

# Analytics and Data Solutions

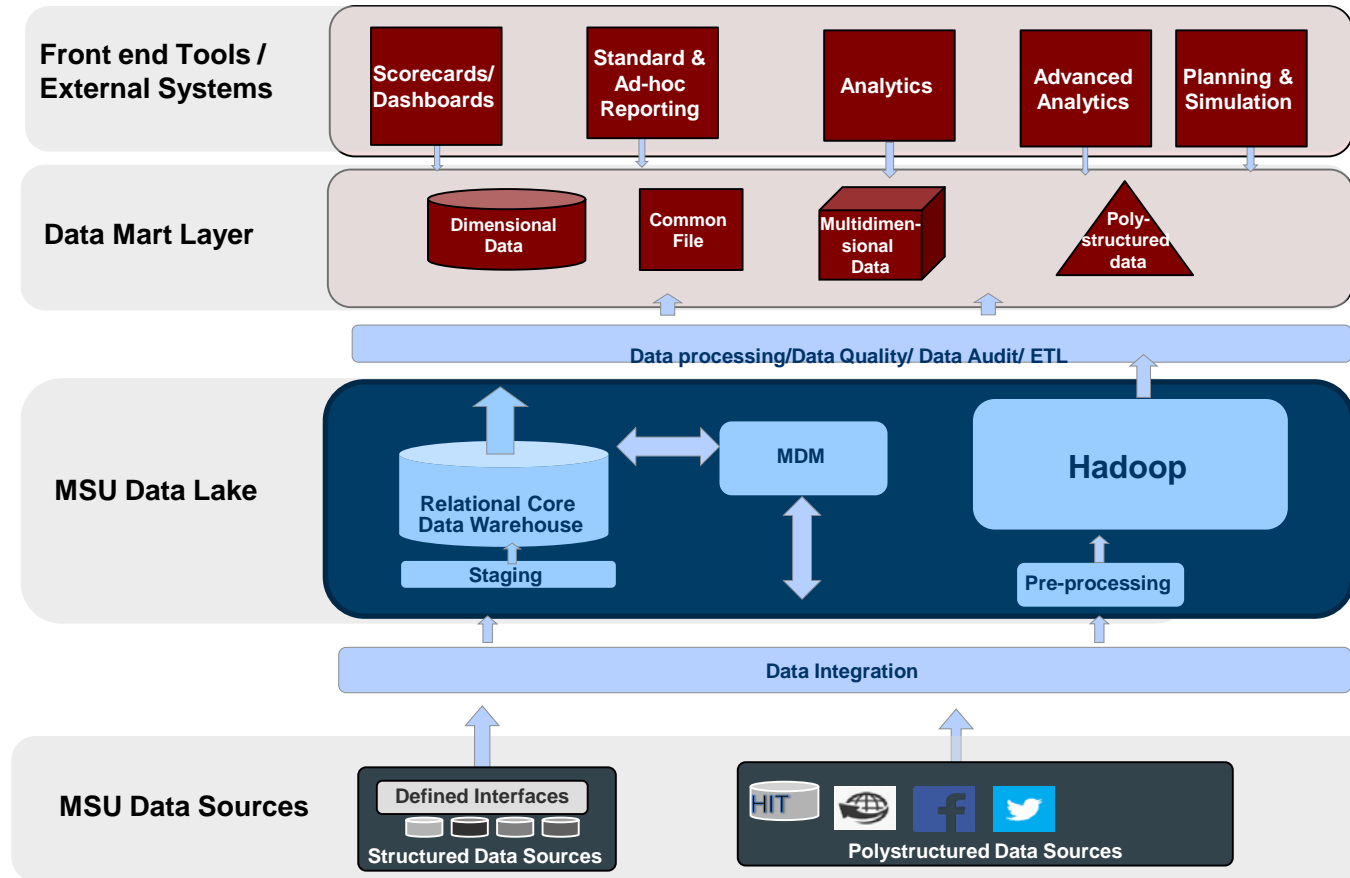
Yesim Askin, Director

Brian Werner, Data Warehouse Lead

Stephanie Dombroski, BI & Analytics Lead

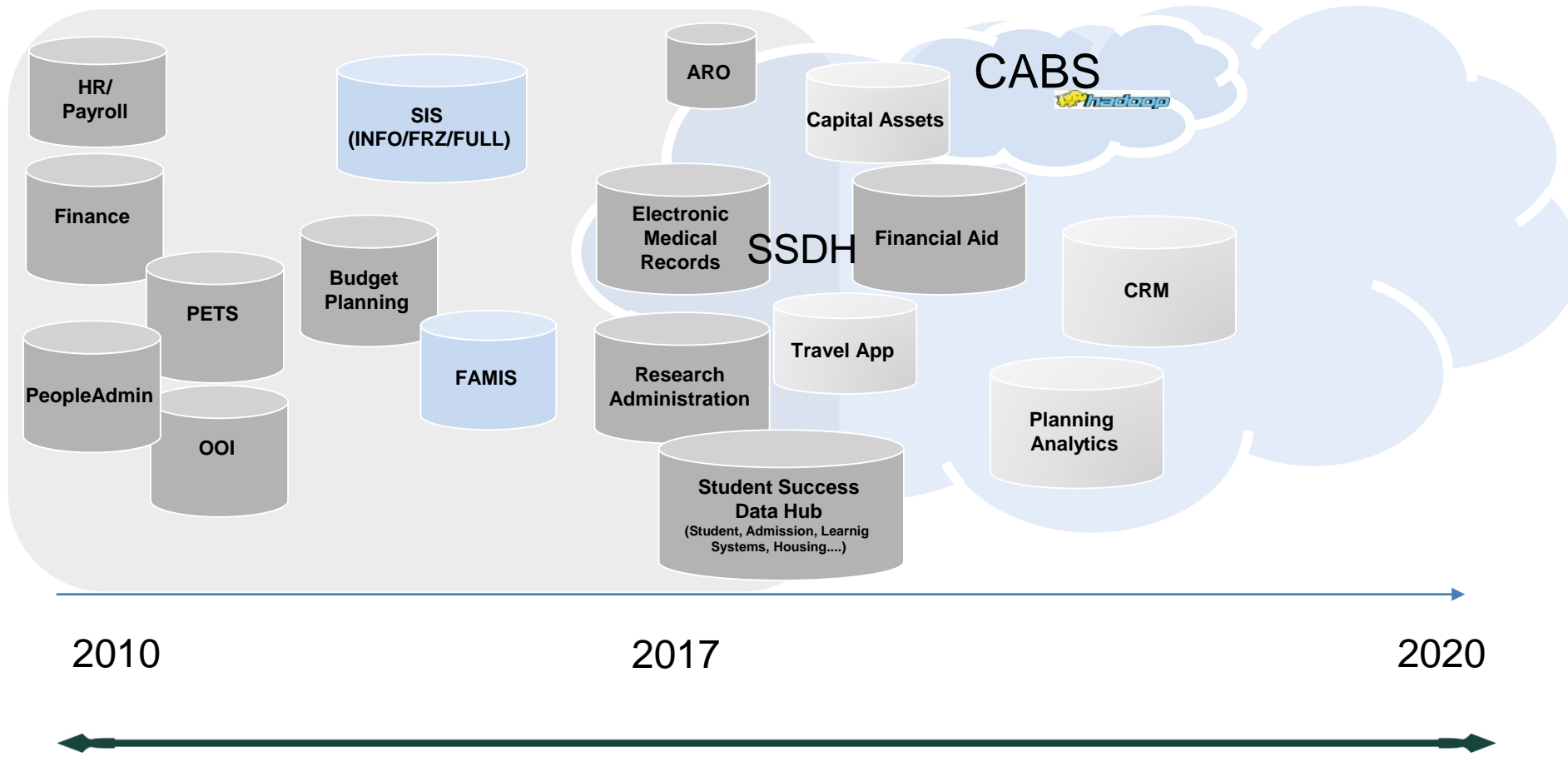


# Data Reference Architecture



# Data Sources

Data Sources



# Self Service Data Areas

## Current Data Sets Include the Following

HR – Actions	FIN – General Ledger
HR – Cost Distribution	FIN – Requisitions & Purchase Orders
HR – Labor Distribution	FIN – PO Payments
HR – Work Study (Sensitive)	FIN – DV Payments
HR – Time & Labor (Sensitive)	FIN – Pcard
PPS – HR	FIN – University Stores
PPS - Student	FAMIS – Room Allocation
PPS - CLIFMS	CGA – Award
CGA - Proposal	CGA – Organization Shared Expense
Budget – Budget Allocation	

# Direct Data Access Areas

Data Available in MSUEDW for HR Includes	
Organizational Management (OM)	Personnel Administration (PA)
Benefits (BN)	Payroll (PY)
Learning Management (LM)	Payroll Encumbrance System (PETS)
Time & Labor (TL)	HR Reference Tables (RF)
MSUDATA HR	MSUDATA Payroll
HR Historical Data 2000-2010 (HR HIST)	

# New Additions

## New additions to the Data Warehouse

### Kuali Coeus MSUEDW and Dimensional Models:

- Institutional Proposal
- Award
- Subaward
- Report Tracking
- Negotiations
- Award Budget
- Conflict of Interest

### Student Data Hub:

- Enrollment Data
- Student Demographics
- Major
- Address
- Academic Standing
- Grades
- Degrees

# Coming Up

## Future ADS Deliverables

### Kuali Coeus MSUEDW and Dimensional Models:

- Institutional Animal Care and Use Committee
- Institutional Review Boards

### Student Data Hub – Phase 2 & 3

- Application/Admissions
- Legacy Financial Aid
- EASE Data
- Tutoring/Help Rooms
- CLUE/Create for STEM/Drew Scholars
- Skyfactor Mapworks
- Advisor Notes
- Additional Grades Data
- Financial Holds
- Housing/RMS
- Athlete/Special Need and Quals
- Learning Management Data
- Advisor-Student Relationship
- Student Activity Schedule (EAB)

# Coming Up

## Future ADS Deliverables

### Student Data Hub – Phase 4

- Student Organizations
- Career Services
- Dining/Neighborhood
- Non-Cognitive Assessments
- ProSam Financial Aid
- Additional Learning Management Data
- Facilities Usage
- Degree Audit
- Engagement Survey
- Enhanced Academic Orientation Data
- Additional HEAR Lab Data



# BI & Analytics

- Reports – Standard Content
  - Interactive parameters
  - Can be scheduled
  - Can be emailed
  - Can be exported

# BI & Analytics

- Self Service Tools
  - Query Studio – user generated
  - Analysis Studio – slice & dice
  - Workspace – dashboard capability
  - Watson Analytics – natural language predictive and visual analytics
  - Tableau - visualizations



# BI & Analytics

- Support
- Demo
- Q&A



# Lite Reports

IBM Cognos Viewer - Labor Distribution Report Lite-HRP084

Stephanie Dombroski Log Off

Keep this version



## Labor Distribution Report-HRP018

Pay Date Range between Mar 29, 2016 and May 16, 2016

Organization: 10004832 - THEATRE  
 Account: Includes All Accounts  
 Sub-Account: Includes All Sub Accounts

Payroll Area: Includes All Payroll Areas  
 Personnel Sub Area: Includes All Personnel Sub Areas  
 Fiscal Officer: Includes All Fiscal Officers

- Labor Distribution Report-HRP018
- Labor Distribution by Person-HRP062
- Labor Distribution by Payroll Fund-HRP063

Organization:

Account:

Sub Account:

Payroll Area:

Personnel Sub Area:

Fiscal Officer:

Pay Date:

to:

[YTD](#)[QTD](#)[MTD](#)[WTD](#)  
[Last Month](#)[Last Week](#)[MTD Last Year](#)

Account Number: GA014481 Funding Organization Code - Name: 10004832 - THEATRE																
Finance/HR-Payroll Doc Nbr*	Pay Date	Acct Nbr	Sub-Acct Nbr	Object Code	Object Code Name	Sub-Object Code	Project Code	Person ID	Personnel Number	Person Name	Weighing Percent	For Period End Date	Wage Type Code	Wage Type Name	In Payroll Period	Payroll Amt
5000004901-638	3/31/2016	GA014481		6471	ADMINISTRATIVE PROFESSIONAL						100.00%	3/31/2016	1000	Pay Period Salary	201603	\$4,036.92
<b>Total for Finance/HR-Payroll: Doc Nbr* 5000004901-638: Total</b>																<b>\$4,036.92</b>
5000004897-907	3/31/2016	GA014481		6504	FACULTY		UNTF				100.00%	3/31/2016	1000	Pay Period Salary	201603	\$1,444.58
<b>Total for Finance/HR-Payroll: Doc Nbr* 5000004897-907: Total</b>																<b>\$1,444.58</b>
5000004912-424	3/31/2016	GA014481	OPERA	6504	FACULTY		DOMER				0.00%	3/31/2016	1580	Cell Phone Allowance	201603	\$120.00
<b>Total for Finance/HR-Payroll: Doc Nbr* 5000004912-424: Total</b>																<b>\$120.00</b>

Top Page up Page down Bottom

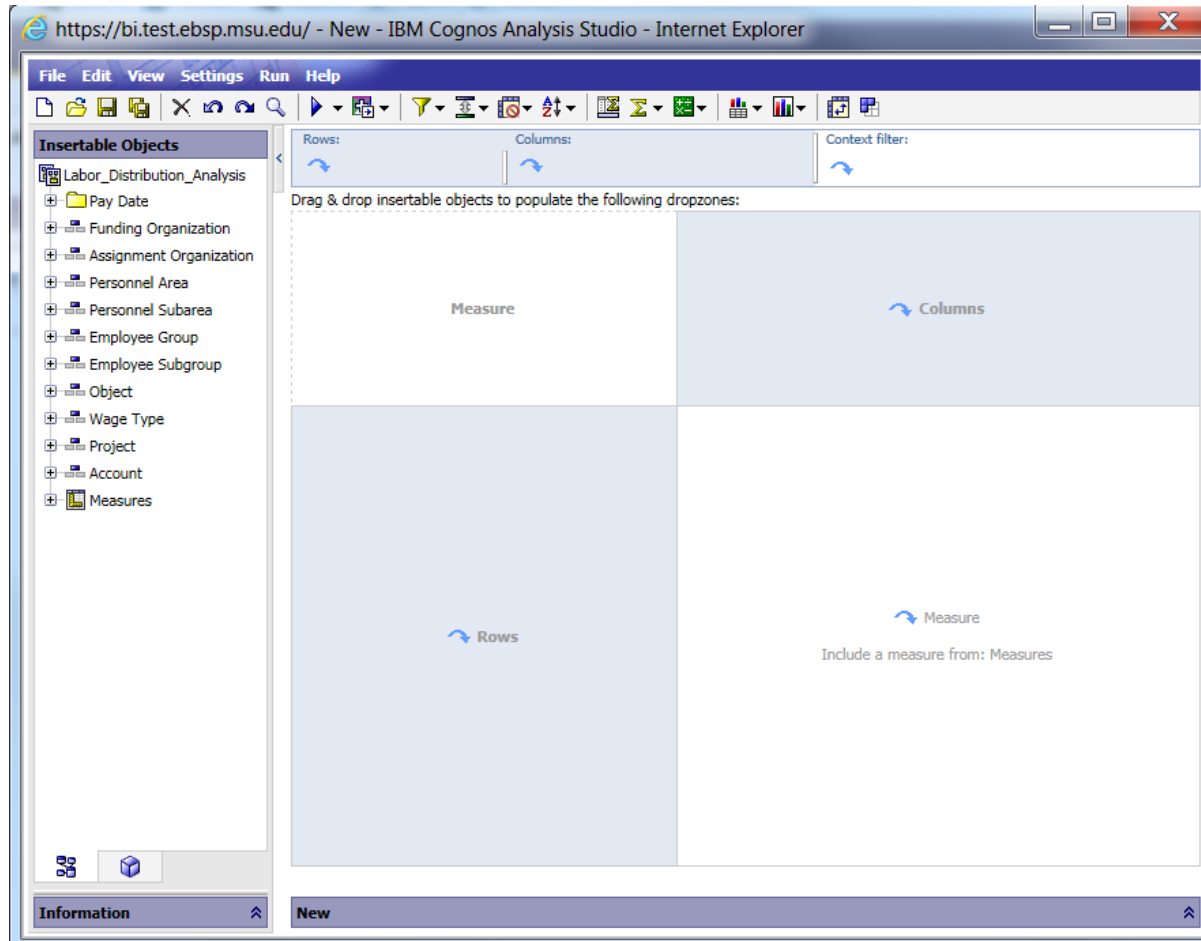


# Query Studio

The screenshot displays the IBM Cognos Query Studio interface. At the top, the title bar reads "IBM Cognos Query Studio - New" and the user name "Stephanie Dombroski" is visible along with a "Log Off" button. Below the title bar is a menu bar with options like "Insert Data", "Edit Data", "Change Layout", "Run Report", and "Manage File". A toolbar contains various icons for file operations, editing, and report generation. The main workspace is divided into two panes. The left pane shows a tree view of data sources under "EDWDIM GL Detail", including categories like Date, Organizational Hierarchy, Accounting String, and various attributes. The right pane is a report design area with a "Title" section and a large dashed box containing instructions: "Select and insert items from the tree to fill in the report. You can also drag and drop items into the report." Below this, a curved arrow points to the text: "Use Ctrl+click to select multiple items in the tree or report. Right-click report item headings to access commonly-used actions." At the bottom of the left pane, there is an "Insert" button with a green arrow.



# Analysis Studio



# Workspace

Layout and Style

FRIB Labor Dash

**MICHIGAN STATE UNIVERSITY**

2011 2012 2013 2014 2015  
2014

**Fringe Rate as % of Earnings**

2014  
29.3%

(Select All)

- Clerical Tech.
- FOP
- Fac./Acad Staff
- Grad. Assist.
- N/M
- Other EE
- Pro Supervisory
- Professionals
- Service Maint.
- Skilled Trades

Apply Cancel

Personnel Subarea Name	Person Count (2014)
Clerical Tech.	~5
Fac./Acad Staff	~105
Other EE	~45
Pro Supervisory	~15
Professionals	~75
Service Maint.	~2
Skilled Trades	~25

[MSU Home Page](#)

[MSU Controller's Office](#)

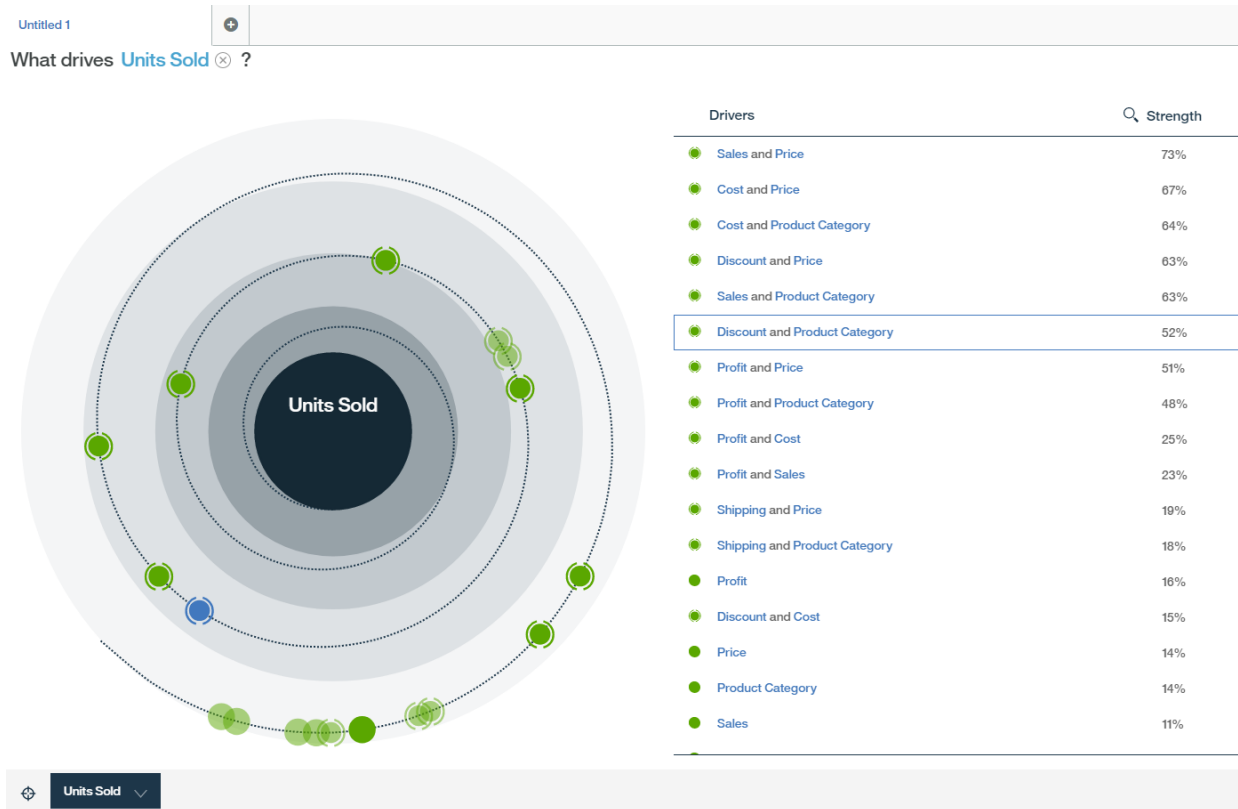
**2014 Fiscal Year Person Count**

■ FAS  
■ APSA

**Fiscal Year: 2014**

Account Name	Earnings Amt	Total Fringe Amt	Payroll Amt
GA014191 - FRIB General Fund	\$0.00	\$0.00	\$0.00
GA016991 - FRINGE BENEFITS - RESEARCH	\$0.00	\$173.86	\$173.86
PC041823 - FRIB DOE FUNDING	\$329,547.88	\$89,153.44	\$418,701.32
PR100019 - FRIB 25Mkv Power Supply	\$72,033.49	\$27,142.51	\$99,176.00
PR100032 - FRIB SRF High Bay	\$124,279.23	\$37,281.12	\$161,560.35
RC063215 - DOE SC0000661 GLASMACHER	\$8,196,963.59	\$2,390,598.67	\$10,587,562.26
RG073436 - ACCEL INSTRUMENTS GMBH GELBKE	\$0.00	\$9,515.80	\$9,515.80

# Watson Analytics





# Tableau

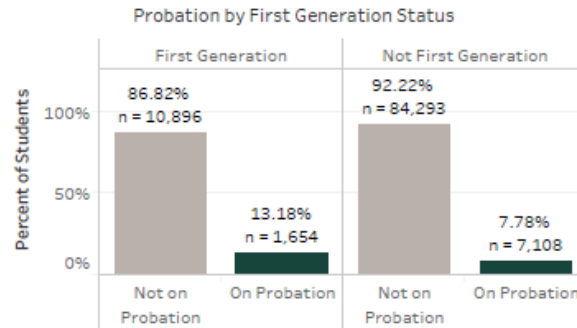


Figure 9: A higher percentage of first generation students are on probation than their peers whose parents attended college.

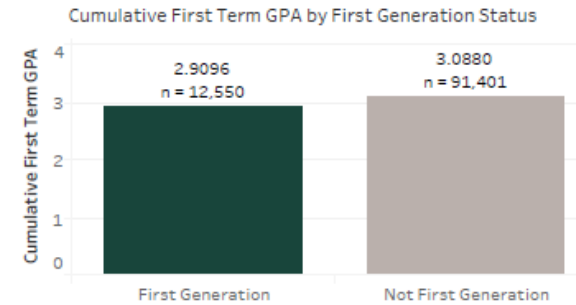
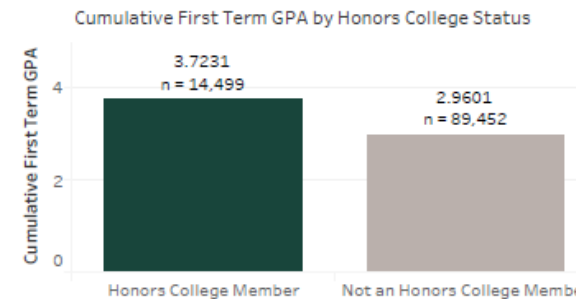
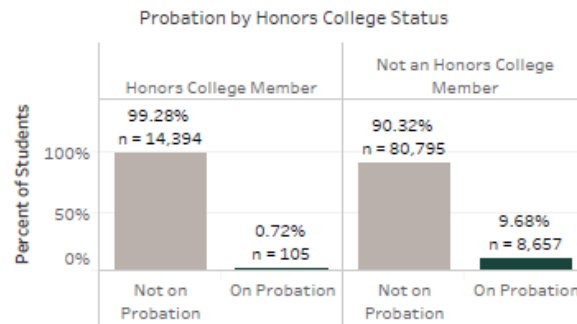


Figure 10: The average GPA of first generation students is slightly lower than those students who are not first generation.



# Support

<https://dataservices.ebsp.msu.edu/>

**MICHIGAN STATE UNIVERSITY** | Business Intelligence  
**Training and Job Aids**

Home | Data Warehouse | **Business Intelligence** | Message Board | Future Development | Contact Us

General Information  
Cognos Query Studio  
**Training and Job Aids**  
Available Reports  
Report Feedback  
Access and Security

**EBS Training Course**  
All Users of Cognos should attend training for [MDD Users to Run Standard Reports](#) which gives a full overview of Cognos and how to run reports include:

- Define Business Intelligence (BI).
- Identify the primary benefits of BI.
- Navigate the Cognos Connection
- Run EBS standard reports.
- Use prompts to customize reports.
- Use various options for report outputs, such as saving and scheduling.

**Report Job Aids**  
To provide help in interpreting and understanding reports, please visit the following pages to find the Job Aids:

- [Finance Reports](#)
- [HR-Payroll Reports](#)

**Quick Guides**



# Demo



# Q&A



# Contact Info

- For additional information, visit the ADS website:  
<https://dataservices.ebsp.msu.edu>
- For general questions, contact ADS via email:  
[dataservices@msu.edu](mailto:dataservices@msu.edu)
- For technical assistance and issues, contact the Service Desk