

JANET M. HEROLD
Regional Solicitor
IAN H. ELIASOPH
Counsel
LAURA C. BREMER
Acting Counsel for Civil Rights
NORMAN E. GARCIA
Senior Trial Attorney
DAVID L. EDELI
Trial Attorney
HAILEY MCALLISTER
Trial Attorney
Office of the Solicitor
UNITED STATES DEPARTMENT OF LABOR
90 7th Street, Suite 3-700
San Francisco, CA 94103
Tel: (415) 625-7757
Fax: (415) 625-7772
Email: bremer.laura@dol.gov

**UNITED STATES DEPARTMENT OF LABOR
OFFICE OF ADMINISTRATIVE LAW JUDGES**

OFFICE OF FEDERAL CONTRACT
COMPLIANCE PROGRAMS,
UNITED STATES DEPARTMENT OF
LABOR,

Plaintiff,

v.

ORACLE AMERICA, INC.,

Defendant.

OALJ Case No. 2017-OFC-00006

**OFCCP's OPPOSITION TO ORACLE AMERICA, INC.'S MOTION TO EXCLUDE
THE EXPERT REPORT AND TESTIMONY OF JANICE FANNING MADDEN, PH.D.**

TABLE OF CONTENTS

INTRODUCTION.....1

A. Dr. Madden is Supremely Qualified and Her Opinions Enjoy Respect and Deference by Economists and Courts Alike.2

B. Oracle Misstates the Relevant Law in Its *Daubert* Motion.....3

1. Oracle Sets Forth Incorrect Legal Standards for Determining Similarly-Situated Employees.....3

2. Oracle’s Arguments Go to the Weight, Not Admissibility, of Dr. Madden’s Testimony.5

C. Dr. Madden’s Study Applied Principles of Labor Economics to Oracle’s Compensation Data to Determine Whether Oracle Engaged in Pay Discrimination....5

1. Dr. Madden’s Study Applied Principles of Labor Economics to Determine the Existence and Span of Gender and Racial Differences in Compensation at Oracle..6

2. Dr. Madden Analyzed Race and Pay Differences Among Oracle Employees Bringing Similar Qualifications to the Job.9

3. Dr. Madden Included Global Career Level to Assess and Illustrate a Mechanism of Oracle’s Discriminatory Compensation.11

4. Application of Labor Economics and the Absence of Data Dictated that Dr. Madden Could Not Apply Controls for Endogenous Characteristics Now Advanced by Oracle.15

D. Oracle’s Attacks on Dr. Madden’s Prior Expert Testimony Are Meritless.16

CONCLUSION20

TABLE OF AUTHORITIES

Cases

<i>Bazemore v. Friday</i> , 478 U.S. 385 (1986) (reversing).....	4, 5
<i>Bush v. Ruth’s Chris Steak House, Inc.</i> , 286 F.R.D. 1 (D.D.C. June 18, 2012).....	11
<i>Chen-Oster v. Goldman, Sachs & Co.</i> , 325 F.R.D. 55 (S.D.N.Y. 2018).....	5
<i>Cooper v. S. Co.</i> , 390 F.3d 695 (11th Cir. 2004).....	19
<i>E.E.O.C. v. Akron Nat. Bank & Tr. Co.</i> , 497 F. Supp. 733 (N.D. Ohio 1980).....	18
<i>E.E.O.C. v. Gen. Tel. Co. of Nw., Inc.</i> , 885 F.2d 575 (9th Cir. 1989).....	5, 19
<i>Frazier v. Se. Pennsylvania Transp. Auth.</i> , 1990 WL 223051 (E.D. Pa. Dec. 21, 1990).....	19
<i>Gutierrez v. Johnson & Johnson</i> , 2006 WL 3246605,n. 6, 2006 U.S. Dist. LEXIS 80834, at * 15 n. 6 (D.N.J. Nov. 6, 2006).....	11
<i>Hemmings v. Tidyman's Inc.</i> , 285 F.3d 1174 (9th Cir. 2002).....	5, 6, 20
<i>Int'l Bhd. of Teamsters v. United States</i> , 431 U.S. 324, 328 (1977).....	19
<i>Ketchum v. Sunoco, Inc.</i> , 217 F.R.D. 354 (E.D. Pa. 2003).....	17
<i>OFCCP v. Enter. RAC Co. of Baltimore, LLC</i> , ALJ No. 2016-OFC-00006, slip. op. at 106 (July 17, 2019).....	17
<i>OFCCP v. Ford Motor Co.</i> , ALJ No. 1997-OFC-8, 2000-OFC-1 to 9 (Feb. 16, 2000).....	18
<i>Reed v. Advocate Health Care</i> , 268 F.R.D. 573 (N.D.Ill.2009).....	11

<i>Segar v. Smith</i> , 738 F.2d 1249 (D.C. Cir. 1984)	4
<i>Sobel v. Yeshiva Univ.</i> , 839 F.2d 18 (2d Cir.1988).....	5
<i>Taylor v. Sturgell</i> , 553 U.S. 880 (2008)	19
<i>United States v. Heller</i> , 551 F.3d 1108 (9th Cir. 2009).....	18
<i>Williams v. Boeing Co.</i> , 2006 WL 126440 (W.D. Wash. Jan. 17, 2006).....	19
<i>Wright v. Stern</i> , 450 F.Supp.2d 335 (S.D.N.Y.2006).....	11

Statutes

42 U.S.C. § 1983.....	19
-----------------------	----

Rules

FRCP 23.....	19
FRE 702	19
Rule 23(a) and (b)	19

Regulations

41 C.F.R. § 60-20.4(a)	4
41 C.F.R. § 60-20.4(b).....	4, 7

INTRODUCTION

Dr. Janice Madden, OFCCP's expert, is a highly accomplished authority on the economics and statistical indicators of employment discrimination upon whom federal courts, the nation's most prestigious high-tech facilities, and her academic peers have relied for her expertise for more than three decades.

At OFCCP's request, Dr. Madden applied her considerable expertise to study the compensation of Oracle's employees in three job functions at Oracle's headquarters. In its motion to exclude Dr. Madden's testimony, Oracle fails to provide any credible factual or legal basis to deny OFCCP and this Court the benefit of her valuable expert opinion regarding the central question at issue in this litigation: Does Oracle pay similarly situated women, Asians, and African Americans less than their male or White counterparts, supporting OFCCP's claim that Oracle engaged in prohibited gender- and race-based pay discrimination?

Oracle seeks to exclude Dr. Madden's testimony primarily on a claim that her studies fail to compare similarly-situated employees as required by Title VII. However, in setting forth the applicable case law, Oracle cites to inapposite individual cases and ignores the clear regulatory instructions that govern the analysis in this case. OFCCP is entitled to rely on statistical regression analyses to prove discrimination. To rebut Dr. Madden's findings, Oracle must do more than speculate that she did not consider all possible variables. Rather, Oracle must prove to this court that the disparities would be explained if Oracle's compensation is analyzed on the basis of factors Oracle *actually* used to set compensation.

Oracle does not attempt to provide an opposing analysis of its compensation data on the basis of the factors it now claims are critical, nor can it do so. Contrary to Oracle's suggestion, Dr. Madden's analyses study the very same factors that Oracle identifies in its compensation policies as the bases for its compensation decisions. The additional factors Oracle complains Dr. Madden should have considered were not, in fact, considered by Oracle in setting compensation. Worse still, Oracle did not maintain data about these additional factors, belying the veracity of Oracle's claims that it considered them, which makes including these factors in a scientifically-valid study actually impossible. Regardless of Oracle's candor in advancing these arguments to

the Court, it is well settled that these attacks on an expert opinion—whether the variables used are sufficiently explanatory—cannot justify exclusion, as they go to weight, not admissibility.

Finally, Oracle includes several arguments that parrot its legal positions in its Summary Judgment brief.¹ Specifically, Oracle challenges: the basic notion of using statistics to prove a pattern and practice case (Oracle *Daubert*, Section C); whether OFCCP has set forth sufficient evidence to establish disparate impact (*Id.* at Section D); and whether OFCCP is jurisdictionally barred from correcting pay disparities that originate outside the review period. (*Id.* at Section E) OFCCP opposes each of these legal claims in its concurrently filed Opposition to Oracle’s Motion for Summary Judgment. OFCCP MSJ Opp. at 8-30.

A. Dr. Madden is Supremely Qualified and Her Opinions Enjoy Respect and Deference by Economists and Courts Alike.

Oracle’s *Daubert* motion attacks Dr. Madden’s credentials and analysis in strongly personal terms² and grossly mischaracterizes her record of accomplishments. However, as discussed in detail below, Dr. Madden’s underlying qualifications, and her work performed in the context of this litigation, are unassailable. Dr. Madden is a leading authority in labor economics, specifically in the study of race and gender differentials in labor markets. Madden Rpt. at 1;³ Madden Decl. at ¶ 3. After completing an M.A. and Ph.D. in economics at Duke University, Dr. Madden has served as a professor at the Wharton School of Business at the

¹ OFCCP refers to the following documents herein (which can be located among the documents already on file as identified below):

Oracle *Daubert* Motion (“Oracle *Daubert*”)

Oracle’s Motion for Summary Judgment (“Oracle MSJ”)

OFCCP’s Motion for Summary Judgment (“OFCCP MSJ”)

OFCCP’s *Daubert* Motion (“OFCCP *Daubert*”)

OFCCP’s Opposition to Oracle’s MSJ (“OFCCP MSJ Opp.”)

Dr. Madden’s Expert Report (“Madden Rpt.”) (located at OFCCP MSJ, Garcia Decl., Ex. 91)

Dr. Madden’s Rebuttal Report (“Madden Reb.”) (located at OFCCP MSJ, Garcia Decl., Ex. 92)

Declaration of Dr. Madden of October 31, 2019 (“Madden Decl.”) (Attached as Exhibit A hereto)

Declaration of Dr. Madden of October 11, 2019 (“Madden 10.11 Decl.”) (Attached as Exhibit B hereto)

Transcript of the deposition of Dr. Madden (located at OFCCP MSJ, Garcia Decl., Ex. 90)

Dr. Saad’s Expert Report (“Saad Rpt.”) (located at OFCCP MSJ, Garcia Decl., Ex. 93)

Dr. Saad’s Rebuttal Report (“Saad Reb.”) (located at OFCCP MSJ, Garcia Decl., Ex. 94)

² See, e.g., Oracle *Daubert* at 1 (“Dr. Madden tried to back pedal”), 5 (“Despite her apparent newfound appreciation for Title VII”), and 9 (accusing Dr. Madden of “concoct[ing]” explanation).

³ Dr. Madden’s Expert Report and Rebuttal Report are marked as Ex. 91-92 submitted in support of OFCCP’s MSJ. Dr. Saad’s Expert Report and Rebuttal Report are Ex. 93-94. This Opposition refers to the Reports directly.

University of Pennsylvania (“Penn”) since 1972, where she teaches courses dealing with economics, labor markets, and relevant statistical methodologies for both graduate and undergraduate students. Madden Rpt. at 1; Madden Decl. at ¶ 4. She served as the Vice Provost for Graduate Education at Penn from 1991 to 1999, and was “the chief officer responsible for doctoral and masters programs at Penn, including those in the engineering and computer programming”—which are programs on the elite list⁴ from which Oracle recruits. Madden Decl. at ¶ 4. She has served on the National Academy of Sciences Oversight Committee and on a panel charged with measuring and collecting pay information by gender, race, and origin. *Id.*

Dr. Madden has published her research on the effects of age, race, gender, and urban location on labor market outcomes in the most prestigious economics journals and has been peer reviewed and competitively funded by government agencies and private foundations, including the National Science Foundation and the National Institute of Mental Health. Madden Rpt. at 2. Her scholarly work has concentrated on the labor market for workers in science and technology. *Id.* Dr. Madden has written five books, including *The Economics of Sex Discrimination* and *Mommies and Daddies on the Fast Track: Success of Parents in Demanding Professions*. *Id.*

Dr. Madden has provided “testimony in over 60 matters involving claims of discrimination against a class over the last forty years.” Madden Decl. at ¶ 6. She has lectured and trained federal judges at the Federal Judicial Center on the use of statistics in discrimination litigation. Madden Rpt. at 2. Dr. Madden’s academic career, research and credentials far surpass those of professional “experts” often retained for use in litigation. As set forth below, courts have routinely recognized and credited the high-caliber opinions provided by Dr. Madden.

B. Oracle Misstates the Relevant Law in Its *Daubert* Motion.

1. Oracle Sets Forth Incorrect Legal Standards for Determining Similarly-Situated Employees.

Oracle’s *Daubert* motion misstates the key legal standards that apply to this case and how Dr. Madden’s Reports and testimony fit into these standards. Oracle relies on individual cases that have different standards than those at issue in a pattern and practice case where disparities are proven through statistical evidence. *See* OFCCP MSJ Opp. at 9-20. The applicable case law

⁴ OFCCP MSJ, Garcia Decl. Ex. 40 (“Oracle College Recruiting,” ORACLE_HQCA_0000020131, 33–39, 43–60).

supports both that the types of multiple regression analyses performed by Dr. Madden, and the variables she studied, are an appropriate basis for determining whether compensation discrimination exists. *See Segar v. Smith*, 738 F.2d 1249, 1261 (D.C. Cir. 1984) (“Multiple regression is a form of statistical analysis used increasingly in Title VII actions that measures the discrete influence independent variables have on a dependent variable such as salary levels. . . . Typically the independent variables in Title VII cases will be race, age, education level, and experience levels.”) (citations omitted); *Bazemore v. Friday*, 478 U.S. 385, 398-99 (1986) (reversing lower courts’ finding in favor of employer in compensation discrimination claim where plaintiff’s regression analyses considering four factors such as “race, education, tenure, and job title”, or “race, sex, education and experience” showed discrimination).

OFCCP’s regulations make clear that the factors in a regression analysis must be “objective,” and that not all objective factors an employer can identify need to be considered. *See* 41 C.F.R. § 60-20.4(a). As discrimination in job assignment is forbidden under the Executive Order, 41 C.F.R. § 60-20.4(b), job assignment cannot be used as an independent variable where there is a basis for concluding that such assignment is discriminatory.

In addition to misstating the law on similarly-situated employees, Oracle further misrepresents the relative burdens in this matter. Oracle cannot defeat Dr. Madden’s analyses simply based on its claim that her analyses do not account for all relevant factors that Oracle contends are used in setting pay. *See* OFCCP MSJ Opp. at 10-12. While Oracle’s *Daubert* Motion is rife with criticism that Dr. Madden’s analysis is too simplistic, Oracle nowhere shows that the factors it alludes merit consideration, either individually or together, alter the outcome of her analysis.⁵ *Hemmings v. Tidyman's Inc.*, 285 F.3d 1174, 1188-89 (9th Cir. 2002); *Sobel v. Yeshiva Univ.*, 839 F.2d 18, 34 (2d Cir.1988) (“[A] defendant challenging the validity of a multiple regression analysis [must] make a showing that the factors it contends ought to have been included would weaken the showing of a salary disparity made by the analysis.”); *E.E.O.C.*

⁵ As explained in OFCCP’s MSJ, including the variables Oracle advocates for *still* yields statistically significant adverse result against Oracle with respect to salaries. Moreover, Oracle requires a series of completely undocumented and plainly erroneous variables (including the invention of total compensation that includes future compensation) before it is able to eliminate statistically significant findings.

v. *Gen. Tel. Co. of Nw., Inc.*, 885 F.2d 575, 580 (9th Cir. 1989) (surveying the case law of the other circuits on the level of evidence required to rebut a statistical pattern or practice case).

2. Oracle's Arguments Go to the Weight, Not Admissibility, of Dr. Madden's Testimony.

Oracle's contentions against Dr. Madden's testimony go to its weight, not to its admissibility. As the Ninth Circuit has explained:

In *Bazemore*, the Supreme Court addressed the precise question presented by Tidyman's appeal: if a study fails to account for all variables, how should a court treat the study? Justice Brennan, writing for the court, explained that “[n]ormally, failure to include variables will affect the analysis' probativeness, not its admissibility.” 478 U.S. at 400, 106 S.Ct. 3000. *In other words, in most cases, objections to the inadequacies of a study are more appropriately considered an objection going to the weight of the evidence rather than its admissibility.*

Hemmings, 285 F.3d at 1188 (emphasis added).⁶

While in some cases a factor may be so central that without its consideration the proffered testimony becomes “irrelevant,” Defendant must first prove that it actually relied upon this factor in setting compensation⁷ and that the data to include the factor was actually available.⁸ Oracle clears neither of these hurdles in regard to the array of factors it asserts post-hoc that Dr. Madden should have considered.

C. Dr. Madden's Study Applied Principles of Labor Economics to Oracle's Compensation Data to Determine Whether Oracle Engaged in Pay Discrimination.

Oracle seeks to exploit that Dr. Madden speaks in the language of economics, the relevant field of inquiry here, rather than borrowing the legal terminology that a litigation-oriented expert might employ. Oracle's entire attack on Dr. Madden, thus, depends on twisting

⁶*Chen-Oster v. Goldman, Sachs & Co.*, 325 F.R.D. 55, 71 (S.D.N.Y. 2018) (“Defendants next repeat that Dr. Farber's analysis violates Daubert because it did not properly account for ‘key’ variables: business units, job function, and employee productivity. The Court disagrees. At bottom, none of Defendants' arguments go to admissibility. ‘[T]o be admissible, a regression analysis must control for the ‘major factors’ that might influence the dependent variable. But, ‘[n]ormally, failure to include variables will affect the analysis' probativeness, not its admissibility.’”) (internal citations omitted).

⁷ *Hemmings*, 285 F.3d at 1188 (“Tidyman's did not prove at trial that any of the [missing factors it based its *Daubert* motion on] were important to the subjective and undefined promotion process or compensation awards.”).

⁸ *Id.* at 1188–89 (“In this case, the plaintiffs' expert ‘used the best available data, which [came] from the [defendant] itself. If the defendant believed information about the employees' educational background, for example, would have explained the differences in promotions and compensation between male and female upper level employees, Tidyman's should have provided information about educational level to the plaintiffs, or at a minimum, introduced testimony that education was a central factor in promotions.’”) (internal citations omitted).

and misstating what and how she studied Oracle's compensation outcomes. Dr. Madden's analyses and findings are directly on point with respect to the legal issues at issue in this case.

The record evidence establishes that Dr. Madden's analyses study the *exact* factors Oracle trains its own managers to consider when setting pay to ensure internal equity. Specifically, as set forth in OFCCP's MSJ, Oracle requires managers to consider employees' education (knowledge), experience and skill in assigning employees to the correct place within the salary ranges set by Oracle's global compensation team. OFCCP MSJ at 6-9. Employee education, experience and skill are the exact factors that Dr. Madden studies. Madden Rpt. at 5-45, Tables 1(a)-3(a). Although Oracle suggests that much more goes into the determination, the record-evidence does not bear that out. Even in its *Daubert* Motion, Oracle makes almost no concrete suggestion as to which additional variables were inappropriately omitted by Dr. Madden or how inclusion of those factors would alter her findings. Oracle *Daubert* at 8-16.

Dr. Madden's studies compare the compensation of employees tasked in the same job title with the same level of education and experience. Madden Rpt. at 5-45, Tables 1(a)-3(a). These studies show staggeringly high standard deviations proving that the disparities are a consequence of intentional discrimination against women, Asians, and African Americans. Madden Rpt. at Tables 1-3 (Column 6). Contrary to Oracle's claims, Dr. Madden also conducted regressions which included variables for global career level and management status, variables that Dr. Madden explained are tainted and are not properly included in an analysis designed to determine gender and racial pay gaps. *Id.* at 8, Tables 1-3 (Columns 7 and 8).⁹ Even these studies, which included tainted variables, reveal large gaps of high statistical significance. *Id.*

1. Dr. Madden's Study Applied Principles of Labor Economics to Determine the Existence and Span of Gender and Racial Differences in Compensation at Oracle.

Dr. Madden approached her study of Oracle's compensation data as a *labor economist*, viewing and interpreting Oracle's data through the principles of that scientific discipline. Dr. Madden used "the standard regression analysis, multiple regression analysis, as it is applied in

⁹ As such, under DOL regulations, the global career level variable cannot be considered. 41 C.F.R. § 60-20.4(b) (prohibiting compensation discrimination based on job assignment).

this case, and every other case that I've ever been involved in by both experts and in the research literature." Madden Dep. 79:8-12. Dr. Madden explained how she approached the study in her report, in the section entitled "Evaluating Gender and Racial Differences in Compensation":

"Economists expect that individual compensation will vary with the productivity of individual employees. Productivity of employees is not directly observed, however, and is difficult to measure. For that reason, economists generally focus upon the characteristics that make one employee more or less productive than another, than upon productivity itself. Human capital theory is a widely accepted analysis of the determinants of productivity differences, and therefore compensation differences, among individuals. The theory focuses upon the investments that individuals make that increase their skills and thus makes them more productive. The following factors are particularly important:

- (1) Experience, measured by tenure with an employer and age, to reflect experience at other employers; and
- (2) Education.

Therefore, human capital theory leads us to some common sense conclusions. If one individual has more education, or more job experience, he or she is more likely to be entitled to higher compensation.

To quantify gender or racial differences, it is necessary to control for any *systematic* differences between men as a group or women as a group or between racial groups in their qualifications (that are the result of employee – as opposed to Oracle – actions) at the time of hire. There are, then, two important elements of employee qualifications that determine whether they should be included in the analysis of Oracle's compensation decisions: (1) the qualifications differentials are systematic by gender or race *after* the inclusion of other included credentials; (2) the qualifications differentials are the results of decisions made by employees, not by Oracle."

Madden Rpt. at 5-6.

Dr. Madden further explained what sort of pay differences *economists* attribute to discrimination:

"Compensation differences that cannot be explained by differences in credentials that employees bring to Oracle are suspect if they are also associated with gender or race. After appropriately taking account of productivity, economists generally attribute such differences to discrimination."

Id. at 7. Dr. Madden elaborated on this theory in her deposition: "If [a model is] using all data that's reasonable to use, and there's an unexplained gap, it's consistent with discrimination." "It has to use all of the data that shows the productivity investments made by the individuals, and their characteristics that they control. . . . If all the data we know about these two groups that

reflect the productivity they control are the same and there's a difference in pay, that supports an inference of discrimination." Madden Dep. 66:6-67:11.

Dr. Madden emphasized that from the perspective of labor economics, it is the qualifications that an employee brings to Oracle that is relevant for her analysis, not job assignments by Oracle:

"The effects of any gender or racial differences in qualifications of employees that arise from Oracle's previous or current job assignments (as opposed to the credentials and abilities that employees possessed when they started at Oracle) are part of Oracle's actions that potentially create gender and racial disparities in compensation."

Madden Rpt. at 7.

Dr. Madden further explained that evaluating gender or racial differences in compensation is a study of compensation of groups, not an analysis of the compensation of individuals:

"I study the compensation practices at Oracle in order to determine whether an employee's gender or race affect the outcomes. Therefore, it is *only* necessary that the analyses compare similarly situated *groups* of employees by gender or race. Any characteristics that affect individual employee compensation levels but are possessed by equivalent proportions, or at equal levels, by both genders or races do not matter in the analysis of whether gender or race affects compensation.

...

This is fundamentally different from an analysis of individual outcomes of differences. If we want to determine what any individual should be paid, we must control for every characteristic by which any individual differs from others. An analysis of differences in group outcomes requires that we control for the characteristics by which the groups as whole differ, but not those by which all individuals differ. For example, if being taller allows individuals to more easily dunk a basketball, but the average and the variance in height is the same for African American and white placings, controlling for height will not affect the measurement of racial differences in successful dunks. Height will be associated, however, with the differences in successful dunks across individuals.

Id. at 46-47 (emphasis in original). At bottom, Oracle's attack on Dr. Madden for failing to add controls for characteristics Oracle used to compare *individuals* fundamentally misapprehends the goal of compensation analyses conducted to evaluate the existence and scale of gender and racial pay differences.

2. Dr. Madden Analyzed Race and Pay Differences Among Oracle Employees Bringing Similar Qualifications to the Job.

Having explained how economists define pay disparities attributable to discrimination, Dr. Madden then explained how she applied these principles to her study of Oracle's compensation. She reviewed the data and information Oracle maintained to identify credentials (education and experience) that employees brought to the job at hire, called "exogenous" characteristics, because they are characteristics that are "not determined by Oracle's policies or decisions about individual employees." Madden Rpt. at 8. Dr. Madden identifies age, time at Oracle, and education as such exogenous characteristics, and explains that "[t]he preferred analyses of discrimination are those that measure the extent of discrimination using only exogenous employee characteristic as controls in the analyses." *Id.*

As Dr. Madden explained, in reviewing Oracle's data, she distinguished data relating to exogenous characteristics from that relating to "endogenous characteristics," those that are "determined by Oracle's policies or decisions about individual employees." *Id.* Dr. Madden identifies that "job and management responsibilities, or global career level" are endogenous characteristics, which, she opines, "cannot be used in any analysis of whether discrimination occurred. Endogenous characteristics may be included in an analysis of discrimination, however, in order to assess the mechanisms by which discriminatory compensation occurs." *Id.*

Using the data Oracle maintained, Dr. Madden then proceeded to run a regression analysis, first to identify whether there are gender disparities, and then for race-based disparities, on the basis of the exogenous and endogenous characteristics she identified from the data. *Id.* at 9-12. As Dr. Madden explains in her report, and revealed in the findings reporting in Tables 1(a), 2(a), and 3(a), she applied controls to ensure she was comparing compensation only of employees without differences in the credentials they brought to Oracle. Madden Rpt. at 13-18, 26-29, 41-45, Tables 1-3.

Dr. Madden opines that Column 6 identifies the gender and race pay gaps and attendant standard deviations for employees of like credentials. Madden Reb. at 13. Column 6 in Dr. Madden's Tables 1-3 incorporates controls for education, age (as a proxy for experience), and time at Oracle—all clearly credentials that employees, rather than Oracle, determines—and a

control for Oracle's data field for "job descriptor," which Dr. Madden harvested from Oracle's "job title" designations. *Id.* at 13. Madden Rpt. at 16. Although this job descriptor is technically determined by Oracle, and thus has an endogenous cast, Dr. Madden recommends inclusion of job descriptor as a control because it serves as a proxy for endogenous data Oracle did not maintain regarding specific skills which employees were required to bring with them to Oracle to do different types of jobs, such as "Hardware Developer," "Database Administrator," "Applications Developer," or "Technical Writer." Madden Reb. at 11 n. 3, 13.

In its *Daubert* motion,¹⁰ Oracle quite unfairly criticizes Dr. Madden for using the incomplete educational data that it provided OFCCP. Oracle *Daubert* at 1-2, 9. Although OFCCP specifically requested educational data, Oracle only provided educational data (highest degree earned) for fewer than half of the employees being considered. Madden Rpt. at 17. Dr. Madden obtained educational data for approximately an additional 10% of the employees by manually scraping degree information from resumes. Madden Decl. at ¶10. As to employees for whom Dr. Madden did not have educational data, she entered "unknown" as the value for the highest degree earned as a proxy and ran a regression which yielded the results in Table 1(a)-3(a) of her report. Madden Rpt. at 15, 17, 30-31. As Dr. Madden explicitly explained, since she did not have complete educational data, she ran a specific test using only employee data for which she had full educational data, the results of which she included in her Initial Report as Tables 1(b)-(c) and 2(b)-(c). *Id.* at 17-20, 30-31. As illustrated by Tables 1(b)-(c) and

¹⁰ Oracle also curiously challenges Dr. Madden's use of age as a proxy for experience although this is regularly a part of expert compensation analyses provided and credited by federal courts. *See e.g., Reed v. Advocate Health Care*, 268 F.R.D. 573, 591 (N.D.Ill.2009) (parties' regression models comparing compensation between groups use age variable as a proxy for experience); *Gutierrez v. Johnson & Johnson*, 2006 WL 3246605, at *5 n. 6, 2006 U.S. Dist. LEXIS 80834, at * 15 n. 6 (D.N.J. Nov. 6, 2006) (Class action alleging disparities in pay and promotion. Court denies motion to exclude expert report of Dr. Janice Madden, where regression analysis controls for variables including age (as proxy for experience) and omits other variables.); *Wright v. Stern*, 450 F.Supp.2d 335, 361 (S.D.N.Y.2006) (Multi-plaintiff suit alleging discrimination in compensation and promotion. Court denies motion to exclude expert report of series of regression analyses controlling for variables such as job title, job tenure, and tenure with the City and employee age (as a proxy for work experience)). *See also Bush v. Ruth's Chris Steak House, Inc.* 286 F.R.D. 1, 6-7 (D.D.C. June 18, 2012) (granting plaintiffs' motion to compel date of birth information, noting both the common use of age as a proxy for experience and "Defendants' arguments against allowing age as a proxy for work experience are based on sex-based stereotypes" that women work less continuously than men due to leaves related to childbearing.) (citations omitted).

2(b)(c) and explained by Dr. Madden, limiting the data to those employees for whom Dr. Madden had educational data made virtually no difference in her results. *Id.* at 20, 30-31.

Oracle also argues that the controls Dr. Madden applies do “nothing to capture the field of study, school attended, or relevance of that particular degree to any particular position an employee may hold at Oracle.” Oracle *Daubert* at 9. In fact, Dr. Madden applied a control for educational degree as well as a control for job descriptors, seeing job descriptors as a proxy for the exogenous characteristics, such as the similar majors employees might bring to work of the type identified in the job descriptor. Madden Reb. at 11 n. 3, 13. Nevertheless, after Dr. Saad criticized Dr. Madden’s analysis for omitting college major and field of study in his rebuttal report, Dr. Madden tested the validity of Dr. Saad’s critique by including Dr. Saad’s classifications of majors in her analysis described in her initial report. Dr. Madden’s test showed that “adding college major has no substantial effect on the size or significance of the race and gender differences in compensation.” Madden 10.11 Decl. at ¶ 5. Oracle’s contentions regarding errors or inadequacies in Dr. Madden’s educational control are meritless.

3. Dr. Madden Included Global Career Level to Assess and Illustrate a Mechanism of Oracle’s Discriminatory Compensation.

Again, arguing contrary to explicit opinions Dr. Madden provided in her Initial Report, Oracle incorrectly contends in its *Daubert* motion that Dr. Madden did not analyze pay disparities controlling for Oracle’s global career level. Oracle *Daubert* at 9-10. Column 8 in Dr. Madden’s Tables attached to her Initial Report show her findings when she applies a control for *global career level*. Madden Rpt. at 17, 29, 41. To ensure there is no confusion on this point, Oracle contends that its “system job title” is an employee’s “job title” (called “job descriptor” by Dr. Madden, Madden Rpt. at 16, and “job family” by Oracle in its companion Motion for Summary Judgment, Oracle MSJ at 6) and “global career level.” Oracle *Daubert* at 8. In Dr. Madden’s Tables, Column 6 shows her application of a control for job title/descriptor/family and Column 8 shows the *addition* of a control for global career level, which means she controlled for Oracle’s “system job title” in her results in Column 8. Madden Rpt. at 15-17, 28-29, 40-41.

Dr. Madden opines that Column 6, not Column 8, is the correct compensation comparison for employees of similar qualifications, but as noted above, she included an analysis

controlling for Oracle's global career level at hire—a variable which she opines is endogenous—to assess whether global career level is a “mechanism” for Oracle's compensation discrimination. Madden Rpt. at 8; Madden Reb. at 13. Indeed, what cannot be missed about Dr. Madden's analysis *controlling for job title and global career level* is that it also reveals systemic gender and race discrimination by Oracle as to both salary and total compensation. Madden Rpt., Tables 1(a)-3(a)(Column 8). Column 8 in Dr. Madden's Tables reveals large gender and race compensation differentials with standard deviations well above 2 for women and Asians when comparing salary and total compensation for similarly qualified employees working in the same “standard job title” assigned by Oracle. *Id.*

The regression analysis reported by Dr. Madden in Column 8 of her Initial Report is only one of several ways she studied the impact of Oracle's assignment of global career level on the race and gender pay differentials she found as to both salary and total compensation. Madden Rpt. at 17, 29, 41 (explaining how a comparison of Column 6 and Column 8 indicate the percentage that assignment is associated with the racial and gender pay disparities) 49-52 (explaining the additional studies of assignment conducted). Beginning with the findings reported in Column 8 in Tables 1(a)-3(a), and 1(d)-2(d), by comparing the Race or Gender Coefficients in Column 6 with those of Column 8, Dr. Madden explains that “about half of current gender differences in compensation arise from gender differences in job assignment at hire” and that “current Asian-white differences in compensation arise almost entirely from differential job assignments” by race for employees of similar experience and education.” Madden Reb. at 31; Madden Rpt. at 3-4.

Dr. Madden also studied the impact of Oracle's assignment of global career level, not just at hire, but also over time. As Dr. Madden explains, she analyzed the gender differentials controlling for global career level at hire, and then compared those to the gender differentials when a control is added for the employee's *current* global career level. Madden Rpt. at 51, Table 5. As explained by Dr. Madden, this comparison shows the addition of current global career level reduces both the Medicare and base pay earning gaps by “about more than half” and “about half,” respectively, meaning that “differences in assignments after hire as well as current

compensation differentials with similar job assignments account for the other half of current compensation differentials.” Madden Reb. at 31. She explains that “[t]hese changes in gender coefficients can occur only if compensation decisions subsequent to hire contribute to current compensation disparities.” *Id.* at 38. Dr. Madden further explained the results of a regression analysis she ran only on employees in the IC3 and IC4 global career level:

Between 2013 and 2018, Oracle was less likely to award women than to award men, who were in global career level of IC3 and IC4, higher global career levels (see regression analyses in Appendix B). Because of this disparity in the assignment of global career levels, current global career level also contributes to half of the current gender disparities in pay.

Madden Rpt. at 51. Simply put, the gender pay disparities Dr. Madden found “are the results of gender disparities in promotions, in level of initial job assignments, and in compensations within current jobs.” Madden Reb. at 41.

Dr. Madden further explained that running this analysis for Asian employees relative to white employees “show a different pattern.” Madden Rpt. at 51, Table 6. For Asians, assignment of global career level at hire accounts for most of the pay differential, which means that “current global career level has little effect on the size of the Asian-white pay differential.” *Id.* at 51. Dr. Madden finds that Asian workers do not face the same impediments to securing higher global career levels experienced by women. *Id.*

Finally, Dr. Madden studied the impact of assignment of global career level on gender and race base pay gaps at hire, and assessed how that assignment interfaced with comparisons of Oracle’s setting of base pay at hire on employees’ “prior pay,” meaning the salary employees received prior to joining Oracle. Madden Rpt. at 49-50, Table 4. As with her other regression analyses showing that Oracle’s assignment of global career level operates as a “mechanism” to effectuate gender or race pay discrimination, Dr. Madden’s analysis here confirms that finding, showing that Oracle’s assignment of global career level explains much of the gender and race salary gap. *Id.* at 50. Of importance here, however, to the other arguments that Oracle makes both in its *Daubert* and summary judgment motions about the myriad factors its managers allegedly consider in setting compensation is that Dr. Madden finds that her results are consistent with Oracle

setting starting salary based on prior pay: “the gender and racial differentials in prior pay and starting pay (columns 3 vs. 2) are similar.” *Id.*

In its *Daubert* motion, Oracle criticizes Dr. Madden’s assessment of global career level as a mechanism for discrimination for reasons articulated by Oracle’s expert, Dr. Saad, in his initial report and, as to some issues, for the first time in his rebuttal report. Saad Reb. at 54-55. Oracle claims,¹¹ for example, that Dr. Madden does not account for Oracle’s position that Oracle does not “assign” global career levels, but that employees “choose” their levels by applying for certain requisitions. Saad Rep. at 14. As OFCCP explained in its MSJ, and as Dr. Saad also admits, Oracle authorizes managers to set the global career level of a hire at one Career Level above or below that specified in job requisitions and many requisitions do not specify the global career level, which means that employees could not know the career level they are “choosing” when applying for a job. OFCCP MSJ at 6 n. 5. In response to Dr. Saad’s critique, Dr. Madden studied the requisition data Dr. Saad analyzed and showed that women and Asians were *more likely* than men or Whites to be placed in a *lower* level compared to the level identified in the requisition and *less likely* than men or Whites to be placed in a *higher level* than that identified in the requisition. Madden Reb. at 36, Charts R1-R2; see also Madden 10.11 Decl., ¶ 6, Chart B (responding to additional arguments raised by Dr. Saad in his Rebuttal Report). Dr. Madden further found when studying starting salaries “for the hired employees whom Dr. Saad matched to a requisition,” once applying appropriate controls for exogenous characteristics and the global career level listed on the requisition that “[w]omen average 3.8 percent less starting pay, a gender difference of 3.63 standard deviations” and “Asian employees average three percent lower salaries, a racial

¹¹ Like Dr. Saad, Oracle also complains in its instant motion that Dr. Madden failed to account for detailed and specific, education and job experience requirements. Again, however, Dr. Madden explains that while such considerations would be important in relation to study as to how to place an individual, she is “not developing statistical analyses for assigning individuals to jobs. Rather, I am designing analyses to evaluate statistically whether Oracle systematically assigns women, Asian and African American hires to job title and global career levels in a way that is different, and inferior to, the assignments of men or white hires. For this purpose, I do not have to include all of the characteristics by which individuals, or jobs, differ. In this case, we only need to include the characteristics by which the genders or races differ.” Madden Reb. at 32.

difference of 2.52 standard deviations.” Madden Reb. at 36-37, Table R9. Indeed, Dr. Madden’s analysis of Oracle’s requisition data in response to Oracle’s critiques of her study of global career level assignment only further underlines that Oracle’s assignment of global career level drives Oracle’s gender and race compensation discrimination. Madden Reb. at 41.

4. Application of Labor Economics and the Absence of Data Dictated that Dr. Madden Could Not Apply Controls for Endogenous Characteristics Now Advanced by Oracle.

In its motion, Oracle complains that Dr. Madden did not consider controls for the myriad characteristics Oracle now claims its managers weigh when setting compensation. In her Rebuttal Report, Dr. Madden explains that all of the characteristics for which Oracle seeks controls are endogenous and thus inappropriate for inclusion. Madden Reb. at 20-29. As to nearly all of the controls Oracle seeks, however, Dr. Madden could not have applied controls even if she wanted to do so due to the fact that Oracle did not maintain data regarding the myriad factors Oracle says its managers weighed. Madden Decl. at ¶4. Without data, no scientific analysis is possible.

Oracle asserts vociferously (Oracle MSJ at 8-10), for example, that its managers weigh product assignment when setting compensation, but admits it did not maintain records of product assignments. OFCCP *Daubert* at 5. Further, as Dr. Madden explains, applying a control to reflect employer consideration of the profitability of the product to which an employee is assigned in setting compensation—even if the data did exist—defies bedrock labor economic theory:

First, there is no reason to place equally qualified women, Asians, or African Americans who are in the same job in lower paying organizations within Oracle. Second, labor economic theory indicates that there is no reason for employees to accept less compensation because Oracle makes less money from the product produced at their organization than for the product produced at another organization by identically qualified employees.

Madden Reb. at 22. Put another way, employees of different genders or races, absent discrimination, should be assigned with the same frequency to product lines with higher or lower profitability for Oracle. *Id.* Absent discriminatory intent in assignments, no component of gender

or race pay disparities should be attributable to differential assignment of women, Asians, or African Americans to less profitable product lines.

D. Oracle's Attacks on Dr. Madden's Prior Expert Testimony Are Meritless.

In its Motion, Oracle attempts to discredit Dr. Madden by cherry-picking six cases involving her testimony. Oracle *Daubert* at 14-16. In each of these cases, Oracle either mischaracterizes Dr. Madden's testimony or the case is irrelevant to the issues here. In addition, Oracle fails to mention the many cases in which Dr. Madden's aggregated regression analyses were admitted and relied upon by courts to advance the remedial aims of Title VII of the Civil Rights Act of 1964 and related laws in numerous industries and geographic regions.

For over four decades, thousands of victims of discrimination regained employment opportunities and wages denied to them due to Dr. Madden's use of well-accepted statistical methods and principles of labor economics to detect unlawful discrimination in their workplaces. Unsurprisingly, in many of the 60 matters in which she has provided testimony, the cases have resolved prior to trial, frequently after the class certification stage. Also unsurprising, Oracle fails to advise the Court of the array of final decisions upon which courts relied upon the application of her expertise in finding unlawful employment discrimination. *See, e.g., OFCCP v. Enter. RAC Co. of Baltimore, LLC*, ALJ No. 2016-OFC-00006, slip. op. at 106 (July 17, 2019) (failure-to-hire race discrimination case in which Dr. Madden's "regression analysis on the application review and telephone interview stage" revealed "statistically significant racial disparity and that African American applicants were substantially better situated than whites, were more qualified, overall;" rejecting employer's proffered explanation that its subjective perception of applicants' salesmanship abilities during interview explained the disparity; ALJ ordered indefinite debarment of contractor, \$6,645,444.00 damages to affected applicants, and injunctive relief); *Ketchum v. Sunoco, Inc.*, 217 F.R.D. 354, 356 (E.D. Pa. 2003) (failure-to-promote Title VII class action brought on behalf of African American workers seeking promotion to upper-level management positions: "The experts used the same statistical database; however, they disagree as to the necessary combination of variable factors to be considered in reaching an opinion regarding the statistical significance of the evidence as it relates to discriminatory employment

policies. ... I have carefully reviewed the record and conclude that the evidence of Plaintiffs' expert Doctor Madden, even as challenged by Defendant's expert Dr. Siskin, if credited, is sufficient to permit a determination that company employment policies as applied have a discriminatory impact adverse to the named Plaintiffs and the proposed class.”; thereafter, parties settled for \$5.5M and significant injunctive relief); *E.E.O.C. v. Akron Nat. Bank & Tr. Co.*, 497 F. Supp. 733, 756 (N.D. Ohio 1980) (relying on Dr. Madden’s statistical analyses in addition to anecdotal evidence, “the Court concludes that the bank has engaged in a pattern and practice of sex discrimination by engaging in job assignment practices that have an adverse effect upon women and by failing to promote women into management and officer positions because of their sex.”); *OFCCP v. Ford Motor Co.*, ALJ No. 1997-OFC-8, 2000-OFC-1 to 9 (Feb. 16, 2000) (consent decree providing for extensive injunctive relief and monitoring, \$3.8M to affected female and minority applicants and employees for manufacturing positions).

The cases Oracle cites in no way undermine or impugn Dr. Madden’s qualifications to provide valuable expert analysis of Oracle’s compensation outcomes.

First, three of the cases Oracle cites (Oracle *Daubert* at 13-14) were bench-trial cases (*E.E.O.C. v. Sears Roebuck & Co.*, *Frazier v. Se. Pennsylvania Transp. Auth.*, and *Williams v. Boeing Co.*) in which the court considered Dr. Madden’s evidence at trial—underlying the meritless nature of Oracle reliance on these cases in seeking pre-trial exclusion.¹²

Second, three of the cases that Oracle cites (Oracle *Daubert* at 13) to assert that “courts across the country” have rejected Dr. Madden’s analyses (*Cooper v. S. Co.*, *Puffer v. Allstate Ins. Co.*, and *Gosho v. U.S. Bancorp Piper Jaffray, Inc.*) were decided in the context of Rule 23 class certification litigation. This is significant because the central question at the class certification stage is whether a court should authorize an individual to represent and bind absent parties to an adjudication of their legal rights in conformity with the due process rights of those absent

¹² See *United States v. Heller*, 551 F.3d 1108, 1112 (9th Cir. 2009) (“Because the judge rules on this evidentiary motion, in the case of a bench trial, a threshold ruling is generally superfluous. It would be, in effect, ‘coals to Newcastle,’ asking the judge to rule in advance on prejudicial evidence so that the judge would not hear the evidence.”).

parties.¹³ This question is distinct from whether employees are “similarly situated” for purposes of pay disparity analyses and, ultimately, to determine an employer’s liability under equal employment opportunity laws.

For example, in *Cooper v. Southern Co.*, Dr. Madden opined that disparities in promotion rates of white and African American employees were statistically unlikely to be caused by chance, and on this basis together with anecdotal evidence, plaintiffs argued that class certification over this multi-state class was appropriate. The district court disagreed, but, as the Eleventh Circuit explained in affirming under an abuse-of-discretion standard:

The district court did not exclude Dr. Madden's reports because she was unqualified or because the reports were based on a wholly unreliable methodology; rather, the court accepted the reports’ conclusions but determined that they still failed to establish that the named plaintiffs had claims in *common* with other class members under either a pattern and practice or disparate impact theory.

Cooper v. S. Co., 390 F.3d 695, 717 (11th Cir. 2004). While the reasons for affirmance were specific to the facts of and theory of liability presented in *Cooper*, the appellate court’s central concern was that “procedural fairness for all members of the putative class would not be ensured if the claims of the entire class were allowed to rise or fall on the fortunes of the named plaintiffs’ claims” because the lead plaintiffs’ claims were atypical of the “overall class members” they sought to represent. *Id.* at 719. Here, this breach of contract action is not a class action, thus none of the requirements of Rule 23(a) and (b), such as commonality, typicality, predominance, or superiority, are at issue.¹⁴

Third, Oracle mischaracterizes the findings in the *Sears*, *Frazier*, and *Williams* cases and fails to provide appropriate context. Oracle *Daubert* at 3, 13-14. For example, *Sears* was a hiring case, completely unrelated to compensation and the examination thereof. Further, the Ninth Circuit, following the Second, Eighth, and D.C. Circuits *rejected* the holdings in *Sears* the year

¹³ See *Taylor v. Sturgell*, 553 U.S. 880, 892, 900-01 (2008) (FRCP 23 implements procedural safeguards relating to the limitations on representation of nonparties).

¹⁴ The leading Supreme Court case relating to Title VII pattern and practice claims, *Int’l Bhd. of Teamsters v. United States*, was an enforcement action brought by the United States, not a private party subject to the strictures of Rule 23. 431 U.S. 324, 328 (1977).

after it was decided.¹⁵ *Frazier*, like *Sears*, was entirely unrelated to compensation as it was a termination case. *Frazier* was based in part on facts established by a prior jury verdict related to a claim brought under 42 U.S.C. § 1983 in a case challenging allegedly disparate rates of terminations at a local public entity following a grievance procedure, not promotion or pay discrimination.¹⁶ The methodological criticisms noted by the *Frazier* court simply do not appear in this case.¹⁷

Finally, in *Williams* the court did not find Dr. Madden's conclusions persuasive chiefly because the personnel data produced by the employer related to promotions of its employees "was not always an accurate or consistent measure of when a promotion had actually occurred" due to the way in the employer maintained the data.¹⁸ The court instead relied on the defense's expert's "imperfect" use of salary as a proxy for promotion rates despite acknowledging that "[a]n employee who receives a salary increase does not necessarily receive a promotion, while all promotions do not come with an increase in salary."¹⁹ There is no larger lesson to glean from the *Williams* court's weighing of the evidence as it did, particularly not as to the merits of Dr. Madden's testimony regarding promotion discrimination.

In short, Oracle's central claim that this court should follow other courts by excluding Dr. Madden's testimony is highly misleading. Nothing in these decisions supports Oracle's assertion that Dr. Madden's testimony should be excluded. *See Hemmings*, 285 F.3d at 1188.

Oracle also argues that Dr. Madden's analyses are inconsistent with her prior practice as a member of Penn's Gender Equity Committee from 2000 to 2002. Oracle *Daubert* at 14-16. This argument, too, is built wholly on misrepresentations. While serving as Penn's Vice Provost,

¹⁵ In the Seventh Circuit's *Sears* bench trial opinion the court found: (1) defendants can escape Title VII liability merely by poking holes in a Title VII plaintiff's regression model without putting forward non-discriminatory reasons for prima facie unlawful disparities, and (2) such holes can include claiming regression models fail to account for whether women are interested in higher-paying positions. Both propositions were rejected by the Ninth Circuit's ruling in *E.E.O.C. v. Gen. Tel. Co. of Nw.*, 885 F.2d 575, 581-82 (9th Cir. 1989).

¹⁶ *Frazier v. Se. Pennsylvania Transp. Auth.*, No. CIV. A. 84-2950, 1990 WL 223051, at *2 (E.D. Pa. Dec. 21, 1990).

¹⁷ Assuming *arguendo* that Dr. Madden's 29-year old report and conclusions contained methodological errors, the fact that the *Frazier* court nonetheless admitted and weighed Dr. Madden's work again demonstrates, as in *Frazier*, exclusion under FRE 702 is unwarranted.

¹⁸ *Williams v. Boeing Co.*, No. C98-761P, 2006 WL 126440, at *3 (W.D. Wash. Jan. 17, 2006).

¹⁹ *Id.* at **3-4.

Dr. Madden conducted compensation analyses for Penn that resulted in compensation adjustments. Madden Decl. at ¶ 8. However, Oracle does not mention those analyses, which Dr. Madden actually directed. Instead, Oracle assigns to Dr. Madden responsibility for analyses designed by Penn and prepared with the Gender Equity Committee, even though neither Dr. Madden nor this Committee conducted any statistical models or analyses because the “University provided no data to the Committee.” *Id.* Her involvement in the Committee’s study was limited: she neither directed the study nor wrote the report. *Id.* Further, the employee newsletter cited by Oracle in support of its allegation that Dr. Madden was the moving force behind this study, “was not a peer-reviewed publication as Oracle attempts to suggest,” and merely provided a summary of the analysis performed by Penn. *Id.* Oracle’s attack on Dr. Madden, once again, is baseless.

CONCLUSION

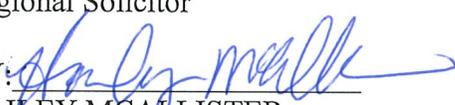
For the reasons set forth herein, Oracle has failed to state a basis to exclude Dr. Madden’s testimony, which will be of great value to the Court given how probative her opinions are to the issues to be decided this case. As such, Defendant’s Motion should be denied.

DATED: November 1, 2019

Respectfully submitted,

KATE O’SANNLAIN
Solicitor of Labor

JANET M. HEROLD
Regional Solicitor

BY: 
HAILEY MCALLISTER
Trial Attorney

LAURA C. BREMER
Acting Counsel

IAN H. ELIASOPH
Counsel

NORMAN E. GARCIA
Senior Trial Attorney

DAVID L. EDELI
Trial Attorney

Attorneys for Plaintiff OFCCP

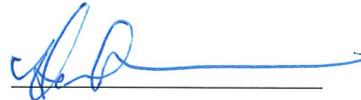
CERTIFICATE OF SERVICE

I certify that on this 1st day of November, 2019, the foregoing **PLAINTIFF'S OPPOSITION TO ORACLE AMERICA, INC.'S MOTION TO EXCLUDE THE EXPERT REPORT AND TESTIMONY OF JANICE FANNING MADDEN, PH.D.**

was served on the following individuals by email at the following addresses:

ERIN M. CONNELL (econnell@orrick.com)
GARY R. SINISCALCO (grsiniscalco@orrick.com)
WARRINGTON S. PARKER, III (wparker@orrick.com)
JOHN GIANSELLO (jgiansello@orrick.com)
KAYLA GRUNDY (kgrundy@orrick.com)
JACQUELINE KADDAH (jkaddah@orrick.com)
Orrick, Herrington & Sutcliffe LLP
The Orrick Building
405 Howard Street
San Francisco, CA 94105-2669

as requested by attorneys for Defendant Oracle America, Inc.

A handwritten signature in blue ink, consisting of stylized initials and a long horizontal stroke extending to the right.

U.S. Department of Labor

Exhibit A

statistical and economic information in discrimination litigation at the invitation of the Federal Judicial Center (US Supreme Court managed judges training) and the Federal Reserve Bank.

6. My analyses used to support my opinions as an expert labor economist have been used in scores of cases, most of which resolved after the exchange of expert reports. I have submitted testimony in over 60 matters involving claims of discrimination against a class over the last forty years. More than a dozen of these cases have involved companies engaged in engineering, scientific research, or computer programming or universities or national laboratories also involved in scientific research.

7. Many of my expert opinions have primarily been used in the context of class certification. For example, three cases that Oracle cites to, *Cooper v. S. Co.*, *Puffer v. Allstate Ins. Co.*, and *Gosho v. U.S. Bancorp Piper Jaffray, Inc.*, all were decided in the context of Rule 23 class certification litigation.

8. In 2000 through 2002, I was one of 16 faculty members appointed to the University of Pennsylvania's Gender Equity Committee. The Penn administration shared analyses that they designed and prepared with the Committee. The Committee submitted a summary of these data and analyses to the University employee newsletter. This newsletter report was not a peer-reviewed publication as Oracle attempts to suggest. The University provided no data to the Committee. Since the Committee had no data, it could not, and did not, design any statistical models for the study. We only reported what the University shared with us. My involvement in this study was limited. I did not direct the study, nor did I write the report. As a Penn Vice Provost (and prior to serving on this Committee), however, I conducted compensation analyses for Penn that resulted in compensation adjustments.

Exhibit B

JANET M. HEROLD
Regional Solicitor
IAN H. ELIASOPH
Counsel
LAURA C. BREMER
Acting Counsel for Civil Rights
Office of the Solicitor
UNITED STATES DEPARTMENT OF LABOR
90 7th Street, Suite 3-700
San Francisco, California 94103
Tel: (415) 625-7757
Fax: (415) 625-7772
Email: bremer.laura@dol.gov

**UNITED STATES DEPARTMENT OF LABOR
OFFICE OF ADMINISTRATIVE LAW JUDGES**

OFFICE OF FEDERAL CONTRACT
COMPLIANCE PROGRAMS, UNITED
STATES DEPARTMENT OF LABOR,

Plaintiff,

v.

ORACLE AMERICA, INC.

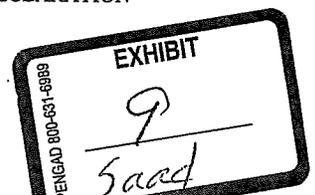
Defendant.

Case No. 2017-OFC-00006

DECLARATION OF JANICE F. MADDEN

I, Janice F. Madden, state and declare as follows.

1. The Office of Federal Contract Compliance Programs, U.S. Department of Labor has retained me as an expert labor economist and statistician in OFCCP v. Oracle America, Inc. After I submitted my rebuttal expert report, I received Dr. Saad's rebuttal expert report.



5. Columns 5 through 8 of Tables A-1 through A-5 report the effects of adding Dr. Saad's college major variable to the original analyses reported in columns 5 through 8 of Tables 1a, 1b, 2a, 2b and 3a of my July 19, 2019 report. Comparisons of the reported coefficients and standard deviations in the two sets of tables (1a, 1b, 2a, 2b, 3a from the original report and Tables A-1 through A-5) show that adding college major has no substantial effect on the size or significance of the race and gender differences in compensation.

6. At pages 54 through 55 of his Rebuttal Report, Dr. Saad discusses the job assignments of hires who were directed to requisition notices posted by Oracle. He analyzes those requisition placements separately by Global Career Level or with no controls for the Global Career Level and then claims that Oracle assigns the hires "irrespective of race or gender" in his rebuttal report. I have analyzed his data on these requisitions to test for the overall race and gender differentials in the global career initial assignments of these requisition-based hires that he claims are gender and race neutral. I attach a summary of this analysis as Exhibit B.

- a. Exhibit B is titled "Table Differences in Global Career Level Assignments for Experienced Hires Relative to Requisition Specified Global Career Level, Controlling for Global Career Level in Requisition and Year By Gender and Race in Dr. Saad's Data, 2013-2018"
- b. The Exhibit B Table shows statistically significant, or systematic, lower Global Career Level assignments by race (for Asians) and by gender in Global Career Level jobs, after the Global Career Level of the requisition is controlled.

7. Dr. Saad reports the salary ranges in the job functions analyzed in this case. In response, I have prepared a table illustrating the gender and racial disparities within those salary ranges he identifies. Attached as Exhibit C is the chart I created to illustrate the differences in pay for Oracle women, Asian, and black employees compared to whites or male employees in

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on October 11, 2019 in Philadelphia, Pennsylvania.



JANICE F. MADDEN

Madden Table 1(b) _ Revised adding Saad's Coded Majors at col5

2013 through 2018 Gender Differences in Medicare Earnings at Oracle Headquarters by Year,
Employees with Recorded Education Characteristics, with Various Characteristics Controlled

Controls for ...

y	Adds Race/Ethnicity (2)		Adds Age (3)		Adds Education (4)		Adds Time at Oracle and Coded Majors (5)		Adds Exempt/Non Exempt and Job Descriptor (6)		Adds Management Control (7)		Adds Global Career Level (8)	
	Gender Coefficient	t score	Gender Coefficient	t score	Gender Coefficient	t score	Gender Coefficient	t score	Gender Coefficient	t score	Gender Coefficient	t score	Gender Coefficient	t score
5.93	-0.138	-5.73	-0.143	-6.38	-0.134	-5.99	-0.138	-6.23	-0.127	-5.73	-0.102	-4.97	-0.040	-2.30
6.77	-0.163	-6.82	-0.167	-7.41	-0.161	-7.17	-0.166	-7.41	-0.145	-6.59	-0.113	-5.61	-0.052	-3.20
6.50	-0.137	-6.46	-0.145	-7.23	-0.139	-6.99	-0.139	-7.03	-0.114	-5.86	-0.084	-4.70	-0.036	-2.56
7.11	-0.161	-7.31	-0.180	-8.85	-0.177	-8.75	-0.177	-8.75	-0.151	-7.64	-0.116	-6.31	-0.051	-3.69
7.56	-0.195	-7.73	-0.200	-8.72	-0.192	-8.44	-0.198	-8.67	-0.169	-7.50	-0.132	-6.34	-0.050	-2.99
7.89	-0.211	-8.14	-0.215	-8.80	-0.210	-8.62	-0.216	-8.90	-0.190	-7.93	-0.160	-7.19	-0.063	-3.72

Madden Table 2(b) _ Revised adding Saad's Coded Majors at cols
 2013 through 2018 Asian Differences in Medicare Earnings at Oracle Headquarters by Year,
 Employees with Recorded Educational Characteristics, with Various Characteristics Controlled

Controls for ...														
/	Adds Gender (2)		Adds Age (3)		Adds Education (4)		Adds Time at Oracle and Coded Majors (5)		Adds Exempt/Non Exempt and Job Descriptor (6)		Adds Management Control (7)		Adds Global Career Level (8)	
	score	Race Coefficient	t score	Race Coefficient	t score	Race Coefficient	t score	Race Coefficient	t score	Race Coefficient	t score	Race Coefficient	t score	Race Coefficient
-7.72	-0.209	-7.40	-0.123	-4.41	-0.128	-4.40	-0.125	-4.36	-0.118	-4.16	-0.124	-4.78	-0.034	-1.55
-8.84	-0.247	-8.75	-0.168	-5.96	-0.184	-6.27	-0.181	-6.22	-0.175	-6.12	-0.166	-6.36	-0.061	-2.90
-8.89	-0.214	-8.78	-0.149	-6.11	-0.166	-6.54	-0.161	-6.39	-0.161	-6.55	-0.154	-6.83	-0.064	-3.62
-7.70	-0.205	-7.71	-0.133	-5.12	-0.150	-5.57	-0.146	-5.46	-0.133	-5.09	-0.137	-5.68	-0.054	-3.00
-7.17	-0.228	-7.27	-0.129	-4.34	-0.148	-4.79	-0.147	-4.76	-0.131	-4.27	-0.165	-5.83	-0.080	-3.53
-5.17	-0.178	-5.35	-0.100	-3.04	-0.134	-3.89	-0.137	-3.99	-0.109	-3.22	-0.148	-4.73	-0.069	-2.92

Ex. A-4

Table Differences in Global Career Level Assignments for Experienced Hires Relative to Requisition Specified Global Career Level Controlling for Global Career Level in Requisition and Year By Gender and Race in Dr. Saad's Data, 2013-2018				
	Global Career Level Assignment Differences			
	Lower	Probability Difference Is Due to Chance	Higher	Probability Difference Is Due to Chance
Women relative to men	0	na	-12.2	0.042
Asian relative to white hires	17.4	0.003	-5.7	0.316

Redo of Saad's Table 1 Using Basepay instead of Total Compensation

through 2018 Gender Differences in Base Pay at Oracle Headquarters by Year, with Various Characteristics Controlled

- Full-Year Incumbents in the INFTECH Job Function -

Controls for ...

Gender Only (1)		Adds Race/Ethnicity (2)		Adds Refined Age Variable (3)		Adds Education (4)		Adds Refined Tenure Variables (5)		Adds Work-Related Variables (6)		Removes Organization Name (7)	
Gender Coefficient	ST DEV	Gender Coefficient	ST DEV	Gender Coefficient	ST DEV	Gender Coefficient	ST DEV	Gender Coefficient	ST DEV	Gender Coefficient	ST DEV	Gender Coefficient	ST DEV
037	-1.18	-0.045	-1.45	-0.046	-1.47	-0.047	-1.48	-0.016	-0.49	-0.026	-1.79	-0.028	-1.93
051	-1.50	-0.056	-1.68	-0.056	-1.69	-0.050	-1.49	-0.009	-0.25	-0.037	-2.40	-0.038	-2.55
077	-2.50	-0.077	-2.56	-0.078	-2.59	-0.076	-2.53	-0.028	-0.85	-0.026	-1.88	-0.037	-2.59
097	-3.23	-0.097	-3.31	-0.098	-3.35	-0.098	-3.37	-0.056	-1.79	-0.024	-1.71	-0.034	-2.37
093	-2.94	-0.095	-3.04	-0.095	-3.06	-0.096	-3.08	-0.045	-1.38	-0.036	-2.37	-0.040	-2.69
085	-2.68	-0.087	-2.79	-0.087	-2.81	-0.087	-2.81	-0.038	-1.15	-0.043	-2.66	-0.037	-2.36

Ex. D-1

Redo of Saad's Table 3 Using Basepay instead of Total Compensation

through 2018 Gender Differences in Base Pay at Oracle Headquarters by Year, with Various Characteristics Controlled

- Full-Year Incumbents in the SUPP Job Function -

Controls for ...

Gender Only (1)		Adds Race/Ethnicity (2)		Adds Refined Age Variable (3)		Adds Education (4)		Adds Refined Tenure Variables (5)		Adds Work-Related Variables (6)		Removes Organization Name (7)	
Gender Coefficient	ST DEV	Gender Coefficient	ST DEV	Gender Coefficient	ST DEV	Gender Coefficient	ST DEV	Gender Coefficient	ST DEV	Gender Coefficient	ST DEV	Gender Coefficient	ST DEV
179	-3.85	-0.185	-3.98	-0.191	-4.05	-0.198	-4.22	-0.169	-3.51	-0.050	-2.06	-0.061	-2.69
152	-3.24	-0.159	-3.34	-0.169	-3.54	-0.172	-3.62	-0.122	-2.52	-0.044	-2.16	-0.052	-2.47
136	-1.84	-0.126	-1.65	-0.144	-1.88	-0.146	-1.84	-0.084	-0.96	0.016	0.32	-0.029	-0.76
123	-1.43	-0.127	-1.45	-0.150	-1.65	-0.144	-1.57	-0.110	-0.97	0.011	0.14	-0.065	-1.51
090	-0.09	-0.091	-0.91	-0.110	-1.04	-0.097	-0.90	-0.049	-0.41	-0.161	-3.19	-0.073	-1.70
103	-1.07	-0.106	-1.07	-0.146	-1.41	-0.133	-1.26	-0.032	-0.27	0.018	0.24	-0.044	-0.89

Ex. D-3

Redo of Saad's Table 5 Using Basepay Instead of Total Compensation

Q1 2018 African-American Differences in Base Pay at Oracle Headquarters by Year, with Various Characteristics Controlled

- Full-Year Incumbents in the PRODEV Job Function -

Controls for ...

African-American Only (1)		Adds Gender (2)		Adds Refined Age Variable (3)		Adds Education (4)		Adds Refined Tenure Variables (5)		Adds Work-Related Variables (6)		Removes Organization Name (7)	
Black Coefficient	ST DEV	Black Coefficient	ST DEV	Black Coefficient	ST DEV	Black Coefficient	ST DEV	Black Coefficient	ST DEV	Black Coefficient	ST DEV	Black Coefficient	ST DEV
189	-2.87	-0.180	-2.80	-0.181	-2.81	-0.187	-2.91	-0.158	-2.72	0.011	0.35	-0.035	-1.16
138	-3.56	-0.227	-3.45	-0.230	-3.48	-0.242	-3.66	-0.211	-3.59	0.008	0.24	-0.041	-1.32
166	-4.07	-0.253	-3.93	-0.258	-4.00	-0.272	-4.22	-0.239	-4.07	-0.005	-0.15	-0.067	-2.12
192	-4.76	-0.277	-4.57	-0.281	-4.63	-0.284	-4.69	-0.219	-3.91	-0.026	-0.81	-0.073	-2.46
110	-5.00	-0.291	-4.77	-0.292	-4.78	-0.289	-4.71	-0.238	-4.23	-0.059	-1.81	-0.099	-3.33
124	-4.94	-0.311	-4.81	-0.312	-4.82	-0.307	-4.75	-0.262	-4.36	-0.090	-2.68	-0.104	-3.18