

EEOC Data Rules Pose 2 Equal Pay Study Challenges

By **Audrius Girnius**

On March 4, 2019, the U.S. District Court for the District of Columbia reinstated regulations requiring employers to provide new and more expansive data on salaries and hours worked for its workforce. These amended reporting requirements will provide the U.S. Equal Employment Opportunity Commission with additional data to evaluate employers' pay practices and may cause employers to evaluate their data using the tests suggested by the EEOC. However the type of data to be collected and the statistical tests[1] the EEOC proposes to conduct on company level data may result in several issues for employers.



Audrius Girnius

First, the methodologies typically used by employers to evaluate pay equity are not applicable to the data collected by the EEOC and the proposed statistical tests (which I will call the EEO-1 methodology). This has several important consequences:

- The results derived using the EEO-1 methodology may produce results that appear to contradict results derived from typical pay equity tests that perform multiple regression analyses using various relevant factors (such as experience, education, performance rating, etc.) on groupings of similarly situated employees.[2]
- The EEO-1 data collection does not allow an employer to provide the EEOC with alternative groupings of employees and/or additional explanatory factors that would allow the EEOC to follow up with more accurate, fine-tuned testing.
- Previously conducted proactive pay equity analyses may not prevent indications of disparity based on the statistical tests discussed by the EEOC using the newly required EEO-1 wage data.

Second, tests on the wage data collected by the EEOC could be more likely to show pay differences than analyses using more standard methodologies, in some circumstances. The reason is that EEO-1 groupings are much broader than those often used for similarly situated employees within similar job tasks, responsibilities and experience, among other factors. These more coarse groupings may lead to more statistically significant indications of disparity than would narrower labor groups. In addition, statistical evaluation of these broad labor groups without other important explanatory variables will by their very nature run the risk of identifying disparities when reasonable explanatory factors may explain the differences.

New EEO-1 Data Collection Requirements

By Sept. 30, 2019, U.S. companies with more than 100 employees will have to append their EEO-1 filings with additional compensation data. Unlike the earlier EEO-1 reporting requirements which required an employer to provide the counts by gender and ethnicity by EEO-1 job grouping for each establishment, the new regulations will require employers to collect aggregate earnings from W-2 forms and report the number of employees in each of 12 pay bands for each of the EEO-1 job categories, by gender and ethnicity. So now all

employees must be further disaggregated into 12 pay groups based on their W-2 earnings. Counts must still be provided by gender and ethnicity, by EEO-1 category and by establishment. Additionally, employers will also have to report the total hours worked during the year. Substantially more data will be required to be provided to the EEOC.

While the EEOC has left open the possibility to use a broad range of statistical tests, in the Federal Register[3], the EEOC describes three tests:

using the Mann-Whitney test for grouped data and comparison of two groups (for example, gender (men versus women) or race (African Americans versus Whites)), and the Kruskal-Wallis test for comparison of more than two groups (e.g., race). These tests are the most appropriate for an initial review of establishments as a whole.

While these are well-known and well-tested statistical tests, they are different from those used by most pay equity studies in great part because the aggregated nature of the EEO-1 data and the fact that no explanatory variables are collected will now result in the need for different statistical tests. If employers decide to proactively perform analyses that the EEOC may conduct on the EEO-1 data, they will have to perform entirely new analyses.

First Issue: Not Comparable to Standard Methodologies

There are several steps in performing a standard pay equity analysis. Labor economists attempt to create groupings consistent with laws such as the Equal Pay Act which require equal pay "on jobs the performance of which requires equal skill, effort, and responsibility, and which are performed under similar working conditions." [4]

Additionally, labor economists use a multiple regression analysis to account for legitimate business factors such as seniority, performance, differences in location among others in explaining pay differences between individual employees. This type of analysis identifies whether members of a protected class are treated differently by a statistically significant amount and helps identify which employees are compensated less than the model would predict.

However, this standard statistical analysis cannot be performed using the new EEO-1 data. The new EEO-1 data identifies employees by their EEO-1 groupings (as no other classification or grouping of employees is required to be reported) rather than by other groupings of similarly situated employees. An employer will not have an opportunity to report employee counts according to groupings the employer has determined to be relevant in order to evaluate pay equity. Additionally, the new regulations do not require the collection of other legitimate factors that may explain difference in pay such as experience, education, performance, etc.

The only potential explanatory variable collected will be hours worked, which, as constructed for the purposes of the EEO-1 reporting requirement, may not be particularly accurate or even relevant for salaried employees. As a result, "ordinary" multiple regression analyses, a standard statistical tool used in pay equity studies, cannot be run on the newly collected data. The closest equivalent will be an "interval regression" excluding explanatory variables such as tenure, experience, education and other factors that may influence the productivity of the worker.

As a result, a company that diligently conducts proactive pay equity may find indications of pay disparity using the new EEO-1 methodology even though the company found no

indication of pay disparity using their standard pay equity methodology. It is also possible, although perhaps less likely, the opposite may occur, the analyses performed on the EEO-1 data may find no indication of pay disparity when standard regression tests of pay equity do.

However the main point still holds; being problem-free using a standard methodology will not necessarily ensure that the company will be problem-free using the new EEO-1 methodology. Additionally, employers who conduct proactive pay studies will have to consider whether to adjust compensation to ensure compliance with the new EEOC regulations or to adjust compensation to ensure compliance with standard pay equity analyses which are created to respond to laws such as the EPA and follow regulations such as the Office of Federal Contract Compliance Programs Directive 307, or attempt to satisfy both.

An example of the incongruity between the two methodologies can be illustrated with an example of how an employer may adjust salaries to respond to an analysis identifying a statistically significant difference in pay between males and females. In the standard methodology, the multiple regression models are often used to identify which employees are most underpaid relative to what the model predicts that employees should be paid. An employer may then choose to adjust pay for the females who were most underpaid or increase pay for all women across the board.

The statistical tests described by the EEOC (such as the Mann-Whitney test) places employees in 12 pay band buckets and rank orders them. The Mann-Whitney test sums the rank for males and females and compares them. If males and females have approximately the same pay, the average ranking between males and females should be similar. So under the new EEO-1 regulations, if the Mann-Whitney test identifies females as having lower wages, fixing that issue will require women to be moved from lower pay bands into higher pay bands until the average ranking is sufficiently similar. This could incent employers to move women closest to the upper bound of a pay band to the lower bound of the next higher pay band, assuming no employee can have their salaries decreased. This can be best understood using an example.

The EEO-1 pay band 7 includes employees whose pay is between \$62,920 and \$80,079, while pay band 8 contains employees whose pay is between \$80,080 and \$101,919. For example, assume there are two employees in pay band 7. Employee X earns \$65,000 and Employee Y earns \$80,000. The Employee X would need a pay increase of more than \$15,000 to be moved to pay band 8, while the Employee Y would only need an \$80 pay increase to move to pay level 8. If the company has to move one employee to fix any overall gender issues, the employer looking to comply the incentive of the new EEO-1 wage data and likely tests will have an incentive to pay the higher-paid employee more, moving her from \$80,000 to \$80,079, leaving the lower-paid employ at her original \$65,000.

In contrast under standard pay equity analysis, a labor economist will compare an employee's pay to predicted pay and may suggest increasing the salaries of particular women or women in general, but almost certainly not women just below some cutoff between pay bands. Under the new EEO-1 methodology, a cost-minimizing employer would increase the salaries of the highest paid females in a particular pay band. The employees chosen for pay increase would not necessarily be the same using the two methodologies.

In summary, the new EEO-1 methodology is not equivalent to standard pay equity analyses. Employers should not expect that if a standard pay equity analysis shows that an employer is compliant with nondiscrimination laws that the same will be the case when an analysis is

conducted with the new EEO-1 wage data and alternative statistical methods.

Second Issue: The New EEO-1 Methodology Is More Likely to Find Statistically Significant Issues

A second issue that employers should consider is that tests using the new EEO-1 methodology are, in some circumstances, more likely to show a pay difference than analyses using more standard pay equity methodologies. The reason is that EEO-1 job groupings are broader than those used in standard pay equity studies. If the EEO-1 job groupings are composed of multiple distinct jobs that have diverse job requirements, these more coarse EEO-1 job groupings may lead to more statistically significant findings of disparity than would narrower groups of similarly situated employees.

This result is exasperated by the fact that employee and/or job characteristics that explain differences in compensation will not be collected so an analysis using the EEO-1 methodology runs the risk of identifying disparities when reasonable explanatory factors may explain the differences. For instance, the "professional" EEO-1 grouping includes employees with professional degrees or certifications regardless of experience or other factors, so professionals who recently graduated from college will be compared with highly experienced professionals as long as they are in the same EEO-1 grouping.

Standard pay equity analyses often create groupings of similarly situated employees based on similar job tasks, responsibilities and experience among other factors, or potentially control for these and other factors driving pay difference through econometric models. So analysis by EEO-1 groupings will examine more aggregated groups of employees with a much wider range of salaries, and encompass fewer potential explanatory factors.

The statistical tests that the EEOC has suggested it will utilize will rank order employees by EEO-1 pay group and compare the average ranking between employees in the protected class to those not in a protected class. So if an employer has relatively more males or white employees in higher-paid positions, these tests may find a statistically significant difference in outcomes.

In many industries, males occupy more senior positions than females, and more highly paid positions than women.[5] Similarly, whites are often in higher-level positions than nonwhites. So an employer that has more male and/or white employees in higher-paid positions may find that aggregated analyses which create larger groupings with greater differences in experience and pay (such as the ones proposed by the EEOC) are more likely to find indications of disparity. This difference could be an indication of discriminatory behavior or it could result from underlying differences in productive factors among employees. However, because explanatory factors will not be included in the data collected by the EEOC, a researcher will not be able to evaluate whether legitimate business factors explain differences in pay based on the EEO-1 data filing alone.

In summary, it may be useful for companies to perform the statistical tests that the EEOC has discussed in relation to the EEO-1 wage data to determine whether there are any notable results, and which may attract the attention of the EEOC, OFCCP or potentially private litigants if the data is ever successfully acquired due to the Freedom of Information Act. When doing so employers should keep two issues in mind. First, the updated EEO-1 data along with the tests performed are different than standard methodologies used in pay equity analyses. Second, the statistical analyses discussed by the EEOC may show a greater pay difference than pay equity analyses that are based on more refined job groups and utilize variables that typically explain pay difference.

Audrius Girnius, Ph.D., is a senior economist at Advanced Analytical Consulting Group Inc.

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[1] Federal Register /Vol. 81, No. 20 /Monday, February 1, 2016 /Notices

[2] OFCCP and EEOC directives which specify the procedures OFCCP field investigators use for reviewing contractor compensation systems and practices support the creation of pay analysis groups and the use of regression analysis to evaluate pay equity. Example: OFCCP Directive 307 issued on February 28, 2013.

[3] Federal Register /Vol. 81, No. 20 /Monday, February 1, 2016 /Notices

[4] Equal Pay Act. (<https://www.eeoc.gov/laws/statutes/epa.cfm>)

[5] Members of protected classes are often underrepresented in management and higher paid positions for numerous reasons including education choices, career choices. Examples: NY Times article by Claire Cain Miller "The Number of Female Chief Executives Is Falling" from May 23, 2018.

(<https://www.nytimes.com/2018/05/23/upshot/why-the-number-of-female-chief-executives-is-falling.html>)

The Center of American Progress lists gaps in women in positions of leadership in numerous business fields:

(<https://www.americanprogress.org/issues/women/reports/2017/05/21/432758/womens-leadership-gap/>)