



*Helping Organizations Prepare
their People for the Future*

CASE STUDY

Agentic AI for Workforce Planning
and Talent Acquisition- Predictive Hiring

Executive Summary

Halcyon Northwest Partner Ed West worked with Providence to address persistently high turnover in select departments and the significant financial impact associated with employee attrition. Ed designed and piloted an AI-powered Predictive Hiring solution to anticipate turnover risk and proactively inform hiring decisions. While results varied by department, the pilot demonstrated measurable reductions in time-to-hire and cost-to-hire in high-turnover environments and generated valuable insights to guide future scaling and refinement.

Situation

Providence faced elevated turnover rates in several critical departments, creating operational disruption and financial strain. Key challenges included:

- **High cost of turnover:**
Each employee departure was estimated to cost approximately \$100,000, factoring in lost productivity, vacancy coverage, recruiting expenses, and onboarding and ramp-up time.
- **Reactive hiring practices:**
Hiring typically occurred after attrition had already impacted staffing levels, resulting in extended vacancies and increased workload for remaining staff.
- **Uneven turnover patterns:**
Turnover rates varied significantly across departments, making it difficult to apply a one-size-fits-all workforce planning approach.

Leadership sought a more proactive, data-driven way to anticipate staffing risk and improve hiring efficiency.

Solution

Ed West developed and implemented an AI-driven Predictive Hiring model designed to augment managerial decision-making.

Key components included:

- **Machine learning–based turnover prediction:**
The model analyzed historical workforce data to identify patterns and signals associated with increased likelihood of employee attrition at the department and role level
 - **Forward-looking hiring recommendations:**
Based on predicted turnover risk, the AI generated hiring recommendations for managers to consider—enabling earlier talent pipeline development and reduced reactive hiring.
 - **Manager-in-the-loop approach:**
Recommendations were advisory, not prescriptive. Managers evaluated AI insights alongside local knowledge, performance context, and human judgment.
 - **Pilot-focused deployment:**
The solution was intentionally piloted in a subset of departments to validate impact, identify limitations, and refine the model prior to broader rollout.
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Results

The pilot produced differentiated outcomes by department type:

- High-turnover departments:
 - 5% reduction in time-to-hire and cost-to-hire
 - Improved readiness to backfill roles before vacancies became critical
 - Early evidence of reduced operational disruption
- Low-turnover departments:
 - Limited measurable impact, largely due to smaller data volumes and fewer turnover signals, which constrained predictive accuracy
 - Provided important insight into where predictive hiring delivers the most value
- Overall learnings:
 - Confirmed that predictive hiring is most effective in environments with recurring attrition patterns
 - Identified data enrichment and segmentation opportunities to improve performance in lower-turnover settings

Why It Matters

This engagement illustrates both the promise and practical realities of applying agentic AI to talent acquisition. Predictive hiring delivers the greatest ROI when applied selectively—targeting high-risk, high-cost turnover areas rather than uniformly across the enterprise.

Ed West partnered closely with Providence to design, deploy, and evaluate an AI-driven hiring solution grounded in real operational needs. This emphasized transparency, human oversight, and continuous learning—ensuring the technology complemented, rather than replaced, managerial expertise.

Why It Matters

Explore how Halcyon’s AI Innovation and Transformation Services can support your organization’s goals:

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