New York City Local Law 144 "Bias Audit" for HireVue for Adaptability for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

Analysis Information

- Summary produced on: July 5, 2023

- Data analyzed were based on nationwide applicants who were assessed between January 1, 2021 and December 31, 2022

- The assessment assigns applicants to one of three tiers (i.e., Bottom Tier, Middle Tier, Top Tier), yielding 2 threshold comparisons for analysis (i.e., the threshold between Top/Middle Tier and Bottom Tier and the threshold between Top Tier and Middle/Bottom Tier)

Purpose

The "bias audit" reported here is consistent with the use case wherein historical data from multiple employers using the same automated employment decision tool (AEDT) are used as the basis of the audit. This audit and report address the requirements of the New York City (NYC) Local Law 144 that regulates the use of AEDTs in accordance with the final rules published by the NYC Department of Consumer and Worker Protection (DCWP) on April 6, 2023.

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"Bias Audit" Analysis Methodology [1]

The analyses conducted for this audit are based on data from multiple employers using the AEDT in one or more different implementations as part of their selection processes. Analyses were conducted separately for each employer's implementation(s) (hereafter these individual, or de-aggregated, analyses will be referred to as "by implementation") and then results were aggregated to provide the tables in this report (referred to as "aggregated"). Before describing the aggregation process, a foundational understanding of the methodology used for analysis (related to a singular implementation of the AEDT by an employer) is required. As noted in the Analysis Information above, the AEDT assigns an applicant to a tier based on their performance. NYC's Local Law 144 and the rules published by the DCWP stipulate specific requirements for conducting the required analyses. Where the AEDT assigns applicants to tiers, an 'impact ratio' must be calculated for each demographic group for each threshold separating the tiers.[2] Note that NYC specifies this calculation to be the Focal Demographic Group selection rate divided by the Comparator Demographic Group selection rate. This analysis is conducted separately for each implementation of the AEDT in the dataset provided to DCI.

The law further specifies that the demographic groups need to be compared in three specific ways:

1. Gender comparison (i.e., Male, Female).
2. Race/ethnicity comparison (i.e., Hispanic or Latino, White, Black or African American, Native Hawaiian or Pacific Islander, Asian, Native American or Alaska Native, Two or More Races).
3. An intersectional comparison that is the combination of gender and race/ethnicity (e.g., Hispanic or Latino Male, Hispanic or Latino Female, White Male, White Female).

The NYC law impact ratio has been defined by the DCWP's published rules and is calculated as:

$$\text{NYC Law Impact Ratio} = \frac{\textit{selection rate of demographic (focal) group}}{\textit{selection rate of most selected (comparator) demographic group}}$$

Results Aggregation Methodology

For each AEDT implementation where sufficient data were available to analyze, the number of applicants, number of applicants selected, number of applicants not selected, selection rate, and impact ratio for each demographic group were calculated. These results were then aggregated to produce the tables in this report. To be able to aggregate results meaningfully across a range of implementations for the AEDT, there are a number of specific, nuanced issues that must be considered that are not required when conducting a bias audit in a singular implementation. These aggregation considerations and related decisions are as follows:

- Data were analyzed separately per implementation because the context around using the AEDT, the jobs for which they were used, the normative samples, and the composition of the specific applicant pools vary and cannot be assumed to be equivalent, nor can they be collapsed across implementations.
- Within an aggregation group, a single, consistent comparator group must be identified for all implementations of the AEDT to be able to produce interpretable aggregate impact ratios.
- Two factors are balanced when determining the aggregation comparator group: 1) selection rate and 2) statistical coverage. The comparator has the highest selection rate amongst those demographic groups with sufficient statistical coverage across implementations. [3]
- For all viable implementations analyzed in the aggregation group, aggregated values are calculated using recommended professional practices. [4,5]

Results Tables

Aggregated results are presented in tables, each of which provides an indication of the demographic group (i.e., gender, race/ethnicity, or both), the aggregated number of applicants that comprise the demographic group, the aggregated selection rate for the demographic group, and the aggregated NYC law impact ratio. In each analysis table, the comparator group is identified. Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

Finally, as specified by NYC for this law, each table contains a footnote specifying the number of applicants from the viable implementations analyzed for an aggregation group for whom demographic information is unavailable. Each page containing report tables also provides additional notes for the reader to bear in mind when viewing the results.

[1] A number of the requirements specific to NYC Local Law 144 are not aligned to contemporary adverse impact analysis practices (e.g., Morris and Dunleavy, Adverse impact analysis: Understanding data, statistics, and risk, 2017). However, these analyses were conducted as stipulated by NYC for the sole purpose of meeting the specific requirements of Local Law 144.

[2] Due to this balancing of factors, there may be some instances where aggregated impact ratios reported in a table will exceed 1.0.

[3] Selection rates and impact ratios calculated for the tables in this report are based on the thresholds between tiers. This may or may not reflect employer-specific operational use of the AEDT with respect to making selection process decisions.

[4] Sufficient data for a demographic group to be analyzed for an implementation requires that group comprise at least two-percent of the sample, and that there be at least three applicants above the threshold and three applicants below the threshold in the demographic group.

[5] When aggregating the number of applicants, results from each implementation in the aggregation group are summed; when aggregating the selection rate, results from each implementation are averaged; when aggregating the impact ratio, results from each implementation analysis must first be converted to a natural logarithm, averaged, and then exponentiated to yield the average ratio value.

HireVue Aggregate "Bias Audit" Analysis for Adaptability for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	7161	0.68	Comparator Group		6902	0.34	0.99
Female	3884	0.65	0.95		3871	0.35	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 107 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 104 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	963	0.69	Comparator Group		975	0.39	Comparator Group
White	3683	0.68	0.98		3769	0.34	0.88
Black or African American	1122	0.67	0.96		1125	0.35	0.91
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	4602	0.63	0.92		4624	0.32	0.80
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	300	0.67	0.94		310	0.38	0.92

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 190 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 191 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

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HireVue Aggregate "Bias Audit" Analysis for Adaptability for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	666	0.68	0.98		681	0.39	Comparator Group
Male White	2331	0.68	0.99		2442	0.35	0.92
Male Black or African American	700	0.69	Comparator Group		700	0.34	0.90
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	2852	0.62	0.89		2880	0.29	0.75
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	99	0.68	0.96		118	0.44	1.05
Female Hispanic or Latino	205	0.67	0.96		233	0.38	1.00
Female White	1185	0.66	0.95		1200	0.32	0.82
Female Black or African American	329	0.70	1.01		329	0.36	0.96
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	1656	0.67	0.97		1665	0.34	0.87
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	63	0.56	0.79		52	0.44	1.27

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 288 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 291 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

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HireVue Aggregate "Bias Audit" Analysis for Communication for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	20060	0.66	Comparator Group		20060	0.33	0.96
Female	9121	0.65	0.98		9121	0.34	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 266 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 266 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2956	0.67	0.96		2797	0.36	0.83
White	12806	0.70	Comparator Group		12149	0.36	0.87
Black or African American	2553	0.64	0.91		2353	0.30	0.72
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	9244	0.62	0.87		6428	0.28	0.66
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	854	0.69	0.96		872	0.42	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 721 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 657 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

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HireVue Aggregate "Bias Audit" Analysis for Communication for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	2105	0.67	0.99		2053	0.36	0.94
Male White	8734	0.68	1.00		8560	0.37	0.96
Male Black or African American	1580	0.64	0.94		1551	0.30	0.76
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	6102	0.60	0.84		6102	0.29	0.76
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	450	0.64	0.89		485	0.43	1.16
Female Hispanic or Latino	724	0.70	0.93		733	0.36	0.94
Female White	3875	0.69	Comparator Group		3866	0.37	Comparator Group
Female Black or African American	825	0.64	0.89		841	0.35	0.89
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	2988	0.60	0.82		2954	0.33	0.80
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	63	0.66	0.95		63	0.38	1.02

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Note: There were 974 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 965 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

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Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	20025	0.67	Comparator Group		19766	0.34	0.97
Female	9074	0.65	0.97		9061	0.35	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 266 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 263 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2956	0.65	0.92		2810	0.32	0.77
White	12805	0.70	Comparator Group		12148	0.39	0.95
Black or African American	2552	0.62	0.89		2342	0.30	0.76
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	9243	0.63	0.90		6428	0.28	0.69
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	833	0.68	0.96		872	0.42	Comparator Group

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Male Hispanic or Latino	2148	0.66	0.93		2158	0.32	0.79
Male White	8831	0.71	Comparator Group		8841	0.40	Comparator Group
Male Black or African American	1590	0.66	0.93		1607	0.31	0.75
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	6099	0.61	0.85		6101	0.29	0.68
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	481	0.65	0.92		495	0.44	1.13
Female Hispanic or Latino	733	0.67	0.92		733	0.35	0.92
Female White	3827	0.66	0.90		3872	0.39	0.98
Female Black or African American	820	0.62	0.86		847	0.31	0.75
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	2915	0.64	0.90		2979	0.32	0.74
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	63	0.68	0.96		69	0.41	0.82

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 981 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 981 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

New York City Local Law 144 "Bias Audit" for HireVue for Drive for Results and Initiative for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

Analysis Information

- Summary produced on: July 5, 2023

- Data analyzed were based on nationwide applicants who were assessed between January 1, 2021 and December 31, 2022

- The assessment assigns applicants to one of three tiers (i.e., Bottom Tier, Middle Tier, Top Tier), yielding 2 threshold comparisons for analysis (i.e., the threshold between Top/Middle Tier and Bottom Tier and the threshold between Top Tier and Middle/Bottom Tier)

Purpose

The "bias audit" reported here is consistent with the use case wherein historical data from multiple employers using the same automated employment decision tool (AEDT) are used as the basis of the audit. This audit and report address the requirements of the New York City (NYC) Local Law 144 that regulates the use of AEDTs in accordance with the final rules published by the NYC Department of Consumer and Worker Protection (DCWP) on April 6, 2023.

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"Bias Audit" Analysis Methodology [1]

The analyses conducted for this audit are based on data from multiple employers using the AEDT in one or more different implementations as part of their selection processes. Analyses were conducted separately for each employer's implementation(s) (hereafter these individual, or de-aggregated, analyses will be referred to as "by implementation") and then results were aggregated to provide the tables in this report (referred to as "aggregated"). Before describing the aggregation process, a foundational understanding of the methodology used for analysis (related to a singular implementation of the AEDT by an employer) is required. As noted in the Analysis Information above, the AEDT assigns an applicant to a tier based on their performance. NYC's Local Law 144 and the rules published by the DCWP stipulate specific requirements for conducting the required analyses. Where the AEDT assigns applicants to tiers, an 'impact ratio' must be calculated for each demographic group for each threshold separating the tiers.[2] Note that NYC specifies this calculation to be the Focal Demographic Group selection rate divided by the Comparator Demographic Group selection rate. This analysis is conducted separately for each implementation of the AEDT in the dataset provided to DCI.

The law further specifies that the demographic groups need to be compared in three specific ways:

1. Gender comparison (i.e., Male, Female).
2. Race/ethnicity comparison (i.e., Hispanic or Latino, White, Black or African American, Native Hawaiian or Pacific Islander, Asian, Native American or Alaska Native, Two or More Races).
3. An intersectional comparison that is the combination of gender and race/ethnicity (e.g., Hispanic or Latino Male, Hispanic or Latino Female, White Male, White Female).

The NYC law impact ratio has been defined by the DCWP's published rules and is calculated as:

$$\text{NYC Law Impact Ratio} = \frac{selection\ rate\ of\ demographic\ (focal)\ group}{selection\ rate\ of\ most\ selected\ (comparator)\ demographic\ group}$$

Results Aggregation Methodology

For each AEDT implementation where sufficient data were available to analyze, the number of applicants, number of applicants selected, number of applicants not selected, selection rate, and impact ratio for each demographic group were calculated. These results were then aggregated to produce the tables in this report. To be able to aggregate results meaningfully across a range of implementations for the AEDT, there are a number of specific, nuanced issues that must be considered that are not required when conducting a bias audit in a singular implementation. These aggregation considerations and related decisions are as follows:

- Data were analyzed separately per implementation because the context around using the AEDT, the jobs for which they were used, the normative samples, and the composition of the specific applicant pools vary and cannot be assumed to be equivalent, nor can they be collapsed across implementations.
- Within an aggregation group, a single, consistent comparator group must be identified for all implementations of the AEDT to be able to produce interpretable aggregate impact ratios.
- Two factors are balanced when determining the aggregation comparator group: 1) selection rate and 2) statistical coverage. The comparator has the highest selection rate amongst those demographic groups with sufficient statistical coverage across implementations. [3]
- For all viable implementations analyzed in the aggregation group, aggregated values are calculated using recommended professional practices. [4, 5]

Results Tables

Aggregated results are presented in tables, each of which provides an indication of the demographic group (i.e., gender, race/ethnicity, or both), the aggregated number of applicants that comprise the demographic group, the aggregated selection rate for the demographic group, and the aggregated NYC law impact ratio. In each analysis table, the comparator group is identified. Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

Finally, as specified by NYC for this law, each table contains a footnote specifying the number of applicants from the viable implementations analyzed for an aggregation group for whom demographic information is unavailable. Each page containing report tables also provides additional notes for the reader to bear in mind when viewing the results.

[1] A number of the requirements specific to NYC Local Law 144 are not aligned to contemporary adverse impact analysis practices (e.g., Morris and Dunleavy, Adverse impact analysis: Understanding data, statistics, and risk, 2017). However, these analyses were conducted as stipulated by NYC for the sole purpose of meeting the specific requirements of Local Law 144.

[2] Due to this balancing of factors, there may be some instances where aggregated impact ratios reported in a table will exceed 1.0.

[3] Selection rates and impact ratios calculated for the tables in this report are based on the thresholds between tiers. This may or may not reflect employer-specific operational use of the AEDT with respect to making selection process decisions.

[4] Sufficient data for a demographic group to be analyzed for an implementation requires that group comprise at least two-percent of the sample, and that there be at least three applicants above the threshold and three applicants below the threshold in the demographic group.

[5] When aggregating the number of applicants, results from each implementation in the aggregation group are summed; when aggregating the selection rate, results from each implementation are averaged; when aggregating the impact ratio, results from each implementation analysis must first be converted to a natural logarithm, averaged, and then exponentiated to yield the average ratio value.

HireVue Aggregate "Bias Audit" Analysis for Drive for Results and Initiative for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	19108	0.66	0.98		19108	0.34	1.00
Female	7866	0.68	Comparator Group		7866	0.34	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 266 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 266 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2704	0.68	0.98		2704	0.38	Comparator Group
White	11818	0.66	0.95		11818	0.32	0.86
Black or African American	2299	0.70	Comparator Group		2289	0.36	0.97
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	8716	0.66	0.96		8716	0.33	0.87
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	765	0.70	1.02		775	0.34	0.85

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 721 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 721 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

HireVue Aggregate "Bias Audit" Analysis for Drive for Results and Initiative for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	2010	0.68	0.97		2010	0.35	0.97
Male White	8302	0.64	0.92		8292	0.33	0.91
Male Black or African American	1501	0.70	Comparator Group		1501	0.37	Comparator Group
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	5870	0.63	0.91		5852	0.32	0.86
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	462	0.71	1.06		474	0.34	0.91
Female Hispanic or Latino	605	0.73	1.07		605	0.41	1.11
Female White	3206	0.68	0.97		3198	0.35	1.01
Female Black or African American	665	0.71	1.07		681	0.40	1.06
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	2655	0.68	1.00		2655	0.33	0.91
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	11	0.45	0.70		0	—	—

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 977 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 977 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

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New York City Local Law 144 "Bias Audit" for HireVue for Problem Solving for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

Analysis Information

- Summary produced on: July 5, 2023

- Data analyzed were based on nationwide applicants who were assessed between January 1, 2021 and December 31, 2022

- The assessment assigns applicants to one of three tiers (i.e., Bottom Tier, Middle Tier, Top Tier), yielding 2 threshold comparisons for analysis (i.e., the threshold between Top/Middle Tier and Bottom Tier and the threshold between Top Tier and Middle/Bottom Tier)

Purpose

The "bias audit" reported here is consistent with the use case wherein historical data from multiple employers using the same automated employment decision tool (AEDT) are used as the basis of the audit. This audit and report address the requirements of the New York City (NYC) Local Law 144 that regulates the use of AEDTs in accordance with the final rules published by the NYC Department of Consumer and Worker Protection (DCWP) on April 6, 2023.

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The law further specifies that the demographic groups need to be compared in three specific ways:

1. Gender comparison (i.e., Male, Female).
2. Race/ethnicity comparison (i.e., Hispanic or Latino, White, Black or African American, Native Hawaiian or Pacific Islander, Asian, Native American or Alaska Native, Two or More Races).
3. An intersectional comparison that is the combination of gender and race/ethnicity (e.g., Hispanic or Latino Male, Hispanic or Latino Female, White Male, White Female).

The NYC law impact ratio has been defined by the DCWP's published rules and is calculated as:

$$\text{NYC Law Impact Ratio} = \frac{\textit{selection rate of demographic (focal) group}}{\textit{selection rate of most selected (comparator) demographic group}}$$

Results Aggregation Methodology

For each AEDT implementation where sufficient data were available to analyze, the number of applicants, number of applicants selected, number of applicants not selected, selection rate, and impact ratio for each demographic group were calculated. These results were then aggregated to produce the tables in this report. To be able to aggregate results meaningfully across a range of implementations for the AEDT, there are a number of specific, nuanced issues that must be considered that are not required when conducting a bias audit in a singular implementation. These aggregation considerations and related decisions are as follows:

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Results Tables

Aggregated results are presented in tables, each of which provides an indication of the demographic group (i.e., gender, race/ethnicity, or both), the aggregated number of applicants that comprise the demographic group, the aggregated selection rate for the demographic group, and the aggregated NYC law impact ratio. In each analysis table, the comparator group is identified. Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

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HireVue Aggregate "Bias Audit" Analysis for Problem Solving for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	19020	0.67	Comparator Group		19020	0.34	Comparator Group
Female	7596	0.65	0.95		7596	0.33	0.97

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 266 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 266 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2678	0.66	0.96		2678	0.33	0.87
White	11668	0.67	0.98		11668	0.33	0.86
Black or African American	2247	0.68	Comparator Group		2247	0.38	Comparator Group
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	8603	0.65	0.93		8603	0.31	0.81
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	744	0.66	0.93		756	0.38	0.92

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 720 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 720 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

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HireVue Aggregate "Bias Audit" Analysis for Problem Solving for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	2014	0.66	0.98		1999	0.34	0.96
Male White	8401	0.68	Comparator Group		8290	0.34	0.96
Male Black or African American	1483	0.67	0.99		1483	0.35	Comparator Group
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	5880	0.66	0.98		5852	0.31	0.89
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	471	0.61	0.87		474	0.41	1.08
Female Hispanic or Latino	593	0.67	0.98		605	0.36	0.92
Female White	3184	0.63	0.92		3145	0.31	0.84
Female Black or African American	644	0.72	1.04		666	0.49	1.34
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	2591	0.57	0.82		2582	0.27	0.70
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	11	0.55	0.76		11	0.27	0.66

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Note: There were 980 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 977 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

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New York City Local Law 144 "Bias Audit" for HireVue for Think - Shapedance, Numerosity for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

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Female	7504	0.66	0.96		7504	0.34	1.00

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 189 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 189 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2450	0.65	0.93		2462	0.31	0.81
White	11345	0.65	0.93		11431	0.30	0.78
Black or African American	1807	0.64	0.91		1820	0.36	0.92
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	5636	0.70	1.00		5658	0.39	Comparator Group
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	758	0.70	Comparator Group		758	0.36	1.00

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 576 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 577 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

HireVue Aggregate "Bias Audit" Analysis for Think - Shapedance, Numerosity for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	1722	0.66	0.92		1722	0.30	0.73
Male White	7542	0.68	0.95		7554	0.33	0.77
Male Black or African American	1079	0.63	0.89		1079	0.34	0.81
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	3757	0.68	0.95		3763	0.35	0.79
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	447	0.72	1.00		447	0.32	0.84
Female Hispanic or Latino	718	0.64	0.90		718	0.36	0.87
Female White	3737	0.61	0.86		3811	0.28	0.65
Female Black or African American	714	0.64	0.89		727	0.36	0.82
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	1801	0.71	Comparator Group		1817	0.43	Comparator Group
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	52	0.63	0.95		52	0.31	0.83

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 752 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 753 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

New York City Local Law 144 "Bias Audit" for HireVue for Willingness to Learn for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

Analysis Information

- Summary produced on: July 5, 2023

- Data analyzed were based on nationwide applicants who were assessed between January 1, 2021 and December 31, 2022

- The assessment assigns applicants to one of three tiers (i.e., Bottom Tier, Middle Tier, Top Tier), yielding 2 threshold comparisons for analysis (i.e., the threshold between Top/Middle Tier and Bottom Tier and the threshold between Top Tier and Middle/Bottom Tier)

Purpose

The "bias audit" reported here is consistent with the use case wherein historical data from multiple employers using the same automated employment decision tool (AEDT) are used as the basis of the audit. This audit and report address the requirements of the New York City (NYC) Local Law 144 that regulates the use of AEDTs in accordance with the final rules published by the NYC Department of Consumer and Worker Protection (DCWP) on April 6, 2023.

About DCI Consulting Group (DCI)

DCI is a human resources consulting firm headquartered in Washington, D.C. Since 2001, DCI has provided expert solutions to hundreds of organizations on complex issues, with particular emphasis on equal employment opportunity analytics, employee selection and assessment, independent third-party reviews, and litigation support work. DCI's team of Industrial/Organizational Psychologists and Labor Economists are recognized for their applied experience in complex quantitative analytics, adverse impact measurement, pay equity, job analysis, validation research and job-relatedness evaluations, and routinely perform work in the context of affirmative action plans under the jurisdiction of the Department of Labor's Office of Federal Contract Compliance Programs compliance evaluations, Equal Employment Opportunity Commission systemic investigations, and expert witness work on matters related to Title VII, Executive Order 11246, the Age Discrimination in Employment Act, and the Americans with Disabilities Act.

"Bias Audit" Analysis Methodology [1]

The analyses conducted for this audit are based on data from multiple employers using the AEDT in one or more different implementations as part of their selection processes. Analyses were conducted separately for each employer's implementation(s) (hereafter these individual, or de-aggregated, analyses will be referred to as "by implementation") and then results were aggregated to provide the tables in this report (referred to as "aggregated"). Before describing the aggregation process, a foundational understanding of the methodology used for analysis (related to a singular implementation of the AEDT by an employer) is required. As noted in the Analysis Information above, the AEDT assigns an applicant to a tier based on their performance. NYC's Local Law 144 and the rules published by the DCWP stipulate specific requirements for conducting the required analyses. Where the AEDT assigns applicants to tiers, an 'impact ratio' must be calculated for each demographic group for each threshold separating the tiers.[2] Note that NYC specifies this calculation to be the Focal Demographic Group selection rate divided by the Comparator Demographic Group selection rate. This analysis is conducted separately for each implementation of the AEDT in the dataset provided to DCI.

The law further specifies that the demographic groups need to be compared in three specific ways:

1. Gender comparison (i.e., Male, Female).
2. Race/ethnicity comparison (i.e., Hispanic or Latino, White, Black or African American, Native Hawaiian or Pacific Islander, Asian, Native American or Alaska Native, Two or More Races).
3. An intersectional comparison that is the combination of gender and race/ethnicity (e.g., Hispanic or Latino Male, Hispanic or Latino Female, White Male, White Female).

The NYC law impact ratio has been defined by the DCWP's published rules and is calculated as:

$$\text{NYC Law Impact Ratio} = \frac{\textit{selection rate of demographic (focal) group}}{\textit{selection rate of most selected (comparator) demographic group}}$$

Results Aggregation Methodology

For each AEDT implementation where sufficient data were available to analyze, the number of applicants, number of applicants selected, number of applicants not selected, selection rate, and impact ratio for each demographic group were calculated. These results were then aggregated to produce the tables in this report. To be able to aggregate results meaningfully across a range of implementations for the AEDT, there are a number of specific, nuanced issues that must be considered that are not required when conducting a bias audit in a singular implementation. These aggregation considerations and related decisions are as follows:

- Data were analyzed separately per implementation because the context around using the AEDT, the jobs for which they were used, the normative samples, and the composition of the specific applicant pools vary and cannot be assumed to be equivalent, nor can they be collapsed across implementations.
- Within an aggregation group, a single, consistent comparator group must be identified for all implementations of the AEDT to be able to produce interpretable aggregate impact ratios.
- Two factors are balanced when determining the aggregation comparator group: 1) selection rate and 2) statistical coverage. The comparator has the highest selection rate amongst those demographic groups with sufficient statistical coverage across implementations. [3]
- For all viable implementations analyzed in the aggregation group, aggregated values are calculated using recommended professional practices. [4,5]

Results Tables

Aggregated results are presented in tables, each of which provides an indication of the demographic group (i.e., gender, race/ethnicity, or both), the aggregated number of applicants that comprise the demographic group, the aggregated selection rate for the demographic group, and the aggregated NYC law impact ratio. In each analysis table, the comparator group is identified. Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

Finally, as specified by NYC for this law, each table contains a footnote specifying the number of applicants from the viable implementations analyzed for an aggregation group for whom demographic information is unavailable. Each page containing report tables also provides additional notes for the reader to bear in mind when viewing the results.

[1] A number of the requirements specific to NYC Local Law 144 are not aligned to contemporary adverse impact analysis practices (e.g., Morris and Dunleavy, Adverse impact analysis: Understanding data, statistics, and risk, 2017). However, these analyses were conducted as stipulated by NYC for the sole purpose of meeting the specific requirements of Local Law 144.

[2] Due to this balancing of factors, there may be some instances where aggregated impact ratios reported in a table will exceed 1.0.

[3] Selection rates and impact ratios calculated for the tables in this report are based on the thresholds between tiers. This may or may not reflect employer-specific operational use of the AEDT with respect to making selection process decisions.

[4] Sufficient data for a demographic group to be analyzed for an implementation requires that group comprise at least two-percent of the sample, and that there be at least three applicants above the threshold and three applicants below the threshold in the demographic group.

[5] When aggregating the number of applicants, results from each implementation in the aggregation group are summed; when aggregating the selection rate, results from each implementation are averaged; when aggregating the impact ratio, results from each implementation analysis must first be converted to a natural logarithm, averaged, and then exponentiated to yield the average ratio value.

HireVue Aggregate "Bias Audit" Analysis for Willingness to Learn for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	20056	0.68	Comparator Group		20056	0.35	Comparator Group
Female	9120	0.64	0.94		9120	0.32	0.91

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 266 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 266 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2956	0.66	0.95		2956	0.33	0.86
White	12805	0.68	0.98		12805	0.34	0.91
Black or African American	2553	0.69	Comparator Group		2553	0.37	Comparator Group
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	9240	0.64	0.94		9240	0.32	0.84
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	831	0.69	1.02		861	0.39	1.02

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 721 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 721 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

HireVue Aggregate "Bias Audit" Analysis for Willingness to Learn for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	2148	0.67	0.96		2143	0.34	0.91
Male White	8831	0.69	Comparator Group		8718	0.38	1.01
Male Black or African American	1591	0.69	0.99		1639	0.37	Comparator Group
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	6097	0.65	0.94		6087	0.32	0.85
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	459	0.69	1.00		474	0.43	1.12
Female Hispanic or Latino	721	0.65	0.93		724	0.35	0.88
Female White	3821	0.63	0.91		3768	0.30	0.80
Female Black or African American	804	0.68	0.96		871	0.38	1.01
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	2914	0.58	0.82		2962	0.29	0.73
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	63	0.61	0.84		58	0.43	1.22

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 981 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 979 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

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New York City Local Law 144 "Bias Audit" for HireVue for Adaptability for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

Analysis Information

- Summary produced on: July 5, 2023

- Data analyzed were based on nationwide applicants who were assessed between January 1, 2021 and December 31, 2022

- The assessment assigns applicants to one of three tiers (i.e., Bottom Tier, Middle Tier, Top Tier), yielding 2 threshold comparisons for analysis (i.e., the threshold between Top/Middle Tier and Bottom Tier and the threshold between Top Tier and Middle/Bottom Tier)

Purpose

The "bias audit" reported here is consistent with the use case wherein historical data from multiple employers using the same automated employment decision tool (AEDT) are used as the basis of the audit. This audit and report address the requirements of the New York City (NYC) Local Law 144 that regulates the use of AEDTs in accordance with the final rules published by the NYC Department of Consumer and Worker Protection (DCWP) on April 6, 2023.

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"Bias Audit" Analysis Methodology [1]

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The law further specifies that the demographic groups need to be compared in three specific ways:

1. Gender comparison (i.e., Male, Female).
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The NYC law impact ratio has been defined by the DCWP's published rules and is calculated as:

$$\text{NYC Law Impact Ratio} = \frac{\textit{selection rate of demographic (focal) group}}{\textit{selection rate of most selected (comparator) demographic group}}$$

Results Aggregation Methodology

For each AEDT implementation where sufficient data were available to analyze, the number of applicants, number of applicants selected, number of applicants not selected, selection rate, and impact ratio for each demographic group were calculated. These results were then aggregated to produce the tables in this report. To be able to aggregate results meaningfully across a range of implementations for the AEDT, there are a number of specific, nuanced issues that must be considered that are not required when conducting a bias audit in a singular implementation. These aggregation considerations and related decisions are as follows:

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HireVue Aggregate "Bias Audit" Analysis for Adaptability for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	7161	0.68	Comparator Group		6902	0.34	0.99
Female	3884	0.65	0.95		3871	0.35	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 107 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 104 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	963	0.69	Comparator Group		975	0.39	Comparator Group
White	3683	0.68	0.98		3769	0.34	0.88
Black or African American	1122	0.67	0.96		1125	0.35	0.91
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	4602	0.63	0.92		4624	0.32	0.80
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	300	0.67	0.94		310	0.38	0.92

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 190 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 191 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

HireVue Aggregate "Bias Audit" Analysis for Adaptability for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	666	0.68	0.98		681	0.39	Comparator Group
Male White	2331	0.68	0.99		2442	0.35	0.92
Male Black or African American	700	0.69	Comparator Group		700	0.34	0.90
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	2852	0.62	0.89		2880	0.29	0.75
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	99	0.68	0.96		118	0.44	1.05
Female Hispanic or Latino	205	0.67	0.96		233	0.38	1.00
Female White	1185	0.66	0.95		1200	0.32	0.82
Female Black or African American	329	0.70	1.01		329	0.36	0.96
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	1656	0.67	0.97		1665	0.34	0.87
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	63	0.56	0.79		52	0.44	1.27

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Note: There were 288 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 291 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

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New York City Local Law 144 "Bias Audit" for HireVue for Communication for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

Analysis Information

- Summary produced on: July 5, 2023

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Results Tables

Aggregated results are presented in tables, each of which provides an indication of the demographic group (i.e., gender, race/ethnicity, or both), the aggregated number of applicants that comprise the demographic group, the aggregated selection rate for the demographic group, and the aggregated NYC law impact ratio. In each analysis table, the comparator group is identified. Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

Finally, as specified by NYC for this law, each table contains a footnote specifying the number of applicants from the viable implementations analyzed for an aggregation group for whom demographic information is unavailable. Each page containing report tables also provides additional notes for the reader to bear in mind when viewing the results.

[1] A number of the requirements specific to NYC Local Law 144 are not aligned to contemporary adverse impact analysis practices (e.g., Morris and Dunleavy, Adverse impact analysis: Understanding data, statistics, and risk, 2017). However, these analyses were conducted as stipulated by NYC for the sole purpose of meeting the specific requirements of Local Law 144.

[2] Due to this balancing of factors, there may be some instances where aggregated impact ratios reported in a table will exceed 1.0.

[3] Selection rates and impact ratios calculated for the tables in this report are based on the thresholds between tiers. This may or may not reflect employer-specific operational use of the AEDT with respect to making selection process decisions.

[4] Sufficient data for a demographic group to be analyzed for an implementation requires that group comprise at least two-percent of the sample, and that there be at least three applicants above the threshold and three applicants below the threshold in the demographic group.

[5] When aggregating the number of applicants, results from each implementation in the aggregation group are summed; when aggregating the selection rate, results from each implementation are averaged; when aggregating the impact ratio, results from each implementation analysis must first be converted to a natural logarithm, averaged, and then exponentiated to yield the average ratio value.

HireVue Aggregate "Bias Audit" Analysis for Communication for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	20060	0.66	Comparator Group		20060	0.33	0.96
Female	9121	0.65	0.98		9121	0.34	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 266 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 266 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2956	0.67	0.96		2797	0.36	0.83
White	12806	0.70	Comparator Group		12149	0.36	0.87
Black or African American	2553	0.64	0.91		2353	0.30	0.72
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	9244	0.62	0.87		6428	0.28	0.66
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	854	0.69	0.96		872	0.42	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 721 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 657 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

HireVue Aggregate "Bias Audit" Analysis for Communication for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	2105	0.67	0.99		2053	0.36	0.94
Male White	8734	0.68	1.00		8560	0.37	0.96
Male Black or African American	1580	0.64	0.94		1551	0.30	0.76
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	6102	0.60	0.84		6102	0.29	0.76
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	450	0.64	0.89		485	0.43	1.16
Female Hispanic or Latino	724	0.70	0.93		733	0.36	0.94
Female White	3875	0.69	Comparator Group		3866	0.37	Comparator Group
Female Black or African American	825	0.64	0.89		841	0.35	0.89
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	2988	0.60	0.82		2954	0.33	0.80
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	63	0.66	0.95		63	0.38	1.02

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 974 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 965 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

New York City Local Law 144 "Bias Audit" for HireVue for Dependability for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

Analysis Information

- Summary produced on: July 5, 2023

- Data analyzed were based on nationwide applicants who were assessed between January 1, 2021 and December 31, 2022

- The assessment assigns applicants to one of three tiers (i.e., Bottom Tier, Middle Tier, Top Tier), yielding 2 threshold comparisons for analysis (i.e., the threshold between Top/Middle Tier and Bottom Tier and the threshold between Top Tier and Middle/Bottom Tier)

Purpose

The "bias audit" reported here is consistent with the use case wherein historical data from multiple employers using the same automated employment decision tool (AEDT) are used as the basis of the audit. This audit and report address the requirements of the New York City (NYC) Local Law 144 that regulates the use of AEDTs in accordance with the final rules published by the NYC Department of Consumer and Worker Protection (DCWP) on April 6, 2023.

About DCI Consulting Group (DCI)

DCI is a human resources consulting firm headquartered in Washington, D.C. Since 2001, DCI has provided expert solutions to hundreds of organizations on complex issues, with particular emphasis on equal employment opportunity analytics, employee selection and assessment, independent third-party reviews, and litigation support work. DCI's team of Industrial/Organizational Psychologists and Labor Economists are recognized for their applied experience in complex quantitative analytics, adverse impact measurement, pay equity, job analysis, validation research and job-relatedness evaluations, and routinely perform work in the context of affirmative action plans under the jurisdiction of the Department of Labor's Office of Federal Contract Compliance Programs compliance evaluations, Equal Employment Opportunity Commission systemic investigations, and expert witness work on matters related to Title VII, Executive Order 11246, the Age Discrimination in Employment Act, and the Americans with Disabilities Act.

"Bias Audit" Analysis Methodology [1]

The analyses conducted for this audit are based on data from multiple employers using the AEDT in one or more different implementations as part of their selection processes. Analyses were conducted separately for each employer's implementation(s) (hereafter these individual, or de-aggregated, analyses will be referred to as "by implementation") and then results were aggregated to provide the tables in this report (referred to as "aggregated"). Before describing the aggregation process, a foundational understanding of the methodology used for analysis (related to a singular implementation of the AEDT by an employer) is required. As noted in the Analysis Information above, the AEDT assigns an applicant to a tier based on their performance. NYC's Local Law 144 and the rules published by the DCWP stipulate specific requirements for conducting the required analyses. Where the AEDT assigns applicants to tiers, an 'impact ratio' must be calculated for each demographic group for each threshold separating the tiers.[2] Note that NYC specifies this calculation to be the Focal Demographic Group selection rate divided by the Comparator Demographic Group selection rate. This analysis is conducted separately for each implementation of the AEDT in the dataset provided to DCI.

The law further specifies that the demographic groups need to be compared in three specific ways:
1. Gender comparison (i.e., Male, Female).
2. Race/ethnicity comparison (i.e., Hispanic or Latino, White, Black or African American, Native Hawaiian or Pacific Islander, Asian, Native American or Alaska Native, Two or More Races).
3. An intersectional comparison that is the combination of gender and race/ethnicity (e.g., Hispanic or Latino Male, Hispanic or Latino Female, White Male, White Female).

The NYC law impact ratio has been defined by the DCWP's published rules and is calculated as:

$$\text{NYC Law Impact Ratio} = \frac{\textit{selection rate of demographic (focal) group}}{\textit{selection rate of most selected (comparator) demographic group}}$$

Results Aggregation Methodology

For each AEDT implementation where sufficient data were available to analyze, the number of applicants, number of applicants selected, number of applicants not selected, selection rate, and impact ratio for each demographic group were calculated. These results were then aggregated to produce the tables in this report. To be able to aggregate results meaningfully across a range of implementations for the AEDT, there are a number of specific, nuanced issues that must be considered that are not required when conducting a bias audit in a singular implementation. These aggregation considerations and related decisions are as follows:

- Data were analyzed separately per implementation because the context around using the AEDT, the jobs for which they were used, the normative samples, and the composition of the specific applicant pools vary and cannot be assumed to be equivalent, nor can they be collapsed across implementations.
- Within an aggregation group, a single, consistent comparator group must be identified for all implementations of the AEDT to be able to produce interpretable aggregate impact ratios.
- Two factors are balanced when determining the aggregation comparator group: 1) selection rate and 2) statistical coverage. The comparator has the highest selection rate amongst those demographic groups with sufficient statistical coverage across implementations. [3]
- For all viable implementations analyzed in the aggregation group, aggregated values are calculated using recommended professional practices. [4,5]

Results Tables

Aggregated results are presented in tables, each of which provides an indication of the demographic group (i.e., gender, race/ethnicity, or both), the aggregated number of applicants that comprise the demographic group, the aggregated selection rate for the demographic group, and the aggregated NYC law impact ratio. In each analysis table, the comparator group is identified. Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

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[5] When aggregating the number of applicants, results from each implementation in the aggregation group are summed; when aggregating the selection rate, results from each implementation are averaged; when aggregating the impact ratio, results from each implementation analysis must first be converted to a natural logarithm, averaged, and then exponentiated to yield the average ratio value.

HireVue Aggregate "Bias Audit" Analysis for Dependability for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	20025	0.67	Comparator Group		19766	0.34	0.97
Female	9074	0.65	0.97		9061	0.35	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 266 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 263 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2956	0.65	0.92		2810	0.32	0.77
White	12805	0.70	Comparator Group		12148	0.39	0.95
Black or African American	2552	0.62	0.89		2342	0.30	0.76
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	9243	0.63	0.90		6428	0.28	0.69
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	833	0.68	0.96		872	0.42	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 721 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 657 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

HireVue Aggregate "Bias Audit" Analysis for Dependability for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	2148	0.66	0.93		2158	0.32	0.79
Male White	8831	0.71	Comparator Group		8841	0.40	Comparator Group
Male Black or African American	1590	0.66	0.93		1607	0.31	0.75
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	6099	0.61	0.85		6101	0.29	0.68
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	481	0.65	0.92		495	0.44	1.13
Female Hispanic or Latino	733	0.67	0.92		733	0.35	0.92
Female White	3827	0.66	0.90		3872	0.39	0.98
Female Black or African American	820	0.62	0.86		847	0.31	0.75
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	2915	0.64	0.90		2979	0.32	0.74
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	63	0.68	0.96		69	0.41	0.82

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 981 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 981 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

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New York City Local Law 144 "Bias Audit" for HireVue for Drive for Results and Initiative for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

Analysis Information

- Summary produced on: July 5, 2023

- Data analyzed were based on nationwide applicants who were assessed between January 1, 2021 and December 31, 2022

- The assessment assigns applicants to one of three tiers (i.e., Bottom Tier, Middle Tier, Top Tier), yielding 2 threshold comparisons for analysis (i.e., the threshold between Top/Middle Tier and Bottom Tier and the threshold between Top Tier and Middle/Bottom Tier)

Purpose

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The law further specifies that the demographic groups need to be compared in three specific ways:

1. Gender comparison (i.e., Male, Female).
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3. An intersectional comparison that is the combination of gender and race/ethnicity (e.g., Hispanic or Latino Male, Hispanic or Latino Female, White Male, White Female).

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For each AEDT implementation where sufficient data were available to analyze, the number of applicants, number of applicants selected, number of applicants not selected, selection rate, and impact ratio for each demographic group were calculated. These results were then aggregated to produce the tables in this report. To be able to aggregate results meaningfully across a range of implementations for the AEDT, there are a number of specific, nuanced issues that must be considered that are not required when conducting a bias audit in a singular implementation. These aggregation considerations and related decisions are as follows:

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Results Tables

Aggregated results are presented in tables, each of which provides an indication of the demographic group (i.e., gender, race/ethnicity, or both), the aggregated number of applicants that comprise the demographic group, the aggregated selection rate for the demographic group, and the aggregated NYC law impact ratio. In each analysis table, the comparator group is identified. Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

Finally, as specified by NYC for this law, each table contains a footnote specifying the number of applicants from the viable implementations analyzed for an aggregation group for whom demographic information is unavailable. Each page containing report tables also provides additional notes for the reader to bear in mind when viewing the results.

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[2] Due to this balancing of factors, there may be some instances where aggregated impact ratios reported in a table will exceed 1.0.

[3] Selection rates and impact ratios calculated for the tables in this report are based on the thresholds between tiers. This may or may not reflect employer-specific operational use of the AEDT with respect to making selection process decisions.

[4] Sufficient data for a demographic group to be analyzed for an implementation requires that group comprise at least two-percent of the sample, and that there be at least three applicants above the threshold and three applicants below the threshold in the demographic group.

[5] When aggregating the number of applicants, results from each implementation in the aggregation group are summed; when aggregating the selection rate, results from each implementation are averaged; when aggregating the impact ratio, results from each implementation analysis must first be converted to a natural logarithm, averaged, and then exponentiated to yield the average ratio value.

HireVue Aggregate "Bias Audit" Analysis for Drive for Results and Initiative for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	19108	0.66	0.98		19108	0.34	1.00
Female	7866	0.68	Comparator Group		7866	0.34	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 266 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 266 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2704	0.68	0.98		2704	0.38	Comparator Group
White	11818	0.66	0.95		11818	0.32	0.86
Black or African American	2299	0.70	Comparator Group		2289	0.36	0.97
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	8716	0.66	0.96		8716	0.33	0.87
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	765	0.70	1.02		775	0.34	0.85

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 721 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 721 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

HireVue Aggregate "Bias Audit" Analysis for Drive for Results and Initiative for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	2010	0.68	0.97		2010	0.35	0.97
Male White	8302	0.64	0.92		8292	0.33	0.91
Male Black or African American	1501	0.70	Comparator Group		1501	0.37	Comparator Group
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	5870	0.63	0.91		5852	0.32	0.86
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	462	0.71	1.06		474	0.34	0.91
Female Hispanic or Latino	605	0.73	1.07		605	0.41	1.11
Female White	3206	0.68	0.97		3198	0.35	1.01
Female Black or African American	665	0.71	1.07		681	0.40	1.06
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	2655	0.68	1.00		2655	0.33	0.91
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	11	0.45	0.70		0	—	—

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 977 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 977 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

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New York City Local Law 144 "Bias Audit" for HireVue for Relationship Building for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

Analysis Information

- Summary produced on: July 5, 2023

- Data analyzed were based on nationwide applicants who were assessed between January 1, 2021 and December 31, 2022

- The assessment assigns applicants to one of three tiers (i.e., Bottom Tier, Middle Tier, Top Tier), yielding 2 threshold comparisons for analysis (i.e., the threshold between Top/Middle Tier and Bottom Tier and the threshold between Top Tier and Middle/Bottom Tier)

Purpose

The "bias audit" reported here is consistent with the use case wherein historical data from multiple employers using the same automated employment decision tool (AEDT) are used as the basis of the audit. This audit and report address the requirements of the New York City (NYC) Local Law 144 that regulates the use of AEDTs in accordance with the final rules published by the NYC Department of Consumer and Worker Protection (DCWP) on April 6, 2023.

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"Bias Audit" Analysis Methodology [1]

The analyses conducted for this audit are based on data from multiple employers using the AEDT in one or more different implementations as part of their selection processes. Analyses were conducted separately for each employer's implementation(s) (hereafter these individual, or de-aggregated, analyses will be referred to as "by implementation") and then results were aggregated to provide the tables in this report (referred to as "aggregated"). Before describing the aggregation process, a foundational understanding of the methodology used for analysis (related to a singular implementation of the AEDT by an employer) is required. As noted in the Analysis Information above, the AEDT assigns an applicant to a tier based on their performance. NYC's Local Law 144 and the rules published by the DCWP stipulate specific requirements for conducting the required analyses. Where the AEDT assigns applicants to tiers, an 'impact ratio' must be calculated for each demographic group for each threshold separating the tiers.[2] Note that NYC specifies this calculation to be the Focal Demographic Group selection rate divided by the Comparator Demographic Group selection rate. This analysis is conducted separately for each implementation of the AEDT in the dataset provided to DCI.

The law further specifies that the demographic groups need to be compared in three specific ways:

1. Gender comparison (i.e., Male, Female).
2. Race/ethnicity comparison (i.e., Hispanic or Latino, White, Black or African American, Native Hawaiian or Pacific Islander, Asian, Native American or Alaska Native, Two or More Races).
3. An intersectional comparison that is the combination of gender and race/ethnicity (e.g., Hispanic or Latino Male, Hispanic or Latino Female, White Male, White Female).

The NYC law impact ratio has been defined by the DCWP's published rules and is calculated as:

$$\text{NYC Law Impact Ratio} = \frac{\textit{selection rate of demographic (focal) group}}{\textit{selection rate of most selected (comparator) demographic group}}$$

Results Aggregation Methodology

For each AEDT implementation where sufficient data were available to analyze, the number of applicants, number of applicants selected, number of applicants not selected, selection rate, and impact ratio for each demographic group were calculated. These results were then aggregated to produce the tables in this report. To be able to aggregate results meaningfully across a range of implementations for the AEDT, there are a number of specific, nuanced issues that must be considered that are not required when conducting a bias audit in a singular implementation. These aggregation considerations and related decisions are as follows:

- Data were analyzed separately per implementation because the context around using the AEDT, the jobs for which they were used, the normative samples, and the composition of the specific applicant pools vary and cannot be assumed to be equivalent, nor can they be collapsed across implementations.
- Within an aggregation group, a single, consistent comparator group must be identified for all implementations of the AEDT to be able to produce interpretable aggregate impact ratios.
- Two factors are balanced when determining the aggregation comparator group: 1) selection rate and 2) statistical coverage. The comparator has the highest selection rate amongst those demographic groups with sufficient statistical coverage across implementations. [3]
- For all viable implementations analyzed in the aggregation group, aggregated values are calculated using recommended professional practices. [4,5]

Results Tables

Aggregated results are presented in tables, each of which provides an indication of the demographic group (i.e., gender, race/ethnicity, or both), the aggregated number of applicants that comprise the demographic group, the aggregated selection rate for the demographic group, and the aggregated NYC law impact ratio. In each analysis table, the comparator group is identified. Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

Finally, as specified by NYC for this law, each table contains a footnote specifying the number of applicants from the viable implementations analyzed for an aggregation group for whom demographic information is unavailable. Each page containing report tables also provides additional notes for the reader to bear in mind when viewing the results.

[1] A number of the requirements specific to NYC Local Law 144 are not aligned to contemporary adverse impact analysis practices (e.g., Morris and Dunleavy, Adverse impact analysis: Understanding data, statistics, and risk, 2017). However, these analyses were conducted as stipulated by NYC for the sole purpose of meeting the specific requirements of Local Law 144.

[2] Due to this balancing of factors, there may be some instances where aggregated impact ratios reported in a table will exceed 1.0.

[3] Selection rates and impact ratios calculated for the tables in this report are based on the thresholds between tiers. This may or may not reflect employer-specific operational use of the AEDT with respect to making selection process decisions.

[4] Sufficient data for a demographic group to be analyzed for an implementation requires that group comprise at least two-percent of the sample, and that there be at least three applicants above the threshold and three applicants below the threshold in the demographic group.

[5] When aggregating the number of applicants, results from each implementation in the aggregation group are summed; when aggregating the selection rate, results from each implementation are averaged; when aggregating the impact ratio, results from each implementation analysis must first be converted to a natural logarithm, averaged, and then exponentiated to yield the average ratio value.

HireVue Aggregate "Bias Audit" Analysis for Relationship Building for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	1002	0.60	0.86		1002	0.29	0.79
Female	1477	0.70	Comparator Group		1477	0.37	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 0 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 0 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	277	0.57	0.82		252	0.39	1.11
White	1136	0.68	Comparator Group		1136	0.35	Comparator Group
Black or African American	304	0.66	0.96		304	0.31	0.89
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	639	0.65	0.96		639	0.32	0.90
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	97	0.64	0.91		105	0.32	0.91

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 1 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 1 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

HireVue Aggregate "Bias Audit" Analysis for Relationship Building for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	143	0.56	0.79		133	0.35	0.87
Male White	439	0.63	0.90		439	0.29	0.76
Male Black or African American	123	0.60	0.85		123	0.26	0.67
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	237	0.62	0.88		237	0.28	0.72
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	0	—	—		0	—	—
Female Hispanic or Latino	119	0.73	1.01		119	0.44	1.11
Female White	697	0.70	Comparator Group		697	0.38	Comparator Group
Female Black or African American	181	0.66	0.94		181	0.33	0.87
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	396	0.66	0.95		396	0.33	0.88
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	52	0.81	1.09		52	0.46	1.16

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 1 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 1 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

New York City Local Law 144 "Bias Audit" for HireVue for Think - Shapedance, Numerosity for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

Analysis Information

- Summary produced on: July 5, 2023

- Data analyzed were based on nationwide applicants who were assessed between January 1, 2021 and December 31, 2022

- The assessment assigns applicants to one of three tiers (i.e., Bottom Tier, Middle Tier, Top Tier), yielding 2 threshold comparisons for analysis (i.e., the threshold between Top/Middle Tier and Bottom Tier and the threshold between Top Tier and Middle/Bottom Tier)

Purpose

The "bias audit" reported here is consistent with the use case wherein historical data from multiple employers using the same automated employment decision tool (AEDT) are used as the basis of the audit. This audit and report address the requirements of the New York City (NYC) Local Law 144 that regulates the use of AEDTs in accordance with the final rules published by the NYC Department of Consumer and Worker Protection (DCWP) on April 6, 2023.

About DCI Consulting Group (DCI)

DCI is a human resources consulting firm headquartered in Washington, D.C. Since 2001, DCI has provided expert solutions to hundreds of organizations on complex issues, with particular emphasis on equal employment opportunity analytics, employee selection and assessment, independent third-party reviews, and litigation support work. DCI's team of Industrial/Organizational Psychologists and Labor Economists are recognized for their applied experience in complex quantitative analytics, adverse impact measurement, pay equity, job analysis, validation research and job-relatedness evaluations, and routinely perform work in the context of affirmative action plans under the jurisdiction of the Department of Labor's Office of Federal Contract Compliance Programs compliance evaluations, Equal Employment Opportunity Commission systemic investigations, and expert witness work on matters related to Title VII, Executive Order 11246, the Age Discrimination in Employment Act, and the Americans with Disabilities Act.

"Bias Audit" Analysis Methodology [1]

The analyses conducted for this audit are based on data from multiple employers using the AEDT in one or more different implementations as part of their selection processes. Analyses were conducted separately for each employer's implementation(s) (hereafter these individual, or de-aggregated, analyses will be referred to as "by implementation") and then results were aggregated to provide the tables in this report (referred to as "aggregated"). Before describing the aggregation process, a foundational understanding of the methodology used for analysis (related to a singular implementation of the AEDT by an employer) is required. As noted in the Analysis Information above, the AEDT assigns an applicant to a tier based on their performance. NYC's Local Law 144 and the rules published by the DCWP stipulate specific requirements for conducting the required analyses. Where the AEDT assigns applicants to tiers, an 'impact ratio' must be calculated for each demographic group for each threshold separating the tiers.[2] Note that NYC specifies this calculation to be the Focal Demographic Group selection rate divided by the Comparator Demographic Group selection rate. This analysis is conducted separately for each implementation of the AEDT in the dataset provided to DCI.

The law further specifies that the demographic groups need to be compared in three specific ways:

1. Gender comparison (i.e., Male, Female).
2. Race/ethnicity comparison (i.e., Hispanic or Latino, White, Black or African American, Native Hawaiian or Pacific Islander, Asian, Native American or Alaska Native, Two or More Races).
3. An intersectional comparison that is the combination of gender and race/ethnicity (e.g., Hispanic or Latino Male, Hispanic or Latino Female, White Male, White Female).

The NYC law impact ratio has been defined by the DCWP's published rules and is calculated as:

$$\text{NYC Law Impact Ratio} = \frac{\textit{selection rate of demographic (focal) group}}{\textit{selection rate of most selected (comparator) demographic group}}$$

Results Aggregation Methodology

For each AEDT implementation where sufficient data were available to analyze, the number of applicants, number of applicants selected, number of applicants not selected, selection rate, and impact ratio for each demographic group were calculated. These results were then aggregated to produce the tables in this report. To be able to aggregate results meaningfully across a range of implementations for the AEDT, there are a number of specific, nuanced issues that must be considered that are not required when conducting a bias audit in a singular implementation. These aggregation considerations and related decisions are as follows:

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Aggregated results are presented in tables, each of which provides an indication of the demographic group (i.e., gender, race/ethnicity, or both), the aggregated number of applicants that comprise the demographic group, the aggregated selection rate for the demographic group, and the aggregated NYC law impact ratio. In each analysis table, the comparator group is identified. Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

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HireVue Aggregate "Bias Audit" Analysis for Think - Shapedance, Numerosity for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	15099	0.68	Comparator Group		15099	0.34	Comparator Group
Female	7504	0.66	0.96		7504	0.34	1.00

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 189 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 189 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2450	0.65	0.93		2462	0.31	0.81
White	11345	0.65	0.93		11431	0.30	0.78
Black or African American	1807	0.64	0.91		1820	0.36	0.92
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	5636	0.70	1.00		5658	0.39	Comparator Group
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	758	0.70	Comparator Group		758	0.36	1.00

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 576 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 577 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

HireVue Aggregate "Bias Audit" Analysis for Think - Shapedance, Numerosity for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	1722	0.66	0.92		1722	0.30	0.73
Male White	7542	0.68	0.95		7554	0.33	0.77
Male Black or African American	1079	0.63	0.89		1079	0.34	0.81
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	3757	0.68	0.95		3763	0.35	0.79
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	447	0.72	1.00		447	0.32	0.84
Female Hispanic or Latino	718	0.64	0.90		718	0.36	0.87
Female White	3737	0.61	0.86		3811	0.28	0.65
Female Black or African American	714	0.64	0.89		727	0.36	0.82
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	1801	0.71	Comparator Group		1817	0.43	Comparator Group
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	52	0.63	0.95		52	0.31	0.83

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 752 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 753 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

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New York City Local Law 144 "Bias Audit" for HireVue for Willingness to Learn for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

Analysis Information

- Summary produced on: July 5, 2023

- Data analyzed were based on nationwide applicants who were assessed between January 1, 2021 and December 31, 2022

- The assessment assigns applicants to one of three tiers (i.e., Bottom Tier, Middle Tier, Top Tier), yielding 2 threshold comparisons for analysis (i.e., the threshold between Top/Middle Tier and Bottom Tier and the threshold between Top Tier and Middle/Bottom Tier)

Purpose

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Results Tables

Aggregated results are presented in tables, each of which provides an indication of the demographic group (i.e., gender, race/ethnicity, or both), the aggregated number of applicants that comprise the demographic group, the aggregated selection rate for the demographic group, and the aggregated NYC law impact ratio. In each analysis table, the comparator group is identified. Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

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[2] Due to this balancing of factors, there may be some instances where aggregated impact ratios reported in a table will exceed 1.0.

[3] Selection rates and impact ratios calculated for the tables in this report are based on the thresholds between tiers. This may or may not reflect employer-specific operational use of the AEDT with respect to making selection process decisions.

[4] Sufficient data for a demographic group to be analyzed for an implementation requires that group comprise at least two-percent of the sample, and that there be at least three applicants above the threshold and three applicants below the threshold in the demographic group.

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HireVue Aggregate "Bias Audit" Analysis for Willingness to Learn for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	20056	0.68	Comparator Group		20056	0.35	Comparator Group
Female	9120	0.64	0.94		9120	0.32	0.91

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 266 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 266 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2956	0.66	0.95		2956	0.33	0.86
White	12805	0.68	0.98		12805	0.34	0.91
Black or African American	2553	0.69	Comparator Group		2553	0.37	Comparator Group
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	9240	0.64	0.94		9240	0.32	0.84
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	831	0.69	1.02		861	0.39	1.02

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 721 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 721 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

HireVue Aggregate "Bias Audit" Analysis for Willingness to Learn for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	2148	0.67	0.96		2143	0.34	0.91
Male White	8831	0.69	Comparator Group		8718	0.38	1.01
Male Black or African American	1591	0.69	0.99		1639	0.37	Comparator Group
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	6097	0.65	0.94		6087	0.32	0.85
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	459	0.69	1.00		474	0.43	1.12
Female Hispanic or Latino	721	0.65	0.93		724	0.35	0.88
Female White	3821	0.63	0.91		3768	0.30	0.80
Female Black or African American	804	0.68	0.96		871	0.38	1.01
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	2914	0.58	0.82		2962	0.29	0.73
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	63	0.61	0.84		58	0.43	1.22

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 981 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 979 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

New York City Local Law 144 "Bias Audit" for HireVue for Adaptability for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

Analysis Information

- Summary produced on: July 5, 2023

- Data analyzed were based on nationwide applicants who were assessed between January 1, 2021 and December 31, 2022

- The assessment assigns applicants to one of three tiers (i.e., Bottom Tier, Middle Tier, Top Tier), yielding 2 threshold comparisons for analysis (i.e., the threshold between Top/Middle Tier and Bottom Tier and the threshold between Top Tier and Middle/Bottom Tier)

Purpose

The "bias audit" reported here is consistent with the use case wherein historical data from multiple employers using the same automated employment decision tool (AEDT) are used as the basis of the audit. This audit and report address the requirements of the New York City (NYC) Local Law 144 that regulates the use of AEDTs in accordance with the final rules published by the NYC Department of Consumer and Worker Protection (DCWP) on April 6, 2023.

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"Bias Audit" Analysis Methodology [1]

The analyses conducted for this audit are based on data from multiple employers using the AEDT in one or more different implementations as part of their selection processes. Analyses were conducted separately for each employer's implementation(s) (hereafter these individual, or de-aggregated, analyses will be referred to as "by implementation") and then results were aggregated to provide the tables in this report (referred to as "aggregated"). Before describing the aggregation process, a foundational understanding of the methodology used for analysis (related to a singular implementation of the AEDT by an employer) is required. As noted in the Analysis Information above, the AEDT assigns an applicant to a tier based on their performance. NYC's Local Law 144 and the rules published by the DCWP stipulate specific requirements for conducting the required analyses. Where the AEDT assigns applicants to tiers, an 'impact ratio' must be calculated for each demographic group for each threshold separating the tiers.[2] Note that NYC specifies this calculation to be the Focal Demographic Group selection rate divided by the Comparator Demographic Group selection rate. This analysis is conducted separately for each implementation of the AEDT in the dataset provided to DCI.

The law further specifies that the demographic groups need to be compared in three specific ways:

1. Gender comparison (i.e., Male, Female).
2. Race/ethnicity comparison (i.e., Hispanic or Latino, White, Black or African American, Native Hawaiian or Pacific Islander, Asian, Native American or Alaska Native, Two or More Races).
3. An intersectional comparison that is the combination of gender and race/ethnicity (e.g., Hispanic or Latino Male, Hispanic or Latino Female, White Male, White Female).

The NYC law impact ratio has been defined by the DCWP's published rules and is calculated as:

$$\text{NYC Law Impact Ratio} = \frac{\textit{selection rate of demographic (focal) group}}{\textit{selection rate of most selected (comparator) demographic group}}$$

Results Aggregation Methodology

For each AEDT implementation where sufficient data were available to analyze, the number of applicants, number of applicants selected, number of applicants not selected, selection rate, and impact ratio for each demographic group were calculated. These results were then aggregated to produce the tables in this report. To be able to aggregate results meaningfully across a range of implementations for the AEDT, there are a number of specific, nuanced issues that must be considered that are not required when conducting a bias audit in a singular implementation. These aggregation considerations and related decisions are as follows:

- Data were analyzed separately per implementation because the context around using the AEDT, the jobs for which they were used, the normative samples, and the composition of the specific applicant pools vary and cannot be assumed to be equivalent, nor can they be collapsed across implementations.
- Within an aggregation group, a single, consistent comparator group must be identified for all implementations of the AEDT to be able to produce interpretable aggregate impact ratios.
- Two factors are balanced when determining the aggregation comparator group: 1) selection rate and 2) statistical coverage. The comparator has the highest selection rate amongst those demographic groups with sufficient statistical coverage across implementations. [3]
- For all viable implementations analyzed in the aggregation group, aggregated values are calculated using recommended professional practices. [4,5]

Results Tables

Aggregated results are presented in tables, each of which provides an indication of the demographic group (i.e., gender, race/ethnicity, or both), the aggregated number of applicants that comprise the demographic group, the aggregated selection rate for the demographic group, and the aggregated NYC law impact ratio. In each analysis table, the comparator group is identified. Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

Finally, as specified by NYC for this law, each table contains a footnote specifying the number of applicants from the viable implementations analyzed for an aggregation group for whom demographic information is unavailable. Each page containing report tables also provides additional notes for the reader to bear in mind when viewing the results.

[1] A number of the requirements specific to NYC Local Law 144 are not aligned to contemporary adverse impact analysis practices (e.g., Morris and Dunleavy, Adverse impact analysis: Understanding data, statistics, and risk, 2017). However, these analyses were conducted as stipulated by NYC for the sole purpose of meeting the specific requirements of Local Law 144.

[2] Due to this balancing of factors, there may be some instances where aggregated impact ratios reported in a table will exceed 1.0.

[3] Selection rates and impact ratios calculated for the tables in this report are based on the thresholds between tiers. This may or may not reflect employer-specific operational use of the AEDT with respect to making selection process decisions.

[4] Sufficient data for a demographic group to be analyzed for an implementation requires that group comprise at least two-percent of the sample, and that there be at least three applicants above the threshold and three applicants below the threshold in the demographic group.

[5] When aggregating the number of applicants, results from each implementation in the aggregation group are summed; when aggregating the selection rate, results from each implementation are averaged; when aggregating the impact ratio, results from each implementation analysis must first be converted to a natural logarithm, averaged, and then exponentiated to yield the average ratio value.

HireVue Aggregate "Bias Audit" Analysis for Adaptability for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	7161	0.68	Comparator Group		6902	0.34	0.99
Female	3884	0.65	0.95		3871	0.35	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 107 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 104 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	963	0.69	Comparator Group		975	0.39	Comparator Group
White	3683	0.68	0.98		3769	0.34	0.88
Black or African American	1122	0.67	0.96		1125	0.35	0.91
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	4602	0.63	0.92		4624	0.32	0.80
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	300	0.67	0.94		310	0.38	0.92

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 190 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 191 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

HireVue Aggregate "Bias Audit" Analysis for Adaptability for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	666	0.68	0.98		681	0.39	Comparator Group
Male White	2331	0.68	0.99		2442	0.35	0.92
Male Black or African American	700	0.69	Comparator Group		700	0.34	0.90
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	2852	0.62	0.89		2880	0.29	0.75
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	99	0.68	0.96		118	0.44	1.05
Female Hispanic or Latino	205	0.67	0.96		233	0.38	1.00
Female White	1185	0.66	0.95		1200	0.32	0.82
Female Black or African American	329	0.70	1.01		329	0.36	0.96
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	1656	0.67	0.97		1665	0.34	0.87
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	63	0.56	0.79		52	0.44	1.27

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 288 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 291 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

New York City Local Law 144 "Bias Audit" for HireVue for Communication for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

Analysis Information

- Summary produced on: July 5, 2023

- Data analyzed were based on nationwide applicants who were assessed between January 1, 2021 and December 31, 2022

- The assessment assigns applicants to one of three tiers (i.e., Bottom Tier, Middle Tier, Top Tier), yielding 2 threshold comparisons for analysis (i.e., the threshold between Top/Middle Tier and Bottom Tier and the threshold between Top Tier and Middle/Bottom Tier)

Purpose

The "bias audit" reported here is consistent with the use case wherein historical data from multiple employers using the same automated employment decision tool (AEDT) are used as the basis of the audit. This audit and report address the requirements of the New York City (NYC) Local Law 144 that regulates the use of AEDTs in accordance with the final rules published by the NYC Department of Consumer and Worker Protection (DCWP) on April 6, 2023.

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"Bias Audit" Analysis Methodology [1]

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The law further specifies that the demographic groups need to be compared in three specific ways:

1. Gender comparison (i.e., Male, Female).
2. Race/ethnicity comparison (i.e., Hispanic or Latino, White, Black or African American, Native Hawaiian or Pacific Islander, Asian, Native American or Alaska Native, Two or More Races).
3. An intersectional comparison that is the combination of gender and race/ethnicity (e.g., Hispanic or Latino Male, Hispanic or Latino Female, White Male, White Female).

The NYC law impact ratio has been defined by the DCWP's published rules and is calculated as:

$$\text{NYC Law Impact Ratio} = \frac{\textit{selection rate of demographic (focal) group}}{\textit{selection rate of most selected (comparator) demographic group}}$$

Results Aggregation Methodology

For each AEDT implementation where sufficient data were available to analyze, the number of applicants, number of applicants selected, number of applicants not selected, selection rate, and impact ratio for each demographic group were calculated. These results were then aggregated to produce the tables in this report. To be able to aggregate results meaningfully across a range of implementations for the AEDT, there are a number of specific, nuanced issues that must be considered that are not required when conducting a bias audit in a singular implementation. These aggregation considerations and related decisions are as follows:

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HireVue Aggregate "Bias Audit" Analysis for Communication for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	20060	0.66	Comparator Group		20060	0.33	0.96
Female	9121	0.65	0.98		9121	0.34	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 266 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 266 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2956	0.67	0.96		2797	0.36	0.83
White	12806	0.70	Comparator Group		12149	0.36	0.87
Black or African American	2553	0.64	0.91		2353	0.30	0.72
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	9244	0.62	0.87		6428	0.28	0.66
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	854	0.69	0.96		872	0.42	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 721 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 657 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

HireVue Aggregate "Bias Audit" Analysis for Communication for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	2105	0.67	0.99		2053	0.36	0.94
Male White	8734	0.68	1.00		8560	0.37	0.96
Male Black or African American	1580	0.64	0.94		1551	0.30	0.76
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	6102	0.60	0.84		6102	0.29	0.76
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	450	0.64	0.89		485	0.43	1.16
Female Hispanic or Latino	724	0.70	0.93		733	0.36	0.94
Female White	3875	0.69	Comparator Group		3866	0.37	Comparator Group
Female Black or African American	825	0.64	0.89		841	0.35	0.89
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	2988	0.60	0.82		2954	0.33	0.80
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	63	0.66	0.95		63	0.38	1.02

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Note: There were 974 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 965 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

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HireVue Aggregate "Bias Audit" Analysis for Dependability for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	20025	0.67	Comparator Group		19766	0.34	0.97
Female	9074	0.65	0.97		9061	0.35	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 266 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 263 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2956	0.65	0.92		2810	0.32	0.77
White	12805	0.70	Comparator Group		12148	0.39	0.95
Black or African American	2552	0.62	0.89		2342	0.30	0.76
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	9243	0.63	0.90		6428	0.28	0.69
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	833	0.68	0.96		872	0.42	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 721 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 657 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

HireVue Aggregate "Bias Audit" Analysis for Dependability for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	2148	0.66	0.93		2158	0.32	0.79
Male White	8831	0.71	Comparator Group		8841	0.40	Comparator Group
Male Black or African American	1590	0.66	0.93		1607	0.31	0.75
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	6099	0.61	0.85		6101	0.29	0.68
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	481	0.65	0.92		495	0.44	1.13
Female Hispanic or Latino	733	0.67	0.92		733	0.35	0.92
Female White	3827	0.66	0.90		3872	0.39	0.98
Female Black or African American	820	0.62	0.86		847	0.31	0.75
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	2915	0.64	0.90		2979	0.32	0.74
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	63	0.68	0.96		69	0.41	0.82

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 981 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 981 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

New York City Local Law 144 "Bias Audit" for HireVue for Problem Solving for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

Analysis Information

- Summary produced on: July 5, 2023

- Data analyzed were based on nationwide applicants who were assessed between January 1, 2021 and December 31, 2022

- The assessment assigns applicants to one of three tiers (i.e., Bottom Tier, Middle Tier, Top Tier), yielding 2 threshold comparisons for analysis (i.e., the threshold between Top/Middle Tier and Bottom Tier and the threshold between Top Tier and Middle/Bottom Tier)

Purpose

The "bias audit" reported here is consistent with the use case wherein historical data from multiple employers using the same automated employment decision tool (AEDT) are used as the basis of the audit. This audit and report address the requirements of the New York City (NYC) Local Law 144 that regulates the use of AEDTs in accordance with the final rules published by the NYC Department of Consumer and Worker Protection (DCWP) on April 6, 2023.

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"Bias Audit" Analysis Methodology [1]

The analyses conducted for this audit are based on data from multiple employers using the AEDT in one or more different implementations as part of their selection processes. Analyses were conducted separately for each employer's implementation(s) (hereafter these individual, or de-aggregated, analyses will be referred to as "by implementation") and then results were aggregated to provide the tables in this report (referred to as "aggregated"). Before describing the aggregation process, a foundational understanding of the methodology used for analysis (related to a singular implementation of the AEDT by an employer) is required. As noted in the Analysis Information above, the AEDT assigns an applicant to a tier based on their performance. NYC's Local Law 144 and the rules published by the DCWP stipulate specific requirements for conducting the required analyses. Where the AEDT assigns applicants to tiers, an 'impact ratio' must be calculated for each demographic group for each threshold separating the tiers.[2] Note that NYC specifies this calculation to be the Focal Demographic Group selection rate divided by the Comparator Demographic Group selection rate. This analysis is conducted separately for each implementation of the AEDT in the dataset provided to DCI.

The law further specifies that the demographic groups need to be compared in three specific ways:

1. Gender comparison (i.e., Male, Female).
2. Race/ethnicity comparison (i.e., Hispanic or Latino, White, Black or African American, Native Hawaiian or Pacific Islander, Asian, Native American or Alaska Native, Two or More Races).
3. An intersectional comparison that is the combination of gender and race/ethnicity (e.g., Hispanic or Latino Male, Hispanic or Latino Female, White Male, White Female).

The NYC law impact ratio has been defined by the DCWP's published rules and is calculated as:

$$\text{NYC Law Impact Ratio} = \frac{\textit{selection rate of demographic (focal) group}}{\textit{selection rate of most selected (comparator) demographic group}}$$

Results Aggregation Methodology

For each AEDT implementation where sufficient data were available to analyze, the number of applicants, number of applicants selected, number of applicants not selected, selection rate, and impact ratio for each demographic group were calculated. These results were then aggregated to produce the tables in this report. To be able to aggregate results meaningfully across a range of implementations for the AEDT, there are a number of specific, nuanced issues that must be considered that are not required when conducting a bias audit in a singular implementation. These aggregation considerations and related decisions are as follows:

- Data were analyzed separately per implementation because the context around using the AEDT, the jobs for which they were used, the normative samples, and the composition of the specific applicant pools vary and cannot be assumed to be equivalent, nor can they be collapsed across implementations.
- Within an aggregation group, a single, consistent comparator group must be identified for all implementations of the AEDT to be able to produce interpretable aggregate impact ratios.
- Two factors are balanced when determining the aggregation comparator group: 1) selection rate and 2) statistical coverage. The comparator has the highest selection rate amongst those demographic groups with sufficient statistical coverage across implementations. [3]
- For all viable implementations analyzed in the aggregation group, aggregated values are calculated using recommended professional practices. [4,5]

Results Tables

Aggregated results are presented in tables, each of which provides an indication of the demographic group (i.e., gender, race/ethnicity, or both), the aggregated number of applicants that comprise the demographic group, the aggregated selection rate for the demographic group, and the aggregated NYC law impact ratio. In each analysis table, the comparator group is identified. Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

Finally, as specified by NYC for this law, each table contains a footnote specifying the number of applicants from the viable implementations analyzed for an aggregation group for whom demographic information is unavailable. Each page containing report tables also provides additional notes for the reader to bear in mind when viewing the results.

[1] A number of the requirements specific to NYC Local Law 144 are not aligned to contemporary adverse impact analysis practices (e.g., Morris and Dunleavy, Adverse impact analysis: Understanding data, statistics, and risk, 2017). However, these analyses were conducted as stipulated by NYC for the sole purpose of meeting the specific requirements of Local Law 144.

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[4] Sufficient data for a demographic group to be analyzed for an implementation requires that group comprise at least two-percent of the sample, and that there be at least three applicants above the threshold and three applicants below the threshold in the demographic group.

[5] When aggregating the number of applicants, results from each implementation in the aggregation group are summed; when aggregating the selection rate, results from each implementation are averaged; when aggregating the impact ratio, results from each implementation analysis must first be converted to a natural logarithm, averaged, and then exponentiated to yield the average ratio value.

HireVue Aggregate "Bias Audit" Analysis for Problem Solving for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	19020	0.67	Comparator Group		19020	0.34	Comparator Group
Female	7596	0.65	0.95		7596	0.33	0.97

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 266 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 266 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2678	0.66	0.96		2678	0.33	0.87
White	11668	0.67	0.98		11668	0.33	0.86
Black or African American	2247	0.68	Comparator Group		2247	0.38	Comparator Group
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	8603	0.65	0.93		8603	0.31	0.81
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	744	0.66	0.93		756	0.38	0.92

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 720 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 720 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

HireVue Aggregate "Bias Audit" Analysis for Problem Solving for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	2014	0.66	0.98		1999	0.34	0.96
Male White	8401	0.68	Comparator Group		8290	0.34	0.96
Male Black or African American	1483	0.67	0.99		1483	0.35	Comparator Group
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	5880	0.66	0.98		5852	0.31	0.89
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	471	0.61	0.87		474	0.41	1.08
Female Hispanic or Latino	593	0.67	0.98		605	0.36	0.92
Female White	3184	0.63	0.92		3145	0.31	0.84
Female Black or African American	644	0.72	1.04		666	0.49	1.34
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	2591	0.57	0.82		2582	0.27	0.70
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	11	0.55	0.76		11	0.27	0.66

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 980 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 977 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

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New York City Local Law 144 "Bias Audit" for HireVue for Team Orientation for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

Analysis Information

- Summary produced on: July 5, 2023

- Data analyzed were based on nationwide applicants who were assessed between January 1, 2021 and December 31, 2022

- The assessment assigns applicants to one of three tiers (i.e., Bottom Tier, Middle Tier, Top Tier), yielding 2 threshold comparisons for analysis (i.e., the threshold between Top/Middle Tier and Bottom Tier and the threshold between Top Tier and Middle/Bottom Tier)

Purpose

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1. Gender comparison (i.e., Male, Female).
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The NYC law impact ratio has been defined by the DCWP's published rules and is calculated as:

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HireVue Aggregate "Bias Audit" Analysis for Team Orientation for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	19021	0.68	Comparator Group		19021	0.35	Comparator Group
Female	7596	0.61	0.89		7596	0.31	0.86

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 266 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 266 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2679	0.71	Comparator Group		2545	0.36	0.90
White	11669	0.67	0.94		11098	0.35	0.87
Black or African American	2248	0.67	0.95		2051	0.35	0.86
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	8601	0.66	0.91		5811	0.29	0.77
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	739	0.68	0.95		767	0.42	Comparator Group

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 720 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 657 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

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HireVue Aggregate "Bias Audit" Analysis for Team Orientation for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

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Male Hispanic or Latino	2015	0.72	Comparator Group		1845	0.36	0.88
Male White	8402	0.68	0.94		7569	0.36	0.89
Male Black or African American	1484	0.71	0.99		1268	0.36	0.88
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	5878	0.67	0.92		3558	0.31	0.81
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	480	0.68	0.92		504	0.43	Comparator Group
Female Hispanic or Latino	605	0.67	0.90		545	0.30	0.86
Female White	3178	0.64	0.89		2759	0.30	0.69
Female Black or African American	660	0.70	0.94		601	0.35	1.03
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	2591	0.60	0.80		1359	0.21	0.54
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	11	0.73	0.92		0	—	—

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New York City Local Law 144 "Bias Audit" for HireVue for Think - Shapedance, Numerosity for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

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[5] When aggregating the number of applicants, results from each implementation in the aggregation group are summed; when aggregating the selection rate, results from each implementation are averaged; when aggregating the impact ratio, results from each implementation analysis must first be converted to a natural logarithm, averaged, and then exponentiated to yield the average ratio value.

HireVue Aggregate "Bias Audit" Analysis for Think - Shapedance, Numerosity for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	15099	0.68	Comparator Group		15099	0.34	Comparator Group
Female	7504	0.66	0.96		7504	0.34	1.00

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 189 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 189 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2450	0.65	0.93		2462	0.31	0.81
White	11345	0.65	0.93		11431	0.30	0.78
Black or African American	1807	0.64	0.91		1820	0.36	0.92
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	5636	0.70	1.00		5658	0.39	Comparator Group
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	758	0.70	Comparator Group		758	0.36	1.00

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 576 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 577 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

HireVue Aggregate "Bias Audit" Analysis for Think - Shapedance, Numerosity for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	1722	0.66	0.92		1722	0.30	0.73
Male White	7542	0.68	0.95		7554	0.33	0.77
Male Black or African American	1079	0.63	0.89		1079	0.34	0.81
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	3757	0.68	0.95		3763	0.35	0.79
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	447	0.72	1.00		447	0.32	0.84
Female Hispanic or Latino	718	0.64	0.90		718	0.36	0.87
Female White	3737	0.61	0.86		3811	0.28	0.65
Female Black or African American	714	0.64	0.89		727	0.36	0.82
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	1801	0.71	Comparator Group		1817	0.43	Comparator Group
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	52	0.63	0.95		52	0.31	0.83

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 752 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 753 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

New York City Local Law 144 "Bias Audit" for HireVue for Willingness to Learn for Intern or new college graduate jobs

Conducted by DCI Consulting Group (DCI)

Analysis Information

- Summary produced on: July 5, 2023

- Data analyzed were based on nationwide applicants who were assessed between January 1, 2021 and December 31, 2022

- The assessment assigns applicants to one of three tiers (i.e., Bottom Tier, Middle Tier, Top Tier), yielding 2 threshold comparisons for analysis (i.e., the threshold between Top/Middle Tier and Bottom Tier and the threshold between Top Tier and Middle/Bottom Tier)

Purpose

The "bias audit" reported here is consistent with the use case wherein historical data from multiple employers using the same automated employment decision tool (AEDT) are used as the basis of the audit. This audit and report address the requirements of the New York City (NYC) Local Law 144 that regulates the use of AEDTs in accordance with the final rules published by the NYC Department of Consumer and Worker Protection (DCWP) on April 6, 2023.

About DCI Consulting Group (DCI)

DCI is a human resources consulting firm headquartered in Washington, D.C. Since 2001, DCI has provided expert solutions to hundreds of organizations on complex issues, with particular emphasis on equal employment opportunity analytics, employee selection and assessment, independent third-party reviews, and litigation support work. DCI's team of Industrial/Organizational Psychologists and Labor Economists are recognized for their applied experience in complex quantitative analytics, adverse impact measurement, pay equity, job analysis, validation research and job-relatedness evaluations, and routinely perform work in the context of affirmative action plans under the jurisdiction of the Department of Labor's Office of Federal Contract Compliance Programs compliance evaluations, Equal Employment Opportunity Commission systemic investigations, and expert witness work on matters related to Title VII, Executive Order 11246, the Age Discrimination in Employment Act, and the Americans with Disabilities Act.

"Bias Audit" Analysis Methodology [1]

The analyses conducted for this audit are based on data from multiple employers using the AEDT in one or more different implementations as part of their selection processes. Analyses were conducted separately for each employer's implementation(s) (hereafter these individual, or de-aggregated, analyses will be referred to as "by implementation") and then results were aggregated to provide the tables in this report (referred to as "aggregated"). Before describing the aggregation process, a foundational understanding of the methodology used for analysis (related to a singular implementation of the AEDT by an employer) is required. As noted in the Analysis Information above, the AEDT assigns an applicant to a tier based on their performance. NYC's Local Law 144 and the rules published by the DCWP stipulate specific requirements for conducting the required analyses. Where the AEDT assigns applicants to tiers, an 'impact ratio' must be calculated for each demographic group for each threshold separating the tiers.[2] Note that NYC specifies this calculation to be the Focal Demographic Group selection rate divided by the Comparator Demographic Group selection rate. This analysis is conducted separately for each implementation of the AEDT in the dataset provided to DCI.

The law further specifies that the demographic groups need to be compared in three specific ways:

1. Gender comparison (i.e., Male, Female).
2. Race/ethnicity comparison (i.e., Hispanic or Latino, White, Black or African American, Native Hawaiian or Pacific Islander, Asian, Native American or Alaska Native, Two or More Races).
3. An intersectional comparison that is the combination of gender and race/ethnicity (e.g., Hispanic or Latino Male, Hispanic or Latino Female, White Male, White Female).

The NYC law impact ratio has been defined by the DCWP's published rules and is calculated as:

$$\text{NYC Law Impact Ratio} = \frac{\textit{selection rate of demographic (focal) group}}{\textit{selection rate of most selected (comparator) demographic group}}$$

Results Aggregation Methodology

For each AEDT implementation where sufficient data were available to analyze, the number of applicants, number of applicants selected, number of applicants not selected, selection rate, and impact ratio for each demographic group were calculated. These results were then aggregated to produce the tables in this report. To be able to aggregate results meaningfully across a range of implementations for the AEDT, there are a number of specific, nuanced issues that must be considered that are not required when conducting a bias audit in a singular implementation. These aggregation considerations and related decisions are as follows:

- Data were analyzed separately per implementation because the context around using the AEDT, the jobs for which they were used, the normative samples, and the composition of the specific applicant pools vary and cannot be assumed to be equivalent, nor can they be collapsed across implementations.
- Within an aggregation group, a single, consistent comparator group must be identified for all implementations of the AEDT to be able to produce interpretable aggregate impact ratios.
- Two factors are balanced when determining the aggregation comparator group: 1) selection rate and 2) statistical coverage. The comparator has the highest selection rate amongst those demographic groups with sufficient statistical coverage across implementations. [3]
- For all viable implementations analyzed in the aggregation group, aggregated values are calculated using recommended professional practices. [4,5]

Results Tables

Aggregated results are presented in tables, each of which provides an indication of the demographic group (i.e., gender, race/ethnicity, or both), the aggregated number of applicants that comprise the demographic group, the aggregated selection rate for the demographic group, and the aggregated NYC law impact ratio. In each analysis table, the comparator group is identified. Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

Finally, as specified by NYC for this law, each table contains a footnote specifying the number of applicants from the viable implementations analyzed for an aggregation group for whom demographic information is unavailable. Each page containing report tables also provides additional notes for the reader to bear in mind when viewing the results.

[1] A number of the requirements specific to NYC Local Law 144 are not aligned to contemporary adverse impact analysis practices (e.g., Morris and Dunleavy, Adverse impact analysis: Understanding data, statistics, and risk, 2017). However, these analyses were conducted as stipulated by NYC for the sole purpose of meeting the specific requirements of Local Law 144.

[2] Due to this balancing of factors, there may be some instances where aggregated impact ratios reported in a table will exceed 1.0.

[3] Selection rates and impact ratios calculated for the tables in this report are based on the thresholds between tiers. This may or may not reflect employer-specific operational use of the AEDT with respect to making selection process decisions.

[4] Sufficient data for a demographic group to be analyzed for an implementation requires that group comprise at least two-percent of the sample, and that there be at least three applicants above the threshold and three applicants below the threshold in the demographic group.

[5] When aggregating the number of applicants, results from each implementation in the aggregation group are summed; when aggregating the selection rate, results from each implementation are averaged; when aggregating the impact ratio, results from each implementation analysis must first be converted to a natural logarithm, averaged, and then exponentiated to yield the average ratio value.

HireVue Aggregate "Bias Audit" Analysis for Willingness to Learn for Intern or new college graduate jobs

NYC Law Impact Ratios for Gender

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male	20056	0.68	Comparator Group		20056	0.35	Comparator Group
Female	9120	0.64	0.94		9120	0.32	0.91

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 266 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 266 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

NYC Law Impact Ratios for Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Hispanic or Latino	2956	0.66	0.95		2956	0.33	0.86
White	12805	0.68	0.98		12805	0.34	0.91
Black or African American	2553	0.69	Comparator Group		2553	0.37	Comparator Group
Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Asian	9240	0.64	0.94		9240	0.32	0.84
Native American or Alaska Native	0	—	—		0	—	—
Two or More Races	831	0.69	1.02		861	0.39	1.02

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 721 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 721 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.

HireVue Aggregate "Bias Audit" Analysis for Willingness to Learn for Intern or new college graduate jobs

NYC Law Impact Ratios for the Combination of Gender and Race/Ethnicity

Demographic Group	Number of Applicants	Selection Rate for Top + Middle Tier vs Bottom Tier	Impact Ratio for Top + Middle Tier vs Bottom Tier		Number of Applicants	Selection Rate for Top Tier vs Middle + Bottom Tier	Impact Ratio for Top Tier vs Middle + Bottom Tier
Male Hispanic or Latino	2148	0.67	0.96		2143	0.34	0.91
Male White	8831	0.69	Comparator Group		8718	0.38	1.01
Male Black or African American	1591	0.69	0.99		1639	0.37	Comparator Group
Male Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Male Asian	6097	0.65	0.94		6087	0.32	0.85
Male Native American or Alaska Native	0	—	—		0	—	—
Male Two or More Races	459	0.69	1.00		474	0.43	1.12
Female Hispanic or Latino	721	0.65	0.93		724	0.35	0.88
Female White	3821	0.63	0.91		3768	0.30	0.80
Female Black or African American	804	0.68	0.96		871	0.38	1.01
Female Native Hawaiian or Other Pacific Islander	0	—	—		0	—	—
Female Asian	2914	0.58	0.82		2962	0.29	0.73
Female Native American or Alaska Native	0	—	—		0	—	—
Female Two or More Races	63	0.61	0.84		58	0.43	1.22

A cell with "—" indicates insufficient data to calculate this aggregate statistic.

Note: There were 981 applicants with unknown or missing gender information for Top/Middle Tier vs Bottom Tier analyses; there were 979 applicants with unknown or missing gender information for Top Tier vs Middle/Bottom Tier analyses; data from applicants with missing demographic data are not included in the calculations for this table.

Please note that, due to the methods required to aggregate results, methods or analyses intended for singular implementations cannot be applied to the aggregated values in the table. Additionally, this means that the aggregated impact ratios reported in the tables cannot be computed directly from the aggregated selection rates appearing in the tables.