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COMMENTARY

Disparate treatment and adverse impact in applied attrition modeling

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Speer, Dutta, Chen, and Trussell (2019) provide an excellent overview of key practices on applied attrition modeling. With our commentary, we wish to elaborate on a decision point Speer and colleagues left open in the development of attrition models, namely the decision to examine protected classification information. Our contribution seems particularly relevant given popular press discussions regarding discriminatory employment activities enacted via artificial intelligence. For instance, Amazon developed an algorithm with the purpose of recruiting job candidates with the highest potential. Unfortunately, the process resulted in a bias against female candidates that could not be remedied in a timely fashion, resulting in leaders terminating the project (Dastin, 2018). Our concern is that a similar outcome might result here if biases against protected classes are not examined thoroughly.

Unfortunately, while there is value in studying protected classes and their relation to turnover, we have observed that legal teams might resist people analytics teams' efforts to examine protected classes in projects such as the development of attrition models, and so we hope to speak to those practitioners who are facing such an obstacle. Therefore, with our commentary, we call attention to what has in our observation been a problem in practice: gaining permission to analyze protected class information on employees in building attrition models. Drawing upon the adverse impact and disparate treatment literature, we highlight how both including and failing to acknowledge the role of protected class information can introduce legal exposure to the organization in question. Our key contribution involves clarifying how *analytical* ignorance of protected class information might increase an organization's legal exposure. We emphasize analytical ignorance here as meaning that the attrition modelers remain agnostic to protected class information and enact discriminatory policy in an illegal fashion. We hope to augment guidance provided by Speer et al. (2019) by equipping industrial and organizational (I-O) psychologists who are engaged in modeling attrition with steps to take to ensure that their actions are both in compliance with employment law and also create business value.

The legal risks of examining (or failing to examine) protected class information in applied attrition modeling

As Speer et al. (2019) noted, attrition modeling involves using available organizational data to estimate the probability of employee turnover. Such estimates in turn feed organizational decision making and workforce planning (e.g., hiring, retention initiatives, changes in compensation, promotion, etc.). For the sake of discussion, we will assume that attrition modelers hope to build a model that would trigger an employment decision (e.g., "high risk" individuals would be targeted for a discussion regarding a change in compensation, benefits, or some aspect of the employment arrangement). In other words, attrition research informs employment decision making as a