

Achieve your workforce goals using Machine Learning and Artificial Intelligence



Business Impact

It will cost about 1.5 times an employee's annual salary to replace lost workers (as much as 2.5 times for managerial positions) – and these figures do not even account for the intellectual capital lost.

Challenges

In an environment that is anything but business as usual, HR executives need to know:

- **Who are the most critical employees**, and are they in the right positions?
- **How much of the workforce will retire** in the next three, five or 10 years?
- Besides retirement, are any of these **critical employees likely to leave** prior to retirement?
- **Will the current succession strategy be sufficient** if 25% of the workforce retires in the next 5 years?
- **What skill sets need to be maintained** at different budget levels to continue our mission?
- If asked to do a Reduction in Force, **where should cuts be made?**
- During a reorganization, **what is the best way to distribute resources?**
- **What constraints, such as union rules, exist** that could impede an optimal reorganization?

The Issue

By 2024, the United States Bureau of Labor Statistics projects that the labor force will grow to about 164 million people. That number includes about 41 million people (25%) who will be eligible to retire. Most of those eligible to retire are in senior-level positions and will take years of institutional and corporate knowledge with them, making their loss particularly devastating. How will the resulting gaps be filled? How will organizations continue to fulfill their missions as they lose experienced talent and operate under growing performance pressures and austerity measures? Human Resource leaders are facing some troubling realities such as a geographically dispersed workforce, more matrixed organizational structures, growing regulatory requirements, technology upheaval and compressed work schedules. This is not just a United States concern, but an issue in countries throughout the world.

The SAS® Approach

The SAS® Workforce Analytics solution can help with many universal Human Resources challenges facing Human Resource executives. From workforce readiness, to recruiting and retention, to succession planning, to training challenges, the solution applies our unique analytics to help policy makers gain better insights into common human resource issues. The highly recognized SAS® data management capabilities are used to collect and cleanse data from a myriad of data sources such as Human Resource systems, time and attendance systems, general ledger databases, training systems, operational data sources, and more. After the data has been properly prepared, SAS' differentiating analytical techniques and algorithms can be applied to discover things like root causes for attrition, the impact different incentives have on different employees, the effectiveness of training programs, and hidden behaviors of employees so senior executives can make solid policy decision on how to manage the ever evolving and dynamic nature of the future workforce.

The SAS® Difference

SAS provides the highest level of Human Resources analytics through the following capabilities:

- **Custom data integration** enables you to define which data sources you would like to use in your analysis while providing data cleansing, profiling, enrichment and governance.
- **A central decision hub** assesses employee behaviors and patterns at multiple levels, combines multiple analytical approaches and provides a unified view of an employee throughout their employment lifecycle.
- **Hybrid, multi-layered analytics** more accurately predict attrition, quantifies the impacts of incentives to different employees, and allows you to optimize your incentives portfolio to maximize retention and recruiting goals.
- **Machine learning** adapts to changing behaviors in the workforce with automated model building. With every iteration, the algorithms get smarter and deliver more accurate results.

Case Studies

Ohio Health applies SAS® predictive modeling algorithms to mine data for hidden trends and builds models to more accurately anticipate the future workforce saving the facility \$2.2M the first fiscal year and ensuring that more FTEs are available to work their shifts leading to happier staff and happier patients.

Johnson and Johnson utilize SAS® to gain insight into performance and attrition levels among different employee cohorts to identify the types of incentives that will work best for certain types of employees.

Army Human Resources Command employs SAS® to optimize the way incentives are offered to re-enlisting soldiers so that it could maximize its re-enlistment spend and keep up with retention goals.

US Air Force Personnel Center relies on SAS® for instant, worldwide access to personnel demographics -- saving hours, sometimes days, in responding to requests for information.

United States Coast Guard applies SAS® to forecasts workforce requirements for military staff over 1 to 5 years for enlisted and officer population to understand impacts of policy changes, such as retention bonuses.

What if you could...

Acquire and distribute

What if you could seamlessly integrate data across all of your personnel systems for better force planning and distribution of skills?

Train

What if you could increase training throughput and reduce attrition?

Evaluate

What if you could understand how your recruiting message is being received by your target audience?

Retain

What if you could identify top performers early on in their careers and forecast retention rates?

You can. SAS gives you THE POWER TO KNOW®

SAS Facts

- SAS® solutions are currently in use in the personnel agencies of all four branches of the Department of Defense and throughout the Federal and State and Local Governments
- SAS® is the No.1 AI and advanced analytics software platform. IDC ranks SAS a leader in 2018 revenue for artificial intelligence software, growing more than 3x faster than the overall market.
- SAS® has more than 40 years of experience working with personnel departments all over the world.
- SAS® brings artificial intelligence and analytics to the cloud in a secure environment that enables HR executives to improve performance and deliver value by making better decisions faster.

To contact your local SAS office, please visit: sas.com/offices

