RESEARCH SUMMARY

Developing a Comprehensive System to Illustrate the Career Pathways with MDOT SHA

WHAT WAS THE NEED?

State and local agencies are facing a persistent workforce shortage: six in ten state- and local-government employees reported rising turnover and workload stress. Within the State Highway Administration (SHA), the gap is acute for mid-level professionals and Facility Maintenance Technicians (FMTs). One of the chief internal drivers is opaque promotion routes. Absent a transparent, agency-wide pathway framework, employees cannot see a future with SHA, and supervisors lack a common basis for succession planning, perpetuating vacancies and productivity losses.

WHAT WAS THE GOAL?

This project aims to create an integrated career-pathway system, tailored to SHA , and embed it in Cornerstone Learning Management System LMS so every employee can visualize realistic advancement options, and required competencies, and potential job duties in one interface. Specific objectives included mapping all classifications and salary grades, modeling viable vertical and lateral moves, furnishing supervisors with analytics for workforce planning.

WHAT DID THE RESEARCH TEAM DO?

The University of Maryland team executed three phases. **Evidence gathering**: The research team fielded an employee survey and harvested organizational charts plus official job-classification specifications for all SHA offices/districts, compiling an extensive inventory of SHA roles and reporting lines.

Pathway modelling: Using a rule-based "adjacency" test vetted by the technical team, the University of Maryland (UMD) team sorted each team, the UMD team sorted each classification pair into straightforward, multi-level, or limited-progression categories. The adjacency of classification pairs has been clearly defined in this phase.

Implementation: the technical team populated Cornerstone with 177 updated classification pages containing plain-language role descriptions, reciprocal "Related Jobs" links, and created a narrated video tutorial to guide employees and supervisors through the new Career Center interface.

WHAT WAS THE OUTCOME?

The project delivered a working, agency-specific career-pathway system inside Cornerstone LMS that lets any employee see realistic next steps and required competencies. Its underlying framework now gives human resources (HR) a consistent basis for succession planning and vacancy analysis, while the employee-facing tools improve transparency and self-directed development. The platform is expected to strengthen retention, enhance skill alignment, and position the agency as a model for data-driven career management in the public transportation sector.

HOW WILL MDOT SHA USE THE RESULTS?

The Career Pathways project directly supports SHA's strategic objectives for employee career growth and organizational versatility. By integrating the Career Pathways tool into the Cornerstone production environment, SHA has provided permanent employees with a streamlined platform to navigate classification progressions, review position responsibilities, and identify relevant training for 177 populated classifications. This resource, supported by online training, enables staff to easily explore promotion opportunities and professional development pathways. Combined with upcoming learning initiatives, the tool serves as an invaluable asset for improving retention in targeted classifications and ensuring the workforce is prepared to meet future transportation challenges.

LEARN MORE

To view the complete report, click here.

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