

Securing Grants with AI: USDA Agricultural Marketing Service

CASE STUDY

 **Blake Willson Group**



U.S. DEPARTMENT OF AGRICULTURE

Client Challenge

USDA accepted applications for the new Farm and Food Workers Relief (FFWR) grant program, announced in the first quarter of Fiscal Year (FY) 2022. This program, funded by the Consolidated Appropriations Act of 2021, provided \$665 million in grants to support farm workers and meatpacking workers who incurred costs during the pandemic. A related pilot program had been established to support grocery workers.

As federal agencies face growing demands with fewer resources, USDA AMS is setting the standard for efficiency – automating where it matters most.

USDA's Agricultural Marketing Service (AMS) Division estimated it would approve up to 40 industry grant applicants responsible for distributing these funds to potentially 1,000,000 beneficiaries. USDA's grant approval relied on accurate and reliable data from applicants and beneficiaries; however, this approach made the allocation of funds susceptible to fraud.

Blake Willson Group (BWG) is a cleared & credentialed firm that harnesses technological innovations to improve financial stewardship for the welfare, defense, and security of our nation.

TODAY'S CHALLENGES



Third-party distributors of grants or funds lack visibility into the activity of other third parties



Manual review of hundreds of thousands of applications makes data validation unmanageable



Beneficiaries capitalize on a third-party distribution system, which naturally creates funding "silos"

SOLUTIONS & OUTCOMES



Consolidate data from third-party distributors into an authoritative data source



Combine analytics technology with automated data collection



Use fraud-driven analytics, scripts, and data collection techniques

THE IMPACT

Innovation

Layering multiple, AI-enhanced techniques and leading-edge technologies provided USDA AMS with the capability to perform analyses of applications that could not have been completed manually.

1 Source of Truth

An authoritative data source to enable review and reconciliation of all grant documentation.

7 Months

Collected and reviewed 822,824 applications from 50 states.

\$30M in Savings

6.35% of applications were identified as having a duplication risk resulting in savings of over \$30M.

Real Time Results

Identified high-risk applications using customized algorithms for exact and partial matches in real time.

Customizable

Easily adapted to meet agency-specific requirements.

Phase 1: Automated Collection and Analysis of Grant Applications

The Challenge

USDA AMS was tasked with the collection and manual review of hundreds of thousands of grant applications to ensure funds were distributed to legitimate beneficiaries.

Our Solution

BWG developed a proprietary tool that automatically scans and surfaces instances of potential fraud in grant documents and images uploaded by applicants through a secure web portal. Using GovCloud and AWS technologies to ensure compliance with federal security requirements and facilitate future development, the solution provides:

- A secure applicant portal external to USDA leveraging latest technologies
- Ability to quickly and easily ingest large data sets from multiple sources
- Integration with the latest analytics capabilities to identify specific risk indicators

Phase 2: Enhancing Detection Capabilities

The Challenge

USDA AMS requested that our team extend the application's capabilities, incorporating additional algorithms to enable a deeper level of detection.

Our Solution

Leveraging cutting edge technologies, BWG delivered a solution within seven months that:

- Enables cross-checking against other fraud, waste, and abuse prevention databases when feasible
- Incorporates Large Language Models (LLMs) to look for common patterns in applications and flag those at higher risk of being fraudulent
- Integrates an R Shiny tool to enable USDA AMS to perform image recognition on graphical elements