



BUREAU OF THE
Fiscal Service
U.S. DEPARTMENT OF THE TREASURY

***The U.S. Big Picture:
A U.S. Perspective of Using Data Analytics to
Fight Fraud and Improper Payments***

U.S. Department of the Treasury
Bureau of the Fiscal Service
International Counter Fraud Data Analytics Conference
March 3, 2020

Fighting Fraud & Improper Payments Agenda

- ☐ Payments Background
- ☐ Approach to Improper Payments
- ☐ Case Studies
- ☐ Engagement with Federal Agencies & States
- ☐ Cross-Agency Improper Payments Projects
- ☐ Key Takeaways

U.S. Treasury / Bureau of the Fiscal Service Payments Background

U.S. Department of the Treasury's Bureau of the Fiscal Service

Financing

Effectively finance government operations by offering Treasury Securities through reliable, accurate, flexible, and electronic systems.

Awarded \$11.0 trillion in Treasury marketable securities and conducted 325 auctions to fund critical government operations and activities.

Collections

Operate the Federal Government's collections and deposit systems.

Collected nearly \$4.6 trillion in federal revenue.

Payments

Provide central payment services to the American public on behalf of government agencies.

Securely disbursed 1.2 billion payments totaling more than \$3.7 trillion with 96.5% disbursed electronically.

Centrally disburse 87.3% of all federal payments.

Debt Management

Identify and assist in the prevention of improper payments, while collecting delinquent debt owed to government agencies.

Collected over \$9.65 billion in delinquent debt.

Gov't-wide Accounting &

Advance informed decision making and improve government effectiveness by providing timely, reliable, and transparent financial services and information.

Managed a daily cash flow of \$127.4 billion and serviced nearly \$6.1 trillion in Treasury securities.

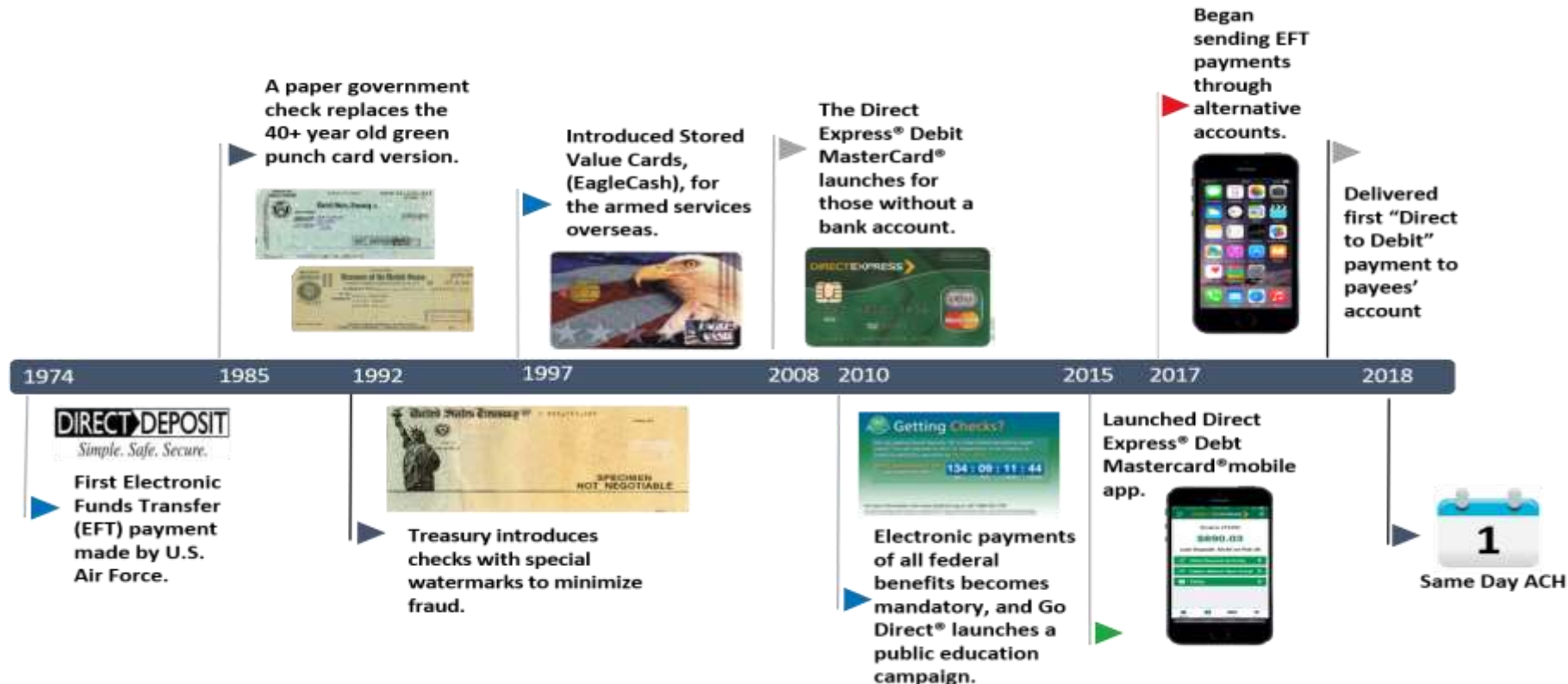
Shared Services

Promote government efficiency by delivering cost effective, quality administrative and IT services through a shared service model.

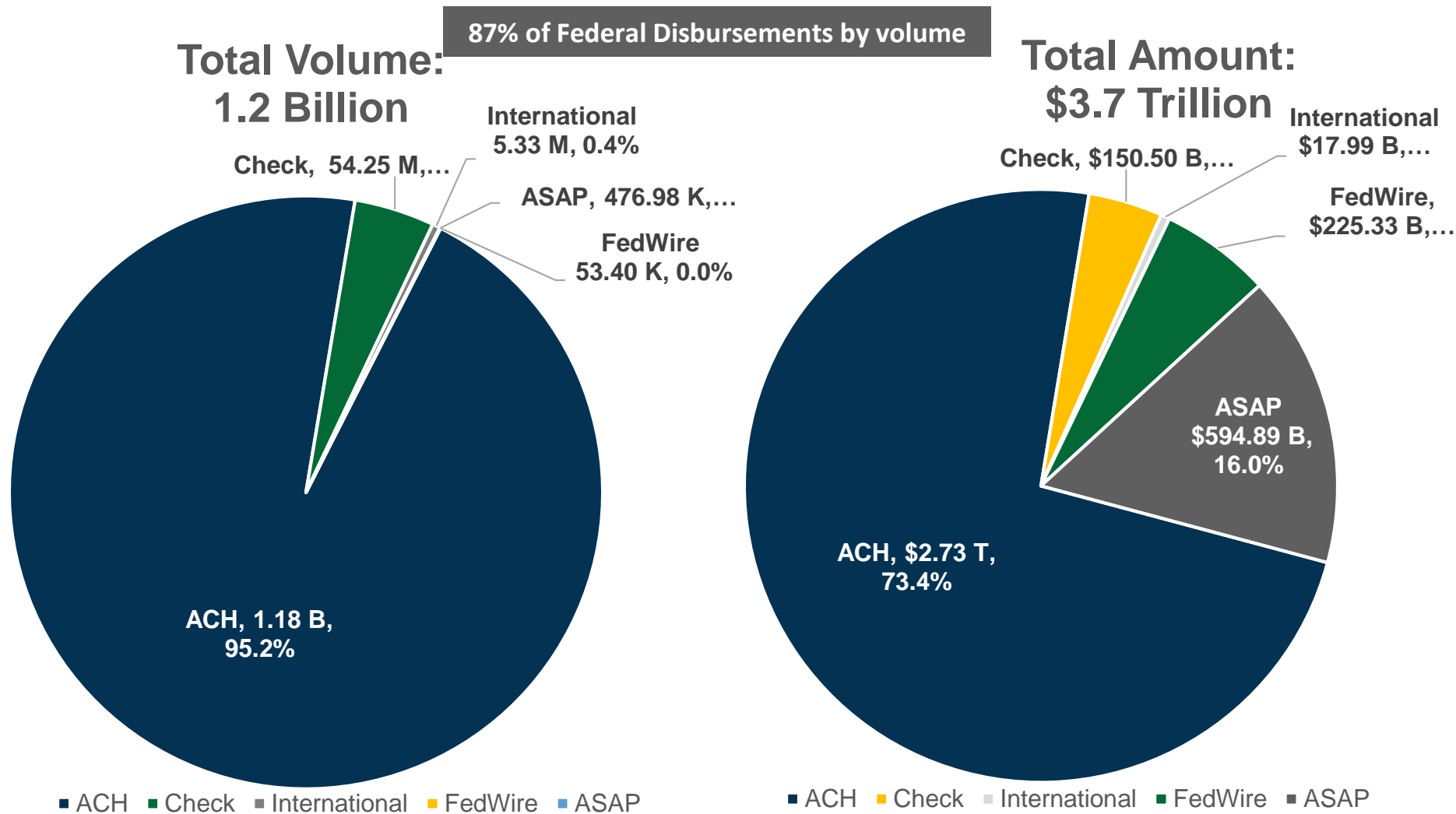
Provided competitively priced information technology and administrative services to 78 federal agencies.

U.S. Treasury / Bureau of the Fiscal Service Changing Landscape

- Over the years, the Bureau of the Fiscal Service's (Fiscal Service) Payment processing has evolved from many geographically disbursed payment sites to two centralized locations.
- As time has progressed, the payment industry and technology have fundamentally changed.



FY19 Payment Statistics



Within the \$3.7 trillion payments disbursed annually, less than ½% (6.3 million transactions) result in a payment exception (valued at \$15 billion)

Payment Exceptions Background

- Within the over 1.2 billion payments valued at \$3.7 trillion disbursed annually:
 - Less than ½% (nearly 6.3 million transactions) require a “second touch”, most common examples include:
 - **Returns** occur when a Automated Clearinghouse (ACH) or U.S. Treasury check is sent back to U.S. Treasury (i.e. deceased, bad account number/address).
 - **Agency initiated claims** occur when an agency determines a recipient is deceased but has received Federal benefit (i.e. SSA, SSI) payments after death and funds need to be recovered from the receiving financial institution.
 - **Payee non-receipt claims** occur when a recipient alleges they did not receive their ACH or U.S. Treasury check payment.
 - **Stale dated checks** occur when a U.S. Treasury check goes uncashed for more than 12 months.
 - **Forgery claim adjudication** describes the process followed to determine whether a U.S. Treasury check was forged and if the recipient needs to receive a settlement payment.
 - **U.S. Treasury check discrepancies** occur when a U.S. Treasury check is misread, amount and/or payee is altered or counterfeited.
 - **Fraud referrals** occur when a pattern / trend is identified as potentially suspicious activity (could result from any of the above scenarios) and is referred to law enforcement for assessment.

Improper Payments Background

- Through agency self-reporting, in FY19 approximately **\$175 billion** *are estimated to be “improper payments.”*
 - **Improper payments** occur when either:
 - Federal funds go to the wrong recipient,
 - the recipient receives the incorrect amount of funds (either an underpayment or overpayment),
 - documentation is not available during review to discern that a payment was proper, or
 - the recipient uses Federal funds in an improper manner.
- Often, improper payments are identified as a result of:
 - Inability to authenticate eligibility (lack of access to data / data unavailable).
 - Insufficient documentation to determine eligibility.
 - Inability to verify identity.
 - A variety of other reasons.

U.S. Treasury / Bureau of the Fiscal Service

Approach to Improper Payments

Approach to Improper Payments

- Over the last several years, Fiscal Service has been very active in the improper payments arena:
 1. ***Payment Integrity Center of Excellence (PICOE)*** provides actionable business insights and solutions that transform how agencies approach identification, prevention, and recovery of improper payments.
 2. ***Do Not Pay Business Center*** (in addition to other PICOE services) assists agencies by providing a combination of access to data sources (i.e. death, excluded parties) and data analytics to aid in identification, mitigation and elimination of improper payments.

Improper Payments Approach: Stakeholders & Services

- In support of improper payments mitigation and prevention, Fiscal Service works very closely across the following communities:
 - Inspector Generals and other Investigative Entities
 - Federal Agencies
 - Financial Community
 - States
- Types of services provided include:
 1. Serve as central source for pre-payment, payment and post-payment data and analysis support.
 2. Provide real-time insight to enable faster detection of potential fraud rings, trends, etc., that may be impacting multiple payment types.
 3. Lead improper payments projects at both an individual and cross-agency level.
 4. Deliver analytics to support program/payment integrity risk concerns related to recipients, vendors, travel pay, payroll, loans, grants, disaster.

Improper Payments Approach: Partnering on Analytics

Fiscal Service has positively impacted its stakeholders through the delivery of robust data analytics capabilities in the areas of data correlation and sharing:

- **Data Correlation & Intra-Agency Sharing:**
 - Enabling actionable business insights within a respective agency's data.
- **Interagency Data Sharing:**
 - Sharing insights spanning agencies as opportunity to provide a more holistic view of opportunities to combat improper payments.
- **Mechanisms for sharing:**
 - InfoApps – Customer-centric business analytics solution, focused on actionable outcomes for customers. Often used by program / law enforcement partners.
 - Do Not Pay Analytics Projects – Enables reviews of program/payment integrity risk concerns related to recipients, vendors, travel pay, payroll, loans, grants, disaster. Often used by risk management / audit partners.

Payment Integrity Center of Excellence

PICOE – Who We Are and What We Do



VISION

Be a trusted Government-wide partner to **provide actionable business insights and solutions** that transform how agencies approach identification, prevention, and recovery of improper payments.



MISSION

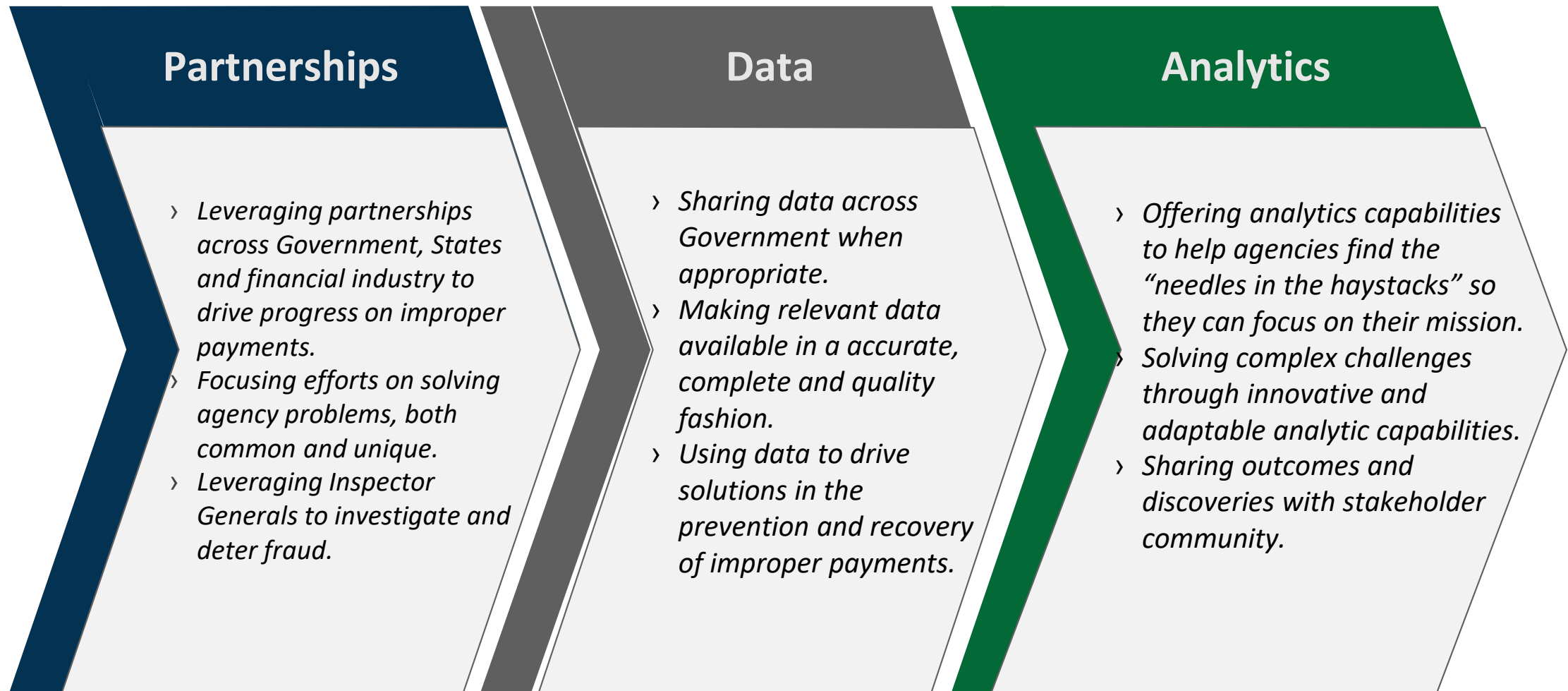
Provide **Government-wide partnership, guidance, and customer centric solutions** that aid in the prevention and recovery of improper payments due to fraud, waste, and abuse.



GOALS

1. Maximize appropriate use of Government and other accessible data
2. Improve the accuracy and completeness of data
3. Address agency challenges by offering comprehensive data analytics and other services
4. Strengthen cross-government partnerships and communications
5. Identify opportunities to strengthen Government-wide policy, guidance, and legislation

Key Requirements for Success



PICOE is a community of experts providing solutions to solve Governmentwide payment integrity issues.

Bringing the Requirements for Success Together

From 2016 - 2019			
<u>Agency</u>	<u>Total Payments</u>	<u>Payees</u>	<u>Accounts</u>
SSA	2.2B	200M	178M
VA	298M	23M	22M
IRS	273M	266M	264M

PICOE's data analytics has identified a total of 24M Payees and 17M Accounts which represent an opportunity to appropriately share when accounts are used by multiple agencies to make payments:

- Deceased Payee
- Compromised Account
- Closed Account
- Potential duplication of benefits
- Eligibility Rules
- Opportunities to prevent improper payments

For Example:

- SSA and VA have made payments to 3.8M of the same payees, with 3M accounts in common.

Recipient overlap has sparked several cross-agency partnership opportunities

Payment Integrity Center of Excellence

Case Studies

Case Study: Payment Screening Project

<i>Pre-Payment Screening</i>	
Understand Business Problem	A federal agency is in need of Government-wide <i>data analytics</i> in the <i>pre-payment phase</i> to evaluate whether <i>payments are going to the right individuals</i> and to <i>minimize potential fraud</i> .
Develop Customer-Centric Solution	PICOE is <i>analyzing historical payment data</i> (such as changes or mismatches of payee name and financial institution/account numbers) to validate the integrity of payments before they are issued.
Implement Solution	In late 2018, the PICOE began comparing payments against Government-wide data for mismatches in order to assess how such data can provide actionable payment integrity and fraud risk management solutions.
Measure Value	<p>A review of a sample set of fraudulent payments resulted in the following findings:</p> <ul style="list-style-type: none">• 5% of payments were paid to the same account by other government agencies<ul style="list-style-type: none">• Payments with a bank account match increase confidence in the accuracy of the payment.• The remaining 95% of the payments were paid to a different account.<ul style="list-style-type: none">• Analysis showing variance in bank account information provided the agency an additional data point to prompt further review of the return.
Improve	Prescreened 1.6M payments valued at \$7.3 billion dollars in FY19. PICOE is currently evaluating the feasibility and benefit of reviewing a greater percentage of payments for this agency before issuance and whether new data validation checks can be automated and incorporated into the pre-payment process.

Case Study: Data Sharing Project

<i>Disaster Relief Payee Eligibility</i>	
Understand Business Problem	A Federal agency is in need of cross-government data in the <i>pre-payment phase</i> in order to prioritize their workload in <i>evaluation of payee eligibility</i> for need-based relief payments.
Develop Customer-Centric Solution	PICOE worked with the agency to evaluate the type of cross-government data needed to verify disaster payment eligibility and signed an agreement to allow sharing of such data.
Implement Solution	PICOE is working with the agency to conduct a cross-government review to see if their applicants have received other government payments, and if they have, if they received those payments to the same Routing and Transit Number (RTN) and bank account identified by the agency. The data returned will to allow the agency to prioritize investigations to determine whether those applicants are entitled to the disaster payments.
Measure Value	The first data sharing occurred in late 2019 with approximately 20K potential payments valued at \$25.9 million submitted for cross-governmental analysis. Based on the data shared, the agency identified 180 claims requiring further investigation. PICOE and the agency are working together to operationalize the data sharing for FY20.

Case Study: Altered U.S. Treasury Check Case

Altered U.S. Treasury Check Ring

Understand Business Problem	<p>Post payment monitoring discovered a trend of altered checks in several zip codes surrounding a large U.S. city.</p> <p>Altered U.S. Treasury checks were clearing the system in advance of payment date, which led analysts to suspect there might be a larger fraud scheme at work.</p>
Develop Customer-Centric Solution	Partnered with law enforcement to combine data sources and monitor daily activity for checks disbursed to targeted zip codes. Developed an alert process to notify investigators immediately when check alterations were detected.
Implement Solution	Provided law enforcement with details support their investigation, including payment details, check images, etc.
Measure Value	Law enforcement has been able to make multiple arrests related to this case.
Improve	The monitoring solution developed for this case was operationalized and is being applied to several other cases.

Do Not Pay Business Center

Do Not Pay Business Center

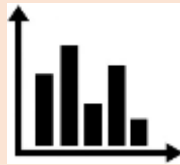
- Do Not Pay was established by the Improper Payments Elimination and Reduction Act of 2012 (IPERIA):
 - The Office of Management and Budget (OMB) designated Treasury to host a working system to assist agencies in identifying and preventing improper payments.
 - Treasury's Bureau of the Fiscal Service (Fiscal Service) operates the Do Not Pay Business Center (DNP), which provides:



Web-based Portal

The DNP Portal let agencies search available data sources at no cost.

The web-based portal has four ways to deliver match results to agencies: Online Search, Batch Matching, Continuous Monitoring, and Payment Integration.



Data Analytics

Data Analytics provides FREE Advances payment analysis services To federal agencies to help combat Improper payments.



Agency Support

DNP Supports staff is here to help Agencies get started, choose the Options that are right for you, and to assist Agencies with using the Do Not Pay Business Center.

DNP Data Sources and Their Benefit to Agencies

<u>Source Type</u>	<u>Benefit to Agencies</u>
<u>Death Data Sources:</u> <ul style="list-style-type: none">• Social Security Administration’s Death Master File (DMF) – Public• US Department of State Death Records• US Department of Defense Death Records• American InfoSource Death Data (AIS)	<ul style="list-style-type: none">• Verify whether a payee is deceased.• Contains records of American Citizens who are deceased or presumed deceased in foreign countries, as reported by U.S. embassies or consulates upon its receipt of a foreign death certificate or finding of death by a local competent authority.• Contains information on individuals in active and reserve military, including whether an individual is deceased.• Contains information on deceased individuals obtained from over 3,000 funeral homes and thousands of newspapers, as well as county-level probate records.

DNP Data Sources and Their Benefit to Agencies

<u>Source Type</u>	<u>Benefit to Agencies</u>
<u>Debt Data Sources:</u> <ul style="list-style-type: none"> • Credit Alert Verification Reporting System (CAIVRS) • Treasury Offset Program/Debt Check Restricted 	<ul style="list-style-type: none"> • Verify whether an individual is a delinquent federal borrower. • Verify whether a payee owes delinquent non-tax debts to federal government (and participating states).
<u>Other Prohibited Sources:</u> <ul style="list-style-type: none"> • Specially Designated Nationals List/OFAC List 	<ul style="list-style-type: none"> • Verify whether an individual or entity is prohibited from entering into financial transactions with U.S. financial institutions and the U.S. government.
<u>Contractor/Vendor Sources:</u> <ul style="list-style-type: none"> • General Services Administration's (GSA) System for Award Management (SAM) Exclusions List • SAM Entity Registration • List of Excluded Individuals and Entities (LEIE) - Public & Restricted 	<ul style="list-style-type: none"> • Verify whether payments are to debarred individuals. • Verify that a vendor seeking to do business with the federal government has registered, in accordance with the Federal Acquisitions Regulation (FAR). • Verify whether payments are to individuals and entities currently excluded from participating in federal health care programs.

Do Not Pay Business Center

Case Studies

Case Study: Agency Eligibility Project

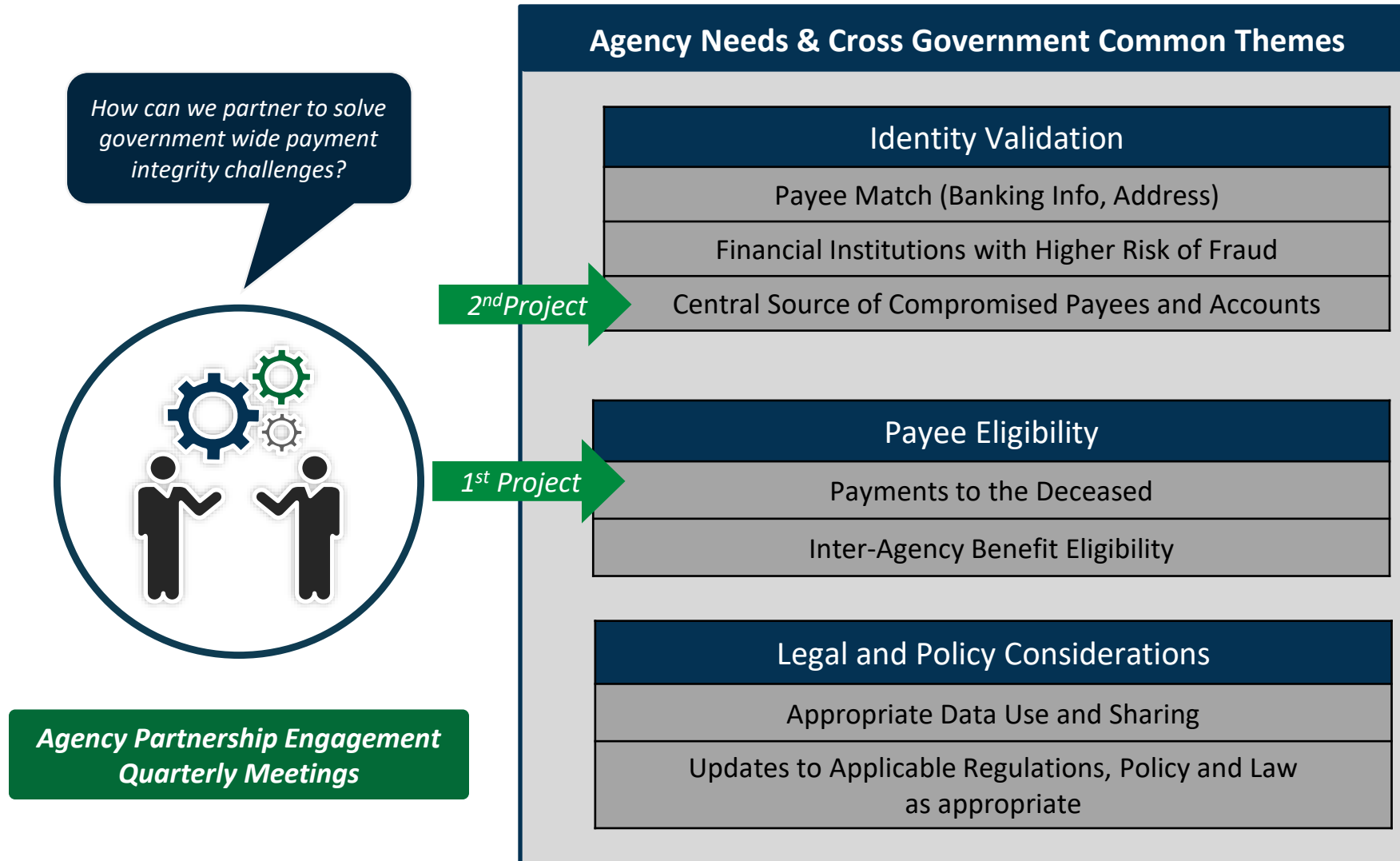
Cross-Eligibility Review	
Understand Business Problem	A Federal agency is challenged with identifying cross-government overlap between programs administered by multiple agencies. These dual benefits may indicate improper payments if the payee has not already notified others paying benefits to offset them.
Develop Customer-Centric Solution	Using Federal payment data as appropriate , DNP was able to identify beneficiaries receiving concurrent payments from Federal benefit programs. DNP is designing a solution for the agency to be able to systemically identify and prevent overlapping benefits . To start, DNP designed analyses as a proof of concept for what the customer would be able to see and react to using our payment data and matching techniques. To do this, we partnered with the customer to define when overlap is legitimate and when it is improper so that our results indicate the highest-risk beneficiaries for their investigation.
Implement Solution	DNP analyzed payment data from three agencies who pay similar benefits and are known to have improper overlap. By using advanced matching algorithms, like similarity scoring, DNP was able to link additional payments for review; even in cases when beneficiaries are listed with different names within different agencies or when the agency is missing a Social Security Number for that payee.
Measure Value	The customer used the results of our initial analyses to identify the payments types that are subject to dual-benefit offset (roll payments). Based on this feedback, the customer will work through their adjustment process for the \$223M identified overlapping payments . This will enable them to identify additional information that they would need to effectively and efficiently adjust payments or prevent overlapping payments in the future.
Improve	The detailed analyses helped the agency see the extent of overlapping payments and identify steps to adjust payments. Through continuous collaboration with the customer, we refined our analyses and techniques , and continue to work through additional steps, in order to turn the proof of concept into an operationalized solution for the agency.

Case Study: Federally Funded State Administered Project

Federally-Funded State-Administered Payments	
Understand Business Problem	The customer, a state auditor, had limited resources to verify eligibility on a large subset of payee data needed to support an upcoming audit to help state agencies identify payment integrity opportunities in their process.
Develop Customer-Centric Solution	Using customer feedback, DNP designed a series of analyses, including data matching and integrity checks, that would help the audits division identify areas of opportunity or risk in state programs' processes.
Implement Solution	DNP matched data against sources to identify payment recipients that are potentially ineligible because they are listed as deceased or debarred in data sources. Additionally, DNP performed integrity checks to identify data quality issues that could negatively affect payment integrity such as typos in coverage enrollment dates. These errors could increase the risk for the program to issue payments for claims that occurred after coverage end date.
Measure Value	Throughout the engagement, DNP provided eligibility verification support that allowed the partner to close a total of 90 new cases of beneficiaries across multiple Federally funded state administered programs where beneficiaries were deceased, associated with nearly \$780K in cost avoidance/recovery . The state auditor identified approximately \$20:\$1 return on staff time invested in researching matches and adjudicating death match results.
Improve	Based on the results of the engagement, the auditor office demonstrated the value of DNP to the program offices which are now in the process of onboarding to the DNP portal to continuously screen payees eligibility based on recommendations from the auditor office. Additionally, DNP used feedback from this project to create a reusable solution for program eligibility that can be leveraged for future state partners.

Engagement with Federal Agencies & States

Identification of Stakeholder Challenges



Approach to Prioritizing Cross-Agency Challenges

1. Understand landscape of agencies making payments, for what purpose and what is common amongst them.
2. Bring agencies together to break the silos and identify common challenges.
3. Identify and execute focused multi-Agency improper payments projects using data analytics capabilities.
4. Seek out opportunities to mitigate improper payments such as expansion of access to data sources with emphasis on biggest impact to monetary loss prevention and ROI.

Cross-Agency Improper Payments Projects

Deceased Payee Project

Step 1 – Understand the Business Problem

How big is the problem?

Identify payments made after date of death (Government-wide)

Who is paying them?

Identify agencies and payment types through data analytics

Evaluate eligibility rules

Threshold review whether payments to deceased individuals were appropriate

How can we prevent Payments to the Deceased?



Payment Integrity Community of Experts

Step 2 – Develop Customer Centric Solution

Design Solution

Identify data sources, business rules and analytics along with the appropriate phase of payments lifecycle to apply

Develop Solution

Develop solution with actionable outcomes that Identify, Prevent, Recall, Recover, Investigate, and Share in coordination with certifying agencies

Integrate with Operations

Solution may be implemented in multiple operational systems within agency, Fiscal Service, and financial institutions

Deceased Payee Project - Objectives

- Deceased Payee project is focused on following objectives:
 1. Conduct data analytics to determine the following:
 - Identify known universe of payees receiving payments post death.
 - Determine which agencies are issuing payments.
 - Assess potential overlap between various types of payments.
 2. Document/evaluate eligibility rules around payments to deceased payees.
 3. Develop data analytics solution that can be integrated with agency operations.
 4. Reduce cash losses associated with payments to deceased payees.

Compromised Bank Accounts Project

The Questions

How big is the problem?

Quantify payments being redirected to potentially compromised bank accounts.

Which agencies recipients' are more likely to be victims?

Conduct cross-agency analytics to identify agencies challenged by payments redirected to potentially compromised bank accounts.

Which financial institutions are more likely to have fraud victims?

Conduct analysis of financial institutions returning payments directed to potentially compromised bank accounts.

How can we leverage potentially fraudulent bank accounts to prevent improper payments?

The Approach

Leverage OMB Workgroup & PICOE

Identify resources and required skillsets at Agencies to accomplish project.

Initiate Pilot Project

Design solution to enable prevention of payments to potentially compromised bank accounts and pilot with select agencies.

Operationalize Solution

Measure effectiveness and deploy to additional agencies.

Why This Project? *In these scenarios, there is often a monetary loss to the Government that not only shakes the recipients' trust in Government, but also requires additional agency resources to mitigate.*

Compromised Bank Account Project – Objectives

Compromised Account project is focused on following objectives:

1. Identify payments to accounts previously determined to be involved in fraud through use of data analytics.
2. Provide Government-wide list of compromised accounts for agencies to validate accounts.
3. Prevent additional misdirected payments for previous/new identity theft victims.
4. Identify/quantify cash losses associated with repayment actions related to fraud.

Key Takeaways

Key Takeaways

1. **Partnership** with the right stakeholders is crucial to successfully combating fraud and improper payments.
2. **Business insight** is paramount to delivering actionable data analytics results and solutions.
3. **Operational systems** are often the key to delivering powerful, actionable data. It does not always need to be a new system.
4. **Data** is critical but quality, completeness and accessibility is a challenge we all face.
5. **Quick wins** as incremental success is still success, while larger efforts are in the pipeline.

Contact Information

Linda Chero, Executive Director

U.S. Department of the Treasury

Payment Integrity Center of Excellence

Linda.Chero@fiscal.treasury.gov

Kevin McDaniels, Program Manager

U.S. Department of the Treasury

Payment Integrity Center of Excellence

Kevin.McDaniels@fiscal.treasury.gov

Mark Piccolo, Acting Director

U.S. Department of the Treasury

Do Not Pay Business Center

Mark.Piccolo@fiscal.treasury.gov