Maryland
DEPARTMENT OF HUMAN SERVICES

PBIF Summer 2025 Open Call

Proposal DRAFT

Project Title:
AI Assist for SNAP/Medicaid Work Verification

Organization Name:
Maryland Department of Human Services (DHS)
Maryland Department of Health (MDH)
Maryland Health Benefits Exchange (MHBE)
MarylandBenefits/Department of Information Technology (DoIT)
in partnership with Nava PBC

Organization Type:
Government

Primary Contact Info:
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Executive Summary (150 words):

This proposal aims to implement a cutting-edge, AI-powered system to modernize and automate critical aspects of Supplemental Nutrition Assistance Program (SNAP) and Medicaid work requirement verification.

In cases where full automation is not feasible, the proposal provides an interface for easy, AI guided, real-time correcting work verification evidence that would directly integrate into Maryland's existing Enrollment & Eligibility platform. This initiative directly addresses Maryland's severe administrative burdens and potential customer hardships arising from the new H.R. 1 legislation.

The project will prevent wrongful benefit terminations, lower the compliance load on our customers, significantly reduce manual workload and administrative burden for caseworkers, and drastically improve data accuracy.

Stage of Development:

This project would range from initial development to pilot deployment with limited Maryland counties through to production rollout across the state.

The primary users will be Maryland SNAP/Medicaid customers who need to verify work requirements. DHS/MDH/MHBE caseworkers will also be users, benefiting from automated work verification, document processing, and case linking, allowing them to focus on strategic tasks.

Project Start: October 2025

Phase 1: Discovery & Design (Months 1-3)
In-depth planning and design

Deliverables:

- Detailed system architecture
- API integration specifications for state and commercial systems
- UI/UX designs
- AI customization and prompt engineering strategy
- Comprehensive project plan

Phase 2: Development & Integration with Early Piloting (Months 4-8)

Core technical development and integration work conducted through agile development sprints

Deliverables:

- Functional API integrations with selected state and commercial systems
- AI-driven document management module (upload, quality check, extraction, case linking, receipt generation)
- Secure data infrastructure
- Initial testing reports

Phase 3: Pilot Scaling and Refinement (Months 9-11)

Pilot program in selected counties, prioritized according to work requirement effective date

Deliverables:

- Pilot scaling
- Pilot evaluation report (including efficiency gains, accuracy improvements, user satisfaction metrics)
- Full deployment plan

Phase 4: Sustainability

Operational Handoff and Knowledge Transfer

Deliverables:

- Comprehensive Documentation
- Open Source Delivery
- Final Reporting

Project End: September 2026

Total Grant Request: $1,210,613

Do you have other sources of funding?

Sustainment funding would be proposed as a legislative appropriation.

Section 2: Value Proposition and Responsible Deployment

Problem Statement (250 words):

The H.R. 1 legislation significantly expands SNAP work requirements for Able-Bodied Adults Without Dependents (ABAWDs), affecting approximately 80,000 additional Marylanders, in addition to our existing ABAWD population of almost 30,000.

This additional burden risks the wrongful rescission of benefits for vulnerable populations, deepening food insecurity and eroding public trust. Already 21% of Maryland SNAP households exit the program only to return within four months due to procedural difficulties during recertification and changes in household circumstances. This legislative shift threatens to increase that challenge.

For Medicaid, new requirements are levied on approximately 360,000 members of the ACA expansion population - imposing millions of dollars of IT implementation costs to identify compliance, with the verification cycle significantly increasing the number of calls to the call center, required mailing of consumer notices, and customer appeals, driving up costs and increasing service delays.

Solution & Target Beneficiaries (250 words):

The proposed solution is an AI-powered approach designed to overcome these challenges.

AI-Driven Work Activity Verification:
We should not require any Marylander to verify manually what we can verify automatically. State and consent-based commercial APIs exist to programmatically verify many employment arrangements. In the case where automated verification is not feasible, this solution will develop an intuitive, AI-powered interface for SNAP/Medicaid customers to easily upload documents.

The system will use advanced AI models for document identification of varying types and formats, quality assessment, intelligent information extraction, and automated case linking, while providing electronic receipts of submission. For example, the system could analyze a series of paystubs to determine the hours worked per week, pre-populating that data for the customer. It can ensure that the document is high enough resolution, and includes required aspects like the individual's name and the signature of the supervisor or authorized party.

The system can also provide affirmative contact, reaching out to customers whose benefits may be threatened due to missing or incomplete paperwork while the customer still has an opportunity to address the deficiencies.

The primary beneficiaries are SNAP/Medicaid customers who will experience a streamlined, accessible, and transparent verification process, ensuring equitable access to essential benefits and reducing the risk of wrongful termination. DHS/MDH/MHBE team members are also key beneficiaries, as automation frees them from rote, repetitive tasks to focus on strategic initiatives and more complex cases.

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Proposed Benefit and Impact Evaluation (250 words):

This project will deliver meaningful and measurable improvements

Beneficiary Impact: The project will help reduce case closures due to failure to verify work activity participation. This will ensure that more than 100,000 Marylanders affected by H.R. 1 retain access to critical food assistance, and hundreds of thousands at risk of losing Medicaid, especially in ACA expansion groups. Longer term, the product could benefit the Maryland TANF customer population of 45,000 as well.

Efficiency: Document processing time potentially reduced by up to 90% and overall document turnaround up to 50% faster.

Accuracy: Automated data entry boasts an accuracy rate of 99.959% to 99.99%, drastically improving over human rates of 96-99% and reducing errors by up to 100 times. This minimizes incorrect benefit determinations and prevents wrongful benefit rescissions.

Cost Savings: Anticipated reductions in operational and administrative costs, directly alleviating the multi-million dollar burden that H.R. 1 places on Maryland taxpayers.

Public Trust: By providing a transparent and fair system, it will strengthen public confidence in government services. We intend to partner with APHSA to extend this impact beyond Maryland, with advisory states positioned to implement similar trust-building solutions in their jurisdictions.

Metrics: We will track processing times, error rates (comparing manual vs. automated), administrative costs, and customer satisfaction (through feedback on the interface and support services). Baseline data for error rates is 1-4% for manual processes.

Responsible Design and Use (500 words):

The solution prioritizes data security, privacy, transparency, and fairness.

Security: The system will adhere to stringent government security protocols, implementing role-based access controls, multi-factor authentication (MFA), and immutable audit logs. All data will be encrypted both in transit and at rest, ensuring full compliance with regulations and zero data leakage.

Privacy: Consumer consent will be a cornerstone and the system will be designed to minimize data exposure while maximizing utility.

Accuracy & Bias Mitigation: The high accuracy of AI-driven information extraction (99.959% to 99.99% accuracy rate) significantly reduces the risk of incorrect determinations or bias introduced by human error or inconsistent manual review. By automating objective data extraction from documents, the system reduces subjective interpretation, ensuring fair and consistent processing for all customers.

Transparency & Human Oversight: The AI will function as a co-pilot for human users, automating rote tasks while freeing team members for more complicated, empathetic, and human aspects of the job. The system provides electronic receipts and potentially real-time status updates to customers,

enhancing transparency. Human oversight checkpoints will be maintained where necessary, particularly for complex cases or exceptions flagged by the AI.

Unintended Consequences: The risk of wrongful benefit loss due to administrative hurdles is directly addressed and mitigated by automation. Potential issues like digital literacy barriers are addressed through the intuitive, user-friendly interface designed for accessibility.

The pilot phase will include rigorous monitoring of performance and data accuracy and iterative improvements based on real-world feedback to identify and mitigate any unforeseen issues. The project plan includes comprehensive team members training and user support materials.

Adoption and Path to Scale (250 words):

Implementation in real-world public benefit systems hinges on the strategic partnership between DHS, MHBE, MDH, and Nava PBC.

MDH//MHBE/DHS's deep understanding of Medicaid and SNAP requirements and existing systems (chiefly the Maryland Department of Information Technology's MarylandBenefits.gov which hosts Maryland's existing Enrollment and Eligibility system) is critical.

Nava PBC's expertise in building user-centric solutions for government agencies ensures the system is effective and adaptable.

Government Adoption: MHBE, MDH and DHS's active involvement will ensure the system is developed with real-world operational context and policy compliance. The integration with existing systems will aid rapid uptake. The pilot program in selected Maryland counties will include comprehensive training for MDH, MHBE and DHS team members and demonstrate efficiency gains and accuracy improvements.

Beneficiary Adoption: Public outreach efforts, including with Community Based Organizations, will inform and guide Medicaid and SNAP customers on the new document submission process. The intuitive, AI-driven interface is designed to simplify submission, encourage use, and build trust through instant feedback and electronic receipts.

Sustainability & Scalability: Modular design would allow for scalability and re-use in other agencies in Maryland or other states with similar challenges. From a technical perspective, the system is designed for long-term sustainability through automation, reducing ongoing operational costs for DHS, MHBE and MDH, and through comprehensive knowledge transfer to Marylandbenefits.gov team members for maintenance and future enhancements. Its cloud- based, API-driven architecture ensures the system can easily accommodate increased user volume and adapt to policy changes, allowing for a seamless statewide rollout after a successful pilot.

Dissemination & Learning (250 words):

The project includes a clear and intentional plan for sharing findings and lessons learned, aiming to serve as a blueprint for broader innovation in public services.

Multi-Benefit Integration: The AI-driven document management system, once proven for SNAP and Medicaid, could be expanded to other public benefit programs like TANF, and WIC, leveraging existing multi-benefit application portals. This would create a more unified application and verification

experience.

Open Source Framework for Direct Adoption: The AI-driven document management modules will be developed as open source components that other states can directly leverage and adapt to their specific systems and policy requirements. Maryland serves as the anchor state, providing the foundational development and real-world validation, while other states benefit from tested, production-ready code that significantly reduces their development timelines and costs.

National Model: The successful implementation in Maryland, particularly in addressing H.R. 1 complexities, can serve as a national model for other states facing similar administrative and social challenges in public benefits. Demonstrating quantifiable improvements in efficiency, accuracy, and citizen experience aligns with the Center for Civic Futures' mission to strengthen public confidence in government on a larger scale. An intended partnership with APHSA would transform individual state interest into systematic adoption pathways.

Participating states will receive not only the open source codebase but also structured technical documentation and implementation guidance that enables rapid deployment of Maryland-validated solutions to address H.R. 1 requirements.

Section 3: Technical & Practical Feasibility

Solution Description (500 words):

An AI-driven document management system, once proven for SNAP and Medicaid, could be expanded to other public benefit programs like TANF, and WIC, leveraging existing multi-benefit application portals. This would create a more unified application and verification experience.

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AI-Driven Work Verification Management: This component includes:

Easy AI-Driven Interface: A user-friendly web/mobile and/or multi-channel interface for customers to upload documents like pay stubs, employment letters, volunteer schedules, academic enrollment, or other verification means. AI guidance can help assess completeness, quality, accuracy, and sufficiency in real time while the customer is still engaged.

AI for Document Quality Assessment: AI models will assess document quality (blur, glare, distortion), categorizing them as "Acceptable," "Poor," or "Unacceptable," with immediate user notification for low-quality submissions to enable Automated Document Reprocessing.

Intelligent Information Extraction: Utilizing state-of-the-art Generative AI, which combines Optical Character Recognition (OCR) to read text from images and Natural Language Processing (NLP) to understand context, all powered by machine learning, the system extracts key data fields (employer names, dates, hours, income, program enrollment, signature) from various formats, including handwritten notes, and automatically maps these to the structured data required by the verification.

Automated Case Linking and Electronic Receipt: Once extracted and verified, the AI will automatically connect data to the correct customer case within the Maryland enrollment and eligibility system, eliminating manual data entry. An electronic receipt will be generated automatically for customers.

Human Oversight: The tool primarily functions as a co-pilot for human users. While automating rote tasks, DHS team members will be empowered to focus on "more complicated, empathetic, and human aspects of the job". Key checkpoints for human oversight will involve complex cases, exceptions flagged by the AI, and potentially policy interpretation where automated rules may not fully apply. The tool will respect federal regulation that outlines the maximum automation that can be legally achieved in this process.

Data Strategy - Data Sources (250 words):

The project will primarily utilize data from customer-uploaded documents: Pay stubs, employment letters, program enrollment confirmations, academic records, volunteer forms, and others.

Data Strategy - Data Management (250 words):

Data Quality & Representativeness: AI models will be provided with samples of the most common forms to ensure maximum automation and high accuracy in extraction, allowing outlier layouts to be quickly routed for human review. The AI-powered document quality assessment will prevent low-quality documents from entering the workflow, ensuring high data integrity.

Privacy & Security Safeguards: The system will prioritize data security and privacy. All data will be encrypted both in transit and at rest. Robust role-based access controls and multi-factor authentication (MFA) will be implemented. Immutable audit logs will be maintained. The design ensures "zero data leakage" and that no customer content will be used for training without explicit consent. Consumer consent is foundational for data access, especially with commercial services.

Stakeholder Engagement (250 words):

The project is built upon a strategic and synergistic partnership between Nava PBC, DHS, MDH and Marylandbenefits.gov. DHS, MDH and MHBE are operational partners with deep understanding of benefit program requirements. Marylandbenefits.gov develops and operates the existing Enrollment and Eligibility system.

Customers: SNAP/Medicaid customers/beneficiaries are engaged through the design of an intuitive, user-friendly interface for document upload. The pilot phase includes public outreach efforts to learn from, inform and guide customers on the new process with an emphasis on Human Centered Design. Team members are engaged through training and the shift towards higher-value tasks, improving job satisfaction.

Government Partners: MDH, MHBE and DHS will provide critical domain expertise, policy guidance, user feedback, secure access to systems, and serve as the primary end-user spearheading pilot implementation. Nava PBC will lead technical design and development, leveraging MarylandBenefits as a platform and a source of expertise to integrate with Maryland systems.

National Advisory and Dissemination Partnership with APHSA: The project initiates a strategic partnership with the American Public Human Services Association (APHSA) to ensure broader impact across states facing H.R. 1 implementation challenges. APHSA has already received interest from the District of Columbia and 6 states representing the northeast, mid atlantic, southwest, and midwest regions in joining the cohort.. This multi-state perspective will ensure the tool is relevant to operational contexts beyond Maryland. APHSA will leverage their existing dissemination infrastructure to highlight progress and facilitate rapid knowledge transfer to their network of state and county human services agencies.

Resources and Infrastructure (250 words):

Cloud Infrastructure: This module will be loosely coupled but integrated from inception with the APIs for Maryland's existing Eligibility and Enrollment system. The system's architecture is fundamentally cloud-based and API-driven, ensuring exceptional scalability and reliability, and leveraging the Maryland Benefits platform for APIs, advanced AI technologies including generative AI, middleware and data orchestration, and integration with some existing government systems. Purchasing vehicles are already in place for this infrastructure. Software development tools (e.g. DevOps, AI Code Generation assistants) are also already in place.

Risk Assessment & Mitigation (250 words):

Major risks and their mitigation strategies include:

Risk: H.R. 1 legislative burden leading to wrongful benefit rescissions and food insecurity.

Mitigation: The system automates work verification and document management, drastically improving accuracy and processing speed, directly preventing wrongful benefit terminations due to administrative delays or errors.

Risk: User adoption challenges (customers/team members).

Mitigation: An intuitive, user-friendly interface for customers. Comprehensive training for DHS/MDH/MHBE team members. Public outreach and user support materials.

Risk: Technical complexities and unforeseen challenges.

Mitigation: A phased project timeline (Discovery, Development, Pilot, Scalability) allows for iterative development and refinement.

Scalability & Sustainability (250 words):

The system is designed for exceptional scalability through its cloud-based and API-driven architecture, enabling it to accommodate increased user volume and higher loads of document processing. This robust design facilitates a seamless statewide rollout after the pilot, and modular deployment provides an easy path for the incorporation of other benefits (e.g. Medicaid) or deployment by other states.

For sustainability, the inherent automation significantly lowers ongoing operational costs for Maryland by reducing manual workload, and would be taken on under existing platform operation obligations once developed. The project includes comprehensive documentation and robust knowledge transfer sessions for Marylandbenefits.gov, building internal capacity for maintenance and future enhancements. Nava PBC will also provide a post- implementation support plan.

Multi-State Scaling and Cost Distribution: The APHSA partnership creates a unique opportunity for cost-effective scaling that maximizes the impact of PBIF investment.

The July 2025 H.R. 1 effective date means states cannot afford lengthy, independent development

cycles. Through APHSA's advisory structure, participating states will gain real- time insights into Maryland's process, technical specifications, and implementation lessons learned. This collaborative approach enables other states to leverage the substantial groundwork completed in Maryland, significantly reducing development costs and accelerating their time-to-deployment.

This represents a potential cost-avoidance of millions of dollars across states and ensures grounded, systematic knowledge transfer, transforming a single-state solution into a national infrastructure investment that delivers exceptional return on grant funding while addressing the urgent, nationwide H.R. 1 implementation challenge.

The total grant request is $1,210,613. This represents a strategic investment to address a critical, immediate, and systemic challenge posed by H.R. 1, impacting over 174,000 Marylanders on SNAP and hundreds of thousands on Medicaid, and carrying significant long-term financial implications for the state.

The budget is allocated across personnel, cloud infrastructure, AI software, integration, custom development, training, user research, a unique partnership with APHSA and project management/administration. This allocation reflects the specialized expertise and advanced technology required.

The project anticipates significant administrative cost avoidance for the state. These cost efficiencies represent a strong path to financial viability beyond the initial grant period, as the solution generates ongoing savings for the state. The project's sustainability plan focuses on building Maryland's internal capacity, reducing perpetual reliance on external funding for operations.

Attachments:
- Brief bios for each of the team members working on this project, highlighting relevant technical expertise, domain knowledge, and responsibilities for key personnel.
- A project plan or roadmap with clear milestones, deliverables, and a realistic timeline for each phase of the project.
- A project budget and project budget justification
- An estimated organizational budget for 2026 and 2027 including what percentage of costs this grant will be supporting.
- Other relevant attachments as desired (e.g., architecture diagrams).
    - Nava Contractor Quote (pdf)
    - APHSA Contractor Quote (pdf)