

A wide-angle photograph of a university campus. In the foreground, a paved path leads towards a large, modern, multi-story building with a curved roofline. To the left of the path is a grassy hillside with some trees. The sky is blue with scattered white clouds, and the sun is low on the horizon, creating a bright glow and lens flare. A tall, modern light pole stands on the path.

# Strengthening Data Culture Through a Collaborative Data Literacy Program

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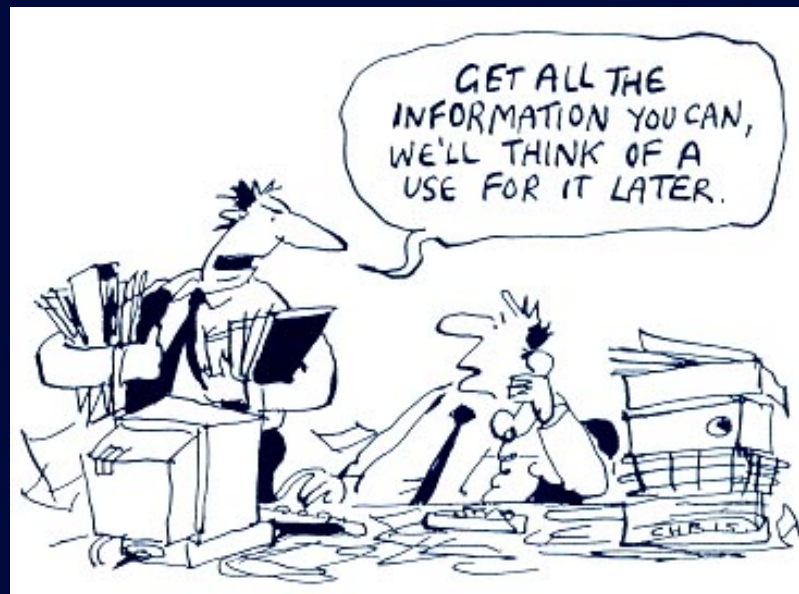


# Sound familiar?

Stakeholder: "I need the data on my students."

Research Analyst: "What kind of data?"

Stakeholder: "The data. ALL the data!"





# Overview

- Context
- Background & Rationale
- Program Concept
- The Pilot
- Closing Thoughts
- Q & A



California State University  
SAN MARCOS



# Context

## California State University System

- Public state university system
- 23 campuses and 8 off-campus centers
- Graduation Initiative 2025

## California State University **San Marcos**

- Located in North San Diego County
- Est. 1990 (27 years old)
- Fall 2017 Enrollment: 13,893 stateside

# Context

## **Institutional Planning & Analysis (IP&A)**

- Centralized, reports to President's Chief of Staff
- Evolving from a compliance shop to a true decision support function
- With IITS, leads campus Decision Support Group and Data Governance efforts

## **Insight & Analytics function**

- Data visualization & self-service reporting (Tableau)
- Institutional surveys
- Program review data
- Analytic studies
- Student success initiatives (e.g., GI 2025)

# Context

## Office of Undergraduate Studies (OUGS)

- Est. 2014
- Academic success “hub”
  - GI 2025
  - Learning centers
  - High-impact Practices
- Highly collaborative, cross-divisional partnerships
- Data-informed

## Student Success Analyst

- Full-time position est. 2017
- Student success initiatives (e.g., GI 2025)
- Assessment of learning centers and other OUGS programming
- Data-related professional development



# Context

## OUGS Strategic Plan

“Integrate and deepen the analytic capacity to **make data-driven decisions** that support undergraduate students’ academic success”

“**Share and interpret data** with undergraduate support programs to determine necessary additional academic support for undergraduate students.”

“**Share analytics** with relevant campus units to promote cross-unit and – division program development in support of students’ academic success.”

“**Develop research questions**, the answers to which will help CSUSM close academic achievement gaps.”

# Background

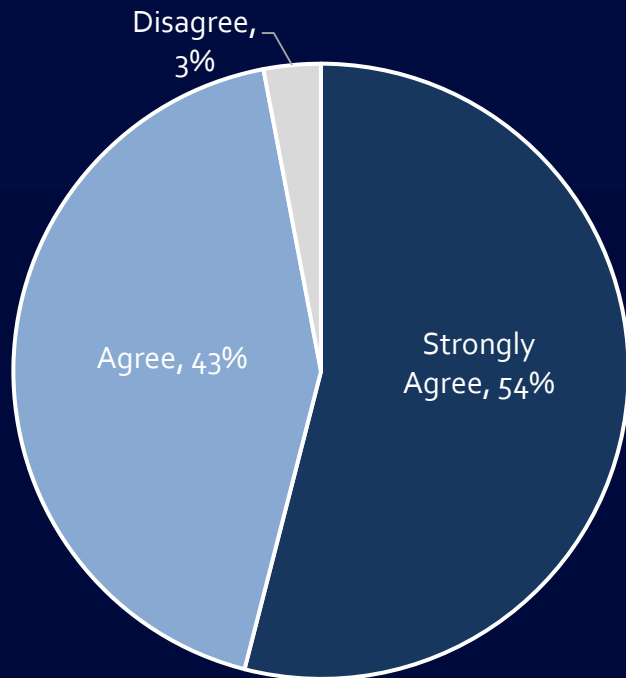
## May 12<sup>th</sup> Student Success Network Meeting: *Using Data to Support Student Learning & Success*

- Build relationships with colleagues from across the CSU who are involved in campus-level efforts to strengthen data use to improve student success and equity.
- Identify and share current successes and challenges related to data use to support student success and equity on their campuses.
- Reflect as campus teams and apply lessons to individual campus needs and contexts.

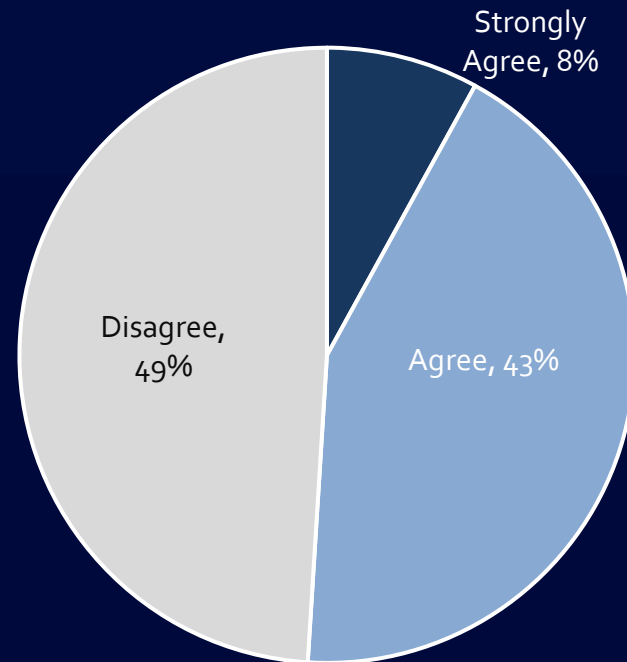


# Background

*Efforts to improve use of data in support of student success are a high priority on my campus.*

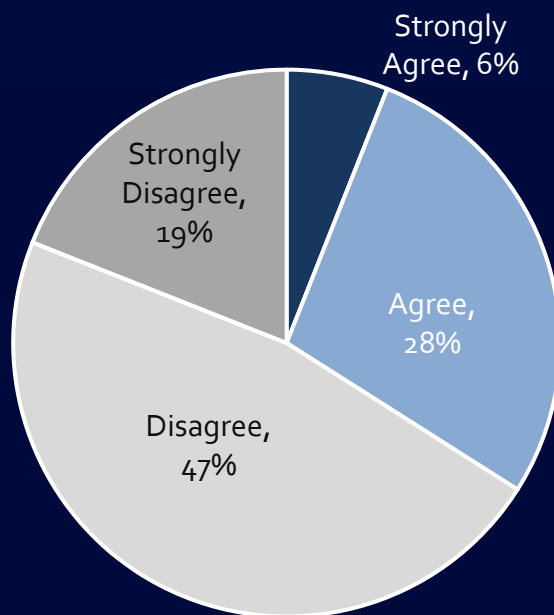


*My campus has a strong culture of inquiry. We regularly use data to inform key decisions at all levels.*



# Background

*The IR office on my campus has adequate capacity to respond to requests for data/analysis in a timely manner.*



Biggest roadblock to more consistent use of data?

*"Our IR office needs more support so we can get ahead and be proactive instead of reactive."*

*"Data are mostly inaccessible or hidden behind interfaces that are very user unfriendly."*

# Background

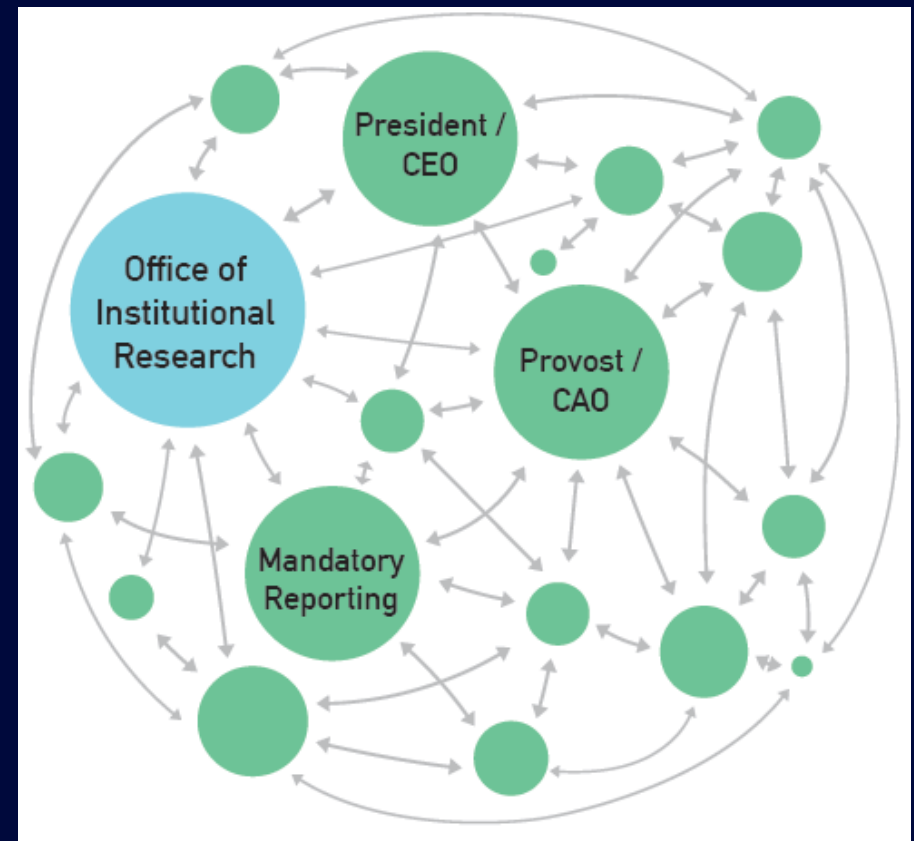
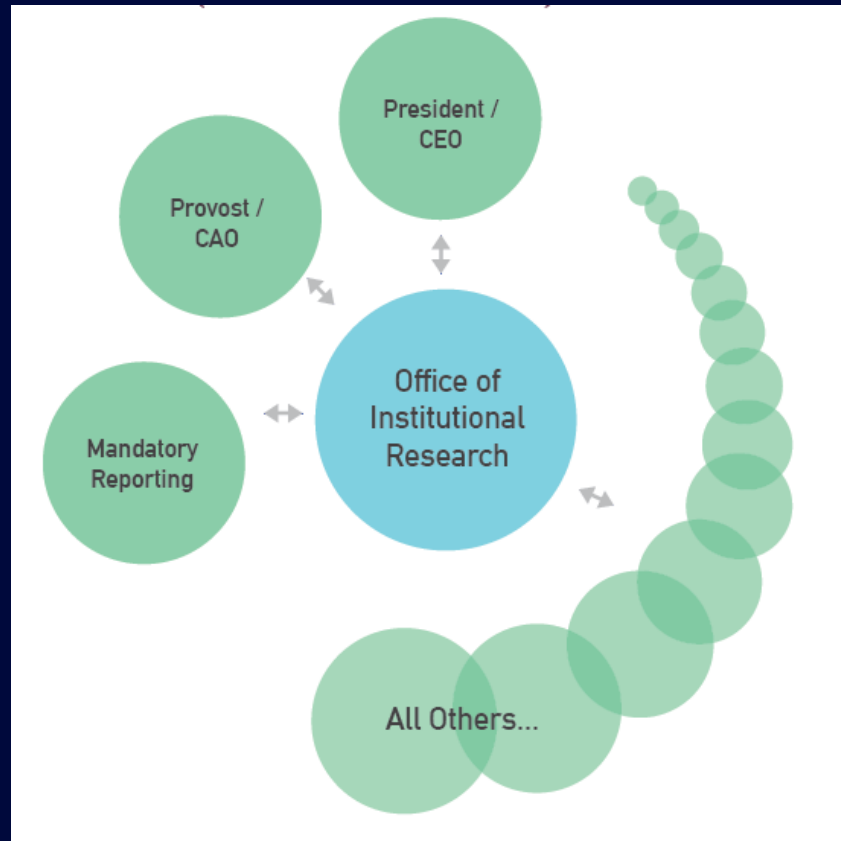
## AIR Statement of Aspirational Practice for Institutional Research

“Data are everywhere across institutions of higher education, and access to analytical tools and reporting software means that **a wide array of higher education employees can be actively involved in converting data into decision-support information.** As such, models of decision making are changing, which opens new opportunities for wise use of data resources.”



# Background

## Institutional Research as Service Provider vs. Federated Network



# Background

## AIR Statement of Aspirational Practice for Institutional Research

“The function of institutional research connotes the institution-wide use of data and analytics, and not just the products of an office of institutional research. Building the function requires **coaching and professional development of employees across the institution in a purposeful and intentional process that increases capacity for data-informed decisions to permeate the institution.**”

# Background

## A New Vision for Institutional Research (Swing & Ross, 2016)

“The task is not to create a thousand skilled staff members who could work in an office of institutional research, but rather to **develop an appropriate level of data literacy for decision-support roles that exist already.**”



# Program Concept

Data Literacy: The ability to **collect**, **manage**, **evaluate**, and **apply** data in a critical manner.



# Program Concept

- Ideal participants are data users, not analysts

Program Directors & Coordinators	Deans, Department Chairs, & Faculty	Advisors & Student Services Staff
<ul style="list-style-type: none"><li>• Must demonstrate effectiveness of program to ensure continued funding</li><li>• May have a practical understanding of program evaluation, but not necessarily research or data concepts</li></ul>	<ul style="list-style-type: none"><li>• Responsible for departmental operations, program review, assessment</li><li>• Likely trained in discipline-specific research, but not necessarily academic assessment or evaluation</li></ul>	<ul style="list-style-type: none"><li>• Increasingly use data to understand the student experience and inform practice</li><li>• Often limited formal education in academic assessment, research, or data concepts</li></ul>

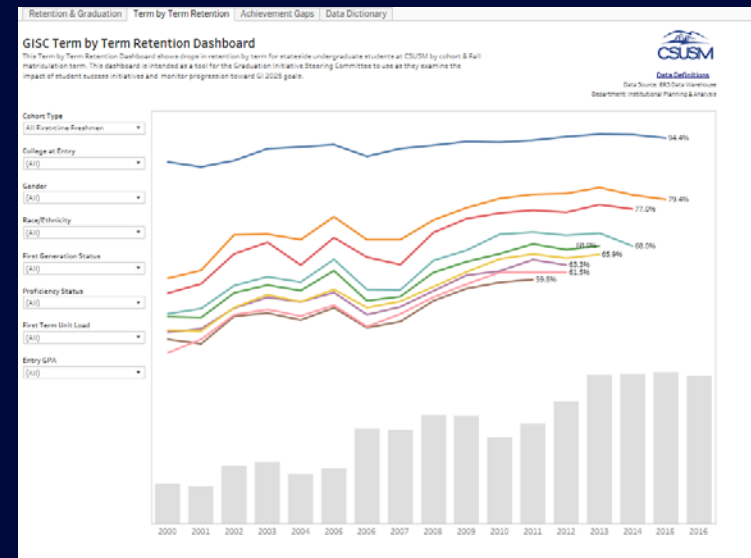
# Program Concept

- Goals of the *Data Fellows* Program
  - Cultivate a **data culture**
  - Develop foundational **data literacy** skills
  - Increase **assessment capacity**
  - Create **networks of data advocates**
  - Use of **common language**
  - Engage in **systems thinking**
  - Shared responsibility for **student success**



# Program Concept

- Topics
  - Introduction & Overview
  - Scientific Method
  - Library Resources
  - Data Types
  - Surveys & Self-report Data
  - Basic Statistics
  - Data Storytelling
  - Ethics & Compliance
  - Data in Higher Education
  - Existing Data Resources at CSUSM
  - CSUSM's Critical Questions



# Program Concept

- Completed in one semester
- Professional development, not just another meeting
- Cohort model



# Logistics

- Sponsors
  - IR Leadership
  - Academic Affairs Leadership
- Partners
  - Library
  - Assessment
  - Information Technology
  - Student Affairs





# Logistics

- Program Delivery & Curriculum
  - Frequency of meetings
  - Attendance expectations
  - Moodle course
  - Interactive whenever possible
  - No prerequisites
  - No homework
- Funding
  - \$530 for food and materials
  - Significant time commitment



# The Pilot

- Reception
- Delivery
- Participants



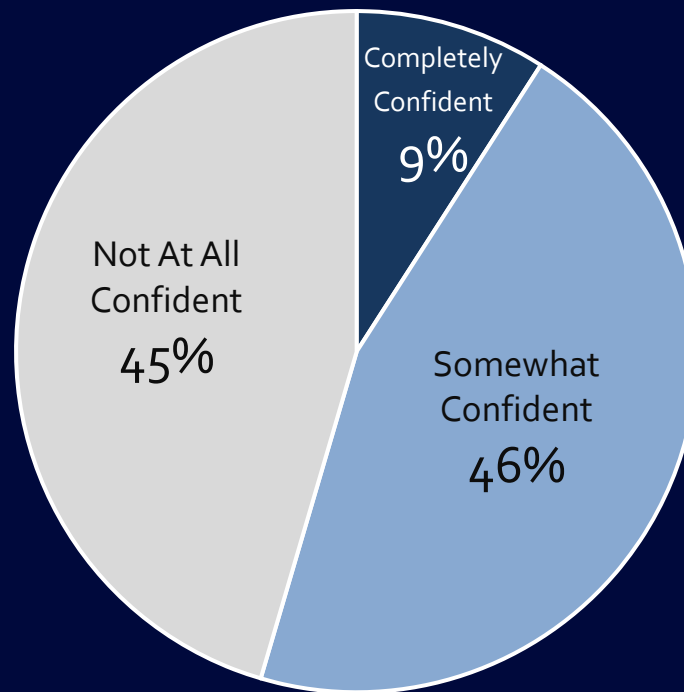
# The Pilot

- Participants
  - Dean & Associate Dean, Undergraduate Studies
  - 4 Learning Center Directors (1 Faculty)
  - Student Success Facilitator
  - Budget Analyst
  - Grants & Contracts Analyst
  - Student Affairs Assessment Director
  - Housing Director
  - Assistant Director for Proficiency Services

# The Pilot

- Initial assessment

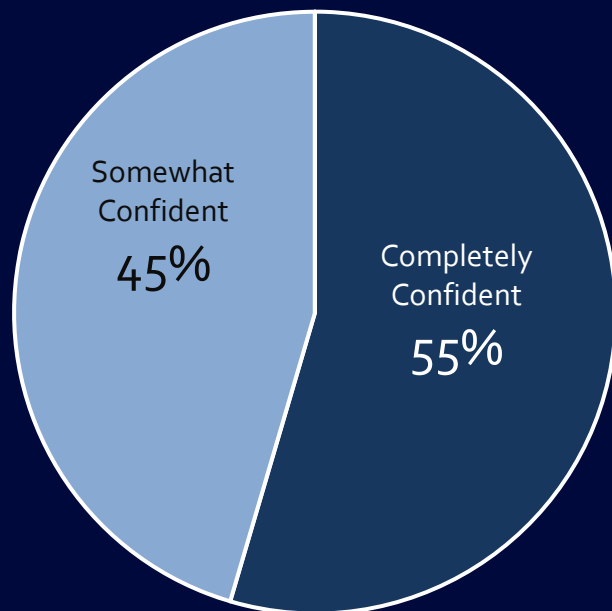
*Find and access relevant data through IP&A, IITS, or other university resources*



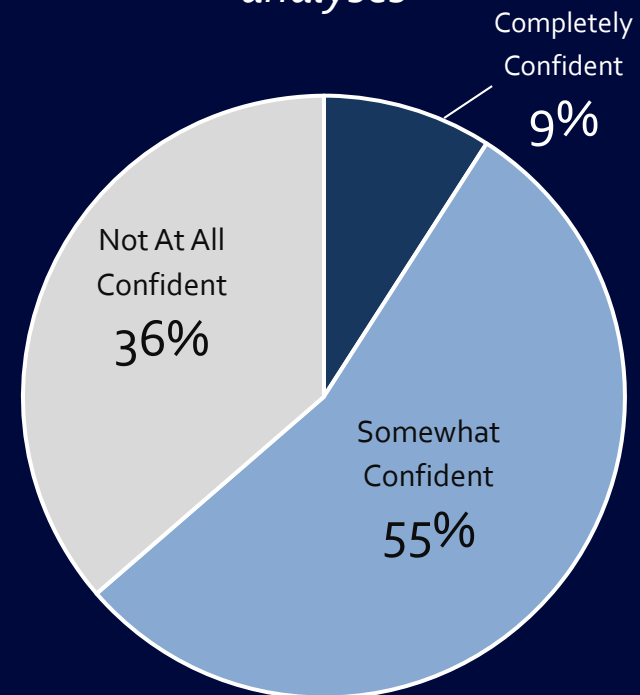
# The Pilot

- Initial assessment

*Interpret charts, graphs, or tables of data*



*Interpret the results of statistical analyses*

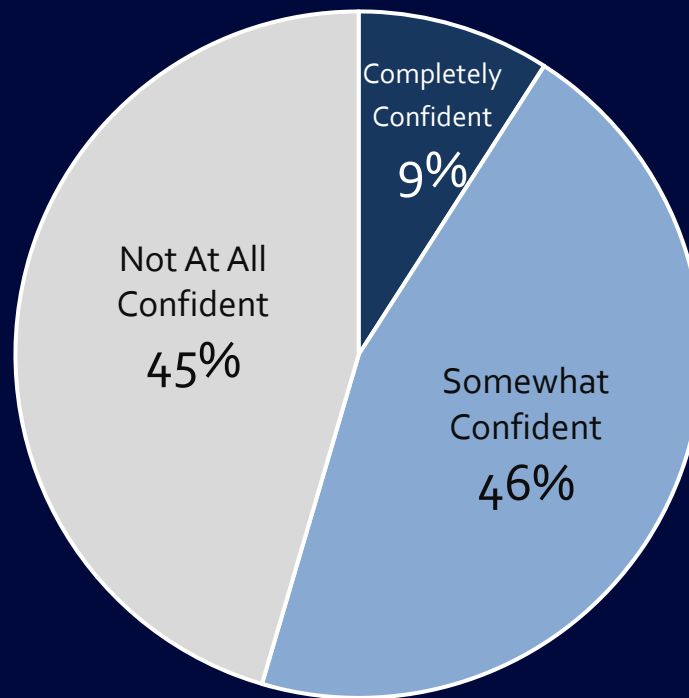




# The Pilot

- Initial assessment

*Evaluate the quality or legitimacy of data and reports*



# The Pilot

- Initial assessment – we also asked about...

## Confidence in their ability to:

- Develop measurable goals, objectives, or outcomes
- Generate a research question or hypothesis
- Present or explain data and reports to others
- Develop and administer a survey
- Understand laws, policies, or rules that may apply
- Use Library resources to find relevant information

## Prior experience:

- Viewed official reports or dashboards available on university websites
- Run PeopleSoft queries
- Used data to assess the impact or effectiveness of a program
- Collected or entered data in PeopleSoft, Excel spreadsheets, or other system
- Made a decision, took action, or changed a practice because of data
- Reported data for accreditation, compliance, or accountability purposes

## + Open-ended items

# The Pilot

- How's it going?
  - Everyone at different levels of data literacy
  - Making the lessons relevant and actionable
  - We're learning, too
  - It takes time

# Closing Thoughts

- Realistic expectations – data culture wasn't built in a day (or even a semester)
- One size doesn't fit all – what makes sense for your institution?
  - IR on committees, task forces
  - IR Faculty Fellows / Data Champions
  - Analysts in other units
  - Hands-on workshops
  - Videos and other self-service resources
  - Adding data training to onboarding programs



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# Q&A

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