

# Unlocking retention

How Eightfold Match Score enhances talent acquisition and reduces turnover costs



In today's competitive business environment, attracting and retaining top talent is a critical challenge faced by organizations. This talent scarcity not only disrupts operations and lowers productivity, but also increases recruitment and onboarding costs, highlighting the critical importance of securing the right talent.

Unfortunately, there is limited research showing an empirical relationship between recruiter résumé review decisions and job performance; it is more often assumed rather than demonstrated empirically. This uncertainty has led to questions about the effectiveness of traditional hiring practices. However, with Eightfold Match Score, which provides a skills-based measurement of a job candidate's match to an open position, our platform evaluates this empirically to understand the impact on key business outcomes like employee turnover.

We use state-of-the-art, machine-learning techniques to build the underlying model that predicts the match of the candidate to job requirements as specified by the job requisition. By analyzing the relationship between our Match Scores and employee retention, our groundbreaking study offers compelling evidence that our AI-driven approach drives employee retention.

**Our criterion validation study shows that employees with higher Match Scores for the roles they were hired into exhibit significantly better retention rates, potentially leading to reduced turnover costs and a more stable and effective workforce.**

We believe that our research represents one of the first empirical evaluations of an AI matching approach's relationship to employee retention. This achievement highlights the unique strengths of our AI-driven approach to aid recruiters in talent acquisition.

Here's how Eightfold Match Score can give you a retention advantage:

- **Integrate Eightfold into your talent acquisition process.** Our platform seamlessly integrates with existing HR systems, allowing recruiters to use Eightfold Match Score for a more efficient and effective hiring experience.
- **Gain deeper insights into your talent pool.** Eightfold analyzes a wide range of data points to identify the career trajectories that are the best matched for each role.
- **Hire a diverse and qualified workforce.** The Match Score focuses on skills and experience, which can mitigate potential biases.
- **Build a culture of engagement.** By matching individuals with your organization's roles objectively, you can help get the right people in the right roles and also develop better informed internal mobility and succession planning.

## Eightfold Match Score: A powerful tool for understanding retention

We conducted a criterion validity study to assess the effectiveness of our Eightfold Match Score and its implications for organizational hiring practices. The Equal Employment Opportunity Commission (EEOC) also emphasizes the importance of fair talent acquisition practices. In line with these principles:

- Eightfold products are not automated employment decision-making tools. Our products are designed to have a human-in-the-loop to facilitate more informed human decision-making.
- Eightfold Match Score is never a standalone assessment of any person. Instead, it is always an expression of the match between a job candidate to a particular position.

Criterion validation is a fundamental concept in research methodology, particularly in the field of psychometrics. Generally, it refers to the process of establishing the relationship between a measure and an outcome to determine the measure's effectiveness in predicting the outcome.

In this study, the criterion measure used for the analysis is the employee retention during the analysis period post-hiring. This measure helps us understand the relationship between Eightfold Match Score of a candidate for a role and employee retention of the candidate post-hiring. Validated selection procedures mitigate potential biases that may be present in traditional hiring practices and provide data-driven insights to improve the quality of hiring decisions.

### Objective:

This study aimed to assess the criterion validity of the Eightfold Match Score in predicting employee retention 18 months after hiring.

### Methodology:

- We analyzed data of **100K+ employees** hired between Jan. 1, 2021, and June 30, 2022.
- We tracked the retention status 18 months post-hiring and examined the relationship between Eightfold Match Scores and retention rates.
- Eightfold Match Score is a data-driven metric generated by our AI algorithms, which analyzes a candidate's skills and experience against the requirements of a job description.
- Employees were grouped based on their Eightfold Match Score. Employees who had an Eightfold Match Score of 4.0 or higher as candidates for the respective roles they were hired into were labeled as "stronger match" in the study. Employees who had an Eightfold Match Score lower than 4.0 as candidates for the respective roles they were hired into were labeled as "weaker match" in the study.

**Cost-saving potential:**

If there is an increase in retention rate for “stronger match” as compared to that of “weaker match,” it suggests that Eightfold Match Score could be a helpful tool for assessing long-term fit within the organization. While various factors beyond skills and experience influence retention, a higher Eightfold Match Score could potentially translate to an increased likelihood (quantified by a variable we can represent as X%) of an employee staying for a longer period.

Identifying candidates with a higher propensity to stay with the company helps your organization minimize the financial burden associated with employee turnover.

**According to this [McKinsey article](#), the average cost for a company to replace a full-time employee is \$52,000, and an S&P 500 company is at a risk of losing \$226 million due to attrition and vacancies.**

Our study shows that our Match Score can not only help identify candidates who are a good match for a role in terms of skills and experience, but it may also help lower turnover costs. To show the potential financial impact, we project the turnover cost savings if retention rate improvement is 3% for companies of various sizes:

Company size	Potential turnover cost savings, assuming a 3% retention rate improvement
100 employees	\$156,000
1,000 employees	\$1.56 million
10,000 employees	\$15.6 million
100,000 employees	\$156 million

These numbers show a low-single digit % retention-rate improvement would translate into significant savings. In addition, today’s organizations need a strategic edge to attract and retain top performers.

Eightfold Match Score enables your organization to better identify candidates who possess the skills you need and likely stay longer with your company. [Research](#) in the *Journal of Applied Psychology* (2017) suggests a negative relationship between turnover rates and various dimensions of organizational performance. High-retention companies tend to experience superior customer satisfaction, profitability, and innovation.

### Key study findings:

Below is a table outlining the composition of the employees analyzed in the study.

	Total (Mixed composition)	Stronger match (Match Score >= 4.0)	Weaker match (Match Score < 4.0)
Number of employees	112,424	72,508	39,916
Retain ratio (%)	74.17%*	78.40%	66.49%

\*Represents the average probability of any given employee in the study leaving the position within 18 months of the hire date.

**Statistically significant relationship with employee retention:** “Stronger match” employees had a retention rate of 78.40% compared to 74.17% for the mixed composition data set, and 66.49% for the weaker match data set. This translates to an 11.91% difference in retention rates between the stronger match and the weaker match groups.

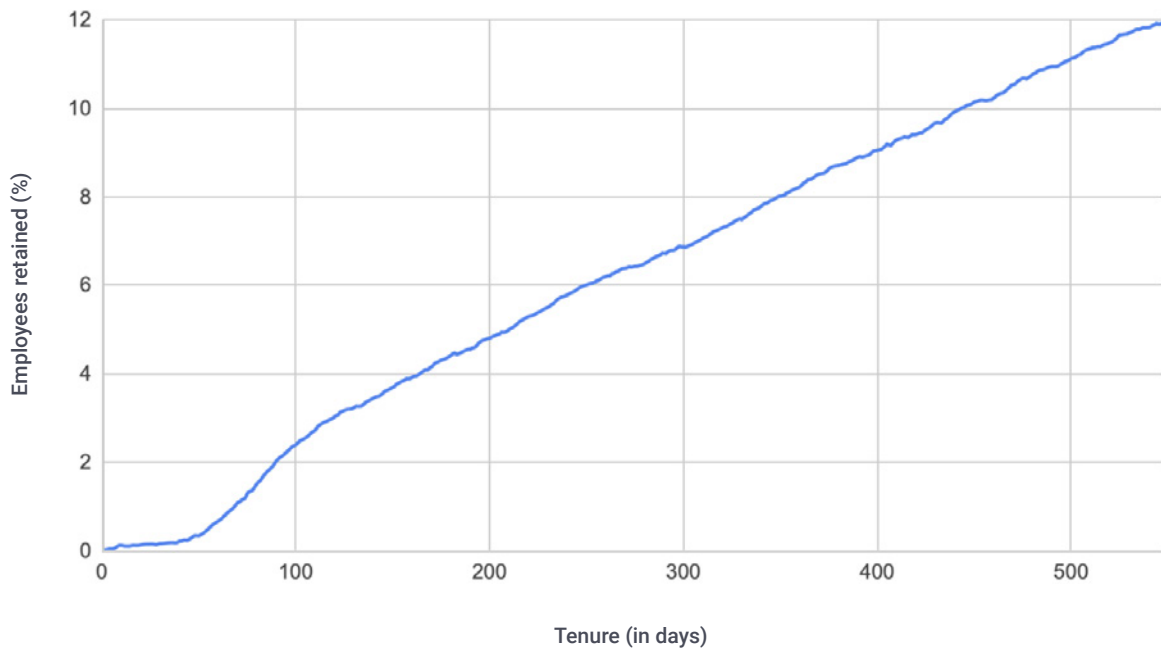
At times, your organization’s hiring decisions (based on your interview process, etc.) may not align with what our Match Score determines to be a stronger/weaker match. The results showcase the potential retention rate savings gained if an organization were to use the Eightfold Match Score as a stronger signal.

Viewed that way, the table shows a 4.23% difference in retention rates between the stronger match group and the mixed-composition group. It’s important to remember that employee retention is influenced by many factors beyond skills and experience. While this study provides important, foundational validation evidence, there are many situations in which an employer-specific evaluation of the relationship with employee retention will be helpful.

Using the cost of turnover value quoted by McKinsey above, the financial impact of such a significant difference in retention rates between stronger match and the mixed-composition group would be translated into the amounts below.

Company size	Potential turnover cost savings, assuming a 4.23% probability difference
100 employees	~\$220,000
1,000 employees	\$2.2 million
10,000 employees	\$22.2 million
100,000 employees	\$222 million

### Percentage of additional employees retained using Eightfold



**Figure 1:** Graph showing the increase in the % of employees retained between “stronger match” and “weaker match” categories when using Eightfold Match Score for hiring. This graph shows the retention-rate percentage delta between the “stronger match” category and the “weaker match” category derived from the Kaplan-Meier survival analysis.

This criterion validation evidence demonstrates the relationship between the Eightfold Match Score and employee retention. In addition, this study conveys the significant potential savings your organization can obtain by hiring highly skilled individuals by using the Eightfold Match Score. Further, this study provides empirical evidence supporting the use of a data-driven, skills-based AI approach to matching candidates and jobs.

## Appendix:

**Match Score threshold:** Using a threshold, we group employees by the Eightfold Match Score they receive for the position they were hired for:

- Stronger match, Match Score  $\geq 4.0$
- Weaker match, Match Score  $< 4.0$
- Mixed composition, set of employees who were retained post the analysis period including those of stronger match and weaker match

**Retain (retention):** 18 months post-hiring (survival period), if the employee is still working at the company, the study considers that employee retained; otherwise, the study considers that employee as not retained.

**Retain ratio stronger match (%):** Percentage of the employees in the stronger match group (Match Score  $\geq 4.0$ ) retained during the survival period after hiring (18 months).

**Retain ratio weaker match (%):** Percentage of employees in the weaker match group (Match Score  $< 4.0$ ) retained during the survival period after hiring (18 months).

**Retain ratio difference (stronger to weaker) (%)** = Retain ratio stronger match (%) - retain ratio weaker match (%).

Retain ratio difference (stronger to mixed) (%) = Retain ratio stronger match (%) - retain ratio mixed composition (%).

	Stronger match (Match Score $\geq 4.0$ )	Weaker match (Match Score $< 4.0$ )
Employee retained	SMR	WMR
Employee retained	SMNR	WMNR

- Stronger match = SMR + SMNR
- Weaker match = WMR + WMNR
- Retain ratio stronger match (%) =  $\text{SMR} \div \text{stronger match} \times 100$
- Retain ratio weaker match (%) =  $\text{WMR} \div \text{weaker match} \times 100$

	Total	Stronger match (Match Score $\geq 4.0$ )	Weaker match (Match Score $< 4.0$ )
Number of employees	112,424	72,508	39,916
Retain ratio (%)	74.17%	78.40%	66.49%

## About Eightfold AI

Eightfold AI's market-leading Talent Intelligence Platform™ helps organizations retain top performers, upskill and reskill their workforce, recruit talent efficiently, and reach diversity goals. Eightfold's patented deep-learning artificial intelligence platform is available in more than 155 countries and 24 languages, enabling cutting-edge enterprises to transform their talent into a competitive advantage. For more information, visit [www.eightfold.ai](https://www.eightfold.ai).