

## HW 5

Student Name Yuewei Wang

12/29/2023

This homework is meant to give you practice in creating and defending a position with both statistical and philosophical evidence. We have now extensively talked about the COMPAS <sup>1</sup> data set, the flaws in applying it but also its potential upside if its shortcomings can be overlooked. We have also spent time in class verbally assessing positions both for and against applying this data set in real life. In no more than two pages <sup>2</sup> take the persona of a statistical consultant advising a judge as to whether they should include the results of the COMPAS algorithm in their decision making process for granting parole. First clearly articulate your position (whether the algorithm should be used or not) and then defend said position using both statistical and philosophical evidence. Your paper will be graded both on the merits of its persuasive appeal but also the applicability of the statistical and philosophical evidence cited.

### *STUDENT RESPONSE*

In advising on the COMPAS recidivism algorithm's use, I'd caution against its reliance due to both statistical evidence and philosophical principles. The investigation by ProPublica into the COMPAS algorithm reveals significant concerns, particularly racial disparities in risk assessments. The analysis indicated that Black defendants were more likely to be inaccurately judged as having a higher risk for future criminal behavior compared to their white counterparts. This disparity raises questions about the algorithm's overall accuracy, fairness, and the potential for systemic bias. Such statistical biases could lead to unjust outcomes with profound implications for individuals' lives and freedom. Moreover, the concept of loss functions in statistical models, which describe the cost associated with particular decisions, suggests that the real-world implications of errors made by algorithms like COMPAS are not uniformly distributed across different groups. The differential impact observed raises concerns about the algorithm's fairness and alignment with principles of justice as fairness, highlighting the importance of critically evaluating the risk and loss associated with algorithmic predictions. From a philosophical standpoint, the issues with COMPAS touch upon deontological and virtue ethics. Deontology, particularly as formulated by Immanuel Kant, emphasizes duties and rights. It posits that actions must be universally applicable and respect individuals

---

<sup>1</sup> <https://www.propublica.org/datastore/dataset/compas-recidivism-risk-score-data-and-analysis>

<sup>2</sup> knit to a pdf to ensure page count

as ends in themselves, not merely as means to an end. The COMPAS algorithm, potentially perpetuating racial biases, contravenes the imperative of treating all individuals with equal respect and dignity, thus failing to meet a critical deontological criterion for moral action. Additionally, virtue ethics, which focuses on developing and practicing virtues conducive to a flourishing life, such as justice, honesty, and fairness, provides a critical lens through which to assess the use of COMPAS. The algorithm's inaccuracies and biases can lead to outcomes not by these virtues, challenging the notion that its use promotes a just and equitable legal system. Furthermore, the philosophical debate around moral luck and the impact of actions versus intentions highlights the complexities of relying on algorithmic decision-making in the justice system. By its nature, the COMPAS algorithm focuses on predicting future actions without adequately considering the moral and contextual factors that influence human behavior. This approach can inadvertently entrench systemic injustices and overlook the potential for rehabilitation and growth, contradicting the essence of virtue ethics and the pursuit of a just society. The statistical evidence of biases within COMPAS, coupled with the philosophical imperatives for justice and fairness, underscores the challenges of integrating such algorithms into judicial decision-making. While the desire to enhance public safety and judicial efficiency is understandable, the potential for harm—particularly to marginalized communities—demands a cautious and principled approach. Judges, as stewards of justice, must balance the statistical insights offered by tools like COMPAS with the ethical obligations to ensure fairness, respect individual dignity, and protect the rights of all individuals. This balance necessitates a thorough understanding of the statistical underpinnings of such tools and a deep commitment to ethical principles that guide the administration of justice.

The cautionary approach toward integrating the COMPAS algorithm into parole decisions is justified by evidence of racial disparities and philosophical concerns about fairness and justice. Judges should critically assess the algorithm's potential biases and prioritize a comprehensive evaluation of each case, rooted in both statistical insight and ethical principles.