

# A Structured Compensation Plan Results in Equitable Physician Compensation: A Single-Center Analysis



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## Abstract

**Objective:** To assess adherence to and individual or systematic deviations from predicted physician compensation by gender or race/ethnicity at a large academic medical center that uses a salary-only structured compensation model incorporating national benchmarks and clear standardized pay steps and increments.

**Participants and Methods:** All permanent staff physicians employed at Mayo Clinic medical practices in Minnesota, Arizona, and Florida who served in clinical roles as of January 2017. Each physician's pay, demographics, specialty, full-time equivalent status, benchmark pay for the specialty, leadership role(s), and other factors that may influence compensation within the plan were collected and analyzed. For each individual, the natural log of pay was used to determine predicted pay and 95% CI based on the structured compensation plan, compared with their actual salary.

**Results:** Among 2845 physicians (861 women, 722 nonwhites), pay equity was affirmed in 96% (n=2730). Of the 80 physicians (2.8%) with higher and 35 (1.2%) with lower than predicted pay, there was no interaction with gender or race/ethnicity. More men (31.4%; 623 of 1984) than women (15.9%; 137 of 861) held or had held a compensable leadership position. More men (34.7%; 688 of 1984) than women (20.5%; 177 of 861) were represented in the most highly compensated specialties.

**Conclusion:** A structured compensation model was successfully applied to all physicians at a multisite large academic medical system and resulted in pay equity. However, achieving overall gender pay equality will only be fully realized when women achieve parity in the ranks of the most highly compensated specialties and in leadership roles.

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“Equal pay for equal work” became a rallying cry in the 1960s, but although women have achieved parity in medical school matriculation and increased representation in virtually every specialty in the field of medicine, parity in compensation remains elusive.<sup>1</sup> Numerous reports in academic journals and the media show that women physicians are paid less than men regardless of the setting, specialty, and stage of career, and for similar work.<sup>2-12</sup> Gender pay gaps have been shown to persist even when controlling for factors that may contribute to physician compensation, including experience, academic rank, publications, average impact score of the journals in which an individual has published, work

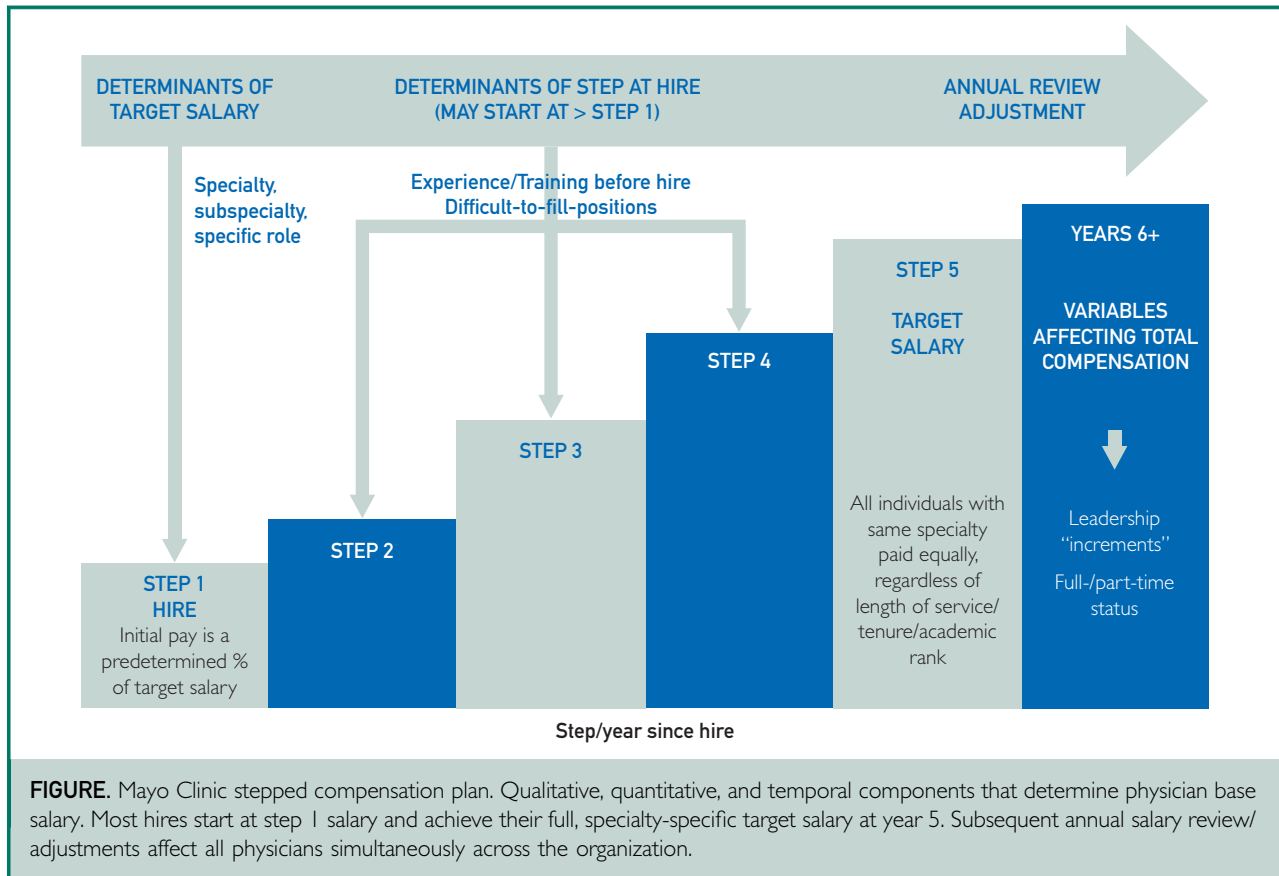
hours per week, clinical productivity, and time spent specifically in teaching, patient care, research, administrative activities, and other activities.<sup>2,3</sup> Comparative compensation data for gender remain insufficient, and for race/ethnicity, virtually nonexistent.<sup>13,14</sup>

These inequities result in significantly lower lifetime earnings,<sup>12</sup> negative attitudes about work and employers, and adverse effects on society and the profession. National associations and organizations, including the American College of Physicians,<sup>15</sup> National Academies of Sciences, Engineering and Medicine,<sup>16</sup> Association of Women Surgeons,<sup>17</sup> American Medical Association,<sup>18</sup> American College of Cardiology (ACC),<sup>19</sup>



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**FIGURE.** Mayo Clinic stepped compensation plan. Qualitative, quantitative, and temporal components that determine physician base salary. Most hires start at step 1 salary and achieve their full, specialty-specific target salary at year 5. Subsequent annual salary review/adjustments affect all physicians simultaneously across the organization.

and Time's Up Healthcare<sup>20</sup> have issued calls to action to address gender pay equity.<sup>21,22</sup>

Morris et al<sup>23</sup> recently demonstrated a substantial improvement in gender pay equity after implementation of a structured compensation plan at a large academic department of surgery. These findings suggest that creation of transparency and implementing and following compensation guidelines may be mechanisms to address this issue.

At Mayo Clinic, physician salary has been determined by using a structured compensation plan for more than 40 years. The compensation model aims to reinforce the organization's primary value that "the needs of the patient come first" by removing financial incentives to do more than is necessary or less than desired for the patient. The step-based salary-only model for physicians practicing at Mayo Clinic destination group practice sites in Minnesota, Arizona, and Florida is designed to ensure that salaries

are market competitive, advance efforts to recruit and retain outstanding staff, and support the mission, vision, and values of the organization. There is no incentive, negotiated, or bonus pay, and nonsalary compensation and benefits are consistent across sites and specialties. By adhering to a salary-only model, in which clinical and academic productivity are not specifically remunerated, financial disincentives to the pursuit of scholarly activities are removed, allowing staff to focus their intellectual energy on bringing to bear the benefits of practice, research, education, and administration. This approach also promotes integration of the practice by reducing internal competition for patients and barriers to collaboration while reinforcing the team-based environment and increasing opportunities for career development. The compensation model is reviewed annually and adjusted based on the needs of the organization and national benchmarks, determined by impartial

outside agencies. The predictability of this salary model also minimizes administrative costs by setting salary according to competitive benchmarking and providing annual salary adjustments for all specialties at the same time.

To determine the validity of these assumptions and conditions, we enlisted the expertise of a consulting firm to assess the effectiveness of the compensation plan in achieving pay equity with the specific aims of determining the level of adherence to the structured compensation plan and whether the plan results in compensation equity by gender and race/ethnicity status.

## PARTICIPANTS AND METHODS

### The Compensation Plan

The model is composed of a “step structure” (Figure) designed to treat all physician base compensation the same according to specialty and subspecialty, clinical role, board certification, fellowship/training, years of experience, and hire date. Progression to a “target salary” generally occurs over a 5-year period after hire. In this model, the specialty target salary is based on a national market approach that is reviewed annually. Importantly, target salary is established for each specialty, not at the individual level, and is not negotiable.

Most newly trained physician hires start at step 1, in which compensation is set at a percentage of target salary. During the first 5 years after hire, physicians progress through predefined steps based on their anniversary of hire date. After their fifth year, upon reaching target salary, all physicians in a given specialty are paid at the same base rate going forward. Salary adjustments to base pay for that specialty are applied equally to all individuals. There are no incentive plans, and academic rank, external recognitions, and leadership positions are not compensable factors in the program. Salary is not influenced by receipt of income from other sources. Institution-wide policies govern what types of non-Mayo Clinic compensation are allowable. Nonsalary benefits are identical for all

physicians, with some (eg, vacation) prorated for less than full-time status. Subsequent salary adjustments for cost of living or benchmark changes may be delayed or withheld from staff who are assigned to formal performance or behavioral improvement plans. The initiation, assessment, and disposition are governed by department leadership and a formal committee process.

Two additional factors may affect salary temporarily or permanently. At time of hire, the initial “step” at which an individual starts may vary, with newly trained individuals typically starting at step 1 and more experienced/late-career hires and those hired into hard-to-fill roles starting at a higher initial step, shortening the time to reach full target salary.

The other factor affecting an individual physician’s compensation is the receipt of predetermined salary increments for designated leadership roles such as department or division chair or enterprise director positions. The process for awarding incremental leadership compensation has gone through major revisions twice in the last 15 years in response to governance changes, largely aimed at standardizing processes across all practice locations. Since 2014, leadership increments consist of 2 components, each 50% of the total: (1) permanent administrative salary increments that continue after the physician rotates out of the leadership role and (2) term-limited administrative pay that ends after leadership rotation. Leadership pay increments earned by individuals before 2014 (legacy pay) were not changed (grandfathered) and continue to be paid as part of the salary.

**Data Collection.** Mayo Clinic contracted with and submitted data (Infor) to a leading global third-party solutions consultant specializing in compensation analysis for analysis of the compensation of 2845 destination group practice physicians in Minnesota (n=1937), Arizona (n=497), and Florida (n=411) as of January 31, 2017. Key data elements included pay, job/specialty, demographics, and career/leadership. Job data consisted of title, specialty/subspecialty,

TABLE 1. Physician Demographics

Race/Ethnicity	Women, n (%)	Men, n (%)	Total, n (%)
American Indian or Alaskan Native	2 (0.2)	9 (0.4)	11 (0)
Asian	166 (19.3)	303 (15.3)	469 (16.5)
Black or African American	21 (2.4)	36 (1.8)	57 (2.0)
Hispanic or Latino	46 (5.3)	117 (5.9)	163 (5.7)
≥2 Races	11 (1.3)	11 (0.5)	22 (0.8)
White	615 (71.4)	1505 (75.8)	2120 (74.5)
Unknown	0 (0)	3 (0.1)	3 (0.1)
Total	861 (30.3)	1984 (69.7)	2845

full-time equivalent (FTE) status, and benchmark pay for the specialty. Demographic data included each individual's experience, age, gender, race/ethnicity, work location, and licensure/certificates/degrees. Career data included the individual's compensable leadership role(s) and other factors in which additional compensation is awarded (eg, on-call pay differentials within a subspecialty).

**Analysis of Variation in Pay.** For each individual, the FTE salary was calculated. Then regression analysis was conducted using the natural log of this pay value as the dependent variable. The model was designed to capture the impact of the factors intended to determine pay based on the organization's compensation philosophy and programmatic details and to provide a baseline for comparison to actual pay levels. For ease of exposition and discussion, the predicted pay levels and the bounds of the CIs were converted to dollar values, but all tests were performed based on the calculated natural log of the values.

The natural log of pay method was used as the dependent variable in pay regressions because it more accurately reflects the distribution of pay.<sup>24,25</sup> In a regression in which the natural log of pay is the dependent variable, the estimated coefficient for the independent variables is approximately equal to the percentage increase in pay associated with a change in that variable. Pay increments tend to be awarded in percentage terms rather than dollar increments and the impact of annual salary increases tends to

compound over time. Therefore, this specification of the regression tends to be the most commonly used approach to modeling pay and to yield a more accurate model of pay. The equation estimated from this analysis was used to calculate a point estimate and a 95% CI for the pay level for each individual. The following explanatory variables were tested for their impact on pay: pay grade/specialty, experience (using tenure/age the employee joined the organization), pay structure, predefined salary step, practice location, FTE status, and leadership/other salary increments.

No demographic factors were included in the regression. Instead, a gender/race/ethnicity-neutral model was used and then examined to determine whether on average any group of individuals (female, male, Asian, white, or other minorities) were paid significantly above or below what would be expected based on this model. For each demographic group, statistical analysis was performed comparing the actual average pay for the individuals in the group with the average predicted pay levels for those individuals to see whether on average the individuals within each demographic group were paid approximately what would be predicted by the gender and race/ethnicity-neutral model. This test assesses systematic deviations from predicted pay levels that are to the detriment of a protected class and typically yields the same conclusions as one that includes these factors in the regression while allowing the opportunity to use the individual predicted values that come from the model to evaluate the equity of pay for any individual.

**TABLE 2. Proportion of Individual Physicians Compensated Within, Below, and Above Predicted Compensation Levels by Gender and Race/Ethnicity**

Gender/Race/Ethnicity	n	Below, n (%)	Within, n (%)	Above, n (%)
Men	1984	22 (1.1)	1900 (95.8)	60 (3.0)
Women	861	13 (1.5)	829 (96.3)	20 (2.3)
Asian	469	9 (1.9)	444 (94.7)	11 (2.3)
White	2120	23 (1.8)	2039 (96.2)	60 (2.8)
All other combined <sup>a</sup>	253	3 (1.2)	243 (96.1)	9 (3.6)

<sup>a</sup>American Indian/Alaskan Native, black or African American, Hispanic, and 2 or more races.

**RESULTS**

Among 2845 physicians; 861 women (30.3%), 722 nonwhites (25.4%), and 3 of unknown race (0.1%; Table 1), all salaries were within the predicted 95% CI. The pre-determined variable factors affecting salary explained 96% of the variation in pay across the population; salaries were higher than predicted in 80 individuals (2.8%) and lower in 35 (1.2%; Table 2). Each of these outliers was subsequently evaluated and all were explained by factors specified in the plan. Gender and race/ethnicity of individuals paid significantly outside their predicted pay level were consistent with their distribution within the overall physician population and there was no statistically significant difference by gender or race/ethnicity. Part-time status was less frequent among men than women (10.5% [208 of 1984] vs 34.0% [293 of 861]).

There were 2 factors that contributed to gender differences in physician compensation. More men than women (623 of 1984 [31.4%] vs 137 of 861 [15.9%];  $P < .05$ ) held one of the compensable leadership positions and/or were receiving permanent pre-2014 pay increments for past leadership positions. Additionally, more men (688 of 1984 [34.7%]) than women (177 of 861 [20.5%]) were represented in the highest compensated specialties, defined as a target salary of greater than \$500,000 ( $P < .05$ ).

**DISCUSSION**

Our analysis demonstrated that following a structured compensation model achieved equitable physician compensation by gender and race/ethnicity while also meeting the

practice, education, and research goals at a large, multispecialty, national academic medical center. The factors identified as important for driving pay had the expected (desired) impact on individual pay levels across the organization. A strength of this report is that it compares total compensation for physicians with similar training, specialty, and role within the specialty (“apples to apples”). This allows a differentiation between gaps in salary due primarily to gender distribution in specialty choice. Had pay disparities been identified in this model, solutions could have been targeted toward the errant process, department, or individual.

Although prior reports have consistently shown differential pay by gender<sup>2-12</sup> and some have provided insights into the drivers of those pay disparities, no easy solutions have emerged, in part because the processes to address these issues are complex and are influenced by varied organizational practices and traditions and in at least some cases, by bias.<sup>1,22</sup>

Another major challenge in interpreting and taking actions to address previously published findings is the variation in methodologies used, often creating additional questions and providing fodder for critics who question the need to take action at all. Many of these studies have relied on self-reported information that may not reflect total physician compensation, whereas the current study includes total compensation for all physicians employed at the time of the study. Others have evaluated administrative databases that do not track or account for variables that commonly contribute to total physician

TABLE 3. Factors Potentiating Lower Compensation Among Women Physicians

Factors	Descriptions
Systems	Inconsistent or absent hiring/compensation processes
	Lack of transparency
	Lack of periodical compensation audit
Societal norms and biases	Conscious and unconscious gender biases <sup>33</sup>
	The “motherhood penalty” <sup>34</sup>
	Women’s trade-offs: compensation for flexibility <sup>25</sup>
Individual contributors (interactions with systemic factors)	“Man as breadwinner” assumptions
	Lower academic rank attainment among women
	Greater work interruptions and part-time work among women
	Greater burden of family and household responsibilities
	Interactions with spouse/partner employment

compensation, such as subspecialty pay and clinical productivity.

Despite these weaknesses, it is notable that none of these studies has demonstrated equal pay by gender. Whereas simply performing this type of detailed analysis does not translate into ready or easy solutions,<sup>22-24,26,27</sup> it is a critical step toward identifying modifiable factors to address physician pay disparities and the first step in an organization’s or department’s priorities.<sup>28-32</sup>

Awareness and/or suspicion of gender pay inequality can erode trust and physician satisfaction,<sup>21</sup> and it is impossible to ignore the societal and professional need to achieve an equitable solution to fully include, compensate, and leverage the skills of women physicians. There are numerous factors that may contribute to lower compensation for women physicians (Table 3),<sup>25,33,34</sup> a comprehensive review of which is beyond the scope of this report. The compensation model we describe fully addresses many of the items listed in Table 3, including systems issues, academic rank differences, and potentially biased discretionary pay or “merit” awards. However, women’s lower representation in highly compensated specialties and leadership positions, as well as among those working less than full time, suggests that it will take more than fair compensation to achieve full gender pay equity.

As in the current evaluation, differences in specialty choice and types of performed

work continue to be important in explaining the gap. Some of the highest compensated specialties nationally and at our institution, such as orthopedic and plastic surgery and cardiology, are also among the most disproportionately male dominated, while many lower compensated specialties such as pediatrics, family practice, and psychiatry have the highest female representation.<sup>9,35</sup> Even within individual specialties, men may be more highly represented in well-compensated roles.<sup>36</sup> For example, compared with noninvasive cardiology, interventional cardiology commands significantly higher compensation and is made up of almost 95% men.<sup>35</sup>

Part-time work is disproportionately chosen by female vs male physicians, and these individuals may be penalized by being perceived as less committed to their careers and their organizations. Demands for career flexibility, including the ability to work less than full time, are increasing particularly among younger and late-career physicians and may influence the gender distribution of part-time work by physicians in the future. Although this study controlled for part-time work schedules, women were more likely to work less than full time, significantly affecting overall differences in salary by gender.

Women’s lower representation in leadership roles in medicine, including at our organization, has a substantial impact on gender



wage differences. The lower representation of women in leadership has been attributed to a lack of a robust leadership “pipeline,” but as more women have entered medicine, attention has turned to the effects of discrimination, subtle barriers facing women (“glass ceilings” and “sticky floors”),<sup>37</sup> and greater work-family conflicts that may reduce productivity and/or interest in high-level positions. Further, unless compensation for leadership positions is predetermined, leadership income may be influenced by intangible factors such as reputation, negotiation skills, and confidence that may further disadvantage women compared with men who achieve leader status.

Other factors affecting physician compensation include gender differences in behavior, societal norms, and individual and systemic biases.<sup>33,38,39</sup> For instance, women have been described as less willing than men to negotiate, less competitive, and more risk-averse.<sup>40,41</sup> Even when behaviors are similar, the same trait in men vs women may be rewarded differently. Competitiveness and negotiation tactics have been shown to be penalized when exhibited by women, while rewarded for men.<sup>42</sup> Gender differences in being willing to negotiate salary could reflect social norms, including women being socialized to feel that they are being “pushy” or unfeminine if they negotiate.<sup>43</sup> A structured compensation model corrects for these behaviors and renders unnecessary other corrective factors.

Achieving pay equity requires examining and potentially changing compensation processes to drive out inconsistencies and systemic biases, creating processes and procedures to achieve the desired results, and periodically assessing adherence to and effectiveness of the plan in achieving desired results. A recent policy statement by the ACC recommends 17 best practices that if implemented, would support equitable cardiologist compensation and promote a vibrant workplace culture that enhances work satisfaction and quality of care.<sup>19</sup> The recommendations suggest that cardiologist compensation should be “determined objectively by a modeled systems approach that is

prospectively developed on the basis of consensus principles and that recognizes the value of and explicitly rewards work that cannot be billed clinically.”<sup>19</sup> Further, the ACC writing group recommends that “compensation plans should include strategies and formulas that accommodate different job descriptions and career flexibility while being resistant to arbitrary individual exceptions. Implementation of compensation plans should include providing the tools and education required to facilitate a fundamental understanding of the compensation plan.”<sup>19</sup> The compensation model used at Mayo Clinic encompasses virtually all these recommendations.

Organizations, including Mayo Clinic, that are considering changes to their current compensation models should ensure that these changes not only support their mission and strategic goals, but also eliminate or minimize pay variations based solely on gender or race/ethnicity. Although there are many benefits of the described compensation model beyond equity, a salary-only model has the potential to disincentivize discretionary effort and productivity and may make it more difficult to hire or retain individuals who place greater importance on monetary compensation or individual recognition than other factors.

That this compensation model has been used successfully for decades is undoubtedly both a result and a contributor to organizational culture at Mayo Clinic. For some organizations, addressing these issues may be perceived as fundamentally threatening to traditions and will experience strong resistance to changing long-held practices, even where there is evidence of substantial inequity. It is important for top leadership to drive these initiatives and to focus on mission, values, and equity, balancing efforts to minimize “harm” to those who may have benefitted from past compensation practices and, as rapidly as possible, to achieve compensation equity for those who have been disadvantaged. In this regard, the use of a structured compensation model can both support an organization’s mission and achieve pay equality, suggesting it merits

consideration when current models are not achieving the desirable result.

The analysis of this long-standing salary-only compensation model was reassuring. It affirmed not only that the compensation model was equitable but that it was being adhered to. It also affirmed that the model is workable and perhaps desirable given the well-regarded nature of the academic center being reported on. The importance of these findings was not lost on our physician colleagues. A female surgeon remarked, "This is the first place I've worked that I'm paid the same as the guys."

There are limitations to this study, not the least is that it pertains to a single albeit large health care organization with a relatively unique compensation model. However, this study, consistent with Morris et al,<sup>23</sup> proves that adherence to a structured pay model can drive out the effects of bias on compensation and reduce or eliminate variations in pay that are unrelated to practice variables.

## CONCLUSION

Medicine is not immune to gender and other types of compensation inequality. Recognition of these disparities without taking action to mitigate them leads to resentment, frustration, and a poor organizational climate. The path forward for all health care organizations, regardless of how physician compensation is currently determined, is to systematically define drivers of total physician compensation and assess whether those drivers and incentives are sustainable and aligned with organizational missions and strategic goals. If they are not, especially if the current state unfairly excludes or disadvantages certain groups, whether women, racial/ethnic minorities, or medical specialty, processes should be prospectively developed to achieve equity and values alignment. We demonstrate that a structured compensation model was successfully applied to all physicians at a multisite large academic medical system and resulted in pay equity. While solutions will be different for each organization,<sup>32</sup> leadership commitment to the process, identifying and consistently addressing biases,<sup>39</sup> and increasing process transparency are foundational to mitigating these disparities.

Finally, even when other forms of pay disparity have been addressed, absolute gender pay equity at a hospital and national level will only be achieved when women achieve parity in the ranks of the most highly compensated specialties and in leadership roles.

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**Abbreviations and Acronyms:** ACC = American College of Cardiology; FTE = full-time equivalent

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