



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

**DO NOT PAY BEST PRACTICES FORUM
HOW ANALYTICS CAN TELL THE STORY OF
YOUR PAYMENT INTEGRITY JOURNEY**

July 2020

What is Data Analytics

Data Analytics is examining raw data to draw conclusions. It involves the assessment, evaluation, interpretation, and communication of meaningful information and utilizing that information for effective decision making.



Why Data Analytics

Leverage **your data** to address business problems



Your Business Problem Here

Eligibility risks and payment/payee integrity issues related to:

- Beneficiaries
- Vendors
- Travel Pay
- Payroll
- Service Providers
- Loans
- Grants
- Disaster Funds
- Loss Guarantee/Insurance

Common challenge our partners face:

Business Problem:

Your organization disburses a high volume of payments, which makes it difficult to devote enough staff time to scrutinize every payment before issuance.

Solution:

Consult with DNP Analytic Solutions Team to utilize analytic techniques that identify hard-to-detect payment errors and fraud risk so that you can focus resources based on risk.

Benefits:

Supplement your resources with our staff and expertise, independently establish point-in-time check of current controls, and identify a targeted approach to reviewing payments based on risk.

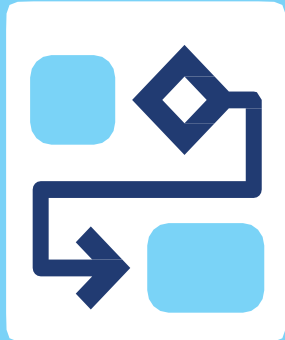
Who We Are

The DNP Analytic Solutions Team is dedicated to delivering ***analytical insights*** and ***innovative data solutions*** that help you improve your ***payment integrity*** and meet your mission.



Our Techniques

We employ advanced **data analysis techniques**



**Data
Matching**



**Data
Modeling**



**Risk
Assessment**



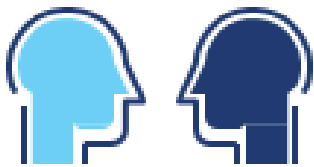
**Advanced
Algorithms**

Our Services

Analytic Solutions Team services range from consultation to fully-integrated data solutions that can be **customized** to your business

IDENTIFICATION

PREVENTION



Consultation



Data Analysis
Services



Reusable
Analytics
Solution



Integrated
Analytics
Solution

Our Capabilities

Eligibility Verification:

Confirm payee eligibility by matching to data sources

Payee Consolidation:

Identify duplicate, high-risk, or ineligible payees

Integrity Checks:

Identify hard-to-detect errors, anomalies, and fraud risk in payees, payments, or invoices

Preventative Controls Assessment:

Demonstrate if internal controls are effectively preventing improper payments

Custom Analysis:

Provide insight into specific research questions (e.g., existence of cross-state overlap)

Results allow partners to:

Establish point-in-time verification of current processes & risk level of improper payments

Identify high-risk records to further evaluate based on risk and/or impact

Develop additional process controls & strengthen existing controls to reduce risk of errors

Maximize resources via a prioritized recommendations to implement changes

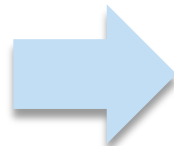
Travel Payment Example

Business problem: Partner knew there were integrity issues within its travel payment systems which have caused improper payments. The partner needed a way to identify system errors or vulnerabilities that lead to improper payments that should result in recovery activities.

Solution:

Integrity Checks:

Identify hard-to-detect errors, anomalies, and fraud risk in payees, payments, or invoices



- Duplicate payments
- High risk overlapping trips
- Shifted decimal analysis
- Outlier detection
 - Same invoice amount
 - Invoices exceeding thresholds
 - Excessive trips per fiscal year
- Vendor segment analysis
- Unliquidated advances

Example Output: Duplicate Payments

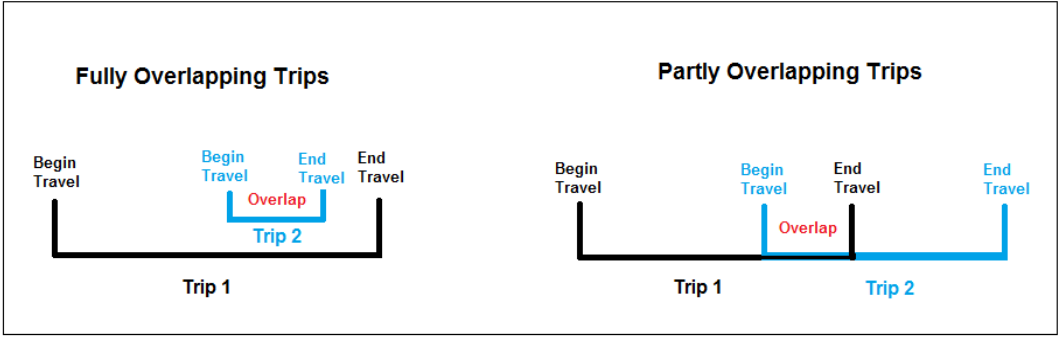
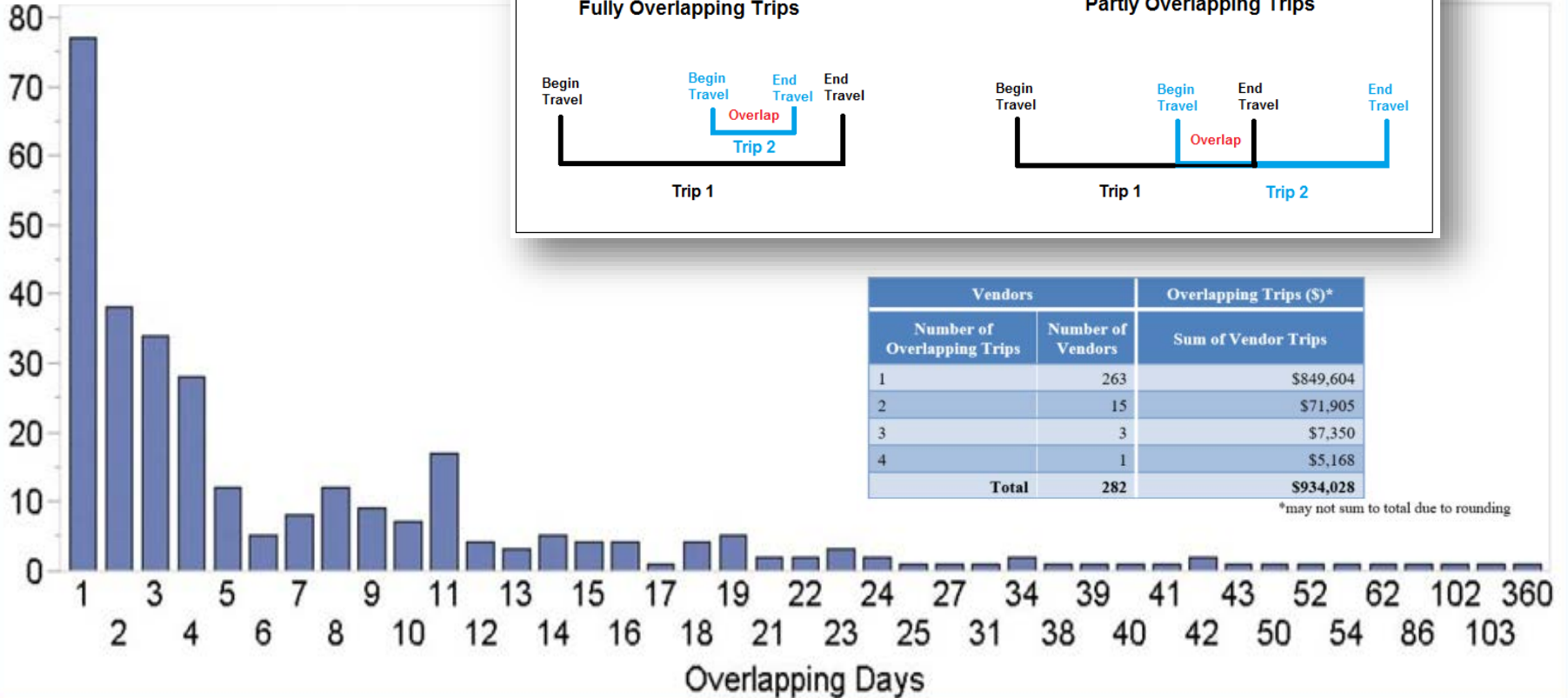
Risk Level	Vendor Attributes in Common: Vendor ID +	Invoice Attributes in Common	Duplicated Invoices (#)	Duplicated Invoices (\$)
High	Invoice Total, Doc Type, Doc ID, Line Amount, Invoice ID, Invoice Total, Invoice Number Part 1, Check Date	Begin Travel, End Travel, Doc Number	244	\$221K

Results:

- Partner confirmed 42 duplicate payments totaling \$44K
- 29 were not previously identified through existing processes resulting in \$23K in cash loss avoided through partnership with DNP

Example Output: Overlapping trips

Partially Overlapping Trips



Vendors		Overlapping Trips (\$)*
Number of Overlapping Trips	Number of Vendors	Sum of Vendor Trips
1	263	\$849,604
2	15	\$71,905
3	3	\$7,350
4	1	\$5,168
Total	282	\$934,028

*may not sum to total due to rounding

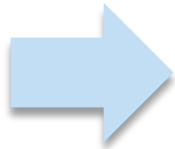
Delegated Lender Example

Business problem: Partner needed to retrain lenders on due-diligence processes, but faced resource constraints and therefore needed to prioritize lenders to train based on risk

Solution:

Preventative Controls Assessment:

Demonstrate if internal controls are effectively preventing improper payments



Test due-diligence processes

- TIN quality & risk assessment
- Eligibility verification

Synthesize results to prioritize lenders based on portfolio risk level

- Borrower- & principal-level view

Dual-Benefits Example

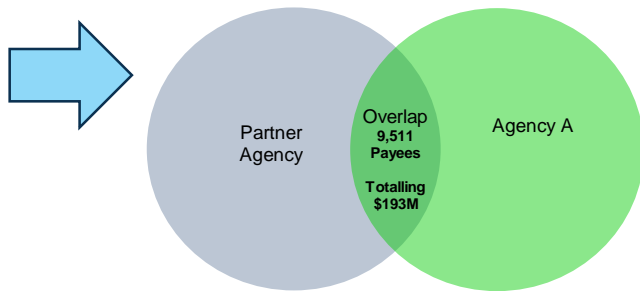
Business problem: Partner needed to proactively identify which of its payees who are concurrently dually enrolled in other similar programs to prevent improper payments stemming from dual-collection

Solution:

Custom Analysis:
Provide insight into specific research questions (e.g., identification of cross-program overlap)



Data Analysis Services



DNP identified & returned overlapping payees



Reusable Analytics Solution

July						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Payee TIN	Payee Name	Benefit Month	# of Overlapping Payments	Total Payment Amount - Partner	Total Payment Amount - Agency A	Net Payment Overlap
#####	John Smith	Jan-20	5	\$100	\$1,000	\$100
#####	Jane Doe	Jan-20	3	\$500	\$500	\$500
...

DNP will continually identify and return overlapping payees with relevant detail for agency to conduct case development

Beneficiary Eligibility Example

Business problem: Partner uses a third-party obituary death source that does not provide TINs as part of its death data checks. Can DNP death data sources do a better job? For free?

Solution:

Eligibility Verification:

Confirm payee eligibility by matching to data sources

Custom Analysis:

Provide insight into specific research questions (e.g., identification of cross-program overlap)

Description of Match	3 rd Party Matches	Matches to Both DNP & 3 rd Party
Death previously confirmed	28	99
Partner determined match was inconclusive	149	18
Partner determined match is possible, but not conclusive enough to stop payments	73	9
Partner determined match was conclusive	40	133
Total	290	259

More Value

Less Junk!

More Value

Feedback from Partners

Here's what our **partners are saying** about us...

- “Our experience with the DNP Analytics Team has been awesome. We all want to do more analytics, but we don't have the time or resources to do that. Using DNP analytics was like augmenting our staff. We got the very best analytics possible for free.” – *Jim Bates, Director of Program Accounting, U.S. Small Business Administration*
- “DNP's findings helped to strengthen FINCEN's [U.S. Coast Guard Finance Center] internal policies and procedures and provided a better understanding of data integrity controls.” – *United States Coast Guard, 2019 Winter edition of the Quarterly Armed Forces Comptroller Journal*



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HOW TO GET STARTED

July 2020

Steps to Partner With Analytics

1. Initial project discussion with DNP Agency Lead
2. Scoping call with Analytics Team
3. Sign and return Customer Acknowledgment form
4. Set up secure HTTPS connection with DNP Analytics
(if applicable)
5. Send project data to DNP Analytics (if applicable)
6. Project is assigned to Analytics team

How to Maximize Your Analytics Scoping Call

1. Share your goals for partnering with DNP Analytics
2. Include team members who are knowledgeable on:
 - a. The Program's business process
 - b. The Program's data

DNP Success Stories - Department of Labor

- **Proof of Concept – Identifying Overlap Between DOL, SSA and OPM**

- Do Not Pay analyzed data from FY 2017, 2018 and 8 months of 2019 in Payment Automation Manager to identify potential overlap between DOL FECA and SSA OASDI, and DOL FECA and OPM FERS

- **Results**

- 9,511 payees received concurrent DOL FECA and SSA OASDI payments. The overlapping payment amounts are estimated at \$193 million.
- 2,188 payees that received concurrent DOL FECA and OPM FERS payments. The overlapping payment amounts are estimated at \$30 million.

- **Feedback**

- DNP analytics team is flexible and customer service based
- Identifying and reducing improper payments with key data points
- Central to DOL's efforts to automate paper based processes

DNP Success Stories – HUD OIG

- **Audit Support - FHA Insured Home Loans**

- Do Not Pay conducted matches against more than 1 million FHA insured home loans

- **Results**

- Identified an estimated 9,507 loans worth \$1.9 billion which were not eligible for insurance because they were made to borrowers with delinquent Federal debt or who were subject to Federal administrative offset for delinquent child support

- **Feedback**

- Provided clear, convincing evidence to compel change in a cost effective manner

DNP Success Stories – State Agency

- **Audit Support – Federal Funded State Program**

- Do Not Pay conducted matches against more than 1 million Medicaid recipients both inside and outside Oregon.

- **Results**

- Identified more than \$790,000 in improper payments, generating an ROI of approximately \$286 in savings for each \$1 spent in researching data matches. Additionally, DNP analytics helped prevent over \$6 million in future improper payments.

- **Feedback**

- “I am encouraged to see the Department of Human Services and Oregon Health Authority working to gain access to these important tools that will help our state save money and resources. In programs like Medicaid, every penny counts, and I am glad that Do Not Pay has helped identify these savings.”

Contact Information

Interested? Here's how to **get started**:

Contact your
DNP Agency Lead
or
DNP Agency Specialist
or send an email to:
donotpay@fiscal.treasury.gov

Website: fiscal.treasury.gov/dnp

