

UNITED STATES DEPARTMENT OF LABOR
OFFICE OF ADMINISTRATIVE LAW JUDGES
BOSTON, MASSACHUSETTS

Issue Date: 22 March 2019

ALJ NO.: 2017-OFC-00001

In the Matter of:

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

v.

ANALOGIC CORPORATION,
Defendant.

Before: Colleen A. Geraghty, Administrative Law Judge

Appearances:

Kelly M. Lawson, Esq., Theresa Schneider Fromm, Esq., Rachel Culley, Esq., Garrett J. Lee, Esq., U.S. Department of Labor, Office of the Solicitor, Boston, Massachusetts for the Office of Federal Contract Compliance Programs

Kenneth M. Bello, Esq., Justin L. Engel, Esq., Martha J. Zackin, Esq., Bello Welsh, LLP, Boston, Massachusetts for Analogic Corporation

RECOMMENDED DECISION AND ORDER

This matter arises under Executive Order 11246 (30 Fed. Reg. 12319), (“EO”), as amended, and the regulations pursuant to 41 C.F.R. Chapter 60. The Executive Order and regulations prohibit employment discrimination by government contractors based upon race, color, religion, sex, or national origin. The Court has jurisdiction in this matter under Sections 208 and 209 of the EO and 41 C.F.R. § 60-1.26 and 41 C.F.R. Part 60-30. On October 3, 2016, the Department of Labor’s Office of Federal Contract Compliance Programs (“OFCCP”) filed an Administrative Complaint beginning an enforcement action against Analogic Corporation (“Analogic”) alleging Analogic violated the EO by paying females in two specific positions less than males in those same positions. Analogic filed an answer denying the allegations and offering affirmative defenses.

I. PROCEDURAL HISTORY

On December 20, 2016, Analogic filed a Motion to Limit the Scope of the Dispute, seeking to preclude OFCCP from raising as an issue in dispute whether females in Assembler 2 and Assembler 3 positions were misclassified during the company’s leveling process when the

prior Copley employees were integrated with Analogic assembler employees. Analogic asserted the issue was never raised during the audit process, and the Notice of Violation, Show Cause Notice, and Amended Show Cause Notice only focused on whether Assembler 2 and Assembler 3 females were paid less than their male counterparts. OFCCP opposed the motion, arguing it was not expanding the scope of the claim, but merely seeking to develop context for the gender disparity in pay in Assembler 2 and Assembler 3 positions. OFCCP further stated its reference to “total compensation policies” in its administrative complaint was broad enough to cover an alleged misclassification of females in Assembler 2 and Assembler 3 positions. During a conference call held on February 23, 2017, I granted Analogic’s Motion to Limit the Scope of the Dispute, holding that an allegation that females were misclassified into Assembler 2 and Assembler 3 positions during the leveling process was not properly within the scope of the claim before me. 2/23/2017 Conf. Call Tr. 23. I found this allegation was never raised in the Notice of Violation, Show Cause Notice, or Amended Show Cause Notice.

On May 17, 2017, OFCCP filed a Motion for Partial Summary Decision, and on June 2, 2017, Analogic filed its own Motion for Summary Decision. Both motions addressed the issue of whether OFCCP properly engaged in good faith conciliation efforts before filing its administrative complaint.¹ On August 16, 2017, I issued an Order Granting OFCCP’s Motion for Partial Summary Decision and Denying Analogic’s Motion for Summary Decision (“Ord. on Sum. Judg.”). Relying on the Supreme Court’s decision in *Mach Mining, LLC v. E.E.O.C.*, 135 S. Ct. 1645 (2015) I determined OFCCP met the minimum requirements of conciliation under *Mach Mining*, namely it adequately informed Analogic of its specific discrimination allegations and made multiple reasonable efforts to conciliate the claim. Ord. on Sum. Judg. at 15.

On August 18, 2017, Analogic filed a Motion for Summary Judgment and to Exclude OFCCP’s Expert Daniel S. Levy, and on September 1, 2017, OFCCP filed an Opposition to the Motion for Summary Judgment and to Exclude OFCCP’s Expert and a Cross Motion to Exclude Analogic’s Expert Elizabeth Baumler. During a conference call held on October 12, 2017, I informed the parties that I would not be ruling on Analogic’s Motion for Summary Judgment before the hearing and would allow both parties to submit their expert witness reports into evidence and present the expert witnesses’ testimony at hearing.²

A hearing was held over several days: October 25-27; October 30, and November 1-3, 2017. Testimony was heard from OFCCP’s expert Dr. Daniel Levy and Analogic’s expert Dr. Elizabeth Baumler. In addition Doug Rosenfeld, Patricia Dumas, George Williams, Dana Soucie, Sharon LeBlanc, Rhonda Aubin-Smith, Elizabeth Ibbitson, Patrice Cunningham and

¹ Analogic asserted OFCCP failed to conciliate in good faith by not providing the company with sufficient information about its audit expert and failing to provide any anecdotal evidence. In response, OFCCP indicated it met the minimal duty to conciliate as laid out by the Supreme Court in *Mach Mining, LLC v. E.E.O.C.*, 135 S. Ct. 1645 (2015).

² There were also numerous discovery disputes in this matter that were resolved by various Orders. *See* Order Granting in Part Defendant’s Motion to Compel Rule 30(b)(6) Deposition and Granting in Part Plaintiff’s Motion for Protective Order (8/16/17); Order Granting in Part Analogic’s Motion to Compel Production and For in Camera Review of Redacted And Withheld Documents (8/30/17); Order Overruling OFCCP’s Objection to the Production of District Director Rhonda Aubin-Smith For Continued Deposition (9/18/17); and October 24, 2017 Conference Call Transcript (Denying Employer’s Motion in Limine).

Linda Frazier also testified. The following exhibits were admitted: Joint Exhibits (“JX”) JX 1-12; Plaintiff’s Exhibits (“PX”) PX 1-21, 23, 28-50, 59-62, 67, 69-77, 80-82; Defendant’s Exhibits (“DX”) DX 1-20, 23-26, 29-34, 36, 38-39, 41-43, 45-47, 50-51. See Corrected Ex List attached to OFCCP 2/8/18 letter; 2/14/18 Conf. Call;³ see also TR 7, 9-10, 97, 105, 192, 229, 233, 313, 318, 359-361, 451, 510, 603, 675, 730, 791, 842, 899, 1049, 1077, 1104, 1116, 1302, 1311, 1313, 1319-1321, 1345, 1368.⁴

II. STIPULATIONS

The parties offered the following stipulations of agreed fact, which I accept:

1. This Court has jurisdiction of this action under sections 208 and 209 of the Executive Order 11246 (the “EO”), 41 C.F.R. § 60-1.26 and 41 C.F.R. Part 60-30.
2. OFCCP is responsible for enforcing the EO and regulations to ensure equal employment opportunity, without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin, for all persons employed or seeking employment with Government contractors and subcontractors.
3. Founded in 1967, Analogic produces leading-edge healthcare and security technology for private as well as government clients, including the United States government.
4. Analogic is headquartered in Peabody, Massachusetts, where it maintains a manufacturing operation that employs several hundred individuals, including Assemblers and other direct labor employees, to develop and produce technologies used in computed tomography, digital mammography, magnetic resonance imaging (MRI) and detection systems for airport security.
5. At all relevant times, Analogic was a government contractor or subcontractor within the meaning of the EO.

³ Post hearing by letter dated November 9, 2017, counsel for Analogic indicated the parties had reached agreement on the exhibits offered at trial. The letter included a list of exhibits identified as admitted, not admitted, and marked but not moved into evidence. On February 8, 2018, OFCCP sent a letter to the undersigned indicating there was one error in the exhibit list previously submitted by the parties in that DX 49 was listed as admitted but should have been listed as marked but not moved into evidence. OFCCP attached a Corrected Ex. List as EX A including this one correction. I held an on-the-record conference call with the parties on February 14, 2018 in which I determined DX 49 had not been admitted. I accepted the Corrected Exhibit List as reflecting the exhibits which were admitted at hearing.

⁴ The Administrative Complainant alleged two additional violations. First, the complaint alleged Analogic violated 41 C.F.R. § 60.2.17(b)(3) for “failing to identify, through in-depth analysis, whether there were gender-based disparities in its compensation system concerning employees in the Assembler 2 and 3 positions” DX 13 (Admin. Comp. at para 33-35). Second, the complaint alleged a violation of 41 C.F.R. §60-2.17(d)(1)-(4)” by failing to develop and implement an internal audit system that periodically measures the effectiveness of its total affirmative action plan (“AAP”). DX 13 (Admin Comp. at para 36-37). On October 23, 2017, OFCCP filed a Partial Stipulation of Dismissal, dismissing these two violations.

6. At all relevant times, Analogic held Federal or federally assisted contracts of \$50,000 or more.
7. Analogic typically (though not always) has awarded pay increases on an annual basis in the early fall of each year.
8. Analogic classifies employees holding the position titles of Assembler 2 and Assembler 3 as non-exempt.
9. At all relevant times, male Assembler 2s and female Assembler 2s have performed the same type of tasks.
10. At all relevant times, male Assembler 3s and female Assembler 3s have performed the same type of tasks.
11. In April of 2008, Analogic acquired all the outstanding capital stock of Copley Controls Corporation (“Copley”) based in Canton, Massachusetts.
12. In January 2011, many Copley legacy employees, i.e., employees who worked for Copley and then became Analogic employees after it acquired Copley, transferred from the Canton facility to Analogic’s Peabody facility.
13. The work performed by the Copley legacy employees at the Peabody facility was substantially similar to the work they had performed at Analogic’s Canton facility.
14. Many individuals who are Assembler 2s remain in the position and do not progress to the Assembler 3 position.
15. The Assembler 3 position is a higher-level position than the Assembler 2 position.
16. Performance is a factor in how employees in the Assembler 2 and 3 positions are compensated.
17. Analogic used the same performance review form for Assembler 2s and 3s in 2011 and 2012.
18. OFCCP conducted a compliance review of Analogic’s facility in Peabody, Massachusetts beginning on December 29, 2011. The audit period covered the years 2011 and 2012 (the “Audit Period”).
19. In its Notice of Violation, Show Cause Notice, and Amended Show Cause Notice, dated January 17, 2014, December 24, 2014, and July 17, 2015, respectively, OFCCP advised Analogic that it had determined that Analogic engaged in compensation discrimination against female employees in the Assembler 2 and 3 positions. In each instance, Analogic responded and set forth detailed written responses denying OFCCP’s allegation of compensation discrimination.

20. On October 3, 2016, OFCCP filed an Administrative Complaint initiating an enforcement action against Analogic.
21. In the Complaint, OFCCP asserts a claim of gender-based compensation discrimination, alleging that:

Beginning no later than January 1, 2012, and continuing thereafter at least to the extent that past discrimination has not been adequately remedied, Analogic paid female employees in the Assembler 2 and 3 positions at the Peabody facility less than comparable male employees in those positions.
22. During the hearing the parties stipulated that both parties expert's databases had some errors and that both regressions and the conclusions of both experts were not altered as a result of any errors by either expert in their databases. TR 238-40. In other words, any issue of errors in the database as a basis to critique the experts' reports is no longer an issue. TR 239.

In addition to the parties' stipulations, the following facts were not disputed:

23. Analogic did not have a formal written compensation policy. TR 379-80, 586.
24. At the beginning of each rating period Analogic's Human Resources Department (HR) sends an e-mail to supervisors which includes the one page Performance Review Form used to evaluate each individual employee and a second document titled Rating Guide. TR 583-85; 677-78; JX 3.
25. In 2011 and 2012 the Performance Review Form Analogic supervisors utilized in conducting reviews of Assembler 2 and 3s included six elements on which an employee's performance was evaluated. JX 3 at 3. The six performance elements are defined as follows: (1) Quality of Work – including accuracy, thoroughness, and value of work; (2) Quantity of Work – including capacity, amount and scope of work; (3) Knowledge and Skill – including proficiency in job responsibilities; (4) Teamwork – including ability to get along with others, work as part of a team, and treat co-workers with dignity and respect; (5) Attendance – including dependability, punctuality and responsibility; and (6) Overall Performance – including ability to meet deadlines and schedules and degree to which job responsibilities and duties are accomplished. JX 3 at 3; DX 26.
26. Analogic supervisors were provided a Rating Guide to be used in conducting performance ratings of employees. TR 677-80. The Rating Guide supervisors receive provides definitions for each of the ratings an employee may receive. TR 583, 677-81; JX 3. During the audit period, supervisors of Assembler 2 and 3s used the Rating Guide to rate an employee at one of the five rating levels included in the Rating Guide: "Unacceptable;" "Below Expectations;" "Meets Expectations;" "Exceeds Expectations;" and "Truly Outstanding;" for each of the six performance elements rated. *Id.*

27. Analogic uses a compensation matrix to award pay increases which considers the pay quartile an employee is in and the employee's performance rating. TR 380, 387-88, 516-17, 564-67, 571, 634-35, 754, 975-976; DX 5; DX 6.

III. PARTIES' POSITIONS

OFCCP contends Analogic violated the EO by engaging in compensation discrimination against female Assembler 2s and Assembler 3s under pattern and practice disparate impact and disparate treatment theories.⁵ OFCCP relies on a statistical analysis by Dr. Daniel Levy as well as alleged anecdotal evidence to establish compensation discrimination. Dr. Levy is a labor economist and utilized the Oaxaca method, which OFCCP asserts is the standard method for analyzing wage discrimination in the field of labor economics. OFCCP Br. at 1-3. Dr. Levy's Oaxaca regression analysis found disparities in female compensation at a level of 2.84 standard deviations when he pooled the Assembler 2 and 3 positions and the years 2011-2016.⁶

With regard to its disparate impact analysis, OFCCP notes disparate impact may be established by showing an employer "uses a particular employment practice that causes disparate impact on the basis of a [protected characteristic]." OFCCP Br. at 46, 48. Both objective and subjective practices can meet this requirement. OFCCP acknowledges that under a disparate impact theory, in which a defendant uses more than one criterion, the plaintiff must identify the practice that causes the significant disparity. *Wards Cove Packaging Co. v. Antonio*, 490 U.S. 642, 657 (1989). OFCCP Br. at 48. However, OFCCP notes an amendment to Title VII post *Wards Cove* permits a plaintiff to challenge an employer's overall process here relating to the compensation system where the practice cannot be separated. *Id.* In this matter, OFCCP looked at the "entire compensation process" because it contends the components of the process were subjective and were not severable. OFCCP Br. at 3, 48-57. OFCCP argues it demonstrated the adverse impact of Analogic's pay practices through the statistical analysis of Dr. Levy. OFCCP Br. at 50-59. OFCCP asserts Analogic failed to establish a business necessity for its compensation matrix or the wage cap. OFCCP Br. at 52-55. OFCCP maintains its statistical evidence is enough to establish its case. OFCCP Br. at 65. Additionally, OFCCP contends although anecdotal evidence is not required, it produced such evidence. OFCCP Br. at 65-69.

As for the disparate treatment theory, OFCCP must establish discrimination was the employer's standard operating procedure. OFCCP Br. at 55. OFCCP again relies upon Dr. Levy's statistical analysis. OFCCP Br. 55-57. OFCCP argues Analogic failed to undermine Dr. Levy's statistical analysis. OFCCP Br. at 57-65. OFCCP asserts it offered anecdotal evidence including evidence of mistreatment of female assemblers. Analogic in rebuttal was required to demonstrate how any alleged error in OFCCP's statistics changed the results, which OFCCP asserts it did not do. OFCCP Br. at 3, 57-65.

OFCCP seeks back pay for the allegedly affected employees. OFCCP Br. at 69-71.

⁵ OFCCP and Analogic acknowledge legal standards under Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000e, are applicable under the EO. *OFCCP v. Honeywell, Inc.*, 1977-OFC-00003, PDF at 8-9 (Sec'y June 2, 1993); OFCCP Br. at 47; A. Br. at 2-4, 67-74, 77-78.

⁶ OFCCP asserts a continuing violation in the years 2011-2016. In order for OFCCP to establish a continuing violation, it must demonstrate a violation during the audit period 2011-2012.

Analogic claims it did not engage in gender-based pay discrimination with regard to females in Assembler 2 and Assembler 3 positions at the Peabody facility. Analogic relies upon the multiple regression statistical analysis prepared by its expert, Susan Baumler, Ph.D., as well as attacking the statistical analysis of OFCCP's expert. A. Br. 78-82. As a general matter Analogic maintains OFCCP failed to prove its claim of systemic discrimination under either a disparate impact or disparate treatment theory because OFCCP's statistical evidence is flawed and statistics alone are not sufficient. A. Br. at 34-65, 89-103. Additionally, Analogic asserts OFCCP failed to present anecdotal evidence of discrimination. A. Br. 82-103.

Analogic argues OFCCP's disparate impact case fails because it is barred by Section 703(h) of Title VII. A. Br. at 2, 67. Analogic maintains Section 703(h) of Title VII incorporates the defenses available under the Equal Pay Act into Title VII. A. Br. at 67-70. The defense is available if the employer can show any pay differential is the result of a "merit system" or a "factor other than sex." *Id.* Analogic also argues the disparate impact claim fails because OFCCP did not identify a specific, facially neutral policy or practice having a disparate impact on female Assembler 2s or 3s. A. Br. at 71-73. Although it acknowledges Title VII recognizes a limited exception when it is not possible to separately identify and analyze the elements of an employer's decision-making process, Analogic asserts OFCCP has not provided evidence that such exception applies here. A. Br. at 72-75. Analogic states the elements of its compensation system are clear, as it uses a matrix system that mathematically determines each employee's pay increase based upon where that employee falls within a pay range for the position (the quartile) and the employee's performance rating. *Id.* Analogic maintains OFCCP's statistical evidence alone is not sufficient because OFCCP's expert's opinion is unworthy of credit and was undermined by the statistical analysis and opinions of Analogic's expert. A. Br. 34-65, 89-104. In any event, Analogic states it produced rebuttal statistical analysis showing no statistically significant pay disparity as well as a legitimate business interest in rewarding employee performance within market pay rates. A. Br. at 75, 89-104.

Analogic asserts the disparate treatment case fails because OFCCP presented no evidence beyond its statistical analysis which Analogic has discredited and evidence the employer intentionally discriminated is necessary. A. Br. at 3-4, 77-104.

IV. EXPERT WITNESS REPORTS AND TESTIMONY

A. Daniel Levy, Ph.D.

Dr. Levy is a labor economist and holds an undergraduate degree and Ph.D. in economics from the University of Chicago.⁷ TR 37-38; PX 8 at 31. He has studied and worked in the field of labor economics for 35 years. TR 39-42. Currently, he is the National Managing Director and founder of Advanced Analytical Consulting Group, Inc. PX 8 at 1-2. Dr. Levy explained labor economics principles examine the factors that lead to wages including the study of discrimination as a factor which may impact wages. TR 42-43. Dr. Levy was retained by OFCCP in this case to determine whether Analogic's compensation for employees in the

⁷ During his Ph.D. studies, he studied with Nobel Prize winner Gary Becker who authored "The Economics of Discrimination". TR 37.

Assembler 2 and Assembler 3 job titles was gender neutral (meaning that men and women who are similarly situated received the same pay for performing similar work) during the years 2011-2016. PX 8 at 2. Dr. Levy prepared an initial report dated June 2, 2017 (PX 8), a Rebuttal Report dated June 16, 2017 (PX 10), a Rebuttal Report to Dr. Baumler's Corrected Expert Report dated July 18, 2017 (PX 14) and testified at hearing.

Dr. Levy used a regression analysis developed in the labor economics field in 1976 by two individuals, Oaxaca and Blinder. TR 45-46. The model is known as the Oaxaca-Blinder ("Oaxaca") model. TR 45-46, 59. According to Dr. Levy, the Oaxaca method was developed to study discrimination and is the standard used in the labor economics field. TR 45-46, 60, 120-21; 1315-16; PX 14 at 44-45; PX 10 at 7-9. He asserted the Oaxaca model, "measures whether women would have been paid more or less than they actually were if they had been paid as if they were men, based upon relevant characteristics, disregarding their gender." PX 8 at 5. Dr. Levy described a three step process for his Oaxaca model: first, measure the amount of wage benefit or reduction males received for various relevant factors. PX 8 at 5, 16, 18-20; TR 59-60. Then using the measured amount of wage (from the previous step) men received for those factors to predict each female's wage, as if she were a male. Third, compare each female's actual wage to the wage she would have received if she were a male, and test whether any observed differences are statistically significant. TR 59-61; PX 8 at 5, 16-22.

Dr. Levy stated both he and Analogic's expert Dr. Baumler used regression analysis.⁸ However, he explained they used different types of regressions in this case. TR 45-46. Dr. Levy opined the Oaxaca model he employed is more powerful and precise than the regression model used by Analogic's expert because it is more effective at detecting discrimination when it exists than the sort of regression others might use.⁹ TR 45-47, 104-05; *see also* PX 10 at 7-8. According to Dr. Levy, the Oaxaca model "has the ability to pick up differences that occur between men and women based on – based on not only just average, the average difference, but changes that occur, say with tenure or other characteristics." TR 48-49.¹⁰ Dr. Levy explained using the Oaxaca model, it is permissible to use predicted value in a second stage regression analysis even when the actual value is known. He asserted the idea that one cannot use a predicted value when the actual value is known in a later statistical test is wrong, and the techniques are taught in undergraduate econometrics courses so students know how to estimate accurately. TR 66-67.

⁸ Dr. Levy explained there are many uses for regressions but in the present case both he and Analogic's expert are using regression in order to control for factors they want to eliminate from the comparison in wages between males and females. TR 45. According to Dr. Levy, those factors are controlled for in order to put males and females on equal footing in terms of comparing the wages received at a given point in time. *Id.* The concept is holding everything else constant, if males and females were similarly situated, would they receive the same pay. *Id.*

⁹ He explained his model was more powerful as it had a larger sample size as he was able to combine across variables and it was more precise. TR 47-49.

¹⁰ Dr. Levy and his staff created a database to analyze the wages of Assemblers by reviewing personnel records from Analogic, including wages, employment start date, performance ratings, and the current date so he could determine tenure and wage progression over time. TR 50-52. Dr. Levy also reviewed job descriptions, management interviews, depositions, various legal documents, payroll records and spoke with OFCCP representatives. TR 106, 168-169.

As a preliminary matter, Dr. Levy's initial report explained some statistical concepts. PX 8 at 2-5. He asserted statistical significance is shown when differences between the averages of two populations are greater than 2 or 3 standard deviations of those estimates in tests based upon the normal distribution. PX 8 at 2. A difference of 2 or 3 standard deviations of the estimates indicates the likelihood that the observed difference is simply the result of randomness is rare, approximately between 5% (5 out of 100) and 1% (1 out of 100) based upon the normal distribution. *Id.* The likelihood that an observed difference is the result of random chance, that is the 5% and 1% figure, is referred to as the probability value or P-value. PX 8 at 3-4. Another statistical concept is the T-value. PX 8 at 3. He explained that in "performing an analysis with a regression, as... in many labor discrimination studies, economists consider how large the estimated discrimination is compared to the precision of that estimate, known as the standard deviation of the estimate. *Id.* The ratio of the estimated discrimination to the standard deviation of the estimate is known as the "t-value." *Id.* Here he stated the estimated discrimination is average shortfall in wages paid to women compared to wages paid to men with the same characteristics. *Id.* According to Dr. Levy, in large populations if the t-value is more than 1.96 times larger than the standard deviation of the estimated parameter, there is a 5% chance that the result occurred by random chance under gender neutral pay.¹¹ *Id.*

Dr. Levy testified his Oaxaca model was designed to check the process Analogic went through to see if the process created some sort of discrimination or did not. TR 70. He was checking whether similarly situated people with the same productive characteristics as understood in labor economics come out of the Analogic pay system getting similar pay. TR 71.

In his Oaxaca regression model he selected the variables used in his analysis and he selected tenure (including tenure squared), job title, performance rating, calendar years and prior employment at Copley. TR 70-83; PX 8 at 6, 19-25. He conceded his regression analysis did not include all the factors Analogic uses in its decision-making on pay increases. TR 69-71, 196-197; DX 3 at 6. He stated he used some of the variables Analogic utilized in setting pay, but he used additional variables or factors. *Id.* In selecting all the variables used in his analysis, Dr. Levy maintained he was attempting to control for potential differences, what are referred to as confounding factors, which are controlled for so results are not skewed. TR 80-81.

According to Dr. Levy, he included a tenure variable because time in position has been recognized in labor economics as an important and empirical factor leading to a progression in wages. TR 71-72, 330; PX 8 at 13-14; PX14 at 4. Dr. Levy pointed out that based on the data in this case, wages at Analogic increase with tenure. *Id.*; PX 8 at 13, 19-20. Dr. Levy explained in using a tenure variable he is attempting to put males and females on the same footing with regard to tenure "so you're not looking at the fact, as it turns out in this case, that well, women and men are getting paid somewhat similarly. But it's only because, to a great part because women have much higher tenure. That's the confounding factor we're trying to control for. And it's what Dr. Baumler talked about in her original report... It's why everybody does these regressions to put the other variables in, to control and sort of line everybody up and eliminate these confounding factors." TR 81. In using tenure in his model, Dr. Levy included all the time an employee worked at Analogic in calculating tenure even if there had been a break in service and the

¹¹ Since the sample size in this case was not a large population, Dr. Levy stated the disparity between the pay of males and females (the t-value) must be slightly larger than 1.98 to achieve the 95% confidence level. PX 8 at 3 n.3.

employee returned to Analogic, because he asserted using only the last period of employment in analyzing the effect of tenure ignores prior learning about the job, which may be substantial. That point is illustrated in this case by the records of employee Christine Cullen. Ms. Cullen worked at Analogic from September 1980 through July 22, 2007, left for a short period and returned to Analogic in 2008. PX 10 at 10-11. Levy's model included all 31 years of her work experience at Analogic in his tenure variable, because including only her tenure from 2008 it would seem she had a high wage for an employee with little time or experience working at Analogic.¹²

Dr. Levy explained he also used a variable called tenure squared. TR 75. He did this because the relationship between tenure and wages over time is not always linear, that is, wages may not increase as quickly in later years as they do in early years of employment. TR 74-75; PX 8 at 19-20. He maintained tenure squared can account for that fact. *Id.*

For the job title variable in his regression, Dr. Levy included Assembler 2s and Assembler 3s in the same regression, while controlling for job title because his analysis showed females in Assembler 2 and Assembler 3 positions experienced about the same level of shortfall in wages. PX 8 at 7, 9-10.¹³ TR 78-79. Dr. Levy explained when the specific variables were different he did not put them together so that their individual characteristics could be measured individually, but when the variables were not different, as in the case of the shortfall in female wages, he combined them.¹⁴ TR 78; PX 10 at 34. Dr. Levy stated he combined the variables when appropriate because combining them in the same regression while controlling for differences between the two groups increased the power of the test used to observe whether females were paid less than males because there was more data to indicate whether there is a pattern or not. TR 79. However, he maintained that in including Assembler 2s and 3s in the same regression and controlling for job title, his regression compares Assembler 2s to Assembler 2s and Assembler 3s to Assembler 3s. TR 79, 340-341; PX 10.

¹² Dr. Levy acknowledged he did not determine tenure the same way Analogic did, because Analogic and its expert only used the last contiguous time of employment at Analogic, even if the employee had previously worked at Analogic. TR 72-73. He explained the data Analogic uses and the models Analogic's expert, Dr. Baumler, used did not account for or include all the work experience employees had at Analogic. TR 72-74; PX 10 at 3, 10-12. According to Dr. Levy his model controls for tenure because many of the female Assemblers have long tenure and are not receiving the same return per year for their experience as the males do. So if this is not controlled for simply because a greater proportion of females have high tenure it will appear their pay is higher without controlling for tenure as a confounding factor. TR 97-98; PX 6; PX 7.

¹³ He addressed this by explaining there is a statistical tool he used called an "F test" in which one checks to see if individual variables are statistically significantly different from one another for Assembler 2s and Assembler 3s. TR 75-78. Dr. Levy further explained the "F test" stating that one can check every single variable in a regression to see whether or not they are statistically significantly different from each other by running separate regressions for Assembler 2s and 3s or by using a "dummy" variable for each position when combining the two job titles in the same regression. TR 77-78; PX 10 at 25-27. Where the regressions show the variables are not statistically significantly different they can be combined and where there is a statistically significant difference he did not combine the variables so that the individual characteristics could be measured separately. TR 75-79; PX 10 at 24-27.

¹⁴ According to Dr. Levy, the only variable that was statistically significantly different for Assembler 2s and Assembler 3s in Dr. Levy's analysis was the variable for tenure squared and those variables were not combined. PX 10 at 34-35, 51.

Dr. Levy's analysis included a variable for prior employment at Copley. TR 79-80; PX 8 at 10-11. This variable accounts for employees previously employed by Copley prior to Analogic taking over Copley and its employees.¹⁵ Copley employees generally had lower wages than Analogic employees. Dr. Levy stated if this was not taken into account or adjusted for in the analysis, and if there were more female Copley employees than male Copley employees, it would seem that females received lower wages because they were female, not because they came from Copley, which would skew the results.¹⁶ TR 79, 81.

Dr. Levy also considered performance rating because he stated ratings are recognized by economists as having an effect upon wage progression. TR 81; PX 8 at 11-12, 20-23; PX 10 at 7. He noted female Assemblers received slightly lower performance ratings than male Assemblers. PX 8 at 14. However, Dr. Levy stated he controlled for the performance rating variable because it removed performance as a justification for female Assembler's lower wages. TR 81-82. He claimed this permitted him to control for quality of work. He stated an experience variable and a quality of worker variable are used in these Oaxaca regression models because they are different aspects of quality of work. TR 82.

His analysis also controlled for year. He ran some models that combined multiple years in one regression and he also ran regressions separately for each year. When he combined regressions across years, he added a "dummy" variable to control for each year so that he never compared wages from one year with wages in another year. TR 82-83; PX 8 at 6-7, 20-23.

Dr. Levy's regression determined female Assemblers on average received \$.88 cents less per hour than similarly situated male Assemblers when tenure, job title, prior work at Copley, and performance were controlled for and calendar years 2011 through 2016 were combined in one regression.¹⁷ TR 84-94; PX 8 at 6; PX 9; PX 6; PX 7. This regression will be referred to as the Oaxaca "pooled regression."¹⁸ The pooled regression is the regression OFCCP relies on in this case. OFCCP Br. at 18.¹⁹ The pooled regression results reveal a statistically significant 2.84 standard deviation.²⁰ TR 84, 93-95; PX 7; PX 8 at 6, 18-25; PX 9. His pooled regression analysis shows a disparity that persists over the period 2011-2016 but one that declines over the

¹⁵ Dr. Levy noted Dr. Baumler also included Copley in her analysis. TR 79-81.

¹⁶ Dr. Levy explained this same concept applied to the tenure variable as discussed above. TR 81.

¹⁷ The calendar year period includes the beginning of audit period 2011 through 2016 which was the last year OFCCP obtained pay data from Analogic. OFCCP Br. at 18. The actual period of the OFCCP audit covered two years, 2011 through 2012.

¹⁸ It is pooled as it included Assembler 2s and 3s in the same regression and he combines the years 2011-2016.

¹⁹ His regression is based upon 221 males observations (based on a total of 49 male assemblers) used to predict the wage of 241 females. PX 8 at 22. The pooled regression for years 2011-2016 includes individuals who worked at Analogic for multiple years. PX 8 at 22 n.31.

²⁰ At no point did Dr. Levy compare Assembler 2s to Assembler 3s in his analysis. TR 79, 340; PX 10 at 3.

period. TR 89-90.²¹ Indeed, in 2016 there continued to be a shortfall in female wages as compared to similarly situated males but the difference was not statistically significant. TR 89-90.

In addition to the pooled regression results, Dr. Levy performed several year-by-year regressions in order to test the results of the pooled regression. PX 8 at 6-8. His results reflecting the shortfall in female wages for both the pooled regression and the year by year regressions are reflected in the following chart identified as Table 6 in his initial report:

Analysis Period	Estimate ²²	Standard Deviation of Estimate	t-Value ²³	P-Value ²⁴	Number of Observations
2011-2016 Combined	-0.88	0.31	-2.84	0.0049	241
2011	-1.65	0.45	-3.65	0.0007	46
2012	-0.99	0.37	-2.67	0.0106	46
2013	-0.71	0.33	-2.17	0.0363	41
2014	-0.65	0.31	-2.10	0.0417	41
2015	-0.71	0.29	-2.41	0.0207	40
2016	-0.46	0.29	-1.57	0.1292	27

PX 8 at 7-8, 22-23 (original footnotes in Table 6 in PX 8 omitted); PX 9; TR 75-76, 84-87.

As the chart reflects, when Dr. Levy looked only at the audit period, the years 2011-2012, his analysis found a statistically significant disparity in female Assembler at a 3.65 standard deviation in 2011 and 2.67 in 2012. PX 8 at 7; TR 88-89. Based upon this analysis he concluded female Assemblers received on average \$1.65 per hour and \$.99 cents per hour less in wages than male Assemblers in 2011 and 2012 respectively, when controlling for job title (Assembler 2 and Assembler 3), tenure, prior work at Copley, and performance rating. TR 88-89; PX 8 at 6-8, 22-24. He opined his year by year regression reflected a pattern of discrimination in female wages that is highest in 2011 and declines over time.²⁵ TR 90.

²¹ He included the year 2016 in his Oaxaca pooled regression, even though that year was not statistically significant. According to Dr. Levy, if 2016 is excluded from the pooled Oaxaca regression, then the overall statistical disparity in wages between female and male Assemblers would increase. TR 46-48, 79, 88; PX 8 at 22-23.

²² The Estimate is the shortfall in female wages compared to the wage they would have received on average if they had been compensated as men. PX 8 at 23.

²³ The T-value is the size of the estimated measured units of the Number of Standard deviations of the estimate. PX 8 at 23.

²⁴ The P-value is the probability of seeing a shortfall in female wages (the Estimate column in the chart) that is this large or greater, were the wage process gender neutral. PX 8 at 23.

²⁵ However, his report acknowledges the sample size for the year by year analysis is quite small which makes the results unreliable. PX 8 at 38. For example, he noted the FY 2011 regression was performed using only 36 male records. PX 8 at 22 n.34.

Dr. Levy opined that for a number of reasons female Assemblers received lower wages than similarly situated male Assemblers. TR 266. He explained if there is a difference in wages of female and male Assemblers at the beginning of the time period reviewed, under Analogic's compensation system that difference will persist. TR 266.²⁶

Dr. Levy testified that although Analogic asserted there was a wage cap for the Assembler 2 and for the Assembler 3 positions, several individuals' actual wages exceeded the wage cap. TR 98-101; PX 20. In 2012 there were seven men and six women whose wage was above the wage cap. TR 99; PX 20. For the years 2011-2016, 11 men and 14 women's wage exceeded the cap. *Id.*

In calculating damages in this case Dr. Levy used the average shortfall of \$.88 cents from his Oaxaca pooled regression and multiplied that figure by the hours that women worked (as indicated on the payroll records) to reach a midpoint figure of \$504,421.00. TR 106-10, 309-310. PX 13 at 5; PX 70.

Dr. Levy prepared a rebuttal report challenging the initial (uncorrected) report by Analogic's expert, Dr. Baumler on June 16, 2017. PX 10; TR 77.²⁷ Dr. Levy opined the "fundamental findings" in his report and in Dr. Baumler's report are "very similar." TR 111-12, 121-22; PX 10 at 2, 8-19; PX 14 at 10-12. In this regard he stated both experts' reports "provide several point estimates of the lower wages that women at Analogic received compared to similarly situated men. These point estimates for each report, often called "best estimates" of wages, are lower for women as compared to men." PX 10 at 2, 8-10. Dr. Levy acknowledged an important difference between his report and Dr. Baumler's report was that the "best estimates" of wages for males and females, in her report was based upon very small sample (individual years and job categories) and are viewed in isolation, without considering the consistent pattern of shortfall in wages for both female Assembler 2s and 3s across all the tests. TR 112-13; PX 10 at 2, 9-10. Thus, he opined the statistical technique Dr. Baumler used is not very powerful in detecting differences in wages between similarly situated males and females, in part because she split the data into smaller samples and her statistical technique was not designed for testing wage discrimination as his was. PX 10 at 2, 9-10, 14-17, 20-22, 26; TR 112-13.

Dr. Levy was also critical of Dr. Baumler's report claiming she did not accurately report Analogic employees' years of tenure and she used a rigid statistical model that required the estimated pay increase for each year of tenure as well as other variables to be the same for males and females, which limited the model's ability to detect wage shortfalls. PX 10 at 3-5, 10-12.

He further critiqued Dr. Baumler's report because it failed to appreciate that multiple nearly statistically significant results are statistically significant. PX 10 at 5; TR 113-15. In explaining this point Dr. Levy pointed out that in a gender-neutral pay environment, one would expect to see some estimates over years and job-types that showed men receiving a shortfall in

²⁶ Dr. Levy acknowledged an employee's starting pay is not an issue in this case. TR 266-267.

²⁷ His critiques of Dr. Baumler's initial report dated June 2, 2017, which was not offered, are relevant and applicable in many respects to Dr. Baumler's Corrected Report dated June 23, 2017. *See* PX 10 and PX 14.

wages. This is not seen in any of the analysis done in either his report or Dr. Baumler's. PX 10 at 6. All estimates of wage differential between males and females show a female wage shortfall. TR 115-18; PX 69. He stated it is significant that over all of the tests and different statistical methods used in his report and Baumler's report there is never a male shortfall in wages. TR 115-17; PX 10 at 6. Finally, according to Dr. Levy, once the errors in the tenure variable are corrected in the dataset used in Dr. Baumler's report²⁸ and the multiple tests consistently producing best estimate of shortfall in women's wages are viewed together, there is no difference between Dr. Baumler's report and his report in their findings about wage discrimination, both reports show a statistically significant shortfall in wages for females compared to similarly situated males. TR 120-22; PX 10 at 7, 10-14.²⁹

Dr. Levy maintains that if Dr. Baumler's tenure variable is corrected to include all the time an employee worked at Analogic, in other words if she used tenure data as he had, and the results of regressions for Assembler 2s and 3s are combined, the results are more statistically significant. PX 10 at 12-14, 18-19.

As for the small sample size in this case, Dr. Levy acknowledges there are problems with statistical analysis based upon small sample size, stating breaking data into smaller sample sizes, other things being equal, leads to less powerful statistical tests. PX 10 at 14. Here he notes some of Dr. Baumler's regressions have only 34 observations because she performed the regression for an individual year and only for one job title, Assembler 2s. Her other regression has only 51 observations because it was conducted on Assembler 3s for a single year. He asserts that this means that even when there is discrimination, the smaller samples have less ability to identify discrimination than larger samples. *Id.* He addresses this shortcoming in smaller sample sizes by using larger sample sizes to maintain the power of the statistical test to detect discrimination and at the same time adding "control" variables and using standard econometric techniques designed for studying labor issues to account for differences over years and job titles. PX 10 at 15.

Dr. Levy also prepared a rebuttal report to Dr. Baumler's Corrected Report of June 23, 2017. PX 14. The first part of this rebuttal addresses changes Dr. Baumler made in her Corrected Report and whether he agreed or disagreed with the changes. TR 54-55. He stated the significance levels for Dr. Baumler's results moved closer toward statistically significant when

²⁸ He "corrected" Dr. Baumler's tenure variable to include all prior work at Analogic not simply the most recent continuous period which is what Analogic uses in determining tenure for purposes of some bridge benefits such as vacation but not for wages.

²⁹ Dr. Levy ran several additional regressions after receiving Dr. Baumler's report. PX 10 at 18-34. He reiterated his opinion the results of the two different models of regression were similar. *Id.* Dr. Levy maintains the wage disparity for females reflected in the pooled regression are supported by other regressions he ran using Dr. Baumler's model, but with the tenure dates "corrected" and including Assembler 2s and 3s in the same regression while controlling for job title. He contends this regression showed wage disparities for women continued at 2.83 standard deviations in January 2012 and 2.47 standard deviations in September 2010. PX 10 at 28-33. Levy also ran a regression using Dr. Baumler's data including her tenure data but using his Oaxaca model. He states even this regression showed a statistically significant disparity, although less of a disparity, in female Assembler 2s and 3s wages at a level of 2.17 for the period January 2012 to September 2016, 2.33 standard deviations in January 2012, and 2.06 standard deviations in September 2012. PX 10 at 18.

they were viewed in isolation. TR 53-57. According to Dr. Levy the significance of this is that “when you’re looking at those two results of separate regressions but they are occurring in two different populations at the same time in the same company there is a high probability that each of them individually is showing a shortfall in women’s wages, combines, it’s a very high probability that there’s a statistically significant shortfall in women’s wages.” TR 55-56; PX 14 at 10-14; *see also* TR 113-18. Additionally, Dr. Levy asserted Dr. Baumler’s Corrected Report does “not permit observation of a lower increase in wages as tenure increases for women which, labor economics literature says is central to the measure of discrimination.” PX 14 at 12. He performed an alternate regression to that done by Dr. Baumler. He reported “[i]nstead of using the female variable, which checks if there is a difference in women’s wages compared to men across the entire spectrum of tenure,” he “included a variable that measures whether women’s wages fell behind similarly situated men’s as tenure increased.” *Id.*

B. Dr. Elizabeth Baumler, Ph.D.

Dr. Baumler has undergraduate and graduate degrees in mathematics from Texas A&M University. TR 1006. She also has a Ph.D. in Biostatistics from the University of Texas Health Science Center-Houston. She is currently on the research faculty at the UT-Center for Health Promotion and Prevention Research. Dr. Baumler explained her institution applies for funding mostly from federal agencies for research projects. TR 1006-08; DX 2. The work has primarily been with the National Institute of Health, Center for Disease Control, and the National Science Foundation. Her role is often as the lead statistician on research projects for the funding client or entity. TR 1007. In this matter, Dr. Baumler prepared an initial report dated June 2, 2017 which was not offered, a Rebuttal Report dated June 16, 2017 (DX 3), a Corrected Expert Report dated June 23, 2017 (DX 1), and she testified at hearing. Dr. Baumler was retained to “conduct an analysis and provide an opinion regarding whether there is a statistical relationship between pay and gender for Assembler 2 and 3 positions at Analogic” in this matter. DX 1 at 3.³⁰

According to Dr. Baumler the primary objective of her analysis was to look for the presence or absence of a relationship between gender and hourly pay. DX 1 at 7. In describing her statistical approach, Dr. Baumler explained statistics are used to test the “null hypothesis” which is the statement of no effect or no association. TR 1024-25; DX 1 at 8. She stated, in this case the “null hypothesis is that there is no difference between the mean pay of females and males at Analogic.” TR 1024; DX 1 at 8.

She stated statistical significance is determined by “comparison of the estimated significance probability, also known as the p-value, to a predefined confidence level.” DX 1 at 8. P-value “represents the likelihood that an observed disparity (here, the difference in pay between males and females) is due to random fluctuation versus being associated with a defined factor.” *Id.* An observed disparity is statistically significant and not attributable to random fluctuation when the P-value is less than 0.05. *Id.* A P-value of 0.05 is widely accepted measure

³⁰ Dr. Baumler agreed a labor economist and statistician are not the same. She stated her understanding of labor economics as follows: “A labor economist would be sort of a content expert, and so their primary goal is to look and understand how – this is my understanding of it – to look at how external market forces, inflation, economy, different things, impact the labor market as a whole. Statistics is a discipline. It’s sort of a mathematical discipline. And so we apply statistics across multiple fields....” TR 1011.

of statistical significance and corresponds to a 95% confidence the conclusion of the statistical test is correct. *Id.* The p-value is calculated based on what is known as the standard deviation (test statistic). To judge statistical significance from the standard deviation it must be compared to a critical value of the distribution. In normally distributed outcomes, when the sample size is large, this critical value is fixed at 1.96 for 95% confidence. But for small sample sizes such as here, the critical value of comparison is not fixed. For that reason she presented the p-value to make determining statistical significance easier. TR 1024; DX 1 at 8. When two standard deviations of the P equals .05, this is evidence of statistical significance or stated differently the data is at a level sufficient to reject the null hypothesis of no association.³¹ *Id.* Dr. Baumler explained the question she was attempting to answer here was whether there is a statistically significant difference between male and female assemblers' hourly wage in the Analogic system. TR 1018. Her intent was to define a statistical model that analyzes Analogic's pay system. TR 1018-1019. In performing her analysis, Dr. Baumler relied upon data provided to her from Analogic. TR 1016-17; DX 1 at 4-5.³²

Dr. Baumler's regression considered the base hourly pay as the main outcome or dependent variable. DX 1 at 6. The objective of her analysis was to look for the presence or absence of a relationship between gender and hourly pay. DX 1 at 7. She used "descriptive data," that is, the average and median hourly pay for male and female Assembler 2s and Assembler 3s and the number of employees for two periods, for January 2012 and September 2012 (the audit period).³³ TR 1020-22; DX 1 at 7. Then she tested whether or not there was a relationship between gender and hourly pay. Finally, she evaluated whether any difference was statistically significant. DX 1 at 7. She maintained this data provides insight into what is occurring within the Analogic pay system as it relates to whether there is a statistically significant difference in pay between males and females. TR 1018, 1036. In her model she evaluated the impact of gender on actual hourly wages. TR 1018-1019. Dr. Baumler's analysis as reflected in her June 23 corrected report demonstrated females had a higher average (mean) and median hourly wage than males in January 2012 and again in September 2012. TR 1021; DX 1 at 9-10. The mean and median hourly pay by gender are reflected in Table 2 of her report.³⁴

	Assembler 2		Assembler 3	
	Females	Males	Females	Males
Mean Hourly Pay				
January 2012	\$16.60	\$15.27	\$18.10	\$18.06

³¹ This is consistent with Dr. Levy's statements, that statistical significance is shown when the difference exceeds 2 standard deviations. PX 8 at 2.

³² Dr. Baumler learned some of the data provided by Analogic as to hire dates for employees and used in her initial June 2 report was incorrect. TR 1179-80. Thereafter, she reviewed personnel records for approximately 30 employees to confirm the hire dates in the revised database Analogic provided her, and which she used in her Corrected Expert Report of June 23, admitted in evidence. *Id.*

³³ Analogic completes performance reviews and provides wage increases in the early Fall of each year, so the hourly pay rate as of January 2012 includes the 2011 wage increase. There was no wage increase in the Fall of 2010. DX 16; A. Br. at 46 n.34.

³⁴ DX 1 at 9.

September 2012	\$17.04	\$15.98	\$18.53	\$18.51
Median Hourly Pay				
January 2012	\$16.36	\$15.33	\$18.49	\$17.50
September 2012	\$16.79	\$15.91	\$18.90	\$18.02

Her regression controlled or adjusted for confounding factors which she described as “something that may mask the true relationship of what you are trying to investigate” in a regression analysis. TR 1025-26.³⁵ Dr. Baumler viewed tenure (time in company) and whether the employee previously worked for Copley as potential confounders and adjusted for those two factors in her regression. TR 1027-28, 1031-32; DX 1 at 6, 10-16, 17-21. She stated this permitted her regression to estimate the true relationship of gender to hourly pay by controlling for any differences in hourly pay attributable to prior Copley employment (Legacy Status in her report) and tenure at Analogic. TR 1026-28; DX 1 at 16-17. Her analysis reflected tenure and prior employment at Copley had an impact on wages. DX 1 at 10-21.³⁶ In evaluating the impact of tenure, Dr. Baumler’s model used an employees’ most recent date of employment at Analogic, even if the employee had worked at Analogic in prior periods, had a break in service, and returned to Analogic, because that is how Analogic treats tenure for some bridged services such as vacations.³⁷ TR 1040-41.

Dr. Baumler’s regression model did not include a performance variable because she noted that in some instances the performance factor was not well populated. TR 1028-29. She stated in order for a variable to be useful in a regression analysis, it needs to be well populated. So in her regression in which she was comparing males and females it was important to be sure any variables were well populated for both males and females. TR 1028-29. If it is not well populated the model cannot estimate what is going on between the two groups. For example, there were no male Assembler 3s who received a below expectations or 2 performance rating, but there were three females who did. TR 1029-30. Dr. Baumler asserted her model could not estimate the relationship if there are not both males and females in both categories, so she excluded performance as a variable or factor. TR 1028-31. Dr. Levy also noted the issue in his

³⁵ Dr. Baumler maintained in determining whether a variable is a confounder, one must consider two criteria. TR 1025-26. First, the variable must be related to the dependent variable which in this case is average hourly wage. Second, the variable must be differentially distributed between the groups studied. *Id.*

³⁶ Dr. Baumler determined Legacy status (prior employment at Copley) is negatively related to hourly pay because the pay rate for the employees acquired from Copley was lower than comparable Analogic employees, especially for those in the Assembler 2 position. DX 1 at 10-14. It was also differentially distributed between males and females. Thus, she considered it a confounding variable and controlled for in evaluating the relationship between gender and hourly wage. DX 1 at 14. Time in company (tenure) was shown to have a positive relationship with hourly pay, indicating tenure may be an important factor to consider when looking at hourly pay. DX 1 at 14. Additionally as it relates to tenure, Dr. Baumler’s report notes gender is not evenly distributed across tenure (male Assembler 2s and 3s have higher tenure than female Assembler 2s and 3s) so tenure is a confounding factor. DX 1 at 14. Consequently she determined tenure is a potential confounder of the relationship between hourly wage and gender and therefore she included it in her model. DX 1 at 14-15.

³⁷ It is undisputed Analogic does not consider tenure in wage increase decisions.

report but he handled it using the estimate from the previous model. TR 1030-31. According to Dr. Baumler it is better not to consider a measure than to include a bad measure.

After controlling for tenure and prior employment at Copley, Dr. Baumler’s regression analysis concluded there was not a statistically significant disparity between female and male Assembler 2s and 3s hourly pay in the Analogic system during the audit period. TR 1018, 1023, 1031-32; DX 1 at 3-4, 16, 19-21, 24. Therefore, she stated her model failed to reject the null hypothesis of no difference. TR 1031. Her regression observations reflected in tables 5 and 6 and tables 9 and 10 of her report are as follows:

Table 5: January 2012 Linear Regression Model Assembler 2 – Hourly Pay

Measure	Beta	SE (Beta)	SD (Test Statistic)	p-value
Gender	-0.73	0.46	-1.59	0.12
Copley Legacy	-3.24	0.43	-7.60	0.00
Time in Company	0.21	0.03	8.36	0.00

Table 6: September 2012 Linear Regression Model Assembler 2 – Hourly Pay

Measure	Beta	SE (Beta)	SD (Test Statistic)	p-value
Gender	-0.58	0.48	-1.21	0.24
Copley Legacy	-2.99	0.46	-6.49	0.00
Time in Company	0.20	0.03	7.22	0.00

Table 9: January 2012 Linear Regression Model Assembler 3 – Hourly Pay

Measure	Beta	SE (Beta)	SD (Test Statistic)	p-value
Gender	-0.84	0.51	-1.63	0.11
Copley Legacy	-1.91	0.65	-2.96	0.005
Time in Company	0.12	0.03	4.50	0.00

Table 10: September 2012 Linear Regression Model Assembler 3 – Hourly Pay

Measure	Beta	SE (Beta)	SD (Test Statistic)	p-value
Gender	-0.71	0.45	-1.56	0.13
Copley Legacy	-1.53	0.60	-2.54	0.02
Time in Company	0.12	0.02	4.98	0.00

Her regressions show there is a shortfall in female assembler wages but it is not statistically significant, as the p-value is less than 0.05 and therefore the null hypothesis that any gender disparity is due to random fluctuation cannot be rejected. TR 1030-31; DX 1 at 16-21.

In her rebuttal report, Dr. Baumler acknowledged both her regression model and Dr. Levy’s are based upon regression analysis, but in her rebuttal report she criticized Dr. Levy’s regression model and analysis in several respects. DX 3. She used a descriptive model and he used a predictive model. TR 1041-143. Dr. Baumler testified the statistical model presented in

the Oaxaca Blinder article Dr. Levy referred to represents a “decomposition” model. In a decomposition model a regression is run on one group, for instance males, a separate regression is run on the group being analyzed, for example, females and estimates are calculated to “decompose” the amount of any difference that is associated to the various factors or variables included in the model. TR 1250-51, 1269, 1277-79. Any unexplained variation is then ascribed to discrimination. Here however, Dr. Levy did not conduct a separate regression for females. Instead his regression was based upon variables he asserts are related to males’ pay, then used that regression to predict the wage females should receive and then determined whether any difference in wages paid females was statistically significant.

Dr. Baumler further criticized Dr. Levy’s predictive model for disregarding Analogic’s pay setting method contending he excluded factors that Analogic uses to determine pay and included factors Analogic does not consider in determining pay. TR 1032-33; DX 3 at 1, 4-7. Specifically, Dr. Baumler points out Dr. Levy’s model did not consider the Analogic compensation matrix which includes prior year’s pay and quartile rank, factors used by Analogic in determining wage increases. DX 3 at 4-5. Dr. Baumler opined Dr. Levy improperly included factors of tenure, tenure squared and prior employment at Copley in his regression model and these factors are not used by Analogic in setting pay and are not major factors. DX 3 at 1, 5, 14-15. In contrast, she looked at the impact of gender on actual, not predicted pay, while controlling for what she viewed were confounding factors (tenure and Copley legacy). DX 3 at 1 n.1, 3-6; DX 21. Those factors are confounding factors because wages at Copley were lower than wages at Analogic and longer employment at Analogic is associated with higher pay.

Dr. Baumler noted further that the sample Dr. Levy used to construct his predictive model which included only 49 males over the years 2011-2016 is too small to permit one to make accurate predictions. DX 3 at 1. Dr. Baumler was critical of this because she noted there were only 49 males that generated the 221 male records in Dr. Levy’s analysis. TR 1051-52; DX 42 at 1. In other words, to get the 221 male observations, Dr. Levy included the same male employees in his model multiple times. She maintained the majority of the data being gained in the model is from the individual employee data and there is little gained from including repeated observations of the same employees. *Id.* Dr. Baumler stated using pay data from the same male employees over the period 2011-2016 does not make Dr. Levy’s predictions more accurate. Both experts agreed the sample size here was small. TR 46, 154-56, 1032; DX 1 at 5; DX 3 at 1-2, 6. Dr. Baumler contends small sample sizes, as in this case, “creates particularized concerns about reaching any meaningful statistical conclusions.” DX 1 at 5; DX 3 at 6. Small sample size can limit the ability to make statistical generalizations and conclusions on the data, because with a small sample size a single case that is substantially different than others may have a direct and meaningful impact. TR 1119; DX 1 at 5.

According to Dr. Baumler, an additional issue with Dr. Levy’s analysis is that for 2011 his tenure, tenure squared and performance rating variables were not statistically significant in predicting pay for that year. TR 1055-56. The same is true for his predictions for 2012. Because Dr. Levy’s predictions for 2011 and 2012 included non-significant variables the predicted pay for those two years cannot be used to predict pay in either year or in a pooled model for 2011-2012. TR 1057-64; DX 42. Because his model makes predictions using several variables that are non-significant in her opinion his models are not accurate or valid and cannot be relied upon as evidence of discrimination. TR 1068-70.

Another problem Dr. Baumler found with Dr. Levy's analysis is he did not validate his model against an independent sample of males before applying it to predict pay for females. DX 3 at 3, 8-9. Thus, Dr. Baumler claims one cannot distinguish between gender-based differentials and differences that may simply be caused by a model's inherent prediction error. *Id.* According to Dr. Baumler, Dr. Levy's method is based on a linear regression model and in order to view the model as a good model the accuracy of the model must be validated. TR 1094-95. If the model is inaccurate the predictions based on the model are also inaccurate. She opined that ordinarily one would expect a predictive model to be more accurate in predicting pay of employees whose data were actually used to generate the model. DX 3 at 9. In validating a predictive model one looks at how close the predicted value is to the actual. TR 1096. Here the actual wage of males is known and we have the predicted wage based on Dr. Levy's analysis. *Id.* She looked at each year from 2011-2016 and the number of male employees in each year. For each year she identified the number of males with predicted pay that was more than \$1.00 off from the males' actual pay. *See* DX 20 at 19-20. So for 2011, 53% of the 36 males had a predicted pay that was off by more than \$1.00.³⁸ So she views his model as inaccurate. It is important because the premise of what Dr. Levy presented in Table 6 of his initial report was a predicted wage for women based upon male pay and if his model does not even accurately predict male pay, it cannot be relied upon to make any meaningful predictions regarding female wages. TR 1096-97.³⁹

Dr. Baumler asserted Dr. Levy also ignored the pay maximum at Analogic. TR 1092-93; DX 3 at 4.

Dr. Baumler also opined that Dr. Levy's model is inaccurate as it produced inconsistent results. In this regard, she pointed out Dr. Levy estimated a higher hourly pay rate for employees with a performance rating of "meets expectations" than those with a performance rating of "exceeds expectations" which does not make sense. TR 1073-74; DX 3 at 12-16. She points out the year by year models Dr. Levy used are invalid because the impact of a "below expectations" performance rating could only be estimated for 2011. This is because there were no male Assembler 2s or 3s who received a "below expectations" rating in any other year. Dr. Levy simply carried over the estimate of the impact of the Assembler 2 relative to Assembler 3 obtained from the 2011 data and used that in his calculation of predicted pay for years 2012-2016, despite the fact it was not even statistically significant in 2011. She stated it was inconsistent with standard statistical practice to use a non-significant estimate from one regression model for 2011 and use that estimate in a separate regression model for subsequent years. DX 3 at 14.

³⁸ This same issue is noted in her analysis of Dr. Levy's pooled data used to predict male pay across all years as there are 82 instances (37%) out of 221 male observations where the predicted wage error is greater than \$1.00. DX 3 at 9 and Appendix at 18. There are also 122 cases (55%) where the model predicts an hourly wage for male employees that is higher than the actual hourly rate. *Id.* She was also critical of Dr. Levy's use of a pooled regression and year by year models, stating it fails to account for possible interactions between variables and the small size of the data sets. DX 3 at 10-13.

³⁹ The same issue is present with his year by year models. TR 1097-99; DX 20 at 20.

According to Dr. Baumler, Dr. Levy's pooled regression which concluded there was on average a \$0.88 disparity between female actual wages and the predicted wage as reflected in Table 6 of his report cannot be used to predict a wage disparity in the period 2011-2012, the audit period. DX 3 at 16. By determining the \$0.88 disparity based on a single regression model fit to data that was pooled over job titles and multiple years does not provide an estimated disparity for any given year. DX 3 at 16.

Finally, Dr. Baumler opined Dr. Levy's damage calculation was flawed. DX 3 at 16. For all the reasons detailed above Dr. Baumler maintained Dr. Levy's estimated average shortfall in female wages is inaccurate and unreliable. *Id.* Thus, it cannot be used to accurately measure damages. *Id.* In addition, the damages are based upon average shortfall and given the small number of individuals in the pool, individual damage calculations could have been provided. DX 3 at 16-17.

V. WITNESS TESTIMONY

A. Rhonda Aubin-Smith

Ms. Aubin-Smith is the District Director of OFCCP's Boston District Office. As such, she has participated in or been involved with hundreds of compliance reviews over the course of her career. TR 469. She stated she received a document from Analogic during the audit stating it did not have a formal compensation policy. TR 473. Ms. Aubin-Smith asserted that based on her experience, having a written compensation policy allows the entire staff to see it, so it goes to the transparency. TR 475. She maintained large companies such as Analogic typically had written compensation policies and stated having a written compensation policy was a "best practice." TR 474, 476, 479. According to Ms. Aubin-Smith, a formal written compensation policy would include information about the compensation process, how pay was set, how employees could obtain pay increases, the relationship between pay and performance, and how employees might discuss or dispute performance ratings. TR 475, 482-83. However, she conceded there was no guidance or OFCCP regulation which required these specific elements or even a written compensation policy. TR 485-86.

Ms. Aubin-Smith pointed out the Analogic Performance Review Form which is used to rate employees and is provided to employees once completed by the supervisor, includes five elements upon which employees are rated: Quality of Work, Quantity of Work, Knowledge and Skill, Teamwork, and Attendance. TR 480; JX 3 at 3. According to Ms. Aubin-Smith the fact each performance element's description used the word "including," suggested there was more than what was stated that an employee had to meet. *Id.* Ms. Aubin-Smith contended there are no benchmarks for any of the elements, that is, it is not clear what an employee must do to meet the performance element. TR 480-81, 541. Further, she asserted the box for supervisor comments on the Performance Review Form provides no information as to what should be included in supervisors' comments. TR 481. The form also lacks information on how an employee might dispute their performance rating. *Id.*⁴⁰ She conceded the Performance Review impacts an employee's pay in the Analogic system. TR 482. Because of these deficiencies, Ms.

⁴⁰ Ms. Aubin-Smith also stated the Rating Guide given to supervisors, which provides a description of the potential ratings assigned for each performance element, are not detailed. TR 491.

Aubin-Smith opined the Performance Review Process lacks transparency. TR 481-82. Ms. Aubin-Smith went on to admit the lack of transparency or knowledge of the entire compensation policy affected all employees, male and female. TR 481-82, 484. She asserted a lack of transparency can lead to subjectivity and opens the door to bias against different groups. TR 481-82. She then opined the lack of transparency in this case lead to differences in pay for females as the OFCCP statistics show. TR 476, 482. She explained she considered the components of the “entire compensation policy” to include starting pay, how pay is set, how employees can increase their pay, how an employee could be promoted, the Performance Review Process, and how an employee could dispute their rating. TR 482-83.

On cross examination, Ms. Aubin-Smith acknowledged aside from OFCCP’s statistical evidence, OFCCP does not have other evidence the lack of transparency resulted in less pay for females. TR 484. Ms. Aubin-Smith acknowledged further, the matrix was the system Analogic used to determine annual wage increases. TR 516. She conceded the Analogic matrix considered only an employee’s performance rating and which quartile the employee’s pay falls in, and the matrix does not consider tenure or length of employment in pay increases decisions. TR 516-17.

B. Linda Frazier

Ms. Frazier is an OFCCP employee and was involved in the OFCCP audit of Analogic. TR 969-71, 974-96. Analogic informed her during the audit the factors used in determining pay increases were the performance rating and where the employee fell in the pay range, the quartile. TR 975-76. She also agreed Analogic conveyed to her that an employee in the lowest quartile would receive a larger increase than an employee who received the same performance rating but was in the top pay quartile. TR 976. The idea was to move employees in lower pay quartiles more quickly up in the pay range than employees in the top pay quartile. *Id.*

According to Ms. Frazier, Analogic told her if an employee was above the top of the wage range the individual would not be eligible for further increases to base pay. TR 977. Ms. Frazier acknowledged no one at Analogic told her tenure was a factor in wages. TR 979-80. Ms. Frazier acknowledged during the Audit the “service date” reference above the table on the Performance Review Form related to benefits. TR 981; JX 3 at 3. She also conceded there was nothing on the Performance Review Form reflecting that tenure was a criteria in the performance review or the employee ratings. TR 981.

C. Douglas Rosenfeld

Doug Rosenfeld was Global Vice President of Human Resources and Administration for Analogic during the audit period. TR 553. He left his position at Analogic in July 2017. TR 558. He explained pay increases are given if there is money budgeted to provide pay increases to employees at Analogic. TR 561-65. He testified Analogic sets pay ranges taking into account market pay for similar positions. TR 562, 572-73. For Assemblers at Analogic he stated the market rate was the midpoint in the salary range, and then 20% higher is the maximum hourly pay rate and 20% lower would be the minimum hourly pay rate for the position. Mr. Rosenfeld claimed Analogic sets a maximum wage rate for positions to ensure Analogic’s labor costs do not get out of hand as compared to the price at which it sells its product. TR 572-73. An

employee's wage would fall within one of 4 quartiles depending upon where the individual's current hourly wage rate falls between the maximum and minimum hourly wage rates for the position. TR 564. He explained Quartile 1 is the low end of the pay range and Quartile 4 is the high end. TR 564. Wage increases are determined by looking at which quartile the employee is in and the employee's performance rating, assuming Analogic has budgeted for pay increases in that year. TR 564-66. As a general matter, the merit increase, is based on market rates, and has been set at 3% for several years during the relevant period. TR 563-64. Analogic develops a grid referred to as the "matrix" that determines a particular percentage increase based upon an employee's quartile and performance rating. TR 564. After all the employee performance ratings are in, the operations manager may have to adjust the percentages within each of the cells of the matrix to stay within the total merit increases Analogic has budgeted for in that period. TR 566-570.

Mr. Rosenfeld explained the Analogic matrix for 2011 and 2012 is laid out in DX 5 and DX 6 and are as follows:

Matrix for 2011:

Perf Rating	1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
5--Exceptional	6.25%	5.00%	3.75%	3.25%
4--Exceeds Expectations	5.25%	4.25%	3.25%	2.75%
3--Meets Expectations	4.25%	3.50%	2.75%	2.00%
2--Needs Improvement	2.00%	1.50%	0.00%	0.00%
1--Unsatisfactory	0.00%	0.00%	0.00%	0.00%

Matrix for 2012:

Perf Rating	1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
5--Exceptional	6.25%	5.00%	3.50%	3.00%
4--Exceeds Expectations	5.50%	4.75%	3.25%	2.50%
3--Meets Expectations	4.25%	3.50%	2.75%	2.00%
2--Needs Improvement	2.00%	1.00%	2.00%	0.00%
1--Unsatisfactory	0.00%	0.00%	0.00%	0.00%

TR 565-67, 571, 634-35; DX 5; DX 6. He explained Analogic's matrix is designed to increase wages of employees in lower quartiles (below the midpoint of the salary range) more and those whose wages are above the midpoint in the wage range receive smaller wage increases, assuming

performance ratings are the same. TR 637-638. This means within each quartile higher performing employees receive a greater increase than lower performing employees. *Id.* Mr. Rosenfeld maintained length of employment or tenure was not a factor in determining pay increases and he asserted Analogic was a pay-for-performance company. TR 571.

Mr. Rosenfeld acknowledged an individual could have a wage rate above the maximum pay rate or the “cap” for Assembler 2 or 3s. TR 574-75. This occurs when the individual’s performance rating was high and their wage at that time was under the maximum, the individual would receive the full wage increase given that year, even when the full wage increase would put the individual over the maximum wage rate. TR 573- 575, 630. In future years, that same individual would not receive the wage increase and instead would receive a lump sum cash bonus. TR 573-74, 631-33.⁴¹ He asserted that allowing a highly rated employee to receive a wage increase that pushed them over the maximum wage rate for the position “was a modest price to pay for an exceptional employee.” TR 635. And the “long-lasting impact from a business perspective is obviously not great because it’ll get rectified the following year in terms of an increase.” *Id.* Mr. Rosenfeld also acknowledged that employees in the wage rate 20% below the mean would eventually over time have their salary increase to the mean. TR 635-37. However, he conceded in this interim period Analogic reaped the benefit of paying those employees in the quartile below the mean, less than the market wage rate for the position. TR 635-37.⁴²

According to Mr. Rosenfeld, when it is time for the annual performance ratings, supervisors receive an e-mail from HR describing how to proceed with performance assessments and the timeline for the reviews as reflected in JX 3 at 1-3. The e-mail to supervisors includes the Performance Review Form and the Rating Guide. TR 582-84. There is also a space for supervisor comments on the Performance Review Form. TR 584. When Analogic has determined the budget for raises, supervisors have rated performance using the Performance Review Form and Rating Guidelines, and any wage increase an employee may be getting are established, supervisors meet with employees to discuss the performance rating as reflected on the Performance Rating Form for that employee and share any salary increases with the employee and both documents are provided to the employee. TR 581-82, 585-86, 605, 607; PX 50. Mr. Rosenfeld stated the pay range for Assembler 2 and 3 positions were made public to employees. TR 590, 596.

Mr. Rosenfeld acknowledged Analogic did not have an all-encompassing formal compensation policy document. TR 586-87; JX 8. He contended the policies are in different places such as the Performance Review form. TR 586. According to Mr. Rosenfeld large companies typically do not have a formal written compensation policy that would be distributed

⁴¹ The lump sum increases are reflected in DX 16.

⁴² Another way in which an employee could be paid over the maximum wage rate was the result of Analogic’s repositioning jobs in 2011 after acquiring Copley and its employees. Some employees’ new re-positioned jobs had a maximum pay rate which was lower than the employee’s actual salary. Analogic did not reduce the employee’s wage, meaning the employee’s wage rate was higher than the maximum wage rate for the re-positioned job. TR 575-76. As noted above, the leveling process of slotting employees into Assembler 2 or 3 positions when the former Copley employees moved to Analogic’s Peabody facility is not an issue in this case.

to employees. TR 587. He asserted the pay ranges are public because it helps employees understand how pay can progress and they can get bigger increases. TR 590-91. He said that during the 2011-2012 period he was present along with other managers and supervisors in meetings with Assembler 2s and 3s in which the new pay ranges were presented, but then he appeared to contradict himself, stating employees were given information for themselves, not in a large room. TR 593-95. In the smaller group meetings he recalled the most common inquiry was “my salary is higher than the maximum of the range. What does that mean for me?” He and others would explain to the extent your wage is above the maximum you could still be eligible for a lump sum award. TR 597-98. Later Mr. Rosenfeld conceded the company did not have written guidance for employees as to how a lump sum bonus is paid, rather than a wage increase. TR 616-17. He also stated having a written policy on how an employee could dispute a performance review was either unnecessary because the company had an open door policy and employees know how to go about disputing ratings, and or a written policy seems to be an adversarial type environment. TR 626.

Analogic had a non-discrimination policy in the Employee Handbook. TR 614; JX 2 at 12, 23.

D. Dana Soucie

Mr. Soucie is the managing director of global manufacturing at Analogic and he is located at the Peabody facility. TR 363-64. In that role he is responsible for manufacturing operations in four Analogic facilities across the globe, including the Peabody facility. TR 364. He supervises George Williams, a manufacturing manager at Peabody. TR 366-67. Supervisors directly supervising Assembler 2 and 3s at Peabody, currently report to Mr. Williams. TR 366-67, 370. During the audit period one of the supervisors of Assembler 2s and 3s was Elizabeth Ibbitson. TR 372. Mr. Soucie testified he would expect Ms. Ibbitson and other supervisors to apply the performance criteria or elements consistently when doing annual performance reviews/ratings. TR 372-77.

Mr. Soucie initially stated he was not aware of Analogic’s written anti-discrimination policy in the employee handbook, but later clarified that he was aware an anti-discrimination policy existed at Analogic and the policy was posted in conspicuous places at Analogic. TR 378-79, 381-82, 456. Mr. Soucie was not aware of a formal written compensation policy at Analogic. TR 379. He acknowledged Assembler pay at Analogic was set by using a compensation matrix. TR 380. He agreed it was important for employees to understand how pay was set and how wage increases were determined and agreed he was not aware of any written documentation explaining the matrix system to employees or how employees could receive a pay increase in the employee handbook. TR 380-85. But he stated although there is nothing in writing in the employee handbook on how to get a pay increase he didn’t “know if there’s any way that somebody wouldn’t know what’s required to get a pay raise.” TR 384.

According to Mr. Soucie, performance ratings are considered in pay increase determinations. TR 387-88, 407. He indicated discussion on ratings and pay increases would be a discussion between an employee and supervisor at the annual rating time. TR 395. He stated although there is no written document as to how to dispute a rating, Analogic has an open door policy and employees know if they have an issue on which they don’t agree with their

supervisor, and not only for review ratings, they can go to HR or up to the next level manager. TR 395-96, 460-61. He explained that once supervisors completed reviews he gets the feedback in the form of a spreadsheet with each employee's name and rating as well as the prior year's rating. So if they are not consistent from year to year he asks about the rating. TR 463-64.

Mr. Soucie stated guidance provided to supervisors on performance reviews are the documents supervisors receive each year at rating time. TR 416, 418-19; JX 4. Mr. Soucie acknowledged the Performance Review form used to rate employees and which is given to employees does not include a description as to what is acceptable or unacceptable performance, that information is contained in the Rating Guidelines provided to supervisors. TR 424-25, 434-37. Mr. Soucie did not know whether the Rating Guide is given to employees. TR 424-25.

E. George Williams

George Williams is currently the manufacturing manager at Analogic's Peabody facility and has held that position for roughly eight years including in 2011 and 2012. TR 735-36. His job oversees production in the plant at Peabody. Eight managers and supervisors report to him. TR 736. In 2011-2012 he did not directly supervise Assembler 2 and 3s. TR 736. He explained some of his direct reports supervise Assembler 2 and 3s directly both presently and in the 2011-2012 audit period. TR 736-37. He explained Assembler 2s perform routine work that can be learned in a couple weeks' time. TR 737-38, 746-47, 752. Most of the assemblies done by Assembler 2s are completed within 45 minutes. *Id.* Assembler 3s are performing more difficult work as the assemblies have multiple requirements, and the documentation instructing how assemblies are to be completed is more detailed. TR 738, 745-49, 751-52. It can take up to three months to train an Assembler 3. TR 752. The assemblies then go on to the next step or level in the manufacturing process of building specific machines such as scanners used at airports. TR 739.

Mr. Williams reiterated pay increases are based upon an employee's performance rating and which pay quartile the employee is in. TR 754. He asserted Analogic does not consider tenure or length of employment at Analogic in the pay increase decision. TR 756. Mr. Williams does not have a part in determining the percentage of wage increase listed in the matrix for each quartile and performance rating. TR 755. The amount or percentage of any annual wage increase is determined at a higher level. *Id.*

Mr. Williams testified that when it is time for the review process he and his managers get an e-mail from HR indicating the date reviews are due. TR 759-60. The e-mail includes the Performance Review Form and the Rating Guide supervisors use. TR 760; JX 3 at 2; JX 11 at 2. The managers and supervisors fill out the Performance Review Form. TR 758-59. Once the reviews are completed, he reviews the Performance Review forms to "verify the rating match any comments the supervisor included." TR 759, 762-63. He spends approximately three minutes reviewing each rating. TR 763. In the review process, employees are provided the Performance Review Form with their rating and the salary review sheet which tells the employee of any wage increase they are to receive. TR 761,769; JX 3 at 3. Mr. Williams acknowledged the Rating Guide used by supervisors is not provided to employees. TR 770; JX 3 at 2. However, he then went on to claim the document is available if requested, and was on the Analogic intranet, but he did not know if it was posted in 2011 and 2012. TR 770-71.

Mr. Williams acknowledged Analogic did not have a written policy on how an employee could dispute a performance rating. TR 773. He maintained employees know if they have complaints they can go to HR. *Id.* He agreed that in the 2011-2012 period Elizabeth Ibbitson supervised Assembler 2s and 3s and reported to him. TR 774. In describing the performance elements employees are rated on, Mr. Williams stated the supervisors know their employees and what they do. He explained the attendance element includes more than simply the number of days an employee is absent, noting there may be valid reasons an employee is absent. TR 779-81. He acknowledged he did not receive training while at Analogic in how to conduct performance reviews, but he has vast experience in the review process from having worked at many different companies. TR 781.

F. Patricia Dumas

Ms. Dumas is in the Human Resources (“HR”) Department at Analogic. TR 643. Her responsibilities included HR functions for the Assembler 2 and 3 positions among others. TR 646.⁴³ Ms. Dumas testified that on occasion she has explained to Assembler 2 or 3s the matrix Analogic uses and how pay increases are determined. TR 649-52; DX 5. She has explained the concept of the matrix to employees telling them that if performance is rated highly and the employee is in a lower paid quartile that employee would receive a higher wage increase. TR 651-52. Ms. Dumas admitted she had never shared the actual document laying out the matrix with any employee. TR 650-52, 704-05, 707; DX 5. Ms. Dumas stated wage increases are determined based upon an employee’s pay quartile and performance rating for the rating period. TR 653-54.

In addressing the performance review process, Ms. Dumas asserted supervisors of Assembler 2s and 3s understand the performance guidelines. TR 678-80. At the beginning of the performance review process HR sends an e-mail to supervisors which includes the one page Performance Review Form used to evaluate each individual employee and a second document titled Rating Guide. TR 677-78; JX 3. The Rating Guide supervisors receive provides definitions for each of the ratings an employee may receive. TR 677-81; JX 3. She did not know whether employees were given the Rating Guide provided to supervisors. TR 722. When a new supervisor begins she reviews the Performance Review Form and the Rating Guide supervisors are given and use in rating employees. TR 679. If a supervisor has a question regarding a rating the supervisor has a discussion with her. *Id.* Ms. Dumas reviews the employee performance ratings. TR 722.

The Performance Review Form used to rate performance and provided to employees lists the elements upon which employees are rated. TR 690-91; JX 3 at 3. Ms. Dumas stated one of the elements of employee performance that is rated is quality of work, including accuracy, thoroughness and value of work. TR 681; *see also* JX 3 at 3. The supervisor comments section of the performance rating form is intended to support the rating. TR 682. She has met with

⁴³ Ms. Dumas first worked for Analogic as a clerical employee in the 1980s. TR 641. She then left and worked elsewhere for 13 years. TR 641-42. She returned to Analogic as an HR specialist in the late 1990s. *Id.* When she returned Analogic bridged her previous employment period for purposes of vacation time and any severance should her job be eliminated. TR 642.

employees who had questions or were unhappy about the rating received. TR 683-88. She has also made efforts to address questions regarding pay she has received from employees. TR 688-89.

During the performance discussion with employees, employees are given the Performance Rating Form and the Salary Data sheet reflecting any wage increase the employee will receive. TR 691; JX 3 at 3; PX 50. Ms. Dumas stated temporary employees at Analogic are not eligible for annual performance reviews or a wage increase. TR 694-95.

G. Elizabeth Ibbitson

Ms. Ibbitson is currently employed as a Materials Manager at Analogic and has been in that position for a couple of years. TR 851. She first started working at Analogic in 2001. TR *Id.* In the period 2011 to 2012 she directly supervised Assembler 2s and 3s. TR 852. She stated Assembler 2 work was simple and Assembler 3 work was more complex. TR 853-56.

In describing the performance review process which she was involved with, Ms. Ibbitson recalled she learned how to do a performance review by on the job experience and she has been in manufacturing supervisory or manager positions for thirty years. TR 856-57. She recalled at Analogic one of the supervisor/manager trainings was on writing effective reviews but could not recall when in her 16 years at Analogic such training occurred. TR 858, 883-85. Like other Analogic officials she explained the annual review process begins with an e-mail supervisors receive from HR outlining the schedule for reviews. TR 858-59; JX 3. In performing reviews for her direct reports, she first checks Analogic's records for an employee's attendance, including tardiness in the prior year, and then she writes her reviews and then goes back to re-read and view them in a couple days to see if she left something out. TR 859-60. She typically spends a total of 30 to 40 minutes preparing each employee's performance review in completing her review process. TR 860-64. She uses the Review Guide provided to supervisors when she is completing employee reviews. TR 861. She did not know whether the Rating Guide supervisors use was provided to employees. TR 881. Nor did she know whether the Rating Guide was published or available to employees. *Id.* After completing her review she sent each employee review to her supervisor, Mr. Williams, to sign off. TR 864.

She then meets with each employee individually to discuss the performance rating and shares the Performance Review Form. TR 864-65. She recalled some assemblers ask questions during the review process and others do not. TR 865. Ms. Ibbitson also provides each employee the Salary Sheet which indicates any pay raise they will receive along with the Performance Review Form with the rating. TR 866. Pay raises are based upon an employee's pay quartile and performance rating. TR 869. She explained if an employee's hourly pay is over the maximum for the position she explains to the employee that they are not eligible for a pay increase and, instead will receive a cash bonus, unless Analogic increases the maximum pay for the position. TR 868, 870-72, 890.

According to Ms. Ibbitson the pay system at Analogic is set up so employees at the lower end of the pay range, who get a higher performance rating will get a larger percentage pay increase. When an employee reaches the maximum hourly rate for the position the percentage increase in wage is lower. TR 870. She has had employees complain they were not being paid

as much as others in the same position. She has discussed this concern and explained the process. TR 873-74. Although she was not aware of a written policy as to the process an employee could use to dispute a performance rating, she stated if an employee was unhappy with a rating the employee could attach a written response to the rating. TR 886-87.

H. Sharon LeBlanc

Ms. LeBlanc initially began working as an Assembler at Analogic in May 1982 and retired in May 2012. TR 815-16. Her last position at Analogic was as an Assembler 3. *Id.* Ms. LeBlanc recalled the employee handbook contained information on company rules, on harassment, sick time, vacations and how time accrued. TR 820. She did not recall whether the handbook included information as to how the performance review process worked. TR 821. Ms. LeBlanc said if the handbook contained information on the performance review process she would have known how to contest the rating. TR 822. She stated it would also have been helpful to have a written policy in the handbook on how to get a pay raise, because it would have been easier to request one. TR 821. She did not ask for a raise in the thirty years she worked at Analogic. *Id.*

Ms. LeBlanc was not aware of the Rating Guide supervisors are provided and had never seen it. TR 822-23; JX 3 at 2. In describing the rating process she recalled it occurred once a year in the Fall and there was no written notice but word of mouth that it was rating time. TR 824-25, 838. She stated she simply signed the review form provided to her and did not ask questions as she did not want to have problems. TR 825-26. When asked why she thought questioning her review would create problems she replied with regard to a supervisor, “Well, towards the end of my working years there, when you know somebody doesn’t like you, you can pretty much guess that your performance isn’t going to maybe accurate.” TR 825, 843. She stated “when somebody tells you that they don’t respect you and they – you know, you know that they don’t like you.” TR 834. She agreed the feeling was mutual and she did not like her supervisor. *Id.* The last couple years of employment at Analogic she was not happy. *Id.* Although she simply signed her reviews, a supervisor never stopped her from asking questions about her rating. TR 837. Ms. LeBlanc had a general understanding that if she disputed something she could go to the supervisor and or HR and she never did. *Id.*

Ms. LeBlanc did not know what others in her position were paid. TR 828. She stated she was told not to discuss pay with others by Jean Poulin, a supervisor at one of her first reviews. *Id.* Ms. LeBlanc was familiar with the employee handbook provision addressing Performance Appraisals and Pay Increases which provides: “[p]ay increases may accompany performance appraisals and will be consistent with current business conditions, competitive practices and guidelines that recognize and reward individual performance.” TR 840; JX 1 at 12-13.

I. Patrice Cunningham

Ms. Cunningham is currently employed as an Assembler 4 at Analogic and has held that position for two years. TR 893. During the audit period 2011 to 2012 she worked as an Assembler 3. *Id.* Ms. Cunningham first began working at Analogic in October 1984. *Id.* She testified she understood the wage range for the assembler position was based on her performance reviews and years working at Analogic. TR 894. She explained the review process as follows:

she was called into her supervisor's office and he would have a sheet with a pay raise and a sheet with a performance rating and would discuss it with her. TR 895, 951-52.

Ms. Cunningham stated she understood the Analogic pay system as she was told it was a formula and even though she was rated highly, her wage increase was not what it might have been if she was lower in the [wage] tree. TR 899. She explained she was at the top of the pay range a couple of years as an Assembler 3 and was rated highly but did not get a wage increase and instead received a cash bonus. TR 900. Ms. Cunningham stated she was never denied an opportunity due to her gender nor did she ever receive any comments from a supervisor reflecting gender bias. TR 906-07.

On cross, Ms. Cunningham acknowledged that in 2012 she assumed there was a written guidance for employees explaining how to get pay raises and how pay was set, but she did not know where such a policy would be located. TR 953. Ms. Cunningham conceded that in a questionnaire from OFCCP she completed in 2012, she stated "I feel all assemblers are treated by management as lowly and expendable" and "I have worked in some areas depending on the manager that women were treated as less than the men" and the manager was "chauvinistic." TR 959-60. She reported she never discussed her pay with coworkers. TR 961-62.

VI. FINDINGS OF FACT AND CONCLUSIONS OF LAW

A. Analytical Framework

This dispute arises under Executive Order ("EO") 11246 which prohibits discrimination by covered government contractors against employees on the basis of gender, among other characteristics not relevant here. The legal standards developed under Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000e, apply to actions brought under the EO. *OFCCP v. Honeywell*, 1977-OFC-00003, PDF at 7-8 (Sec'y June 2, 1993); *OFCCP v. Honeywell*, 1977-OFC-00003, PDF at 4, 6 (Sec'y Mar. 2, 1994) (Remand Order). A claim of employment discrimination may be established under either of two theories – disparate impact and disparate treatment. *Int'l Bhd. Of Teamsters v. United States*, 431 U.S. 324, 335, n.15 (1977); *Honeywell*, 1977-OFC-00003 at 14. Under a disparate impact claim the challenged employment practice is facially neutral but has an adverse impact on a protected class. *Griggs v. Duke Power Co.*, 401 U.S. 424, 431 (1971). In a disparate treatment claim, "the employer simply treats some people less favorably than others because of their race, color, religion, sex or national origin." *Teamsters*, 431 U.S. at 335 n.15. The plaintiff must prove discriminatory intent under a disparate treatment claim. *Id.* Under both theories there is a burden shifting analysis requiring the plaintiff to establish a prima facie case of discrimination which the defendant is required to rebut. *Segar v. Smith*, 738 F.2d 1249, 1286 (D.C. Cir. 1984).

OFCCP is asserting a pattern and practice claim of compensation discrimination against female Assembler 2s and 3s under both theories. OFCCP Br. at 46. In pattern and practice cases, plaintiffs generally rely on statistical evidence to show a disparity, which in this case is an asserted disparity between the wages of females and males in Assembler 2 and Assembler 3 positions. *Segar*, 738 F.2d at 1267, 1273; *OFCCP v. TNT Crust*, ALJ No. 2004-OFC-00003, PDF at 12 (ALJ Sept. 10, 2007) (Order on Liability); *New York City Transit Auth. v. Beazer*, 440

U.S. 568, 584 (1979). The burden of proving a pattern or practice discrimination case remains with the plaintiff. *Segar*, 738 F.2d at 1268-69.

Under a disparate impact analysis a plaintiff is not required to prove discriminatory intent. *Teamsters*, 431 U.S. at 335. Rather, the plaintiff must identify a facially neutral employment practice that has an adverse effect on a protected class. *Griggs*, 401 U.S. at 431-32; *Connecticut v. Teal*, 457 U.S. 440, 446 (1982); *Ricci v. DeStefano*, 557 U.S. 557, 583 (2009). In order to establish a disparate impact violation, OFCCP must demonstrate Analogic “uses a particular employment practice that causes a disparate impact on the basis of [sex.]” 42 U.S.C. § 2000e-2(k)(1)(A)(i); *Wards Cove Packaging Co. v. Antonio*, 490 U.S. 642, 657 (1989); *Wal-Mart Stores Inc. v. Dukes*, 564 U.S. 338 (2011); *Teal*, 457 U.S. at 446; *Robinson v. Metro-North Commuter R.R. Co.*, 267 F.3d 147, 160 (2d Cir. 2001). Statistics may be used to show a facially neutral employment practice causes a disparate impact, here causes female assemblers to be paid less than males. *Beazer*, 440 U.S. at 584; *TNT Crust*, ALJ No. 2004-OFC-00003 at 12. If OFCCP succeeds in establishing a facially neutral employment practice caused a disparity in female assemblers’ wages, Analogic can counter by challenging the plaintiff’s proof, including statistics, or demonstrating the challenged employment practice is job related and consistent with business necessity. *Griggs*, 401 U.S. at 431-32. OFCCP may still prevail by establishing an alternate policy or practice meeting the employer’s business need which does not have the same discriminatory effect. *Dothard v. Rawlinson*, 433 U.S. 321, 329 (1977).

In a pattern and practice claim of intentional sex discrimination, OFCCP must show that there is a significant disparity in female Assembler 2 and Assembler 3 wages and prove that sex was the cause. *OFCCP v. Bank of America*, ARB No. 13-009, PDF at 12 (ARB Apr. 21, 2016); *Teamsters*, 431 U.S. at 335, n.15. There is a three step burden shifting analysis Courts find useful in resolving pattern and practice disparate treatment claims. A plaintiff first establishes by a preponderance of the evidence that discrimination was the employer’s standard and regular procedure. *Texas Dept. of Community Affairs v. Burdine*, 450 U.S. 248, 253 (1981); *TNT Crust*, 2004 OFC-00003 at 11. The plaintiff must produce evidence which is sufficient to create an inference the employment policy at issue was based upon intentional discrimination. *Teamsters*, 431 U.S. at 358. As noted, plaintiffs frequently use statistical evidence to meet this initial burden. *Teamsters*, 431 U.S. at 358; *see also Hazelwood Sch. Dist. v. United States*, 433 U.S. 299, 307 (1977); *Segar*, 738 F.2d at 1267.⁴⁴ The Supreme Court has stated that “where gross statistical disparities can be shown, they alone may in a proper case constitute prima facie proof of a pattern and practice of discrimination.” *Teamsters*, 431 U.S. at 339.

If the plaintiff succeeds, the burden of production shifts to the defendant to rebut. *Seagar*, 738 F.2d at 1267-68. A defendant may rebut a claim of intentional discrimination by challenging the methodology and significance of the plaintiff’s statistics demonstrating that no disparity exists. *TNT Crust*, 2004-OFC-00003 at 11. This requires the defendant to show the plaintiff’s statistics are flawed. *Teamsters*, 431 U.S. at 360. The defendant may also attempt to rebut the prima facie case by establishing a legitimate, nondiscriminatory reason for the observed disparity. *Teamsters*, 431 at 360 n.46; *Segar*, 738 F.2d at 1267-68. The defendant’s evidence of

⁴⁴ Statistical analysis including regression analysis may be and is frequently used in discrimination cases in an effort to demonstrate disparity in wages, promotions, etc. *See Hazelwood*, 433 U.S. at 307-08; *Bazemore v. Friday*, 478 U.S. 385, 400 (1986); *Coward v. ADT Sec. Systems. Inc.*, 140 F.3d 271, 274 (D.C. Cir. 1998).

a nondiscriminatory reason, must make a “clear and reasonably specific showing” through admissible evidence that the disparity is explained by a nondiscriminatory reason. *TNT Crust*, 2004-OFC-00003 at 12 (citing *Segar*, 731 F.2d at 1268-69). If the defendant’s evidence is sufficient to overcome the inference of discrimination, the plaintiff may still prevail by establishing by a preponderance of the evidence that the proffered reason was not the true reason for the challenged employment practice, but rather is a pretext. *Burdine*, 450 U.S. at 253, 256.

B. Disparate Impact Claim

A plaintiff making a case of disparate impact must initially show a facially neutral employment practice had a significantly discriminatory impact. *Andrews v. Bechtel Power Corp.*, 780 F.2d 124, 142 (1st Cir. 1985); see also *Teal*, 457 U.S. at 446. A plaintiff must identify a policy or practice, show a disparity exists, and demonstrate a causal relationship between the two. *Wards Cove*, 490 U.S. at 657; *Dukes*, 564 U.S. 338; *Robinson*, 267 F.3d at 160 (2d Cir. 2001).⁴⁵

OFCCP relies upon the statistical analysis of its expert Dr. Levy in attempting to establish a disparity exists in the hourly compensation paid to female Assembler 2s and 3s as compared to males in the same positions as a result of Analogic’s compensation system or process. As a general matter Courts have found statistics are significant at two or three standard deviations. *Hazelwood*, 433 U.S. at 309 n.14 (citing *Casteneda v. Partida*, 430 U.S. 482, 496-497 n.17 (1977)); *Segar*, 738 F.2d at 1283 (finding statistics at two standard deviations are sufficient to support an inference of discrimination); *TNT Crust*, 2004-OFC-00003 at 11. Dr. Levy’s pooled regression analysis, which OFCCP relies upon, shows a statistically significant disparity in female Assembler 2 and 3 hourly wages at 2.84 standard deviations.⁴⁶

OFCCP must do more than demonstrate a statistical disparity to prove a disparate impact violation. OFCCP must also identify a facially neutral employment policy or practice used by Analogic that causes the disparity in female assembler hourly wage. *Wards Cove*, 490 U.S. at 657; see also *OFCCP v. Google*, ALJ No. 2017-OFC-00004, PDF at 25 (ALJ July 14, 2017) (“Statistical disparity, however, does not establish an adverse impact violation. Rather, Title VII expressly requires a plaintiff on such a claim to show that the employer ‘uses a particular employment practice that causes’ the adverse impact.”). A plaintiff’s burden in identifying the employment practice that causes the disparate impact is “not trivial.” *Meacham v. Knolls Atomic Power Lab*, 554 U.S. 84, 101 (2008). An employer’s objective and subjective practices can satisfy the requirement. *Watson v. Fort Worth Bank & Trust*, 487 U.S. 977, 989-90 (1988). Practices or procedures used in making employment decisions that include objective and subjective criteria or factors are generally considered subjective in nature. *Id.* at 989; *Rose v. Wells Fargo & Co.*, 902 F.2d 1417, 1424 (9th Cir. 1990).

⁴⁵ Analogic’s assertion OFCCP’s disparate impact claim is barred by section 703 of Title VII which incorporates the four Equal Pay Act defenses permitting differences based upon a seniority system, a merit system, a system measuring earning based on quantity or quality of production or any other factor other than sex is unpersuasive. A. Br. at 67-70. In the main Analogic relies upon dicta in a footnote in the Supreme Court’s decision in *Smith v. City of Jackson*, 544 U.S. 228, 239 n.11 (2005). Analogic has not cited to any cases which support such a restrictive reading of the plurality’s dicta.

⁴⁶ As noted the pooled regression includes both Assembler 2s and 3s and the years 2011-2016.

Following the Court's decision in *Wards Cove*, Title VII was amended and now recognizes an exception to the general requirement a plaintiff show a particular employment practice causes the disparity. The exception provides that if the plaintiff can demonstrate the elements of an employer's broader decision making process are "not capable of separation for analysis," the decision making process may be analyzed as one employment practice in establishing a disparate impact violation. 42 U.S.C. § 2000e-2(k)(B)(i).

OFCCP relies on the exception in 42 U.S.C. § 2000 e-2(k)(B)(i) to make its case of discrimination under the disparate impact analysis. OFCCP contends the exception should be liberally construed. OFCCP Br. at 49 n.28. Although not precisely or succinctly articulated, OFCCP asserts Analogic's total compensation system which includes subjective decision-making elements incapable of separation is the employment practice causing the female wage disparity. OFCCP Br. at 48-51.⁴⁷ Specifically, OFCCP asserts subjectivity in the compensation system including the performance review process opened the door to bias against female assemblers. OFCCP Br. at 8, 35-46, 51. Therefore, OFCCP asserts the total compensation system may be considered as a single employment practice causing the claimed wage disparity in establishing its disparate impact claim of wage discrimination against female assemblers. *Id.*

Analogic asserts the language of the exception to the general requirement a plaintiff show a specific employment practice caused the disparity applies only where the plaintiff "can demonstrate to the court that the elements of [an employer's] decision-making process are not capable of separation for analysis." 42 U.S.C. § 2000e-2(k)(1)(B)(i); A. Br. at 72. Analogic argues OFCCP made no effort to show the elements of its compensation system could not be separated. A. Br. at 71-74. Analogic maintains the exception in 42 U.S.C. § 2000e-2(k)(B)(i) should be narrowly construed stating OFCCP's construction of the exception would permit the exception to swallow the rule. A. Br. at 73-74.

Courts have determined the Title VII exception to the general rule requiring a plaintiff to identify a specific employment practice caused the disparity is applicable only when the plaintiff has demonstrated the elements of the decision-making process cannot be separated for analysis. *Davis v. Cintas Corp.*, 717 F.3d 476, 496 (6th Cir. 2013) (Court recognized an employment practice involving subjectivity *may* constitute an employment practice for purposes of disparate impact analysis, but affirmed summary judgment for the employer, stating the plaintiff was required to make some effort to isolate the practice and examine the individual effects of the challenged process or demonstrate the many elements were so intertwined they were not capable of separation for analysis); *Bennett v. Nucor Corp.*, 656 F.3d 802, 817-18 (8th Cir. 2011) (Court recognized Title VII exception providing that if plaintiff can demonstrate the elements of employer's decision-making process are not capable of separation for analysis the decision-

⁴⁷ OFCCP has identified several factors or elements some of which are subjective it asserts are part of the "total compensation system or process": lack of a unified written compensation policy left the compensation system open to bias; mistreatment of female assemblers by chauvinistic managers; employees were instructed not to discuss pay with others; pay setting process was not transparent to managers or assemblers; performance review process directly affected employee pay; manager discretion was key to performance review process; routine training for managers on how to conduct performance reviews was not provided; and cursory reviews of completed performance reviews were done. OFCCP Br. at 33-44.

making process as a whole may be analyzed as one employment practice, but affirmed summary judgement for employer where plaintiffs failed to demonstrate the multiple elements of the promotion selection process (some objective and some subjective) were incapable of separation).

OFCCP contends a combination of subjective and objective elements in an employer's decision-making process is a factor supporting inseparability, citing *Howe v. City of Akron*, 723 F.3d 651, 659 (6th Cir. 2013)⁴⁸ and *Chin v. Port Auth. Of N.Y. & N.J.*, 685 F.3d 135, 154-55 (2d Cir. 2012).⁴⁹ OFCCP Br. at 49-50. After review, these cases do not aid OFCCP in establishing Analogic's factors in its decision making process are inseparable. In *Howe*, the Court found the rank-order scores assigned to applicants seeking promotions did not need to be separated from the interview component, because the parties conceded the interview process had no actual effect on decision-making and promotions were based solely on the rank-order scores. 723 F.3d at 659. In *Chin*, the Court found the various components of the decision-making process for promotions could not be separated because the weight given to each component was unclear and variable, and certain components were neither necessary nor sufficient for promotion. 685 F.3d at 154-55.

Here, while OFCCP cites Analogic's total compensation process as the employment practice causing the wage disparity, the evidence clearly establishes wage increase decisions at Analogic were made based upon application of the matrix which assigns a certain percentage wage increase based on two factors, an employee's performance rating and the employee's pay quartile. There was no evidence the wage decisions were not based upon these two factors, or were based on some unknown criteria or that the weight ascribed to the two factors was unclear or variable, and both components were necessary for determining wage increases. While there was some subjectivity in Analogic's performance review process, which rated assemblers on five specific elements, OFCCP did not present evidence the performance ratings caused the asserted statistical disparity in female wages. OFCCP made no attempt to present evidence

⁴⁸ The Court in *Howe* determined the promotions at issue were based upon rank-order score results where the score was the sum of an exam score, plus seniority. The Court found this to be a quantifiable process leading to each promotion decision. The Court noted there was another component of the promotion process, the "Rule of Three," which required the individuals with the three highest scores to be considered for promotion and interviewed. The Court stated that had the "Rule of Three" in fact influenced the promotion process so that lower ranked individuals were promoted ahead of higher ranked individuals, plaintiffs may have been required to try to quantify how much of a negative impact stemmed from the exam and how much from the "Rule of Three" interviews. However, because the parties agreed candidates were promoted based only on their rank order, plaintiffs were not required to attempt to demonstrate how much of the disparate impact was caused by the exam and how much by the interviews.

⁴⁹ The *Chin* case involved a challenge to the promotion process for policemen at the Port Authority of New York and New Jersey. The promotion process in *Chin* included three components, Chief's Board, Commanding Officer's, and Superintendent's recommendations, all of which were based upon discretion exercised by supervisors or managers. 685 F.3d at 142, 154-155. There were no written guidelines or criteria for supervisors to follow in exercising discretion regarding promotion decisions. 685 F.3d at 142. In some cases not all steps in the promotion process were used in making promotion decisions. In this regard, the Court noted the evidence demonstrated the Chief's Board recommendation "was neither necessary nor sufficient for promotion and the weight it carried in the process was both unclear and variable." 685 F.3d 154. In addition, "the ultimate decision whether to promote an officer ...[was relegated] solely to the Superintendent." 685 F.3d at 142. The evidence demonstrated "the Superintendent occasionally promoted officers whom the Chief's Board had declined to recommend ahead of those recommended by the Chief's Board." *Id.*

demonstrating that elements of Analogic’s compensation practices were not capable of separation for review.⁵⁰

After careful consideration of the authority cited by the parties, I am not persuaded subjectivity alone is sufficient to invoke the exception in 42 U.S.C. § 2000e-2(k)(B)(i). To the extent OFCCP argues subjectivity in an employer’s decision-making process alone, or that a combination of subjective and objective factors, without any attempt to show the elements cannot be separated for analysis, is sufficient to show inseparability and invoke the presumption, I am persuaded that such a broad construction of the exception would eviscerate the rule. Such a construction would mean anytime there was a multi-step decision-making process with subjective elements, a common situation, a plaintiff would prevail in identifying a particular employment practice causing a disparity. Subjectivity in an employer’s decision making process may assist a plaintiff in establishing the applicability of the Title VII exception to the general rule requiring a plaintiff to demonstrate a particular employment practice caused the disparity, *if* the plaintiff makes an effort to demonstrate the elements are incapable of separation for analysis.

Although OFCCP asserted Analogic’s total compensation system constituted the employment practice and identified multiple aspects of the system, it made no effort to demonstrate specific elements of the compensation system were not capable of separation for analysis. As a result, OFCCP failed to successfully invoke the exception excusing it from identifying the employment practice or policy causing the alleged wage disparity. Thus, OFCCP has not identified the employment practice which caused the asserted wage disparity and has failed to establish a case of disparate impact.

Even if OFCCP had identified an employment practice causing the wage disparity, Analogic has presented rebuttal evidence challenging OFCCP’s statistical evidence. Analogic offers the statistical analysis of its expert showing there was not a statistically significant shortfall in female assemblers’ wages during the 2011-2012 audit period, and attacks the statistical evidence of OFCCP’s expert.⁵¹

⁵⁰ OFCCP cites in its brief to three additional cases allegedly supporting its position that subjective or partly subjective processes for employer decision making cannot be separated: *Tabor v. Hilti, Inc.*, 703 F.3d 1206, 1222 (10th Cir. 2013); *McClain v. Lufkin Indust., Inc.*, 519 F.3d 264, 278 (5th Cir. 2008); and *Phillips v. Cohen*, 400 F.3d 388 (6th Cir. 2005). OFCCP Br. at 50. In *Tabor*, the focus of the discussion was whether a subjective practice could be relied on in a disparate impact case, and the Court found discretionary practices can form the basis for a disparate impact claim. While the Court found the employer’s multi-factor system for determining promotions (which contained discretionary components that were not always uniformly applied), constituted a specific employment practice, there was no discussion of the exception at 42 U.S.C. § 2000e-2(k)(B)(i) or how one determines its application. Either way, Analogic’s decision making process differs from that in *Tabor* as there is no evidence the two factors, pay quartile and performance rating, were applied inconsistently. In *McLain*, the Court stated where a promotion system uses tightly integrated and overlapping criteria, does not uniformly apply the criteria, and/or criteria is subjective *and variable*, then the individual steps may not be separable. *Id.* at 278. Again, Analogic’s factors in determining wage increases do not overlap and are not applied inconsistently or variably. Lastly, in *Phillips*, the magistrate judge below declined to determine whether the practices in question were capable of separation for analysis because the plaintiffs failed to demonstrate disparate impact, and on appeal, the court “assumed,” without analyzing, that the eighteen step process was incapable of separation because it was not contested by the parties. Thus, this case is of little precedential value.

⁵¹ As an initial matter, Analogic misrepresents Dr. Levy’s opinions, claiming he “admitted” “a predetermined conclusion of gender-based pay discrimination and sought to identify factors to measure the ‘extent’ of such discrimination.” A. Br. at 7. Whatever deficiencies may exist in Dr. Levy’s Oaxaca regression model, he did not

Analogic's expert Dr. Baumler offers a different statistical analysis and model than that used by Dr. Levy. Dr. Baumler's analysis initially used a descriptive model based upon how pay was in fact set at Analogic, comparing the actual hourly pay of male and female assemblers at Analogic during the audit period. She determined that on average female assemblers' mean and median hourly wages were higher than male assemblers during the audit period 2011-2012. Dr. Baumler then performed a multiple regression analysis controlling for confounding factors of tenure and prior employment at Copley. She controlled for these two factors because they were determined to have a statistically significant impact on pay. The results of her multiple regression were consistent with her analysis of the descriptive data showing there was not a *statistically significant* wage shortfall in female assemblers' hourly wage as compared to males in the audit period. Dr. Baumler's statistical analysis was unable to rebut the null hypothesis. That is her analysis did not show any difference in female wages that was statistically significant such that any difference could not be attributed to chance or random fluctuation. Her multiple regression method is the statistical model frequently seen in discrimination cases – she evaluated the effects of the independent variables (gender) on a dependent variable, in this case, the hourly wage. See *Dukes*, 222 F.R.D. at 155 n.22; *Bickerstaff*, 196 F.3d 448. OFCCP has published Guidelines titled “Interpreting Nondiscrimination Requirements of Executive Order 11246 With Respect to Systemic Compensation Discrimination.” 71 Fed. Reg. 35124-01 (June 16, 2006). The Guidelines explicitly indicate one of the purposes was to inform contractors OFCCP was adopting a multiple regression statistical technique for assessing the combined effects of multiple legitimate factors that influence employers' compensation decisions for systemic discrimination cases. 41 C.F.R. § 60-20; 71 Fed. Reg. at 35,137-38. Dr. Baumler's regression model appears consistent with the OFCCP guidelines.

In addition to presenting her contrary statistical analysis, Dr. Baumler challenged Dr. Levy's statistical methodology and model as unreliable. She asserts his predictive model did not do a direct comparison of the hourly wage of males and the hourly wage of females but rather developed a statistical model premised on measuring whether females would have been paid more or less than they were paid if they had been paid as males. Analogic also attacks Dr. Levy's statistical analysis because he failed to include the factors Analogic used in making wage increase decisions, and included factors Analogic does not consider in its pay decision-making process, among other criticisms.

There is no dispute Dr. Levy's model did not use the factors Analogic utilizes in its decision-making as to wage increases for assemblers.⁵² Instead, he used factors from the labor econometrics field he thought influenced pay at Analogic. Statistical analyses including regression analyses may be and is frequently used in discrimination cases in an effort to demonstrate discrimination in wages, promotions, etc. See *Hazelwood Sch. Dist.*, 433 U.S. at 307-08 (1977); *Bazemore*, 478 U.S. at 400; *Coward v. ADT Sec. Systems, Inc.*, 140 F.3d 271, 274 (D.C. Cir. 1998). Nevertheless, Courts have held regression analyses which do not include the

admit he had a predetermined conclusion to find discrimination. His report and testimony clearly state the Oaxaca model is used in the labor economics field to identify discrimination *if it exists*. TR 47, 104-05.

⁵² The variables Dr. Levy used or controlled for in creating his Oaxaca regression model were tenure (including tenure squared), job title, performance rating, calendar years 2011-2016 and whether the employee had previously worked at Copley.

major factors used by employers are not probative. *Bickerstaff v. Vassar College*, 196 F.3d 435, 449 (2d Cir. 1999); *Smith v. Virginia Commonwealth University*, 84 F.3d 672 (4th Cir. 1996). Regression analyses which account for the major factors but not “all measurable factors” may nevertheless be probative. *Bazemore*, 478 U.S. at 400. A determination of what constitutes a major factor depends upon the facts and theory of a particular case. *Coward*, 140 F.3d at 274-75.

The evidence established wage increases at Analogic are determined by two factors: which pay quartile the employee is in based on his or her current wage rate, and the employee’s performance rating. Dr. Levy’s regression did not include the employee’s pay quartile (based upon prior year’s pay) which is one of two factors and a major factor Analogic uses in its decision-making on wage increases. Dr. Levy’s failure to include the variables Analogic includes in determining pay increases, specifically the pay quartile the employee is in (based on the employee’s prior year’s pay), a major factor Analogic considers, is a significant concern in accepting his statistical analysis. As outlined above, Courts have determined regressions which do not include major factors cannot support a finding of discrimination. The omission of the pay quartile in Dr. Levy’s regression analysis undermines his methodology and the probative weight of his conclusions.⁵³

Moreover, Dr. Levy included other variables in his Oaxaca regression model that Analogic does not consider in setting wage increases. The most important variable included in Dr. Levy’s Oaxaca model which he acknowledged Analogic does not consider is tenure. Dr. Levy used tenure because in labor economics theory, as a worker gains knowledge and experience or skill in a job this is known to lead to higher wages. In this regard, he conceded he is attributing employee productivity and value to Analogic not to actual output by an employee, as it relates to his tenure variable, but only to wages. TR 332. Analogic convincingly established Assembler 2s and 3s who remain in their positions, once trained, do not become more productive over time because they are performing the same or similar tasks over and over. Dr. Levy seemed to recognize this weakness in tenure in the context of the Analogic assembler workforce because he acknowledged as employees continue working at a company longer productivity increases to a certain point and then tends to level off. This counters his view tenure is important and is somehow incorporated within Analogic’s decision-making process for wage increases.

An additional aspect of the tenure variable that is problematic is Dr. Levy defined tenure in his model to include all the time an employee worked at Analogic, even if there was a break in

⁵³ Analogic also criticizes Dr. Levy’s regression because he did not consider the wage “cap.” Analogic’s assertion that there is a hard wage “cap” for the Assembler positions is not supported by the evidence. From time to time Analogic has increased the wage cap based on market/business factors. Separately and more importantly, it is undisputed an Assembler whose salary is at the high end of the wage range for the position, and whose performance is highly rated, is awarded the full pay increase, even when doing so pushes the employee’s salary above the claimed wage “cap” for the position. Nothing precludes Analogic from limiting a wage increase for such an employee to the current wage “cap” for the position. The evidence submitted demonstrated that in the period 2012 to 2016, 25 Assembler 2s and 3s (11 males and 14 females) earned more than the wage cap maximum for their position. PX 20. The fact Analogic permits an employee’s wage rate to go over the “cap” rather than limiting any wage increase to the “cap” undermines Analogic’s claim of a true wage “cap” and its challenge to Dr. Levy’s analysis on this ground. Thus, I am not persuaded Dr. Levy’s analysis is undermined on this basis.

service or the employee was initially a temporary employee.⁵⁴ Based on the manner in which Dr. Levy's analysis used tenure he concluded when he combined Assembler 2s and 3s that females had significantly more/higher tenure than males. This led him to conclude that it was the longer serving females who were discriminated against as they were not receiving the same return for years in wage for each year of experience as the males. TR 59-60, 81, 240-41. The difficulty with using tenure in this manner is that pay increases were based upon the matrix and males and females with the same beginning pay who receive the same ratings would receive the same pay increase in the matrix system.⁵⁵ These issues surrounding the tenure variable coupled with the fact tenure is not used by Analogic in wage increases weakens the reliability of his statistical analysis and the conclusions that can fairly be drawn.

Both experts agree statistical analysis based on small sample sizes may be unreliable. For the combined period 2011-2016, Dr. Levy's statistical analysis included a total of 49 males. This meant Dr. Levy measured those same males' data multiple times for each year they worked at Analogic to generate what Dr. Levy stated were 221 observations in his model. Courts have recognized small sample size may detract from the value of statistical evidence. *Teamsters*, 431 U.S. at 339 n.20 (citing *Mayor of Philadelphia v. Educational Equality League*, 415 U.S. 605, 620-21 (1974)). Here this issue is reflected in Dr. Levy's alternate analysis for his yearly models, where he concedes the "sample size for year-by-year analyses for Assembler 2s and Assembler 3s become very small," creating "an imprecision in the estimates that I believe makes the results unreliable."⁵⁶ PX 8 at 38.

OFCCP offered testimony Dr. Levy's Oaxaca regression model is used and accepted in the labor econometrics field. The rationale supporting this type of regression makes some theoretical sense. It is not clear and I am not persuaded however, that the Oaxaca regression model has been accepted or is widely used in discrimination cases under either the EO or Title VII, particularly when, as in this matter, the variables used in the regression are not the variables used by the company in making the employment decisions at issue. Although OFCCP cites two district court decisions, *Denny v. Westfield State College*, 669 F. Supp. 1146, 1147 (D. Mass. 1987) and *Shafer v. Commander, Army and Airforce Exchange Service*, 667 F. Supp. 414 (N.D. Tex. 1985) to support its assertion the Oaxaca method has been accepted by courts, even though neither decision identified the statistical analysis as the Oaxaca method, the cases are not

⁵⁴ The evidence was undisputed that temporary employees at Analogic, whether employed through an employment agency or directly by Analogic as temporary, are not reviewed under the annual performance review process for permanent employees and are not eligible for pay increases. Temporary employees who are on Analogic's payroll, as opposed to those temporary employees paid from an outside employment agency, who are later hired as permanent Analogic employees, and permanent Analogic employees who leave and then return, are given "bridged services" credit. The bridged services credit applies only to some employee benefits such as vacation time, and does not apply to pay or to pay increases. Dr. Levy conceded Analogic does not use the bridged service date in determining pay. TR 180. In attempting to control for tenure, Dr. Levy did not use the measure of tenure Analogic uses.

⁵⁵ OFCCP counters that the matrix only works if the male and female employees have the same starting pay, because if they do not have the same starting pay but receive the same rating the males' wages will increase more. OFCCP Br. at 19. The difficulty with this is that this case is not about starting pay and the parties agreed starting pay is not relevant. There was no assertion that starting pay rates were discriminatory.

⁵⁶ In fact, this alternate analysis Dr. Levy performed demonstrated that for Assembler 2s in the pooled period 2011-2016, the wage difference was not statistically significant. See PX 8 at 37-38.

persuasive. OFCCP Br. at 51-52. These cases acknowledge regressions which look first at the formula for male wages, then apply that formula to predict what wages similar females would receive if paid as males and whether any difference in actual female wages is statistically significant. However neither of the decisions clearly indicated whether the factors considered in creating the “male only” regressions were the major factors the employers in those cases actually used.

In contrast, as noted, multiple regression statistical analyses like that used by Dr. Baumler have been accepted by Courts as valid. *See, e.g., Bickerstaff*, 196 F.3d at 448 (“With respect to the matter of salary variance, multiple regression analysis is a commonly accepted method of statistical analysis for examining the effect of independent variables on a dependent variable.”)(citing *Bazemore*, 478 U.S. at 400 (Brennan, J. concurring)). Dr. Baumler’s statistical analysis, and the shortcomings she identified with Dr. Levy’s methodology and conclusions, as well as the current state of the case law, are sufficient to overcome Dr. Levy’s statistical analysis showing a statistically significant wage disparity between female and male assembler wages. Analogic has rebutted the inference of discrimination resulting from Dr. Levy’s statistical analysis.

I must still consider all of the evidence to determine whether OFCCP has proven a disparate impact violation in female Assembler 2 and 3 hourly wages by a preponderance of evidence. I have found OFCCP failed to identify an employment practice or policy causing an asserted wage disparity between female assembler 2s and 3s and male assemblers. After consideration of Dr. Levy’s regression analysis indicating a 2.84 standard deviation over a several year period and Dr. Baumler’s credible critique of his methodology as well as her contrary statistical analysis finding no statistically significant disparity in female Assembler 2 and 3 wages, I find OFCCP has not proven a statistically significant wage disparity between female and male assembler wages. After analyzing these deficiencies, I find OFCCP has not proven by a preponderance of evidence Analogic’s compensation system caused a statistically significant wage disparity between female and male Assembler 2 and 3 wages. Thus, OFCCP has failed to prove a disparate impact violation.

C. Disparate Treatment

Disparate treatment claims require the plaintiff to establish the employer intentionally discriminated against a protected group. In alleging a pattern and practice of wage discrimination OFCCP must “prove more than the mere occurrence of isolated or ‘accidental’ or sporadic discriminatory acts.” *Teamsters*, 431 U.S. at 336. The plaintiff must present evidence that is sufficient to raise an inference of intentional discrimination. *Burdine*, 450 U.S. at 253.

Courts have held evidence of gross statistical disparity alone may be sufficient to establish a pattern and practice case of intentional discrimination. *See Hazelwood*, 433 U.S. at 307-308 (standard deviation observed was between 5-6 standard deviations); *Segar*, 738 F.2d 1249 (standard deviations ranged from 4.5 to 5.37); *see also Teamsters*, 431 U.S. at 337-339 (in a pattern and practice case gross statistical disparity may be used to establish a prima facie case

of discrimination).⁵⁷ Dr. Levy's Oaxaca pooled regression upon which OFCCP relies, reflected a disparity of \$0.88 in average hourly female assembler wages which is at 2.84 standard deviations. Dr. Levy's pooled regression indicates a statistically significant disparity. Although I have found Dr. Levy's wage disparity at 2.84 standard deviations is statistically significant, it does not reflect a "gross" statistical disparity such that the statistics alone are enough to satisfy OFCCP's burden. Courts have recognized statistical evidence alone may not be sufficient and is bolstered when substantiated by other evidence bringing "the cold numbers convincingly to life." *Teamsters*, 431 U.S. at 339; *Gay v. Waiters' and Dairy Lunchmen's Union, Local No. 30*, 694 F.2d 531, 552 (9th Cir. 1982).

In order to successfully make a case of disparate treatment OFCCP must also produce anecdotal evidence of intentional discrimination against female assemblers. Having considered OFCCP's anecdotal evidence of direct intentional discrimination against female assemblers, I find it lacking. OFCCP's assertion of mistreatment by male managers toward female assemblers is weak and unpersuasive. Evidence from Ms. Cunningham as to a couple of "chauvinistic male managers" was vague and general. OFCCP offered no evidence as to any specific incidents of "chauvinism" or how such "chauvinism" was displayed, or the timing/dates and circumstances of any "chauvinism," or any effect such "chauvinism" had on her wages. Although Ms. LeBlanc stated her male manager did not respect or like her, she provides no specifics as to a possible reason for his dislike, the circumstances surrounding such a comment or actions, or how it was manifested to her, and there was no evidence this dislike or lack of respect was because she was female. Nor is there any evidence either Ms. Cunningham or Ms. LeBlanc ever complained to a manager or HR about any "mistreatment" by male managers. As for the assertion Ms. LeBlanc believed she was rated unfairly by her manager and did not know how to contest her rating, this is belied by her testimony her manager never discouraged her from asking questions during the review meeting and she understood she could seek assistance from a higher manager or the Human Resources Department.

OFCCP also points to numerous aspects of the compensation practices at Analogic it claims are subjective, and/or lack transparency as anecdotal evidence of intentional discrimination against female assemblers. OFCCP Br. at 67-68. First, OFCCP relies on the lack of a written compensation policy. Although, OFCCP's Ms. Aubin-Smith maintained companies of Analogic's size commonly have a written compensation policy and that having one was a "best practice," she conceded there is no regulation or OFCCP policy requiring Analogic to have a written compensation policy. The lack of a written compensation policy is not a subjective practice, and OFCCP has not provided any evidence the lack of a written policy resulted in intentional discrimination against females in their wages. Thus, the failure to have a written compensation policy, on its own, does not support OFCCP's effort to provide anecdotal evidence establishing the total compensation system intentionally discriminated against female assemblers.

OFCCP next points to the performance review process as subjective, not transparent and opening the door to bias. Under the performance review system employees are rated on six elements: Quality of Work; Quantity of Work; Knowledge and Skill; Teamwork; Attendance;

⁵⁷ Additionally, in *Hazelwood, Teamsters*, and *Segar*, the plaintiffs offered both statistical and anecdotal evidence of discrimination.

and Overall Performance. The Performance Review Form includes general definitions for each performance element rated and is provided to employees. An employee could receive one of five possible ratings for each performance element: “Unacceptable;” “Below Expectations;” “Meets Expectations;” “Exceeds Expectations;” and “Truly Outstanding.” JX 3. Although the Performance Review Form given to employees identifies the five possible rating levels for each performance element, supervisors are provided and use another document, the Rating Guide, in determining the rating given for each performance element. The Rating Guide provides supervisors definitions of the five rating levels, but is not given to employees. Providing employees some measure in terms of what level of performance would receive a “Meets Expectations” or an “Exceeds Expectations” rating would give employees helpful information as to the level of performance required to obtain a higher rating, which would result in higher wage increases.⁵⁸ However, the evidence demonstrates supervisors of assemblers at Analogic discussed current ratings and expectations for the year ahead in the annual review meetings held with each assembler individually and assemblers were able to ask questions during those meetings, even if they chose not to do so, countering OFCCP’s attempt to establish employees were unaware of how to improve performance.

To the extent OFCCP asserts the formal performance review process is based upon rampant discretion by managers because there was a lack of oversight of the performance meetings and different managers opinions about what qualifies as acceptable performance for the various performance elements could differ, Courts have recognized the exercise of discretion by supervisors alone does not raise an inference of discriminatory conduct. *Watson*, 487 U.S. at 990; *Dukes*, 564 U.S. at 355. The formal review process at Analogic includes some subjective components.⁵⁹ However, supervisory discretion is not unfettered and is tempered by specific performance elements and definitions of rating levels supervisors use in rating employees. Moreover, even OFCCP’s Ms. Aubin-Smith acknowledged it is not uncommon for there to be elements of discretion or subjectivity in performance review processes. Discretion by supervisors in and of itself does not assist in establishing anecdotal evidence of intentional discrimination. Moreover, here the evidence demonstrated the performance ratings female assemblers received were negligibly lower than ratings males received. PX 8 at 14.⁶⁰ Despite examining the performance reviews for individual assemblers, OFCCP did not offer any evidence the performance review forms or the ratings assigned to individual females were based upon gender or reflected any gender bias. This fact undermines OFCCP’s assertion that subjectivity in the review process “opened the door” to bias against females.

⁵⁸ I find Mr. Soucie and Mr. Williams’ statements that the Rating Guide may be available to employees on the Company intranet self-serving and unpersuasive. If employees are not aware the document exists, they would have no reason to look for it on the intranet. Nevertheless, the fact the Rating Guide was not provided to employees does not support a finding of intentional discrimination, absent evidence of gender bias in the actual performance ratings.

⁵⁹ For example, for the “Attendance” element, there is no range of absences that may be acceptable. However, there are several aspects of the Attendance element which may impact how a supervisor may evaluate and rate this element, including punctuality, number of absences or tardiness, and whether the absences were excused (i.e. for medical reasons, etc.). The fact the Attendance element does not include a numerical range of absences is only one aspect of this element.

⁶⁰ Courts have determined “[t]he fact that hiring criteria or practices are subjective, and are thus susceptible to discriminatory application, is only marginally relevant to the question of discriminatory intent in the absence of proof that the criteria were, in fact, applied in a discriminatory manner.” *Gay*, 694 F.2d at 554.

Training of supervisors on how to conduct performance reviews was informal. It included on the job training and an annual e-mail from the HR department with the performance review form and the rating guide to kick off the process each year. Analogic's assertion of a manager/supervisory training a few years ago at a local community college is not credited. Testimony as to the community college manager training was vague, and lacked specifics on the precise training provided and whether the training included a specific module on how to conduct performance reviews. However, OFCCP failed to present evidence any lack of formal manager training on conducting performance reviews resulted in gender bias in the performance ratings assigned female assemblers.⁶¹

After considering the evidence discussed above, I find OFCCP has failed to present anecdotal evidence of intentional discrimination. As stated above, Dr. Levy's finding of a statistical disparity of 2.84 standard deviations is not a "gross disparity" sufficient for OFCCP to establish a case of intentional discrimination absent anecdotal evidence.

Even assuming Dr. Levy's statistical evidence alone was deemed sufficient to shift the burden of production to Analogic, Analogic presented rebuttal evidence. Analogic offers the statistical analysis of its expert showing there was not a statistically significant shortfall in female assemblers' wages during the 2011-2012 audit period, and attacks the statistical evidence of OFCCP's expert. As discussed in the disparate impact violation analysis above, Analogic has successfully challenged Dr. Levy's Oaxaca statistical model and his conclusions and offered its own contrary statistical analysis. For the reasons previously discussed, OFCCP's statistical analysis also fails in establishing a disparate treatment violation.

In addition to attacking OFCCP's statistical evidence, Analogic presented other evidence demonstrating it did not intentionally discriminate against female Assembler 2s and 3s. Analogic witness' testimony that gender did not play a role in performance ratings was not contradicted. As noted above, there was no evidence of gender bias in any of the individual employee performance ratings and the difference in ratings given to females as compared to males was minimal. No OFCCP employee witness asserted they had been discriminated against because they were female. The most that can be said is that Ms. Cunningham asserted there had been a couple of chauvinistic male supervisors. However, she did not claim this negatively influenced her wages or wage increases. Analogic also offered evidence of similarly situated male and female assemblers hired close in time and receiving the same performance rating being treated the same as to wages. DX 33.⁶² Finally, Analogic uses the matrix system, which considers two factors, an employee's pay quartile and their performance rating, in determining pay increases. There is no evidence either factor is influenced or infected by discrimination.

⁶¹ To the extent OFCCP asserts a lack of transparency from the absence of a written compensation plan or formal training, or in the performance review process, is anecdotal evidence of intentional discrimination, Ms. Aubin-Smith conceded any lack of transparency affected males and female assemblers the same. OFCCP did not offer evidence showing that any lack of transparency caused the wage disparity.

⁶² Richard J. Ogiba, a male hired 10/5/09, and Nercy Encarnacion, a female hired 12/23/10, were both hired at a starting pay of \$15.00 per hour, both received a performance rating of 3 in the years 2011-2016, and both received the exact same wage increase each year thereafter. DX 33. OFCCP's expert, Dr. Levy, confirmed the accuracy of this example. TR 264.

This evidence further supports the finding Analogic rebutted OFCCP's claim it intentionally discriminated against females in the Assembler 2 and Assembler 3 positions.

I must still consider all of the evidence to determine whether OFCCP has proven intentional discrimination in female hourly wages by a preponderance of evidence. After consideration of Dr. Levy's regression analysis indicating a 2.84 standard deviation over a several year period and Dr. Baumler's credible critique of his methodology as well as her contrary statistical analysis finding no statistically significant disparity in female Assembler 2 and 3 wages, I find OFCCP has not proven a statistically significant wage disparity between female and male assembler wages. Nor did OFCCP present anecdotal evidence of intentional discrimination. Balancing these shortcomings against Analogic's statistical analysis and its evidence the company did not intentionally compensate female Assembler 2s and 3s less than males, leads me to conclude OFCCP failed to prove by a preponderance of the evidence its pattern and practice case of intentional discrimination.

VII. CONCLUSION AND RECOMMENDED DECISION

For the reasons outlined above, OFCCP has failed to prove a pattern and practice case of disparate impact or intentional pay discrimination against female Assembler 2s and 3s during the relevant period. OFCCP failed to prove a pattern and practice case under a disparate impact analysis as it failed to identify the employment practice causing the alleged pay disparity and Analogic successfully challenged the methodology and findings of OFCCP's statistical evidence. OFCCP also failed to prove a pattern and practice case under a disparate treatment analysis, as OFCCP's statistical analysis without any persuasive anecdotal evidence, was insufficient to establish intentional discrimination, and again, Analogic successfully challenged Dr. Levy's statistical analysis and provided contrary statistics from its expert showing no significant statistical disparity. Accordingly, it is recommended the administrative complaint alleging Analogic engaged in compensation discrimination against females in the Assembler 2 and 3 positions be DISMISSED.

SO ORDERED.

COLLEEN A. GERAGHTY
Administrative Law Judge

Boston, Massachusetts

NOTICE OF APPEAL RIGHTS: To appeal, you must file exceptions (“Exception”) with the Administrative Review Board (“Board”) within fourteen (14) days of the date of receipt of the administrative law judge’s recommended decision.

The Board’s address is: Administrative Review Board, U.S. Department of Labor, Suite S-5220, 200 Constitution Avenue, NW, Washington DC 20210, for traditional paper filing. Alternatively, the Board offers an Electronic File and Service Request (EFSR) system. The EFSR for electronic filing (e-File) permits the submission of forms and documents to the Board through the Internet instead of using postal mail and fax. The EFSR portal allows parties to file new appeals electronically, receive electronic service of Board issuances, file briefs and motions electronically, and check the status of existing appeals via a web-based interface accessible 24 hours every day. No paper copies need be filed.

An e-Filer must register as a user, by filing an online registration form. To register, the e-Filer must have a valid e-mail address. The Board must validate the e-Filer before he or she may file any e-Filed document. After the Board has accepted an e-Filing, it is handled just as it would be had it been filed in a more traditional manner. e-Filers will also have access to electronic service (eService), which is simply a way to receive documents, issued by the Board, through the Internet instead of mailing paper notices/documents.

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If filing paper copies, you must file an original and four copies of the Exception with the Board, together with one copy of this decision. If you e-File your Exception, only one copy need be uploaded.

Any request for an extension of time to file the Exception must be filed with the Board, and copies served simultaneously on all other parties, no later than three (3) days before the Exception is due. *See* 41 C.F.R. § 60-30.28.

On the same date you file the Exception with the Board, a copy of the Exception must be served on each party to the proceeding. Within fourteen (14) days of the date of receipt of the Exception by a party, the party may submit a response to the Exception with the Board. Any request for an extension of time to file a response to the Exception must be filed with the Board, and copies served simultaneously on all other parties, no later than three (3) days before the response is due. *See* 41 C.F.R. § 60-30.28.

Even if no Exception is timely filed, the administrative law judge’s recommended decision, along with the record, is automatically forwarded to the Board for a final administrative order. *See* 41 C.F.R. § 60-30.27.