

Let's Talk about Data (with AOE)

Wendy I. Geller, PhD – Data Management & Analysis Division Director

Kevin Viani, Agency of Digital Services at AOE IT Division Director

Vermont Fest 2019: Mapping the Future With Intention

Raise your hand if...

You experience

- Disjointed approach to tool and skill modernization across IT and Data teams
- Many, disparate points of data collection
- Many, non-integrated data sets
- No single, unified data model
- Patchy, non-standard process documentation
- Non-uniform application of governance
- Heavy reliance on non-scalable processes
- Heavy reliance on manual work to meet compliance reporting
- Data stewards, analysts, specialist teams federated across the organization

You would like

- Shared approach to modernization (IT – Data Partnership; LEA-SEA partnership)
- Standardized operating procedures for all data collections
- Master data management to facilitate data integration
- Single, unified data model or data tool (e.g. AOE is adopting CEDS NDS)
- Centrally managed, enterprise-wide governance
- Scalable, portable, repeatable processes
- Automated production of compliance reporting, interactive dashboards, slack for value-added analysis
- Data stewards, analysts, specialist teams centrally unified together

Resource constraints

\$cant budget

Struggling morale

Aging infrastructure

Overallocated staff

Technical debt burden

Deferred maintenance

Fear of change

But how to get there?



Finding North

- Examine and Define Current State -warts and all (i.e. where you are right now)
- Take a deep breath. Don't panic.
- Define Future State (i.e. where you want to be)
- Start with the basics
- Examine your processes (and write them down if they aren't already)
 - If you know what your process is, you can improve your process
 - If you can improve your process, your work will improve
- Ask for help when you need it
- Give help to others if you can



[Image credit](#)

Current State: AOE's Historic Data/IT Landscape

- Point to Point
- Brittle
- Reliance on Data Program Staff
- Labor Intensive

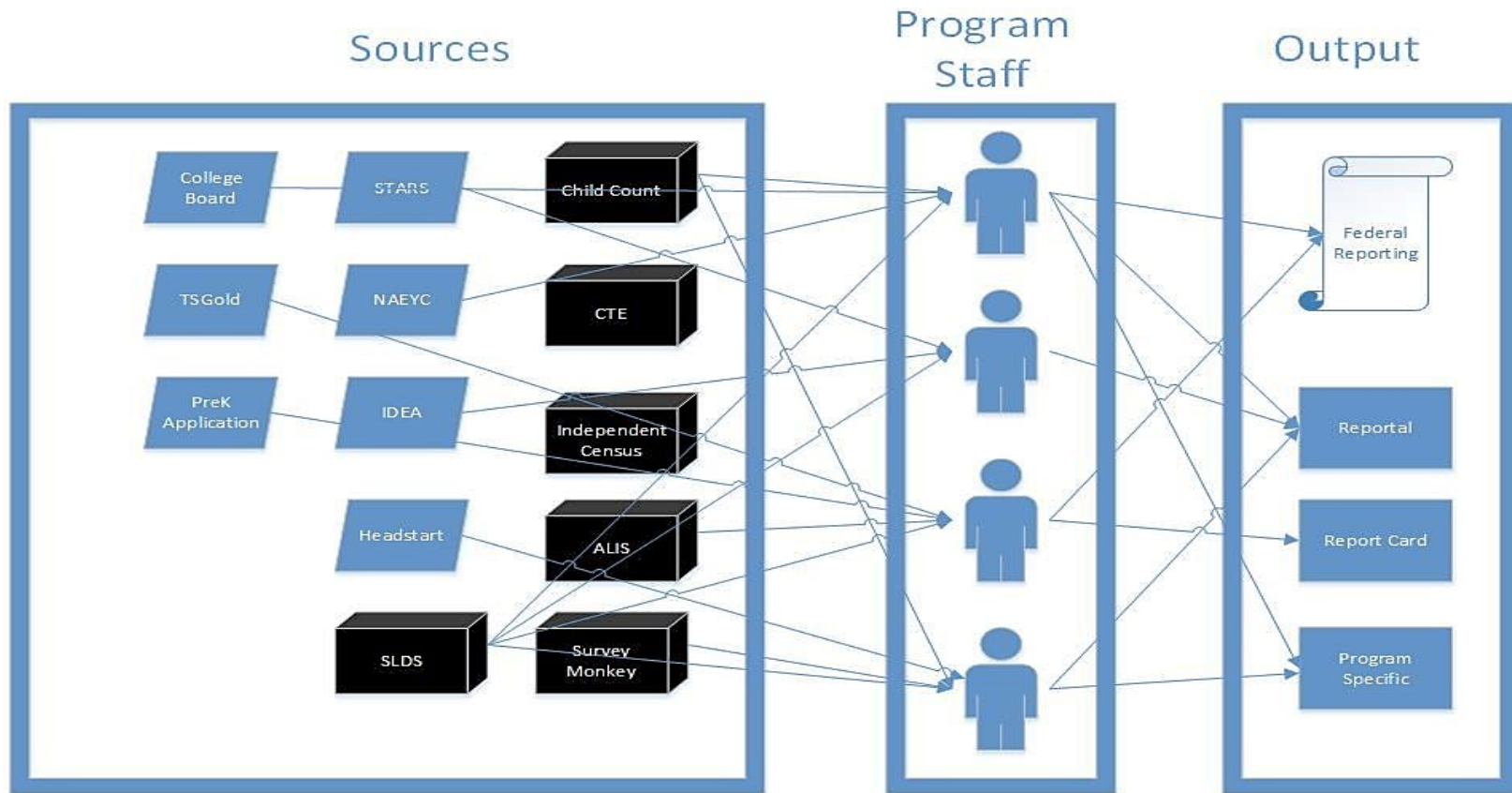


Figure: Diagram of an overly complex process that moves between too many data sources to various data program staff and outputs.

Future State: Enterprise Infrastructure

- Data Centric
- Resilient to Change
- Free up Resources
- Support Continuous Improvement

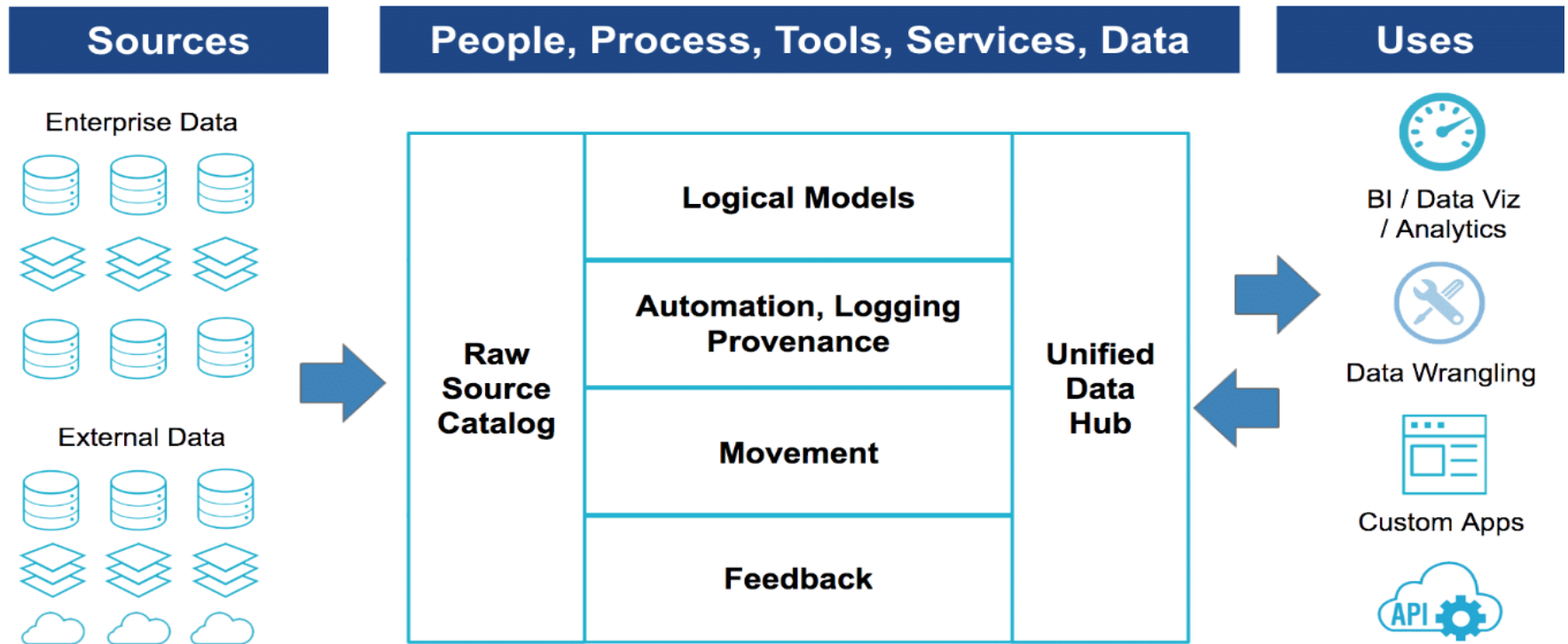


Figure: Logical model showing linear processes between data sources, people, processes, tools, services, and data, and then uses as an end result. [Image Credit: [The Eckerson Group](#)]

3-5 Year Breakthrough Objectives

Today, together, let's focus on these:

1. Modernize, standardize, and fully leverage collection, management, storage, and data analysis platforms, tools, and methodologies.
2. Move a from reactive culture to proactive culture.
3. Effectively coordinate to execute cross-functional workflows.
4. Strengthen security and privacy frameworks while reducing burden of supporting secure and sound data handling.
5. Empower AOE and stakeholders with data to support an evidence and result-based approach to decision making.

Move from reactive culture to proactive culture

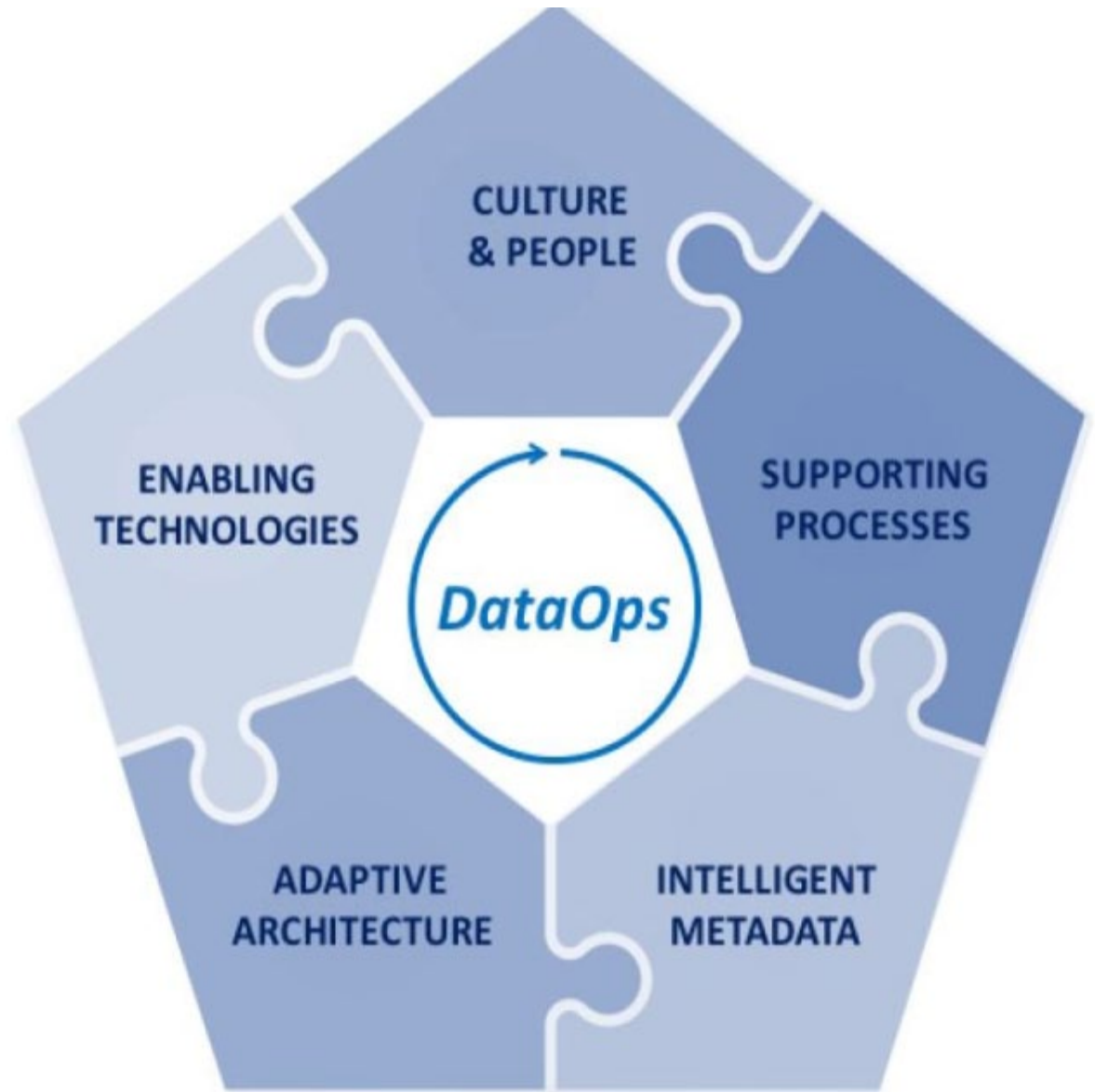
Ask for help when you need it.

Give help to others if you can.

[NCES Data Forum Best Practices Guides](#)

We don't have to go it alone.

We don't have to solve everything ourselves.



Effectively coordinate resources to execute cross-functional workflows

Reduce, Reuse, Recycle

- Adopt and deploy all the federal tools to support standard work. Modify as needed (and *only* if needed).
- Document and then improve our processes. Improving our processes helps us improve our work, *together*.
- Scale processes if we can't scale people.



The AOE/ADS team continues to work towards a strong yet nimble infrastructure that allows the organization to focus on improving processes instead of managing them.

Conversation?