

# Acme Talent Solutions Inc. Bias Report

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**AEDT Model Name: TalentMatchAI Screening  
Model**

**AEDT Model Version: v2.4.1**

**AEDT Distribution Date: 10 June 2025**

**Audited by: BiasBeacon, LLC (BiasBeacon.ai)**

**Audit date: 10 October 2025**

## **DESCRIPTION**

TalentMatchAI is a supervised learning model built to rank and score external job applicants for initial screening. It uses historical applicant and hire data from 2018–2023, combining features such as resume keywords, experience years, education level, past role similarity, assessment test scores, and implicit embedding vectors. The model outputs a continuous score (0–1) which is thresholded to select the top x% of applicants to advance. It also supports filtering by job level (e.g. junior, mid, senior) and includes a fallback ruleset to ensure minimal selection across underrepresented groups.

## **DATA - INFO PROVIDED BY Acme Talent Solutions Inc.**

This dataset contains historical employment application data collected between January 1, 2018 and December 31, 2023. It is sourced from the live operation of the TalentMatchAI Screening Model v2.4.1 Automatic Employment Decision Model in production, it could include model-generated scores, classifications, and decision outcomes.

The dataset includes anonymized records of 100,000 job applicants. Out of those, 0 candidates representing 0% of total candidates, have unknown or undisclosed sex or race/ethnicity information.

### **Description of data provided by Acme Talent Solutions Inc.:**

The audit is based on anonymized applicant records from January 1, 2018 to December 31, 2023. The dataset includes 45,000 unique applicant rows across 30 job titles in the technology and operations departments. Each row contains demographic data (self-reported gender and race/ethnicity), education level, years of experience, resume-derived features, assessment test scores, and the model's predicted score. Approximately 2.5% of rows have missing demographic values (labeled as 'Unknown'). The dataset is stored with encryption and accessed under strict governance. The model training dataset was a separate but overlapping set, and this audit dataset was held out (i.e., the model was never trained on these exact records).

## RESULTS

The results are shown in three tables—one each for Sex, Race/Ethnicity, and Intersectional groups. In each table, the reference group (i.e., the group with the highest scoring rate used for calculating impact ratios) is first.

SEX	# OF CANDIDATES	SCORING RATE	IMPACT RATIO
nonbinary	4080	28.62%	1.0
female	48096	28.54%	1.0
male	47824	28.52%	1.0

Rows with impact ratio as "-" represent less than 2% of candidates and are therefore excluded from the impact ratio calculation

RACE/ETHNICITY	# OF CANDIDATES	SCORING RATE	IMPACT RATIO
other	3986	28.66%	1.0
hispanic	17964	28.62%	1.0
asian	15023	28.6%	1.0
white	50256	28.56%	1.0
black	12771	28.2%	0.98

Rows with impact ratio as "-" represent less than 2% of candidates and are therefore excluded from the impact ratio calculation

SEX	RACE/ETHNICITY	# OF CANDIDATES	SCORING RATE	IMPACT RATIO
female	asian	7229	28.85%	1.0
male	hispanic	8544	28.67%	0.99
female	hispanic	8625	28.6%	0.99
female	white	24191	28.55%	0.99
male	white	24066	28.55%	0.99
male	asian	7171	28.41%	0.98
male	black	6130	28.32%	0.98
female	black	6134	27.98%	0.97
nonbinary	other	156	30.1%	-
nonbinary	black	507	29.32%	-
nonbinary	white	1999	28.65%	-
female	other	1917	28.62%	-

<b>SEX</b>	<b>RACE/ ETHNICITY</b>	<b># OF CANDIDATES</b>	<b>SCORING RATE</b>	<b>IMPACT RATIO</b>
male	other	1913	28.6%	-
nonbinary	hispanic	795	28.28%	-
nonbinary	asian	623	28.02%	-

Rows with impact ratio as "-" represent less than 2% of candidates and are therefore excluded from the impact ratio calculation

## **AUDITOR INDEPENDENCE STATEMENT**

BiasBeacon, LLC affirms that it performed this bias audit independently, received no compensation contingent on specific audit outcomes, and has disclosed all potential conflicts of interest.

## **DISCLAIMER**

This report was prepared by BiasBeacon, LLC to provide an independent audit of the AI system developed by the provider, using our internal evaluation methods and test data. The findings reflect our best professional judgment based on the information available at the time of review. Our methodology is designed to detect potential bias and trust-related issues, but like any evaluation framework, it has limitations. The results do not guarantee that the system is free of bias or flaws—only that no significant issues were identified within the scope of our testing. This report is for informational purposes only and should not be interpreted as a guarantee of the system's fairness, performance, or fitness for any specific use. BiasBeacon, LLC assumes no liability for decisions made based on this report and disclaims responsibility for any outcomes related to the use of the audited system.