
A GREAT GATHERING ON A GREAT LAKE
ERICSA 2026
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Milwaukee
WISCONSIN

Data Analytics for Better Outcomes – Using Dashboards and Predictive Modeling

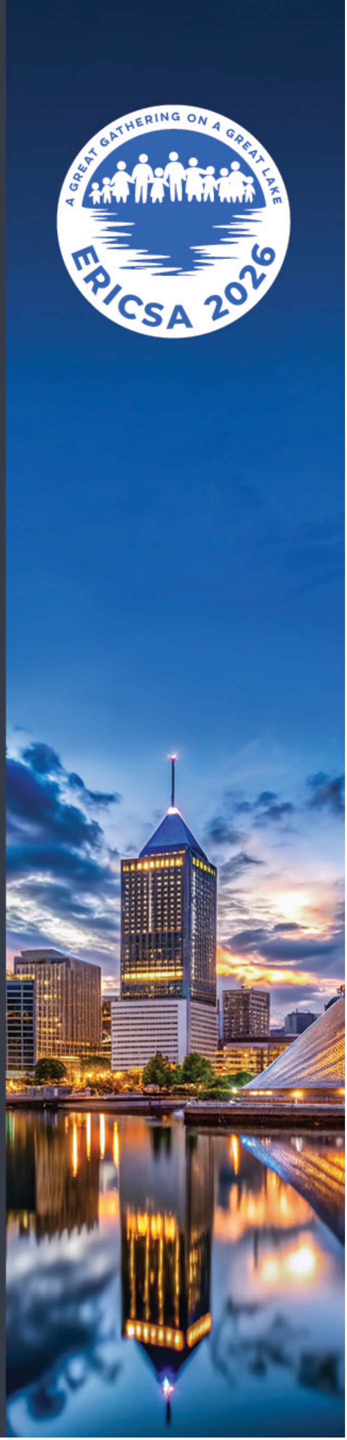
Elizabeth Atwell: Senior Manager-NTT DATA, Moderator

Dawn McNeal: Associate Director-NTT DATA, Speaker

Amy Gilmore, MI Office Child Support, Speaker

Brian Weeden, Accenture with MI Child Support, Speaker

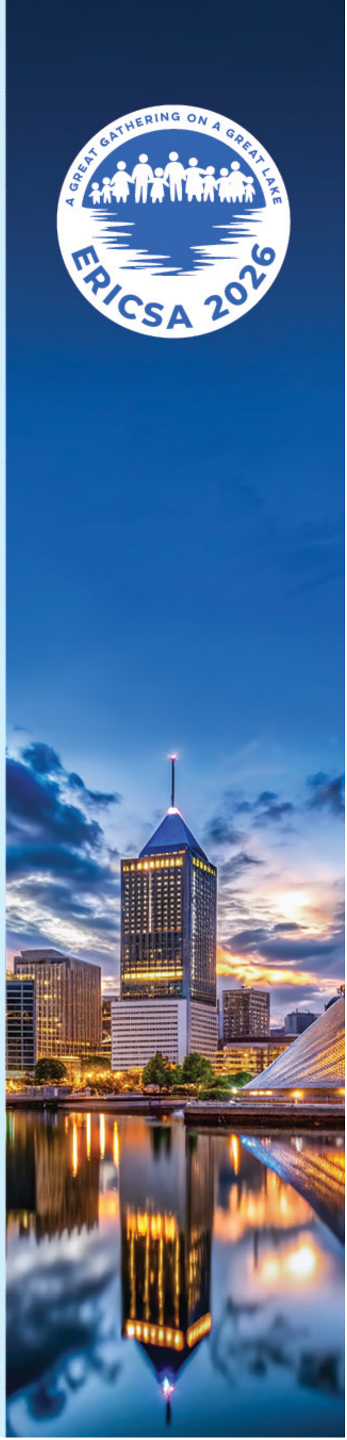
Peter Castro: MN Child Support, Speaker



Child support programs generate enormous amounts of data every day—but turning that data into actionable insights is the key to improving outcomes for families. This session will highlight how agencies are leveraging dashboards, performance metrics, and predictive modeling to better understand program trends, allocate resources, and proactively address challenges. Presenters will share examples of how data visualization tools can make complex information easier to interpret and how predictive analytics can help identify cases at risk of delinquency, non-compliance, or delay. Participants will gain practical strategies for using data not just to report past performance, but to guide smarter decision-making and achieve stronger results.

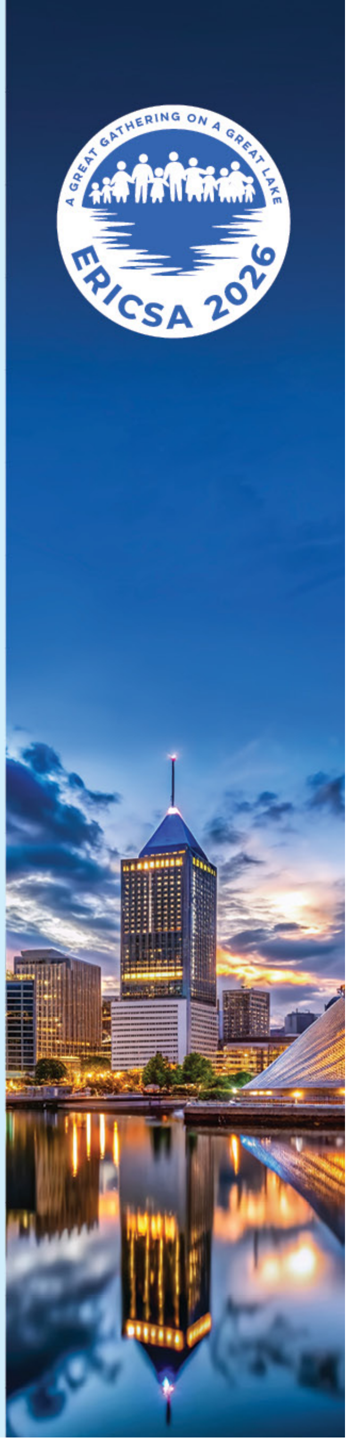
What is this Data Telling Us?

- County X – 500 active cases
  - 400 Have Paternity Established
  - 350 Have a Support Order
  - 250 Are Paying toward Current Support
  - 50 Are Paying Arrears (100 have arrears accrual)



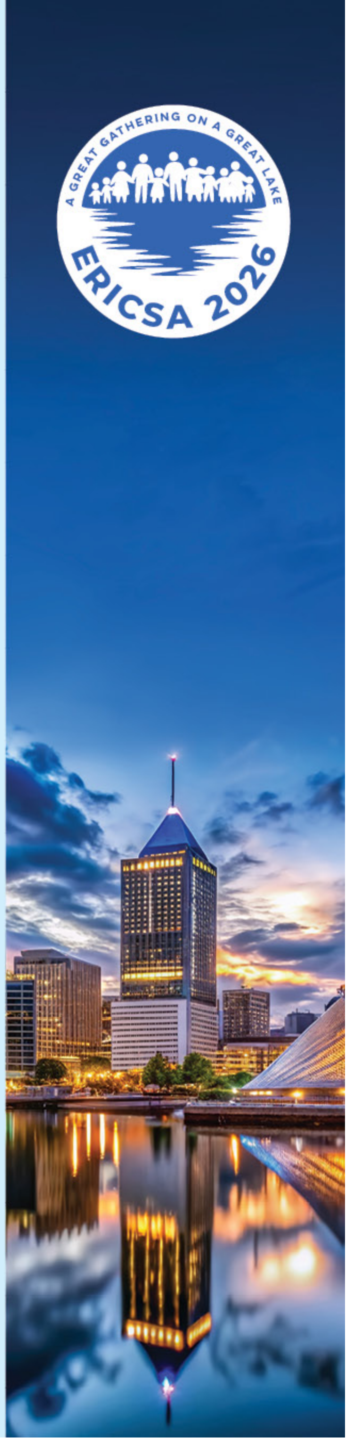
How Can Data Tell a Story?

- Spot Trends Visually
- Highlight Resource Needs
- Where to Respond Proactively
- Put Focus on Priority Cases



Actionable Data Benefits

- Improve Service Delivery
- Support Data Driven Decision-Making
- Culture of Continual Improvement
- Strengthen Compliance



Actionable Data Options

- Update Current or Create New Reports
- Build a Dashboard
- Interactive/Visualization/Mining Tools
- Create Data Lake or Warehouse
- Use Machine Learning and Predictive Analytics

Steps to Achieve Actionable Data

- Data Governance in Place (Best Practice)
- What data is Required (Data elements/KPI's)
- Data Clean (Clean up needed)
- Data Presentation (Charts, colors, dashboards, etc.)
- What BI Tools/Architecture Are Available (Tableau, Power BI)
- Data Capture Timelines

Actionable Data - State Examples

- Michigan – Federal Measures
- Minnesota – Collections on Current Support

The Michigan Team

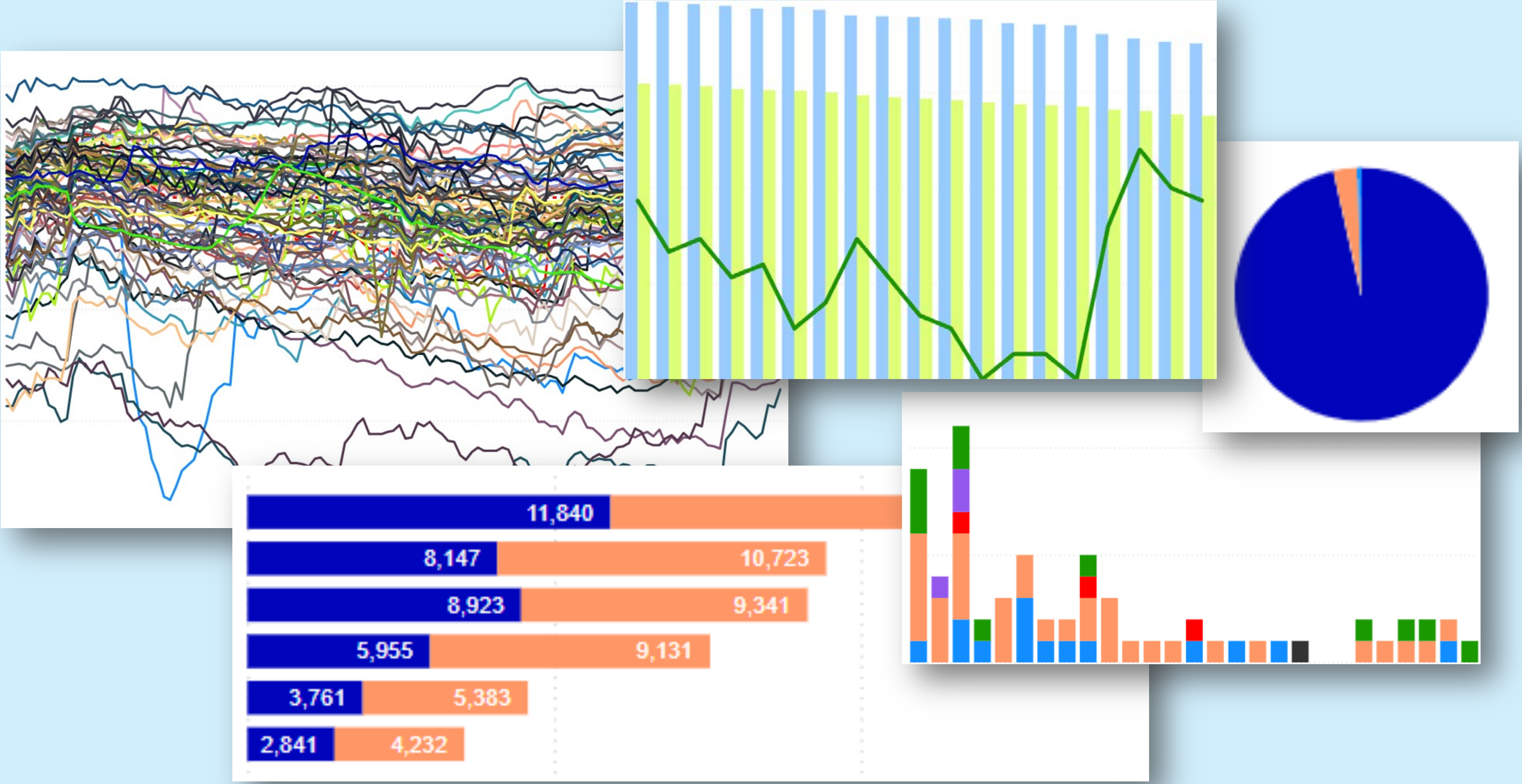
Amy Gilmore

- State of Michigan Office of Child Support since April 2003
- Currently in the Planning, Evaluation & Analysis (PE&A) Unit
- Product Owner for the Data, Statistics & Analytics Team (DSAT)
- Married 22 years; two teenage sons (college freshman & high school sophomore)
- Enjoys hand-lettering/calligraphy, Mountain Dew, and binge-watching Big Bang Theory

Brian Weeden

- With Accenture for 20 years, working with the Michigan Child Support Program.
- Developer and Analyst for the Data, Statistics & Analytics Team (DSAT)
- Previously worked on the Michigan Child Support Enforcement System (MiCSES).
- Married; one daughter
- Enjoys music, outdoors, and cycling

What is Data Visualization?



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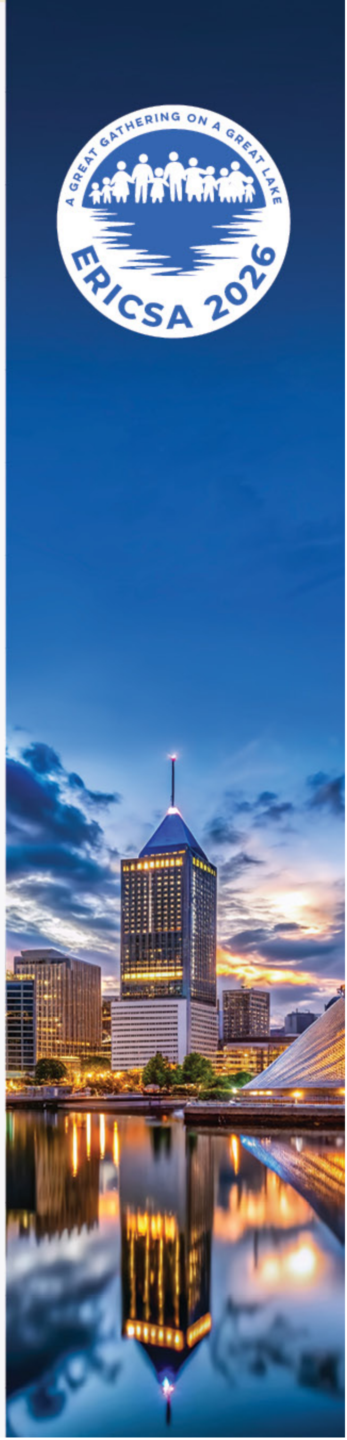
Why are visual reports beneficial?

- Simplifies complex data
- Increases accessibility to data
- Identifies areas where improvement is needed
- Identifies patterns and trends
- Allows users to tailor data specific to their needs
- Makes data easier to remember



How and why Michigan began creating visual reports: Strategic Planning

Data Tools and Technology

Use technology and data tools to improve child support services.

- Ensure staff have the data tools and information necessary to be successful.
- Increase our ability to manage and analyze data from internal and external sources.
- Improve access to data and information through self-service reports and data visualizations.
- Use technology advances to improve existing business processes and discover new ways to conduct business.
- Adopt a modernization approach that supports existing business processes and ensures no interruption in service to families

Agile

Regularly reflect and adjust way of work to improve effectiveness

Scope is flexible while resources & time are fixed

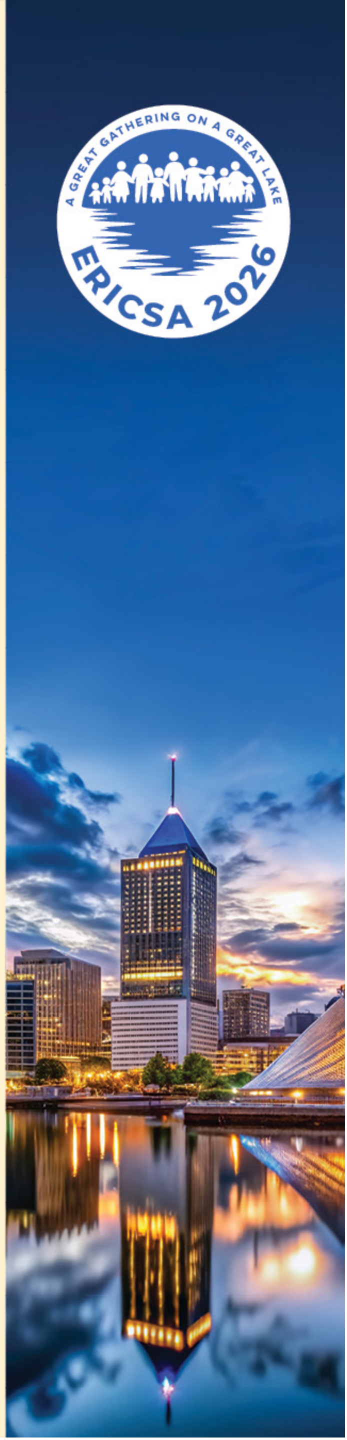
Agile values

Individuals & interactions over processes & tools

Working software/product over extensive documentation

Customer collaboration over contract negotiation

Responding to change over following a plan



Scrum Agile

→ Relies on user/stakeholder participation

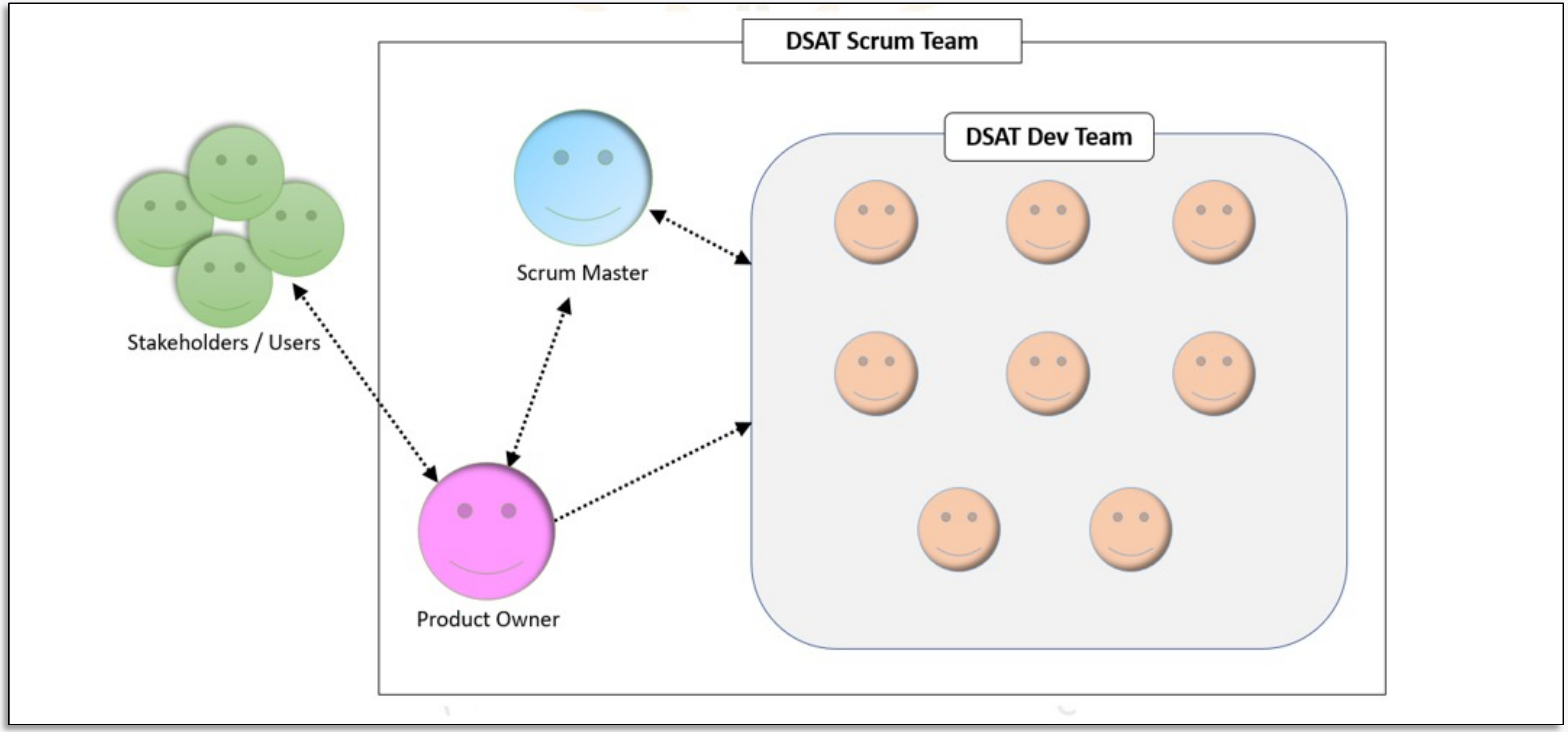
→ Decisions are based on observation, experience, and experimentation

→ Work is done in small increments called **sprints**

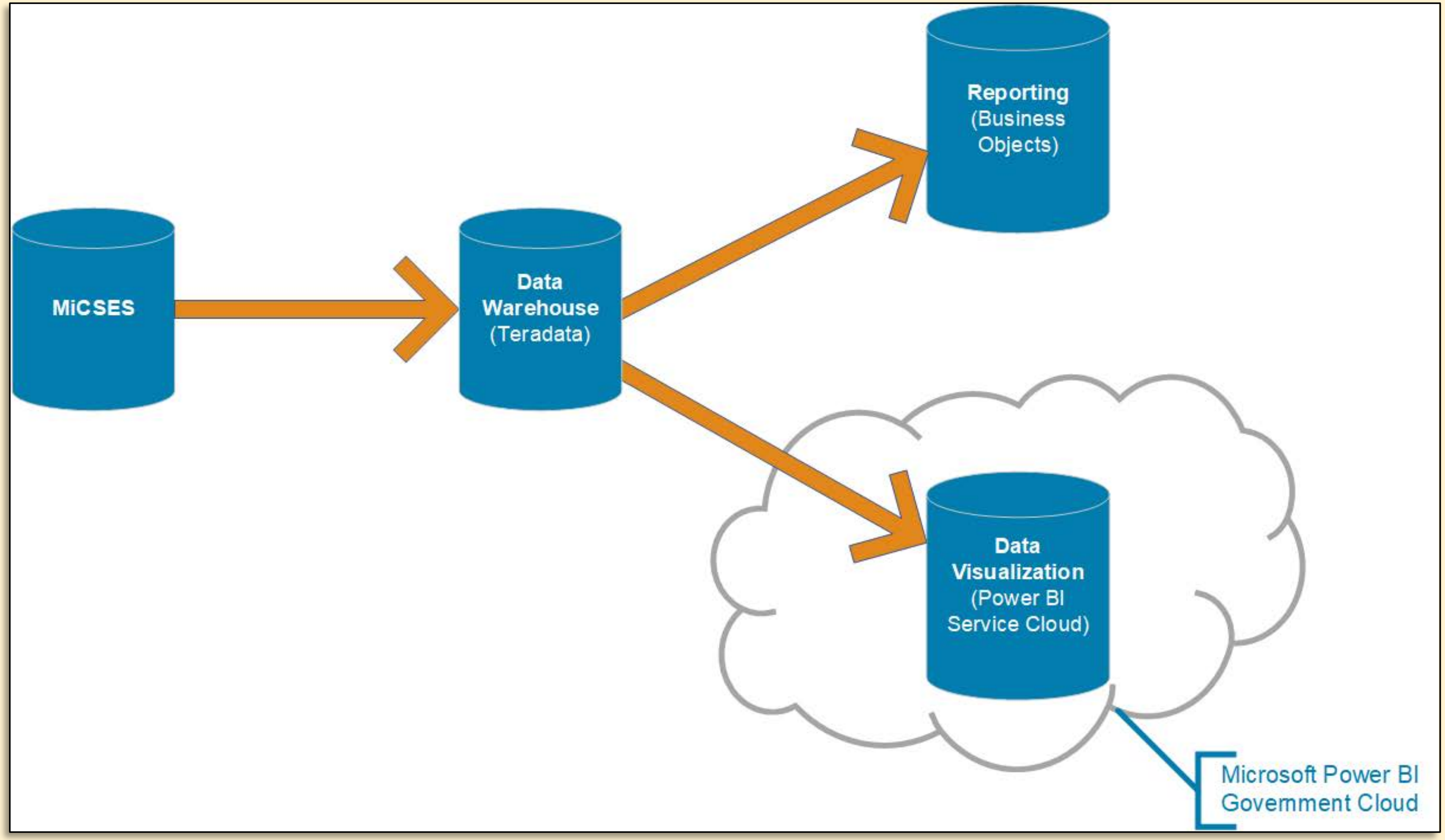
→ Scrum Team – Scrum Master, Product Owner, and Development Team

→ Work is prioritized by the Product Owner

Scrum Agile
Data, Statistics & Analytics Team (DSAT)



Where does the data come from?



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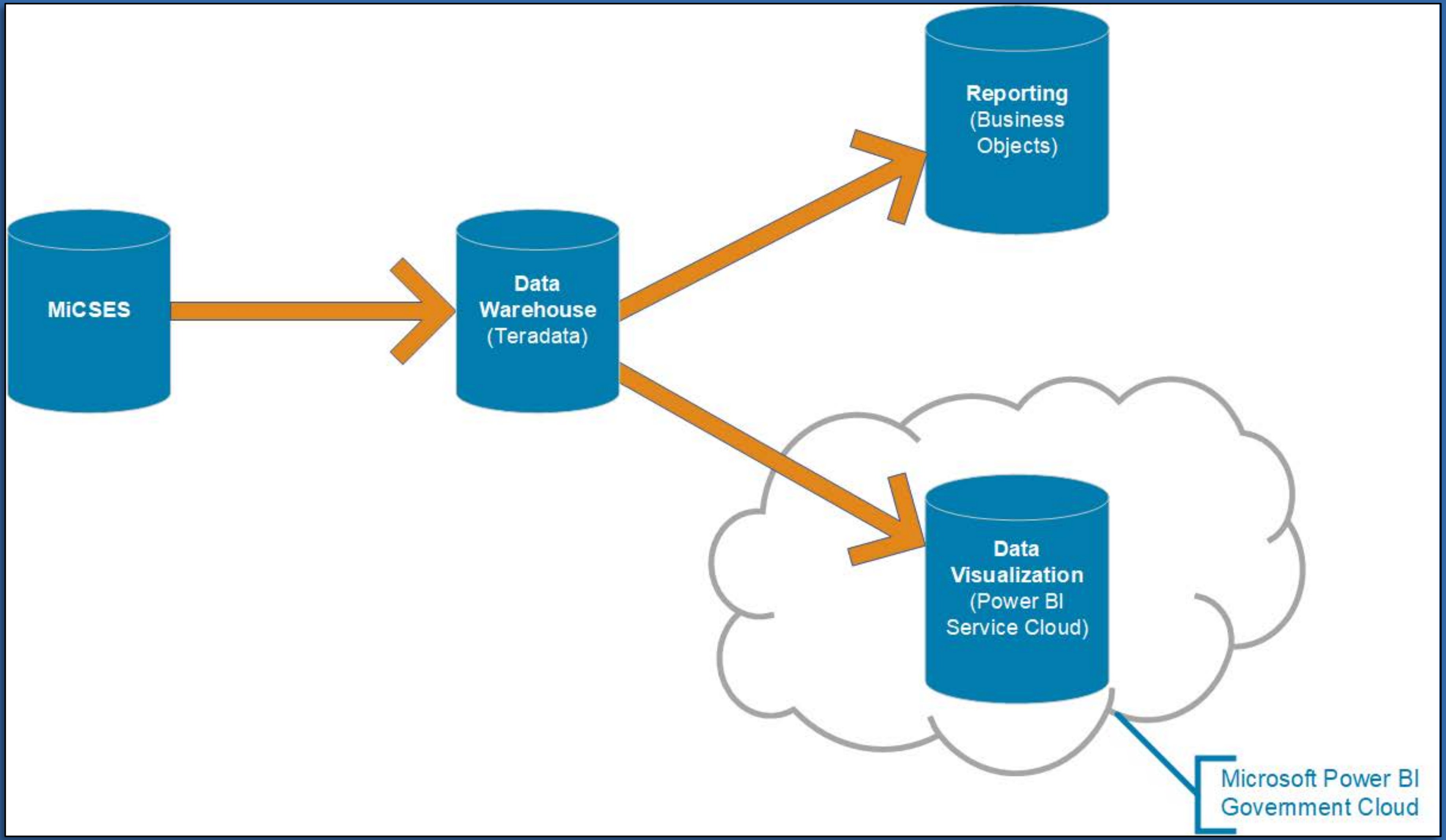
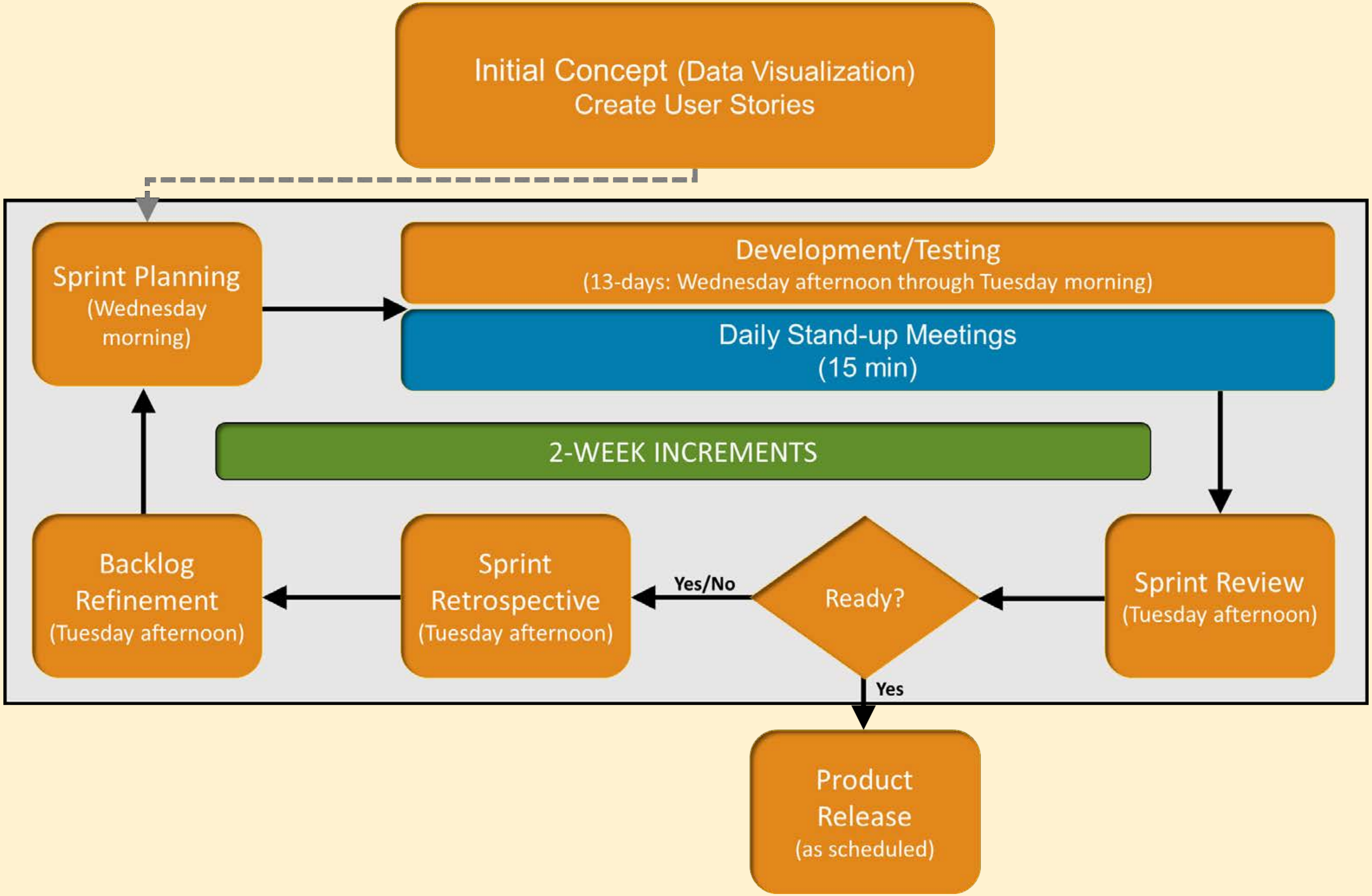


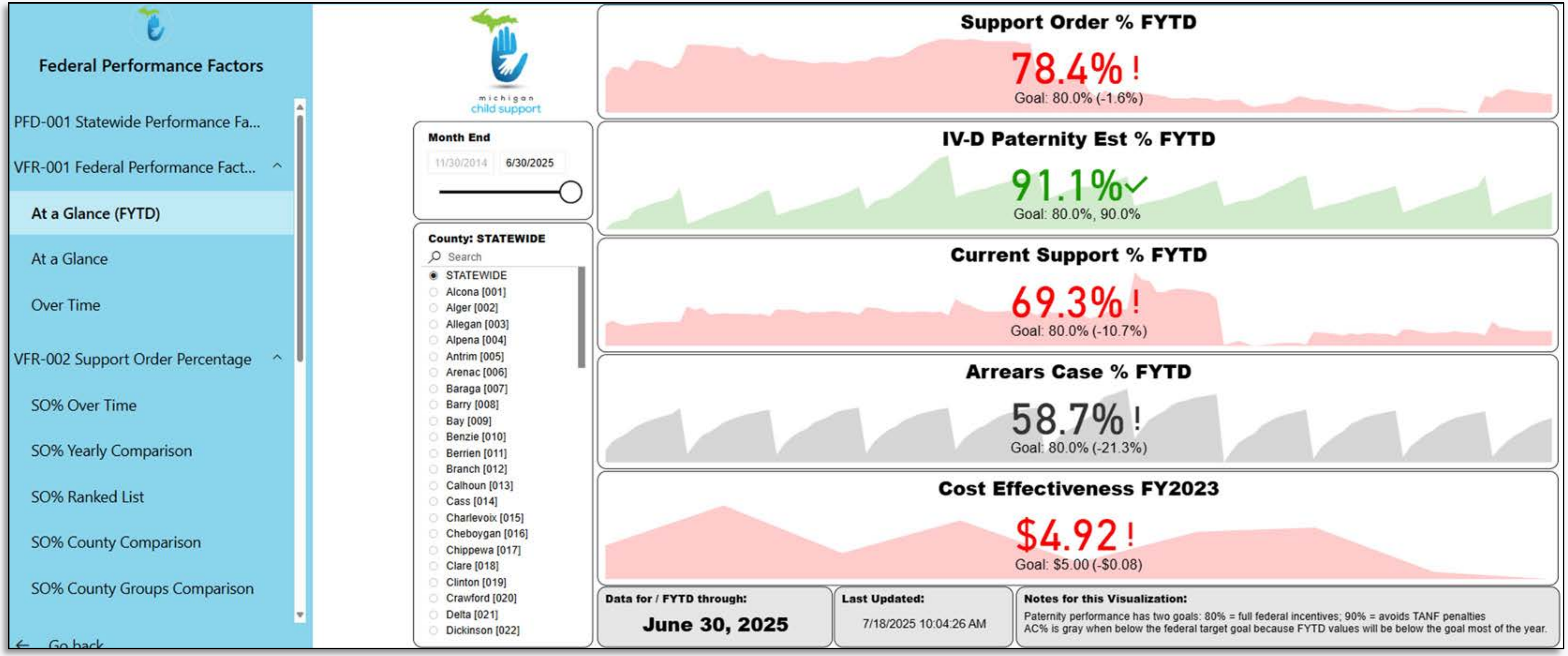


Initial Concept (Data Visualization)
Create User Stories
Sprint Planning
(Wednesday morning)
Development/Testing
(13-days: Wednesday afternoon through Tuesday morning)
Daily Stand-up Meetings
(15 min)
2-WEEK INCREMENTS
Sprint Review
(Tuesday afternoon)
Ready?
Yes/No
Sprint Retrospective
(Tuesday afternoon)
Backlog Refinement
(Tuesday afternoon)
Yes
Product Release
(as scheduled)

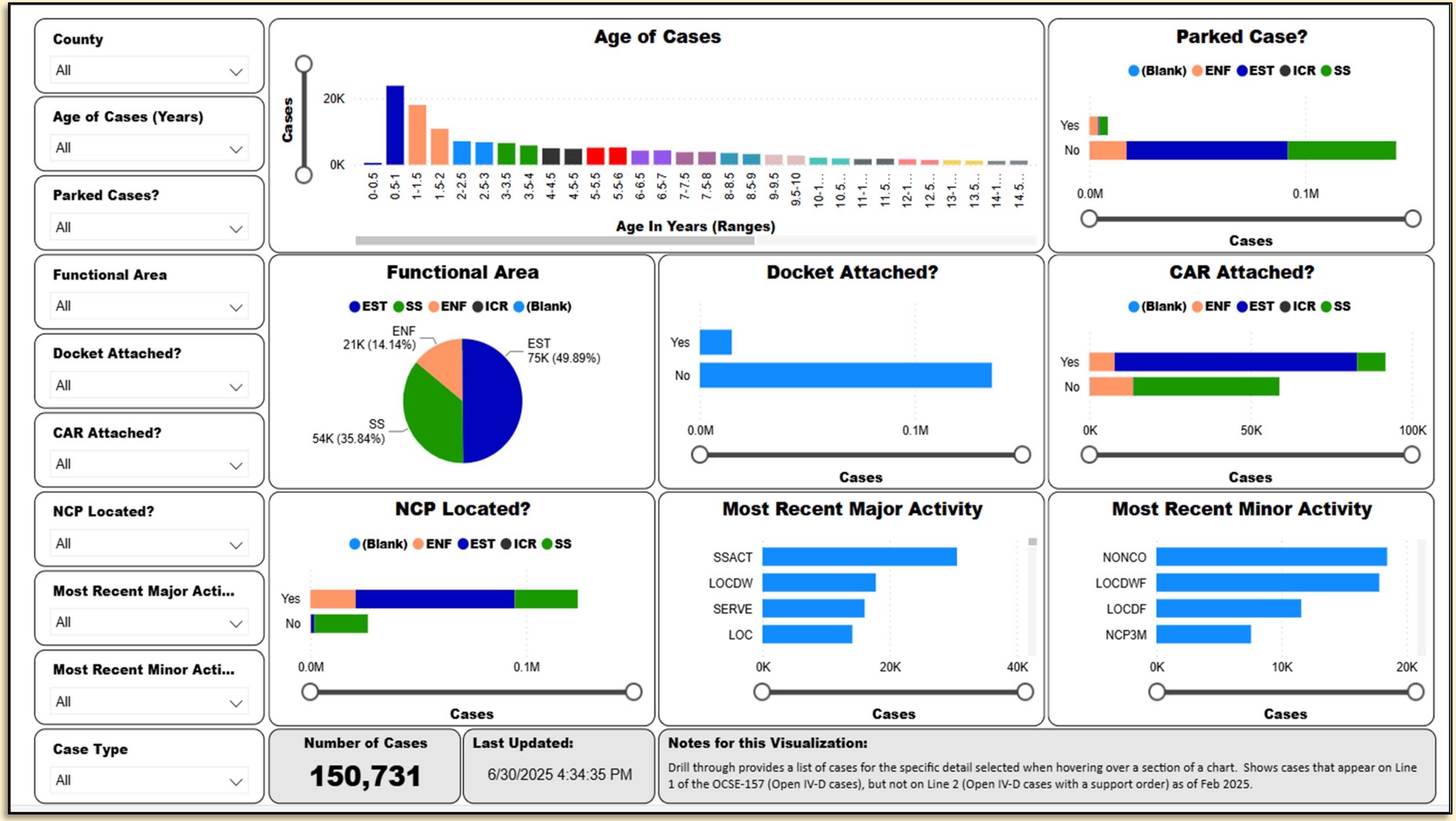
What data has Michigan visualized?

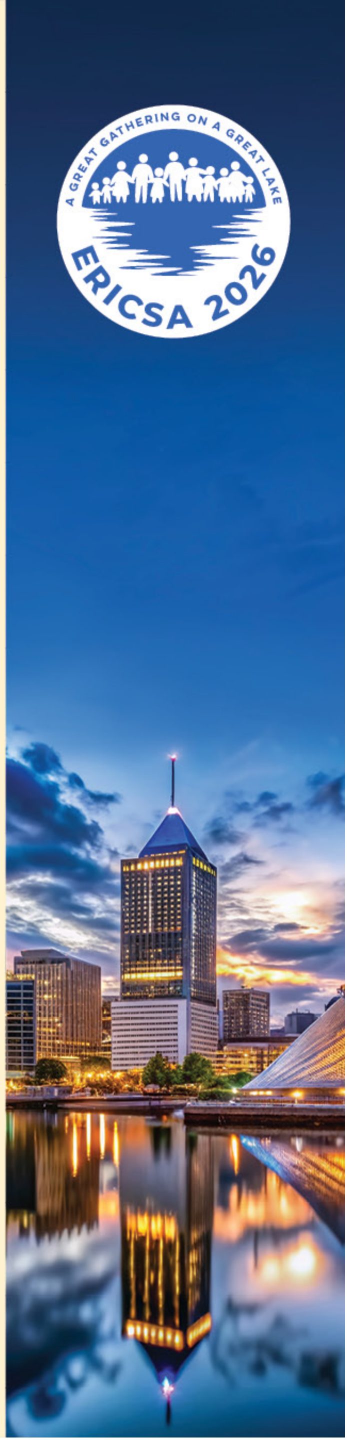
Name	Owner ↓	Updated	App type
Federal Performance Factors	SA_CSDW_PBi_RO...	7/11/2025, 10:43:26 AM	App
Financials (MiCSES)	SA_CSDW_PBi_RO...	7/12/2024, 1:04:37 PM	App
MiCSES Demographic Reports	SA_CSDW_PBi_RO...	9/13/2024, 10:32:27 AM	App
MiCSES Contract Performance Standards	SA_CSDW_PBi_RO...	9/13/2024, 10:51:52 AM	App

VFR-001 Federal Performance Factors

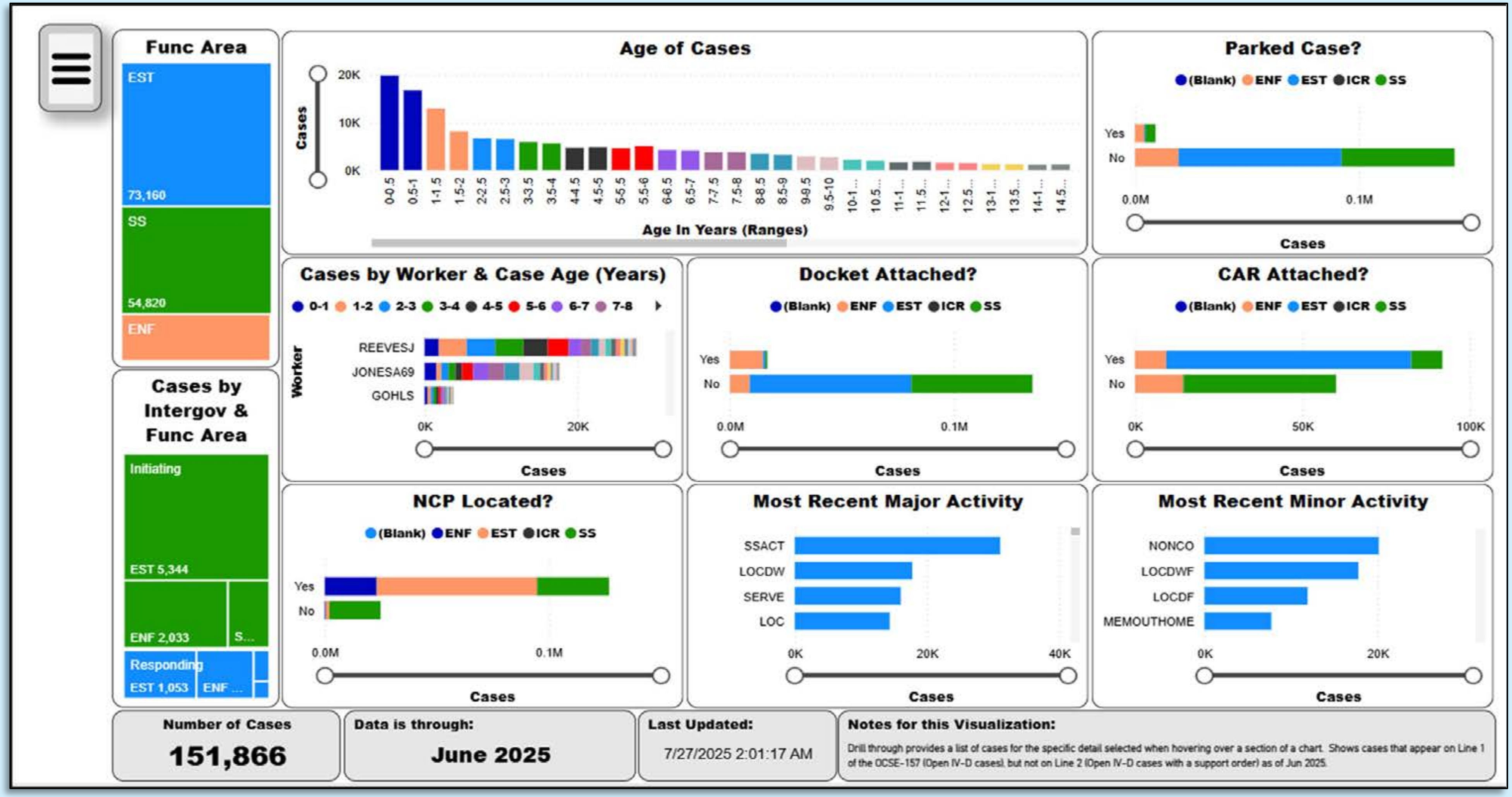


Original VFR-200 Open Cases Without Orders



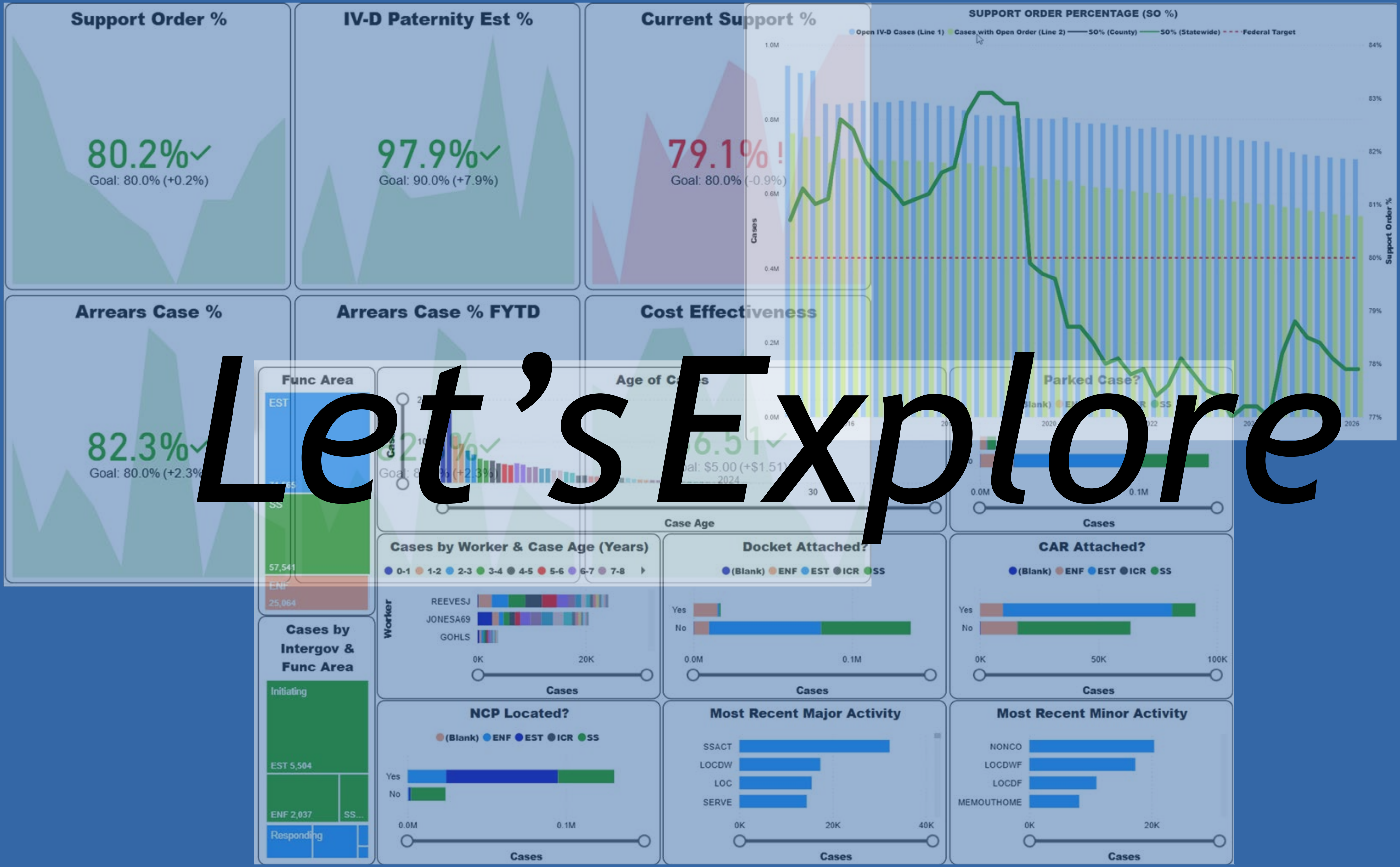


Current VFR-200 Open Cases Without Orders



Current VFR-200 Open Cases Without Orders

Let's Explore



What's Next?

- Maintain and build on existing visual reports
  - Paternity Establishment Viz (VFR-300)
- Create visual reports for our operations teams
- Potentially create a limited-audience self-service visual reports

Questions?

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MN PAS TEAM

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Performance
Coordinator

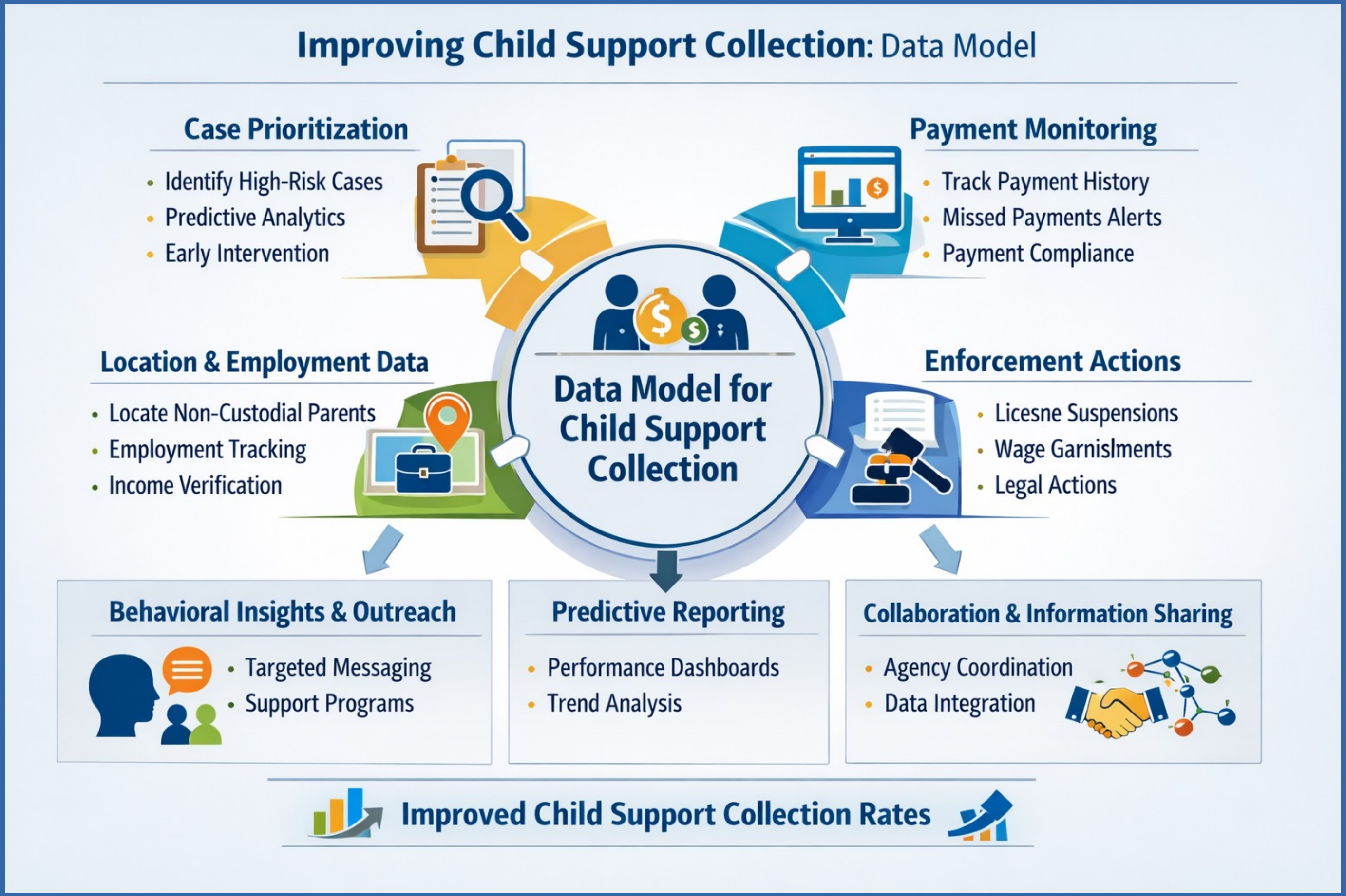
Ibrahima Coulibaly, PhD.
Research Scientist

Jeffrey Olson, MBA
Data Analyst

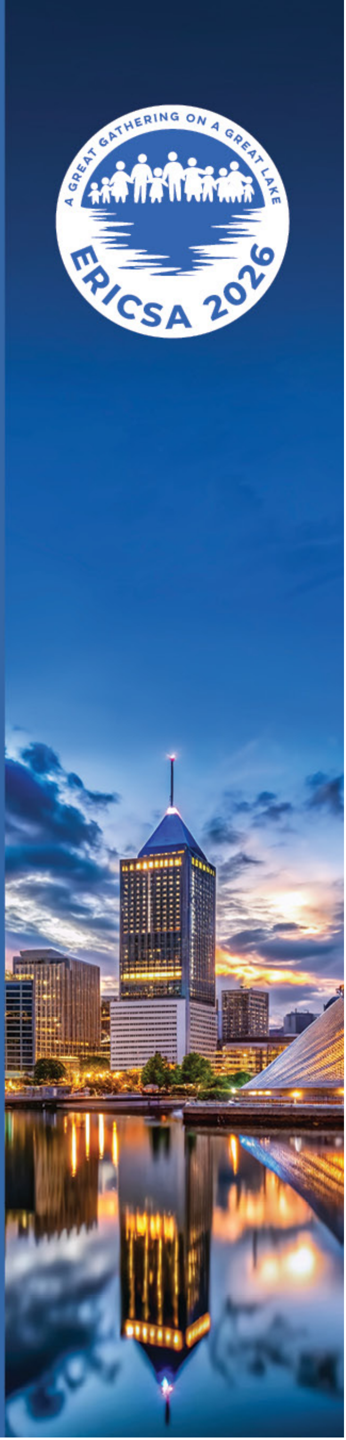
Peter Castro PhD.,(abd)
Performance, Analytics,
Systems Supervisor

Collections on Current Data Model

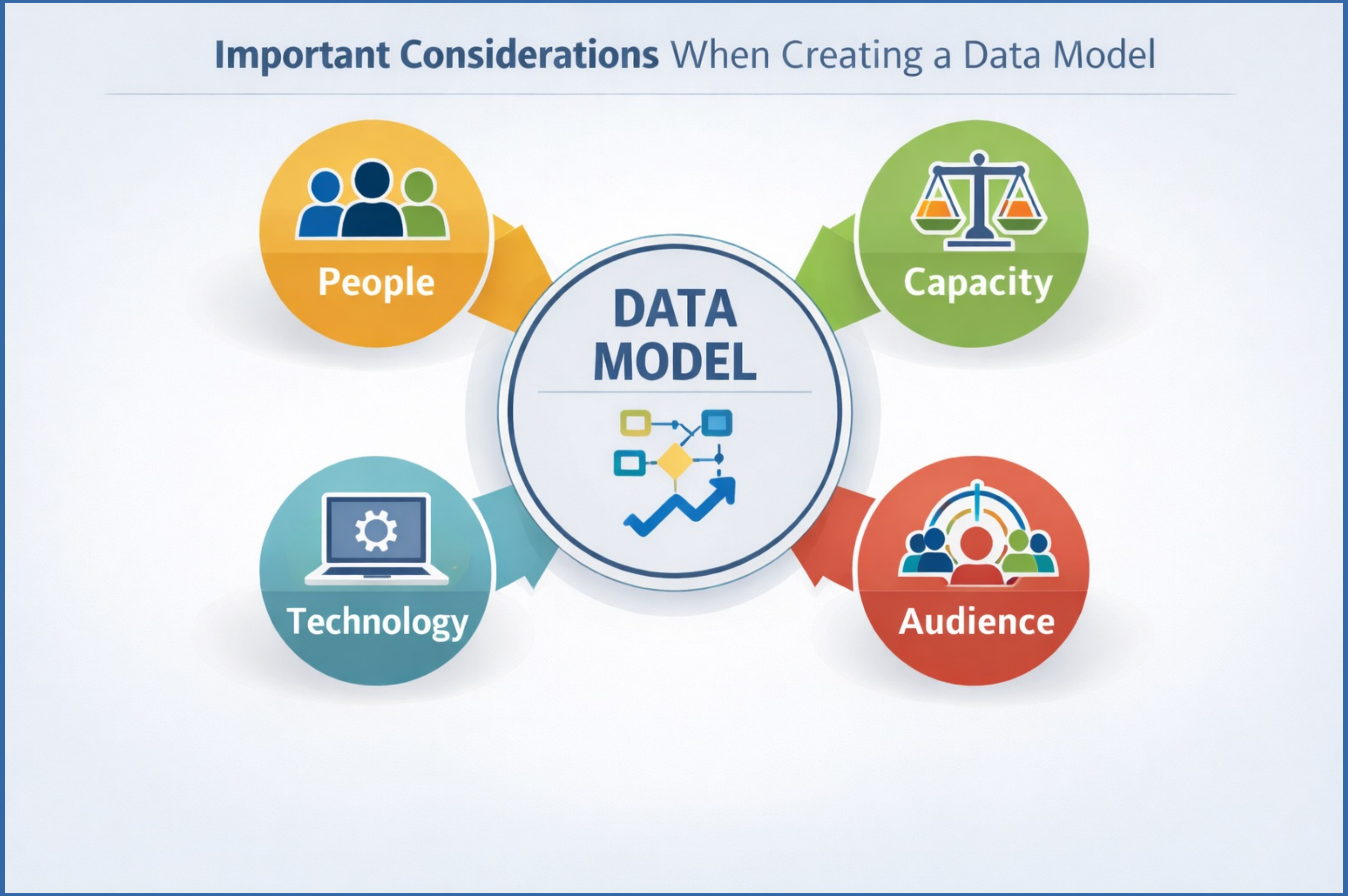
- Purpose: Develop a contextual learning model addressing the current collections FPM.

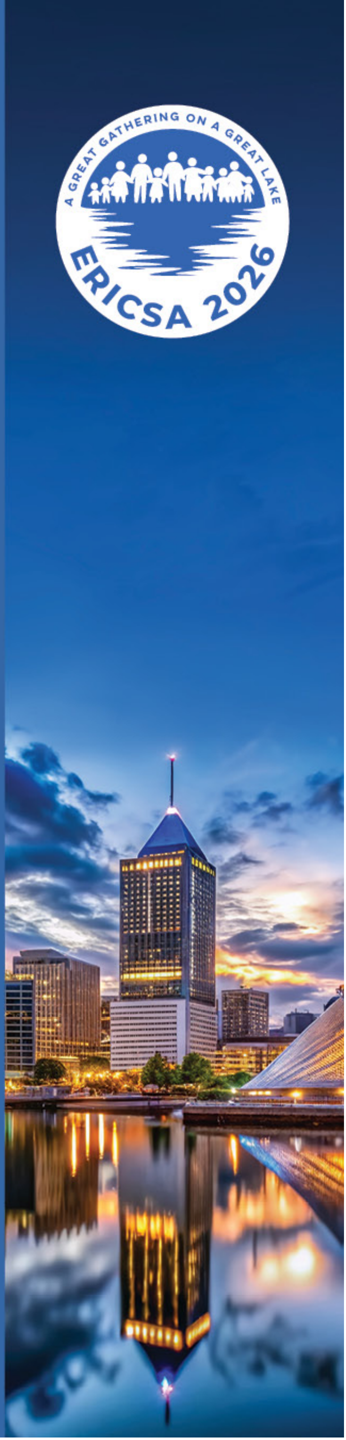


$$\frac{\text{Current Support Collected FFY}}{\text{Current Support Due FFY}}$$



CoC – Setting up Your Model





CoC Data Driven Threshold Setting

Goals

- Enable
  - Stakeholders and predictive models to assess the overall payment consistencyand risk at the administrative/case level, ensuring targeted interventions and efficient resource allocation.
- Combine
  - Policy and statistical strategy to assess, intervene, evaluate, and share county performance related to CoC.
- Alignment
  - Broader goals of promoting compliance and efficiency in payment systems while addressing localized challenges.

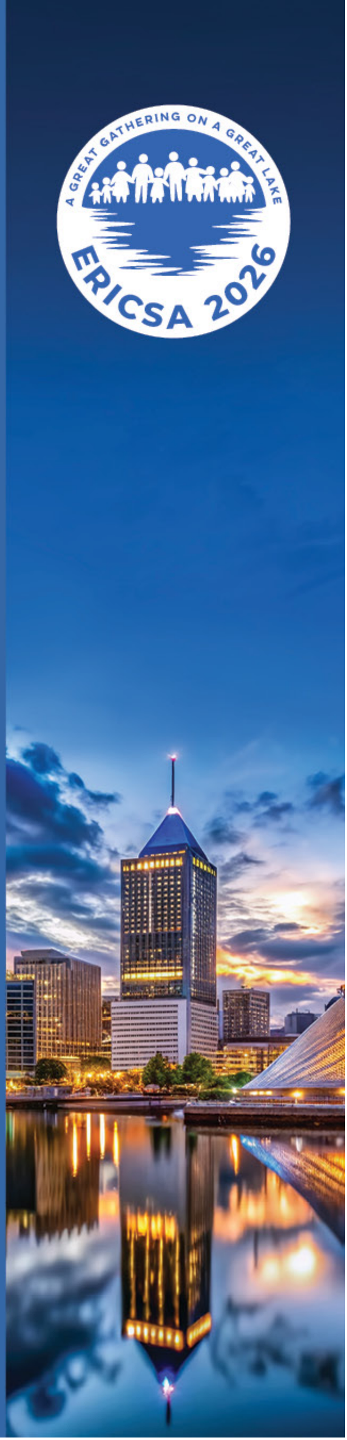
CoC Data Model - Method

Benchmarking Against Federal Guidelines:

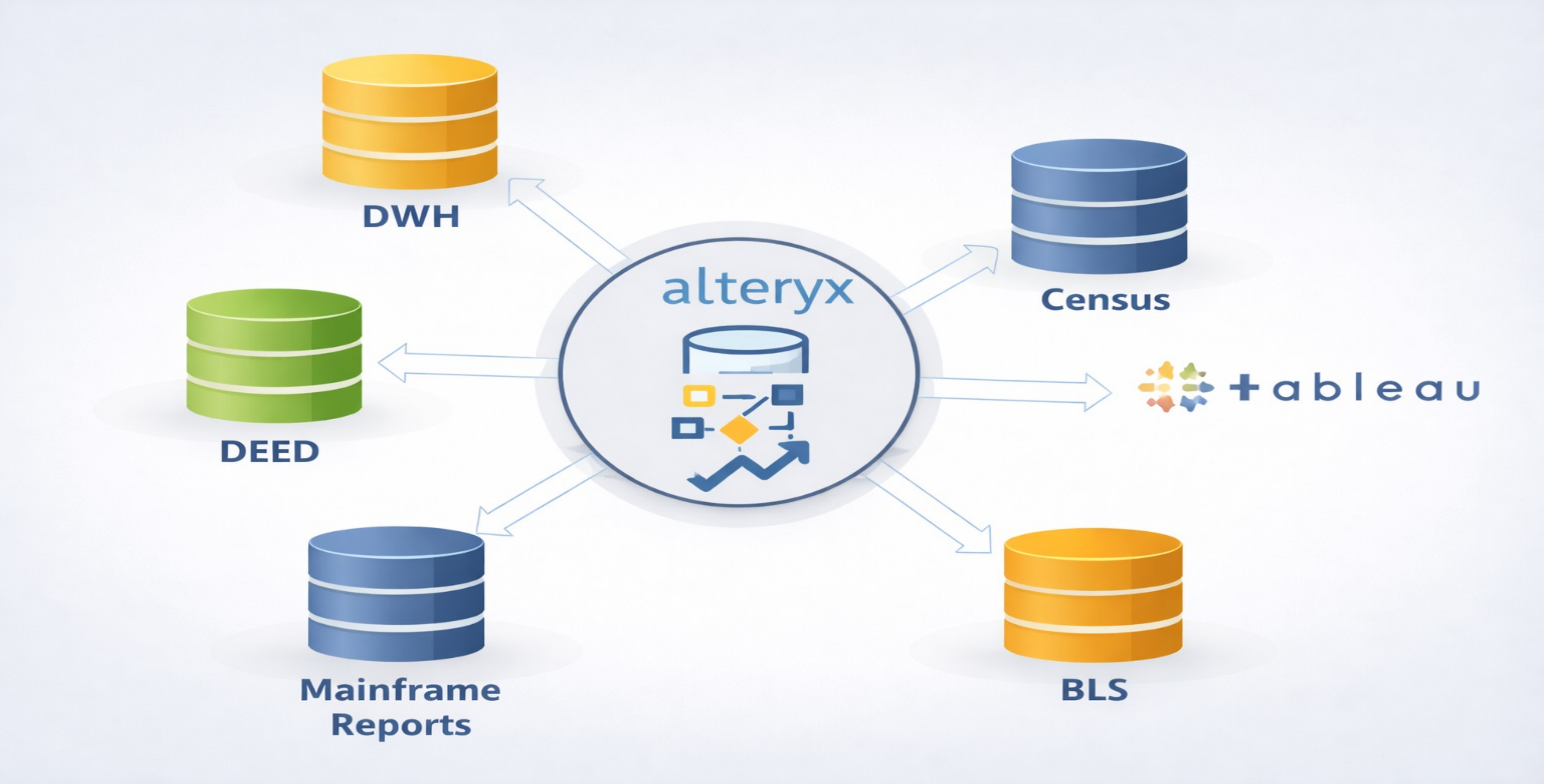
- The federal guideline of 80% collection rate compliance serves as the primary benchmark for categorizing counties as low risk.
- Ensures consistency between state and national standards.

Risk Thresholding via Quantile Scoring:

- Quantile-Based Tuning: These thresholds are derived from the empirical distribution of the data. The data is segmented into risk categories based on how values are distributed.
- Dynamic Adjustment for Local Variability: A flexible scoring buffer accounts for regional or programmatic sensitivity-ensuring that risk categories reflect the lived realities of different jurisdictions, not just raw scores.

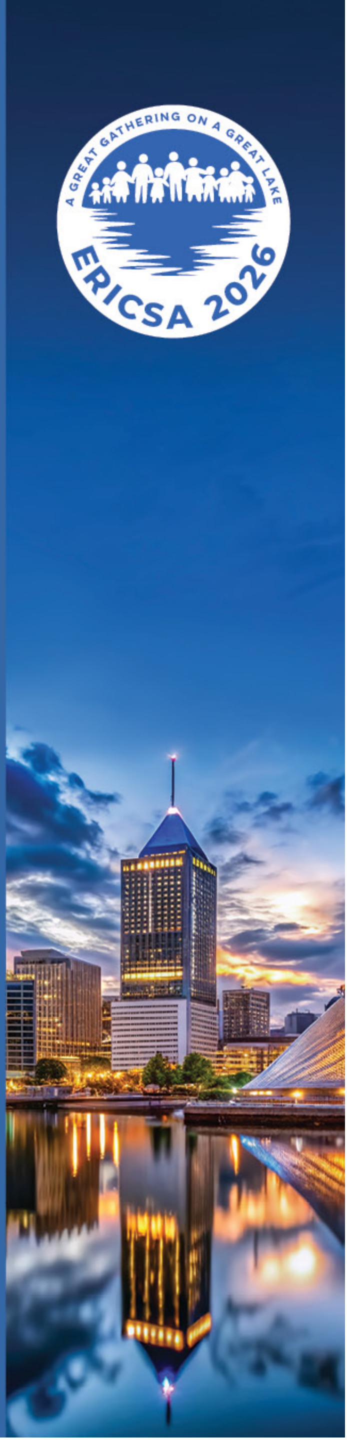


CoC Data Flow



CoC Data Model - Efficiency

- **Efficiency**: measures how effectively resources are used to achieve a specific outcome.
    - Key Question: Are we using our resources effectively to achieve desired results?
- Example:
    - **NCP Financial Capacity** assesses how efficiently wages and resources are
        - allocated to manage arrears or meet obligations.
    - **NCP Financial Behavior** focuses on consistency and reliability in fulfilling financial
        - duties with minimal waste or lapses.
- Holistic Financial Score Model
- HFSM = (Financial Capacity Score * 0.80) + (Financial Behavior Score * 0.20)



CoC Data Model - Optimization

- **Optimization:** finding the best possible solution or arrangement under a set of constraints.
  - Key Question: Are we achieving the best possible outcome given our constraints?

- **Example:**
  - Adjusting weights (β,α,δ\beta, \alpha, \delta) to reflect the most impactful components in specific scenarios.
  - Optimizing policies address key constraints, such as improving financial literacy (behavior) to reduce arrears (capacity).

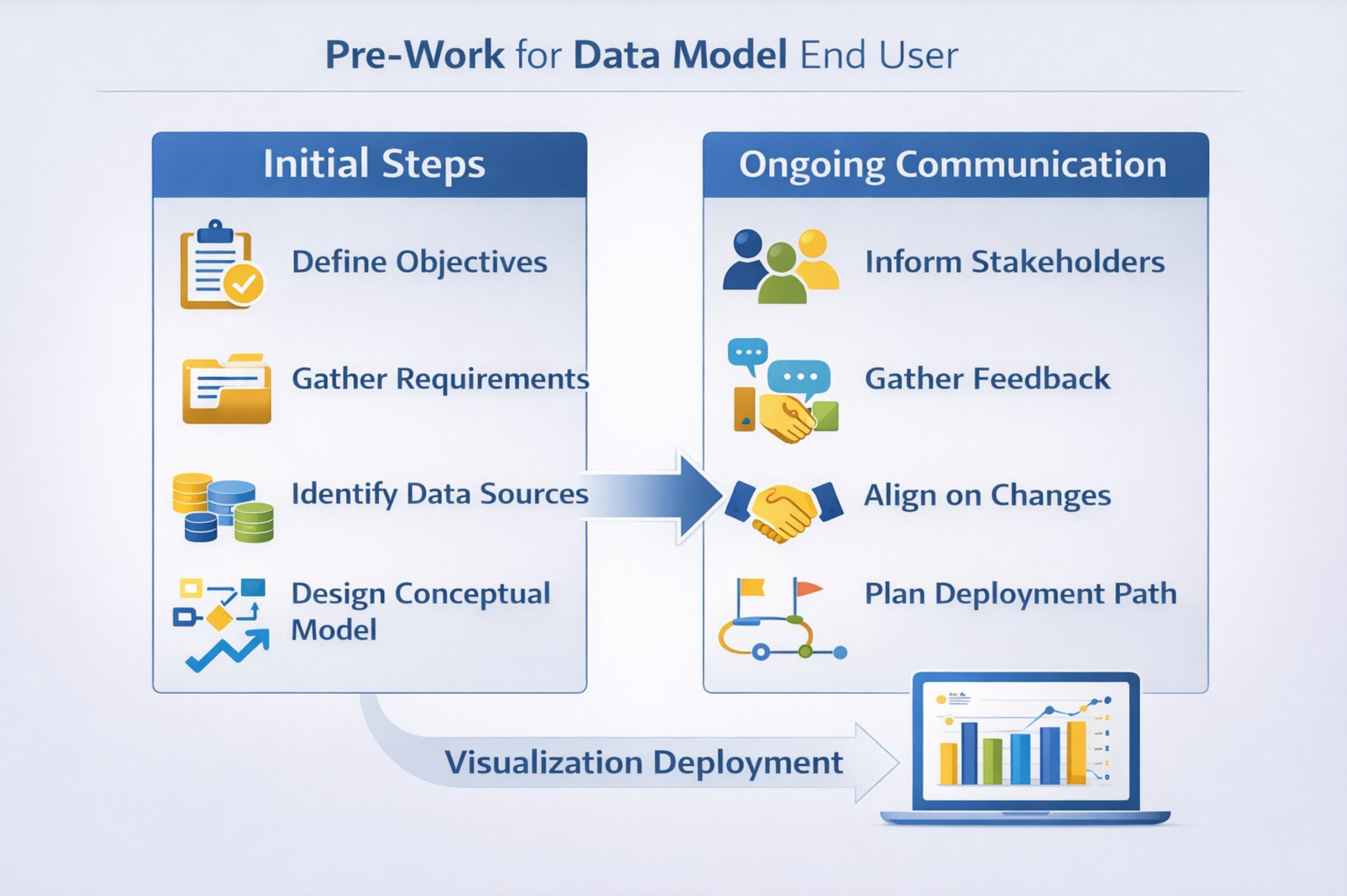
CoC Data Model Strategic Alignment

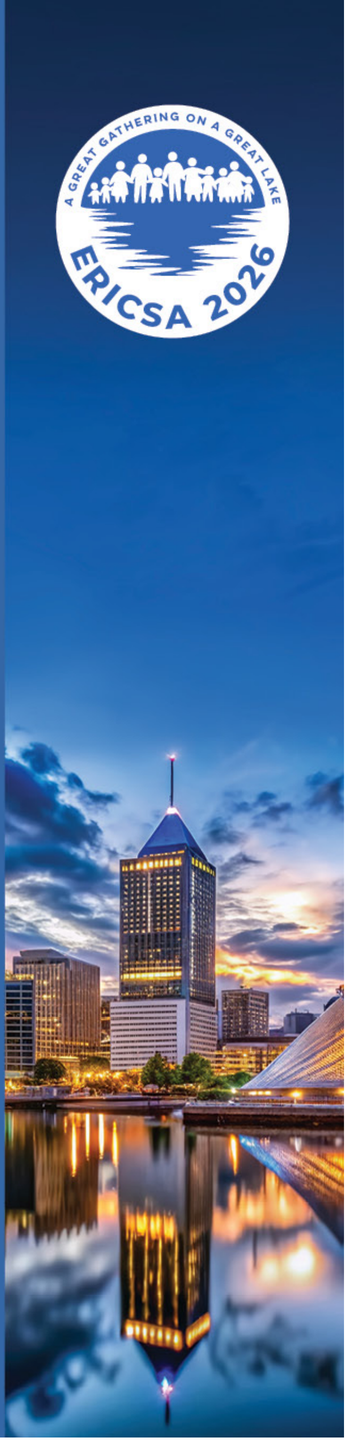
- **Strategy:** long-term planning and decision-making to achieve overarching goals.
  - Key Question: Are we aligning our DCYF efforts to achieve long-term program success?
  - Tool Creation: Management, Evaluation, Intervention
    - Enforcement → Cooperation game theory framework

- **Example:**
  - HFSM Insights design interventions, such as targeted financial aid programs or localized economic support, to improve scores sustainably
  - Leverage county-specific traits (δ\delta) strategically to address regional disparities in outcomes

CoC Data Model – Pre/ Full Pilot

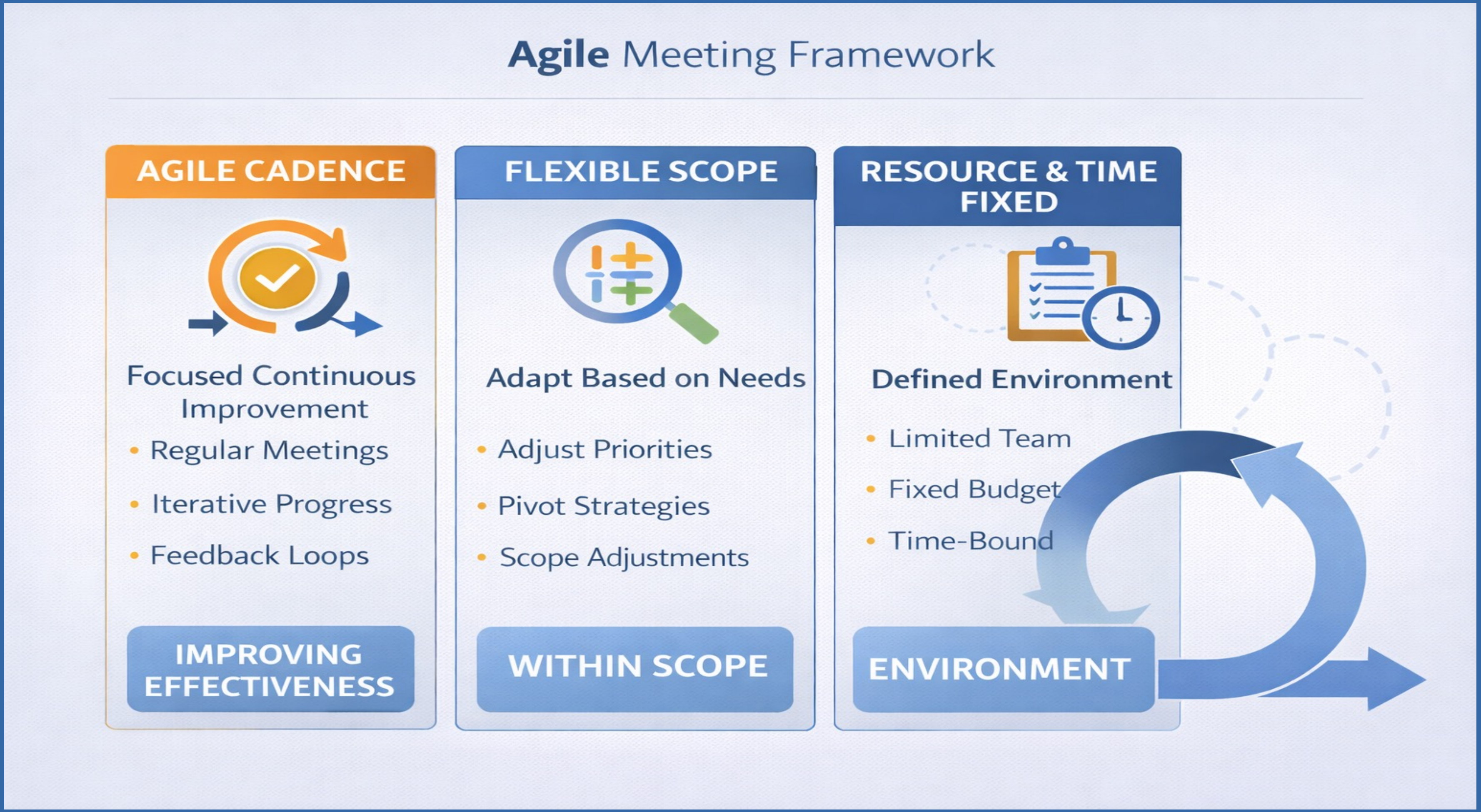
- Pre-Work
- Ongoing Communication
- Deployment Work Group





Model – Deployment Path

Moved from needs-based model cadence to Scrum Agile



CoC Data Model – Landing Page

DEPARTMENT OF CHILDREN, YOUTH, AND FAMILIES

Child Support Division

Current Collections- Data Model Home Page

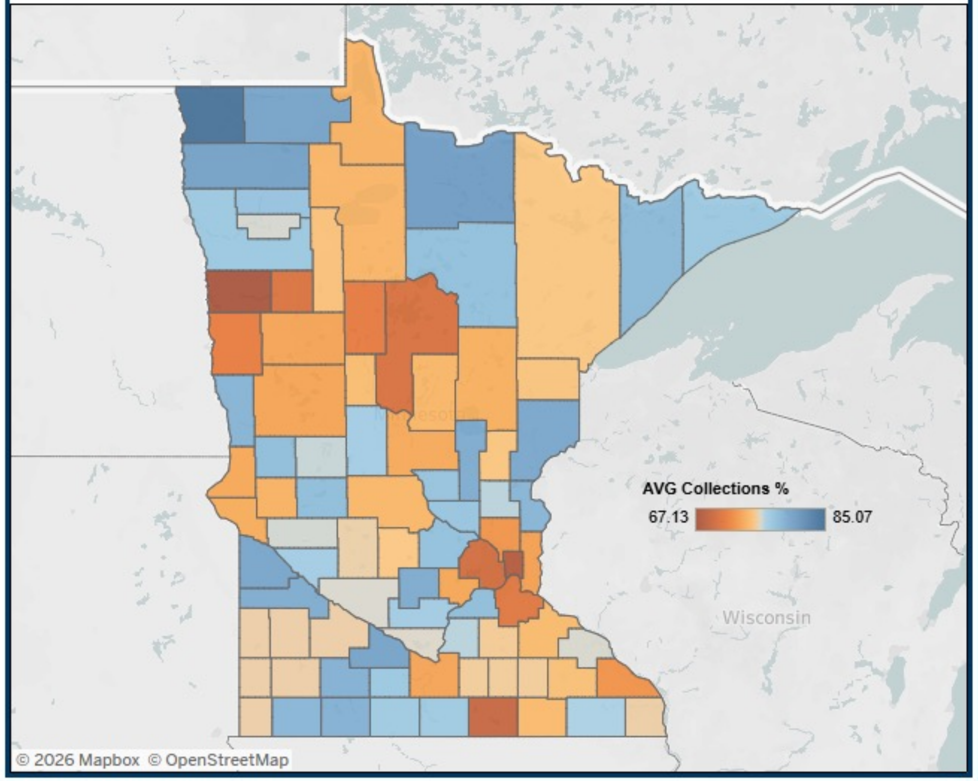
Statewide View | **County View**

Financial Capacity Reports

Collection Rate by Federal Fiscal Year

Fed. Fiscal Year	Fed. Fiscal Quarter	%
2021	Q2	76.83
	Q3	77.30
	Q4	76.72
2022	Q1	74.60
	Q2	74.87
	Q3	75.60
	Q4	75.50
2023	Q1	75.60
	Q2	76.12
	Q3	76.23
	Q4	76.16
2024	Q1	76.07
	Q2	76.08
	Q3	76.55
	Q4	76.06
2025	Q1	75.44
	Q2	75.84
	Q3	76.13
	Q4	75.88
2026	Q1	75.35

Collection Rate Heat Map



County Name
(All)

Tier
(All)

Big 9
(All)

District Court
(All)

MFSRC District
(All)

Economic Development Region
(All)

State Planning Area
(All)

MACSSA Region
(All)

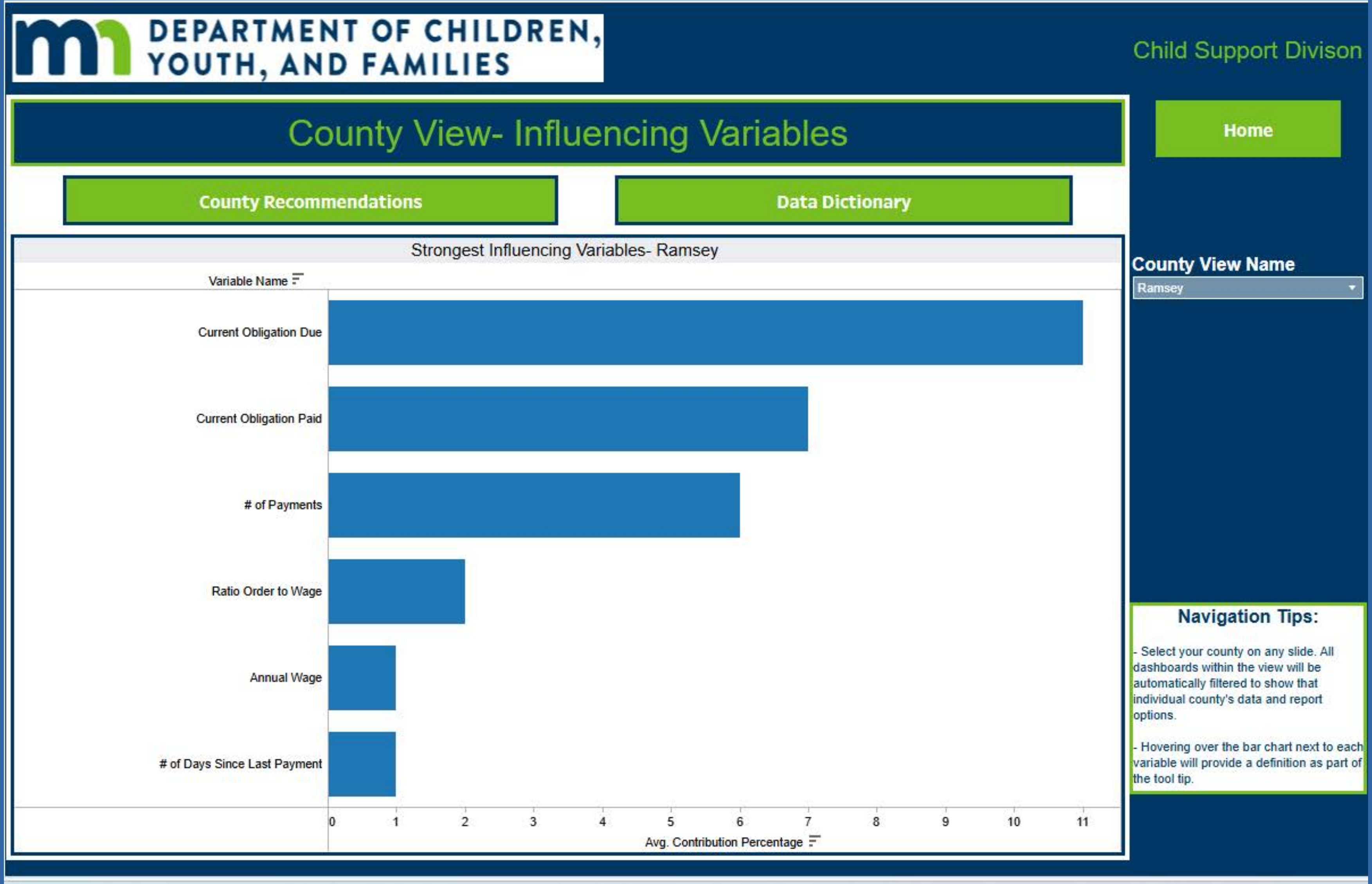
Navigation Tips:

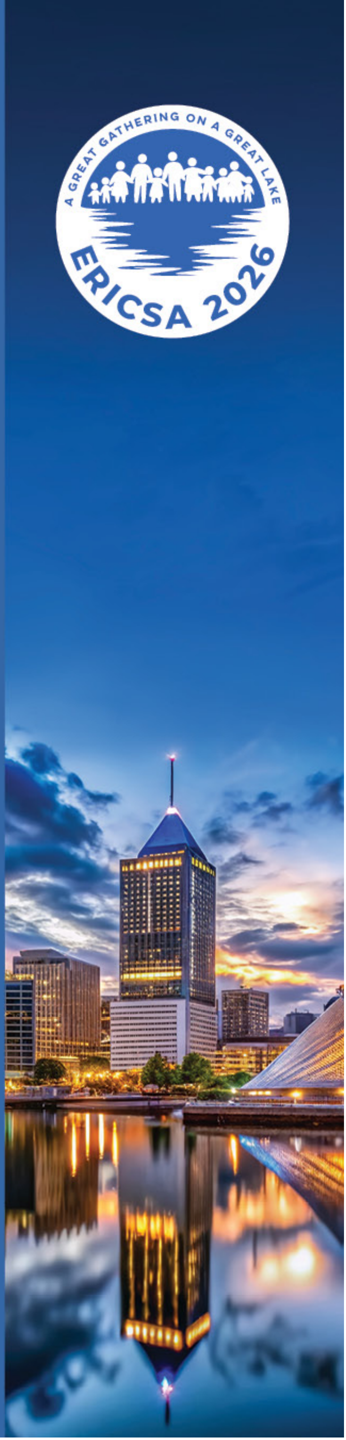
Statewide View- compare aggregate collections and model variables of an individual county to another county or groupings.

County View- access detailed information on individual county model variables and recommendations.

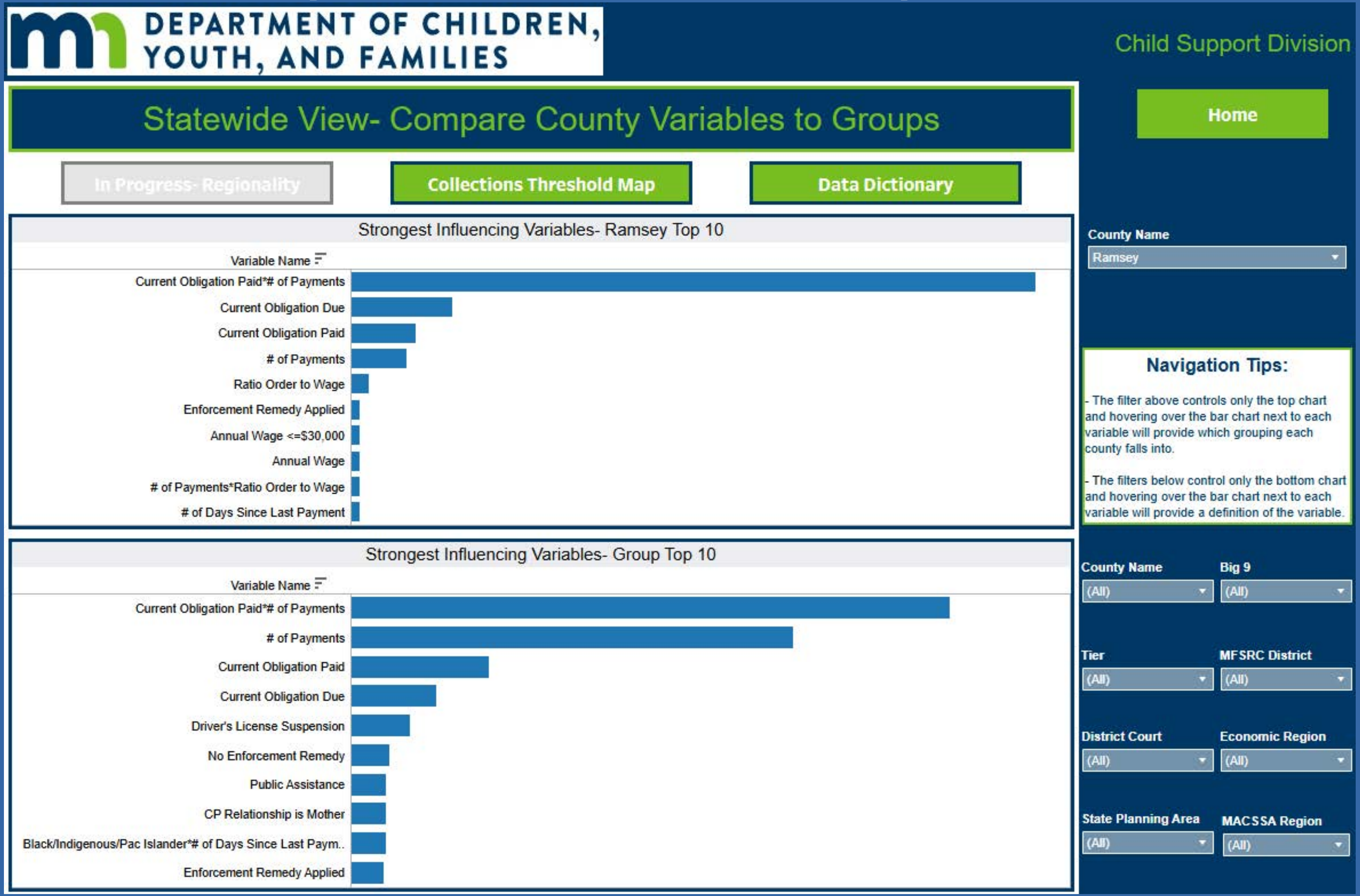
Financial Capacity Reports- filter and download reports based on

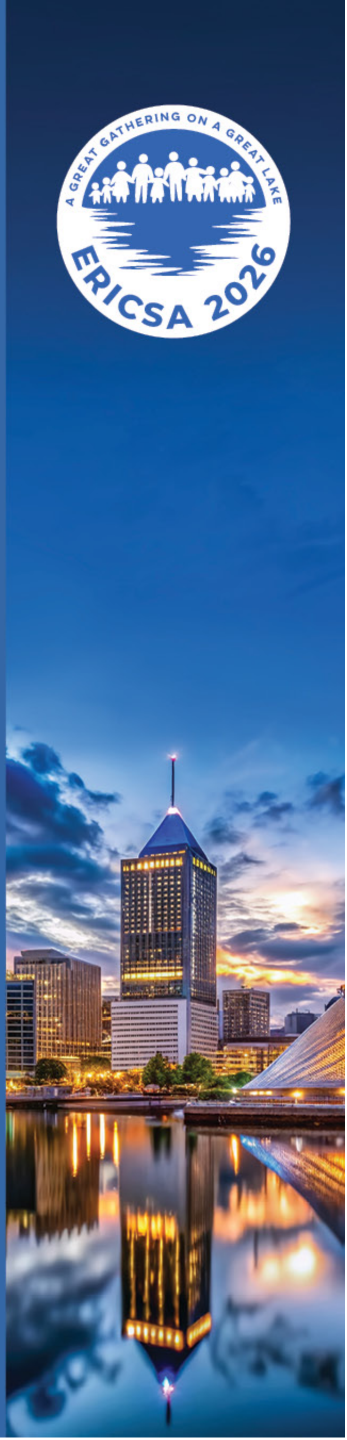
CoC Data Model – County View





County View - Comparison





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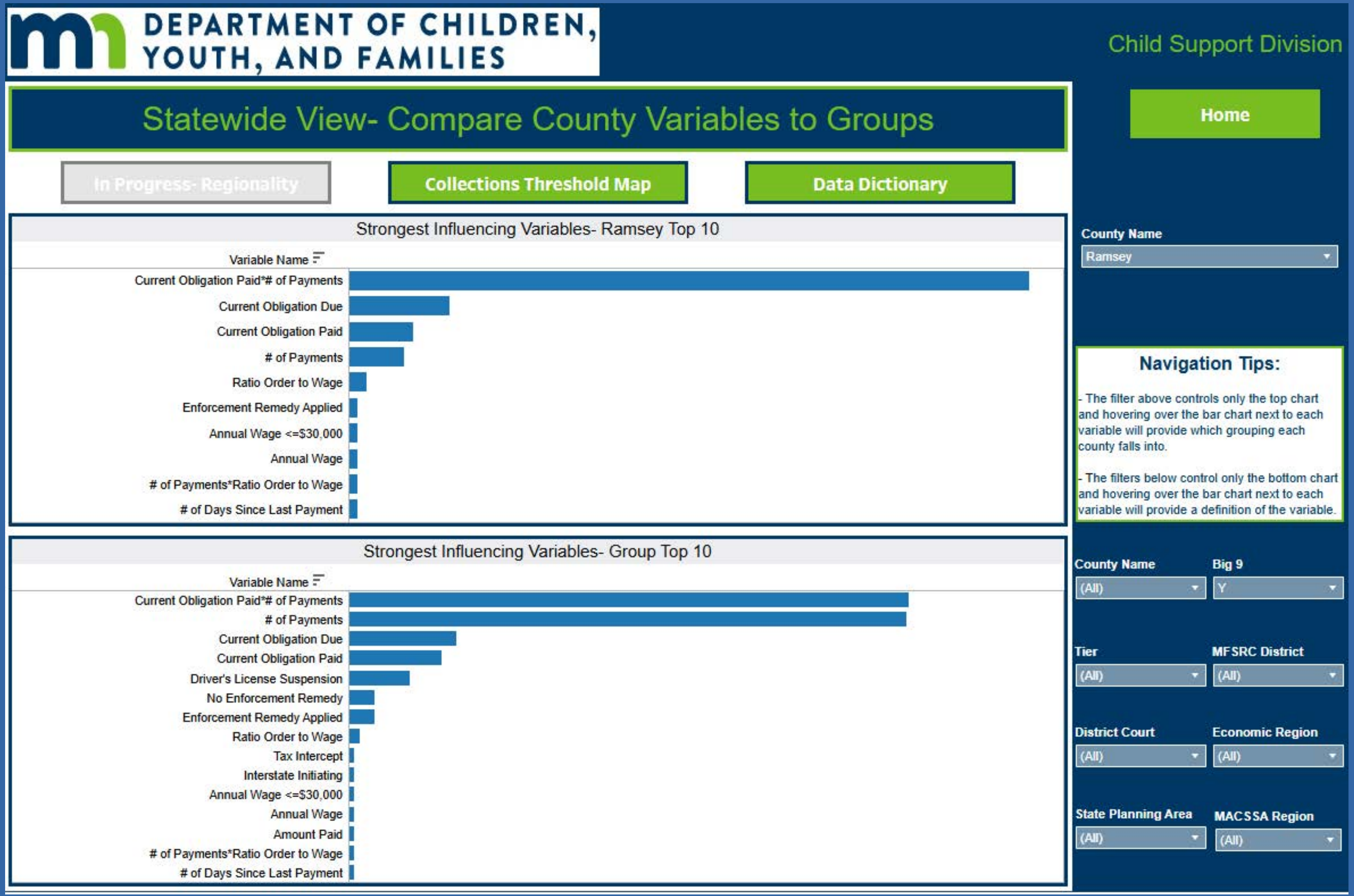
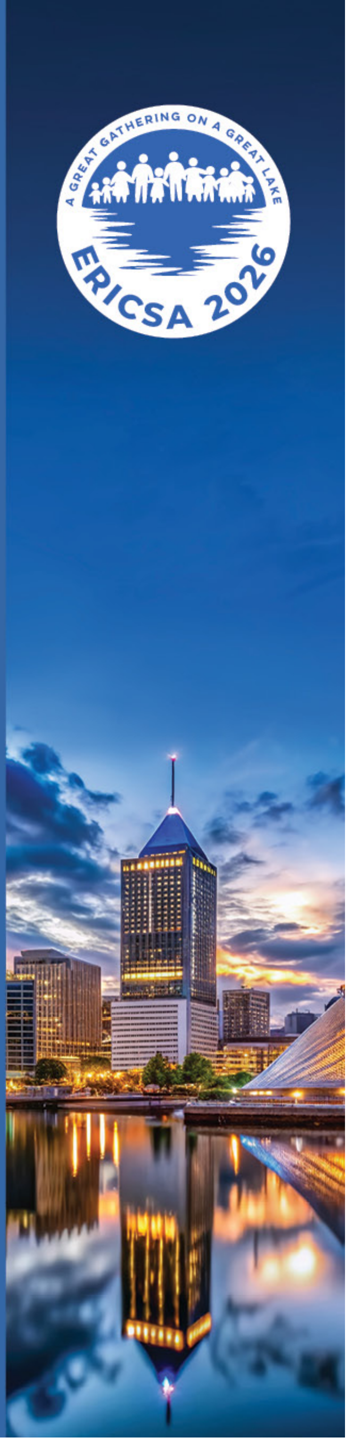




County View - Recommendations

DEPARTMENT OF CHILDREN, YOUTH, AND FAMILIES

Child Support Division

County View- Recommendations

Home

County Influencing Variables | Data Dictionary

Recommendations

Variable Name (Recommendati..	Category	Variable Specific Recommendations	#
# of Days Since Last Payment	Case Work	Consider setting worklists to increase outreach processes to reduce late payments for infrequent or partial payors. Contact CP, if appropriate.	1
	Monthly Standard Reports	F19: Cases with Recent Non-Payment	2
		P06: Cases in Full Locate	3
		P16: Cases moved to Full Locate in the Prior Month	4
	Procedural	Encourage consistent payments when communicating with participants. Provide various ways to pay (MCSO, mail, in-person, PayNearMe,etc).	5
# of Payments	Case Work	Consider adding phone call reminders close to payment due dates for irregular or partial payors to reduce payment delays.	1
	FCR Variable Report	Use FILTERS: Select "High-Risk" for Collection Threshold. SORT: Current due from high to low. Contact case parties with no/old last payment.	2
	Monthly Standard Reports	F19: Cases with Recent Non-Payment	3
	Procedural	Encourage reviewing the frequency of payment when performing case reviews to locate cases that may need additional monitoring.	4

County View Name

(All)

Recommendations Type

- Variable Recommendations
- General Recommendations

Highlight Category

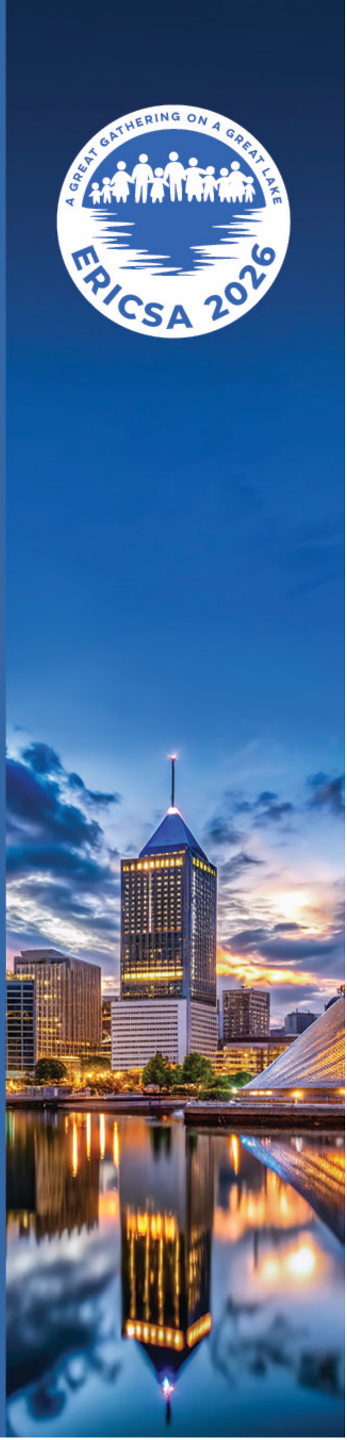
Highlight Category

Navigation Tips:

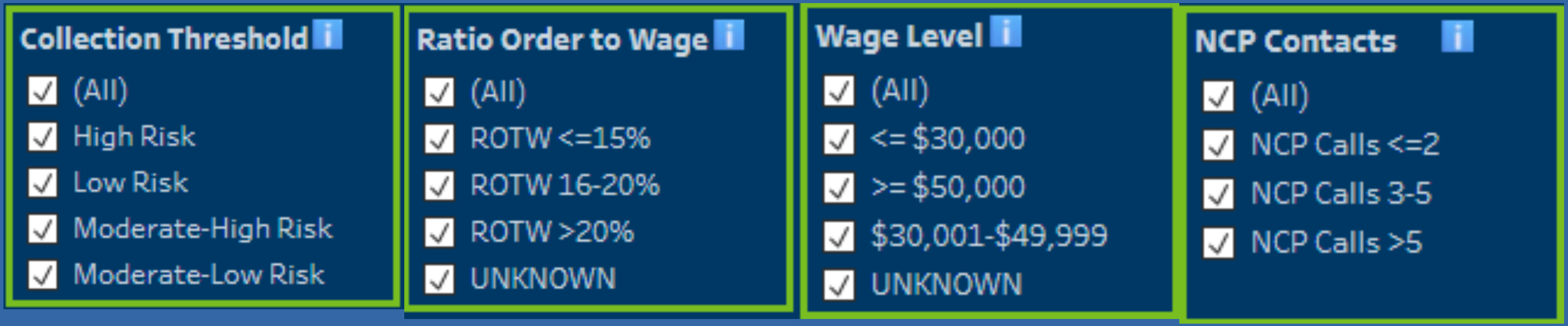
- Switch between variable-based and general recommendattion types with toggle above.

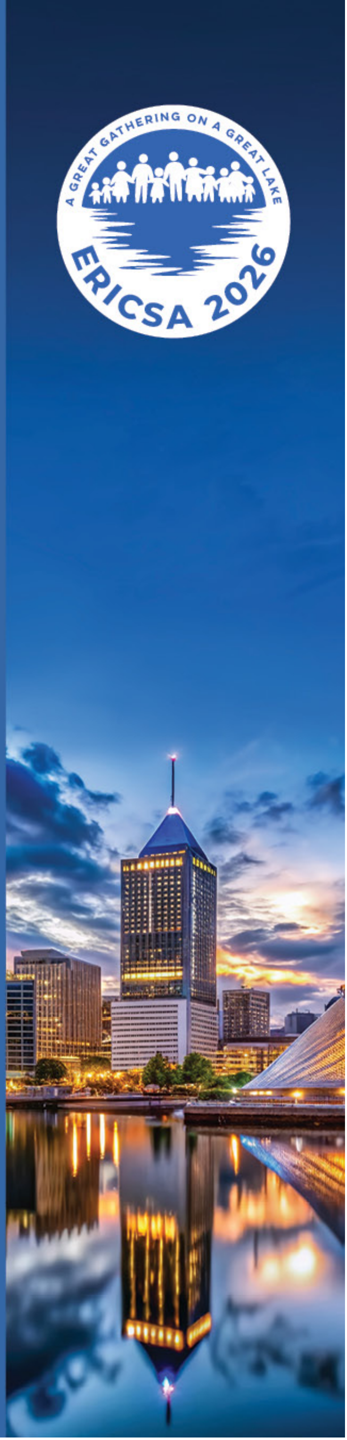
- Highlight recommendation categories by clicking search field above or category name in table (variable recommendations only).

- Hovering over a value in the # column will provide a definition of the variable as part of the tool tip.

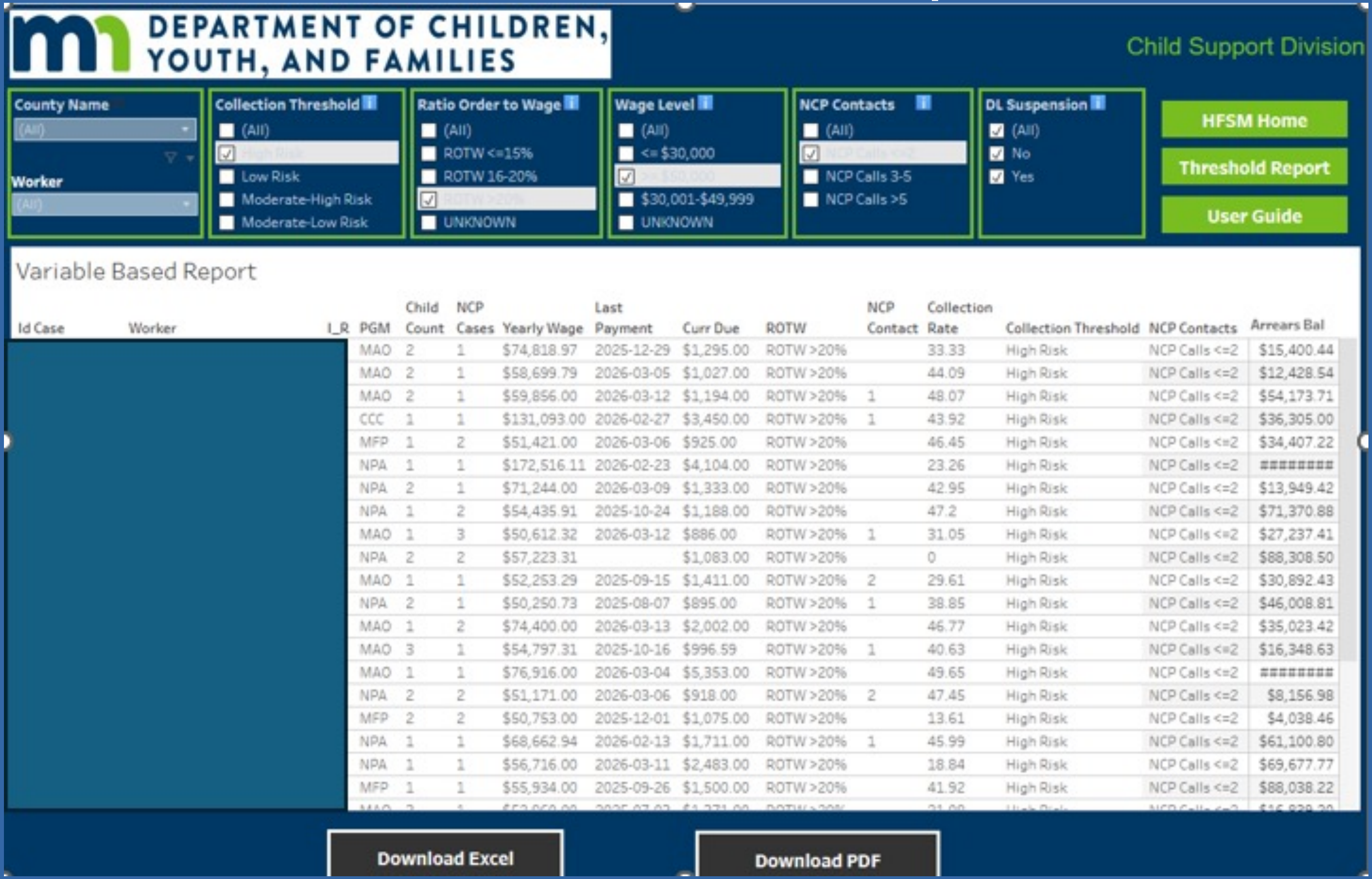


County – Financial Capacity Report

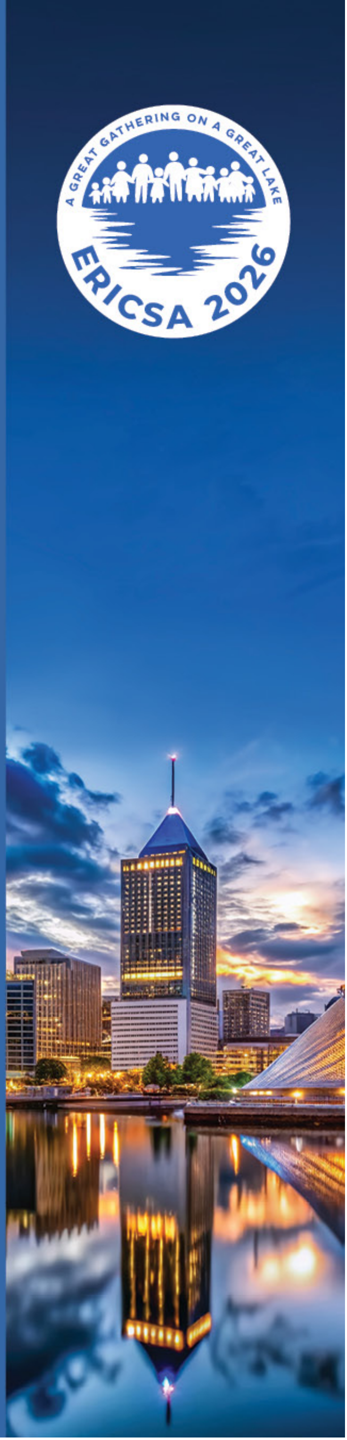




CoC Data Model - Optimization

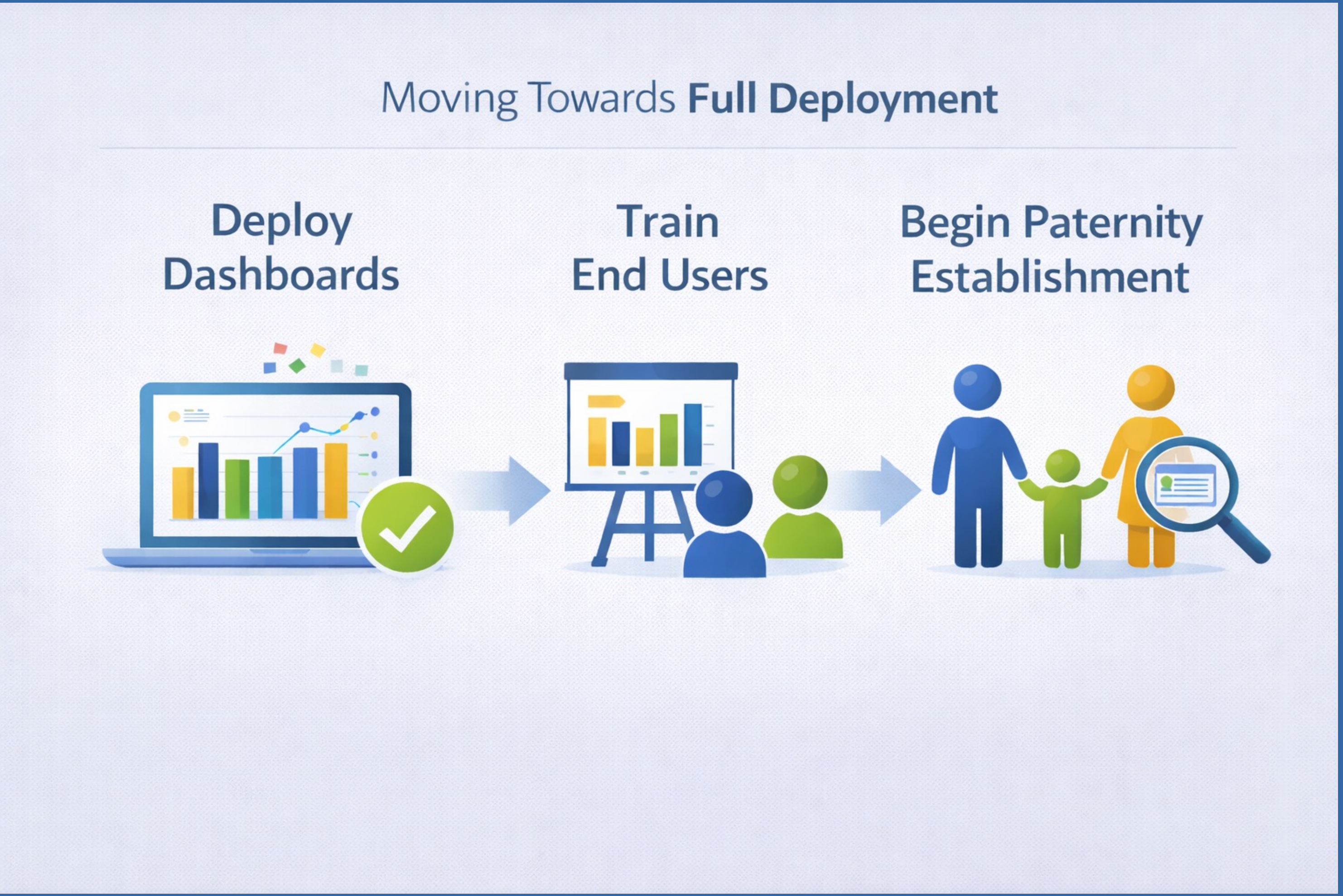


Id Case	Worker	I_R	PGM	Child Count	NCP Cases	Yearly Wage	Last Payment	Curr Due	ROTW	NCP Contact	Collection Rate	Collection Threshold	NCP Contacts	Arrears Bal
[redacted]			MAO	2	1	$74,818.97	2025-12-29	$1,295.00	ROTW >20%		33.33	High Risk	NCP Calls <=2	$15,400.44
			MAO	2	1	$58,699.79	2026-03-05	$1,027.00	ROTW >20%		44.09	High Risk	NCP Calls <=2	$12,428.54
			MAO	2	1	$59,856.00	2026-03-12	$1,194.00	ROTW >20%	1	48.07	High Risk	NCP Calls <=2	$54,173.71
			CCC	1	1	$131,093.00	2026-02-27	$3,450.00	ROTW >20%	1	43.92	High Risk	NCP Calls <=2	$36,305.00
			MFP	1	2	$51,421.00	2026-03-06	$925.00	ROTW >20%		46.45	High Risk	NCP Calls <=2	$34,407.22
			NPA	1	1	$172,516.11	2026-02-23	$4,104.00	ROTW >20%		23.26	High Risk	NCP Calls <=2	########
			NPA	2	1	$71,244.00	2026-03-09	$1,333.00	ROTW >20%		42.95	High Risk	NCP Calls <=2	$13,949.42
			NPA	1	2	$54,435.91	2025-10-24	$1,188.00	ROTW >20%		47.2	High Risk	NCP Calls <=2	$71,370.88
			MAO	1	3	$50,612.32	2026-03-12	$886.00	ROTW >20%	1	31.05	High Risk	NCP Calls <=2	$27,237.41
			NPA	2	2	$57,223.31		$1,083.00	ROTW >20%		0	High Risk	NCP Calls <=2	$88,308.50
			MAO	1	1	$52,253.29	2025-09-15	$1,411.00	ROTW >20%	2	29.61	High Risk	NCP Calls <=2	$30,892.43
			NPA	2	1	$50,250.73	2025-08-07	$895.00	ROTW >20%	1	38.85	High Risk	NCP Calls <=2	$46,008.81
			MAO	1	2	$74,400.00	2026-03-13	$2,002.00	ROTW >20%		46.77	High Risk	NCP Calls <=2	$35,023.42
			MAO	3	1	$54,797.31	2025-10-16	$996.59	ROTW >20%	1	40.63	High Risk	NCP Calls <=2	$16,348.63
			MAO	1	1	$76,916.00	2026-03-04	$5,353.00	ROTW >20%		49.65	High Risk	NCP Calls <=2	########
			NPA	2	2	$51,171.00	2026-03-06	$918.00	ROTW >20%	2	47.45	High Risk	NCP Calls <=2	$8,156.98
			MFP	2	2	$50,753.00	2025-12-01	$1,075.00	ROTW >20%		13.61	High Risk	NCP Calls <=2	$4,038.46
			NPA	1	1	$68,662.94	2026-02-13	$1,711.00	ROTW >20%	1	45.99	High Risk	NCP Calls <=2	$61,100.80
			NPA	1	1	$56,716.00	2026-03-11	$2,483.00	ROTW >20%		18.84	High Risk	NCP Calls <=2	$69,677.77
			MFP	1	1	$55,934.00	2025-09-26	$1,500.00	ROTW >20%		41.92	High Risk	NCP Calls <=2	$88,038.22



Next Steps

- Continue Pilot to Full Statewide Deployment
- Training for non-pilot counties/ end users
- Data Collection/ Data Training on *Establishment*



Thank You