How to Drive Research with Data

Matt McPeck, Director, Post-Award and Research Finance, Children’s Hospital Los Angeles
Laura Gatewood, Manager, Programs & Analytics, Children’s Hospital Los Angeles
Introduction

Matt McPeck, MPA
Director, Post-Award & Research Finance
Children’s Hospital Los Angeles

Matt is an analytical, high-energy business leader with substantial experience in areas of research administration, financial planning and analysis, contract & grant administration and program management. With 17 years of experience, he has a demonstrated track record of successful leadership through organizational changes and strategic planning. Providing valuable, responsive customer service, improving processes and controls and developing future leaders have been the most rewarding aspects of his career.

Laura Gatewood, MA
Manager Programs & Analytics
Children’s Hospital Los Angeles

Laura is a craft-driven leader who specializes in developing team cultures that thrive. She focuses on ensuring operational practices align with strategic goals. She has over seven years of healthcare administration experience.
Our Favorite Quotes

“Information is the oil of the 21st century and analytics is the combustion engine.” Peter Sondergaard

“The goal is to turn data into information and information into insight.” Carly Fiorina

“Use data to move from a knowing culture to a learning culture.” Murli Buluswar
The amount of data in the global datasphere could grow to 175 zettabytes by 2025.

1000 kilobytes = 1 megabyte

1000 megabytes = 1 gigabyte

1 trillion gigabytes = 1 zettabyte
Getting to Know You

Raise your hand if you are from:
- a) Central
- b) Divisional
- c) Industry
- d) Sponsor

Raise your hand if you have a formalized metrics process at your institution.

If so, how do you use your metrics?

What does data mean to you?
Group Activity

Write Instructions to Get to Your Desired Destination WITHOUT Using Data
The Mission of Data

Data is not just a report. It creates an informative map to support management’s strategic decisions and actions to measure alignment with the goals of a research enterprise.
Our Story

Two years ago, in a land down south...

Our data reporting process was:

• By request
• Reactive
• Informal
• Opaque in process
• Non-repeatable
• Disorganized
• Possibly accurate (or not)

Today, our data reporting process is:

• Formalized
• Proactive
• Strategically driven
• Repeatable
• Organized
• Verifiable
• Useful

What did we do to improve our data reporting process?
Our Story

DEFINE NEEDED RESOURCES
Determine required technological tools and human resources – work with what you have!

SET REPORTING REQUIREMENTS
Identify vital data points to measure and frequency of reporting to establish baseline data set

ALIGN TO PRIORITIES
Ensure metrics align with goals of the enterprise

REFINE, REFINE, REFINE
Commit to constantly evaluating which data points are captured and how to improve metrics reporting process
Data Requirements

Timely
Data must be captured when it is meaningful

Relevant
Data must be accurate and value-added to the organization to guide best practices

Repeatable
Processes must be defined and accessible to ensure production is reliable

Actionable
Data must go hand in hand with leadership support to use reports to optimize research
Using Data to Drive Research

What We Learned & Applied
The Four Drivers

**Transparency**
Operating with data transparency will boost productivity overall. It increases morale, reveals problem areas and celebrates success.

**Clarity**
Data lays bare the truth, enabling leaders to draw insight from the facts and make strategic decisions to benefit the research enterprise.

**Sustainability**
Data drives the optimization of resource usage, measures impact of change and defines peak efficiency, enabling research to thrive.

**Directionality**
Data not only reveals the past and the present; it also provides wayfinding signals to direct us towards the desired future.
Transparency
The Trust Builder

WHAT IS IT?

Data transparency in the information economy is the ability to easily access and work with data under the safe assumption that the data is accurate and from a reliable source.

HOW IT BENEFITS

Trust
Boosts confidence within staff, leadership and scientific community

Harmony
Centralized and decentralized research offices collaborate seamlessly with shared data

Morale
Boosts confidence and engagement across all stakeholders by celebrating achievements

Scientific Potential
Accessible and verifiable data harnesses potential for scientific impact; collateral for philanthropic marketing

WHY IT WORKS

Accountable
Accessible data must be accurate and verifiable: solid data leads to solid science

Replicable
Data reproduction is essential to driving faith in the value of research strategies

Efficacious
Transparent data substantiates either the need for operational changes or maintenance of current resources to optimize research enterprise

2019 ANNUAL MEETING
OCTOBER 19 - 23
Transparency
The Trust Builder

On the road to greater data transparency, there are 5 human obstacles to be aware of:

Hostage Data
Office politics can lead to data owners holding data ‘hostage’ for personal advantage

Position Preservation
Employees may ‘sandbag’ level of work required for data reporting to protect their livelihood

Problem Hiding
Unfavorable data can lead to ‘massaged’ data to show leadership what they want to see instead of reporting the truth

Risk Avoidance
Excessive data governance can be too rigid and overbearing for staff and leaders, leading them to stop using data to drive the enterprise

Change Aversion
Increasing data visibility can lead to good change; those who prefer status quo may obstruct efforts to share data
Our Story: Cores

Developing Transparency in our Core Research Facilities

Three years ago, our Core Facilities lacked centralized governance over financial reporting and operational efficiency.

Key Areas Challenging Transparency

- Standardized core budget provided annually by our organization
- Ad hoc group of institutional insiders decided the annual equipment investment
- Core directors had no accountability for financial management of Core - only informal requests placed around recharge expectations
- No optimized annual reviews for Core performance
- Lacked standardized regular metrics and formal monthly recharge reporting requirements
Cores Course Correction

Over the last two years, significant advancements made to provide transparency to our Core facilities, resulting in increased recharges and user base as well as improved accessibility for the research community.

What We Did

Monthly Standardized Recharge
Income Reports
Templatized monthly recharge reports created to ensure all Cores track necessary usage data points to justify institutional investment in operational budget and new equipment request. Data reports support validation of volume assumptions.

Core Pilot Program
Formal Core Pilot Program established to support intramural projects to lead to more competitive extramural grant applications along with database attributes created to track return on investment, leading to an increase in pilot funding after inaugural year.

Web Development
Dedicated webpages by Core established with up to date information on pricing, equipment, publications and services to increase informational transparency.

Core Oversight Committee
Annual reviews of all Cores require Core Directors to maintain accountability over Core improvements and regular course correction meetings held if recharge reports not tracking to established expectations. A systematic and thoughtful justification process implemented for new capital equipment requests.

Over the last two years, significant advancements made to provide transparency to our Core facilities, resulting in increased recharges and user base as well as improved accessibility for the research community.
Clarity
The Truth Teller

WHAT IS IT?
Data clarity is a record of truth, objectively filtered and cleansed of opacity, to support business decisioning needs. It provides the necessary and relevant facts to act on.

Key Benefits
- Unveils the strengths and weaknesses of the research enterprise
- Provides a trustworthy method to properly benchmark standing within industry
- Exposes the true research landscape at both the macro and micro levels
- Reveals trends to allow for better decision making to advance research enterprise
Data clarity is fundamental for effective research enterprise data management, but in this information-driven age, so much data can create an unwieldy variety, velocity, and volume of information moving around your enterprise.

Use ADMOC to maintain integrity in data clarity.

**A**
Apply Data Stewardship
Consistently reinforce importance of accurate data among data entry owners

**D**
Define Processes
Determine repeatable and successful reporting methods

**M**
Maintain Oversight
Ensure leadership and stakeholder buy-in for data choices

**O**
Optimize Visualization
Curate appealing and clear design for data presentation

**C**
Choose the Best Tools
Utilize the best data reporting tools available, depending on resources
Our Story: Project Close Outs

The new Research Operations administration inherited several different ways of closing out projects, leading to a lack of clarity around when and how projects were to be closed.

A metric never before tracked, data was pulled and analyzed, revealing over 1,000 “active” projects with expired end dates and no activity.

Met with leadership stakeholders to define the needed metrics to track, set the program schedule and determine reporting frequency to increase clarity.

Newly developed data reports justified the need for temp support to clean up projects.
Our Story: Project Close Outs

How We Utilized Data Clarity

**SOURCE**
Data revealed inter-departmental roadblocks limiting smooth closeout abilities.

**DEFINE**
Data analysis led to understanding & definition of how to correctly close projects.

**RESOLVE**
Data tracking led to closeout goals being met across all team members.

**COMMIT**
Validated monthly metrics ensure accomplishments are sustained.
Sustainability
The Efficiency Expert

WHAT IS IT?
Data can optimize the financial and operational sustainability by marking the path towards a resilient and thriving research enterprise.

Key Benefits of Using Data to Drive Sustainability

- Optimizes Resource Usage
- Measures Change Impact
- Defines Efficiency
- Celebrates Accomplishments
Sustainability
The Efficiency Expert

To be sustainable, the research enterprise must adhere to a funding portfolio that supports the optimal health of the enterprise. Data provides the compelling proof to define and install measures to create optimal health across the enterprise.

**HOW IT WORKS**

**Dependencies**
Fund sources can be volatile, changing with the economic tides. Data shows where financial dependencies exist in the financial portfolio, allowing leaders to optimize fund allocation shore up resources for the future of research.

**Throughputs**
Data defines the actual amount of time, effort and energy processed to drive research in a given period of time. Defining throughput via data allows for structural decisions to enhance institutional support of research.

**Staffing Resources**
Data establishes the benchmark of a team’s bandwidth, revealing trends of volume and output turnaround time across teams, providing justification for changing resource allocation to better drive research efforts.

**Return on Investment**
Research requires a significant institutional investment across overhead and intramural funding programs. Data provides the health check on productivity and value of investments.
Our Story: Project Deficits

Our journey began in 2017 with thousands of intramural and extramural projects carrying negative available balances, totaling over $20 million in project deficits.

Our first steps were to analyze all data and organize by division and responsible post award analyst, establish monthly tracking and divisional meetings in order to understand challenges in project management.

The improved metrics tracking and informational meetings led to the discovery that improved central organization was needed. A reorganization of the Post-Award analyst team by division created engaged relationships with divisional counterparts, increasing the ability to resolve project deficits quickly and sustainably.
Our Story: Project Deficits

NOW
Total project deficits reduced from over $25 million to under $500K

HOW WE DID IT

SET GOALS
DEFINED REASONABLE INCREMENTAL DEFICIT REDUCTION GOALS

ENGAGE
DEVELOPED IMPROVED RELATIONSHIPS BETWEEN DIVISIONAL COUNTERPARTS & CENTRAL ANALYSTS

ELEVATE
ESCALATED MOST CHALLENGING CASES TO HIGHER LEADERSHIP AS NEEDED

TRACK
REPORTED MONTHLY PROGRESS TO SENIOR LEADERS TO ENSURE ACCOUNTABILITY

CELEBRATE
PUBLISHED RESULTS TO BOOST MORALE AND SUSTAIN TEAM SPIRIT OF COMPETITION VIA RECOGNITION

NOW
2019 ANNUAL MEETING
OCTOBER 19 - 23
Directionality
The Strategy Enhancer

WHAT IS IT
Every research enterprise needs to drive towards goals and strategies to support those goals. Data provides a roadmap and signage to ensure the enterprise is on the right track to achieve its strategic aims.

Data Directionality Roadmap Markers

Directs Focus Areas
Tracking KPIs related to implementation of strategic goals reveals areas for additional resource concentration.

Flags Course Correction
On the course to achieve strategic results, data will highlight areas that need optimal changes to enhance realization of strategic plans.

Drives Alignment
Data will ensure that the tactics associated with a strategic plan are in alignment with the plan goals.
Our Story: The Research Enterprise Strategic Plan

Accelerate Life-Changing Discoveries

In 2019, over 100 investigators and staff from our research community participated in the development of the Research Enterprise Strategic Plan at CHLA. Implementation began in August.

Data was a vital tool used to develop an optimal Strategic Plan and will play an integral role in its implementation. Here’s how…
Our Story: Data and The Research Enterprise Strategic Plan

Defines Current State
Data reveals the environmental reality of the starting point. To plan the best future, the state of the present must be clear.

Establishes Goal Achievement
Data rings the bell when the measurable goal has been achieved, allowing for a boost in morale and celebration of successful efforts.

Measures Progress to Goal
Data ensures accountability of strategic efforts by providing a window into effective action.

Signals Course Correction
Data regularly tracked will flag when corrective action needs to be taken to ensure strategy success.

Assists in Benchmarking
Data not only describes the current institutional state but will also show where it sits respective of other organizations.

Focuses Strategic Efforts
Data supports tactical definition of strategic goals by providing actionable and measurable parameters.
PSA: Letting Go of Perfection

R.I.P.

Perfection
January 1 of Never
to
December 31 of Never

Beloved Illusion of Many
Key Takeaways
The Four Drivers

**Transparency**
Operating with data transparency will boost productivity overall. It increases morale, reveals problem areas and celebrates success.

**Clarity**
Data lays bare the truth, enabling leaders to draw insight from the facts and make strategic decisions to benefit the research enterprise.

**Sustainability**
Data drives the optimization of resource usage, measures impact of change and defines peak efficiency, enabling research to thrive.

**Directionality**
Data not only reveals the past and the present; it also provides wayfinding signals to direct us towards the desired future.
Contact Us

Matt McPeck, MPA
Director, Post-Award & Research Finance
Children’s Hospital Los Angeles
Email: mmcpeck@chla.usc.edu
Phone: 323-361-7394

Laura Gatewood, MA
Manager, Programs & Analytics
Children’s Hospital Los Angeles
Email: lgatewood@chla.usc.edu
Phone: 323-361-5583
THANK YOU!

Learn more about us at www.chla.org/research