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July 8, 2024

# Sense Summary of Results



**Holistic AI**



**sense**



## SUMMARY OF RESULTS FOR SENSE'S CHATBOT

For New York City Local Law 2021/144 – Title: A Local Law to amend the administrative code of the city of New York, in relation to automated employment decision tools.

**July 8, 2024**

**Legislation:** [NYC LL 144](#)**Distribution Date:**

November 8, 2023

**Protected Attributes:**

Ethnicity, Gender

**AEDT:** Sense Chatbot**Audit Date:** July 8, 2024

**Sense Chatbot Description:** Sense Chatbot is a cutting-edge, intuitive platform that simplifies the creation and deployment of chatbots for users without the need for coding skills. It has been rigorously tested and shown to boost recruiter efficiency, accelerate job placement, and enhance profit margins through the automation of mundane tasks. In recruitment, Sense Chatbot serves as a valuable asset, capable of gathering candidate information and aligning them with job vacancies based on their qualifications. It also streamlines candidate screening by conducting initial interviews through pre-set questions, thus conserving recruiters' time and effort. Additionally, the chatbot effectively re-engages past candidates by sending personalized messages, ensuring a pool of potential applicants is maintained for future job openings.

**Key information used by Sense Chatbot:** The Sense AI Chatbot makes recruiting easier and more efficient by automating tedious tasks through intelligent conversations. It offers a great candidate experience by allowing applicants to submit information on any device, whether through the website chatbot, a link, QR code, or text-to-apply feature. Chatbot can instantly schedule interviews with qualified candidates and send built-in reminders to reduce no-shows. Sense Chatbot can be used to

- Source candidates over web and SMS
- Collect candidate applications to jobs
- Engage and reactivate candidates
- Screen candidates using rules configured by employers and
- Answer candidate questions instantly

**Data Provided.** Information provided by Sense:

- Data type: historical
- Data Period: January 1, 2023 to May 31, 2024
- Region: USA
- Pre-cleaning sample size: 20203
- Number of missing values: 6174
- Sample size after removing missing values: 14029

**Additional Data Details.** Sense provided historical data from applicants previously assessed by the system. The data file submitted contained 20,203 rows across 11 agencies, with columns for 'Agency Name', 'Conversation Id', 'Flow Id', 'Date Created', 'Recipient Entity ID', 'Gender', 'Ethnicity', and 'Final Label'. The 'Final Label' column was considered the binary score column for the impact ratio calculations as this corresponds to the sentiment that the chatbot generates after the conversation with the candidate. The 'Positive' and 'Neutral' sentiments were mapped to a score of 1 (success) and the 'Negative' sentiment was mapped to a score of 0 (fail). The 'Agency Name' column was used as the deployment column, representing the different agencies using Sense chatbot.

**Norming.** To produce system-level (overall) and company-level impact ratios, the following methodology was applied:

- System type: Binary Outcome.
- Range of the outcome: [0.0, 1.0]
- Encoding: categorical variables were one-hot encoded, and when they are binary, the first class within a category is dropped.
- Outliers: presence of outliers were investigated, and model-based approaches were employed in case it needed mitigation.



**Table.** Standalone impact ratios – Gender

Gender	Selection Rate	Impact Ratio	Sample Size
Female	0.9	1.0	9678
Male	0.9	1.0	4237

–Group represents less than 2% of individuals, impact ratio can be excluded from analysis.

**Table.** Standalone impact ratios – Ethnicity

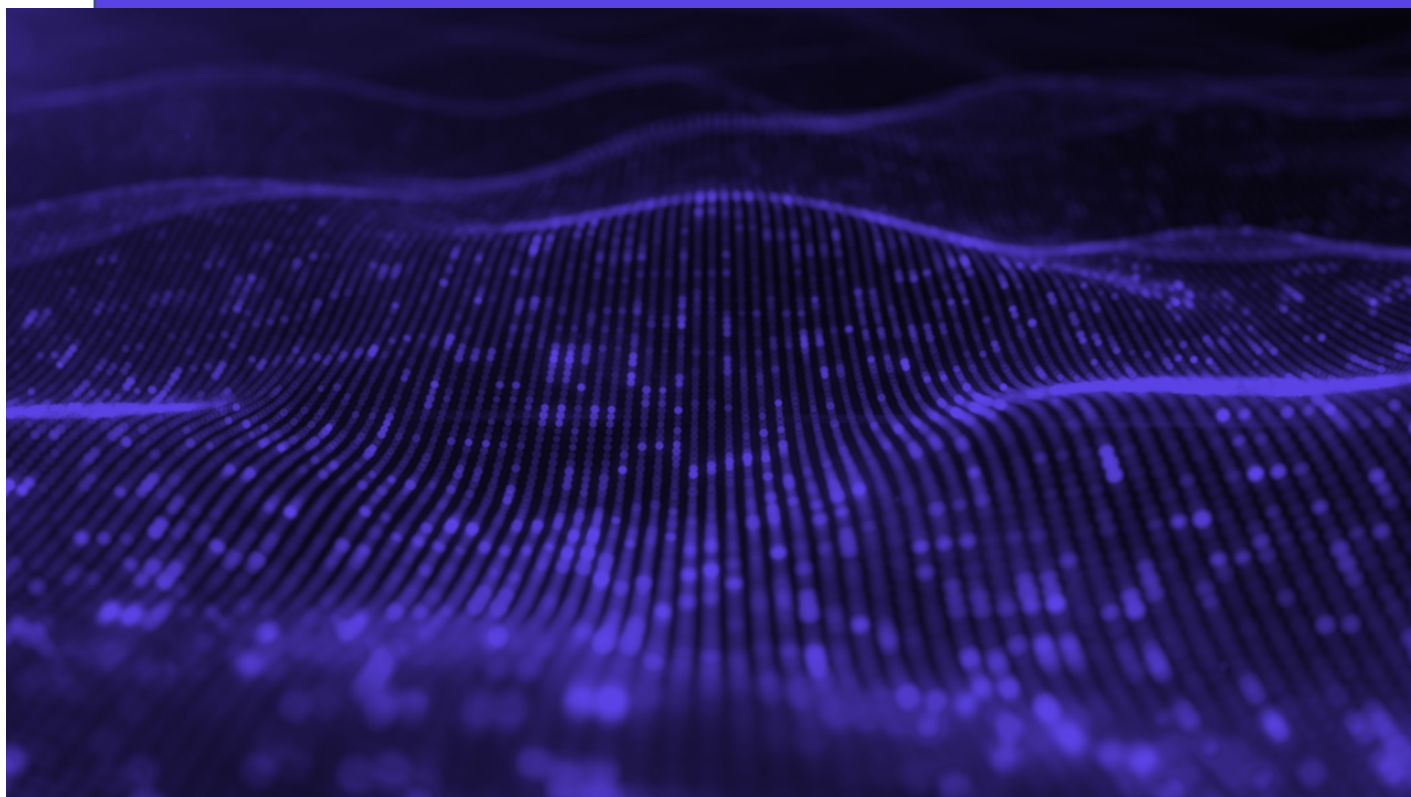
Ethnicity	Selection Rate	Impact Ratio	Sample Size
American Indian Or Alaska Native	0.93	–	28
Asian	0.9	0.94	757
Black Or African American	0.94	0.97	4734
Hispanic Or Latino	0.97	1.0	1069
Native Hawaiian Or Other Pacific Islander	0.81	–	21
Two Or More Races	0.93	0.96	383
White	0.95	0.98	1615

–Group represents less than 2% of individuals, impact ratio can be excluded from analysis.

**Table.** Intersectional impact ratios – Gender/Ethnicity

Gender	Ethnicity	Selection	Impact Ratio	Sample Size
Female	American Indian Or Alaska Native	0.9	–	20
Female	Asian	0.92	0.95	434
Female	Black Or African American	0.94	0.97	3296
Female	Hispanic Or Latino	0.97	1.0	804
Female	Native Hawaiian Or Other Pacific Islander	0.69	–	13
Female	Two Or More Races	0.92	0.95	257
Female	White	0.95	0.98	1119
Male	American Indian Or Alaska Native	1.0	–	8
Male	Asian	0.88	0.91	310
Male	Black Or African American	0.94	0.97	1387
Male	Hispanic Or Latino	0.96	0.99	242
Male	Native Hawaiian Or Other Pacific Islander	1.0	–	8
Male	Two Or More Races	0.95	–	122
Male	White	0.95	0.98	473

–Group represents less than 2% of individuals, impact ratio can be excluded from analysis.



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