BUSINESS INTELLIGENCE ADVISORY COMMITTEE

DECEMBER 11, 2019

PURDUE UNIVERSITY | **Business Intelligence Competency Center**
INFORMATION TECHNOLOGY

Agenda

- **Introduction**

  Andrea Pluckebaum

- **The Road to Better Financial Intelligence**

  Andrew Bean

- **Purdue Data Training Survey – Your Additional Thoughts**
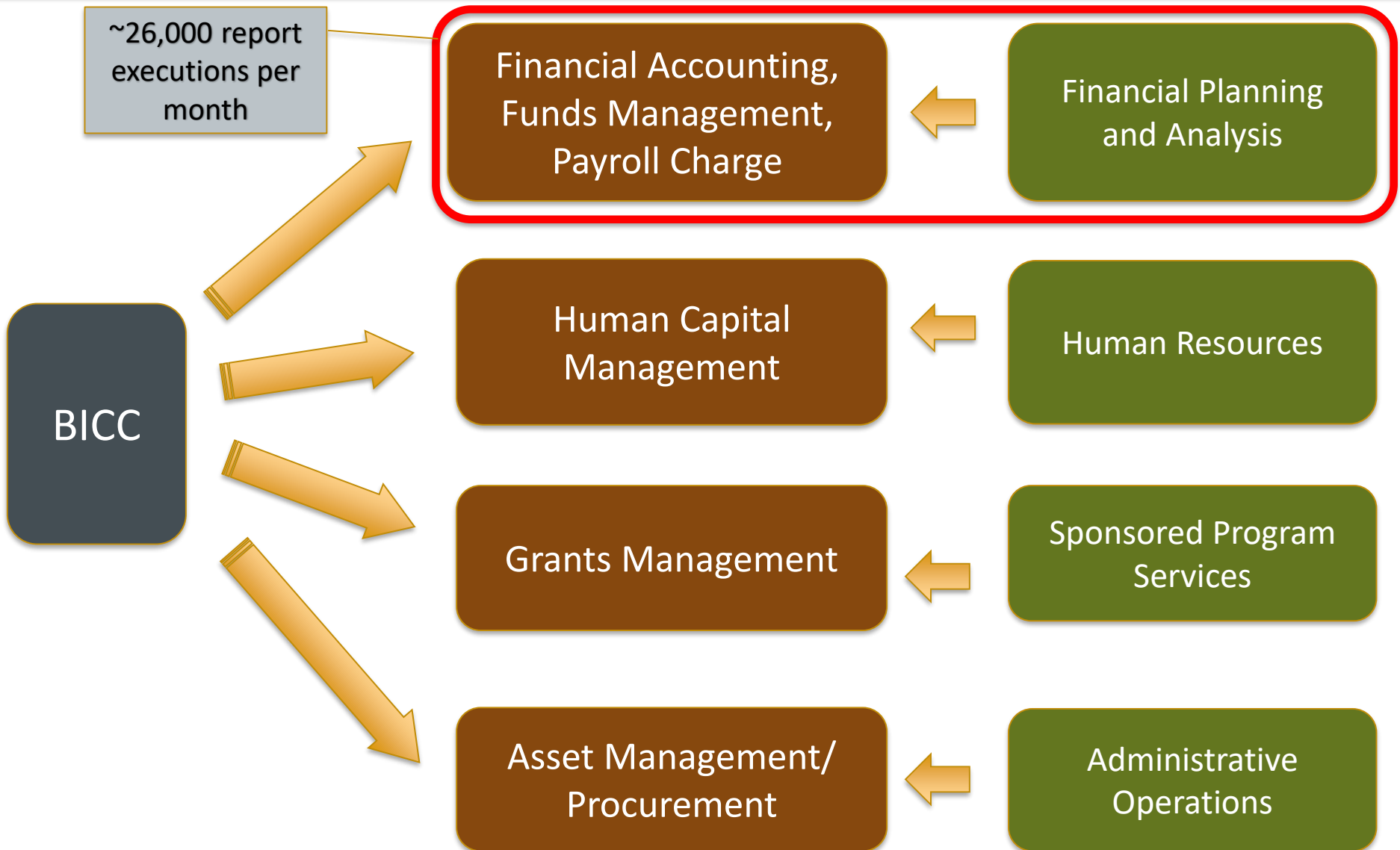
  Andrea Pluckebaum

PURDUE
UNIVERSITY®

Business Reporting Org Structure

~26,000 report executions per month

Financial Accounting, Funds Management, Payroll Charge	Financial Planning and Analysis
Human Capital Management	Human Resources
Grants Management	Sponsored Program Services
Asset Management/ Procurement	Administrative Operations

BICC

Some History…

2007: SAP Finance implemented
- <u>Extremely</u> limited reporting capabilities

2015: First BI Finance stars available
- Big step forward but adoption was slow, ad-hoc ability was limited, and underlying SAP data was problematic

2016: Finance Transformation Project begins
- A primary objective was to fix the underlying data structures that impaired transparency and ease of use

2018: Finance Transformation Project goes live
- Underlying data issues are fixed and operating reports are available, but time/resource constraints limited the scope of reporting improvements

2019: Finance reporting project undertaken

Finance Reporting Project Goals

Simplified, easier user experience
- Including self-service option for Dept Heads

Major performance improvement

Easy ad-hoc query ability

Project moved quickly; prioritized iteration and experimentation over deliberate planning

Steps Taken

Audience-specific landing pages
- Direct links to specific page views within reports
- Audience-specific prompt pages

Purpose-built reports instead of "one for all needs"
- Differentiate analysis from management

Simplified Datasets on HANA architecture
- Majority of standard reports utilize these datasets
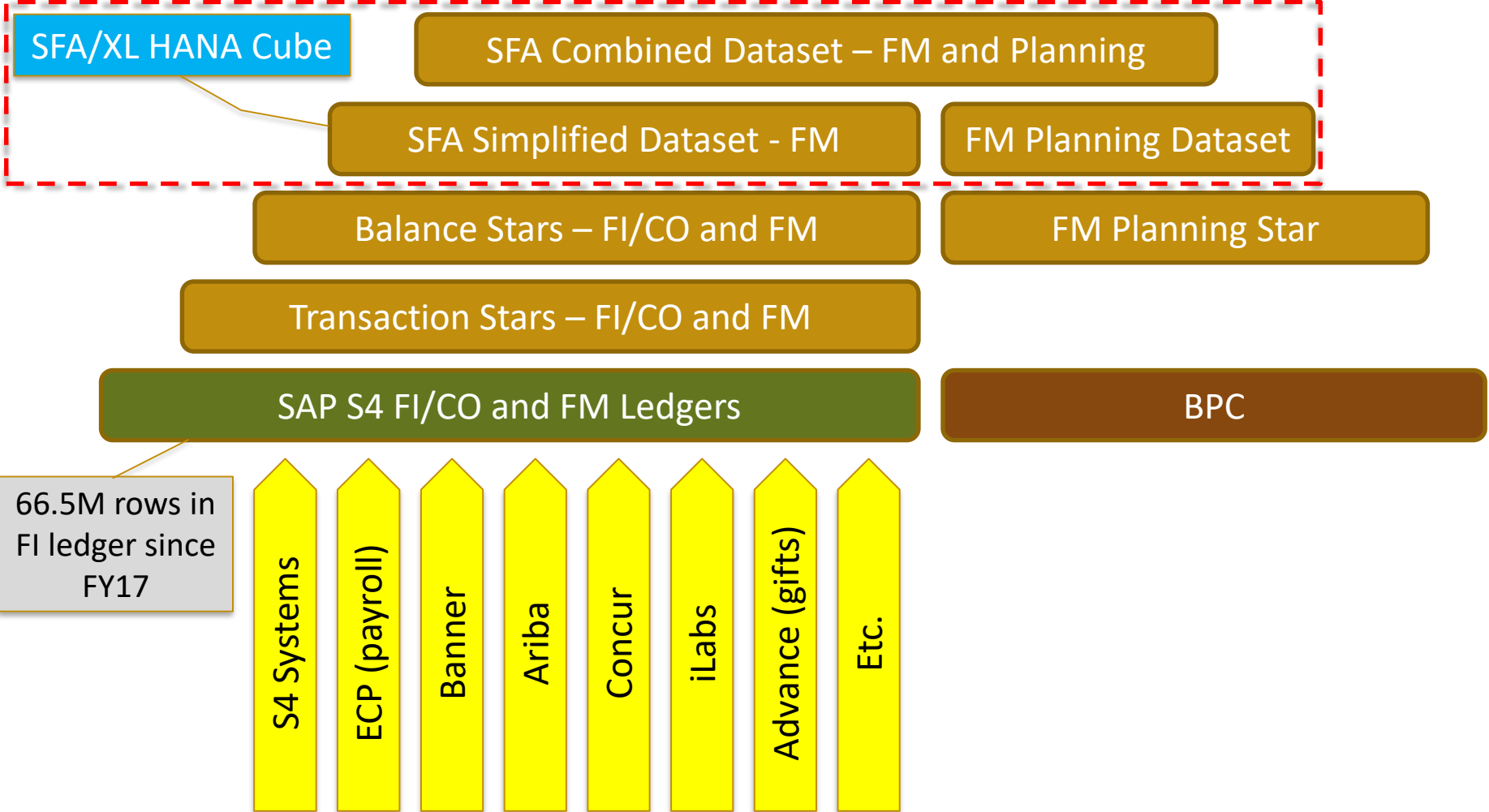- Finance authors directed to a dataset for most needs

Direct Excel access to HANA-based data cubes
- Provides a simple ad-hoc query ability

Run-times reduced from hours to fractions of a second

Data Structure

HANA architecture

SFA/XL HANA Cube

SFA Combined Dataset – FM and Planning

SFA Simplified Dataset - FM

FM Planning Dataset

Balance Stars – FI/CO and FM

FM Planning Star

Transaction Stars – FI/CO and FM

SAP S4 FI/CO and FM Ledgers

BPC

66.5M rows in FI ledger since FY17

S4 Systems

ECP (payroll)

Banner

Ariba

Concur

iLabs

Advance (gifts)

Etc.

Final Finance Reporting Strategy

Limited number of standard reports

- Not trying to answer every question, but giving the fastest answers to the most common questions

Provide "accessible" tools to enable locally-owned reports and ad-hoc querying

- SFA/XL tool ("Excel-on-HANA")
    - Relatively small learning curve
    - Shortest "time to an answer"
    - Limited ability to format output
- SFA Simplified Dataset in Cognos
    - Requires more application-specific knowledge and expertise to be efficient
    - Provides ability to edit and format content

Demo

Landing pages

Statement of Financial Activity (SFA) reports

Simplified dataset

SFA/XL ("Excel-on-HANA")

Current Barriers And Challenges

Financial literacy

– Example: What does "operating" include?

Difficulty defining common views

– Each department wants to define its own view, do projections its own way

Change fatigue/Need for education & training on current tools

Source data issues/enterprise system inconsistencies

– Example: Department structure in Banner vs SAP

– Example: Allocation of Online revenues/expenses

Differing views about user access controls

Trust

– Reference NACUBO survey on finance analytics barriers

Future Goals

Increased adoption of current tools

Better data integration with source systems
- Example: Banner revenue & expense details for online programs, student aid, etc.

"Missing middle" reports
- Reports that bridge between summary statements and detailed transaction listings

Expansion of "self-service" for non-finance staff

Multi-year and driver-based forecasting

Dashboards for Finance – identify potential opportunities/benefits

TRAINING NEEDS SURVEY RECOMMENDATIONS

DECEMBER 2019, BIAC COMMITTEE

SARAH BAUER, STEPHEN LIPPS, CASEY MARKS, MARGARET WU, ANDREA PLUCKEBAUM, JENNIFER LITTLEFIELD, ZACH YATER, KARIS WAIBEL, SUE WILDER
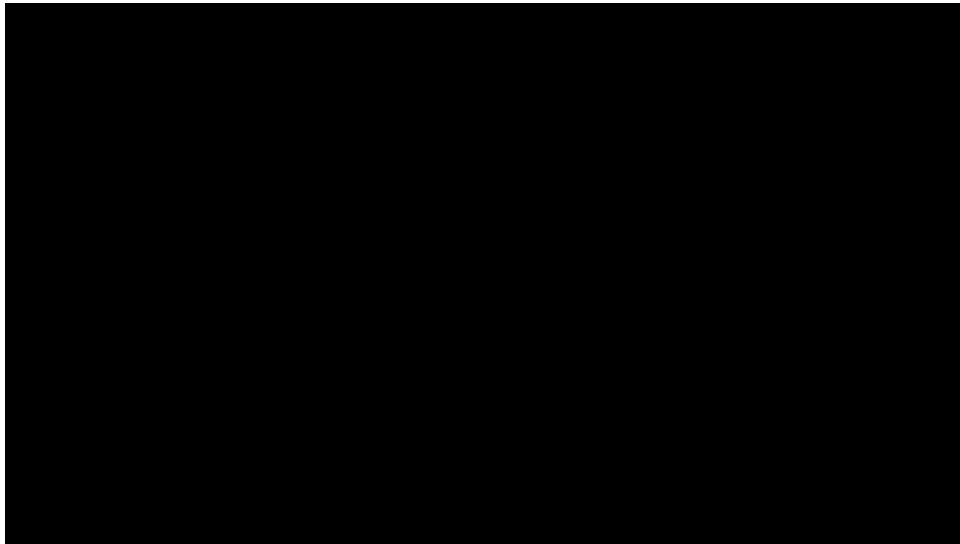
PURDUE UNIVERSITY®

Hotseat

login...

- https://www.openhotseat.org

- Select **Public Spaces**

- Find **!BIAC December 2019**

PURDUE UNIVERSITY®

Question 1

Who would win a game of poker Batman or Purdue Pete and why?
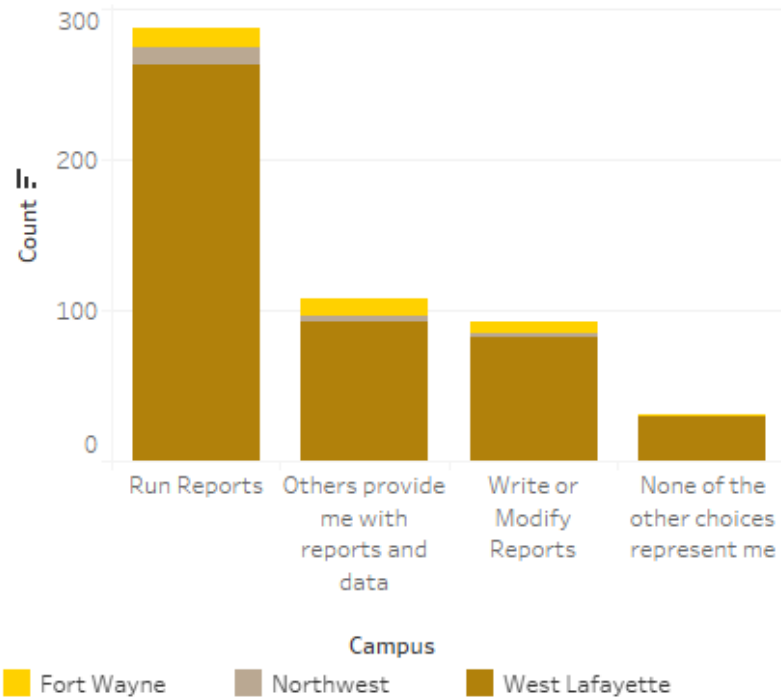
Survey

Three Themes

- What kind of data do you want training on?

- What kind of training to you want?

- How do you want to be notified of data related changes?

PURDUE
UNIVERSITY

518 Responses

Which of these best represents you?

Which kind of data are you interested in receiving training for?

Combined

	Write Reports	Modify Reports	Run Reports	Others provide me with reports and data	None of the other choices represent me
Student Data	46	22	232	64	16
Cognos Standard Reports	32	18	135	54	13
Human Resources	29	17	120	48	12
Finance	26	16	91	33	8
Data Digest / Management Dashboards	25	11	88	32	7
Grant Management / SPS	15	11	86	24	8
Asset Management / Physical Facilities	11	8	54	23	5
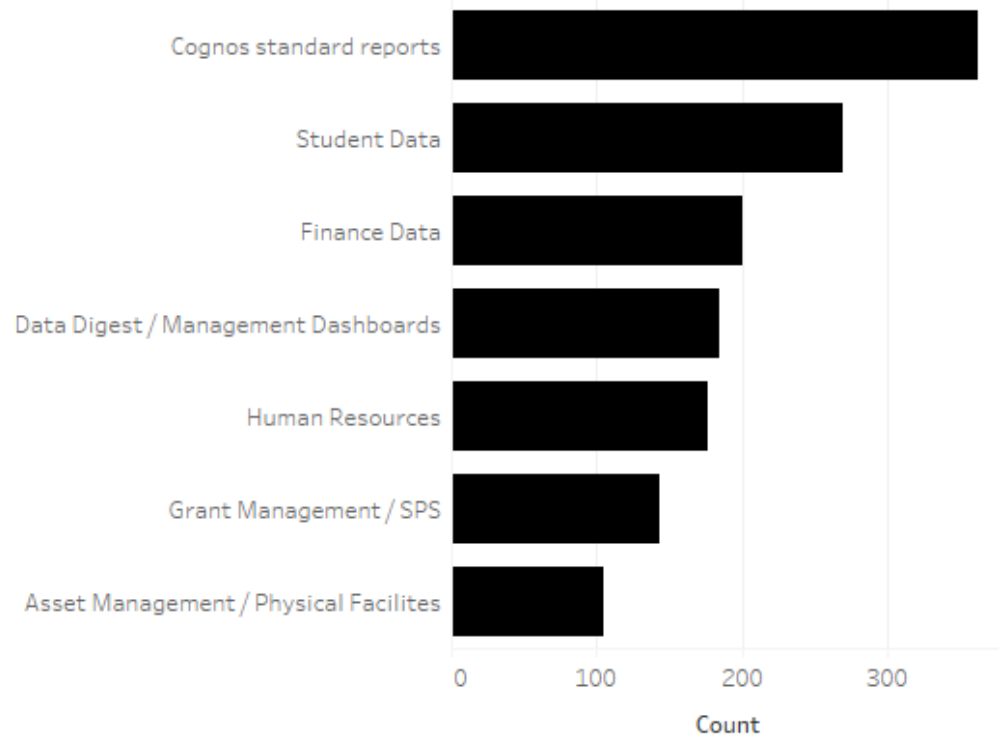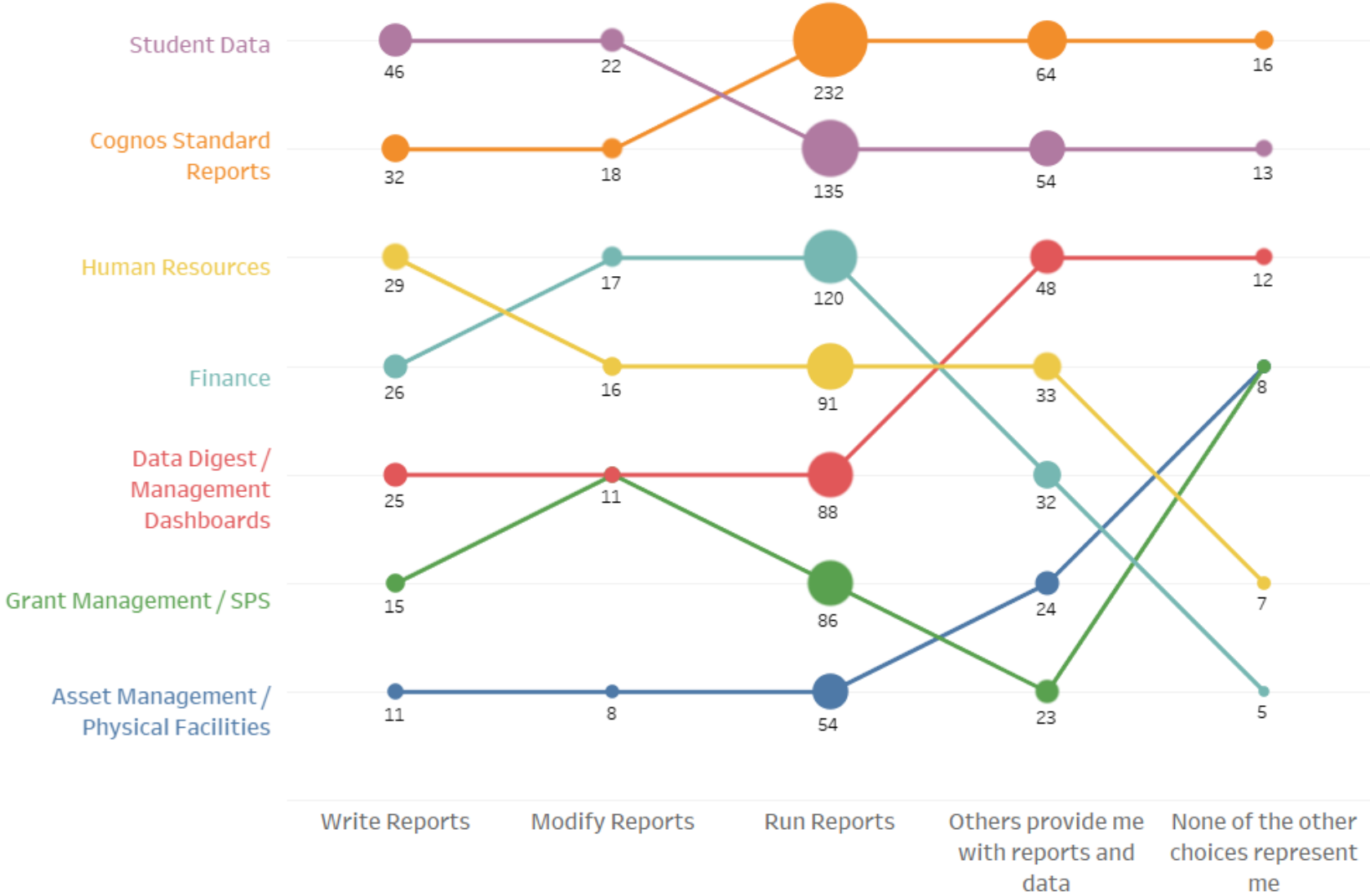
Recommendation

Conduct Standard Report Training for Report Runners

Report Runners

Chart categories (x-axis):
- Student Data
- Finance Data
- Data Digest / Management...
- Human Resources
- Grant Management / SPS
- Asset Management / Physical...

Legend:
- ■ Selected Just Subject Area
- ■ Selected Subject Area + Standard Report
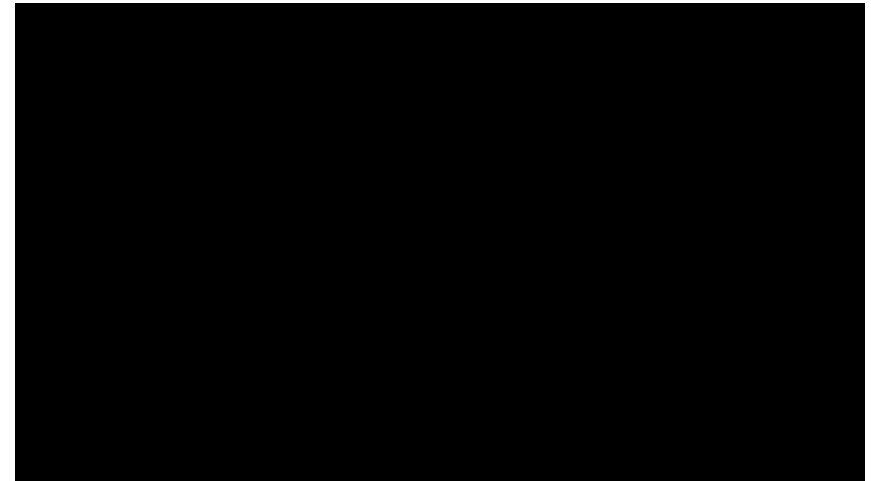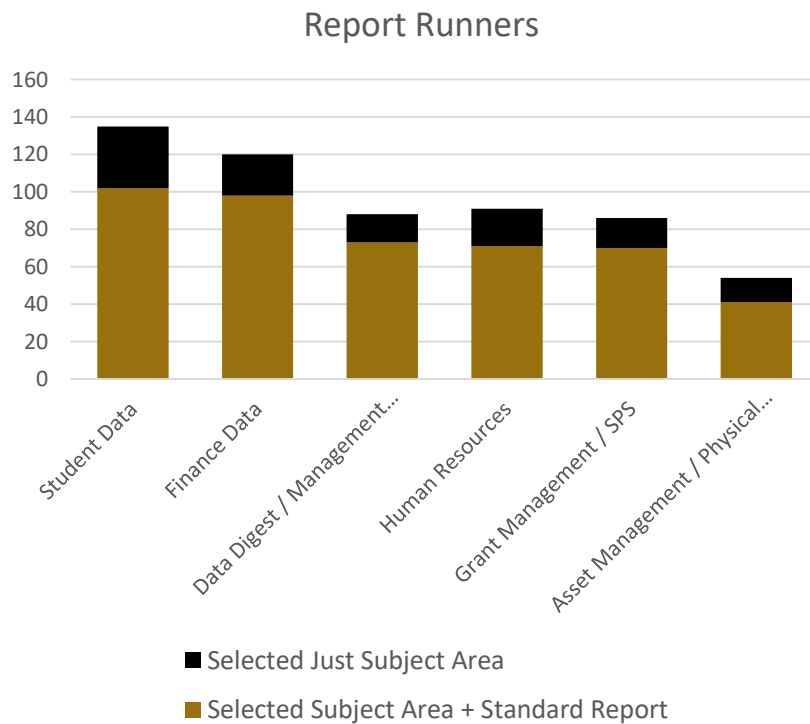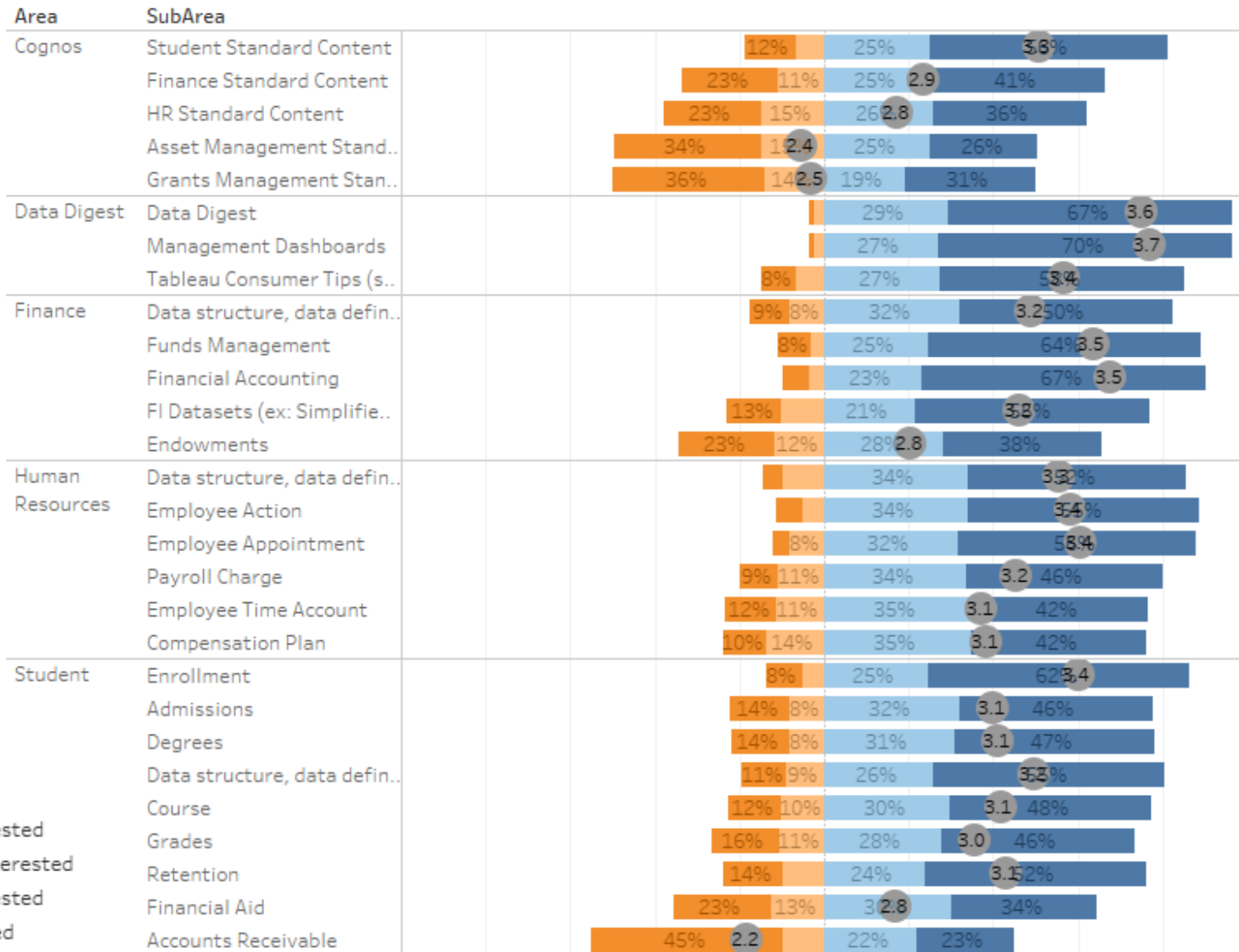
Hotseat Second Question
- Does standard report training make sense?
- What additional context can you provide?
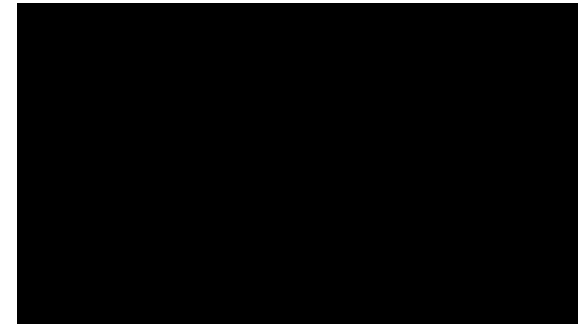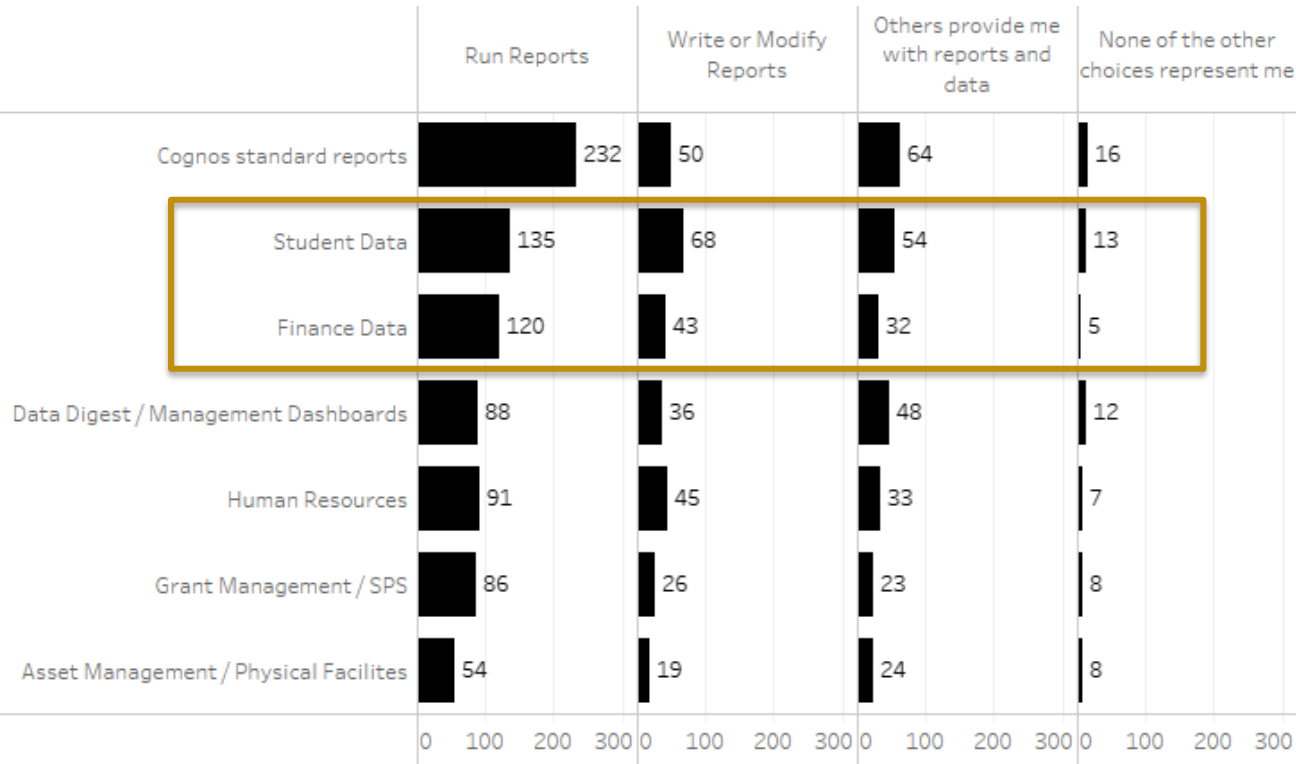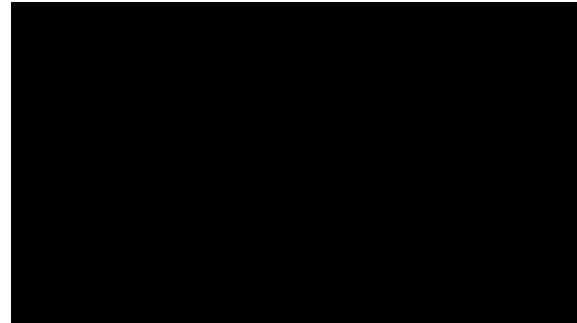- What additional recommendations do you have?

PURDUE
UNIVERSITY®

Please indicate your interest in training about the following topics

Area	SubArea	Very Disinterested	Slightly Disinterested	Slightly Interested	Very Interested	Mean
Cognos	Student Standard Content		12%	25%	38%	3.3
	Finance Standard Content	23%	11%	25%	41%	2.9
	HR Standard Content	23%	15%	26%	36%	2.8
	Asset Management Stand..	34%	15%	25%	26%	2.4
	Grants Management Stan..	36%	14%	19%	31%	2.5
Data Digest	Data Digest			29%	67%	3.6
	Management Dashboards			27%	70%	3.7
	Tableau Consumer Tips (s..	8%		27%	53%	3.4
Finance	Data structure, data defin..	9%	8%	32%	50%	3.25
	Funds Management		8%	25%	64%	3.5
	Financial Accounting			23%	67%	3.5
	FI Datasets (ex: Simplifie..	13%		21%	53%	3.3
	Endowments	23%	12%	28%	38%	2.8
Human Resources	Data structure, data defin..			34%	52%	3.3
	Employee Action			34%	54%	3.4
	Employee Appointment		8%	32%	53%	3.4
	Payroll Charge	9%	11%	34%	46%	3.2
	Employee Time Account	12%	11%	35%	42%	3.1
	Compensation Plan	10%	14%	35%	42%	3.1
Student	Enrollment		8%	25%	62%	3.4
	Admissions	14%	8%	32%	46%	3.1
	Degrees	14%	8%	31%	47%	3.1
	Data structure, data defin..	11%	9%	26%	53%	3.3
	Course	12%	10%	30%	48%	3.1
	Grades	16%	11%	28%	46%	3.0
	Retention	14%		24%	52%	3.15
	Financial Aid	23%	13%	33%	34%	2.8
	Accounts Receivable	45%		22%	23%	2.2

Recommendation

Conduct Training on Student and Financial Data

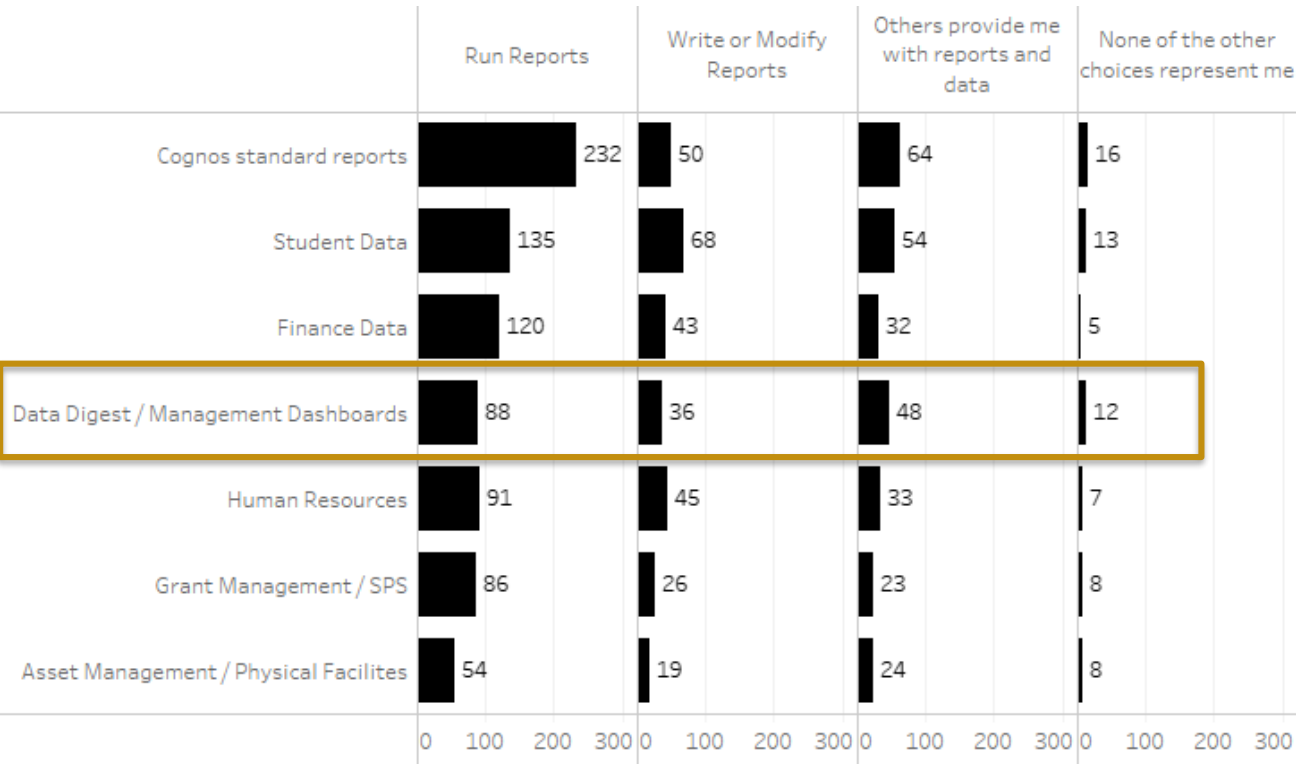|	Run Reports	Write or Modify Reports	Others provide me with reports and data	None of the other choices represent me
Cognos standard reports	232	50	64	16
Student Data	135	68	54	13
Finance Data	120	43	32	5
Data Digest / Management Dashboards	88	36	48	12
Human Resources	91	45	33	7
Grant Management / SPS	86	26	23	8
Asset Management / Physical Facilites	54	19	24	8

Hotseat Third Question
- Does student and FI training make sense?
- What additional context can you provide?
- What additional recommendations do you have?

Recommendation

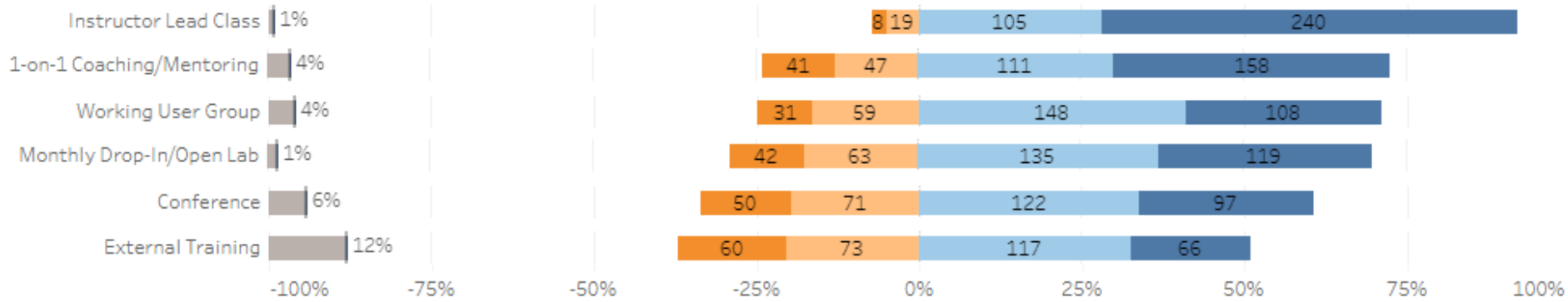## Conduct Training on Data Digest / Management Dashboards

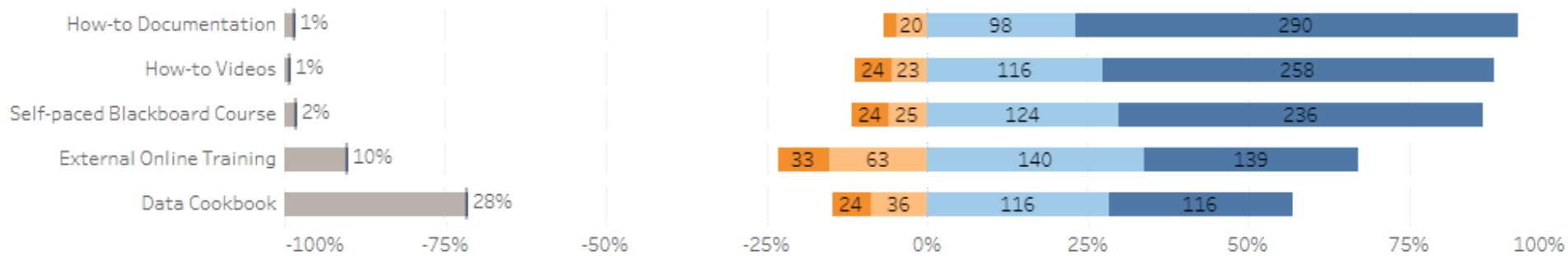|	Run Reports	Write or Modify Reports	Others provide me with reports and data	None of the other choices represent me
Cognos standard reports	232	50	64	16
Student Data	135	68	54	13
Finance Data	120	43	32	5
Data Digest / Management Dashboards	88	36	48	12
Human Resources	91	45	33	7
Grant Management / SPS	86	26	23	8
Asset Management / Physical Facilites	54	19	24	8

Hotseat Fourth Question
- Does DD/MD training make sense?
- What additional context can you provide?
- What additional recommendations do you have?

How likely would you be to use each of these training options?
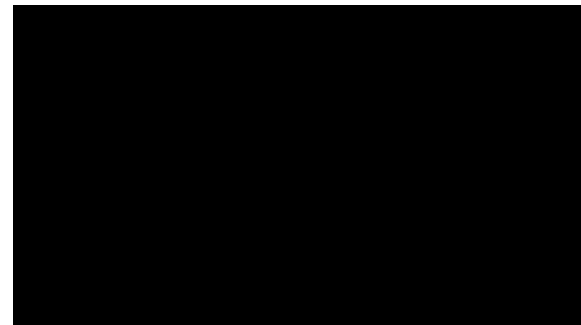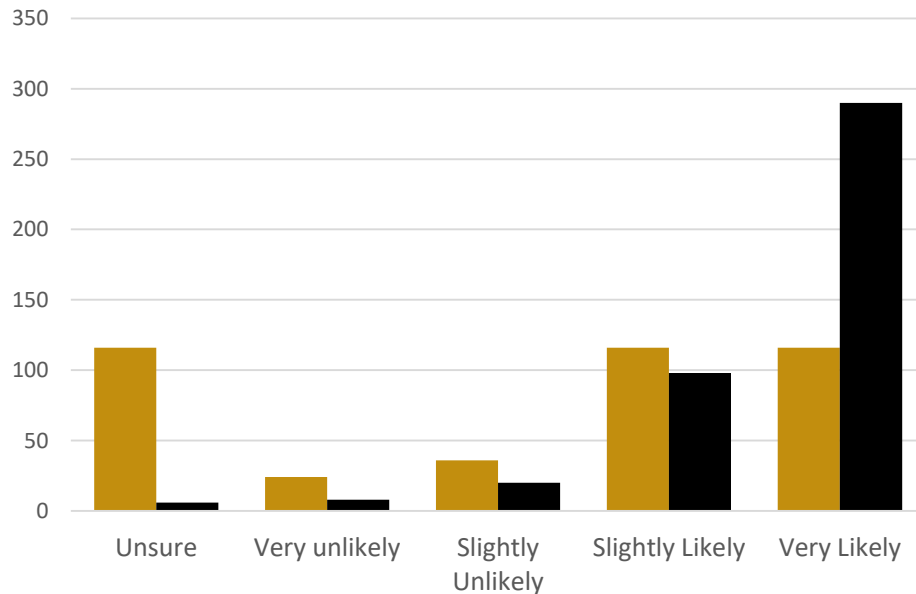
In-Person Training

Option	Unsure	Very unlikely	Slightly unlikely	Slightly likely	Very likely
Instructor Lead Class	1%	8	19	105	240
1-on-1 Coaching/Mentoring	4%	41	47	111	158
Working User Group	4%	31	59	148	108
Monthly Drop-In/Open Lab	1%	42	63	135	119
Conference	6%	50	71	122	97
External Training	12%	60	73	117	66

Online Training

Option	Unsure	Very unlikely	Slightly unlikely	Slightly likely	Very likely
How-to Documentation	1%	20		98	290
How-to Videos	1%	24	23	116	258
Self-paced Blackboard Course	2%	24	25	124	236
External Online Training	10%	33	63	140	139
Data Cookbook	28%	24	36	116	116

Legend: Unsure | Very unlikely | Slightly unlikely | Slightly likely | Very likely

Recommendation

Add How-to-Documentation, consider Cookbook

Chart legend:
- Data Cookbook (gold)
- How-to Documentation (black)

Y-axis: 0, 50, 100, 150, 200, 250, 300, 350

X-axis categories: Unsure, Very unlikely, Slightly Unlikely, Slightly Likely, Very Likely
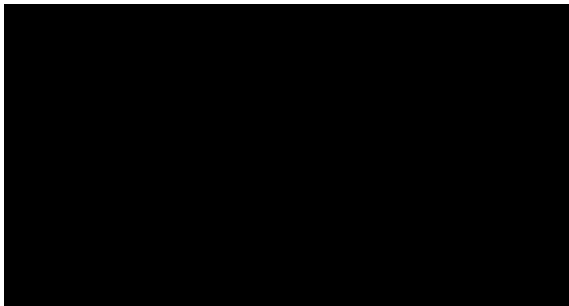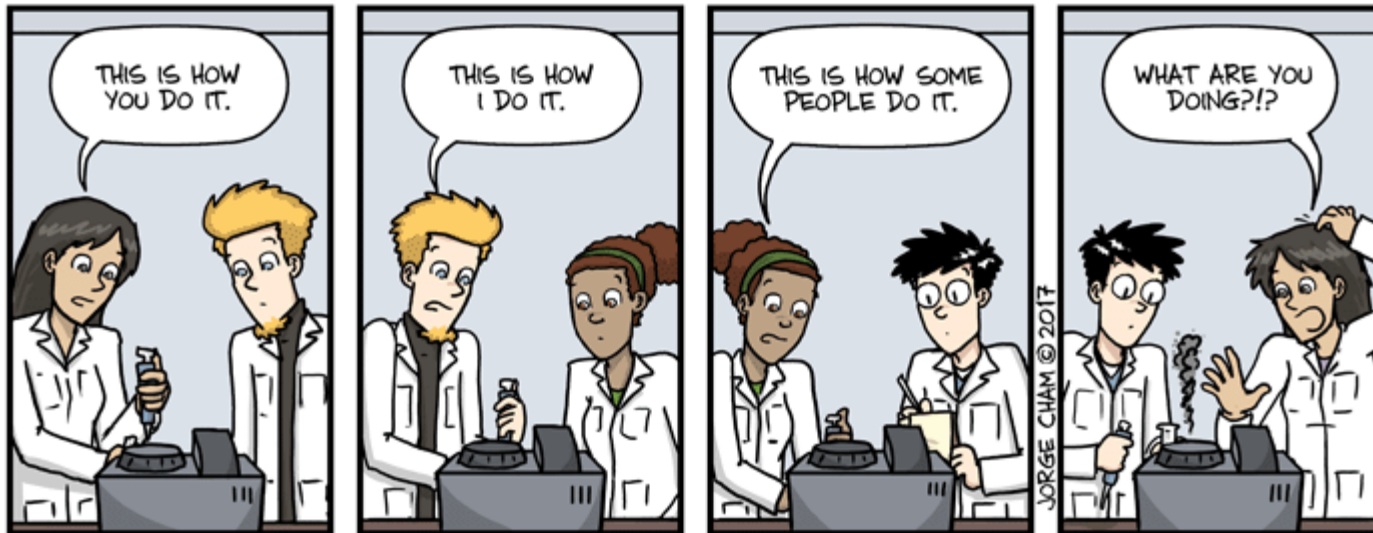
Hotseat Fifth Question
- Does how to documentation make sense?
- How might we use Cookbook to facilitate this documentation?
- What additional context can you provide?
- What additional recommendations do you have?

Recommendation

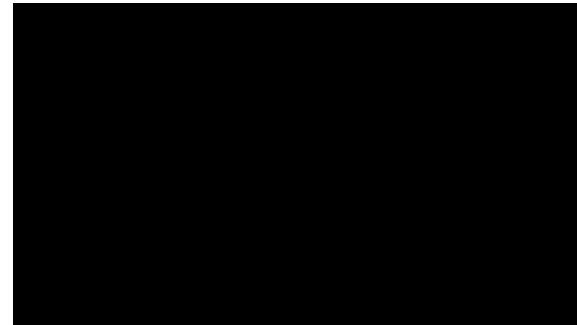## Create a Central Website for all Training Resources

Hotseat Sixth Question
- Does anyone dissent, if so why?
- Where would you put such a resource?

Does it mater?

What are the risks of not providing any additional data training?

- Hotseat Seventh Question
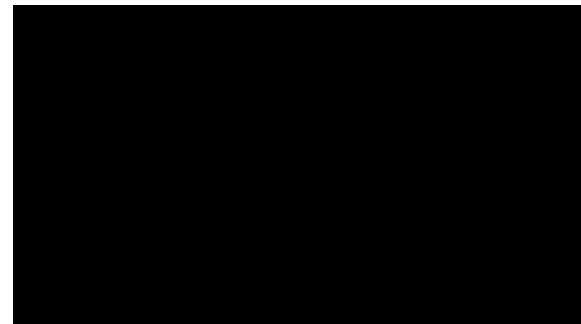

PURDUE
UNIVERSITY®

In Summary

Recommendations

- Conduct Standard Report Training for Report Runners
- Conduct Training on Student and Financial Data
- Conduct Training on Data Digest / Management Dashboards
- Add How-to-Documentation, consider Cookbook
- Create a Central Location for all Training Resources

Hotseat Eighth Question

- Any additional recommendations?
- Anything we missed?
- Anything the BI-Strategic Priorities Committee needs to be aware of?

PURDUE
UNIVERSITY.

THANK YOU

Any Questions?

PURDUE
UNIVERSITY®