significant amount of individuating information available to managers (much more than provided to subjects in laboratory experiments), there is no reliable basis for assuming widespread stereotyping at Allstate due to a lack of individuating information. Moreover, as Dr. Topel demonstrates, there is no statistical evidence that women managers at Allstate experienced any gender disparities in pay increases, promotions or performance evluatong ratings during the class period and if there were stereotyping affecting decisonmaking the data would reflect adverse effects.

SUBJECTIVITY AND DISCRETION/ACCOUNTABILITY

Dr. Reskin's Claim: In her report, Dr. Reskin states: "[a]ssessment systems that rely on observers' opinions (i.e., subjective and discretionary judgments) are vulnerable to bias (¶4.1)."

Scientific Literature: The scientific literature provides no evidence that subjectivity or discretion lead to gender bias. In fact, quite the opposite. At

[31] Decl. 2 ¶ 16, Decl. 3 ¶ 17, Decl. 4 ¶ 8, Decl. 13 ¶ 36, Decl. 17 ¶ 28, Decl. 31 ¶ 16, Decl. 34 ¶¶ 26, 28

[32] Decl. 29 ¶¶ 18, 21, Decl. 24 ¶ 23

[33] Decl. 34 ¶ 30

least with regards to race, minorities are rated more favorably with subjective than objective measures. (Contradictory Evidence)

Allstate Data: Managers at Allstate have far less discretion in their decision making than Dr. Reskin claims. They accountability to which managers at Allstate are held far exceeds that found in the laboratory experiments to which Dr. Reskin cites. (No Scientific Evidence)

Scientific Literature: First, I address Dr. Resking's claims regarding scientific literature relating to subjectivity, and, next, I address her claims regarding scientific literataure relating to discretion and accountability.

Subjectivity. As already noted, Dr. Reskin cites to no scientific evidence in asserting that subjectivity leads to disparities in gender (and racial differences) in employment outcomes. A review article by Arvey and Murphy (1998) states (p. 163):

> There is increased recognition that subjectivity does not automatically translate into rater error or bias and that ratings are most likely valid reflections of true performance and represent a low-cost mechanism for evaluating employees. The notion that performance evaluations and particularly supervisory ratings of performance are biased against racial and gender groups is simply not supported by the empirical data.

An earlier review article by Bernardin et al. (1995) directly examines this issue in the context of expert testimony in EEO cases. The abstract to the article summarizes the findings (p. 63):

> We examined a common expert witness theme in EEO cases that rating bias in the form of ethnic, age, or gender differences in personnel decisions based on performance appraisals is moderated by criterion specificity or rating scale format. Few studies have investigated this issue and results do not support the position that the more objective or specific criteria for assessment will result in smaller differences between groups based on age, gender or ethnic classification.

The Bernardin et al. article (1995) is a comprehensive review of the literature on performance appraisal bias. The primary focus of Bernardin et al. is on criterion specificity. In addition, they provide a more general review of research on race bias in supervisors' evaluations. They state (p. 71-72):

> The research indicates that all types of appraisal systems, which have been studied to date, are subject to rating distortion, deliberate or

> otherwise. The conclusions derived from meta-analytic studies and the equivocal findings in four studies which investigated criterion specificity, and the lack of research comparing different formats for their susceptibility to bias as defined in the case law, supports the argument that positions regarding criterion specificity espoused by some expert witnesses in litigation are not supported by the research. We therefore argue that it is incorrect to assume that the specificity of the criteria in performance appraisal system will necessarily reduce or eliminate bias.

Simply, what is being said here is that the existing research literature has failed to support the claim made by expert witnesses, like Dr. Reskin, that the objectivity of an appraisal system is critical to whether biased evaluations will occur. More generally at the end of their article they state:

> We must conclude that the burden is certainly on those experts who maintain that there is some causal connection between a particular deleterious outcome for some protected class member(s) and a particular type of performance appraisal format or system. The research does not seem to support this general theme. (p. 73)

These authors have reviewed at some length the research literature relevant to expert witness "opinions" similar to those offered by Dr. Reskin here. They concluded that the research simply does not support the claim that the use of objective criteria reduces or eliminates race differences in evaluated performance.

Further, more recent research directly contradicts Dr. Reskin's position. Roth et al. (2003), in an article on racial/ethnic differences, carried out a meta-analysis of 36 studies which compared individuals' ratings using objective or subjective measures. This is the most extensive meta-analysis in the literature to date focusing on ethnic/racial discrimination (Black-White and Hispanic-White). It is a direct test of the hypothesis that the use of subjective measures leads to discrimination. They found that "objective measures are associated with very similar, if not somewhat larger, standardized ethnic group differences than subjective measures across a variety of indicators" (p. 694). Put in other words, they found that racial minorities if anything did worse relative to majority individuals when objective, not subjective, measures were used. This directly contradicts Dr. Reskin's assertions about the use of subjective measures.

In another recent study, Hennessey and Bernardin (2003) also examined the consequences of using objective versus subjective evaluation measures, in this case in the context of gender. They examined the effect of appraisal criterion specificity on the outcomes of minorities and women. They examined over 248,000 performance appraisals for state employees in a southern state. They "found in general that African-Americans were rated lower than Whites and that greater criterion specificity made little difference in this result." They also "found no important difference in adverse impact against females as a function of the appraisal system using any definition of *prima facie* discrimination. Females actually fared better with the more subjective system ...." (p. 155). These findings in peer reviewed literature provide strong evidence refuting Dr. Reskin's claim that the use of subjective criteria leads to discrimination against women and minorities.

Discretion/Accountability. Dr. Reskin also asserts that discretion in decision making leads to gender disparities. In her report, Dr. Reskin does not discuss any scientific literature on discretion. What Dr. Reskin does discuss is the scientific literature on accountability generally and in organizations. Arguably, the obverse of discretion is accountability.

In her report (¶ 6.2) Dr. Reskin argues that if Allstate had appropriate accountability policies, this would mitigate the problem of gender disparities at Allstate. In making this argument, Dr. Reskin cites to laboratory research by Phil Tetlock (Tetlock 1992, Lerner and Tetlock 1998). Dr. Reskin seems to be unaware that Tetlock (1985) at least as far back as 1985 has been quite critical of the facile extrapolation of laboratory finds to the real world particularly with respect to issues of accountability. In particular, he suggests that organizational settings, by their very nature, are settings in which individuals' behaviors are held more accountable than in laboratory settings, calling into question the applicability of experimental findings demonstrating biased evaluations of target persons in a constrained social environment. More generally, Tetlock has been highly critical of the general line of argument that Reskin pursues in her report including her claims about accountability (Mitchell and Tetlock 2006, Tetlock and

Mitchel forthcoming.)

Allstate Data. With regard to discretion, Dr. Reskin indicated at her deposition that she would define "discretion" as used in her report as "essentially the freedom to act without some kind of other check. So, people have discretion when they – when they're free to act, make decisions on the basis of their own will or inclination." (p 327) While Dr. Reskin did offer a definition of "discretion," she did not provide any methodology for arriving at her claim of unchecked discretion by Allstate managers.

What is clear is that Allstate managers do not have discretion as Dr. Reskin defines that term, and that the accountability to which Allstate managers are held is much higher than in any of the experiments to which Dr. Reskin cites for her claim that accountability reduces or eliminates stereotyping. As Dr. Reskin admitted at her deposition "accountability in the workplace is more meaningful" than in a lab setting because there are potentially "more serious consequences" in the workplace than there are in the lab. (p 344-345) Below, I identify various checks on manager discretion identified in the Allstate Affiant Declarations, a number of which Dr. Reskin herself acknowledged exist at her deposition.

With regard to subjectivity, although Dr. Reskin's report appears to indicate that Allstate's personel practices require "substantial subjectivity" (¶ 7.1), she provides no method for assessing the degree to which Allstate's personnel practices are subjective. Dr. Reskin acknowledged at her deposition that "there are objective factors" that Allstate managers are measured against in their performance evaluations in terms of "business results." (p 243) She also agreed there are "very objective numbers that you can say an employee either met those numbers or did not meet those numbers. (p 243) She acknowledged that she is "not rendering an opinion" that the evaluation process at Allstate is "an entirely subjective process." (p 244) She agreed that in connection with performance evaluation "[y]ou have objective factors being added to subjective factors." (p 244) She also agreed that with respect to some employees it is conceivable "the objective factors may carry more weight" and that weights can vary in the

opposite direction as well. (p 244-45). My review of Allstate declarations in which managers describe the measures on which they are evaluated and on which they evaluate their direct reports, as well as my review of sample performance evaluation forms, is consistent with Dr. Reskin's deposition testimony. It is clear from the declarations and evaluation forms that Allstate managers are evaluated on both objective and subjective measures. There is certainly no reliable basis for concluding from the materials reviewed by Dr. Reskin that Allstate performance evaluations are "substantially subjective."

While this is by no means a comprehensive study of accountability of Allstate managers, the Allstate testimony is sufficiently clear to discern discretion is not unchecked.

- **One-over-one review process**. Dr. Reskin acknowledged at her deposition that by virtue of the one-over-one review process employment decisions affecting members of the putative class "were *not* left solely to the unchecked discretion of the employee's manager." (p 267) Allstate utilizes a "one-over-one" review, in which a manager reviews all the performance rating and merit increase ratings proposed by all his or her direct reports, to reduce the possibility that his or her direct reports will award different performance ratings and merit increases to employees who have similar performance results and CSF scores. Some Allstate managers report instances where their immediate supervisor has discussed with them one or more of their ratings. Some Allstate managers report that they analyze performance ratings and/or merit increases proposed by their direct reports to ensure ratings and merit increases are the same for employees in the same salary band with the same performance accountabilities and CSFs. (Decl. 1 ¶ 2, Decl. 3 ¶ 26, Decl. 10 ¶ 18, Decl. 14 ¶ 22, Decl. 19 ¶ 29, Decl. 22 ¶ 29, Decl. 24 ¶ 33, Decl. 27 ¶ 22, 35, Decl. 27 ¶ 29, Decl. 29 ¶ 33, Decl. 34 ¶ 15)

- **Quality Leadership Management Survey (QLMS)**. The QLMS is a survey in which subordinates evaluate their manager. (Decl. 2 ¶ 16, Decl. 13 ¶ 36, Decl. 17 ¶ 28, Decl. 34 ¶ 28) There is a "Leadership Index" component of the QLMS which includes 12-13 questions such as "I have the opportunity to pursue my job and career interests at Allstate..I receive the training I need to do my job well...My immediate manager creates a work environment in which employees are treated with dignity and respect." (Decl. 4 ¶ 8) Some managers report that they take into account QLMS results for their direct reports in evaluating their performance and that their own QLMS ratings play a role in how they are evaluated by their direct superiors. (Decl. 2 ¶ 16, Decl. 3 ¶ 17, Decl. 4 ¶ 8, Decl. 34 ¶¶ 26, 28)

- **Performance evaluation process**. By necessity the judgment and discretion of Allstate managers must come into play in the performance evaluation process. However, there are general components of the performance evaluation process which are checks on that discretion – certainly checks which are much more substantial than those in the laboratory experiments Dr. Reskin cites. All managers complete a standardized form evaluating their subordinates known as a performance development summary ("PDS") (Decl. 18 ¶ 19; see CD of all PDSs) Also, Allstate provides guidance and training to managers on how to conduct performance evaluations, including how to evaluate employees on CSFs. (Decl. 4 ¶ 27, Decl. 13 ¶ 24, Decl. 19 ¶ 16, Decl. 25 ¶ 17, Decl. 34 ¶ 27) Allstate's HR Department is a resource for managers with questions during the process (Decl. 4 ¶ 27, Decl. 13 ¶ 24, Decl. 19 ¶ 16, Decl. 34 ¶ 27), and the Product Operations has its internal Talent Development, Education & Communication as a resource as well for providing management education and coaching. (Decl. 4 ¶ 27, Decl. 13 ¶ 24; 18 ¶ 2) Also, there is the one-over-one manager review process in which each manager completing PDSs for his or her direct reports must submit those PDSs to their own superior for review and comment prior to finalizing them. (Decl. 1 ¶ 21, Decl. 3 ¶ 26, Decl. 6 ¶ 17, Decl. 14 ¶ 21) And, some managers report consistency review meetings where several managers meet together to ensure consistency in their ratings. (Decl. 13 ¶ 23, Decl. 25 ¶ 25, Decl. 31 ¶ 20-24)

- **Merit pay increases.** Dr. Reskin acknowledged at her deposition that "no manager within Allstate Protection had the discretion to make any pay decision about a particular employee that he or she wanted." (p 267-268) She also acknowledged that "managers at Allstate have limited discretion with respect to pay decisions. (p 329) Managers receive salary administration guidelines (referred to as "matrix") from HR which provides overall range of pay increases in terms of a percentage amount for each performance level (eg 0- 4% increase for a 3 "successful" rating) and salary range. (Decl. 1 ¶¶ 23-24, Decl. 3 ¶ 22, Decl. 4 ¶ 30) Managers are further constrained in that while they may exceed or go below the recommended percentage increase for a particular individual, they must stay within the merit increase budget for their department. (Decl. 1 ¶¶ 23-24, Decl. 3 ¶ 22, Decl. 4 ¶ 30, Decl. 6 ¶ 21, Decl. 7 ¶ 23, Decl. 14 ¶ 25, Decl. 26 ¶ 25) Indeed, Dr. Reskin acknowledged this "budgetary constraint" on merit pay increase decisions at her deposition. (p 268) Also, managers receive training and guidance from HR. (Decl. 7 ¶ 20) Some managers report doing consistency reviews with other managers to ensure they are providing similar percentage increases to employees performing similar jobs who are similarly evaluated. (Decl. 31 ¶ 20-24, Decl. 34 ¶ 32)

- **Succession Planning.** As described above in the uniformity section, succession planning involves groups of managers getting together and reaching consensus to identify employees who have the capability to

significantly advance within Allstate. (Decl. 1 ¶ 31, Decl. 4 ¶¶ 32-36, Decl. 14 ¶¶ 36-38, Decl. 17 ¶ 37, Decl. 22 ¶¶ 30-34) This is hardly a situation of unchecked discretion. Moreover, many of the Allstate affiants report that they share with their subordinates the results of the succession planning meetings and/or that their superiors have shared with them results of succession planning in which they were among the individuals discussed.[34] This too acts as a constraint on discretion.

- **Promotions.** Managers report approval processes in which they must seek approval of a more senior manager or several more senior managers before filling a job opening in pay grades 63 and above. Also, managers report looking to succession plan lists to identify "ready now" candidates, and these lists reflect a process in which groups of managers reached a consensus to identify the group of employees characterized as "ready now" for advancement. (Decl. 1 ¶¶ 39, 40-43, Decl. 8 ¶¶ 42-44, Decl. 14 ¶¶ 43-45, Decl. 15 ¶¶ 34-36, Decl. 19 ¶¶ 37-39, Decl. 24 ¶¶ 42-45, Decl. 27 ¶ 42, Decl. 29 ¶¶ 42-45, Decl. 10 ¶ 44, Decl. 4 ¶¶ 43-44, 46, Decl. 5 ¶ 32, Decl. 12 ¶ 31, Decl. 13 ¶¶ 15-16, 39-41, Decl. 18 ¶ 31, Decl. 25 ¶¶ 33-36, Decl. 17 ¶ 41, Decl. 21 ¶¶ 33, 35, Decl. 26 ¶¶ 45-48, Decl. 31 ¶ 34, Decl. 34 ¶¶ 41-46)

SUMMARY

The purpose of my report has been to assess whether Dr. Reskin's report is consistent with the same methodology that would be expected of research published in a scientific journal. As Dr. Reskin admits in her own deposition testimony, and as I have confirmed in my report, Dr. Reskin's report does not meet this standard.

In Part I of my report, I analyze the structure of Dr. Reskin's argument. I show that her conclusion, that there gender disparities at Allstate, is the consequence of six interrelated claims. If Dr. Reskin has moved unreliably from evidence to each of these six claims, as I assert, then one must conclude that her overall argument is without scientifically reliability.

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[34] (Decl. 1 ¶ 33, Decl. 2 ¶ 18, Decl. 5 ¶ 31, Decl. 6 ¶¶ 28, 29, Decl. 10 ¶ 43, Decl. 11 ¶ 23, Decl. 12 ¶ 30, Decl. 13 ¶ 34, Decl. 22 ¶ 34, Decl. 24 ¶¶ 21, 37, Decl. 25 ¶ 31, Decl. 26 ¶¶ 43-44, Decl. 27 ¶ 37, Decl. 30 ¶ 39, Decl. 34 ¶ 37) Also, for Product Operations, it appears that while up until October 2005 some managers would routinely inform employees of their targeting through succession planning it was not a requirement, and that since October 2005, all managers in Product Operations are required to meet with every employee in Bands D to G after the succession planning meeting to explain collective assessment of the officer group. (Decl. 18 ¶ 30)

In Part II of my report, I assess the reliability of Dr. Reskin's conclusion and the six claims it rests on: I find:

- Dr. Reskin's conclusion that there exist systemic gender disparities at Allstate is unreliable because it is contradicted by the data. If one compares men and women with similar positions and salaries at the beginning of the class period, there is no gender disparity in their current compensation, nor is there any disparity with regard to promotions or performance evaluations.

- Dr. Reskin's claim of a company wide paternalistic organizational culture at Allstate is not grounded in any scientific evidence. There is no scientific literature to support this claim, nor does Dr. Reskin provide any evidence that such a culture exists at Allstate.

- Dr. Reskin's claim about the existence of unconscious processes and implicit associations as potentially affecting behavior is, with some qualification, reliable. These processes, however, are about unintentional not intentional behavior, the issue in this case. However, not discussed by Dr. Reskin is that these processes may not be automatically activated or effect behavior. There is no evidence that these effects are widespread at Allstate.

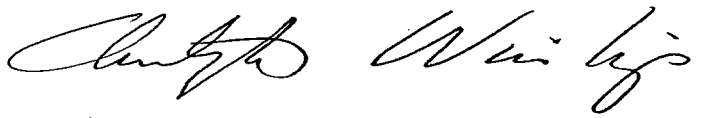
- Dr. Reskin's claim that Allstate has a uniform set of policies and practices is contradicted by the data on Allstate and therefore unreliable.

- Dr. Reskin's claim about the potential effects of stereotyping and ingroup favoritism relies on a highly selective reading of the literature. It is impossible to make any general claims with scientific reliability about when stereotyping will be present in an organization from this literature. And, Dr. Reskin does not provide any evidence that these processes are widespread at Allstate.

- Dr. Reskin acknowledges the potential effects of individuating information in checking the effects of stereotyping. Peculiarly, however, she makes no attempt to analyze how much individuating information, and it is considerable, is available to managerial decision makers at Allstate.

- Dr. Reskin's claims, contrary to extensive research in the scientific literature, that subjectivity and discretion in decision making lead to gender bias generally and at Allstate in particular. She provides no evidence that this has occurred at Allstate. In fact, the evidence contradicts here assertion.

Given the above problems with each and every component of Dr. Reskin's opinion, her overall opinion must be judged as wholly unreliable, unsustainable, and wholly without scientific reliability.



Christopher Winship
May 28, 2008

APPENDIX

Methodological Problems With Dr. Reskin's Application Of The Social Science Literature On Stereotyping And Ingroup Bias

This Appendix discusses in detail the methodological problems with Dr. Reskin's use of social science literature relating to stereotyping and in-group favoritism. As described in the body of my report, one of the claims interior to Dr. Reskin's causation opinion is that, absent checks by Allstate, Allstate managers engage in "ingroup favoritism and sex stereotyping" on a widespread basis causing systematic gender disparities in personnel decisions (Reskin ¶ 2.3). I indicated that Dr. Reskin provides no direct scientific evidence of stereotyping, much less widespread stereotyping or in-group bias by Allstate managers. Rather, Dr. Reskin claimed at her deposition that she may validly "assume" widespread stereotyping by Allstate managers based upon the social science literature. (p 277) Dr. Reskin's assumption is inconsistent with scientific methodology. There is absolutely no way to reliably "assume" from the current body of social science research on stereotyping and in-group bias that Allstate managers systematically engage in stereotyping and in-group bias. Dr. Reskin has been highly selective in her use of the scientific evidence about stereotyping and in-group bias. Furthermore, Dr. Reskin fails to seriously examine the issues involved in moving from the research literature, much of which is based on laboratory experiments, to actual workplaces. As a result, her claim is unreliable

Below, I discuss in detail the methodological problems with different aspects of Dr. Reskin's application of the social science literature on stereotyping and in-group bias: (i) unreliable assumption of external validity, (ii) unreliable application of stereotyping research to sustained interactions, (iii) unreliable claim that stereotypical thoughts necessarily lead to discrimination, (iv) unreliable claim that stereotyping leads to negative bias, (v) unreliable application of literature on implicit associations, and (vi) unreliable application of literature on ingroup bias.

1. Unreliable Assumption of External Validity

The section of Dr. Reskin's report which purports to describe social science research on ingroup favoritism and sex stereotyping is titled "Social Science Research On Bias In Personnel Decisions." (Reskin, Section IV) In this section Dr. Reskin purports to identify findings from social science research, but she does not describe the underlying studies to which she cites for these findings. Without this description one

cannot assess whether it is possible to reliably extrapolate from those studies to the propositions being advanced by the researcher.

Dr. Reskin relies heavily for her claims about stereotyping and ingroup favoritism on literature which reports on the results of psychology experiments conducted in laboratories (¶4.4, ¶4.5, ¶4.6) (e.g., Bargh, at al. 1996, Blair, and Banaji. 1996, Brewer et al. 1981, Cameron and Trope, 2004, Gilbert and Hixon, 1991, Heilman and Okimoto 2007, Heilman et al. 2004, Heilman and Haynes 2005, Powell et al. 2002, Rudman and Glick 2001, Rudman and Ashmore 2007, Schmidt at al. 1986, and Sekaquaptewa et al. 2003). I have provided a table summarizing the experiments to which Dr. Reskin cites in Exhibit B. As can be seen in that table, the vast majority of these experiments involve college undergraduates as test subjects. In addition, in most cases, the experimental task is quite unlike the tasks involved in decision making in a work organization.

Despite the considerable differences, Dr. Reskin fails to discuss in any serious manner the potential issues involved in extrapolating findings from this laboratory based research to actual organizations, and in particular to Allstate and the personnel decisions at issue in this case. In social science, this is known as the problem of external validity.

In her deposition, Dr. Reskin acknowledges the considerable difference between experimental settings and real world work contexts. She states workplaces are "vastly more complex than laboratory experiments." (p Dep. 41) Also, an article published in 2000 by Dr. Reskin identifies as a task for sociologists "to determine whether the cognitive processes that I have reviewed operate in the same way for work organizations as they do in the lab." (Reskin 2000)

Mitchell and Tetlock (2006), who themselves conduct laboratory experiments using college undergraduates, reported in the scientific literature, provide an extended examination of the external validity problems with extrapolating from these laboratory findings to workplaces. (see Levitt and List 2007 for a similar analysis). They point out that (p. 1109):

> (1) Subjects in laboratory experiments are typically asked to judge people about whom they have virtually no work-history or past-performance information (indeed, subjects often have little more information than group category membership, like race or gender, on which to base their impressions); however, hiring and staffing managers often have access to a great deal of carefully compiled data on the past behavior and performance of those they are judging;
>
> (2) Subjects in laboratory experiments are not typically judging people with whom they expect to interact in the future; yet, hiring and staffing managers often expect future interaction (including potentially awkward

social encounters in which they must explain in detail to those whom they have judged why the ratings or outcomes take the form they do);

(3) Subjects in laboratory experiments are not typically asked to judge people whom they perceive to be on their "team" (people with whom they must work collaboratively to achieve shared goals—an independent variable some psychologists have designated as "outcome interdependence"); hiring and staffing managers have strong interests in choosing the best possible people because the people they choose will indeed be on their team and potentially affect their own future performance evaluations and raises;

(4) Subjects in laboratory experiments rarely, if ever, have powerful long-term financial or legal incentives for doing a better job at performance appraisal; hiring and staffing managers typically have strong financial, legal, and long-term incentives for making correct and lawful decisions;

(5) Subjects in laboratory experiments are rarely given any training in using rating scales or other evaluation tools; hiring and staffing managers at many organizations receive extensive training in performance evaluation and making compensation decisions, and these persons have been alerted to the dangers of a variety of rating biases as well as the dangers of discrimination;

(6) Subjects in laboratory experiments rarely expect that they will have to justify their opinions to people above them in an organizational hierarchy who control important rewards and punishments; hiring and staffing managers are well aware of the need to have adequate and legal justifications for their judgments and decisions;

(7) Subjects in laboratory experiments rarely expect that they will be accountable to high-status others who have repeatedly affirmed a non discrimination policy; hiring and staffing managers at many organizations are often aware of the views of those to whom they are accountable and of the high value that is placed on achieving diversity goals and avoiding charges of discrimination;

(8) Subjects in laboratory experiments rarely receive clear or repeated admonishment not to allow job-performance-irrelevant characteristics, such as membership in ethnic-racial groups, to affect their personnel judgments; hiring and staffing managers often receive clear and repeated admonishment on this score;

(9) Subjects in laboratory experiments are rarely encouraged or required to attend training workshops on how to make personnel decisions; the opposite is true of hiring and staffing managers at large organizations, as well as many small to mid-size organizations;

(10) Subjects in laboratory experiments are rarely given written manuals and guidelines that place constraints on how they should perform their task; the opposite is true of hiring and staffing managers at many large organizations, as well as many small to mid-size organizations;

(11) Subjects in laboratory experiments rarely expect that they will have to offer comparative rationales for why they selected certain people and did not select others; hiring and staffing managers are often expected to do so;

and

> (12) Subjects in laboratory experiments are typically college undergraduates who have had virtually no experience supervising and evaluating employees; hiring and staffing managers typically are fully mature adults who have considerable experience in supervisory roles.

They observe that an enormous amount has been written about how variation in personality, culture, and organizational context can potentially undermine claims to external validity. (e.g., see Cialdini and Trost, (1998), Fiske et al., (1998) Pfeffer 1998).

The key issue is whether a scientist can establish the external validity of his or her research in the context of interest (Shadish, Cook, and Campbell, 2001; Cook 1991; Cook and Campbell 1979). This simply means that one needs to examine whether one can justifiably extrapolate from the specific laboratory experiments to the *particular* non-laboratory settings of interest. A scientist should not assume that results in the laboratory automatically apply to the outside world. Katz and Proshansky (1987), commenting on Pettigrew and Martin's (1987) extrapolation from laboratory experiments to the behavior of individuals in actual firms, state:

> But it should be kept in mind that most of this research was done outside of the workplace. Problems arise when one attempts to apply the findings of laboratory investigations to perceptions and interpersonal processes in the employment setting. (p. 101)

In situations where a researcher wants to claim that the results of a laboratory study are predictive of behavior in field studies, good social science practice requires the researcher to extensively analyze the threats to the research's external validity. Dr. Reskin's report has not attempted to do this.

Before a scientist can conclude that laboratory results can be validly extrapolated to the outside world, a number of factors should hold true:

1. **The scientist should have carefully assessed whether the laboratory setting accurately mimics, along appropriate dimensions, the real-life setting of concern.**

2. **The researcher's findings should have been consistently replicated across a number of different studies done by different scientific investigators. This is necessary to insure that small changes in experimental design and procedure do not produce substantial changes in the results.**

3. There needs to be evidence that the results found in these studies using highly restricted populations (e.g., college undergraduates) can be applied to broader populations. Optimally, this should be done by replicating some subset of

experiments on the broader population.

4. The size of the effect must be sufficiently large to insure that any differences between the experimental and real-life situation are unlikely to negate the effects.

5. It needs to have been shown that the presence of large and important counterbalancing effects from other factors in the real-life situation can be ruled out. If such factors potentially exist, then there need to be accurate estimates of their effects along with precise measures of their levels.

Other criteria could be added to this list. Cook and Campbell (1979, p. 73-80) provide the standard discussion of external validity. The important point is that with respect to this case, Dr. Reskin clearly has not established the validity of the studies she cites with respect to even one of the above criteria.

The psychology literature has been quite careful in qualifying the potential applicability of laboratory findings to real world situations. Berkowitz and Donnerstein (1982), in an article whose central goal is to defend the usefulness of experiments, state:

> Thus, we are not insisting that the laboratory findings are necessarily generalizable to the world outside. *No blanket statement can be made one way or another about experiments as a whole.* (italics added) Just as it is incorrect to say laboratory behavior will not arise in other settings that are physically very different, so it is equally wrong to hold that the subjects' laboratory reactions will definitely occur on more naturalistic occasions. (p. 255)

They then state (p. 245, 249) that the external validity of a study must be empirically demonstrated.

Another point that Berkowitz and Donnerstein (1982) make in several places that is critical to this case is that experiments even when they have external validity cannot be used to assess the likelihood that a certain class of responses will occur in real life situations (emphasis added) (p. 247, 255, 256). Kraiger and Ford (1985, p. 61) and Ilgen (1986, p. 258) take the same position. Although experiments may demonstrate the existence of a particular process, because they are based on a particular population in a specific context, they cannot provide evidence on how likely this process would occur for other populations or contexts.

In her deposition, Dr. Reskin was asked if she still agreed with the statement she wrote in her article published in 2000 that "the first task for sociologists -- perhaps in collaboration with social psychologists -- is to determine whether the cognitive processes that I have reviewed operate in the same way in work organizations as they do the lab." (p 44) Dr. Reskin responded that "we've had a lot of research, field research" in the last seven or eight years, and she identified an unpublished article by Greenwald et al. (forthcoming) as her primary source for her claim about the existence of "field research." (p 44-45). However, on a subsequent day of her deposition, Dr. Reskin acknowledged that the Greenwald article states "Because the studies in this meta-analysis were almost exclusively laboratory studies with undergraduate students, neither type of subject nor site of study was coded." (p 341-42 & Ex. 13)

At another point in her deposition, Dr. Reskin was asked if she engaged in "any study in this case to determine how the conditions at Allstate for making promotion decisions or pay decisions had any similarity to the conditions in any of the experimental studies" she cites in her report. Dr. Reskin did not answer this question. Instead, she responded that she wanted to "acknowledge that the majority of these experimental studies weren't done in the field. The majority of them were done in laboratories." (p 339-340)

In her report, Dr. Reskin does cite to a small number of field studies. With two exceptions, these field studies are actually studies of one or at most a few organizations (Cannings and Montmarquette 1991-a Canadian service firm, Ford et al., 2005 -- seven U.S. food marketing companies, Lynes and Heilman, 2006 -- a multinational financial services firm (no further description given), and Ohlott et al. 1994- a southeastern management development organization).[1] They would more appropriately be labeled case studies. The key issue is whether these firms are sufficiently similar to Allstate, such that their findings have any relevance. Dr. Reskin, however, has provided no evidence that the organizations in these studies are in any way similar to Allstate. As a result, the relevance of these studies to Allstate is at best questionable, and at worst nonexistent.

What is problematic here is that neither the researcher nor the reader has any idea of how typical the organizations in these studies are compared to other

[1] The exceptions are Bowen et al. (2000) and Elliott and Smith (2004). As I discuss below, Dr. Reskin seriously misrepresents the findings in these studies, which generally are not supportive of her overall argument.

organizations more generally. As a result, as with experiments, it is impossible to generalize from these case studies to populations of organizations generally or Allstate in particular. Generalization is particularly problematic when a researcher has chosen a particular organization(s) to study because of specific features -- for example, because discrimination is known to be a substantial problem in the organization. Dr. Reskin makes no attempt to examine this issue.

In order to draw general inferences about organizations one should have a random sample of organizations. Only with a random sample (or a complete census) is it possible to make general inferences. However, a sample, simply because it only consists of a subset of the population, may provide inaccurate inferences about the population as a whole. This is known as sampling error. Thus, the confidence with which one can make statements will be a function of the sample size. The larger the sample the smaller the sampling error and the greater confidence the researcher has in drawing inferences to the population as a whole. Because of the uncertainty introduced by sampling, sociologists typically like to work with samples containing thousands of observations. Sometimes samples with a few hundred units are used. In rare cases are samples of less than one hundred observations analyzed.

In her report Dr. Reskin cites to social science literature without in the vast majority of cases providing a description of the studies she cites, i.e. that most all are laboratory experiments, and without providing any explanation as to why it would be reliable for her to make assumptions about what the conditions at Allstate are based upon the literature she cites. Dr. Reskin provides no reliable basis for extrapolating from those studies to Allstate managers. Given the considerable differences that exist between experimental settings and work places, one cannot simply assume that it is valid to extrapolate from the lab to the real world, much less specifically to Allstate. The external validity for relying on the studies Dr. Reskin cites to make assumptions about Allstate is not established. It is pure speculation for Dr. Reskin to assume laboratory findings directly transfer to the decision-making by Allstate managers at issue in this case.

2. Unreliable Application of Stereotyping Research to Sustained Interactions.

Most of the experimental research that Dr. Reskin cites involves situations where individuals are faced with new information either in the form of a video or written description of someone, or in terms of an a simulated encounter with someone they have never met before. Thus, this research is most relevant to what might be called

"stranger to stranger" interactions. With respect to organizations, this research is potentially relevant to hiring decisions where the decision-maker and applicant are strangers to each other. Even here, research in actual work organizations would be needed to demonstrate the applicability of the experimental research. There is no reliable basis for extrapolating from this research to make assumptions about organizational decision-making that involves sustained, long-term interactions, such as the decision-making by Allstate managers at issue in this case. At this point, there simply is no research demonstrating that the findings from these research experiments would apply to organizational decision-making such as salary determinations or promotion decisions where the individual doing the evaluation and the individual being evaluated are in a long term relationship.

Experimental research suggests that stereotypes may be most relevant to first encounters, and that, if present, stereotypes are quite short-lived. Thus, the extent to which research findings on stereotypes can be generalized to relations in the "real world" (as well as other social contexts in which sustained social interactions occur) is far from clear. Repeated exposures increases familiarity and learning about the individual. This renders stereotypes less useful and thus, less likely to be employed (Harrison et al., 1998).

Experimental research indicates that it may not take considerable amounts of time or information to render the activation of stereotypes moot. In an experiment focusing on racial stereotypes, when participants observed videotapes with an African-American person, stereotypes of African-Americans that had been activated in the first 15 seconds dissipated within 12 minutes of observation (Kunda et al., 2002). So while lab experiments find stereotypes can be activated spontaneously by brief exposure to the stereotyped individual (Bargh et al., 1996; Fazio et al., 1995; Gilbert & Hixon, 1991; Macrae et al., 1995), the implications to relationships in everyday life are less clear than has been assumed (Bargh & Chartrand, 1999).

The short-lived nature of stereotypes has also been shown to lessen potential evaluation bias. Bass & Turner (1973) in a study of a large bank show that race differences on evaluation criteria are negligible (and insignificant) when controlling for job tenure. Their finding suggests that evaluators who are in long-term relationships with those they evaluate may rely less or not at all on stereotypes. These findings regarding race stereotypes are likely to apply to sex stereotypes as well.

In short, there is a significant academic literature that questions the applicability of stereotype research to organizational settings in which individuals have extended interactions. Many of the studies that Dr. Reskin cites as supportive of her opinion are laboratory experiments where the experiment involves a stranger to stranger encounter. Although the researchers cited above go on to conclude that it is dangerous to generalize from these one-time exposures to the much longer term relationships found in organizations (Katz and Proshansky, 1987). Yet, Dr. Reskin has done exactly this and without qualification. Thus, there is no reliable basis for Dr. Reskin to extrapolate from the stereotyping research she cites to the Allstate personnel decisions addressed in her report.

3. Unreliable Claim That Stereotypical Thoughts Necessarily Lead To Discrimination

A major assumption in Dr. Reskin's report is that stereotypical thoughts, if unchecked by individuating information or accountability, necessarily influence behaviors, especially discriminatory behaviors. Research, however, does not support her position. A review essay by Dovidio et al. (1997) indicates that the hypothesis that stereotypical thoughts lead to discrimination has been tested in only a limited number of studies (3) and that the findings of these studies are either inconsistent or show that the relationship is weak. To quote:

> [S]tudies that examine the relationship between racial stereotypes and discrimination are rare. We found only three published reports of individual differences in stereotypes and discrimination, and these studies .. generally investigated behavioral intentions rather than actual interpersonal behaviors. ... Second, despite the conceptual arguments that racial stereotypes and discrimination should be positively related, the findings of the three studies are inconsistent and, at best, moderate in strength. (p. 302-33)

Schneider (1996) succinctly stated the issue:

> The original reason for studying stereotypes was that they would help explain prejudices and discrimination. Yet as many people have commented...there has been far too little attention devoted to the interrelations among these variables, and what studies we do have point to weak and inconsistent relationships. Stereotypes, prejudice, and discrimination are surely related in complex ways, and there is no reason to believe that they are related the same way for everyone across all situations. (p. 445)

Research has shown that the likelihood that stereotypical thoughts will result in stereotypic judgments may, in fact, be contingent on the propensity of an individual to engage in and enjoy active or challenging thought situations (Florack et al., 2001; Gilbert & Hixon, 1991) or the motivation or concern of the individual with respect to being prejudiced (Fazio et al., 1995; Lepore & Brown, 1997; Sinclair & Kunda 1999). As discussed above in the section on external validity, individuals are likely to be far more motivated to avoid being seen as prejudiced in the real world than in an experiment.

Experimental research has explored the extent to which stereotypes necessarily result in shaping behaviors. Gilbert & Hixon (1991), an article cited by Dr. Reskin, make an important contribution by distinguishing between the distinct processes of stereotype activation, the presence of a stereotypical thought, and its application, that is, acting on that thought. These two processes are affected differently by the number of cognitive tasks facing an individual. They find that it is also the case that the likelihood that the activation of stereotypes will lead to their application is also contingent on a person's objectives. When a person's gender or race is wholly inconsequential to the participant's objectives, there is too much other information to which he or she must attend, and irrelevant stereotypes (including race or gender) may not be activated (Gilbert & Hixon, 1991). As they state:

> [I]t may be virtually impossible for a literate adult to read the phrase "black fireman" without experiencing activation of both the racial and occupation constructs ... yet it may be possible for a literate adult to encounter a black fireman and, given the appropriate information-processing goal, to construe the black fireman only in terms of his occupation.

Experimental studies indicate that differences in individual motivation, as Dr. Reskin acknowledges (¶ 4.0, 4.7), can also play an important role in stereotypic judgments and thus, shapes behaviors, such as evaluative decisions. For example, the likelihood that activated stereotypes will inform individual's judgments is shaped by the extent to which they care about being prejudiced (Fazio et al., 1995; Devine, 1989; Monteith, 1993), are motivated to think highly of the target person (Sinclair & Kunda, 1999), or hold norms that basing evaluations on stereotype information is invalid (Leyens

et al., 1994; Yzerbyt et al., 1997). Low-prejudiced individuals may be less affected by the activation of stereotypes and less likely to bias ratings according to stereotype attributions (Lepore & Brown, 1997).

Finally, Dovidio et al. (1997) also discuss how the causal relationship between stereotypical thoughts and discrimination may go the other way, that is from behavior to stereotype. They point out that, starting with Allport's (1954) seminal book, researchers have hypothesized that stereotypes are used to rationalize, in the sense that beliefs are adopted to explain observed situations. To quote:

> For example, people may make dispositional attributions, such as "lazy," to members of a group to provide a causal explanation for the group's disadvantaged economic status. Thus, stereotypes may be a consequence, rather than a cause, of discrimination. Additionally, a relationship between stereotyping and discrimination appears to be difficult to demonstrate empirically. (p. 277)

In asserting that stereotypes are a cause of gender disparities at Allstate, Dr. Reskin assumes based on the literature that stereotypical thoughts necessarily lead to discrimination. However, her assumption is wholly unreliable. The academic literature identifies a host of concerns as to why stereotypical thoughts may not lead to gender discrimination.

4. Unreliable Claim That Stereotyping Leads To Negative Bias

Dr. Reskin's claims about stereotyping imply that when gender stereotypes do inform or bias evaluations, such bias will always negatively impact stereotyped target persons. (e.g., "Reliance on leaders' discretion in performance assessments and predictions about future performance invite distorted appraisals both through automatic biases such as ingroup favoritism and sex stereotyping and through open favoritism." (¶ 7.1) However, experimental research suggests that stereotype bias leads to more extreme, negative or positive, evaluations of targeted persons. In some cases negative stereotypes have been shown to result in more positive, rather than more negative, evaluations. For example, when the credentials or performance of a member of a stigmatized group are positive in experiments, that person may actually be evaluated more favorably than those in majority groups; and when the credentials or performance

of members of stigmatized groups are weak, those individuals may be evaluated more negatively. Hilton and von Hippel (1996) discuss how an African-American man who behaves in a highly intelligent manner will actually seem more intelligent, rather than less intelligent, than a comparable Caucasian. Jussim et al.'s (1987) "expectancy violation" theory asserts that when one's characteristics violate stereotype-based expectations, evaluations will be more extreme in the direction of expectancy violation. In other words, those with more favorable characteristics than expected would be evaluated even more positively than those with similar characteristics who were expected to be rated positively.

As Roese and Sherman (2007) indicate in their review essay, a large body of research indicates that the violation of an expectation may actually cause individuals to rethink their judgments and stereotypes. When an individual's characteristics or behaviors violate stereotypes in a positive direction, people may evaluate the individual more favorably than a similarly qualified majority member or man. This phenomenon is well documented in the social psychology literature. Fiske and Taylor (1991) discuss it in their chapter on "Social Categories and Schema" in the subsection on "Extreme inference and evaluations" (p. 135).

A related issue is whether individuals are more likely to remember stereotype-consistent or stereotype-inconsistent information. Dr. Reskin asserts that "we are more likely to remember stereotype-consistent than stereotype-inconsistent information about an individual" (¶ 4.4). Roese and Sherman (2007) summarize the recent research which finds just the opposite. To quote (p. 104) "incongruent events draw out attention, and because they challenge extant beliefs, individuals expand effort toward explaining them (e.g. bridging). This deeper, more elaborate encoding of incongruence's increases their memorability in a number of ways." This statement directly refutes Dr. Reskin's claim.

Jacobson and Effertz (1974) and others have discussed these issues in the context of gender. In an experimental study, they found that the performances of male leaders were rated worse than those of female leaders, though actual performance was equal. In another experimental study, Abramson et al. (1977) found that female attorneys and paralegal workers were rated as more competent than their male counterparts. They label this the "talking platypus" phenomenon, by which violated expectations that may be informed by stereotypes make the stereotyped person's performance appear more favorable. Hamner et al. (1974) and Bigoness (1976) found that business students asked to evaluate grocery stock workers by watching a film, gave

males lower performance ratings than female workers, even when performance was identical. In addition, many experimental studies find no evidence of systematic gender stereotype bias in evaluations (Frank and Drucker, 1977; Deaux and Taynor, 1973; Hall and Hall, 1976; Dipboye and Wiley, 1977).

In sum, there is no reliable basis for inferring from the academic literature that gender stereotyping leads to negative bias.

5. Unreliable Application of the Literature on Implicit Associations.

Dr. Reskin cites to the literature on "implicit associations" in discussing the effects of stereotyping on gender disparities (¶ 4.4). Undiscussed by Dr. Reskin is the considerable controversy in the psychology literature on what measures of implicit association such as the IAT actually measure and whether it is actually predictive of prejudice or discrimination. One example of this is the 2004 Winter Issue of *Psychological Inquiry* (Vol. 15, No. 4) which was entirely devoted to a paper by Tetlock and Arkes (2004) on this issue with responses from a number of prominent psychologists, both quite positive and negative to their paper, and then their response.

What is clear here is that there is enormous disagreement within psychology about the importance of implicit associations and the IAT. In her report, Dr. Reskin makes no reference to that the fact there are such sharp disagreements within the psychology literature, giving the impression that there is in fact consensus. As such she has applied this literature unreliably.

The issues discussed in the literature are multiple. The issue of *Psychological Inquiry* referenced above provides an excellent introduction to each side of the debate. Mitchell & Tetlock (2006) provides an extended critique. Here, according to Mitchell and Tetlock, are a list of the issues that are in dispute:

> **1. Construct Validity: Does the IAT or other measures of implicit association actually measure prejudice or some other psychological attribute, such as fear of being seen as prejudiced, sympathy, guilt, cultural knowledge, knowledge of the disadvantaged status of a group? More generally is the IAT measuring association or some other psychological process?**
>
> 2. Internal Validity: Do implicit associations in fact lead to discriminatory behavior? Research to date has yet to find convincing results (Ziegert and Hanges 2005, Rudman and Glick 2001). The strongest evidence in Greenwald et al.'s (forthcoming) meta-analysis is the work of McConnell and Leibold 2001, who showed that individuals who scored high on the IAT appear less at ease in a social interaction with a black experimenter as measured by friendliness, comfort level, eye contact, body posture, among other indicators.

> 3. Statistical Conclusion Validity: Is it possible to predict implicit prejudice using the IAT? Is the low correlation between repeated measures of the IAT simply a product of measurement error or rather an indication of the instability of the underlying trait that it measures.
>
> 4. External Validity: I have discussed this above. The basic question is whether results in the laboratory generalize to real world situations.

The four dimensions here are classic ways of evaluating psychological research (see Cook and Campbell 1979, Shadish et al. 2001). A considerable amount of new research would need to be done by multiple investigators to resolve these issues. For now, the only safe conclusion is that there is much more that we need to know before any claims can be made about the relationship between implicit associations, prejudice, and discrimination.

6. Unreliable Application of the Literature on Ingroup Bias

In her report Dr. Reskin repeatedly asserts that ingroup bias is a source of gender disparities at Allstate (¶¶ 2.4, 4.0, 4.2, 4.3, 5.6, 7.1). She, however, only provides the briefest of descriptions of the social science literature on ingroup bias (¶¶ 4-2-4.3). Her description of this literature is seriously flawed.

First, Dr. Reskin gives the impression that the literature consistently shows that ingroup bias causes men to disadvantage women. Dasgupta (2004), a reference cited by Dr. Reskin, provides a thorough review of the recent literature. She concludes (p. 163):

> Third, it is also clear that people's implicit attitudes and beliefs toward in- and outgroups affect specific types of behaviors, some of which may operate without social actors' awareness or control; but it is also evident that implicit biases do not
> always result in discriminatory action in an obligatory fashion. People's awareness of potential bias, their motivation and opportunity to control it, are a few of the factors that influence whether attitudes translate into action.

Dr. Reskin is highly selective and biased in the results that she reports from two of the articles that she cites to as support for the claims about academic literature on ingroup bias in Paragraph 4.3 of her report. At footnote 30, Dr. Reskin cites to Bowen et al. (2000), a meta-analysis of research based on 103 organizational samples. Dr. Reskin cites the Bowen article as support for this statement: "For example, male decision makers are more likely to hire and promote men than female decision makers." (¶ 4.3) However, the principle focus of Bowen et al. (2000) is not on gender differences in promotions, but rather gender differences in actual job performances. A major if not

principle finding of their study is that "there is little systematic evidence of overall gender biases in performance appraisals in actual work settings. This is consistent with the findings reported in Swim et al. (1989) and Eagly et al. (1992, 1995)."

Dr. Reskin also cites Elliot and Smith (2004) (Reskin n.32), a survey of white and minority adult respondents in three major cities. Dr. Reskin cites to the Elliot and Smith article as support for her statement: "For example, white men are twice as likely to be promoted when their supervisors are also white men as when they are overseen by nonwhites or females." (¶ 4.3) The issue of ingroup favoritism in Dr. Reskin's report is in the career outcomes of women. The more relevant findings in Elliot and Smith (2004) are that "although each major race-sex group exhibits a pattern of increasing inequality (the higher their employment position), relative to white men, only black women exhibit this pattern after controlling for variation in human capital and employment context, ..." (p 376); and "For white women, ... (h)owever, advancement from supervisor to manger (in contrast to advancement from worker to supervisor) occurs much *less* (emphasis in the original) under ascriptively similar supervisors.." (p 379). Given that most superordinates in this data are white men, what is being said here in plain English is that white women are more likely to be promoted if their boss is male than female, hardly evidence of ingroup bias.

Dr. Reskin's use of the social science literature on ingroup favoritism is totally unreliable. She also provides no evidence that ingroup favoritism is present at Allstate.

EXHIBIT A

June 2006

CURRICULUM VITAE

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EDUCATION

1968	H.S., Hotchkiss School, Lakeville, CT
1972	B.A., Dartmouth College (Sociology and Mathematics)
1977	Ph.D., Harvard University (Sociology).

PROFESSIONAL EXPERIENCE

Academic Positions:

2005-present	Diker-Tishman Professor of Sociology
2002-present	Professor, Kennedy School of Government
1993-2005	Professor of Sociology, Harvard University

1987-1992	Professor of Sociology, Statistics and Economics, Northwestern University
1980-1987	Assistant to Associate Professor (1983) of Sociology and Statistics (1986-1987), Northwestern University

Research Positions:

1999-present	Senior Fellow, Hauser Center for Nonprofit Organizations, Kennedy School of Government, Harvard University
1999-present	Research Associate, Institute for Quantitative Social Science (formerly the Center for Basic Research in the Social Sciences)
1981-1993	Research Associate, Center for Urban Affairs and Policy Research, Northwestern University
1981-1993	Research Associate, Economics Research Center, National Opinion Research Center, University of Chicago
1978-1980	Senior Study Director, National Opinion Research Center
1977-1978	Research Associate, Institute for Research on Poverty, University of Wisconsin

Administrative Positions:

2005- present	Director of Graduate Studies, Department of Sociology, Harvard University
1998-2001	Chair, Department of Sociology, Harvard University
1995-1998	Director of Graduate Studies, Department of Sociology, Harvard University
1988-1992	Chair, Department of Sociology, Northwestern University
1984-1987	Director, Program in Mathematical Methods in the Social Sciences, Northwestern University
1983-1985	Acting Director, Economics Research Center, National Opinion Research Center, University of Chicago

HONORS

Magna cum laude (Dartmouth)
Phi Beta Kappa (Dartmouth)
Highest honors in Sociology (Dartmouth)
High honors in Mathematics (Dartmouth)
National Science Foundation Graduate Training Fellowship (Harvard)
Invited to be a fellow at the Center for Advanced Study in the Behavioral Sciences, Palo Alto, California.

PROFESSIONAL MEMBERSHIPS

American Sociological Association
American Economic Association
Econometric Society
Population Association of America
American Statistical Association
The Society for the Advancement of Socio-Economics
International Society for Social Justice Research
Academy of Management

PROFESSIONAL ACTIVITIES

1994-present	Editor, Sociological Methods and Research
1997-present	Editorial Board, Society
1995-1998	Chair, Methodology Section, American Sociological Association
1995-1998	Editorial Board, The American Sociologist
1992-1994	Editorial Board, American Sociological Review
1992-1994	Editorial Board, Sociological Methods and Research
1989-1992	Associate Editor, Sociological Methodology
1986-1989	Council Member, Methodology Section, American Sociological Association
1985-present	Associate Editor, Journal of Mathematical Sociology
1983-1984	Associate Editor, Contemporary Sociology
1981-1983	Consulting Editor, American Journal of Sociology

COMMUNITY ACTIVITIES

Board of Trustees, Hebrew College
Officer and Board, Jewish Community Relations Council
Board, Harvard Hillel
Board, Wilstein Institute
Chair, Evaluation Committee, Boston Freedom Summer, Ten-Point Church Coalition
Co-chair, Demographic Survey Committee, Combined Jewish Philanthropies
Chair, Social Justice Committee, Jewish Community Relations Council

Member, Visiting Committee, Hebrew College
Member, Visiting Committee, Wilstein Institute
Member, Strategic Planning Committee, Combined Jewish Philanthropies
Advisory Board, Cohen Center, Brandeis University

GRANTS AND CONTRACTS

"Changes in Race Differentials in Youth Unemployment and Labor Force Participation," with Robert D. Mare, June 1, 1979 to December 1, 1979 ($32,475, The National Commission for Employment Policy).

"Social and Demographic Sources of Change in the Youth Labor Market," with Robert D. Mare, September 1, 1979 to August 31, 1982 ($126,000 National Science Foundation).

"Job Mobility and Youth Unemployment," with Rachel Rosenfeld, March 1, 1980 to September 30, 1982 (National Science Foundation, $105,863).

"Public Assistance Recipiency and Youth Unemployment," with Robert D. Mare, September 1, 1980 to June 15, 1982 ($32,000, U.S. Department of Labor).

"Research Perspectives on Youth Unemployment; seed grant," June 1, 1980 to November 31, 1980 ($29,550, Rockefeller Foundation).

"Military Enlistment, School Enrollment, and Civilian Employment," with Robert D. Mare, October 1, 1982 to September 30, 1985 ($150,000, U.S. Department of Defense).

"Changes in Racial Patterns of Schooling, Employment and Family Formation: The Transition to Adulthood, 1940-1982" with Robert D. Mare, ($65,000, National Science Foundation, September, 1983 to January 31, 1986).

"Racial Patterns of School, Work and Marriage since 1940," with Robert D. Mare, January, 1985 to December 1987 ($350,000, National Institute on Aging).

"A Graduate Program in Mathematical Methods of the Social Sciences," institutional grant, 1987-1993 ($225,000, Mellon Foundation).

"Institutions and Organizations: A Special Issue of the American Journal of Sociology," with Sherwin Rosen, July, 1988 ($30,000, Sloan Foundation).

"Marriage and Marital Dissolution in a Changing Labor Market," June 15, 1989 to May 31, 1991 ($28,026, National Science Foundation).

"Labor Market Effects on Family and School Transitions," April 1, 1989 to March 31, 1992 ($350,000, National Institute of Health).

"Joint Program in Urban Poverty, Race, and Social Policy," September 1990 to August 1995 ($1.5 million, National Science Foundation). [I had principal responsibility for the proposal for the project. Christopher Jencks and William J. Wilson are the directors of the program.]

"Loglinear and Logit Models of Structural Effects: Selection, Endogenous Treatment Effects, and Choice", July 1, 1994 to August 31, 1996 ($95,496, National Science Foundation).

"The Analysis of The Bell Curve by Richard Herrnstein and Charles Murray", December 1, 1994 to November 30, 1995 ($9,682, Russell Sage Foundation).

"Changes in the Racial Differential in Imprisonment in the United States from the 1930's to the 1980's," July 1, 1995 to June 30, 1996 ($15,000, Small Grants Program, Institute for Research on Poverty, University of Wisconsin).

"The Ten Point Coalition and Boston Freedom Summer: An Evaluation," July 1, 1995 to December 31, 1996 ($49,650, Smith-Richardson Foundation).

"Education, Mental Ability, and Social and Economic Success," June 1, 1996 to August 31, 1997 ($5000, Russell Sage Foundation).

"Changes in the Racial Differential in Imprisonment in the U.S. from 1940 to 1990," March 1, 1997 to February 28, 2000 ($145,438, National Science Foundation).

"College and Beyond," April 1, 1988 to March 30, 2001 ($111,000, Andrew W. Mellon Foundation).

"Youth Violence and Community Partnership: Initial Quantitative Research," July 1, 1999 to June 30, 2000 ($49,949, Smith Richardson Foundation).

"Alliance to Combat Youth Violence: Creating Collaborations Between Police and Inner City Ministers," August 1999-present ($38,993, Open Society Institute).

"Understanding the 'Boston Miracle'," October 1, 2000 to September 30, 2001 ($106,728, Smith Richardson Foundation).

"The Effects of Education on Mental Ability," November 1, 2000 to October 31, 2001 ($34,000, Spencer Foundation).

"Legitimacy and the Criminal Justice System in Inner Cities," February 1, 2001 to January 31, 2002 ($50,000 Russell Sage Foundation).

PUBLICATIONS

"A Distance Model for Sociometric Structure," Journal of Mathematical Sociology, 1977, Vol. 5, pp. 21-39.

"A Revaluation of Indexes of Residential Segregation," Social Forces, June 1977, pp. 1058-1066.

"The Allocation of Time Among Individuals," Sociological Methodology 1978, Karl Schuessler (ed.), San Francisco: Jossey-Bass, pp. 75-100.

"The Desirability of Using the Index of Dissimilarity or any Adjustment of It for Measuring Segregation: Reply to Falk, Cortese, and Cohen," Social Forces, December 1978, pp. 717-720.

"The Welfare Approach to Measuring Inequality," (with Joseph Schwartz), Sociological Methodology 1980, Karl Schuessler (ed.), San Francisco: Jossey-Bass, pp. 1-36.

"Changes in Race Differentials in Youth Labor Force Status: A Review of the Literature," (with Robert D. Mare) in Expanding Employment Opportunities for Disadvantaged Youth, National Commission for Employment Policy, 1979, pp. 1-29.

"Changes in Race Differentials in Youth Unemployment and Labor Force Participation, 1950-1978: Preliminary Analysis," (with Robert D. Mare) in Expanding Employment Opportunities for Disadvantaged Youth, National Commission on Employment Policy, 1979, pp. 31-83.

"Comment on 'Family Effects in Youth Unemployment' by Albert Rees and Wayne Gray," in The Youth Labor Market Problem: Its Nature, Causes and Consequences, Richard Freeman and David Wise (eds.), The University of Chicago Press, 1982, pp. 465-468.

"Structural Equations and Path Analysis for Discrete Data," (with Robert D. Mare), American Journal of Sociology, July 1983, pp. 54-110.

"Roles and Positions: A Critique and Extension of the Blockmodeling Approach," (with Michael Mandel), Sociological Methodology, 1983-84, Samuel Leinhardt (ed.), San Francisco, Jossey-Bass, pp. 314-344.

"Information Processing and Jury Decisionmaking," (with Alvin K. Klevorick and Michael Rothschild), Journal of Public Economics 23, (1984), pp. 245-278.

"The Paradox of Lessening Racial Inequality and Joblessness among Black Youth: Enrollment, Enlistment, and Employment, 1964-1981," (with Robert D. Mare), American Sociological Review 49, No. 1, (February 1984), pp. 39-55.

"Regression Models with Ordinal Variables," (with Robert D. Mare) American Sociological Review 49, No. 4, (August 1984), pp. 512-525.

"The Transition from Youth to Adult: Understanding the Age Pattern of Employment," (with Robert D. Mare and Warren N. Kubitschek), American Journal of Sociology 90, No. 2, (September 1984), pp. 326-358.

"School Enrollment, Military Enlistment, and the Transition to Work: Implications for the Age Pattern of Employment," (with Robert D. Mare), in Longitudinal Analysis of Labor Market Data, James J. Heckman and Burton Singer (eds.), Cambridge University Press, 1985, pp. 364-399.

"Heterogeneity, and Interdependence: A Test Using Survival Models," Sociological Methodology 1986, Nancy B. Tuma (ed.), San Francisco, Jossey-Bass, pp. 250-282.

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Stanley Wasserman and Katherine Faust, *Social Network Analysis: Methods and Applications*, in Journal of the American Statistical Association, September 1996, pp. 1373-74.

OTHER PAPERS

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Exhibit B Relevant Documents	
Allstate Depositions & Exhibits	**Date of Deposition**
Crockett, Joan	04/30/2007
Harty, Harriett - Vol. I	03/14/2007
Harty, Harriett - Vol. II	04/05/2007
Mueller, Stacy	04/18/2007
Rizzo, Mario	03/26/2007
Wilson, Thomas	03/29/2007
Plaintiff Expert Depositions & Exhibits	**Date of Deposition**
Madden, Janice	02/08/2008
Reskin, Barbara - Vol. I	01/24/2008
Reskin, Barbara - Vol. II	02/15/2008
Reskin, Barbara - Vol. III	03/10/2008
Plaintiff Affiant Depositions & Exhibits	**Date of Deposition**
Barmore, Maysha	02/21/2008
Benson, Charlene	02/04/2008
Bernard, Jan	01/10/2008
Blohm, Lori Lynn	01/08/2008
Ervin, Gloria	01/03/2008
Herff, Joanne	02/19/2008
Howell, Gail	02/06/2008
Kelly, Denise	01/23/2008
Kelly, Letricha	02/18/2008
King, Judith	01/25/2008
Scott, Pamela	02/12/2008
Silven, Jayne	02/11/2008
Spoeri, Barbara	02/09/2008
Verfurth, Jacqueline	02/08/2008
White-Jenkins, Andretta	03/18/2008
Plaintiff Declarations	
Declaration of Allara, Patrice	
Declaration of Allen, Cynthia	
Declaration of Andrews, Lorrie	
Declaration of Astoquiza, Maritza	
Declaration of Barmore, Maysha	
Declaration of Barnet, Ruby	
Declaration of Benson, Charlene	
Declaration of Bernard, Jan	
Declaration of Blohm, Lori Lynn	
Declaration of Brown, Anita	

Declaration of Cahill, Lisa
Declaration of Delaney, Marcia
Declaration of Eisenhard, Cindy
Declaration of Epstein, Elaine
Declaration of Ervin, Gloria
Declaration of Fletcher-Brozovich, Celeste
Declaration of Fotheringham, Shelly
Declaration of Franklin, Deborah
Declaration of Haines, Barbara
Declaration of Herff, Joanne
Declaration of Howells, Gail
Declaration of Jackson, Connie
Declaration of Jones, Cnythia
Declaration of Jones, Ester
Declaration of Kelly, Denise
Declaration of Kelly, Letricha
Declaration of Kersgard, Gail
Declaration of King, Judith
Declaration of Kramer, Graceann
Declaration of Larsen, Kathryn
Declaration of Leone, Antoinette
Declaration of Mitchell, Karen
Declaration of Nelson, Joy
Declaration of Rettinger, Cheryl
Declaration of Robinson, Ester
Declaration of Rockwell, Theresa
Declaration of Rosemeyer, Donna
Declaration of Schneider, Lori
Declaration of Scott, Pamela
Declaration of Searles, Karen
Declaration of Shea, Debra
Declaration of Silven, Jayne
Declaration of Spocri, Barbara
Declaration of Verfurth, Jacqueline
Declaration of Verfuss, Valerie
Declaration of Wallin, Jennifer
Declaration of White-Jenkins, Andretta
Declaration of Whitfield, Phyllis
Declaration of Williams, Tenneiah
Declaration of Wolfe, Gloria
Allstate Declarations
Declaration of Declarant 1
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Declaration of Declarant 3

Declaration of Declarant 4
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Allstate Expert Reports
Expert Report of Robert Topel
Plaintiff Expert Reports
Expert Report of Janice Madden and Materials Relied Upon
Expert Report of Barbara Reskin
Amended Expert Report of Barbara Reskin
2nd Amended Expert Report of Barbara Reskin
3rd Amended Expert Report of Barbara Reskin
Materials Consulted Upon by Barbara Reskin with Exception of APP155759
PDSs and Documents Relating to PDSs Found in Allstate's Production

Pleadings
Complaint
First Amended Complaint
Defendants Rule 26 Initial Disclosures
Plaintiff's Rule 26(a)(1) Initial Disclosures

Exhibit C

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Exhibit D

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Exhibit E
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Exhibit F

Summary Of Experimental Literature Cited By Dr. Reskin

Bargh et al, 1996	Automaticity of stereotypes	Undergrads 34 / 30/ 41	Time elapsed until participant interrupts a conversation Videotaped reactions to being told that they need to re-enter certain information to the computer
Biernat and Fuegen, 2001	Promotion	Undergrads 175/ 64	Evaluating paper applicants
Biernat and Kobrynowicz 1997	Promotion	Undergrads 313/ 277	Evaluate job applicant based on job description and resume
Blair and Banaji 1996	Automaticity of stereotypes	Undergrads 73 / 45/ 73	Speed and accuracy of judgments about a target in the presence of stimuli
Brewer and Lui . 1989	Stereotypes and stereotyping	Undergrads 60	Rate individual photographs
Brewer et al. 1981	Stereotypes and stereotyping	Undergrads 60/40	Divide 40 pictures into piles as participants think appropriate Read a statement and place it next to the most appropriate set of pictures
Cameron and Trope 2004	Sex stereotypes	Undergrads 40/53	Make judgments about others and others' attitudes
Ford et al. 2004	Organizational demography	108 white sales managers	Resume study
Foschi 1996	Personnel practices	Undergrads 144/98	Evaluation of self and opposite-sex partner in perceptual task
Gilbert and Hixon 1991	Stereotypes and stereotyping	Undergrads 71/111	Word-fragment completion test under various conditions Rating a female narrator
Hattrup and Ford 1995	Personnel practices	Undergrads 172/174	Rating the extent to which they would prefer to work on a joint task with each of the targets

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Heilman and Haynes 2005	Different evaluation standards	Undergrads 60/43/90	Performance assessment of male and female in joint tasks based on written materials and photographs
Heilman and Okimoto 2007	Sex stereotypes	Undergrads 75/96/46	Read about and react to employees holding a certain position
Heilman et al. 2004	Prescriptive stereotypes	Undergrads 48/63/131	Read about and react to employees holding a certain position
Kunda and Sherman-Williams 1993	Factors affecting activation and application of stereotypes	Undergrads 79/222/194	Reactions to reading vignettes
Perdue et al. 1990	Ingroup favoritism	Undergrads 23/30/32	Rating pleasant evaluations of words Rating trait descriptions
Rudman 1998	Prescriptive stereotypes	Undergrads 120/163/40	Evaluate confederate as partner for a fast-paced computer game
Rudman and Ashmore 2007	Stereotypes and stereotyping	Undergrads 64	
Rudman and Glick 2001	Prescriptive stereotypes	Undergrads 179	Evaluate four videotaped applicants
Schmidt and Boland 1986	Stereotypes and stereotyping	Undergrads 38/35/11	Generate list of stereotypes of older people Sort human traits into groups Form attitudes about people with combinations of traits
Sekaquaptewa et al. 2003	Stereotypes and stereotyping	Undergrads 55/79	Engaged in a mock interview with a confederate Played a pencil-and-paper game with a confederate
Sinclair and Kunda 2000	Prescriptive stereotypes	Paid students 180/64	Course evaluation questionnaire, evaluation of a manager who has given them feedback on a task

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