



GLOBAL PAYROLL & WORKFORCE INTELLIGENCE

Building a Modern Labor Analytics Strategy

From Data to Decisions in the Age of AI

A Stiletto HR Perspective on Global Payroll and Workforce Intelligence

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EXECUTIVE SUMMARY

Payroll and workforce leaders sit on top of the single largest controllable expense in most organizations and, increasingly, on one of the richest sources of decision-grade data in the enterprise. When that data is consistent, well-governed, and analyzed with modern tools, it gives the business real-time insight into cost, compliance, productivity, and workforce risk. When it is fragmented across systems, regions, and vendors, it produces reports that leaders cannot trust and will not act on.

Six years ago, building a labor analytics capability meant getting the fundamentals right: consistent data, standardized processes, and a short list of vendors. Those fundamentals still hold. What has changed is the ceiling. Generative and predictive AI have moved from pilot projects to production, and the organizations that laid a clean data foundation are now able to forecast overtime, model the cost of scheduling decisions, and flag compliance risk before it reaches a paycheck. The organizations that did not are discovering that AI applied to inconsistent data simply produces wrong answers faster.

This paper lays out how to build a labor analytics strategy that is ready for that shift. It rests on five interlocking pillars: **data, technology, governance, process placement, and change management**. It treats AI not as a bolt-on but as a capability that only pays off on a disciplined foundation.

WHY THIS MATTERS MORE THAN EVER

Labor is the defining line item on most income statements. In March 2026, U.S. employers spent an average of \$46.60 per hour worked on compensation for private-industry employees, of which roughly 70 percent was wages and salaries and 30 percent benefits.¹ Across many industries, labor accounts for a very large share of total operating cost, as much as 70 percent in labor-intensive sectors.² It is also the most *controllable* of the major expenses: unlike rent or raw materials, staffing levels, overtime, scheduling, and premium pay can be actively managed week to week when leaders have the data to do so.

Yet the data needed to manage it well is often not ready. In Payroll Org's 2025 *Getting the World Paid* survey of 585 payroll professionals, only 28 percent of organizations reported having a formalized global payroll strategy, while 42 percent had not begun to develop one. Nearly half, 48 percent, lacked a single unified global payroll system, and only about one in five had reached an aspirational level of 80 percent-plus standardization in their policies and procedures. Perhaps most tellingly for an analytics discussion, 38 percent did not track payroll performance at all.³

That gap is the opportunity. The payroll organizations that close it will not just report faster; they will give the business a forward-looking view of its largest controllable cost.

THE AI INFLECTION POINT

Adoption of artificial intelligence has crossed from experiment to expectation. In McKinsey's 2025 *State of AI* survey, 88 percent of organizations reported regularly using AI in at least one business function, up from 78 percent a year earlier, and roughly a third had begun to scale it.⁴ Within HR specifically, SHRM's *State of AI in HR 2026* study found that 39 percent of organizations had adopted AI in their HR functions, with adoption reaching 60 percent among organizations of 5,000 or more employees.⁵

For payroll and workforce management, the practical applications are concrete: natural-language interfaces that let a manager ask “how much overtime did my team run last month, and where is it trending?”; predictive models that forecast overtime and absence before the pay period closes; anomaly detection that catches an off-cycle error before it becomes a costly correction; and automated data validation that flags inconsistent inputs at the source. Notably, 30 percent of respondents in the *Getting the World Paid* survey said they planned to increase their use of AI in payroll.⁶

Two cautions temper the enthusiasm. First, value is not automatic: McKinsey found that only 39 percent of organizations could attribute any measurable EBIT impact to their AI use, a reminder that tools alone do not create returns.⁴ Second, and more fundamental for payroll, AI amplifies whatever data it is given. A predictive model built on inconsistent occupation codes or unreliable time data will generate confident, wrong forecasts. The foundation described in the next section is not a prerequisite you can skip in the AI era. It is the thing that makes AI worth deploying at all.

THE FIVE PILLARS OF A LABOR ANALYTICS STRATEGY

A durable labor analytics capability rests on five components that reinforce one another: **data, technology, governance, process placement, and training and change management**. Weakness in any one undermines the others. The sections that follow take each in turn.

FIG. 1: The five pillars of a modern labor analytics strategy: Data · Technology · Governance · Process Placement · Training & Change Management.

Pillar 1 Setting the Data Foundation

Everything downstream depends on data that is defined, reliable, and fit for its purpose. Four steps build that foundation.

Categorization

Payroll data must be defined and available in a comprehensive catalog that applies across systems and across countries. Leaders should start by understanding what data exists and what it is worth: mapping every element from time and attendance through pay components, deductions, and general-ledger mappings, and identifying which of those elements carry analytical value.

Harmonization

Once data is catalogued, it must be reviewed for reliability. Fields and labels must be consistent, and each element must carry a single standard definition. Harmonizing data that feeds output, general-ledger mapping, and downstream interfaces matters most. The classic failure mode is well known to anyone who has run a multi-country payroll: Region A uses an occupation code with one job definition while Region B uses the same code to mean something else, or an identical account code posts to different ledgers for different reasons. Inconsistency of this kind is common even within a single system, and it tends to originate during implementations, system consolidations, and mergers and acquisitions. It is also the number-one enemy of analytics: in the 2025 global survey, poor-quality data inputs ranked as the leading root cause of

reduced payroll accuracy.³ Failure to harmonize does not just lower report quality; it makes every analysis, and every AI model built on top of it, unreliable.

Assessing business needs

The metrics an organization tracks should link directly to business strategy, and the cadence of reporting should match the operational and strategic cycles that leaders actually run on. Key stakeholders belong in the design of dashboards and reports from the start, and every metric selected should be *actionable*. A real-time, predictive overtime report that lets a manager intervene this week is worth more than a beautifully formatted metric no one can act on.

Producing meaningful reports

Reports should be shaped by business goals, with frequency, timing, and delivery method decided deliberately. An organization with a large hourly workforce may need real-time operational metrics, such as hours worked this week against budget, while other audiences are better served by month-over-month trends such as actual payroll cost against year-to-date forecast. When designing a scorecard, it helps to ask a disciplined set of questions: Does this metric help the company achieve its goals for cost, quality, timeliness, productivity, or engagement? Who is the audience? How will the report be used? What levels of reporting are required: tactical at the supervisor level, strategic at the executive level? And how will the underlying data actually be obtained?

Using analytics

Data creates value only when the people receiving it understand what it means and are not drowning in it. The volume and frequency of reporting should be tuned so recipients act on what they see rather than tuning it out. Analytics does not replace the discipline of monitoring cost, quality, timeliness, productivity, and engagement. It sharpens it. In retail, for example, payroll data combined with HR and finance data can help a store manager staff up ahead of an expected increase in foot traffic rather than after it.

FIG. 2: Foundational steps to analytical success: Categorize → Harmonize → Assess needs → Produce reports → Use analytics.

Pillar 2 Technology That Enables Analytics

As a matter of best practice, payroll organizations should minimize the number of payroll and workforce management platforms they run. A global analytics strategy *can* be implemented across many local vendors, but doing so is complicated, expensive, and hard to keep consistent, which is precisely why 48 percent of organizations still lack a unified global payroll system.³ Key technology considerations include:

- **Simplify and consolidate.** Identify where vendors and platforms can be reduced or combined. Every additional system is another set of definitions to harmonize and another interface to maintain.
- **Aggregate the data.** Select a global payroll platform capable of pulling all pay components into one system, and standardize workforce management so that labor can be compared on a like-for-like basis across locations.
- **Co-locate with existing tools.** Leverage the analytics tools and data platforms other parts of the business already use, so payroll data can sit alongside finance and HR data rather than in a silo.

- **Map the end-to-end flow.** Understand the source system for each type of input and identify where interfaces need to be built or repaired. Automating inbound data from HCM and outbound data to finance consistently ranks among payroll's hardest challenges.³
- **Design for the questions you'll ask.** Determine whether current technology can deliver what the strategy requires, such as dashboards, modeling, and predictive analytics, and where AI-enabled capabilities can be layered on. Modern payroll and workforce platforms increasingly ship with embedded analytics and AI assistants; the value of those features depends entirely on the quality and consistency of the data feeding them.

Pillar 3 Establishing Analytics Governance

An analytics strategy should live inside payroll's overall governance structure, not beside it. Governance teams typically meet on a regular cadence to review initiatives, confirm that internal and external service-level agreements are being met, and adjust strategy to the company's evolving objectives. Their role is to provide oversight and to ensure that leaders are informed and that the analytics are actually generating insight that drives decisions. A useful governance discipline: if a metric is not influencing actions that lead to a desired outcome, such as lower cost, higher quality, or better employee experience, the governance team should question whether it is worth tracking at all.

A complete governance structure covers:

- **Operations.** ownership of end-to-end workforce management and payroll operations, including monitoring of KPIs, processes, and costs.
- **Process improvement.** review and prioritization of policy changes that affect payroll and pay, weighed against cost savings, risk reduction, and employee engagement.
- **Vendor management.** monitoring vendor performance against SLAs and understanding each vendor's policies for storing, protecting, and retaining data.
- **Data oversight.** governance of all relevant data (time, attendance, scheduling, and pay) to ensure standardization and harmonization across regions, in partnership with the organization's analytics center of excellence.
- **Strategy oversight.** ownership of the global time-to-pay strategy end to end, from time entry through payroll to global reporting.
- **People.** wherever possible, partnering with a center of excellence to access scarce analytical skills, rather than building a costly internal data-science team from scratch.

Governance carries new weight in the AI era. As organizations deploy AI models against payroll and workforce data, the governance team becomes responsible for data privacy, algorithmic transparency, bias monitoring in any model that touches pay or scheduling, and compliance with a fast-moving set of AI and data-protection regulations across jurisdictions. Model oversight belongs squarely in the governance charter: knowing what a model was trained on, what it recommends, and who is accountable for acting on it.

FIG. 3: Components of global time-to-pay governance: operations, process improvement, vendor management, data oversight, strategy oversight, and people, with AI/model governance at the center.

Pillar 4 Process Placement of Analytics Resources

Few payroll organizations have a dedicated reporting team or the full set of analytical skills needed to run a global labor analytics strategy on their own. Deciding where and how the work gets done starts with understanding the four distinct categories of activity involved:

- **Data collection and preparation.** modifying systems and data-entry processes to optimize data quality, and taking the actions needed to keep systems and inputs clean.
- **Reporting and modeling.** everything from accessing data and preparing standard and ad-hoc reports through applying statistical analysis and building data models for forecasting and predictive analysis.
- **Analysis.** using consistent calculations and measurement formulas, drawing insight from the data, and communicating findings clearly to the people who need them.
- **Consulting.** reviewing analysts' findings, communicating them to stakeholders, and bringing analytical rigor to policy-setting and decision-making.

How these activities are staffed depends on an organization's analytics maturity. The table below maps the four activities against a maturity curve, from ad-hoc reporting through to prescriptive analysis.

FIG. 4: Measurement and analytics organizational approaches

Activity	Ad-hoc reporting	Standard reporting	Predictive analysis	Prescriptive analysis
Data collection / preparation	Payroll administrator	Payroll administrator	HRIT analyst	HRIT analyst
Analysis	Director / business partner	Payroll administrator	Payroll analyst	Payroll analyst
Reporting / modeling	Director / business partner	Director / business partner	Data modeler	Data modeler + AI tooling
Consulting	Director / business partner	Director / business partner	Director / business partner	Director / center of excellence

In organizations with limited analytics capability, most of this work falls to staff who also carry direct stakeholder-management responsibilities, such as payroll directors. In organizations with mature capability, a center of excellence or a dedicated team, increasingly augmented by AI tooling, handles modeling and advanced analysis. The trend worth noting is that AI is beginning to compress this curve: capabilities that once required a data-science team, such as natural-language reporting and basic forecasting, are becoming accessible to payroll analysts through embedded platform features. That lowers the barrier to entry but raises the premium on the data foundation and governance that keep those tools honest.

Pillar 5 Training and Change Management

Training and change management are the pillars most often neglected and most responsible for failed analytics programs. A strong change plan, visibly supported by executive leadership, is a must; anything less tends to produce low adoption and missed targets. The principal steps:

- **Plan and design the change strategy.** Build a plan with clear messaging, a defined cadence for communication, and an honest assessment of training needs.
- **Communicate to key stakeholders.** Start early and be clear about why and how the data will be used. Soliciting feedback from the people affected surfaces the adjustments that make adoption stick.
- **Implement training.** Tailor training to the role and business function of each audience; delivery should reflect the kinds of reports planned and the actions they are meant to drive.
- **Stabilize and measure.** Measure success through usage metrics and cost savings, and use scorecards to see which reports and dashboards are actually being used.
- **Evaluate and optimize.** Once the program is stable, review reports and usage. If the intended outcome isn't materializing, revisit the strategy, and take the opportunity to optimize dashboards and automate data collection.

AI raises the stakes on change management in two directions. The workforce needs to be brought along on new tools and new ways of working. SHRM's research found that AI adoption in HR was far more likely to shift responsibilities, create new roles, and drive upskilling than to displace people, with 57 percent of organizations reporting new upskilling opportunities.⁵ At the same time, leaders need to build the judgment to use AI-generated insight well: to treat a model's output as a prompt for inquiry rather than an answer to be accepted, and to understand a forecast's assumptions and limits before acting on it.

FIG. 5: Change management process: Plan & design → Communicate → Implement training → Stabilize & measure → Evaluate & optimize.

CONCLUSION AND RECOMMENDATIONS

Leading payroll organizations already use data to create value across the enterprise, enabling schedule optimization, compliance management, and cost reduction. The arrival of production-grade AI widens that lead, but only for organizations that have done the unglamorous work of getting their data and governance right. Our recommendations:

- **Gain strong executive support.** Build a business case tied to specific business objectives and socialize it with senior leadership. Cultivate a proactive, data-driven mindset across the organization. Pick a real challenge, such as a labor-cost or productivity problem, and show how analytics uncovers the hidden insight to resolve it.
- **Build strategic relationships across the organization.** Meet regularly with stakeholders across business functions to gather feedback and win buy-in on metrics, reports, and training. Maintain a project scorecard and share it to sustain interest and support.

- **Partner with vendors and advisors on strategy.** Vendors and advisors with real analytics capability can help navigate the complexity of a global organization. Consider leaning on the expertise of a global payroll or HCM partner to streamline and consolidate data, and on an independent advisor to keep the strategy vendor-neutral.
- **Set clear success goals.** Define expected outcomes and treat this as a continuous program that must be re-evaluated over time. Reassess the strategy and identify improvement opportunities at least annually, and monitor scorecard usage against expected outcomes such as cost savings.
- **Identify your “source of truth” systems.** Name the authoritative source for every data element: the HCM system for employee demographic data, the workforce management system for punch and schedule data, the payroll system for pay calculations, and the general ledger for budgets and forecasts.
- **Treat data quality and governance as an AI prerequisite.** Before layering AI onto payroll and workforce data, ensure the data is harmonized and governed. AI applied to inconsistent data produces confident, wrong answers: the opposite of what an analytics strategy is meant to deliver.
- **Invest in training and change management.** Develop messaging that communicates not just what metrics and reports are available, but how to use the data to take action, and how to work alongside AI tools with sound judgment. The training strategy should cover both implementation and ongoing support.

A modern labor analytics strategy is not a technology project; it is an **operating discipline**. Get the foundation right, govern it well, place the work where it belongs, and bring people along; the largest controllable expense on the income statement becomes one of the most valuable sources of insight the business has.

HOW STILETTO HR CAN HELP

Building a labor analytics capability is an operating discipline, not a one-time project, and few teams have the bandwidth or the specialized experience to stand it up alongside the day-to-day work of running payroll. Stiletto HR partners with payroll and workforce leaders to do exactly this, bringing senior, execution-focused advisors who have led global transformations from strategy through go-live. Our support maps directly to the five pillars of this paper:

- **Data foundation.** We audit and catalog your payroll and workforce data across systems and countries, define a single source of truth for each element, and lead the harmonization work, including occupation codes, GL mappings, and interfaces, that makes reporting trustworthy and AI viable.
- **Technology and vendor strategy.** We assess your current platform landscape, identify where vendors can be consolidated, and run vendor selection and RFP processes as an independent, vendor-neutral advisor, so the technology decision serves your strategy, not a sales cycle.
- **Governance and compliance.** We design the governance structure, covering operations, process improvement, vendor management, data oversight, and AI/model oversight, and build in the privacy, transparency, and multi-jurisdiction compliance controls that a modern analytics program requires.

- **Operating model and resourcing.** We help you decide where the analytics work belongs, how to staff it across the maturity curve, and when to partner with a center of excellence rather than build an internal data-science team from scratch.
- **Change management and adoption.** We plan and deliver the communication, training, and adoption program that turns dashboards into decisions, and prepare your people to work alongside AI tools with sound judgment.
- **AI-readiness and analytics.** We assess whether your data and governance are ready for predictive and generative AI, and help you deploy analytics and AI-powered reporting on a foundation clean enough to trust.

Engagements range from a focused **labor analytics readiness assessment** to full **global payroll and workforce transformation**, scoped to where you are today. Wherever you start, the goal is the same: to turn your largest controllable expense into one of the business's most valuable sources of insight.

Let's talk

To discuss where your labor analytics strategy stands and where it could go, reach out for an introductory conversation.

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For more than 20 years, Tracy Micciche has helped organizations achieve world-class performance in global payroll, workforce management, mobility, and human resources. Her work spans end-state vision, sourcing strategy, operational redesign, software evaluation, and large-scale global implementation. A Certified Payroll Professional (CPP) and frequent speaker on global payroll, she founded Stiletto HR to bring senior, execution-focused advisory to medium and large enterprises operating in complex, multi-country environments.

ABOUT STILETTO HR

Stiletto HR provides workforce solutions for complex environments, pairing structured HR and payroll strategy with the hands-on execution to deliver it. Guided by the principle of **People. Process. Precision.**, the firm serves medium to very large enterprises across North America, EMEA, LATAM, and Asia, with senior advisors rather than junior consultants. Services span HR strategy and transformation, vendor selection and technology evaluation, payroll and workforce management, operational improvement, compliance and risk advisory, and AI-powered analytics.

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