The Ins and Outs of Using Data in Audit Operations

NESTOA - 2019

Joseph Carzo, Director, Audit Division

Kristin Dence, Director, Income Franchise Desk Audit Bureau

September 10, 2019

Overview

Data and audit operations
- **Volumes and results**
- **Desk audit and field audit**
- **Selection**
- **Management**
- **Adjustments**

Audit Division

Bureau	Staff	Number of Audits	Collections* ($000)
Income/Franchise Field	372	4,480	1,212,209
Transaction Field	446	5,539	552,058
Income/Franchise Desk	296	614,830	1,011,254
Transaction Desk	143	33,703	109,449

NEW YORK STATE | Department of Taxation and Finance

Audit Division

Bureau	Staff	Number of Audits	Collections* ($000)
Income/Franchise Field	372	4,480	1,212,209
Transaction Field	446	5,539	552,058
Income/Franchise Desk	296	614,830	1,011,254
Transaction Desk	143	33,703	109,449

NEW YORK STATE | Department of Taxation and Finance

Audit selection

Case Identification and Selection System (CISS)

- **Business rules**
- **Predictive models**

Predictive models

Earned Income Tax Credit/Dependent Care Credit model

- **Used in CISS rules to select prior to refund being issued**

- **Detects questionable returns and assigns a score**

- **Looks at many factors:**
  - **Type of income**
  - **Dependents**
  - **Dependent relationships**
  - **Preparer information**
  - **Past filings**
  - **Audit history**

Predictive models

Aggregate model

- Uses cluster analysis and over 60 metrics to detect unusual or hidden patterns compared to all other clusters

- Generates weekly reports for the Fraud Analysis and Selection Team (FAST) and the Identity Verification Unit (IVU)

- FAST and IVU detect schemes quickly and prevent loss

- Results are used to refine reports and business rules

Inventory management

Peak processing planning

- **Risk**
- **Staff hours**
- **Projected response rates**
- **Completion time**

Inventory management

Peak processing monitoring

- **Letters sent**
- **Responses received**
- **Aging**

Inventory management

Planning for next year

- **Evaluate audit results**
- **Edit business rules**
- **Refine predictive model scoring**
- **Legislative changes**

Audit Division

Bureau	Staff	Number of Audits	Collections* ($000)
Income/Franchise Field	372	4,480	1,212,209
Transaction Field	446	5,539	552,058
Income/Franchise Desk	296	614,830	1,011,254
Transaction Desk	143	33,703	109,449

NEW YORK STATE | Department of Taxation and Finance

Audit Division

Bureau	Staff	Number of Audits	Collections* ($000)
Income/Franchise Field	372	4,480	1,212,209
Transaction Field	446	5,539	552,058
Income/Franchise Desk	296	614,830	1,011,254
Transaction Desk	143	33,703	109,449

NEW YORK STATE | Department of Taxation and Finance

Audit selection

Selection criteria applied to processed returns

- **Reviewed manually by experienced staff**
- **Recommendations reviewed by managers**
- **Cases created and assigned**
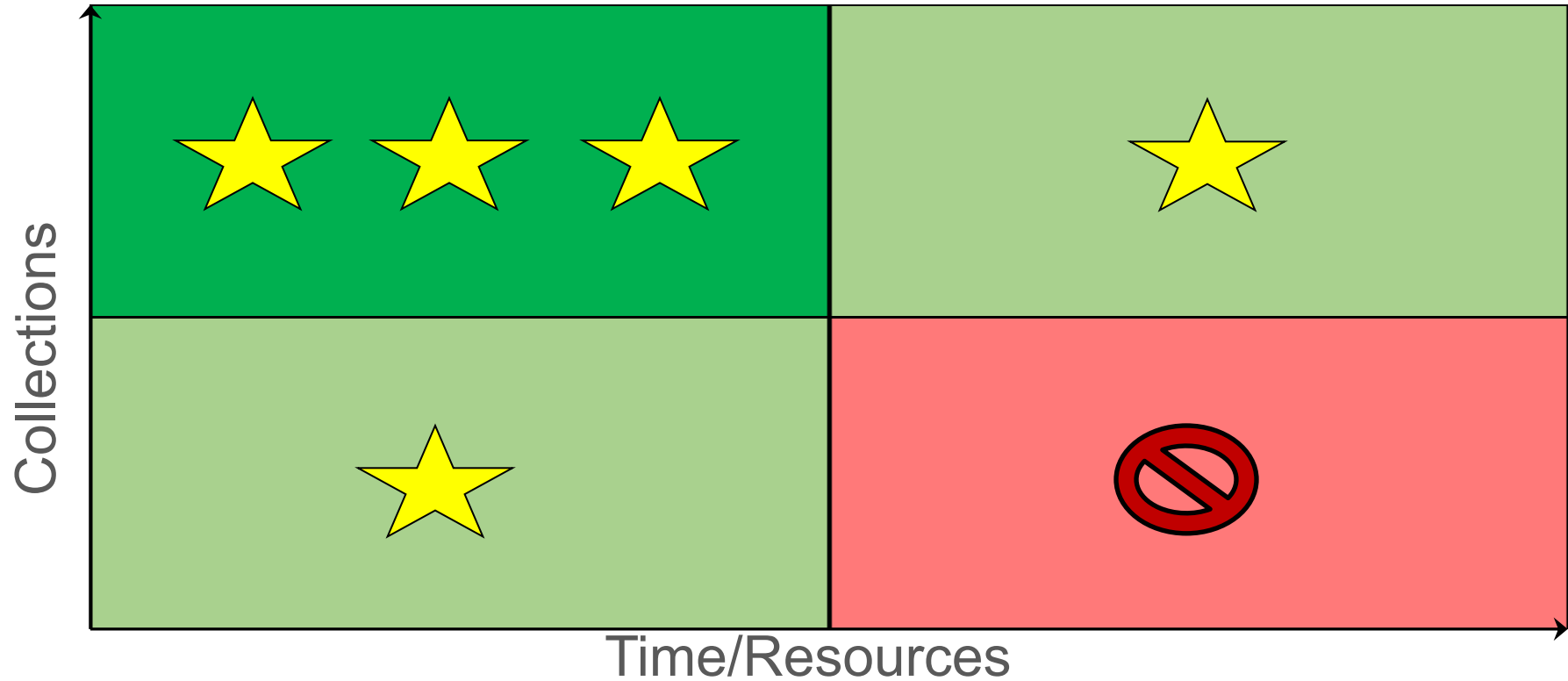- **Candidates not selected available for further screening**

Return on resources

Return on resources
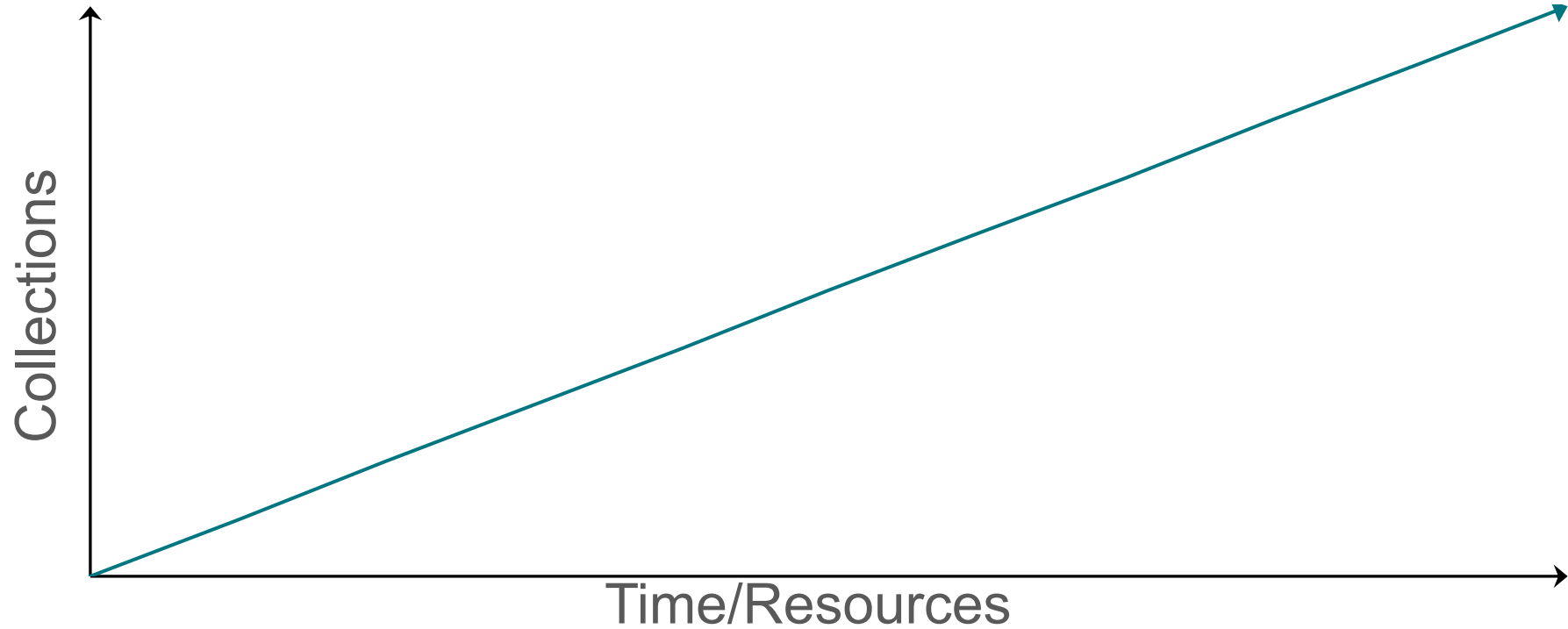
Return on resources

Understanding results

Applying analytics to improve selection

- **Resources committed to achieve results**
- **Repeating successes, not mistakes**
- **Identifying compliance is a good thing**

Operational data

Applying analytics to improve performance

- **Optimal interactions**
  - Field time / Block scheduling
  - Elevation
  - Agreeing to disagree
- **Balancing staff**

Work in progress

- **Refining candidate scoring**

- **Concluding lower-value audits**

- **Impact on other Divisions**

- **Impact on taxpayers**
  - **Certainty**
  - **Consistency/Fairness**