

AI Workforce Optimizer for Government Operations

Transforming Complex Project Planning into Predictive Workforce Intelligence



Challenge

At the IRS, engineering teams supporting over 80 mission-critical applications faced a significant challenge: aligning deadlines, budgets, and specialized skill sets within a single fiscal year. Traditional planning methods relied heavily on manual scheduling, which made it difficult to:

- Balance competing demands
- Optimize staffing
- Adapt to shifting priorities

This led to planning fatigue, inefficiencies, and missed opportunities to accelerate delivery.



Transformation

OST introduced an AI-powered resource optimization model framework to revolutionize workforce planning. This intelligent system:

- Evaluates thousands of resource combinations across constraints such as timelines, labor costs, and technical dependencies
- Automatically generates the most efficient allocation plan
- Dynamically balances engineer availability, task requirements, and cost-efficiency
- Instantly adapts to changes in team composition or workload



Outcome

The model produces resource allocation plans in seconds transforming a process that once took days into real-time, data-driven optimization. Key benefits include:

- Increased scheduling accuracy and visibility
- Reduced idle time and improved project throughput
- Empowered program managers to focus on innovation rather than logistics
- Ensured mission milestones are met without compromising quality or compliance



Scalable Model

OST's AI Workforce Optimizer showcases how artificial intelligence can modernize resource management across the federal enterprise. While initially applied to software engineering, the same architecture supports strategic planning for: Supply chains; Acquisition programs, and Mission operations

This capability aligns with OST's vision for AI-enabled government modernization, where analytics, automation, and human expertise converge to deliver faster, smarter, and more accountable results.

