

## Background

- Our institution has centralized budget development for new, amended, and feasibility studies within the Clinical Research Finance (CRF) unit.
- Complexity of the budget development is based on many factors.
- The team's leadership wanted to ensure that budget work is distributed to Budget Analysts evenly based on the complexity of each budget assigned and an analyst's current workload capacity.

## Goals and Methods

- A budget workload score (BWS) formula was developed to allow managers to distribute work equitably and to develop detailed reporting to continuously monitor budget work completion and pending work items.
- We developed a formula to calculate scores on a 10-point scale per budget, leveraging data from multiple applications. The New Protocol budget type multiplies these 5 inputs together and then standardizes to a 10-point scale

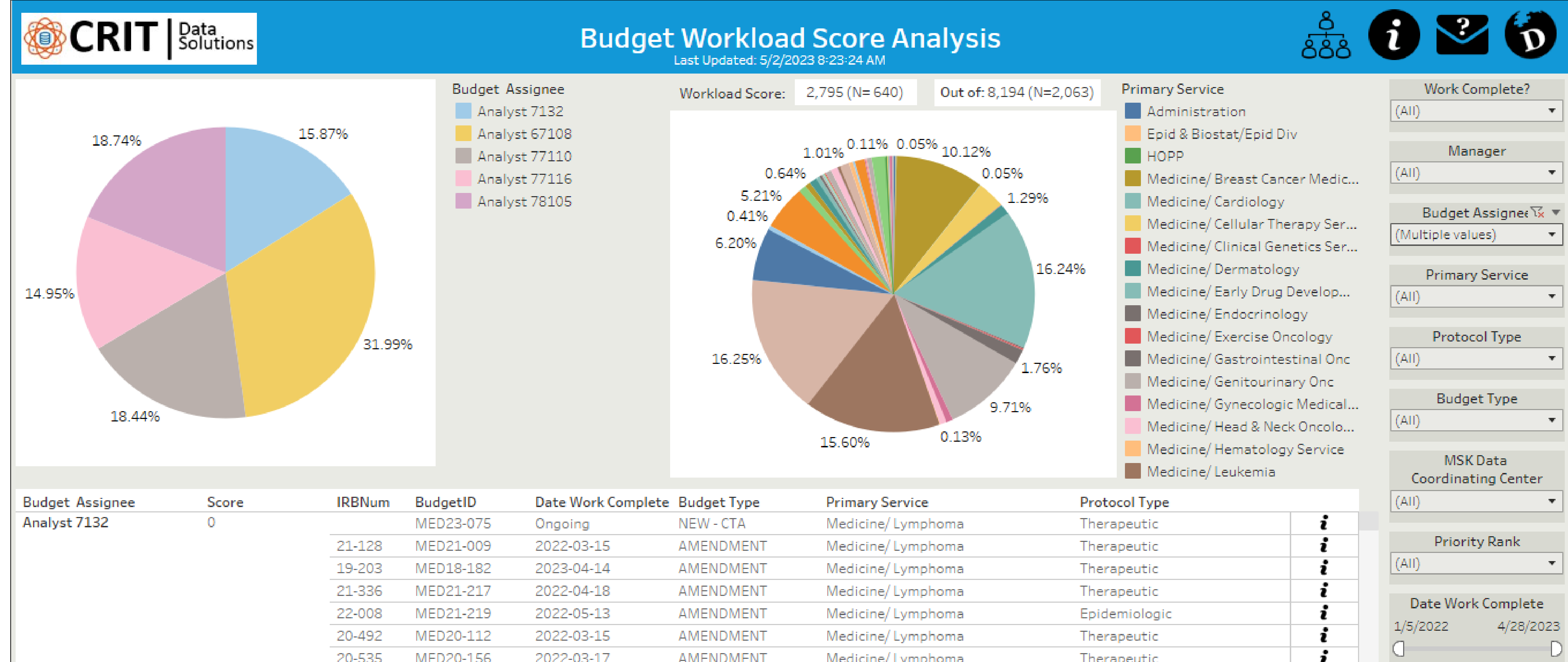
## Systems and Data Sources

- An in-house developed clinical research application, the Budget and Contracts Management System (BCMS), tracks budget types as well as action and status dates of the budget development process.
- An in-house developed clinical research application, the Protocol Information Management System (PIMS), manages all steps involved with the regulatory protocol life cycle.
- A vendor product, OnCore by Advarra, is our Clinical Trials Management System (CTMS) for subject tracking and financial management.
- A project management software, Smartsheet, is used by the CRF unit to assign a Budget Analyst to a Budget Manager.

## Calculation

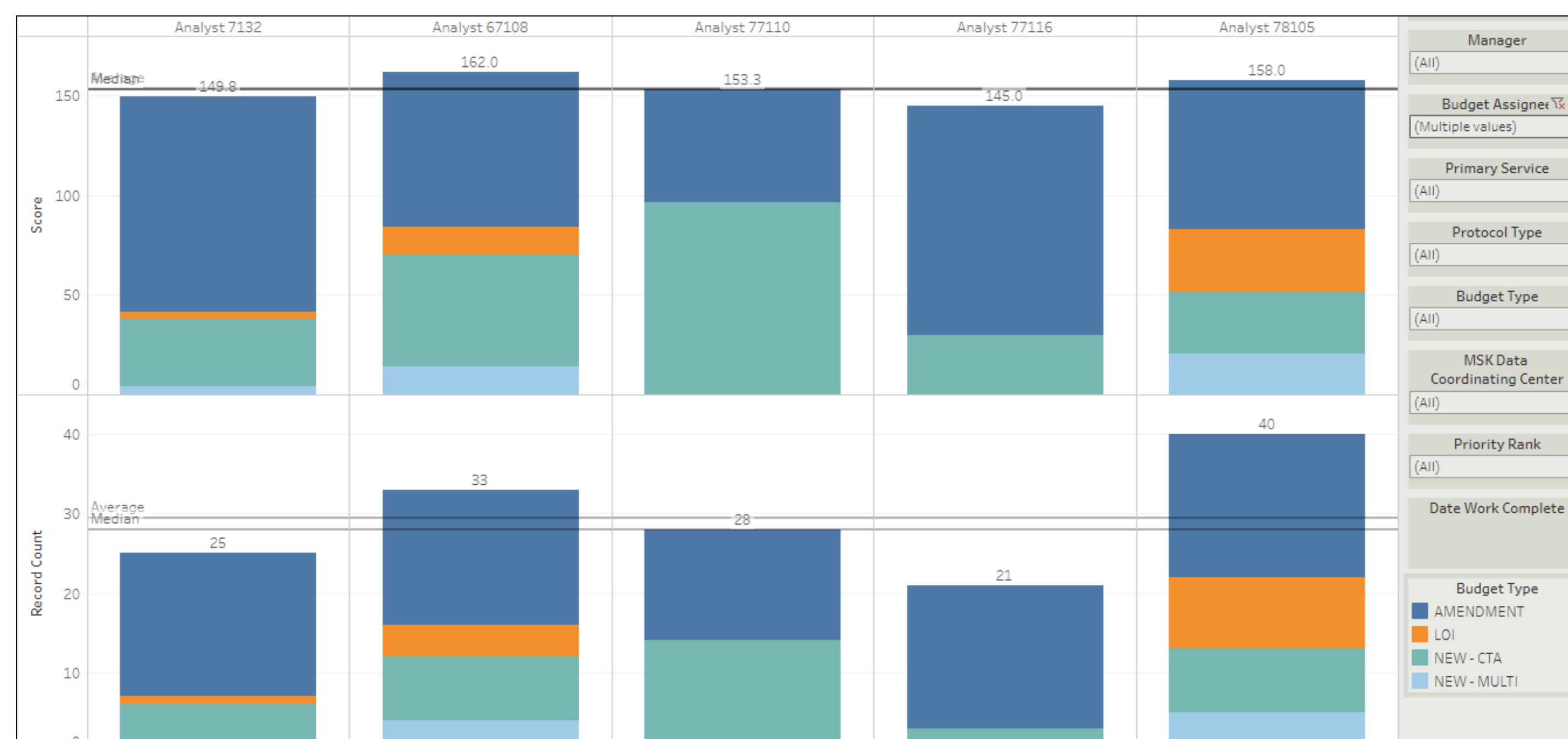
Budget Type	Factors	Data Source
Letter of Intent	Standard 3.5 / 10 score	BCMS
Protocol Amendment	Amendment Category	BCMS
New Protocol	Protocol Type	PIMS
	Protocol Category	PIMS
	Treatment Arm Count	CTMS
	Internal Budget Status	BCMS
	Company Budget Status	BCMS

## Primary Visualization



## Features

- Managers can review completed work vs. work in progress (WIP).
- Pie chart (L) allows managers to review distribution of work across staff.
- Pie chart (R) allows managers to see a service's volume as a percentage of the institution's total portfolio.
- When service portfolios need to be redistributed, managers can select multiple services in the right graph and the viz will recalculate to show who is currently assigned and what the new combined score would be.
- Budget level details are also provided the bottom portion of the dashboard.



## Outcomes and Future Direction

- Complex reporting can be created to manage staff workload. The bar graph presented to the left shows how a manager can assess the current WIP portfolio across analysts to assign incoming budgets.
- The BWS may be utilized to create benchmarks for progress during onboarding of new staff.
- Continuous refinement of the BWS logic, taking into consideration additional criteria as our source systems are enhanced and as we receive feedback from the budget team regarding accuracy and precision of the calculations.