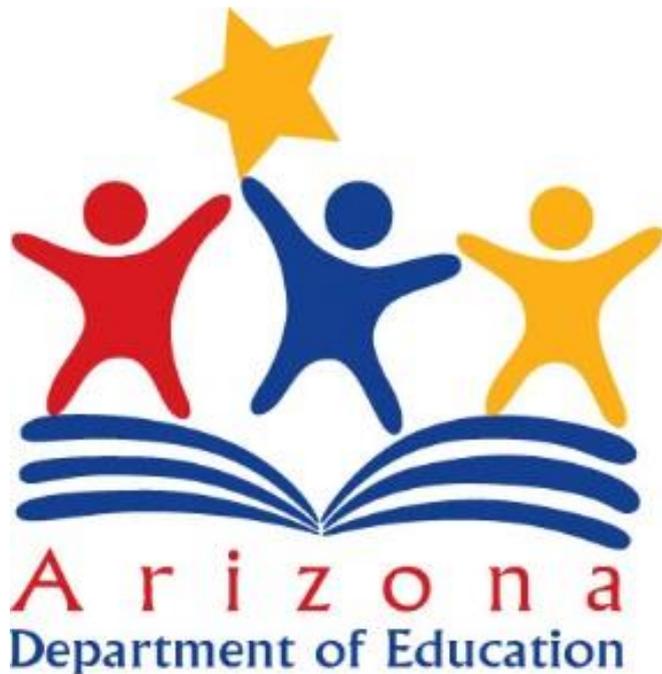


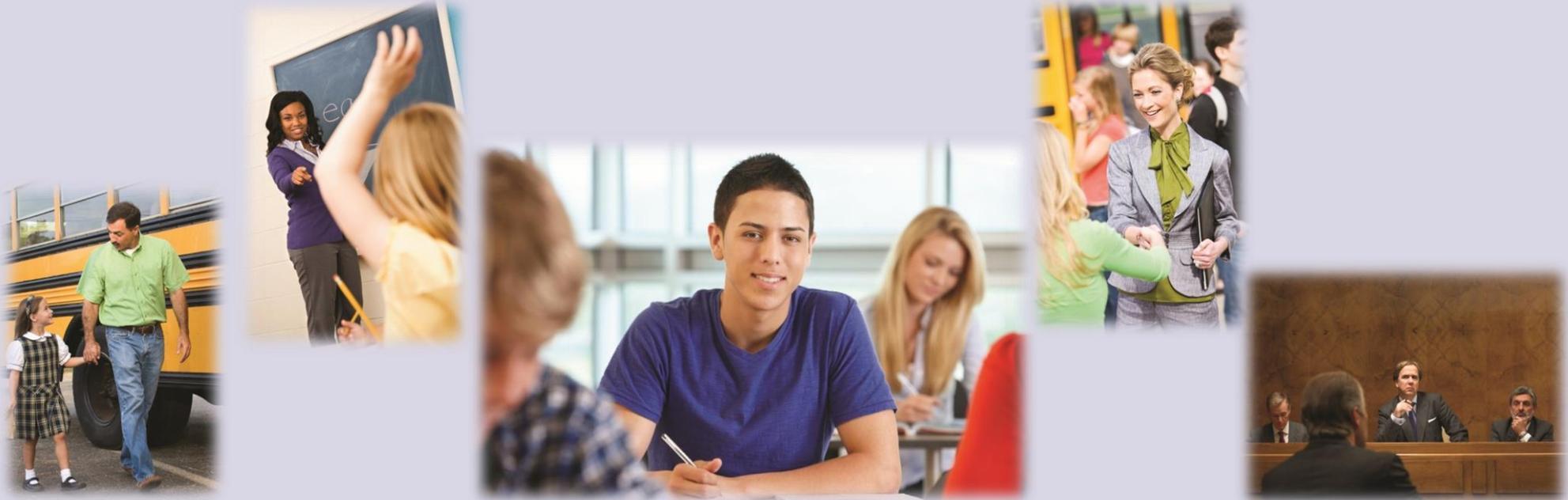
2013 Arizona Education Data Conference

June 24, 2013

Mark T. Masterson
Chief Information Officer

Ed Jung
Data Officer





Moving from Compliance to Action *A conversation with stakeholders in Arizona*

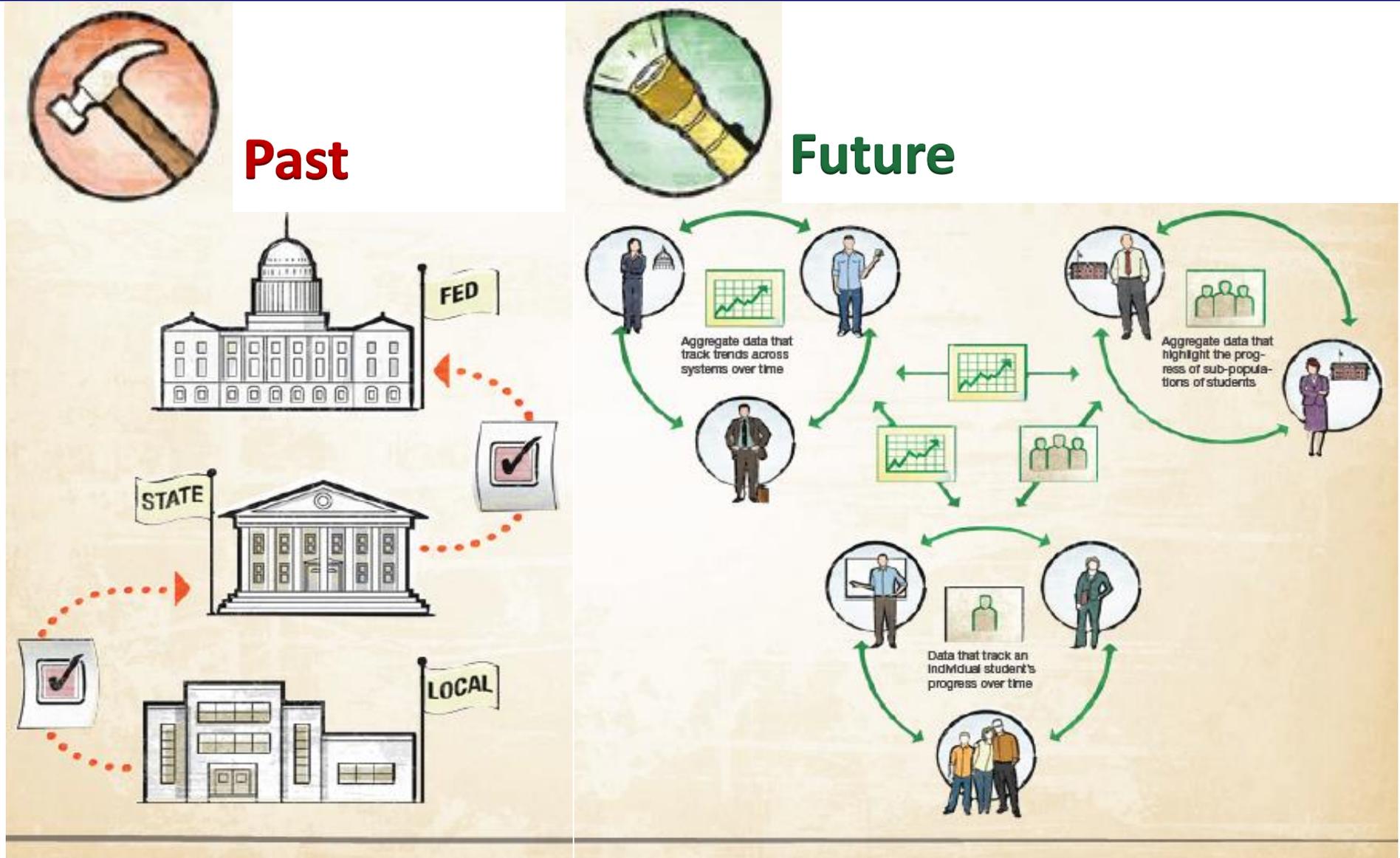
Brennan McMahon, Senior Associate, State Policy Initiatives

June 24, 2013

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[#EdData](#)

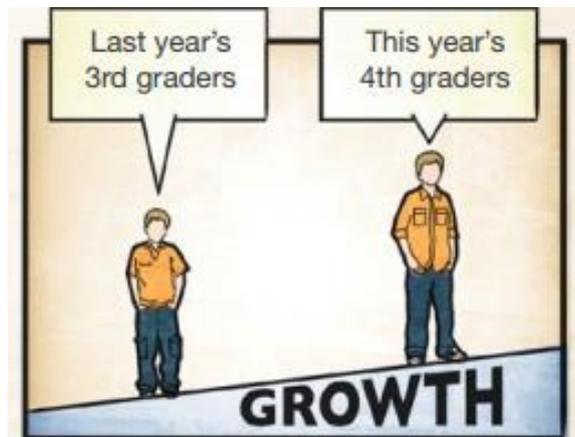
Changing the Culture Around Data Use



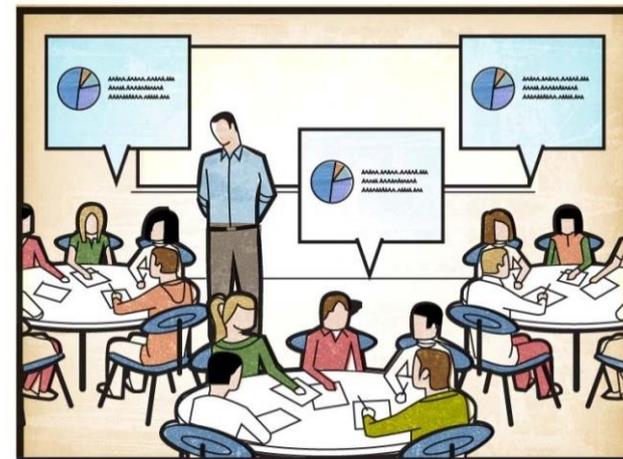
Effective Data Use Means Continuous Improvement



**PAST:
COMPLIANCE**



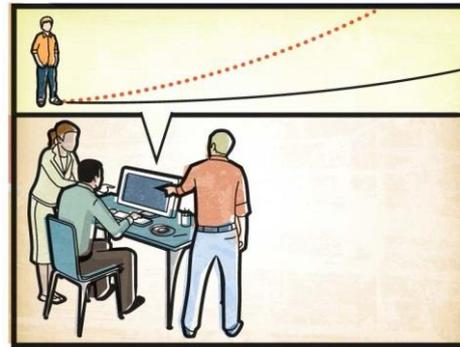
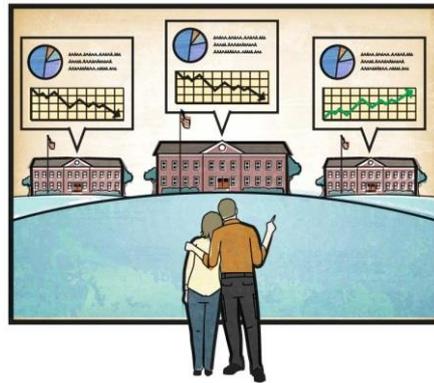
**PRESENT:
ACCOUNTABILITY**



**FUTURE:
CONTINUOUS
IMPROVEMENT**

As a result of states' progress...

Conversations
are changing...



...but there's more
work to be done
to support
effective data
use...

Link data
across systems

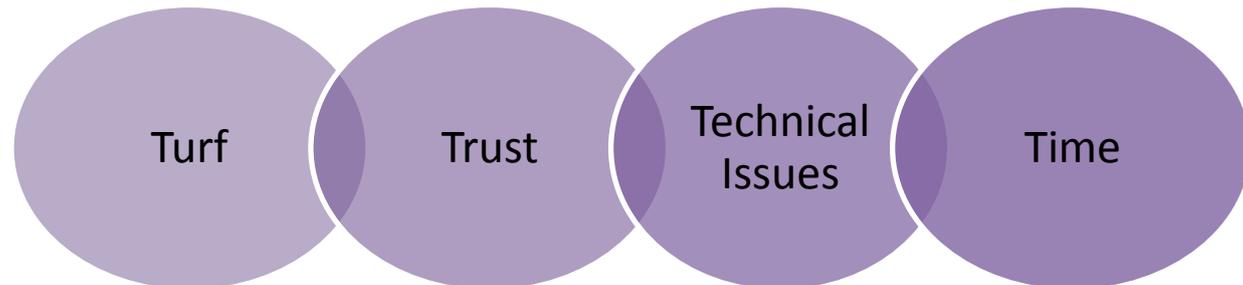


Ensure
appropriate
access



Build capacity
for use

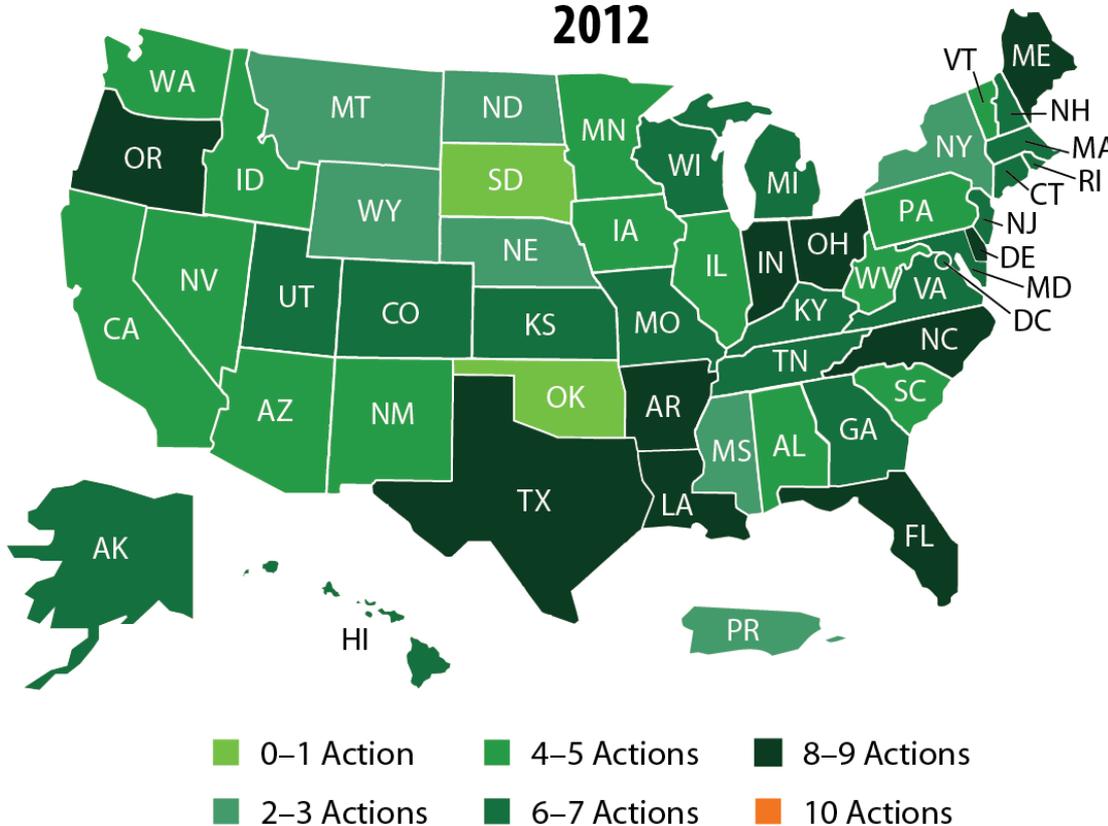
...and that
requires tackling
tough territory.



Changing Culture is *Harder* than Building Systems

No state has all 10 Actions

STATUS OF STATE ACTIONS 2012



10 State Actions

1. Link P-20/W Data Systems (14 states)
2. *Create stable, sustained support* (35)
3. *Develop governance structures* (40)
4. *Build data repositories* (45)
5. Provide timely data access (5)
6. Create individual student progress reports (36)
7. Create longitudinal reports (42)
8. *Develop research agenda* (38)
9. Build educator capacity (6)
10. Raise awareness of available data (26)

Arizona Has the System – Now It's Time to Build a Data Culture

LINKING P–20W Data

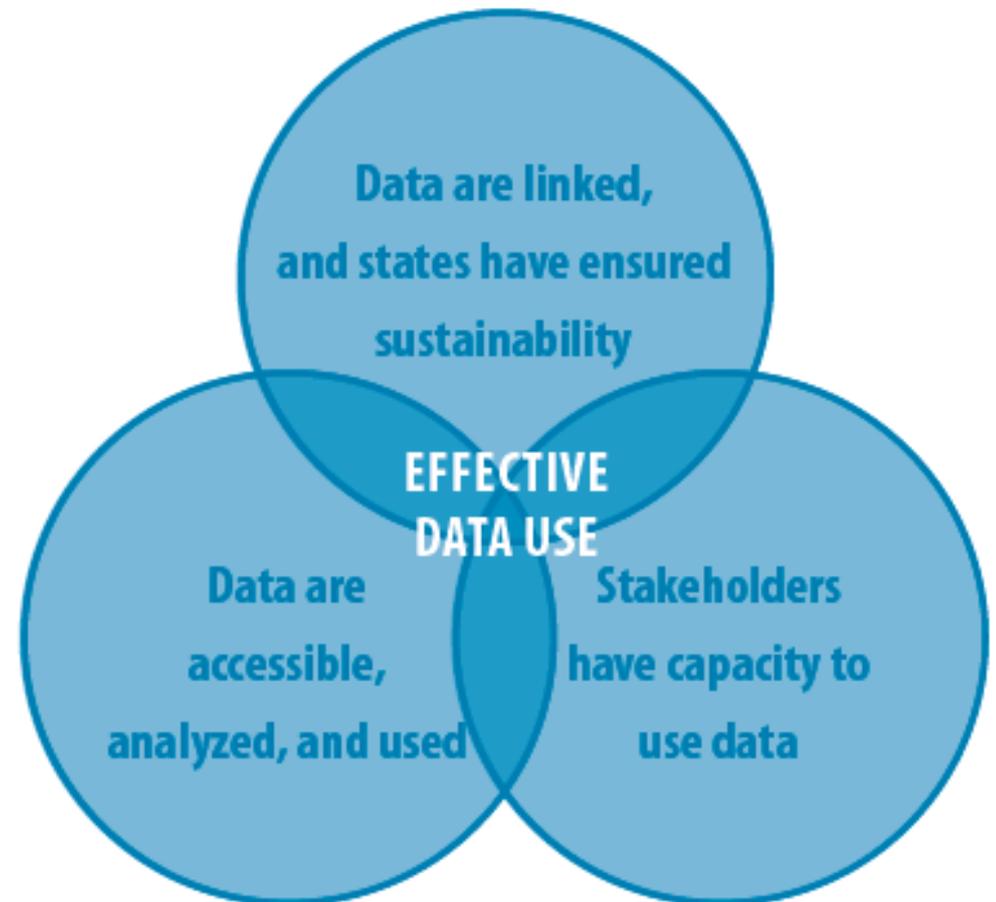
1. Link P–20W data systems
2. Create stable, **sustained** support
3. Develop **governance** structures
4. Build data **repositories**

ENSURING DATA ACCESS

5. Provide timely data **access**
6. Create individual student **progress reports**
7. Create **longitudinal reports**

BUILDING CAPACITY TO USE DATA

8. Develop **research agenda**
9. Build educator **capacity**
10. Raise **awareness** of available data



Broader Policy Context

Increasing Teacher Effectiveness



- Do my state's policies ensure a measurably effective educator workforce?



- With which students am I consistently most effective?

Ensuring College and Career Readiness

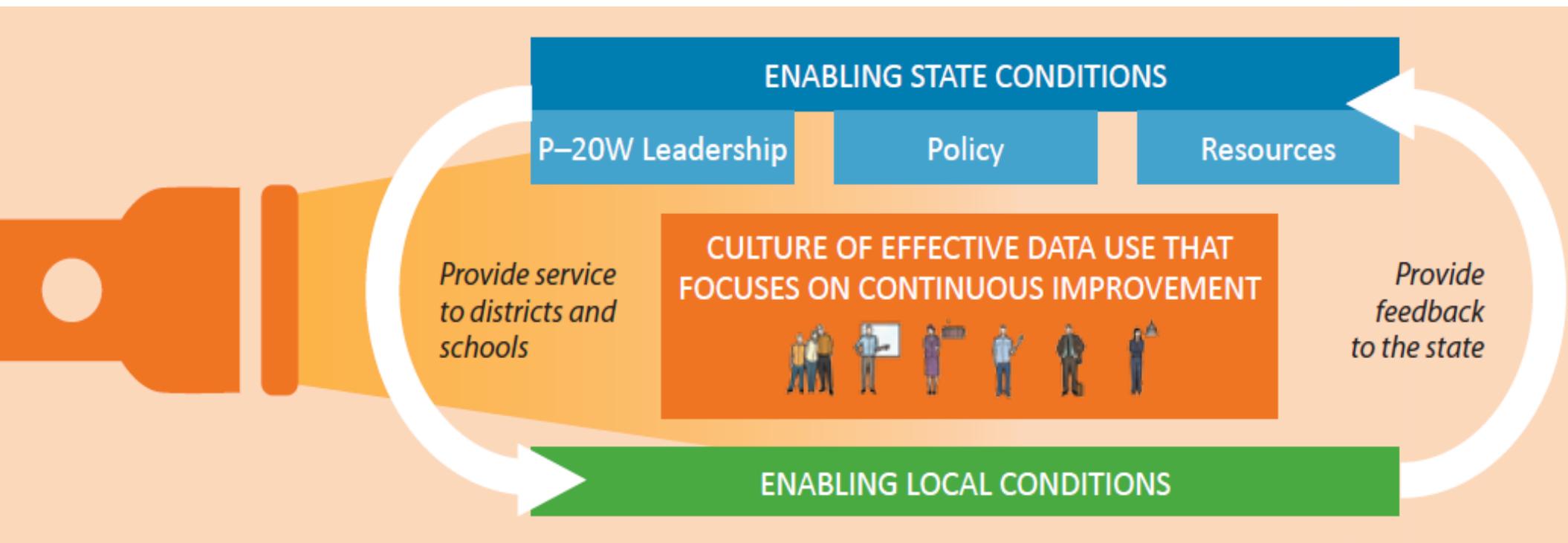


- Are my state's policies and data systems aligned to ensure that expectations in P–12 support student success in postsecondary education?



- Which courses should I take to ensure that I am prepared to take credit-bearing courses in college?

Enabling Conditions to Foster a Culture of Effective Data Use



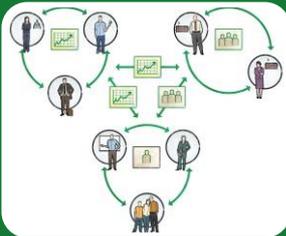
Building Capacity is Key to Success

States have made great progress on building data systems, but we won't be successful until we shift focus to building capacity to ensure effective data use in three critical areas.



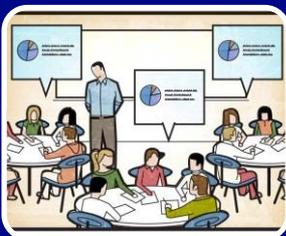
IT and Infrastructure

- States need to continue to invest in the necessary infrastructure and technical issues at every level to ensure that quality data is effectively and efficiently delivered to stakeholders



Roles and Responsibilities

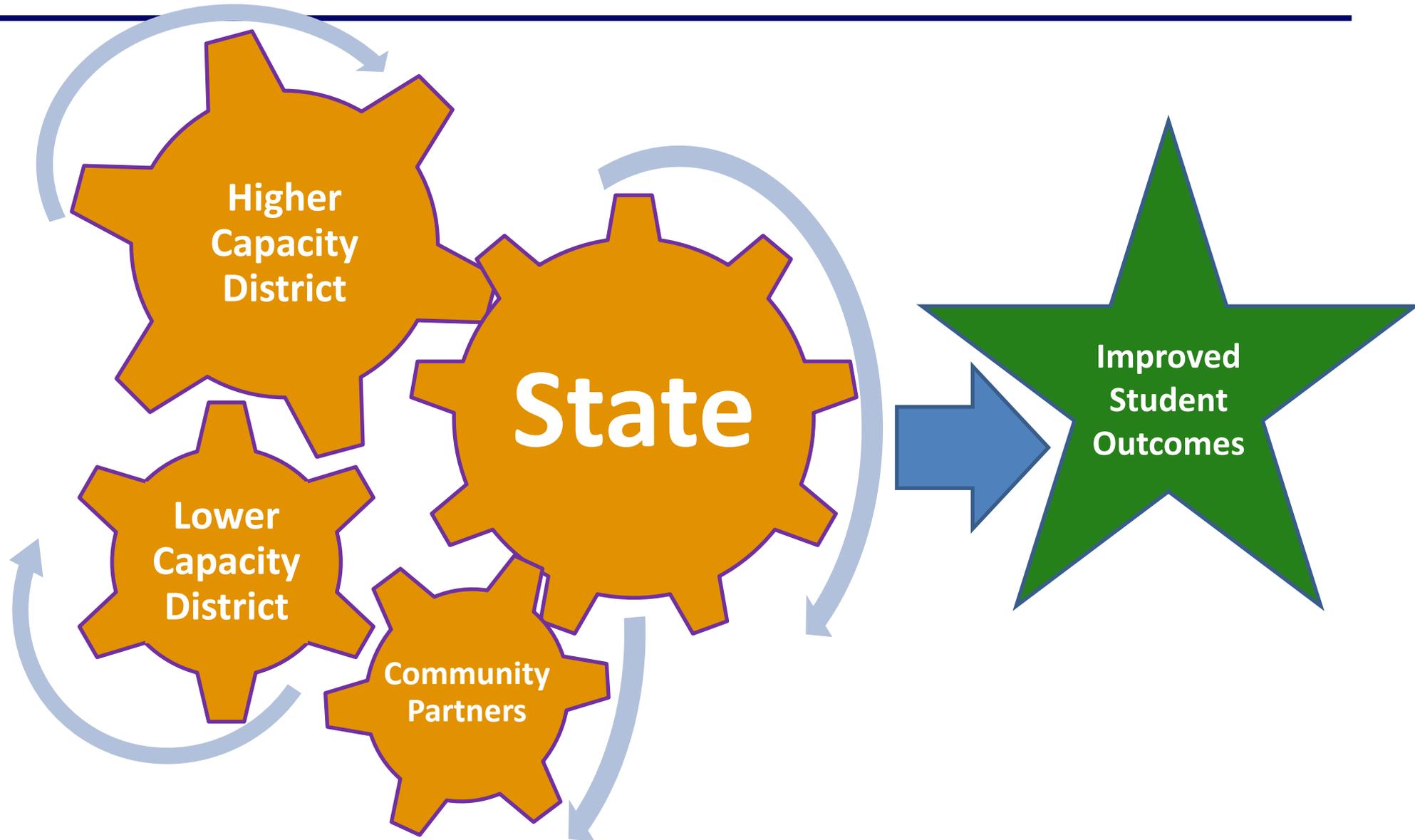
- State agencies, as well as the districts they serve, need to take on collaborative roles that help to build capacity to deliver necessary data to meet education goals



People

- States must work to invest in people by not only delivering the “hard skills” of data use, but also work through people’s data “hang ups” to ensure effective data use

By Working Together, We Get There Faster



@EdDataCampaign

#EdData

The Work is Hard, But You're Not Alone!

Teacher Access in Georgia

Click Links: [TeacherDashboard](#) >> [CourseSectionRoster](#)



27. Mathematics - 27.02 Mathematics/General Middle Grades (6-8) Mathematics/Grade 7 - Section 011 (27.0220070)

CRCT/EOCT/GHSGT/GHSWT/G8WT Legend



Class Roster

Student Name	Grade Level	Race / Ethnicity	ELL	ED	Gifted	Retained	SWD	Achievement
Cary, Clelia E	07	WHITE, NOT OF HISPANIC ORIGIN		Y				11-12 Spring CRCT: LANG (Meets), MATH (Meets), READ (Exceeds), SCIE (Meets), SOC (Meets) 10-11 Summer CRCT: MATH (Meets) 10-11 Spring CRCT: LANG (Exceeds), MATH (Did Not Meet), READ (Meets), SCIE (Exceeds), SOC (Meets) 09-10 Spring CRCT: LANG (Meets), MATH (Did Not Meet), READ (Meets), SCIE (Exceeds), SOC (Did Not Meet) 08-09 Spring CRCT: LANG (Meets), MATH (Meets), READ (Meets), SCIE (Meets), SOC (Meets) 07-08 Spring CRCT: LANG (Meets), MATH (Meets), READ (Exceeds)

The Work is Hard, But You're Not Alone!

Aligned resources

Search by Grade Search by Subject Advanced Search Source: All

Mathematics 5 MCC5.NBT.1 - Recognize that in a multi-digit

[Get Resources](#) [Clear](#)

[Instructional](#) [Teacher Tools](#) [Folders](#) [Assign Resources](#) [My Folders](#) [LMS](#) [Dashboards](#)

Page 1 of 1

	Title	Subject
<input type="checkbox"/>	CCGPS Mathematics Glossary	Mathematics
<input type="checkbox"/>	CCGPS Mathematics Fifth Grade At-a-Glance Map	Mathematics
<input type="checkbox"/>	CCGPS Mathematics Fifth Grade Standards	Mathematics
<input type="checkbox"/>	CCGPS Mathematics Fifth Grade Teacher Guidance	Mathematics
<input type="checkbox"/>	CCGPS Mathematics Fifth Grade Unit 2 Framework: Student Edition	Mathematics
<input type="checkbox"/>	CCGPS Mathematics Fifth Grade Unit 2 Framework: Teacher Edition	Mathematics
<input type="checkbox"/>	CCGPS Mathematics Overview Professional Learning: 5th Grade Session	Mathematics

The Ideal World



Image via: <http://vigilantcitizen.com/moviesandtv/the-occult-roots-of-the-wizard-of-oz/>

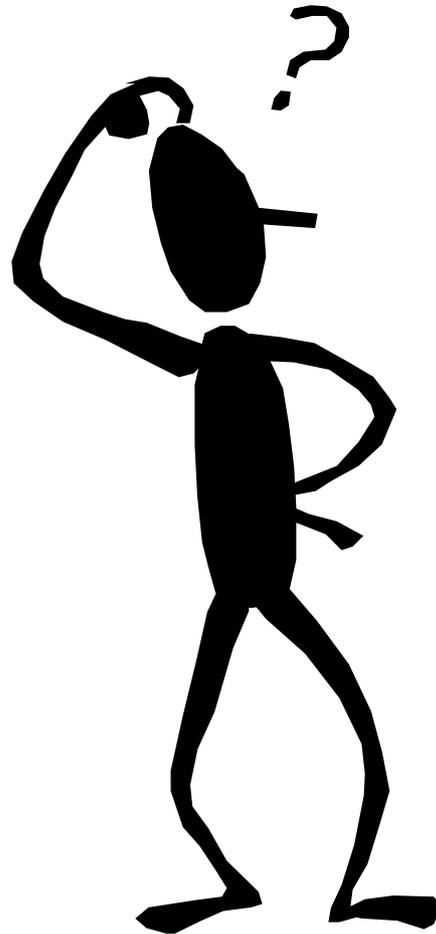
@EdDataCampaign

#EdData

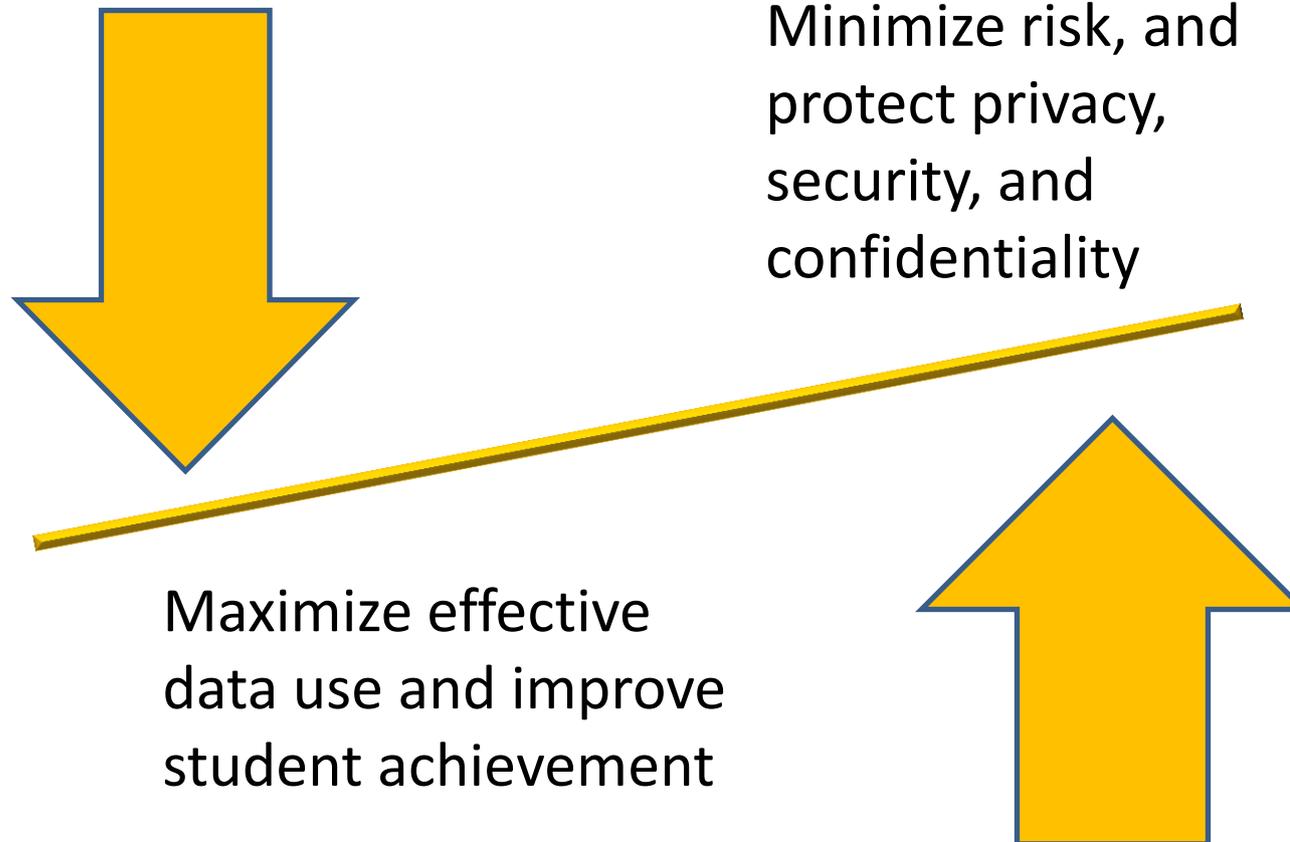
Data Governance

- » Establish the right **structure**
- » Select the right **people**
- » **Empower** the structure with the **authority to make necessary decisions** and implement changes
- » Ensure that the structure is **sustainable**, protecting the continuity of the state's vision

Start with Your Questions!



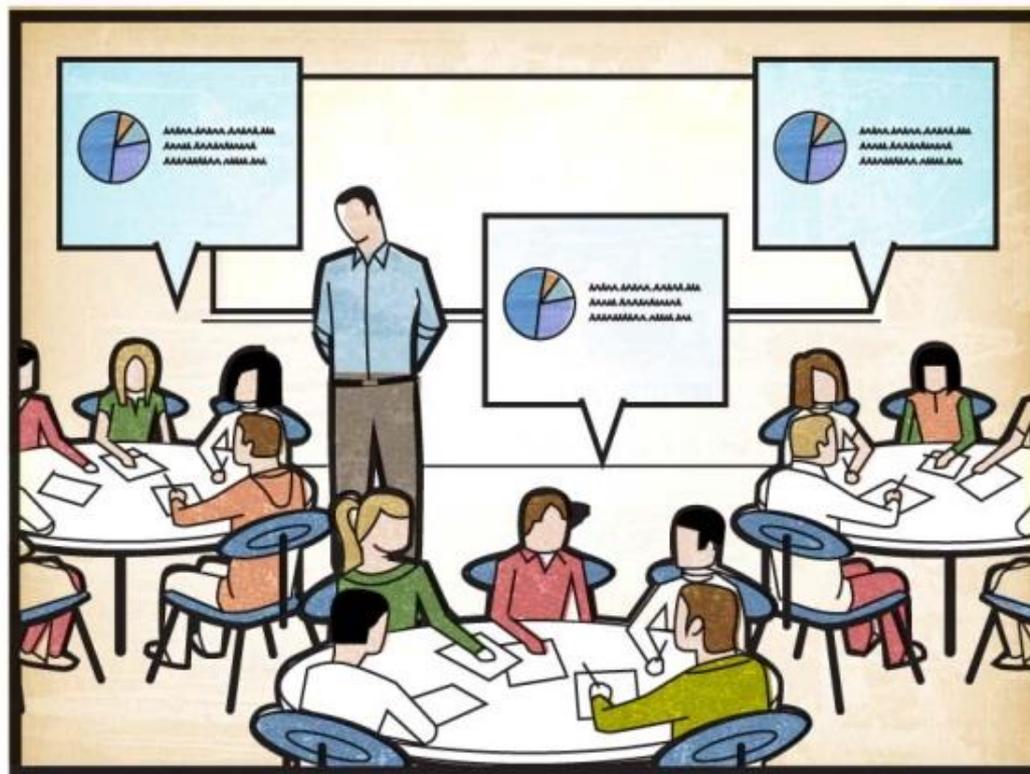
Maximizing Data, Minimizing Risk



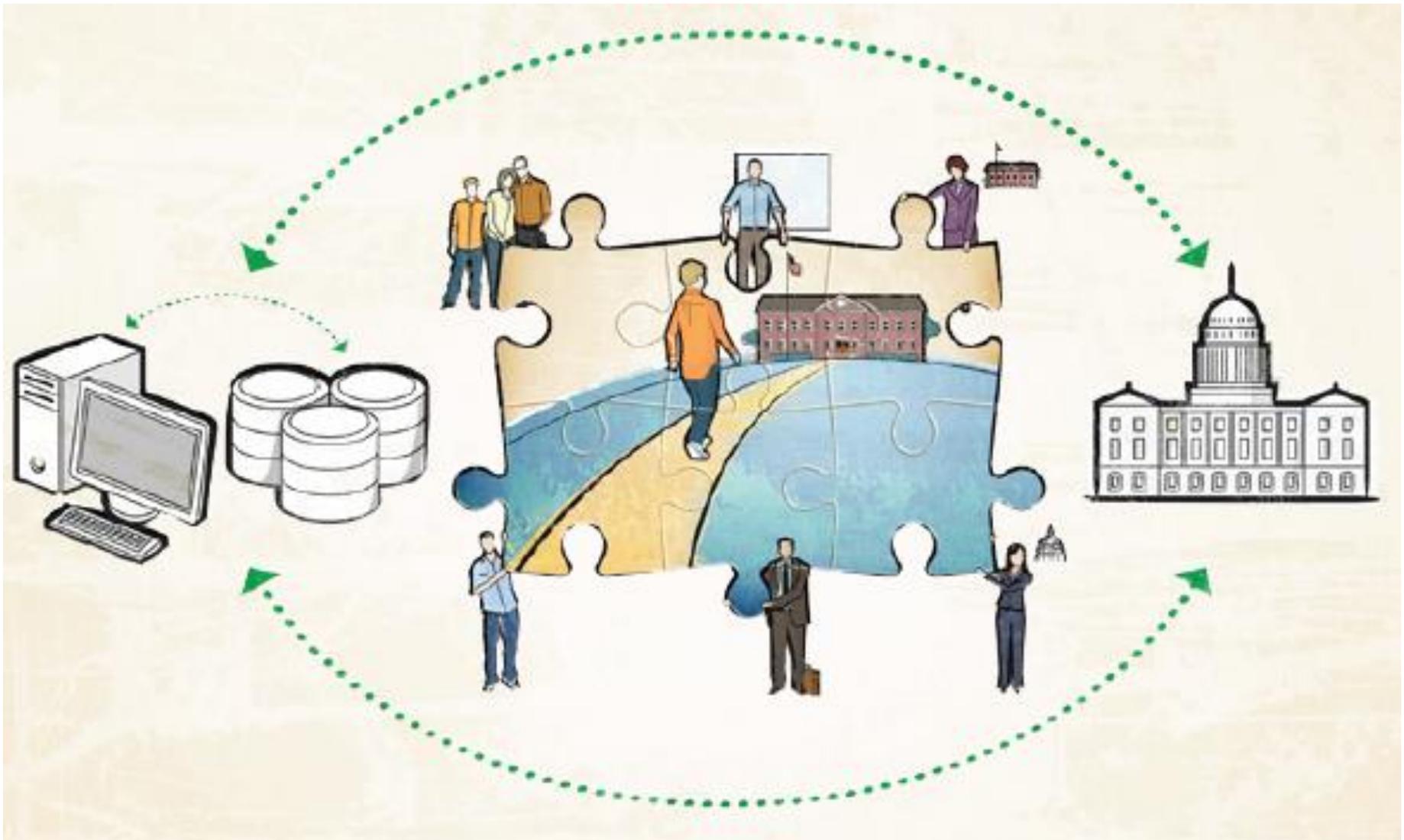
...doing so will also improve data *quality* and increase data management *efficiency*

Success Depends on USE

- » Data success depends on *use*.
- » *Use* depends on access, buy in, time, and skills.



How Will We Know When We Are Successful?



When all education stakeholders demand and use quality data to make decisions

A photograph of a classroom with two large blackboards, fluorescent lights on the ceiling, and rows of desks and chairs. A white text box is overlaid on the lower half of the image.

Ed Jung

DATA GOVERNANCE IN K-12

Overview

- Survey
- What is Data Governance?
- ADE Data Governance Audit
- Arizona's Data Governance Commission
- Checklist – Things to Think About
- Lori's Stories: Real life stories in data governance
- Discussion of Survey Results
- Conclusion

What is Data Governance

Data Governance is "a system of decision rights and accountabilities for information-related processes, executed according to agreed-upon models which describe who can take what actions with what information, and when, under what circumstances, using what methods."

- Data Governance Institute

10 Elements of Data Governance

Processes

- Cross-functional decision-making hierarchy
- Data policies aligned to organizational goals
- Ongoing oversight, change management and quality assurance reviews

People

- Executive sponsorship – organizational commitment and participation
- Data stewards – authority & responsibility to define the meaning, business rules and use
- Field participation – engagement of LEA, regional service centers, and schools
- Data Governance Coordinator

Data and Technology

- Standards – definition, names, code values, format
- Collections – tools, applications and procedures
- Privacy, security, access, and use – policies and applications

Processes

- **Cross-functional decision-making hierarchy**
 - Strategic business initiative, not as in Information Technology function
 - Ownership, management and use of data belong to the entire enterprise
 - All aspects of the business of running an LEA involve data collection, access and use
- **Data policies aligned to organizational goals**
 - Policies and procedures are developed around the collection, accessibility and use of data
 - Must be aligned to district, state and federal mandates
 - Aligned to organizational goals for how data is to be used by school, district and state stakeholders to inform policy and practice and used to improve student outcomes
- **Ongoing oversight, change management and assurance reviews**
 - Ongoing oversight of data standards, access and use, and of technology solutions
 - Procedures to ensure continued alignment with organizational goals
 - Efficient and effective automation tools
 - Continued compliance with organizational policies

People

- **Executive Sponsorship**
 - Must start with policymakers who use data to inform decision making
 - Participate in and require organization-wide participation in data governance activities
 - Must acknowledge and enforce the need for consistent and valid data and the availability of high quality information as a core business function of education
- **Data Stewards**
 - Each data element must be owned
 - Has the authority and responsibility for articulating the meaning of the element, the business rules by which it is collected, and the way it will be used
 - Serve on the Data Steward Committee, which reports to the Data Governance Board
- **Field Participation**
 - Engagement and input from all entities engaged in data collection and use
 - Ensures that internal policies are consistent with external criteria and stand up to review
 - Representatives from a variety of roles on either advisory or governance committees
- **Data Governance Coordinator**
 - Responsible for overseeing data governance activities and metadata management
 - Work on behalf of executive leadership and the data governance board to ensure timely and clear communication between various data governance committees
 - Serves as a conduit between the data stewards and the IT staff

Data and Technology

- **Data Standards**
 - Document the naming convention and definitions of each element collected
 - State education agencies should provide clear documentation of data standards to schools and districts, and they should align their standards to federal standards
- **Collections**
 - Documentation and development of data collection tools and procedures
 - Technology and procedures utilized in data collection activities must ensure that the data
 - Meets the requirements articulated by the data stewards;
 - Is timely, reliable, and valid; and
 - Is efficient and effective.
- **Privacy, access and use**
 - Ensure that data policies are aligned with organizational priorities
 - Guidance about the protection of individual privacy through appropriate access and use policies
 - Address hardware, software and cyber security
 - Policies for protecting privacy when sharing data sets, displaying research results or aggregate statistics online or in reports, or allowing access to raw data by the organization's staff
 - Activities should also be coordinated across schools, districts and the state education agency

ADE Data Governance Audit

1. Designate a Chief Data Officer or Data Governance Director who has the authority and responsibility to coordinate all data and information issues across the agency for all elements collected, such as metadata management, collection, access, reporting and use.
2. Implement a formal data governance committee structure ... to oversee data governance of both SAIS and non-SAIS collections ... who oversee data definition, standards, collection requirements and appropriate usage.
3. Establish task forces to address specific data collection and reporting processes.
4. Create and publish a collections calendar for all ADE data collections. ADE needs to develop a detailed calendar for both SAIS and non-SAIS collections for greater transparency with internal and external stakeholders.
5. Document and establish approval process for non-SAIS collections. ADE should document and establish an approval process for all non-SAIS collections in as much detail as it does for SAIS collections and publish this documentation on its website.
6. Review and update SAIS data standards and collection information. ADE should perform periodic review on a regularly scheduled basis of all metadata for SAIS data elements.
7. Maintain engagement of district representatives and other external stakeholders. Frequent and ongoing engagement of district and school representatives, along with other key external stakeholders in an advisory capacity is essential for all data standards, collection, and reporting processes.
8. Establish a strong enterprise-wide data culture at ADE.
9. Hire a skilled trainer to develop data-related training for internal and external stakeholders.
10. Establish a formal process for responding to data and information requests. ADE needs to establish a process for receiving, tracking and responding to all data requests, and it needs to make that process clear to internal and external stakeholders.

Data Governance Commission

- Established in statute to coordinate with ADE to create and implement the Arizona Education Learning and Accountability System; establish guidelines and policies for pre-K through post-secondary
- Authority to approve all data collections by ADE
- Members include representation from two public districts and two charter schools

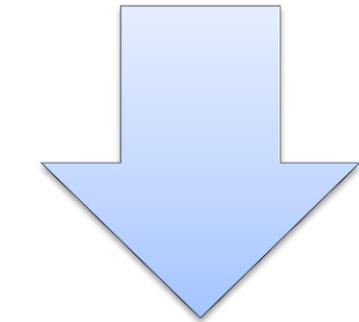
Do you know your members and how to engage them?



LORI'S STORIES: REAL-LIFE STORIES IN DATA GOVERNANCE

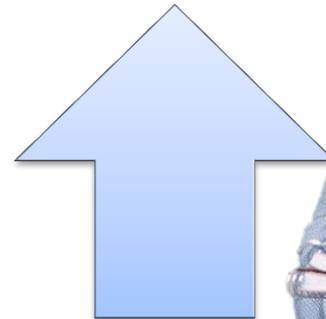
Good Intentioned Counselor

Changes in Student Schedules

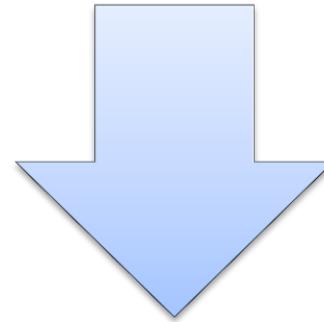


Impact

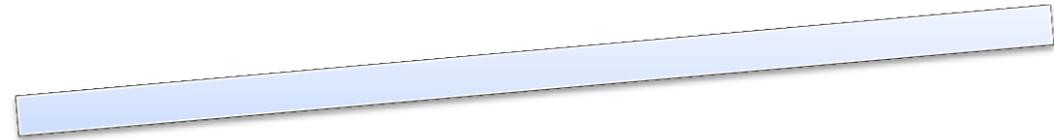
- Data Integrity
- Communication



Happy-Go-Lucky Business Administrator

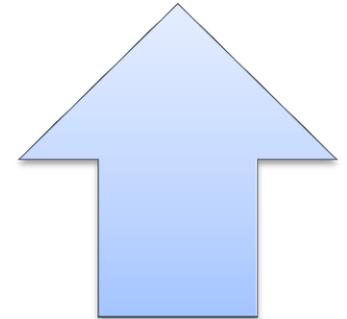


Trustful of staff

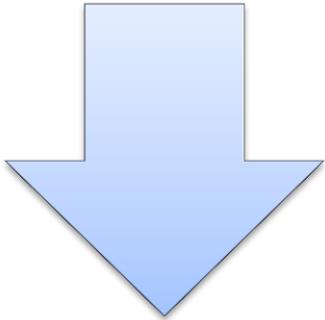


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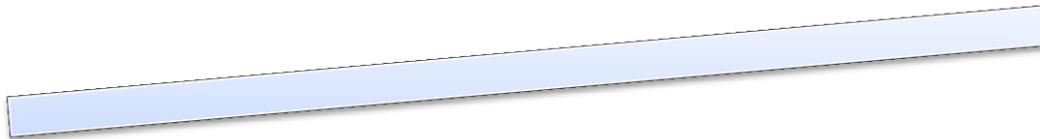
- **Workload of staff**
- **LEA mission for excellence**



Unaware HR Manager

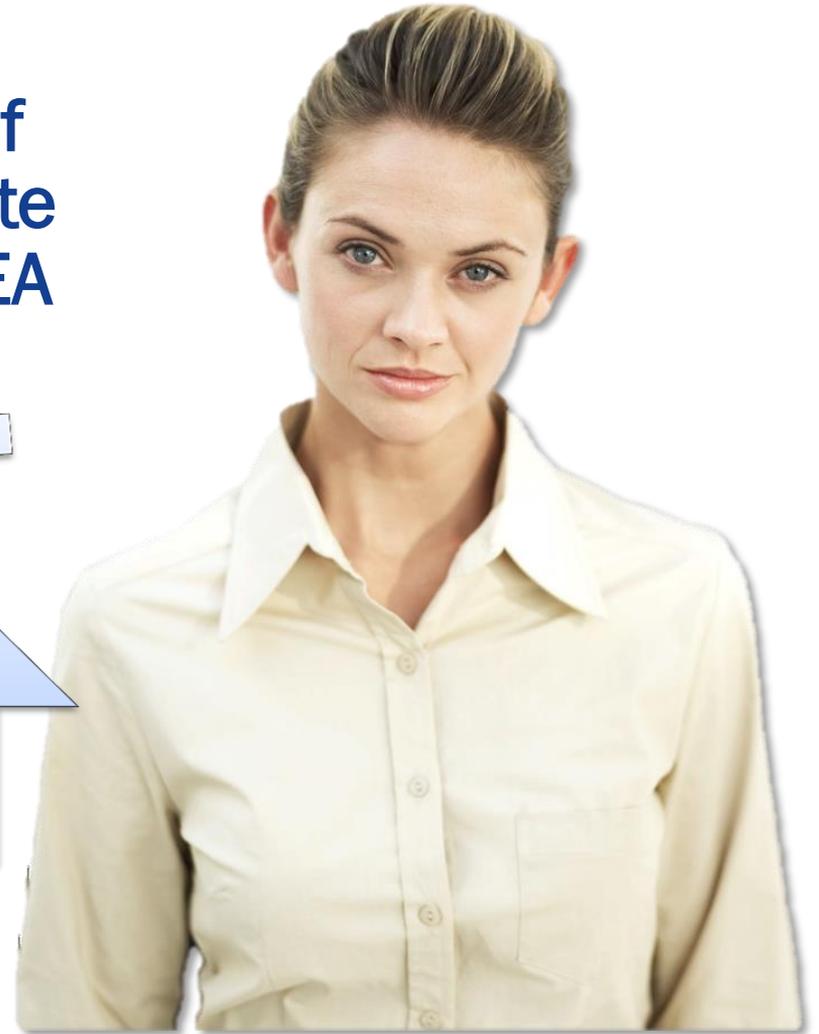
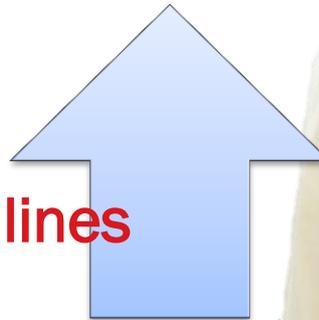


Conscientious of
keeping up-to-date
records within LEA

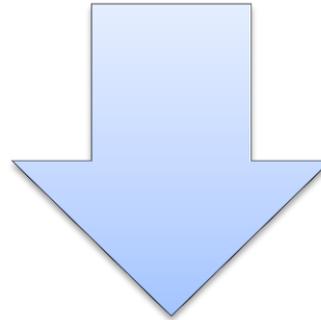


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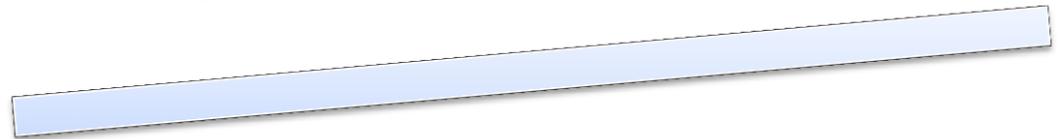
- Restricts timelines/deadlines
- ADE HQT requirements



Un-Empowered LEA Reporting Expert

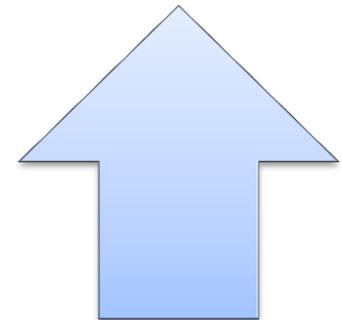


Responsible for
submitting
high-stakes data



Impact

- Time management
- Data integrity
- Spin cycle of errors



Checklist

- Accountability – Do you know who is responsible for ensuring the accuracy of the data as it moves through your systems?
- Ownership of data elements – who owns the data collections and the elements that are collected and how the data is collected and stored?
- Do you have unambiguous policies and processes authorizing the collection, management and dissemination of data?
- Do clear and well communicated timetables and processes for modifying data definitions, collections, delivery, exist?

Survey Results

1. Does your LEA have a formal Data Governance structure in place?
Yes: 48% No: 52%
2. Does your LEA have an established data submission calendar?
Yes: 47% No: 53%
3. What department and roles have access to the data submission calendar?
Provided response: 37% Left blank: 67%
4. Rate the current process at your LEA verification and change management of data.
Average: 3.08 out of 5 Percentage low rating (1 or 2): 28%
5. Rate the integration level of data use in everyday business at your LEA.
Average 2.96 out of 5 Percentage low rating (1 or 2): 28%
6. Rate the current communication between district data staff with executive administration as it pertains to reporting your LEA data.
Average 2.88 out of 5 Percentage low rating (1 or 2): 40%

Conclusion

Data governance:

- Impacts everybody
- Activities taking place at all levels
- Won't be successful without commitment by ADE and LEAs



Ed Jung

DATA QUALITY WORKSHOP

Enrollment Exercise

- Break into teams
- Review packet documents / assign team scribe
- Team collaboration – 10 minutes
- Report out: what did you notice, what generated discussion at the table – 3 minutes per team

Lori's Stories Part 2

Good Intentioned Counselor



Happy-Go-Lucky Business Administrator



Remember me?

Unaware HR Manager



Un-Empowered LEA Reporting Expert



Actions

- Break into teams
- Table discussion (10 minutes):
 - Do these stories happen at your LEA?
 - Why or why not?
 - What actions can be taken independently at your LEA?
 - What blockers are there that require engagement with others (e.g. local school board, ADE, legislature, etc.)
- Report out

Wrap-up

- Data governance toolkit for LEAs
 - Tools, guidelines, techniques
 - Cooperatively developed by LEAs and ADE
- Pilot LEAs
 - Test and implement
 - Statewide roll-out FY15



Ed Jung

MASTER DATA COLLECTIONS CALENDAR

Overview

- Why, what, and how of the Master Data Collections Calendar
- Governance process
- Activity: Data collections pain points
- Wrap up

Current Situation

- LEAs are bombarded with data collection requests
- LEAs report that ADE asks for the same or similar data repeatedly
- Inconsistent specifications, calendar information, data formats and transmission methods

Solution Vision

- Migrate to based data collections that leverage Common Education Data Standards (CEDS)
- Coordinate data collections between ADE program areas to:
 - Eliminate redundant data collections,
 - Improve consistency of data between collections,
 - Provide justification for all data collections,
- LEA participation

Dependencies

- Standards
 - CEDS, Ed-Fi, SIF3
- Engaged LEAs
- Published Processes
 - New and changed collections
 - Authorization of collections

What are we collecting today?

Identifying all data collection points

- Meetings with ADE program areas
- Inventory of all forms and documents on ADE website
- Common Logon Applications
- Review and audit of findings by program area representatives

Governance process

- Master data collections calendar will be published to ADE website
- Authority for all collections
- Process will evolve
- Arizona Data Governance Commission

Results

- 210 Data Collection Points
 - Program Area
 - Name of Data Collection
 - Authority
 - Format of collection (forms, database, application)
 - Timing of collection
 - Method of collection (email, web form, file upload)

Results next steps

- Complete validation
- Publish to ADE website
- Identify attributes collected
- Map and convert to CEDS
- Simplify and eliminate collections

Exercise

Goal : Identify collections that ADE and LEAs will investigate and target for action during FY14

- Identified actions to be shared with LEA community
- Establishment of working groups consisting of responsible ADE program areas and LEAs
- Working groups to determine feasibility and scope of work for each action

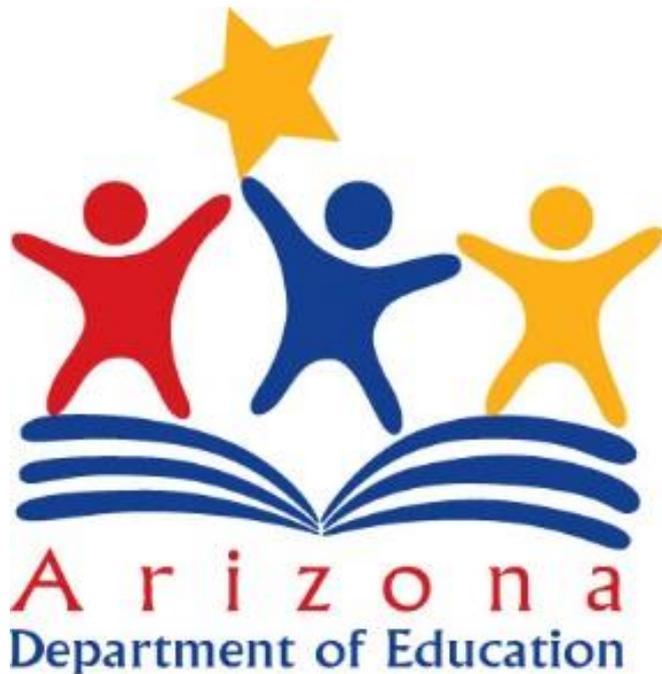
Exercise

- Independently review document and identify areas for group discussion (3 minutes)
- Break into groups by job role and rank top 10 concerns – Be specific (30 minutes)
 - Name difficult/challenging collections,
 - Identify seemingly redundant collections,
- Report by group (15 minutes)

Wrap Up

- Final Report
- Volunteers Request for Data Governance Work Groups

Thank You



Contact

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Lisa.Blyler@AZED.gov

www.azed.gov/data