AI TO HIRE

THE IMPACT OF AI ON MERITOCRATIC RECRUITMENT IN THE WORK PLACE

WHAT IS AI RECRUITMENT?

- Application of artificial intelligence with predictive analysis that helps in recruiting automation.
- Also called smart recruitment as it reduces the workload for recruiters, increases hire quality, avoids repetitive tasks, and uses time effectively.
- Around 42% & more than 5000 companies in the US have shifted to AI recruitment.

TOOLS USED IN AI RECRUITMENT

SCREENING SOFTWARE

CHAT BOTS

OPTIMISE JOB DESCRIPTION

DECIDE ON COMPENSATION

VIDEO INTERVIEWS

HYPOTHESIS STATEMENT

AI hiring would lead to less bias and more equitable/ inclusive practices in recruiting.

RIVKA'S RESUME

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EDUCATION

Columbia University, MS-PhD Program (Computer Science)   Sept 2009 – present

Brooklyn College, B.S. (Computer and Information Sciences)   Sept 2009
Summa cum laude

RESEARCH INTERESTS

Spoken Language Processing
I am currently working with Dr. Julia Hirschberg on investigating and modelling entrainment in spoken corpora. Among other topics, I am interested in the identification of the acoustic, prosodic and conversational features on which speakers entrain, at what point conversational partners entrain, and what entrainment can add to our understanding of discourse acts such as turn taking.

HONORS AND AWARDS

- Honorable Mention, NSF Graduate Research Fellowship   2009
- CRA-DREU participant   Summer 2009
- Frank Wertheimer Award   2009
  Awarded by the Math Department at Brooklyn College for academic excellence.
- Jack Wolfe Award   2009
  Awarded by the Computer Science Department at Brooklyn College for academic excellence.
- Marge Magner Internship Award   Summer 2008
- National Merit Scholarship Finalist   2007

PROJECTS

Adult Perception of Emotional Speech in Children of Different Ages
For a class project in 2009, I had children from grades 1, 3 and 6 play a simple computer game that I created in Java. There were six rounds to the game, of which they won four rounds and lost two. After each round, they were asked to choose a prize if they had won or give one up if they had lost, providing us with a lexically neutral sample of happy or sad speech. Adults were then asked to rate the children's speech using a web interface, indicating how old they thought the child was, whether they thought the child had won or lost, and how invested they thought the child was in the game. Examining the acoustic

SCENARIO

01

SCENARIO

02

DISADVANTAGES
ANALYSIS
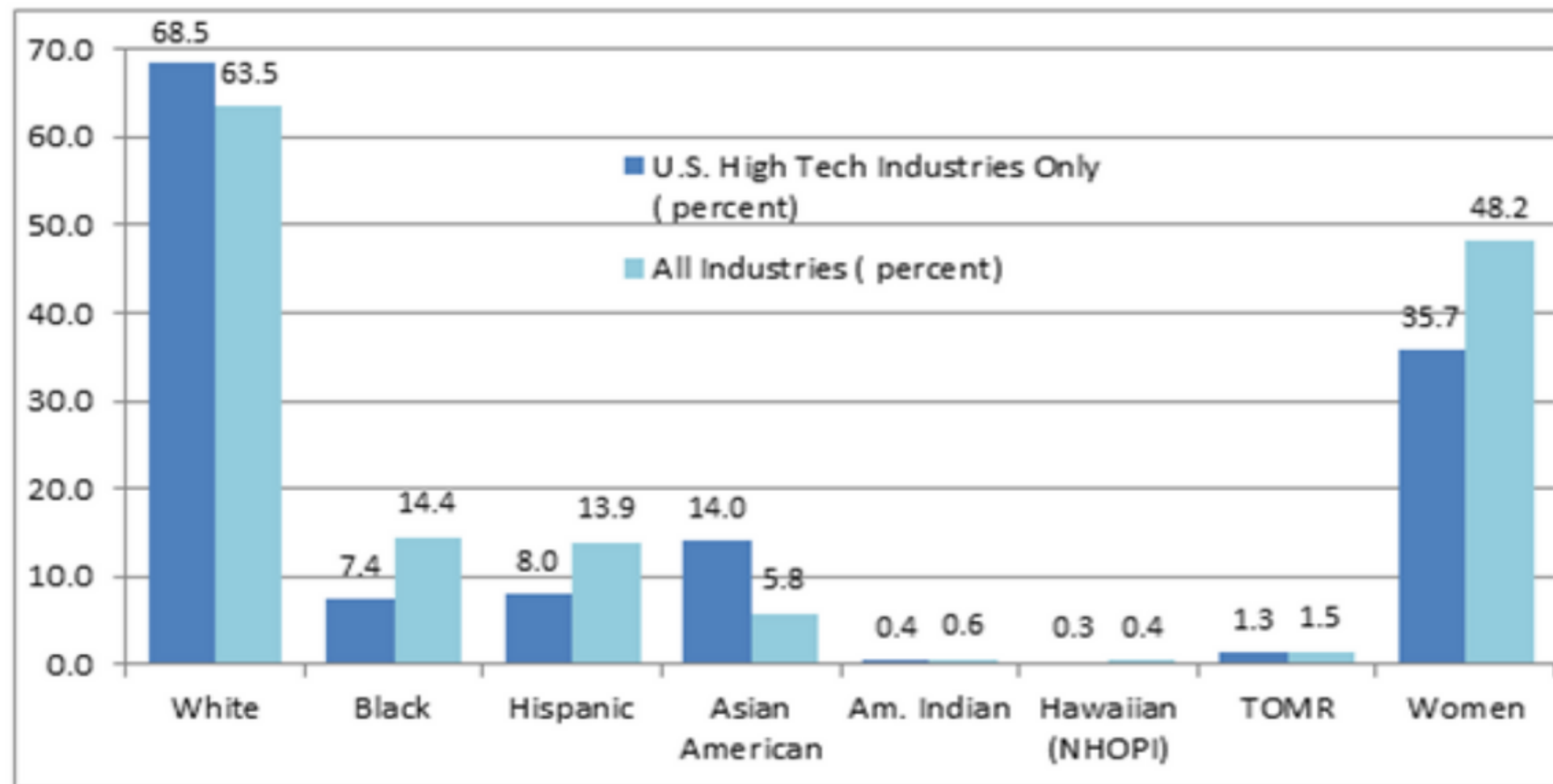
01 ALGORITHM BIAS

03 REGULATION

02 DISCRIMINATION

DISADVANTAGES
ALGORITHM BIAS

INDUSTRY PARTICIPATION BY GENDER SEX AND RACE GROUPS
HIGH TECH VS. ALL PRIVATE INDUSTRIES
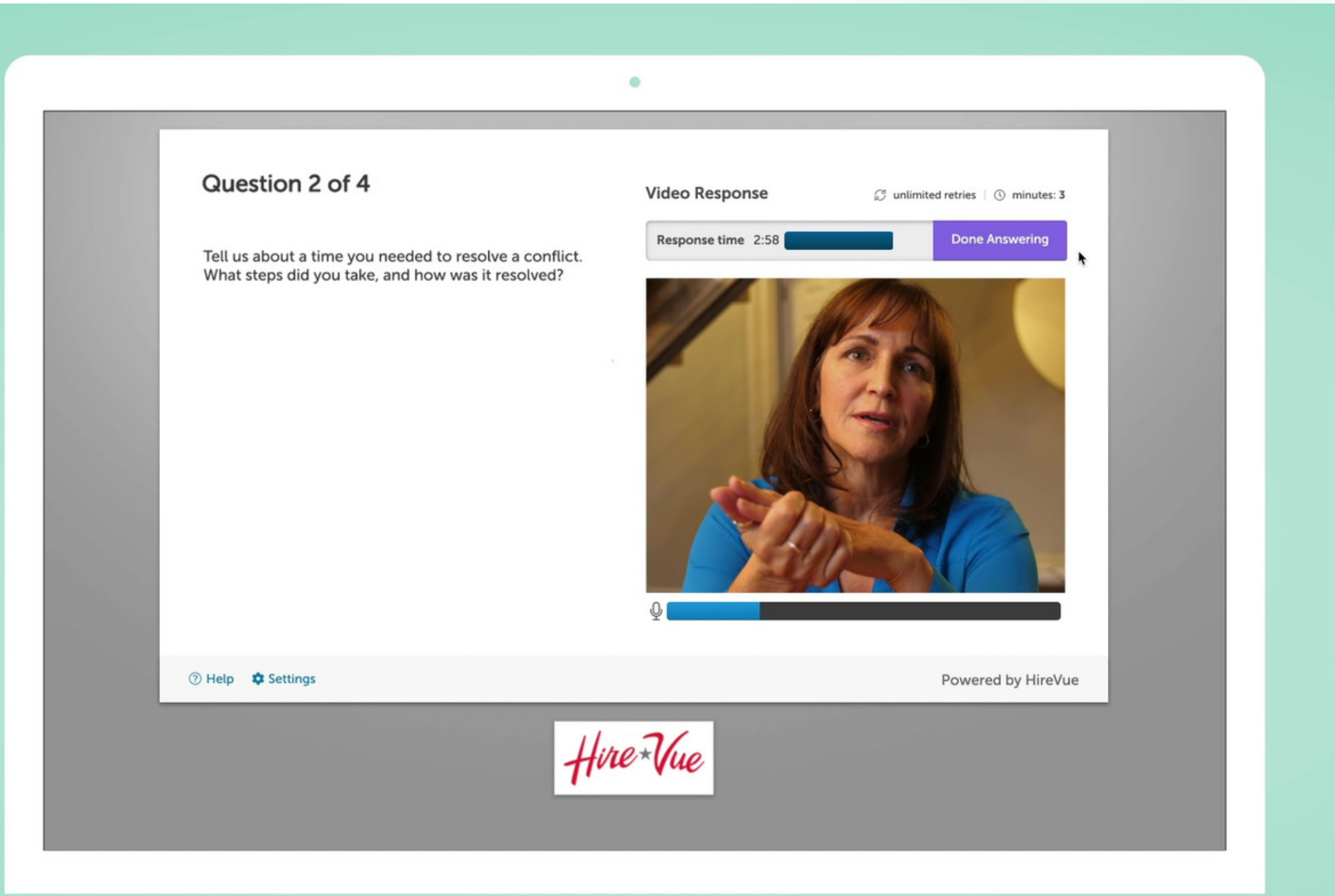

- AI Companies argue that their algorithms can determine a good employ from a bad one
  - Objective and Subjective data
  - 500,000 data points total

- Amazon's automated hiring tool
  - Due to Amazon's alogorithm criteria, male resumes were favored over female resumes
  - 28 incorrect matches

- "How to Ace HireVue Interview"
  - Eye contact
  - Atire
  - enunciation
  - Sounding natural

DISADVANTAGES
DELIBRATE DISCRIMNATION

- The misconception is that the systems get rid of human bias, however, it just masks it under software and code.

- Data used to assess interviews are never made public

- Companies can hide their discrimination behind these AI's and wipe their hands clean in the eyes of the public.

- HireVue Class action lawsuit
  - They illegally collected biometric data from candidates without consent

DISADVANTAGES

LACK OF REGULATION AND GOVERNANCE
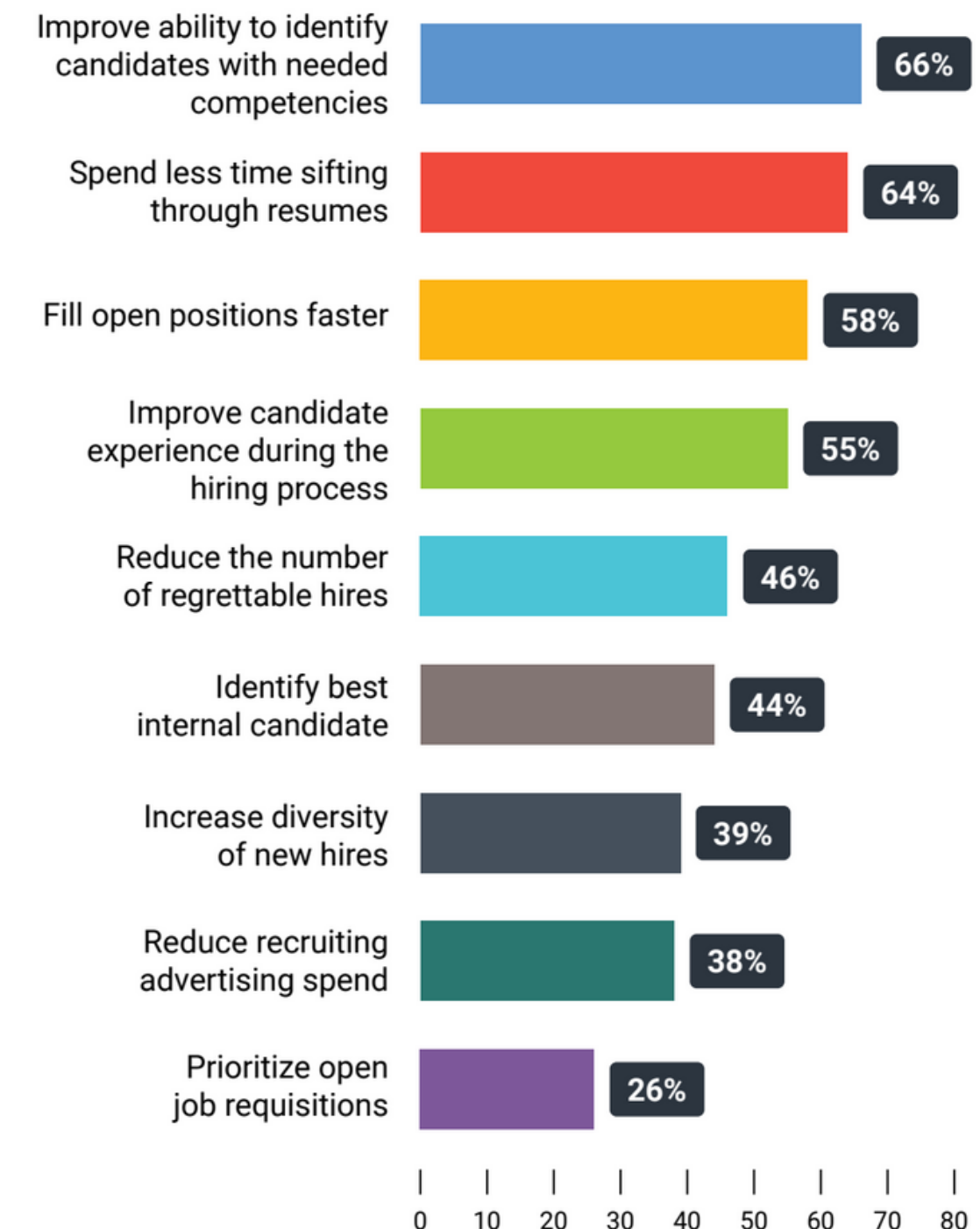
U.S. Equal Employment Opportunity Commission

- The Americans with Disabilities Act and the Use of AI in Recruitment Guidelines

- Artificial Intelligence and Algorithmic Fairness Initiative

- 2019 Illinois "The Artificial Intelligence Video Interview Act"

- 2020 Blue Print for an AI Bill of Rights

ADVANTAGES

01 REDUCES HUMAN BIAS

- Well-trained **data-centric** models of AI can objectively assess candidates and eliminate traditional human bias; Contingent on data quality and scalability.

- **Data** = Increased **transparency** in the hiring process leads to more organizational **accountability**.

- Bias in algorithms can be **corrected** once recognized
  - Open AI
  - Future of Life Institute
  - Microsoft:Responsible AI Playbook

ORACLE 2019

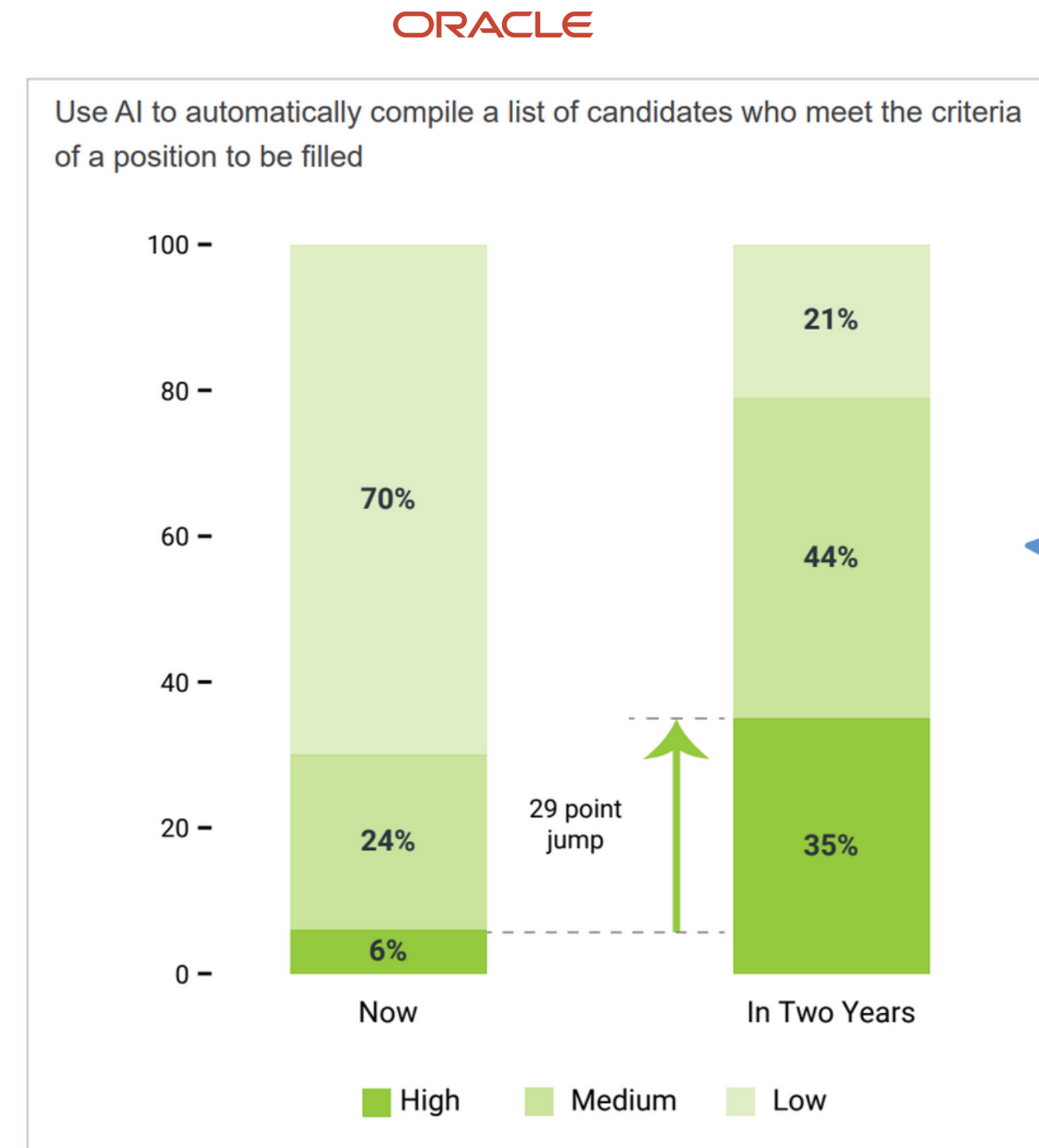|	
Improve ability to identify candidates with needed competencies	66%
Spend less time sifting through resumes	64%
Fill open positions faster	58%
Improve candidate experience during the hiring process	55%
Reduce the number of regrettable hires	46%
Identify best internal candidate	44%
Increase diversity of new hires	39%
Reduce recruiting advertising spend	38%
Prioritize open job requisitions	26%

0 10 20 30 40 50 60 70 80

ADVANTAGES

02 PROVIDES ACCESS TO MORE QUALIFIED CANDIDATES

- Increased ability to access a **larger** pool of candidates. AI can assess the **entire candidate pool** without omitting qualified individuals due to time constraints.

- **Streamlines** and **standardizes** the recruitment process.

- Identifies candidates through a modern approach based on logical reasoning, probability, mathematics,
  - The usage of AI in the initial stages of recruitment yields a candidate pool that is **14%** more likely to receive the job offer and **18%** more likely to accept the offer.

  (Cowgill, Columbia University)

ORACLE

Use AI to automatically compile a list of candidates who meet the criteria of a position to be filled

	Now	In Two Years
Low	70%	21%
Medium	24%	44%
High	6%	35%

29 point jump

High · Medium · Low

Seventy-nine percent predict that within two years their organizations will, at least to a medium degree, use AI to automatically compile lists of likely candidates
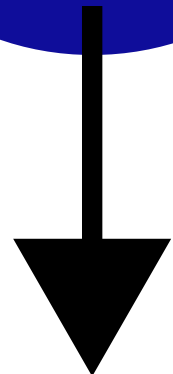
INITIATIVE

- Unilever has found huge success using their AI in recruitment in hiring experiencing a significant increase in hiring of non-white candidates and in universities represented.

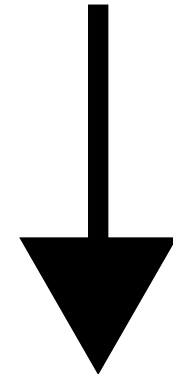**840 non-white applicants**

2600 non-white applicants

pymetrics

Hire★Vue

70,000 person-hours of interviewing and assessing candidates had been cut

In one day Unilever is able to select 800 candidates from a group of 3500 applicants through the use of proprietary technology

Effectiveness of the process

First, Candidates are playing a selection of games that test attributes useful for the role, instead of having CVS analyzed stories of past internships/ experiences told.

In the second stage, the candidate submitted a video interview that look for cues in their behavior that help the company to find a candidate who will fit in Unilever.

The rate of offers to candidates who made it to the final round increased to 80% from 63%, and the acceptance rate of these offers increased to 82% from 64%.

CONCULSIONS IMPLICATIONS

AI Needs to be Improved to promote DEI in recruitment

Unilever v. Amazon : What went right? What went wrong?

Key Takeaways to Improve On
- More Transparency About the Process
- More Regulation with tangible Policy Applications
- Diverse Teams to Construct and Monitor Algorithims

THANK YOU

FOR YOUR ATTENTION! QUESTIONS?

CITATIONS

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