Human Resource Dashboard

Leadership-facing HR analytics: Attrition, Hiring Funnel, Diversity, and Compensation.

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Executive Summary

The HR Dashboard centralizes people metrics into a single, governed view so leaders can monitor, diagnose, and act. Today, HR Business Partners (HRBPs) and People Leaders spend hours collating inconsistent spreadsheets and ad-hoc extracts. This project replaces manual reporting with a curated, refreshable, explainable dashboard that standardizes definitions, reduces operational workload, and enables faster, better decisions around hiring, retention, DEI, and compensation.

Business Value (order-of-magnitude):

Time saved (illustrative):

- 150 HRBPs × 3 hrs/week × $70/hr × 52 weeks ≈ $1.64M/yr
- 1,000 People Leaders × 1 hr/week × $90/hr × 52 weeks ≈ $4.68M/yr
- Total potential annual time value ≈ $6.32M

Outcome improvements: Earlier attrition signal, consistent hiring funnel conversion tracking, DEI representation clarity, comp band variance visibility.

Cost to scale (illustrative Verizon-scale ranges) and timeline are detailed below; the pilot payback is achievable within months given time savings alone.

Stages

1. Discovery & Alignment → use-cases, KPI definitions, access model
2. Data Integration → HRIS + ATS + Comp exports; quality, joins, PII controls
3. Modeling & Metrics → semantic layer with governed definitions
4. Dashboard Build → layout, filters, drill paths, explanations
5. UAT & Governance → definitions sign-off, access control, audit logs
6. Enablement & Rollout → training, run-book, refresh SLAs

Outline of Situation

User

- Primary: HR Leadership, HRBPs, Talent Acquisition (TA), Compensation, DEI leads
- Secondary: Finance BP, Org leaders, People managers

Challenges

Struggled to find the right useful info for her needs:

- KPIs scattered across systems (HRIS, ATS, payroll, comp planning).
- Manual spreadsheets; drift in definitions (attrition, internal mobility, requisition stages).
- Limited self-service; BI backlog; inconsistent timelines for exec decks.
- PII handling risk; fragmented access control.

Solution

A governed, refreshable dashboard and dataset that standardizes:

- Attrition (rate, trend, voluntary/involuntary)
- Hiring Funnel (stage conversion, time-to-hire)
- Diversity Mix (representation by org/level/geo)
- Compensation (band fit vs performance; variance)

Product Requirements Document

Objective

Deliver a standardized HR analytics product that reduces reporting effort, aligns definitions, and surfaces actions on attrition, hiring, DEI, and comp.

Problem Statement

Leaders need timely, trusted metrics to drive workforce planning. Current methods are slow, inconsistent, and error-prone, creating decision delays and compliance risk.

Stakeholders

Target Audience

- Primary: HR Leadership, HRBPs, TA, Compensation, DEI office
- Secondary: People managers and Org leaders (viewer access)

Alliance and Executive Stakeholders

- Sponsors: CHRO / SVP HR, CFO (secondary)
- Governance: HR Data Governance Council, InfoSec, Legal/Privacy
- Build teams: Product, Data Eng, Analytics Eng, BI/Visualization, QA, DevOps

Build Teams Involved

- Product (requirements, prioritization)
- Data Engineering (ingest, PII handling, SCD, schedules)
- Analytics Engineering (semantic layer, metric logic)
- BI/Visualization (Tableau build, UX, annotations)
- QA (data tests, visual regression)
- Security/Privacy (role-based access, audit)
- DevOps (pipelines, monitoring)

Use Cases

1. ### Monitor Attrition Trends & Drivers

   #### User Story

   As an HR leader,
   I want standardized attrition trends and voluntary/involuntary splits by org/level/geo,
   so that I can identify hotspots early and act.

Acceptance Criteria

- Filters: time, org, level, location, employment type.
- Metrics: rate, counts, tenure buckets, reason codes (if available).
- Drill-through: from org → team → role.

2. Optimize Hiring Funnel

User Story

As TA leadership,
I want stage-by-stage conversion and time-to-hire,
so that I can remove bottlenecks and forecast hiring capacity.

Acceptance Criteria

- Requisition aging, stage conversion, offer acceptance, time-to-fill.
- Segment by department, level, recruiter, source.
- Exportable views for ops standups.

3. Track Diversity Representation

User Story

As DEI leadership,
I need representation metrics across org/level/geo,
so that I can measure progress against targets.

Acceptance Criteria

- Representation % vs benchmarks (where policy allows).
- Intersectional cuts (e.g., gender × org × level) with suppression rules for small n.
- Clear notes on methodology and suppression thresholds.

4. Ensure Compensation Band Fit & Fairness

User Story

As Compensation,
I need variance vs band midpoints, by level/performance,
so that I can detect outliers and plan cycles.

Acceptance Criteria

- View by band, midpoint delta %, performance rating distribution.
- Guardrails: highlight outliers and recent adjustments.

Success Criteria

- Adoption: ≥ 80% of HR leadership & HRBPs use monthly.

- Latency: Data refresh ≤ 24 hours (daily); exec snapshot for month-end.
- Definition alignment: Signed-off glossary (attrition, funnel stages, band fit).
- Time saved: ≥ 50% reduction in manual reporting hours within 3 months.
- Data quality: < 1% broken row-level tests per refresh; zero PII incidents.

Information Needed

- HRIS: employee master, org/level, hire/birth/term dates, job history
- ATS: requisitions, stages, timestamps, offers
- Comp: bands, midpoints, current comp, performance ratings
- Geo: location hierarchy

Data Needed

The dataset to produce the above information should include:

- Employee: employee_id, gender, state, city, hiredate, termdate, birthdate
- Job: department, job_title, level, manager_id
- Comp: salary, band, midpoint, performance_rating
- ATS: req_id, opened_date, stage, stage_entered_at, source, offer_accepted_at

Data Quality Checks

Guardrails in place to confirm the dataset contains the data required without issues:

- Row count & duplicates (unique employee_id, req_id)
- Type & domain (dates valid; salary numeric; level in {L1..Lx})
- Temporal consistency (termdate ≥ hiredate; stage timestamps monotonic)
- Referential integrity (employee ↔ job history ↔ org hierarchy)
- PII handling (field-level encryption, masking, row-level security)

Additional Requirements

- Security & Privacy: Role-based access, least privilege, audit logging.
- Glossary: Versioned KPI definitions with change log.
- Explainability: Hover notes/footnotes show formulae and data freshness.
- Run-book: Incident playbook; refresh schedule; owner on call.
- Export/Share: PDF export for exec decks; governed CSV extracts.

Build Plan (E2E)

- Collect/ingest HRIS/ATS/Comp extracts (secure connectors or SFTP).
- Model a canonical employee snapshot table (SCD), fact tables for ATS stages and comp events.
- Metric layer with governed formulas (attrition, conversion, band delta).
- Data tests (row-level, schema, freshness) + CI checks.
- Tableau build with drill paths, glossary tooltips, and export actions.
- UAT with HR, TA, Comp, DEI; sign-off definitions and filters.
- Rollout: enablement, access setup, support run-book.

Design the Dashboard (UX notes)

- Homepage tiles: Attrition, Time-to-Hire, Representation, Comp variance.
- Left filters: org, level, geo, time; top tabs per domain.
- Annotations for data changes (e.g., new levels) and refresh timestamps.
- Small-n suppression to protect privacy.

Trade-offs: Business Needs vs Stakeholder Requirements

Speed vs Governance

- Decision: Daily refresh and one month-end certified snapshot.
- Why: Meets exec cadence while keeping a governed, auditable “official” view.

Flexibility vs Consistency

- Decision: Standardized global metrics + org-specific drill-downs.
- Why: Local teams get flexibility without breaking comparability.

Access vs Privacy

- Decision: Row-level security; small-n suppression; audit logs.
- Why: Protects PII while enabling broad viewer access.

Delivery pace vs Quality

- Decision: Phase 1 (Attrition/Hiring), Phase 2 (DEI/Comp).
- Why: Faster time-to-value with guarded scope.

Calculations: Time & Cost (Illustrative)

A) One-time Build (Enterprise Rollout)

Assumptions (internal or partner team, 1320 hours total):

- Data Eng: 12 weeks × 1.5 FTE × 40h = 720 h
- BI/Tableau: 6 weeks × 1.0 FTE × 40h = 240 h
- Product: 12 weeks × 0.5 FTE × 40h = 240 h
- QA: 4 weeks × 0.5 FTE × 40h = 80 h
- Security: 2 weeks × 0.25 FTE × 40h = 20 h
- DevOps: 2 weeks × 0.25 FTE × 40h = 20 h

Total hours: 720 + 240 + 240 + 80 + 20 + 20 = 1,320 h

Cost ranges (blended rate):

- $100/h → $132,000
  $120/h → $158,400
  $150/h → $198,000

B) Annual Run-Rate (Licenses + Infra)

(Prices vary by enterprise agreement; use for ballpark planning.)

Tableau (illustrative Verizon-scale seat mix):

- 30 Creators × $70/mo = $2,100/mo
- 300 Explorers × $42/mo = $12,600/mo
- 5,000 Viewers × $15/mo = $75,000/mo
- Total Tableau ≈ $89,700/mo → $1,076,400/yr

Data warehouse & pipelines (cloud or hybrid):

- $8,000/mo → $96,000/yr (moderate daily refresh + QA env)

Estimated annual platform total:
$1,076,400 + $96,000 ≈ $1,172,400/yr

Swap Tableau pricing for your actual enterprise agreement if different; the structure holds.

C) Timeline (Enterprise)

- Discovery & Data Contracts: 2–4 weeks
- Integration & Modeling: 6–8 weeks
- Dashboard Build & Iteration: 4–6 weeks
- Security/UAT/Enablement: 2–3 weeks
- Total: 14–21 weeks to first enterprise release (phased)

D) Risks & Mitigations

- PII exposure → Row-level security, suppression, strict access reviews
- Definition disputes → Governance council + versioned glossary + change log

- Data freshness gaps → SLAs with HRIS/ATS owners; monitoring + alerts
- Adoption risk → Stakeholder training, embedded glossary, export templates
- Scope creep → Phased roadmap; quarterly prioritization