Real Time PI Reporting  
Presented by Liz Rietz – Sr Business Systems Analyst

BUSINESS OPPORTUNITY

The Finance Team would like to streamline the faculty financials reporting that maintains consistency across all faculty members.

BUSINESS QUESTIONS

{ As a faculty member/supporting admin, I would like to know: }

- When will I run out of funding?
- How much money do I need to raise?
- How many people can I hire? And for what term lengths?
- What is the remaining balance I can spend on each account?
- What accounts are new and are about to expire?
- Are my students and staff allocated through the end of their appointment/graduation?

BUSINESS SOLUTION

Leverage MIT’s license of Tableau Online to automate reports by accessing information stored in MIT’s data warehouse, which are updated daily.

REPORTING BENEFITS

- Tableau Online available with any browser on laptop, mobile, tablet
- User security controlled through kerberos id and tableau permissions
- Data updates daily based on data warehouse schedule
- Reduction in human errors – no more data manipulation, cut and pasting excel downloads
- Drill down capability to line item detail
- All tools were available internally through MIT or free
- Scenario building tool to help answer the questions: “How many people can I hire?” and “How much money do I need to raise?”

TECHNICAL RESOURCES USED

**Input Sources**

- MIT Data Warehouse
- Analyst enters projections

**Reporting Tool**

- Postgres Database is table source
- Create dashboards within Tableau Desktop
- MIT has Enterprise site License

**Data Transformation**

- Blends data from input sources
- Allows fiscal officers to refresh tables after projection changes
- Database stores tables from blended data using SQL

**FINAL OUTPUT**

- Tableau Online available with any browser on laptop, mobile, tablet
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RESOURCES

MIT Data Warehouse: [https://ist.mit.edu/warehouse](https://ist.mit.edu/warehouse)
Google Sheets: [https://www.google.com/sheets/about/](https://www.google.com/sheets/about/)
Pentaho Community Edition: [https://community.hds.com/docs/DOC-1009931-downloads](https://community.hds.com/docs/DOC-1009931-downloads)
PostgresDB: [https://www.enterprisedb.com/](https://www.enterprisedb.com/)
PostgresSQL: [https://www.postgresql.org/](https://www.postgresql.org/)
MIT Tableau Access: [https://ist.mit.edu/tableau/service](https://ist.mit.edu/tableau/service)
Tableau Online Views: Report to quickly identify account direct balances, headcount reporting, expense details and more

**Account Summary**
- Multiple views on one tab
- Easily identify remaining account balance after F&A
- Filter on Account Number/Account Name or Positive, Negative values
- Show commitments broken out by PO or Salary
- Switch between authorized and obligations totals

**Account Detail**
- Award information in the header
- Additional Notes as inputted by analyst
- Displays budget (if available) and expenses by categories team determines
- Detail of projected commitments at personnel level
- Detail of PO commitments source from SAP
- Graph highlighting budget to actuals by cumulative amount and month
- Colored bar graph to show accepted, rejected and pending proposals by FY, including total count and dollar amount
- Line chart depicts percent funded by each FY
- Detail proposal information on bottom table sorted by FY
- Clicking on a section of the bar graph filters the table below

**Proposals**
- Monthly bar graphs track spending by expense category
- Ability to filter by account name
- Clicking into an expense section provides summary level information
- Clicking into summary level information displays transaction detail
- Expense transaction detail can be searched by vendor

**Monthly Expenses**
- Monthly bar graphs track spending by expense category
- Ability to filter by account name
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- Clicking into summary level information displays transaction detail
- Expense transaction detail can be searched by vendor

**Headcount**
- Radio button to select RA, Staff or Faculty summer views
- Column indicates whether personnel are fully allocated through end date
- Colored bar graphs to show if personnel is 100% allocated within a month
- Filters to identify personnel by name, account, fully allocated
- Degree program column for RA’s in an outside program

**Proposal Tab Highlights**
- Scenario Builder Tab Highlights
- Monthly Expenses Tab Highlights
- Proposals Tab Highlights
- Account Detail Tab Highlights
- Headcount Tab Highlights
- Account Summary Tab Highlights