Guide

The AI-Ready Data Problem in HR Tech

A guide to giving AI the workforce data context it needs to succeed

visier®

Table of contents

Executive Summary **03**

Everyone Wants AI, but Few are Prepared **04**

Do You Trust Your Workforce Data? **05**

4 Steps to AI-ready Workforce Data **08**

Visier's Approach to AI **09**

Executive Summary

Leaders expect AI to deliver results fast, but the results aren't keeping pace. MIT's 2025 "GenAI Divide" report found that **95% of generative AI pilots failed to show any measurable impact** on the bottom line.

The problem traces back to the data feeding those models. Most AI tools pull from disconnected, outdated systems instead of one current source of truth, so two tools can answer the same workforce question two different ways, and neither answer is wrong on its own terms.

You just can't tell which one to trust, and that uncertainty can show up directly in business profitability.

Workforce data raises the stakes further. While general AI data readiness gets plenty of airtime, almost none of that conversation accounts for the specific context needed within workforce data: who can see what, how roles and reporting lines shift, and what "turnover" even means depending on who's asking.

Visier has worked with more than 85,000 customers and supported over 2 million AI users, and that scale has surfaced a clear pattern: once you build the right data foundation for workforce technology, leaders have a complete picture of their workforce to make smarter, more resilient decisions.

This guide walks through the readiness gap most organizations hit when they try to deploy AI within their workforce stack, and lays out a practical path to closing it.

"What led us down this path was the realization that data is critical to everything we do. We knew we needed to make significant strides in this area, and given our resource constraints, we believed Visier would be a quick way to accelerate our progress. It offered an effective means to integrate all our data sources and tell a comprehensive story."

Shannon Rutledge
Director, HR Data & Analytics
T.RowePrice

THE PROBLEM WITH MAKING WORKFORCE DATA AI-READY

CURRENT STATE

- Data split across modules
- Inconsistent metadata
- Event-based data in flat tables
- Custom logic hardcoded
- Access controls not adaptive

THE GAP

- Misinformed insights
- Wasted investments
- Lost trust
- Security risks
- Delayed roadmaps

AI-READY WORKFORCE DATA

- Unified across modules
- Metadata-rich
- Time-aware data model
- Built-in business logic
- Role-aware

Everyone Wants AI, but Few Are Prepared

Over the past two years, AI has dominated every boardroom. LLMs have redefined user expectations, especially in the workplace. Teams across the entire business want faster insights, end users want personalized guidance, and CHROOs and other C-suite leaders expect productivity gains—yesterday.

Our recent research shows that while AI alignment is a top business need for 87% of leaders, only 29% are confident in their planning abilities.[1]

Naturally, technical teams who support HR are feeling the pressure. The roadmap is always shifting. Conversations that used to be about dashboards and integrations are now about copilots, assistants, and AI agents. And the pressure to consolidate tools and prove ROI fast hasn't let up.

But launching AI capabilities to make high-impact decisions such as workforce planning is not as simple as plugging data into an LLM. An AI model is only as good as the data behind it.

HRIT, HRIS, and data teams must answer two questions:

1. How do we prepare our **enterprise workforce data** for AI?
2. How do we account for the **unique requirements and challenges** of people and work data?

Most workforce data is missing the context AI needs to use it. Here's what's missing:

- No organizational relationships or reporting structure
- No shared definitions, so the same metric means different things
- No sense of time, so today's org chart gets applied to last year's numbers
- No security that travels with the data
- No benchmarks to turn a number into an insight

AI demands a new approach to data

For years, workforce data existed mainly for dashboards: descriptive, backward-looking, built around use cases your team defined in advance. That tolerance for control cuts both ways. It meant data inconsistencies, duplication, and technical debt could hide behind a fixed report, because you controlled exactly what went in and what came out.

AI doesn't work that way. Natural language questions, conversational decision support, and automated agents don't wait for you to define the use case first.

The AI goes straight to the data and expects it to hold up on its own, with no analyst standing between the question and the answer.

That means the data itself has to do more work. It needs to carry its own context: what a number means, who's allowed to see it, how it relates to everything else. Dashboards never had to ask that much of your data. AI does.

None of this replaces human judgment, and it shouldn't. The goal isn't an AI that decides for you. It's an AI that surfaces what matters, recommends what to do about it, and gets out of the way so a leader can act with confidence.

That's the difference between knowing and doing, and it only works if the data underneath it can be trusted.

1. Strategic Workforce Planning in the AI Era | Visier Research 2025

Do You Trust Your Workforce Data?

You may not think your data is a problem now, but once you get into your AI project, you may discover deeper issues that stand in the way of your progress.

AI project failures don't happen in a vacuum. They're not the result of one bad sprint or a buggy integration. They're the byproduct of systemic weaknesses, and data is often the weakest link.

While organizational factors like unclear objectives, inadequate infrastructure, or unrealistic timelines all contribute to AI project risk, the data layer is where most HR tech vendors stumble.

Gartner reports that 60% of AI projects lacking AI-ready data will be abandoned[2], while The Centre for Business Analytics found that 90% of AI projects fail in analytically immature organizations[3] where data quality, availability, and structure are insufficient.

These numbers aren't just alarming, they're a flashing red warning for technical teams under pressure to "add AI" to their tech stack. Without an AI-ready foundation, these initiatives are doomed before the first line of code is written.

60%

ABANDONMENT RATE OF AI PROJECTS THAT LACK AI-READY DATA

90%

FAILURE RATE OF AI PROJECTS IN ANALYTICALLY IMMATURE ORGS

2. Gartner, (2026, February). Lack of AI-ready Data Puts AI Projects at Risk.
3. The Centre for Business Analytics, Why Do AI Projects Fail?

5 Data Problems Kill AI in HR Before it Reaches Production

1 Low data quality

Inaccurate headcount, duplicate records, and incomplete performance histories produce wrong answers. When a manager asks a question and the response is clearly off, that feature is dead. No trust, no usage, no second chances.

2 Fragmented data volume

Attendance in one system, org chart in another, surveys somewhere else. Without an integrated semantic model that connects these dots, AI has no reliable foundation to reason over.

3 Stale data

Clean data still fails if it's not current. AI forced to operate on lagged pipelines hallucinates, surfaces stale insights, and breaks user trust fast.

4 Inherited bias

AI bias starts in the data, not the model. Historical hiring decisions, demographic gaps, and legacy performance data get baked into recommendations, creating reputational and legal exposure.

5 Weak governance

Dynamic role-based access, compliance rules, and explainability requirements aren't optional. Plugging in a model without them is how you get data breaches and misfired insights.

The consequences of an incomplete data foundation

When technical teams rush to ship AI features without the right foundation, they're putting themselves at risk of several consequences:

- **Misinformed insights:** Generic LLMs hallucinate when they don't understand org structure, job taxonomy, or HR context.
- **Lost trust:** Users get answers that don't match what they see in their dashboards or workflows.
- **Security risks:** Without role-based access and lineage tracking, users could inadvertently be exposed to sensitive or non-permissible data.
- **Wasted investment:** Time and budget go into building assistants users don't trust and customers actively disable.
- **Slower roadmaps:** Technical teams get buried in rework and data cleanup instead of building new capabilities.

These occur largely because most HR data is not AI-ready.

Differences between traditional and AI-ready workforce data

TRADITIONAL WORKFORCE DATA	AI-READY WORKFORCE DATA
Flat tables from disconnected modules	Unified, cross-domain model with job, org, and event history
Siloed by function (e.g., performance, recruiting, time)	Linked across the employee lifecycle
Poor data labeling (e.g., attrition code)	Metadata-rich, semantically tagged (e.g., voluntary attrition)
No context on reporting lines or org structure	Contextualized with full hierarchy and team dynamics
Stale and outdated snapshots	Up-to-date and current, in some cases, real-time data
No audit trail for data changes	Full lineage and explainability for every metric
Inconsistent access controls	Role-aware governance (e.g., manager vs. admin views)
Generic LLM prompts with no grounding	AI grounded in real employee data from a massive dataset

4 Steps to AI-ready Workforce Data

1. Unify and normalize your data

Your data probably lives in at least half a dozen places across a number of databases developed at different times, or perhaps acquired as part of your suite strategy. This presents a challenge when delivering both analytics and AI. If the data isn't combined, AI will return erroneous results.

To make data usable for AI:

- Use a prebuilt ETL framework to extract and transform data across silos
- Standardize fields, resolve duplicates, and normalize formats
- Align to a semantic workforce data model (jobs, orgs, locations, events, etc.)
- Employ the appropriate synchronization method (e.g. nightly updates for headcount)

2. Apply a workforce-specific data model

Generic data models don't work for HR. You need a structure that reflects:

- Roles and reporting lines
- Employee types and relationships
- Unique events like onboarding, promotion, attrition, or leave
- Time-based analysis (point-in-time vs. period-end)

This lets your HR tech stack understand the world of work, not just store it.

3. Enrich data with context and metadata

AI doesn't just need clean data. It needs described data, and a lot of it. This requires:

- Tagging columns and entities with human-readable labels
- Mapping synonyms and intents for natural language understanding
- Capturing lineage and transformations for traceability
- Using anonymized, benchmarked data to ground more reliable, bias-resistant models

4. Enable AI responsibly through a trusted platform

AI readiness isn't just about structure, it's about control. Especially in HR, where data privacy and governance stakes are high, data must be:

- **Permission-aware:** Answers should reflect what each user is allowed to see.
- **Explainable:** Every metric and insight needs a clear, traceable origin.
- **Compliant:** Must be compliant with internal policies, GDPR, HIPAA, and other industry standards.
- **Monitored and auditable:** Changes in data should be logged and reviewable.

Visier's Approach to AI

Workforce data fails AI not just because of the reasons we laid out above, but also because when it reaches AI, the data is stripped of the relationships, definitions, history, and governance rules that make it mean something specific rather than something approximate and different each time.

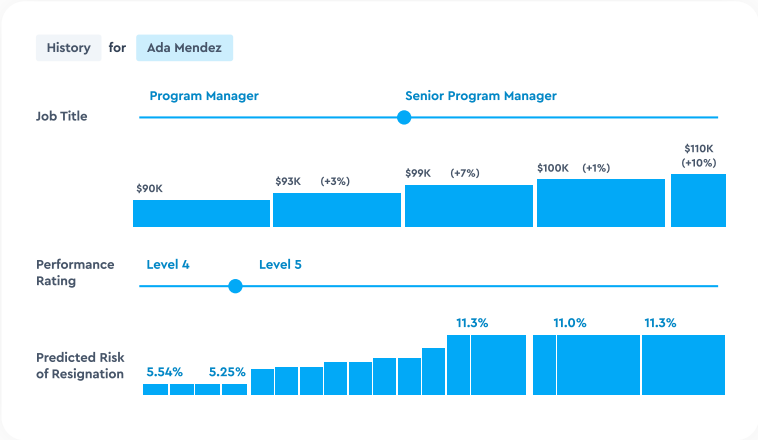
Visier solves this through a workforce context engine that sits between your HR data sources and the AI and analytics systems that consume it, ensuring every answer reflects governed definitions, accurate org structure, correct permissions, and the right temporal frame simultaneously.

Here's how we help you go from messy source data to trusted, AI-ready insights your stakeholders will actually believe and act on.

A unified data foundation built for HR complexity

Visier connects to any database or data warehouse and unifies workforce data through a data pipeline purpose-built to handle continuous workforce change. You'll find:

- Prebuilt connectors and data-in APIs
- Automated transformation, de-deduplication, and value inference
- Temporal logic built in, preserving full event history without overwriting prior states
- Customizable sync schedules across source systems



Visier maps complex time-based people journeys out of the box.

WHY IT MATTERS:

AI cannot reason reliably over fragmented, narrow HR data tables. This data foundation ensures workforce data is cleaned, normalized, and structured before it reaches any model, removing a common blocker to AI readiness in HR.

The People Semantic Model

A workforce-specific data model that encodes the relationships, definitions and business logic AI needs to answer people questions correctly:

- 2,000+ metrics across 11 workforce domains
- Predefined relationships (e.g., manager to direct reports, org hierarchy)
- Shared metric definitions so "attrition" means the same thing regardless of who is asking
- Event tracking and point-in-time analysis built in

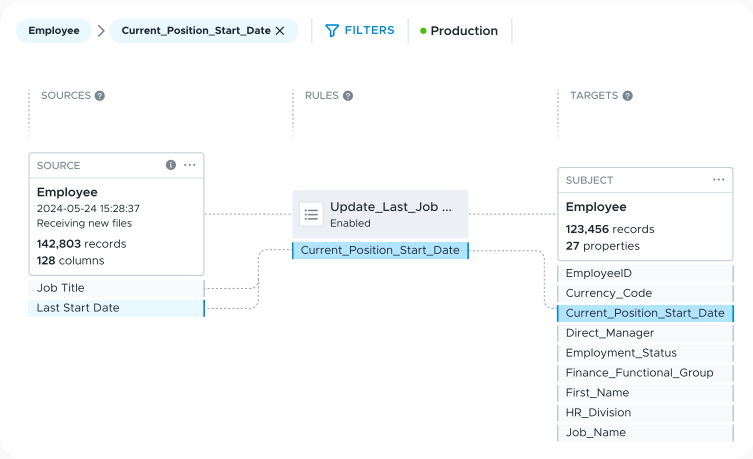
A few elements of Visier's data model.

WHY IT MATTERS:
Without a workforce-specific semantic model, AI has no reliable way to know what "attrition" means, how to calculate "time to fill," or which org structure was in place last quarter. The People Semantic Model gives AI the vocabulary, logic, and historical accuracy of HR without manual mapping.

A governed, performant analytics engine built for workforce data

Visier's analytics engine is purpose-built for workforce data at enterprise scale, with governance embedded at the infrastructure level rather than applied as a post-query layer. It contains:

- High-speed querying and pre-computation for responsiveness
- Dynamic role-based and row-level permissions that travel with the data
- Separation of data and LLM
- Full lineage and explainability for defined metrics
- SOC2, GDPR, HIPAA-aligned controls
- Cost predictability with PEPM-based billing



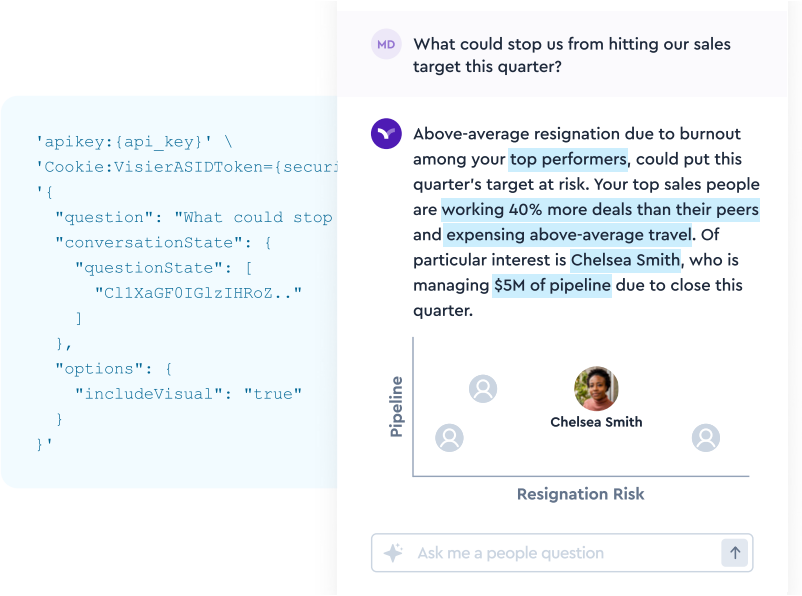
Visier's data warehouse comes with all of the relationships and mappings needed to deliver workforce AI out of the box.

WHY IT MATTERS:
Most AI use cases fail on latency, scale or a compliance exposure that surfaces after launch. Visier ensures AI delivers permission-safe, explainable answers without straining core systems or creating governance gaps.

AI that works because the data underneath it does

Visier powers AI experiences grounded in workforce data, not generic LLMs acting on HR data tables disguised as a purpose-built workforce AI agent.

- Vee, a conversational AI partner, draws from the People Semantic Model so answers reflect the same governed definitions as every output.
- Answer generation grounded in real metrics, not hallucinated logic.
- Vee is directly accessible in the flow of work via Microsoft Copilot or Slack.



Vee Visier's GenAI assistant delivering trusted insights.

WHY DOES IT MATTER?

A chatbot that guesses is worse than no chatbot at all. Visier makes your AI useful from day one because it's grounded in real definitions, real permissions, and real business context.

About Visier

Visier Workforce AI is the context foundation for talent management. The Visier Workforce Intelligence Platform turns scattered, sensitive people data into one governed understanding of the entire workforce, so organizations can understand, plan, and activate all of their talent priorities in one place. More than 85,000 of the world's most complex organizations, including Ford Motor Company, eBay, Experian, and Domino's Pizza, rely on Visier's over 16 years of workforce domain expertise, ranked #1 in vendor satisfaction and user experience for three consecutive years by the Sapient Insights HR Systems Survey.

Learn more at Visier visier.com.

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visier.com | info@visier.com | 1.888.277.9331

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