

Holistic AI questions regarding the DCWP's Proposed Rules to Implement Local Law 144 of 2021 (Automated Employment Decision Tools)

October 22, 2022

Department of Consumer and Worker Protection
DCWP Commissioner Vilda Vera Mayuga
42 Broadway
New York, NY 10004

RE: Proposed rules to implement Local Law 144, Automated Employment Decision Tools

Dear Commissioner of the New York City Department of Consumer and Worker Protection (DCWP),

Thank you for the opportunity to provide questions on this important matter.

1. About Holistic AI

Holistic AI is an AI Risk Management company, with a mission to empower enterprises to adopt and scale AI with confidence. Holistic AI has a multidisciplinary team of AI and machine learning engineers, data scientists, ethicists, business psychologists, and law and policy experts.

We have deep practical experience auditing AI systems, having assured over 100 enterprise AI projects covering more than 20,000 different algorithms. Our clients and partners include Fortune 500 corporations, SMEs, governments, and regulators. We work with several companies to conduct independent bias audits, including in preparation for Local Law 144.

2. Key questions

We have requests for points of clarification regarding the Proposed Rules and their implementation. These are:

2a. Intersectionality when conducting bias audits

Although neither the Law nor the Proposed Rules explicitly mandate calculating the 'selection rates' and 'impact ratios' for different protected categories in an intersectional manner, the Bias Audit examples, and corresponding illustrative data provided by the DCWP in the Proposed Rules, provides calculations on an intersectional basis.

In the example provided in the last update, 'selection rate' and 'impact ratio' figures are provided for males and females, broken down by their race/ethnicity (e.g., Hispanic or Latino, White, Black or African American etc.).

It would be useful for the DCWP to clarify its position with respect to whether the calculations of 'impact ratios' and 'selection rates' should be performed in an intersectional manner? Is this mandatory, or is it being encouraged as best practice?

Furthermore, the DCWP should be mindful of issues relating to small sample sizes, if an intersectional approach is taken.

2b. Additional Metrics and Approaches

Impact ratios can be problematic if sample sizes are small; other metrics, like the two standard deviation rules, could be more suitable. The DCWP could clarify its position regarding the use of additional metrics to calculate bias.

Furthermore, there are potential issues regarding a lack of consideration of the distribution of scores. For example, in the presence of outliers or if the score distribution is bimodal, the mean score will not be informative. However, looking at the score distribution may provide better insights into how the tool performs for different sub-groups.

3. Holistic AI resources

In lieu of the fact that the field of algorithm audit and assessment is relatively new, below we link some resources and references to our open source and academic research.

- [Systematizing Audit in Algorithmic Recruitment](#) – Published at Journal of Intelligence.
- [Perceived Fairness of Algorithmic Recruitment Tools](#) – Published at Frontiers in Psychology.
- [Towards Algorithm Auditing: A Survey on Managing Legal, Ethical and Technological Risks of AI, ML and Associated Algorithms](#) – Published at IEEE Computer, and influenced public policy documents (OECD, UK Government, ICO, etc.).
- [Holistic AI Open Source](#) – Contain metrics and methods to do Bias assessment & mitigation.
- [The New York City Bias Audit Law: Regulating AI and automation in HR](#) – our white-paper related to this piece of legislation.

4. Concluding statement

Holistic AI welcomes the opportunity to provide comments on this important matter. We appreciate the open, transparent and collaborative approach taken by the DCWP. We support the important objectives of Local Law 144. We stand ready to support the DCWP, the New York City Council or other public authorities involved in the implementation and enforcement of this important law.

Please contact we@holisticai.com for any further information or follow-up on this submission.

Sincerely,

Holistic AI Team