

Ensuring Appropriate and Clear Insights: Managing Data Requests

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Matt Hastings, Ph.D.

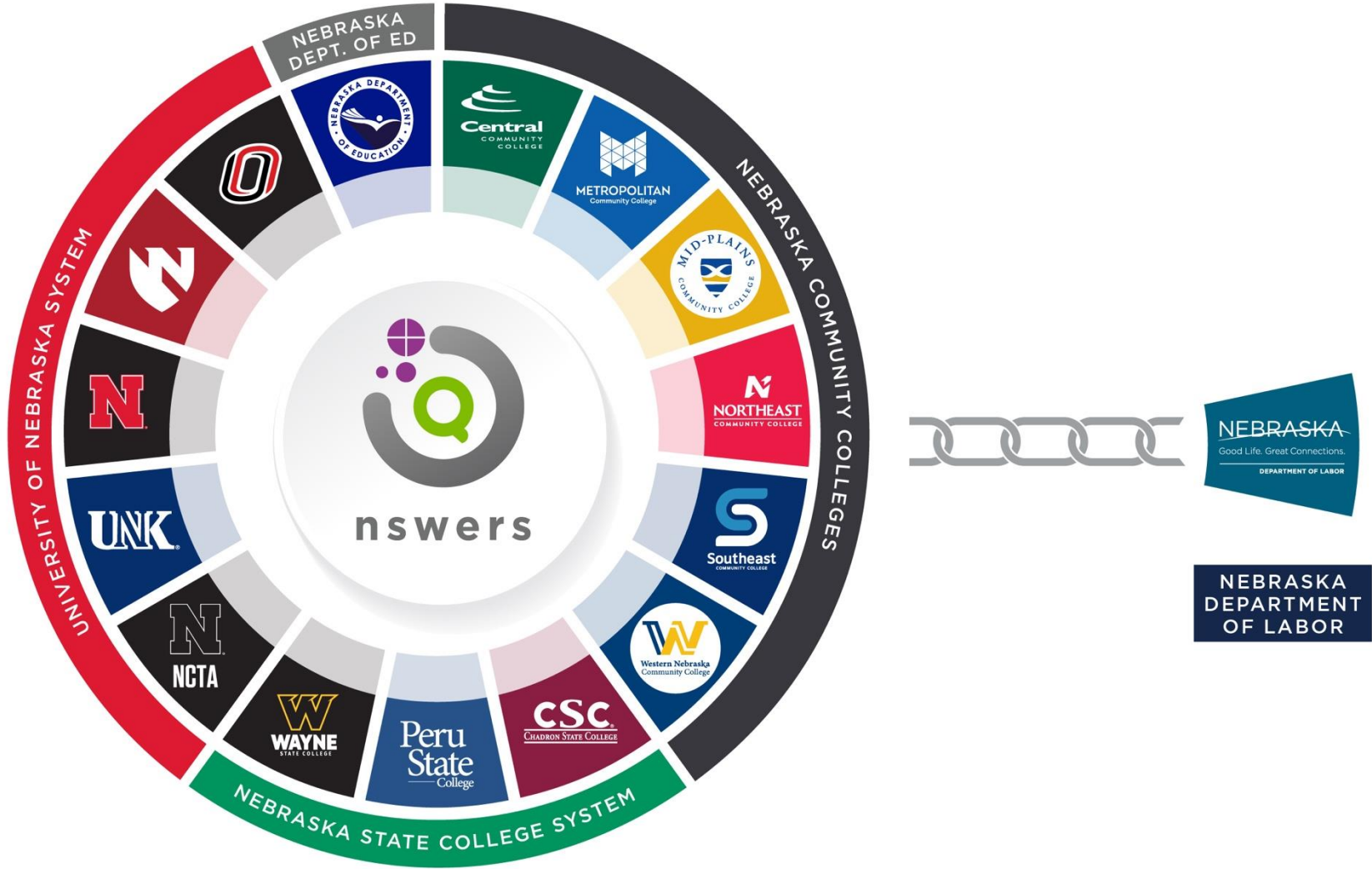
Executive Director
Nebraska Statewide Workforce &
Educational Reporting System

Introducing the Nebraska Statewide Workforce & Educational Reporting System



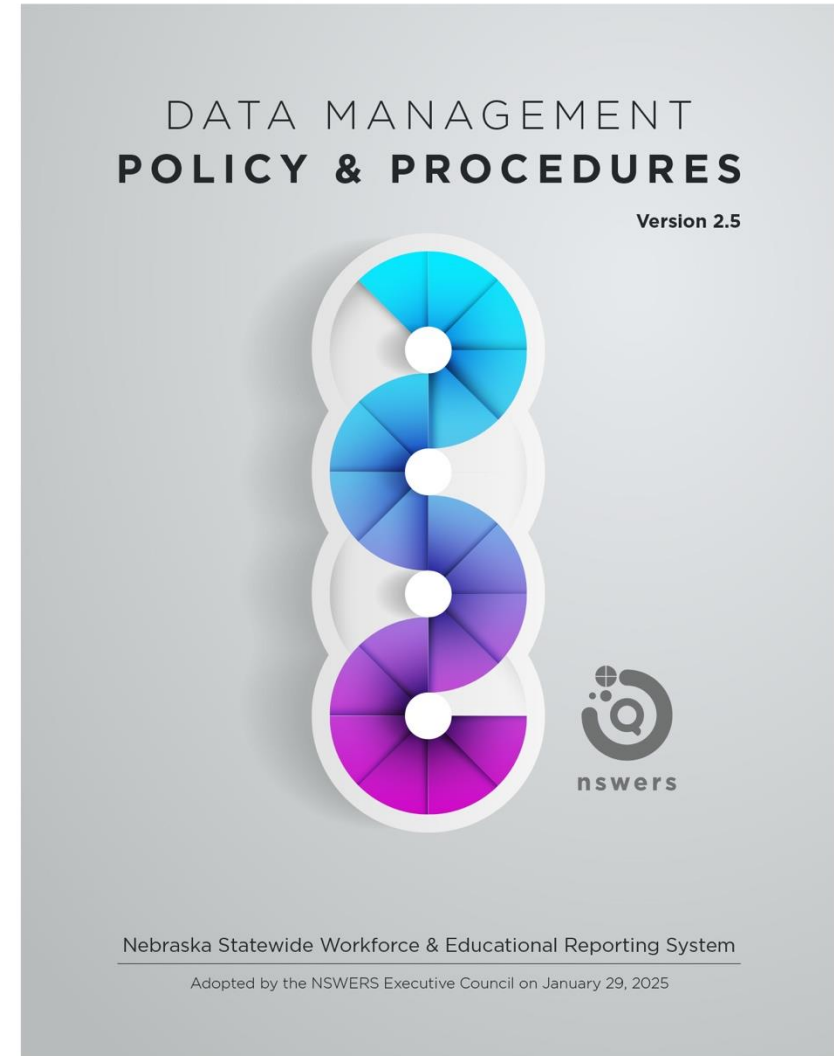
- The most comprehensive education-to-workforce longitudinal information source ever created in Nebraska
- NSWERS creates a data-informed decision culture that supports pathways of learning and earning in the state

Earning & Learning Partnerships



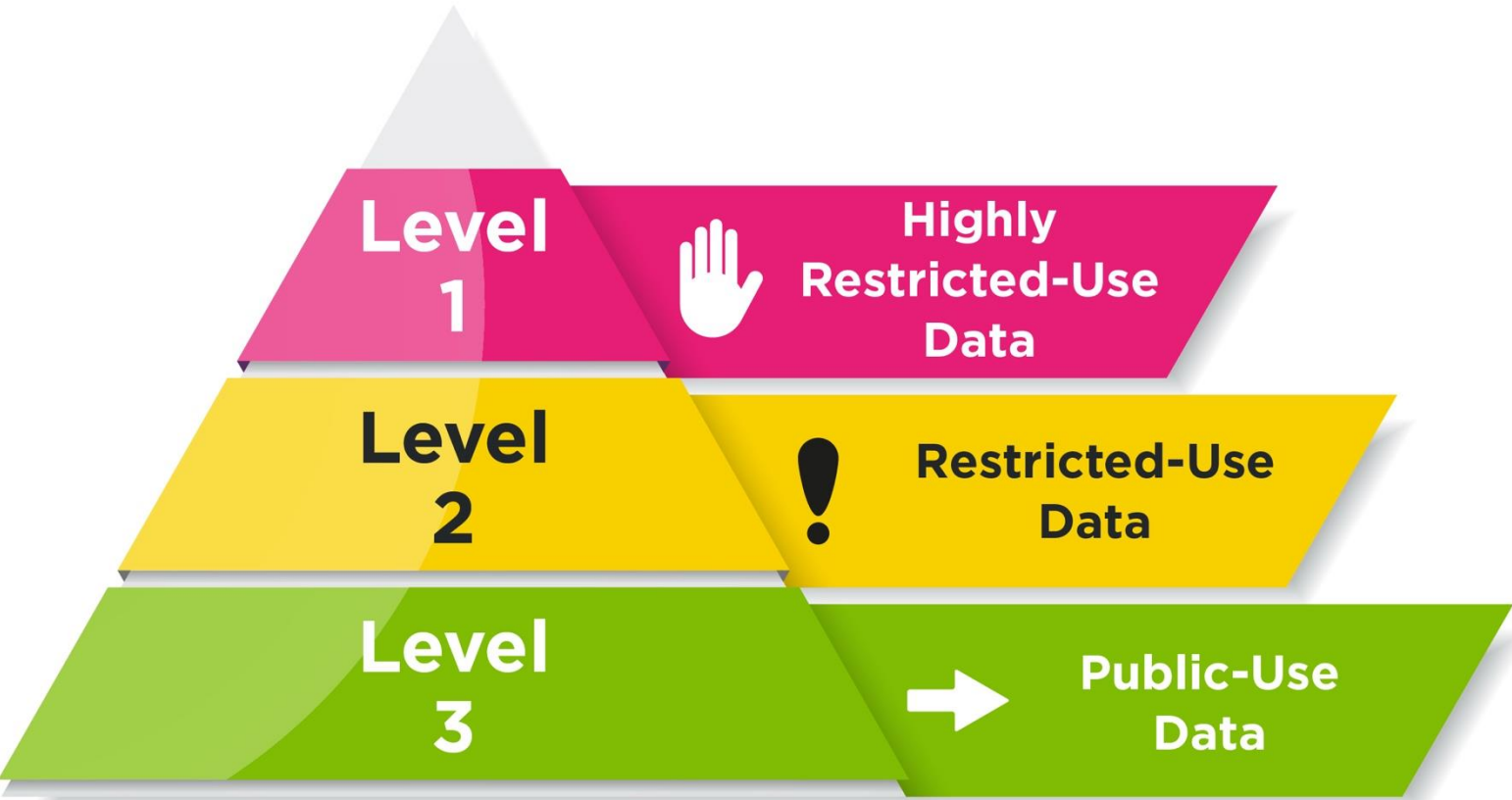
Data Management Policy & Procedures

Defines governance of the NSWERS data system, related privacy and confidentiality considerations, data access of use obligations, data request and disclosure conditions, approaches to data security, and processes to ensure data quality.



NSWERS DATA USE CLASSIFICATIONS

There are three classifications of data stored and used by NSWERS.



Personally Identifiable Information (PII)

Name
Lewis N. Clark

Birth Date
08/03/2004

SSN
555-55-5555



De-Identified Data

#8675309



Aggregate Data

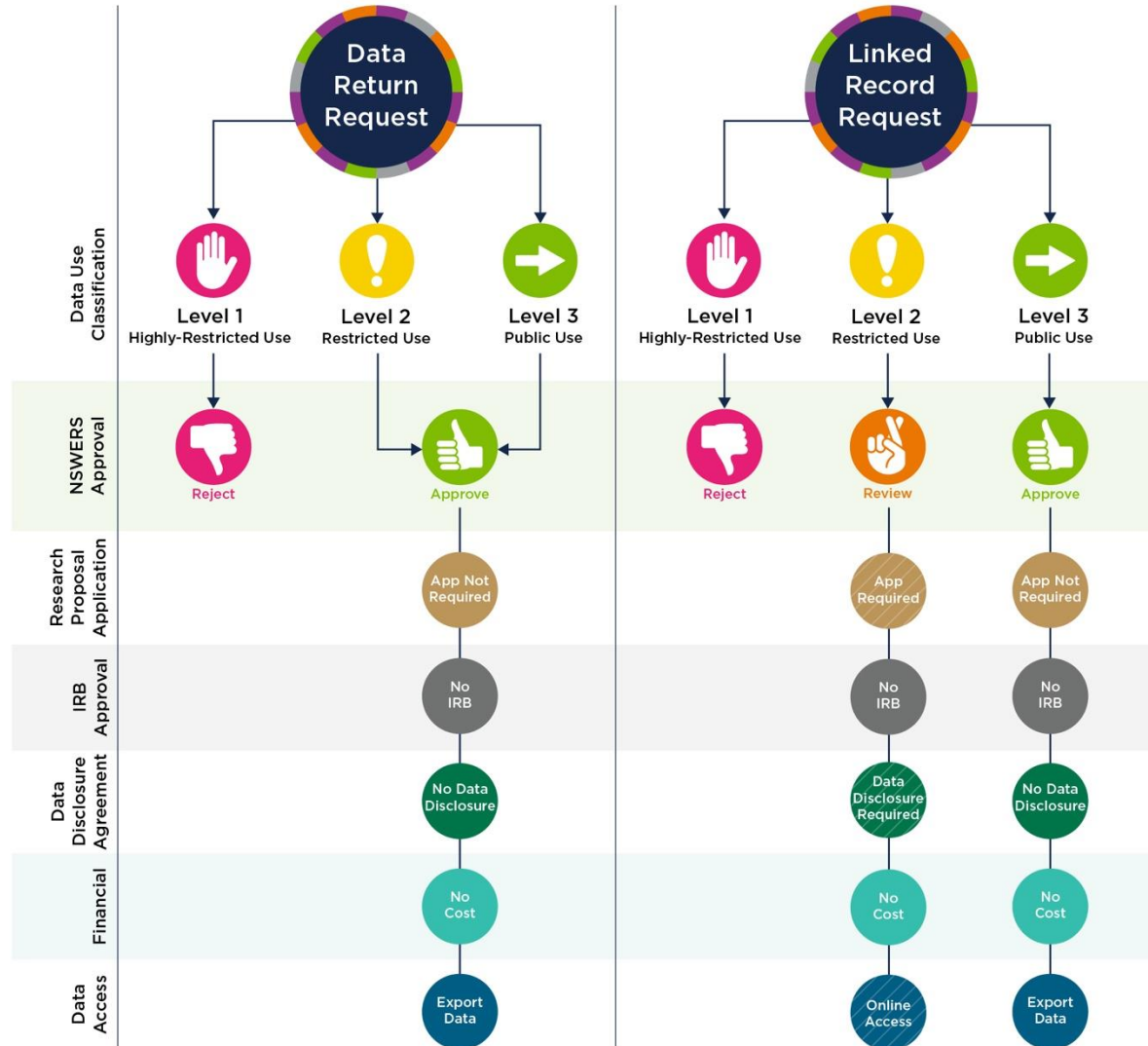


District #53

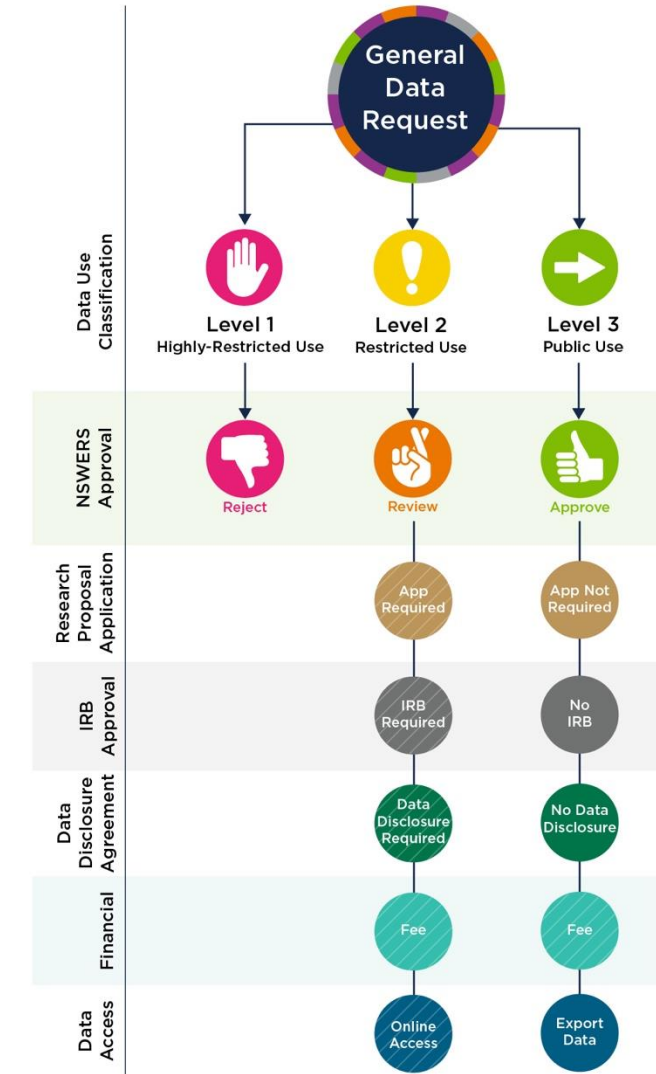
NSWERS DATA REQUEST DECISION FLOWCHARTS



NSWERS PARTNER



EXTERNAL



Data Request Review

- **APPROPRIATENESS:**
Is it within NSWERS' purview?
- **LEVEL:**
Aggregate or individual level?
- **CROSS-SYSTEM:**
Should the request be directed to a single NSWERS partner or multiple?



Eight Outcomes





nswers

DATA VISUALIZATION STYLE GUIDE

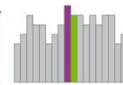
ADDITIONAL TIPS WHEN USING COLOR IN DATA VISUALIZATIONS

Avoid Unnecessary Color Usage

Use color only where appropriate. Color should be added to emphasize a specific finding. Additionally, the importance of gray cannot be understated when placing unimportant data in the background, among other purposes.



The vast and varied rainbow bar colors are not meaningful to the audience.



The neutral gray bars highlight the comparison of the two colored bars.

Be Consistent

Match colors between charts when they refer to the same group or entity. If colors change their meaning between charts, it can make it harder for the audience to understand the chart.



The colors chosen for Males and Females stay consistent across charts.

External Palettes

When plotting data that has established color conventions, such as our partners' and affiliate's official colors, assigning appropriate chart colors can make it easier for the audience to understand visualizations. In this case, custom palettes may be created using the NSWERS brand colors as a base.



nswers

BRAND GUIDE

PRIMARY



CHARCOAL
CMYK: 0, 0, 0, 60
RGB: 0, 0, 40
Hex: #666666
Pantone: 424 C



LIGHT GRAY
CMYK: 0, 0, 0, 40
RGB: 153, 153, 153
Hex: #999999
Pantone: 422 C



ELECTRIC PURPLE
CMYK: 0, 74, 5, 42
RGB: 148, 59, 145
Hex: #94278F
Pantone: 513 C



EGGPLANT
CMYK: 0, 59, 1, 67
RGB: 85, 35, 84
Hex: #552354
Pantone: 525 C



YELLOW GREEN
CMYK: 30, 0, 68, 22
RGB: 140, 199, 63
Hex: #9CC73F
Pantone: 376 C

SECONDARY



PRINCETON ORANGE
CMYK: 0, 49, 85, 7
RGB: 237, 121, 35
Hex: #ED7923
Pantone: 786 C



COPPER COFFEE
CMYK: 0, 21, 51, 26
RGB: 189, 149, 92
Hex: #BD955C
Pantone: 465 C



STONEBRIAR
CMYK: 0, 2, 8, 16
RGB: 214, 209, 196
Hex: #D6D1C4
Pantone: 7527 C



INDIGO DYE
CMYK: 81, 45, 0, 71
RGB: 14, 41, 74
Hex: #0E294A
Pantone: 2767 C



DARK UMBER
CMYK: 15, 5, 0, 84
RGB: 35, 39, 41
Hex: #232729
Pantone: 426 C

TERTIARY



SOFT MAGENTA
CMYK: 0, 89, 49, 9
RGB: 233, 25, 118
Hex: #E91976
Pantone: 215 C



SUNNY YELLOW
CMYK: 0, 17, 98, 1
RGB: 253, 209, 6
Hex: #FDD106
Pantone: 109 C



DARK SPRING GREEN
CMYK: 100, 0, 36, 54
RGB: 0, 118, 75
Hex: #00764B
Pantone: 3415 C



SEA GREEN
CMYK: 73, 0, 9, 25
RGB: 51, 190, 173
Hex: #33B8AD
Pantone: 7465 C



BLUE SAPPHIRE
CMYK: 100, 29, 0, 48
RGB: 0, 95, 133
Hex: #005F85
Pantone: 7469 C

Style Guides

- *Data Visualization Style Guide* outlines chart structure, chart types, and chart implementation
- *Brand Guide* outlines color, logo use, fonts/type, icons, and patterns

NSWERS Product Spectrum



> insights

> insights +

> insights						> insights +					
Instant Insights	Stories	Briefs	Literature Review	Dashboards	Special Reports	Explore	Describe	Explain	Predict	Forecast	Simulate
Timely, eye-catching visuals of a single data element.	Visuals and narrative that tell a story about one topic's impact on one or more outcome.	Publications that summarize one data subject in text and graphics.	Written summaries of existing research on one outcome.	Interactive data visualizations that display key variables of one outcome.	Long-form report on one topic across two or more outcomes.	Examine what is known and the feasibility of additional research.	Illustrate the characteristics of a population, situation, or phenomenon.	Detail the reasons for a phenomenon occurring.	Identify expected outcomes, consequences, costs, or effects.	Project expected outcomes into the future.	Model real-world situations to show the effect of changing conditions.
Public access						Secure access					

insights

insights.nswers.org

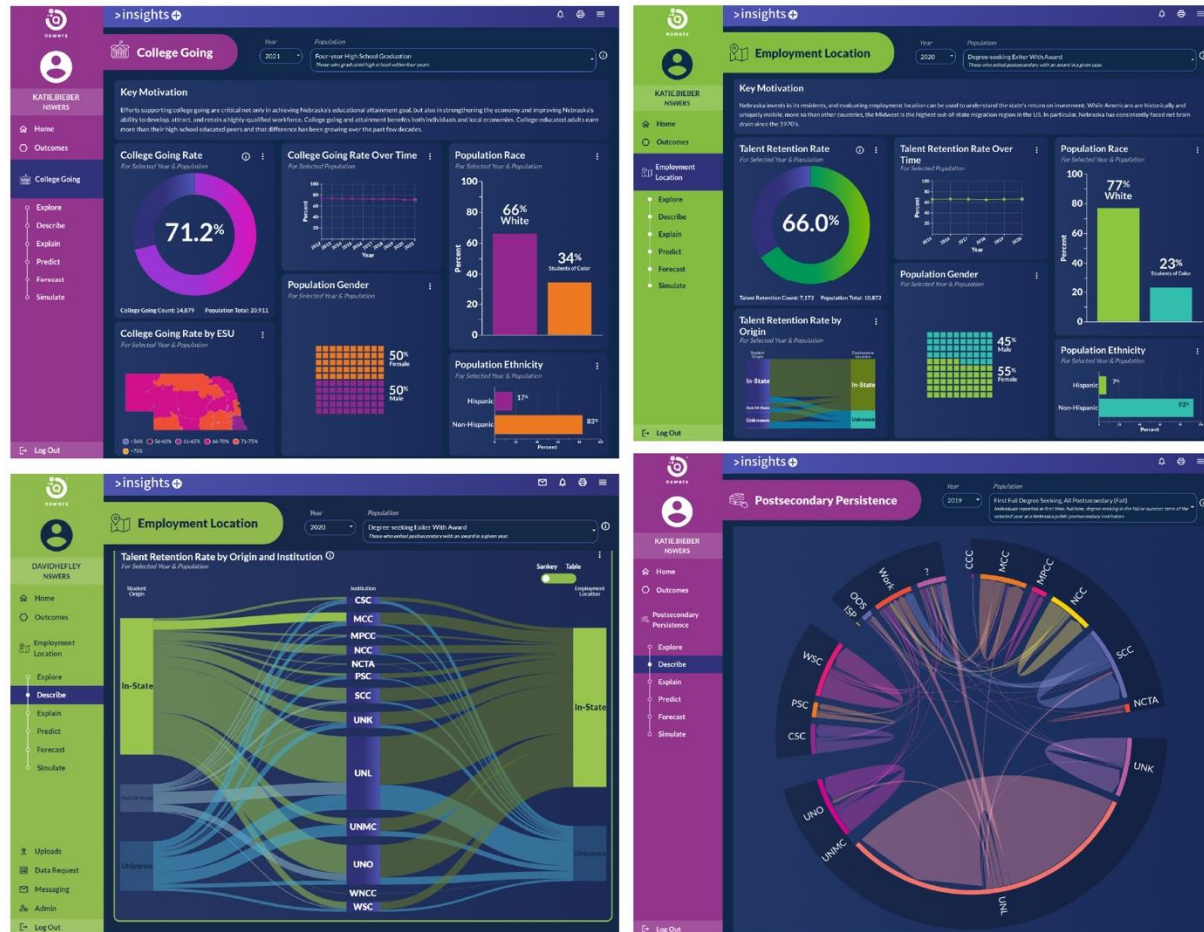
- Web-based public information tool
- Supports all Nebraskans in their learning and earning decisions

> insights



> insights+

insights+



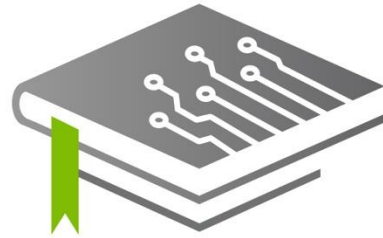
- State-of-the-art secure web platform where NSWERS' partners conduct business with NSWERS staff
- Access to cutting-edge data and research products across eight outcomes and six stages
- Supports decision makers in the education and workforce sectors



Population Creator

- Create and analyze custom student populations from one's own institution
- Gives users flexibility, autonomy, and reduces the number of data requests that are submitted

A screenshot of the 'insights+' web application interface. The top navigation bar is purple with the 'insights+' logo and user profile 'KATIE.BIEBER NSWERS'. A left sidebar contains navigation links: Home, Outcomes, Populations (active), Summarize, Query, Analyze, Uploads, Messaging, Files, Admin, and Log Out. The main content area is titled 'Select Filters' and features two horizontal sliders: 'ACT Comp Score' (range 1-36) and 'Mean High School GPA' (range 0-4). Each slider has a 'Remove Filter' button. On the right, a 'Base Population' section shows 'Outcome' as 'High School Graduation' and 'Selected Base Population' as 'Expected On Time Graduation'. Below this, 'Applied Filters' lists 'ACT Comp Score' (13 - 24) and 'Mean High School GPA' (1.3 - 2.7), each with a red 'X' to remove it. A '+ Add Filters' button is at the bottom right, with a dropdown menu showing a search bar and a list of filters. The 'RISK FACTORS' section is highlighted in green and includes: High Ability Learner Participant, Highly Mobile Indicator, Homeless Youth Indicator, Immigrant Indicator, Redesignated As English Fluent, and Single Parent. The footer contains contact information for the Nebraska Statewide Workforce & Educational Reporting System (NSWERS), version 1.14.2, and a user guide link.



NSWERS
ACADEMY

The **NSWERS Academy** is a training series **that equips decision makers with the skills to use the insights+ platform**, guiding educational and workforce programs at their institutions.

Practical Skills

Become **well-versed in the insights+ tool** and feel confident **showing team members** how to use it in their work

Product Feedback

Provide **constructive feedback** on how NSWERS and insights+ can better **meet the needs of their institutions**

Sustainable Solutions

Develop **long-term plan for integrating insights+** into future decision making at participants' institution

A screenshot of a 'Feedback' form. The form has a title 'Feedback' and a close button (X). Below the title is a message: 'Use this form to provide quick feedback on issues you encounter with this site.' There is a dropdown menu labeled 'Suspected Issue'. Below that is a large text area with the placeholder 'Enter Comments...'. At the bottom, there is a checkbox labeled 'Automatically include a screenshot of the current view with this form. You can send custom screenshots via [Messages](#).' Below the checkbox are two buttons: 'Submit' (green) and 'Clear Form' (grey).

Feedback ×

Use this form to provide quick feedback on issues you encounter with this site.

Suspected Issue ▾

Enter Comments...

☐ Automatically include a screenshot of the current view with this form. You can send custom screenshots via [Messages](#).

Submit

Clear Form

Feedback

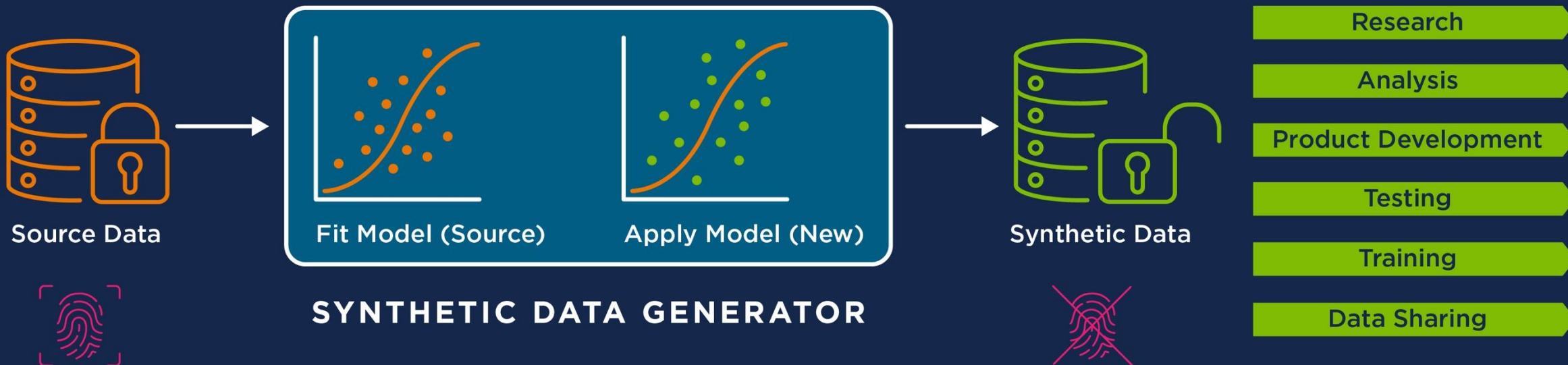
- Feedback form accessible on every page on insights+
- Partners and participants provide valuable feedback on the products to enhance user-friendliness



SYNTHETIC DATA INITIATIVE



Privacy Preserving Procedure

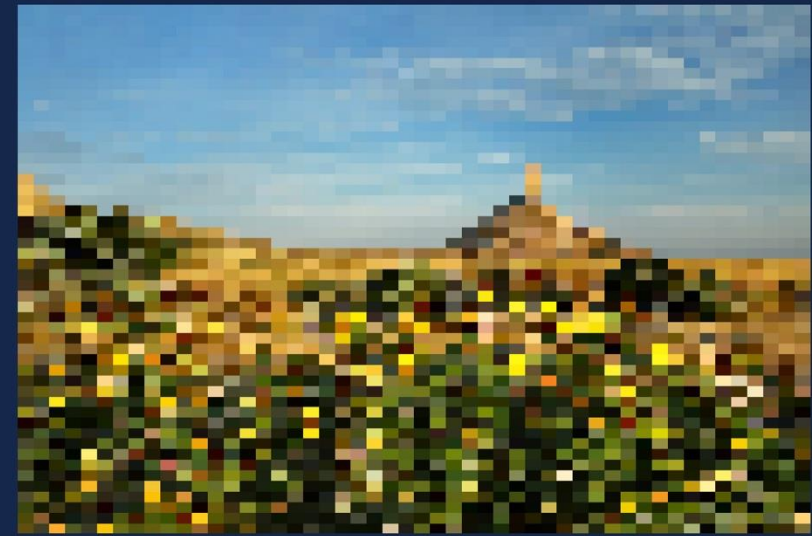
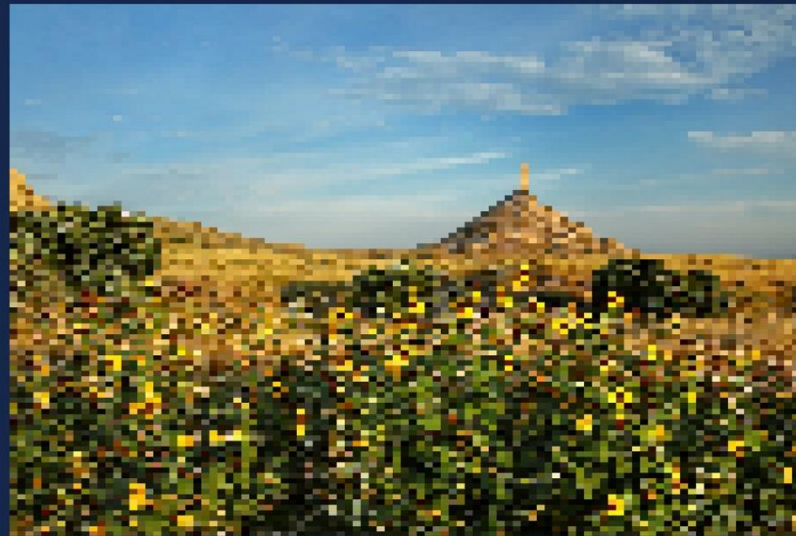




SYNTHETIC DATA INITIATIVE



The Privacy-Utility Tradeoff



PRIVACY

UTILITY

Ensuring Appropriate Data Interpretation

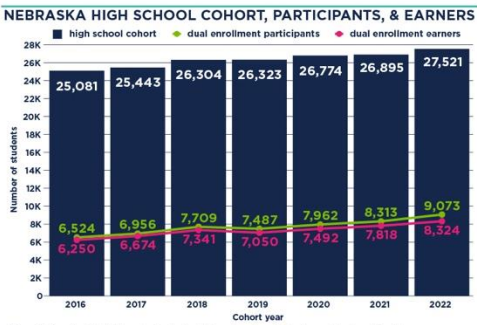


Figure 2: Counts of the high school cohort, dual enrollment participants, and dual enrollment earners.

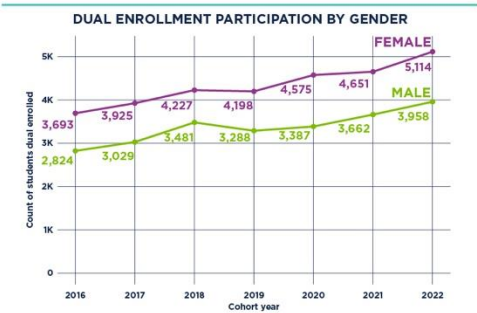


Figure 23: Counts of dual enrollment participation by gender over time.

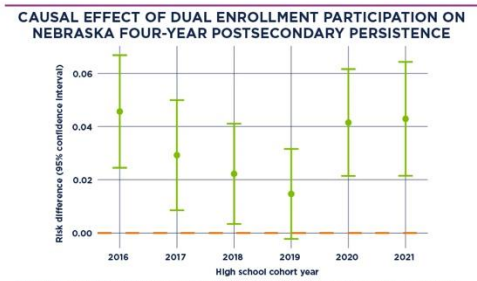


Figure 31: Causal effect of dual enrollment participation on Nebraska four-year postsecondary persistence over time. The data represents the difference in probability of the outcome between participants and non-participants. Positive values mean that participants have a higher probability of the outcome. If the 95% confidence interval crosses 0 percent, this indicates that there is not statistical support that the causal effect of dual enrollment is different from 0.

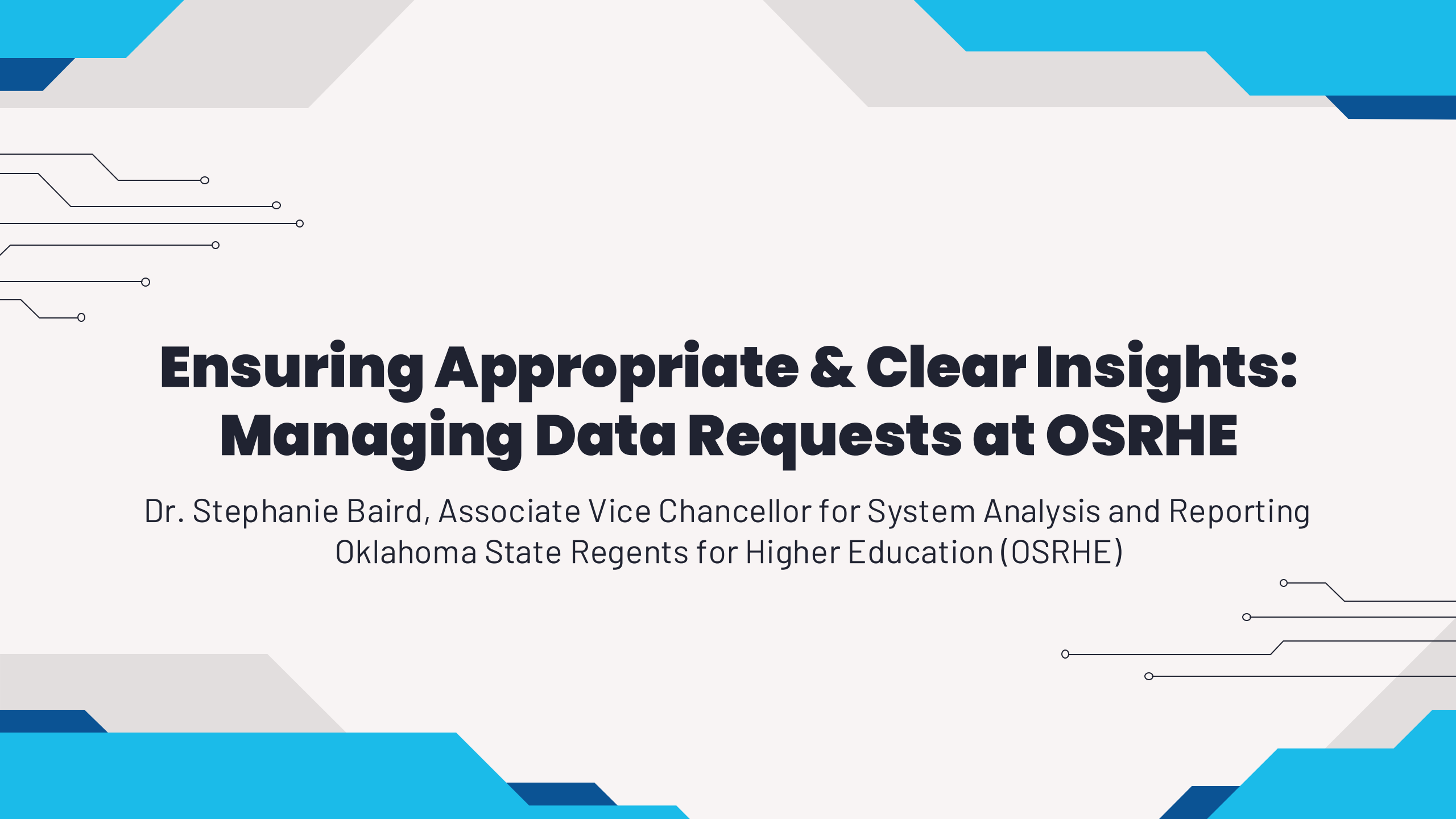


Thank You!

Matt Hastings, Ph.D. • Executive Director

Nebraska Statewide Workforce & Educational Reporting System

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Ensuring Appropriate & Clear Insights: Managing Data Requests at OSRHE

Dr. Stephanie Baird, Associate Vice Chancellor for System Analysis and Reporting
Oklahoma State Regents for Higher Education (OSRHE)



About OSRHE

- Coordinating board for Oklahoma's 25 public colleges and universities
 - State system includes two research universities, 10 regional universities, one liberal arts university, and 12 community colleges
 - System Analysis and Reporting (STAR) division collects, analyzes, and presents data on Oklahoma postsecondary education
 - The Unitized Data System (UDS) is our central data warehouse that stores student demographics, enrollments, outcomes, and more
- 

Data Request Intake Pathways



→ **Executive**

- Requestor: Chancellor, State Regents, Legislature
- Routed through Vice Chancellor for Administration



→ **Media**

- Requestor: Journalist, Broadcaster
- Routed through Associate Vice Chancellor for Communication



→ **Other**

- Requestor: Institutional Personnel, Researchers, State Agencies, Other Entities/Stakeholders
- Routed through online Data Request Form

Data Request Form

- Promotes dashboards/static reports as a first resource
- References our Data Access and Management Policy
- Addresses evaluation process, timeline, and expectations
- Notifies two STAR and one WED personnel upon submission

OSRHE Data Request Form

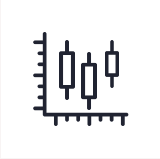
Thank you for your interest in requesting data from the Unitized Data System (UDS) and Workforce and Economic Development areas at the Oklahoma State Regents for Higher Education (OSRHE).

Before submitting a data request, we encourage you to explore our [interactive public dashboards](#), which provide comprehensive insights into Enrollment, Student Success, Degrees Conferred, Critical Occupations, and Employment Outcomes across institutions in the state system. Additional static reports on [Enrollment](#), [High School Preparation](#), and [Outcomes](#) are also available on the OSRHE website.

We also recommend reviewing our [Data Access and Management Policy](#), which outlines the guidelines for accessing data within UDS.

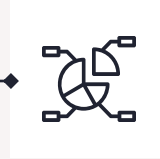
If the available dashboards or reports do not meet your data needs, please complete and submit this form. Data request processing takes a minimum of 10 business days, though this time may vary depending on the complexity of your request and/or System Analysis and Reporting (STAR) workload. Data release is subject to approval.

Request Review & Safeguards



Form Submission

Requestors indicate the purpose of the request, intended use of the data, and publication plans



STAR Review

STAR reviews the complexity of the request, type of data requested, and potential impact to ensure alignment with stated purpose/privacy standards



Approval Criteria

Compliance with FERPA/Data Access and Management Policy, valid purpose, and protection of PII and sensitive data

Balancing Access & Privacy



Access Levels

Data Access and Management Policy categorizes access into five levels, with restrictions on sharing sensitive or PII



FERPA Compliance

FERPA protects students data and ensures it is shared only with individuals who have a legitimate need



Redaction/Aggregation

When appropriate, OSRHE may redact or aggregate data to prevent the disclosure of PII



Purpose/Use Review

The purpose and intent of the data request are key factors in the decision to share data

Promoting Accurate Interpretation

- Set Expectations Early: Clarify data limitations, definitions and key caveats
- Protect Privacy: Suppress or aggregate small counts to avoid disclosure and misinterpretation
- Provide Context: Include data notes or a dictionary with shared files
- Follow Up When Needed: Offer clarification or meetings for high-impact requests
- Collaborate Internally: Work with internal teams to ensure aligned messaging

Communicating Limitations & Denials

When a request must be denied or narrowed due to privacy, policy, or capacity, we typically respond via email and provide:

- An explanation of the reason for non-disclosure (e.g., privacy laws, FERPA restrictions, lack of data availability)
- Alternative solutions or guidance (e.g., aggregate data, access to other public reports, or dashboards)

Lessons Learned & Best Practices



Formal Intake Process

Data request intake pathways allow us to standardize intake, track submissions, and ensure consistent vetting of data use



Documentation

Clear metadata, caveats, and direct communication reduce risk and improve trust



Key Partnerships

Working closely with internal divisions allows us to tailor data sharing and messaging based on audience and policy context



Privacy Protection

As new data sources emerge, we continually refine our practices to ensure they meet FERPA and state-level privacy expectations

Closing Thoughts

- Managing data requests requires more than technical access – it requires judgement, communication, and trust-building
- Data sharing is a stewardship responsibility; thus, we aim to be transparent, responsive, and protective of the students and institutions our data represents
- As more agencies invest in data systems and expand the use of education and workforce outcomes, we must continue to evolve our practices to support appropriate use, responsible sharing, and strong stakeholder understanding

Thanks!

Dr. Stephanie Baird

Associate Vice Chancellor for System Analysis and Reporting
Oklahoma State Regents for Higher Education
sbaird@osrhe.edu