



DNP DO
NOT
PAY

BUREAU OF THE FISCAL SERVICE

Do Not Pay: Unlocking data analytics to reduce waste, fraud and abuse

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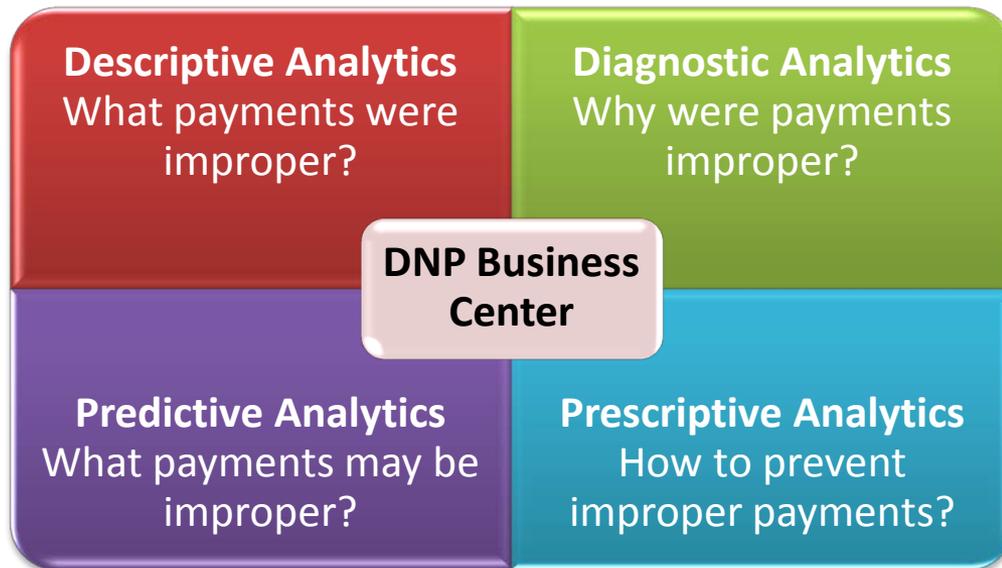
DNP's Goals

- Provide timely, accurate, and actionable information about payees and payments to assist agencies verify award eligibility in order to reduce improper payments.
- Provide clear and understandable information using data analytics, as appropriate, about the nature, causes, and magnitude of improper payments to a range of stakeholders to inform agency payment processing improvement.
- Provide timely, accurate, and actionable information about potential fraud to law enforcement agencies that facilitate investigations and prosecutions.

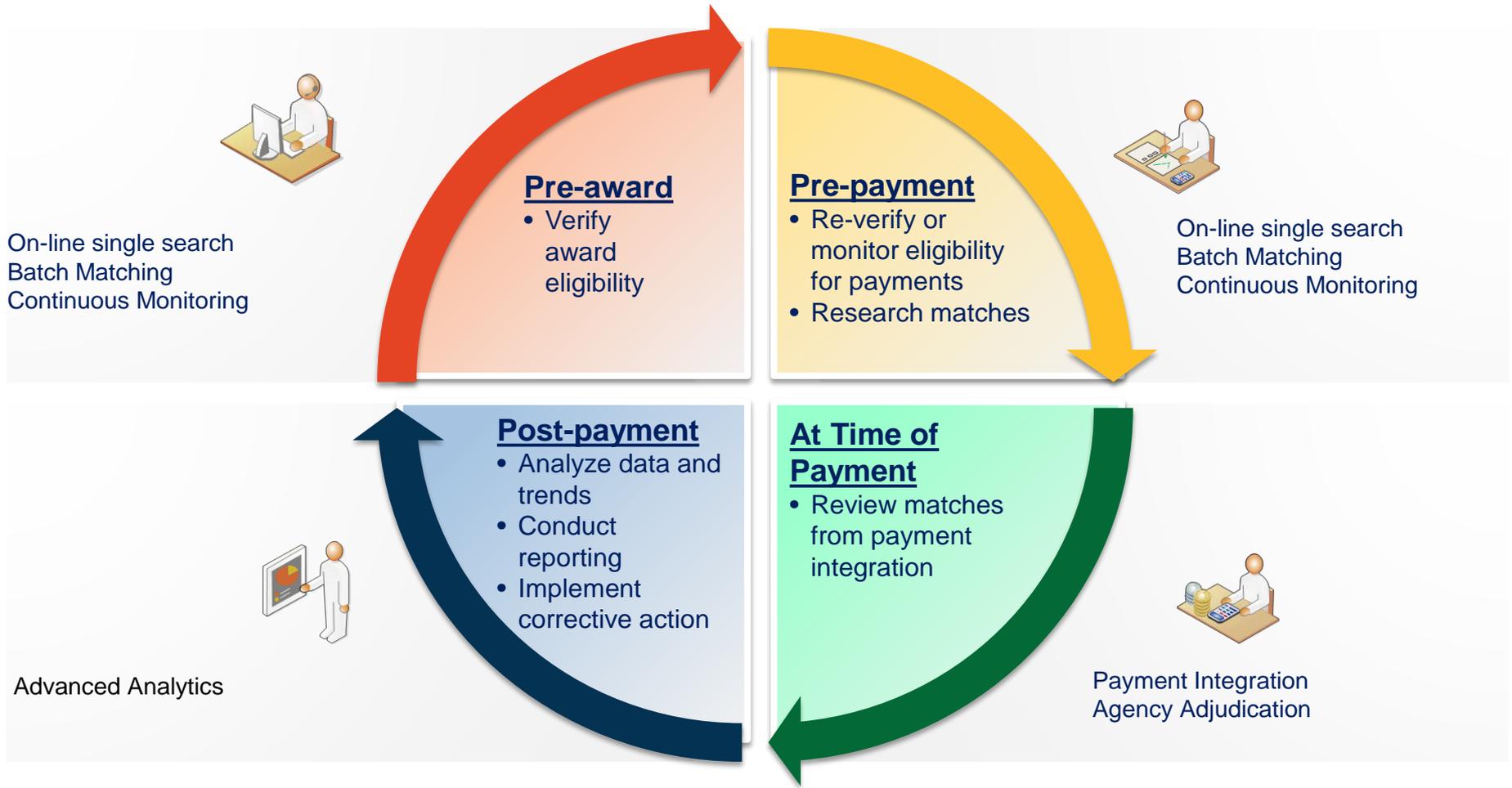
Do Not Pay Business Center



A **multi-functional analytics tool**
and **one-stop data shop**
built to help federal agencies
detect and prevent **improper payments**



DNP - A Tool in an Agency's Toolbox



DNP: Where DNP Can Assist

October 2014: A-123 Appendix C Guidance

Reason for Improper Payment	Type of Improper Payment	
	Overpayments	Underpayments
Program Design or Structural Issue		
Inability to Authenticate Eligibility		
Failure to Verify:	Death Data	
	Financial Data	
	Excluded Party Data	
	Prisoner Data	
	Other Eligibility Data (explain)	
Administrative or Process Error Made by:	Federal Agency	
	State or Local Agency	
	Other Party (e.g., participating lender, health care provider, or any other organization administering Federal dollars)	
Medical Necessity		
Insufficient Documentation to Determine		X
Other Reason (explain)		

Data Sources Currently Available

- Credit Alert Verification Reporting System (CAIVRS) Restricted [SBA]
 - Identify individual as a delinquent Federal Borrower
- Death Master File (DMF) Public [SSA]
 - Verify whether an individual that is receiving unemployment payments is still living
- List of Excluded Individuals & Entities (LEIE) Public [HHS]
 - Identify providers, individuals, or vendors that are excluded from doing further business with the government or should be subject to more oversight based on past performance
- Office of Foreign Assets Control (OFAC) Public [Treasury]
 - Identify if individuals and companies are owned and controlled by targeted foreign countries
- SAM Entity Registration Records, Restricted [GSA]
 - Identify providers, individuals, or vendors that are excluded from doing further business with the government or should be subject to more oversight based on past performance
- System for Award Management (SAM) Exclusion Records Public & Restricted [GSA]
 - Identify providers, individuals, or vendors that are excluded from doing further business with the government or should be subject to more oversight based on past performance
- Treasury's Offset Program (TOP) Debt Check data sources, Restricted [Treasury]
 - Identify vendors that owe federal non-tax debt and ensure vendors that owe debts are paid via the Treasury Offset process

DNP Analytics Services

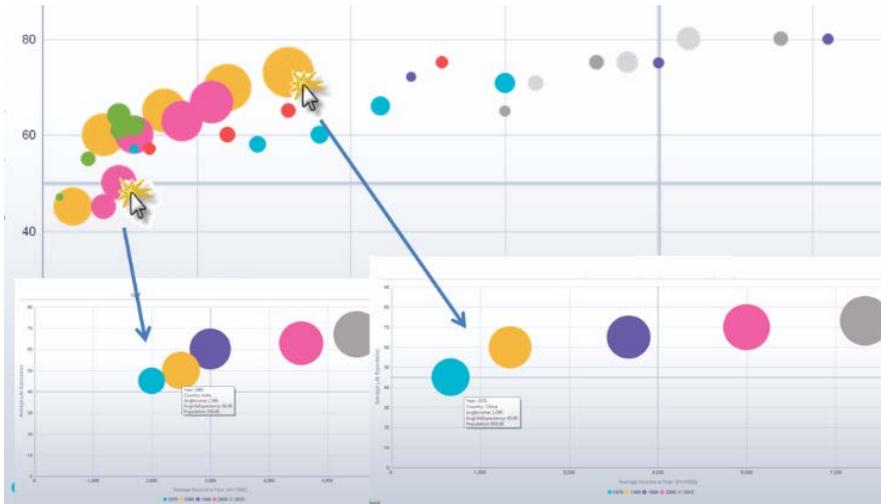
Capability	Output	2014	2015	2016	2017
Agency Payment Matching	Matches of payments data with multiple data sources (including the application of program-specific business rules) to identify patterns, linkages, impropriety, and suspect data/payments	✓	✓	✓	✓
Basic Eligibility	Comparisons of recipients/payees to entities included in a single data source (before award /payment or to monitor award/payment)	✓	✓	✓	✓
Complex/Contingent Eligibility	Comparisons recipients/payees to entities included on multiple data sources (before award /payment or to monitor award/payment)	✓	✓	✓	✓
Anomaly Detection	Reports describing payee or payment characteristics outside of normal (e.g., multiple payments to the same person or account; payment size significantly varies for similar payments)	✓	✓	✓	✓
Fraud Detection	Reports describing payment characteristics consistent with known or probable fraud scenarios			✓	✓
Probabilistic Risk Assessment	Risk scores created from the combined evaluation of eligibility, anomaly, and fraud analysis		✓	✓	✓
Descriptive modeling	Smaller insights regarding payments and their attributes created from condensing “big data”	✓	✓	✓	✓
Predictive modeling	Models created to best predict the probability of payment impropriety and suspicion of fraud		✓	✓	✓
Prescriptive modeling	Recommended courses of action (e.g., stop payments, data correction) showing the likely outcome of each decision created using descriptive and predictive models				✓
Advanced data matching algorithms	Improved data matching via use of data standardization, predictive, deterministic, and probabilistic record linkage methods		✓	✓	✓

Example: Agency Insight Report (AIR)

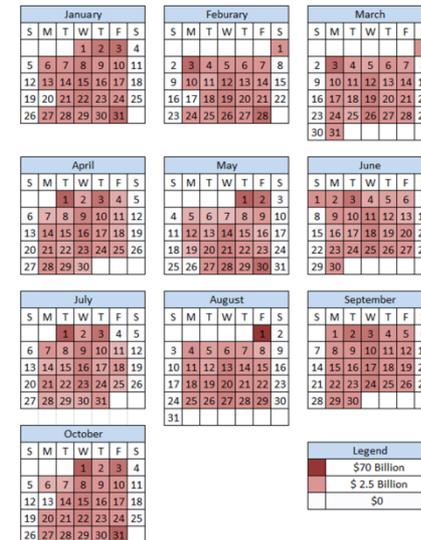
- Report capturing key insights and findings from exploratory data analytics, which includes, but not limited to:
 - Data quality assessments
 - Data pattern analysis and profiling
 - Advanced matching
 - Anomaly detection and analysis
 - Potential business/stop rule identification
- Analytics focus project to assist in identifying potential in-depth analytics projects that could be of assistance to the agencies
 - Two to three month turn around
 - Available upon request

Example: Data Visualizations

Anomaly Bubble Chart

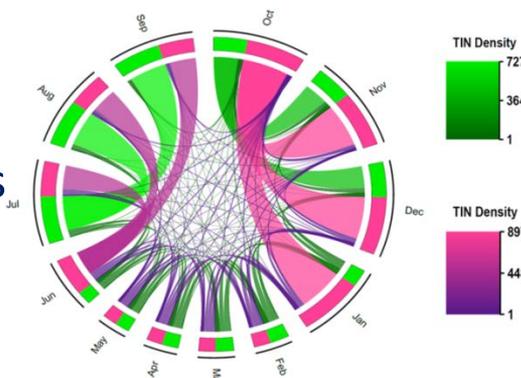


Payment/Calendar Heatmap



Circos Diagram

Disbursement combinations to distinct individuals



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