



# Sandia National Laboratories Business Overview (Part 1)

Lydia Coleman  
Sasha Ko





# Introduction

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- What is Sandia National Laboratories?
- Business Processes
- Who drives the data calls?
- Funding Sources
- CIO IT Advisory Council (CITAC) Role
- IT Organizational Structure & Business Support Structure
- Matrix Organization



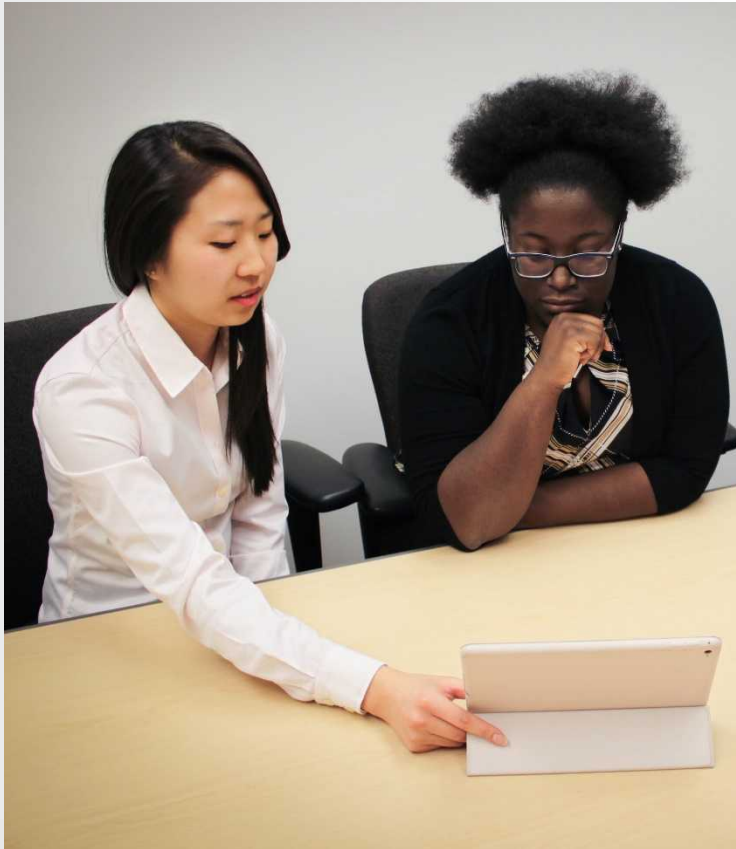
# What is Sandia National Laboratories?

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- Government-owned, contractor-operated (GOCO) Federally Funded Research and Development Center (FFRDC).
- GO = As an agency of the government, the Department of Energy's National Nuclear Security Administration (NNSA) owns all Sandia National Laboratories (SNL) facilities and is a sponsor for Sandia's FFRDC status.
- CO = Through a management and operating (M&O) contract, SNL is managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation.

# Business Processes

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## Financial Management

- Cost and funding analysis
- Financial Forecasting
- Accounting for Assets

## Business Operations

- Program/Project Management
- Proposal Development
- Resource management planning, hiring and staffing, retention
- Procurement Support
- Data Calls

# Funding Sources

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- Direct Projects
  - Full cost of Sandia is charged to Direct Projects
- Indirect Projects
  - Taxed from Direct Projects
  - Main source of funding for IT at Sandia
  - Challenges
    - Indirect Funding does not grow
    - Inflation costs are not accounted for
    - Funding deployment timing
    - IT needs are growing so quickly
- Service Center (to be discussed in Part 2 of Presentation)



# Who drives the business data calls?

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- Office of Federal Financial Management
  - Cost Accounting Standards
- Integrated Mission Support (IMS) Business Office
  - IT's Main Funding Source
  - Funding Data Calls
- CIO Office



# What is CITAC?

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- CITAC – CIO IT Advisory Council
  - Senior leadership body of Integrated Mission Support (IMS) Directors, focused on IMS-wide IT business needs.
  - Provides a corporate perspective, by prioritizing these needs collectively based on an agreed upon set of principles.
- CITAC is the point-of-entry for Lab IT needs.
- After prioritization, CITAC shares the recommendations with the CIO to work with Mission Support Team (MST) and IMS for funding as needed for yearly budgeting cycles.

# Who is Involved?

IMS – Integrated Mission Support –  
VP Kim Sawyer

This is the program that all Indirect  
work functions under.

IMS

MST – Mission Support Team  
The Executive Leadership  
containing all Mission Support VPs.  
The CIO is part of MST.

MST

ITS – Information Technology  
Services  
IT program area, all IT related  
proposals are submitted through  
ITS to IMS.

ITS

CITAC – CIO IT Advisory Council  
Joselyne Gallegos (9500), Chair  
All Mission Support Directors. CITAC  
provides IT business need priorities  
to the CIO.

CITAC

Each Director works within his/her  
area to determine what IT business  
needs exist. This is where staff  
involvement in supporting the  
Director's needs starts. Proposals  
submitted to IMS start here as a  
CITAC business need.

Senior Managers, L1  
Managers, PMs,  
Financial Staff



# Purpose and Goals of CITAC

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- A senior leadership body that establishes IMS-wide business needs and collaborates with the CIO to optimize, within constraints (e.g., funding, technology, people), IT solutions applied to those business needs, maximizing mission value and appropriately managing risk
  - Members inform each other of area needs and drivers to gain common collective understanding of problems and opportunities
  - Members make decisions with a corporate perspective consistent with Lab intent (e.g., Lab Strategic Plan, CIO Strategic Plan, Mission Area Plans, PMU Plans)
  - Members will be cognizant of trades between local and global optimization, seeking to provide operational efficiencies & effectiveness required to achieve mission outcomes
  - Deliberations will result in transparency of IMS IT needs and priorities and enable seamless service integration across IMS & IT



# **When is a Business Need Required to go through CITAC?**

The Business Need should generally fit the following criteria:

- It is an investment request
- It is IT-related & cross-functional
- It cannot be completed out of regular baseline funding (either functional or IT)

# IT Business Support Structure



## Business Office

Jordan Spence



9300

Business Professional  
for Computing & Networking Services  
(9300)

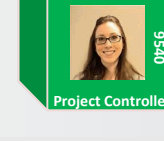
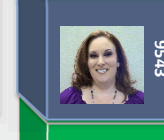
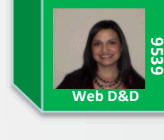
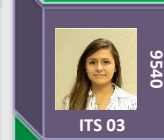
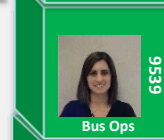
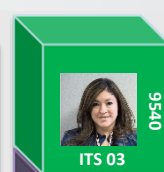
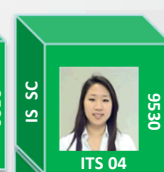
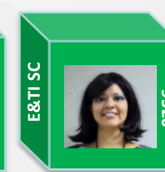
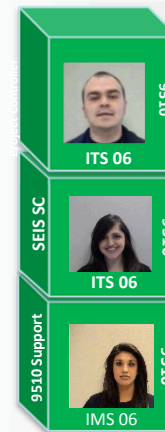
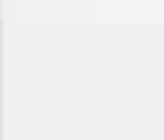
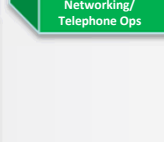
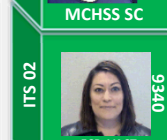
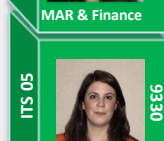
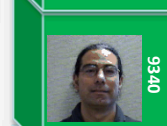
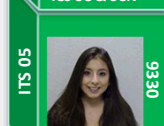
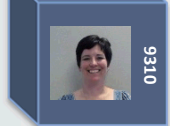
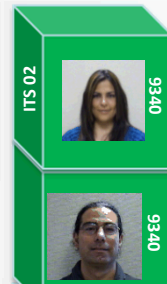
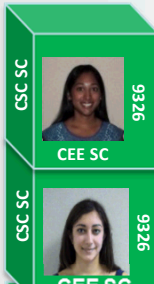
## Business Office

Lydia Coleman

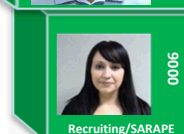
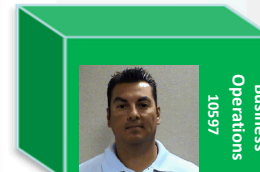


9500

Business Professional  
For Information Solutions  
(9500)



## Business Managers



LEADING THE DOE COMPLEX AS THE MODEL FINANCIAL AND BUSINESS MANAGEMENT ORGANIZATION

Color Coding:  
Regular Employee  
Intern  
Administrative Support

# Matrix Organization

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- Disadvantages
  - Internal Complexity
  - Expensive to Maintain and Internal Conflict
- Advantages
  - Efficient Information Exchange
  - Increased Motivation

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# Questions?



# Sandia National Laboratories Business Overview (Part 2)

Lydia Coleman  
Jacqueline Baca





# Service Centers Overview

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- What are they?
- Benefits of a Service Center
- Why do we have Service Centers
- What is our Role?
- Tools
- How we manage Service Centers
- SC Models



# Service Centers: What are they?

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## What is a Service Center?

- A service center within Sandia is any organization, function, activity or grouping of activities which achieves a full recovery of costs by providing internal customers with a product or service for a fee.
- Using Sandia's vision, mission and core values as a compass, the Financial and Business Management Center enables mission success through strategic partnerships, business stewardship, and value-added, agile solutions. We provide financial stewardship of entrusted taxpayer funds through implementation of best practices in financial business operations and internal control policies and procedures. Our vision is: "Lead the DOE Complex as the model financial and business management organization."



# Service Centers

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- SNL has a total of 22 Service Centers that include a total of 70 activities within those Service Centers
- IT Division has 5 Service Centers that include 23 activities
- Number of rates within IT = 158



# Benefits of a Service Center

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- Costs are allocated to those who actually use/benefit from the service provided
- Creates more cost conscious behavior by SC customers - they pay for what they use



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Jacqueline Baca





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# IT Service Centers

| SERVICE CENTER                      | ACTIVITY                                       | # of Rates |
|-------------------------------------|------------------------------------------------|------------|
| Central Scientific Computing        | Common Engineering Environment                 | 58         |
|                                     | Institutional Computing                        |            |
|                                     | Sandia Mass Storage System                     |            |
|                                     | Contracted Support                             |            |
| Enterprise End User                 | VACT                                           | 37         |
|                                     | Fleet Copier Program                           |            |
|                                     | WEB D&D                                        |            |
|                                     | EEU Computing                                  |            |
| Information Solutions               | Architecture & Technical Integration           | 16         |
|                                     | Engineering & Technical Integration            |            |
|                                     | Enterprise Database Admin                      |            |
|                                     | Extended Enterprise                            |            |
|                                     | Maximo                                         |            |
|                                     | Product Lifecycle Services (PLS)               |            |
| Mission Computing Services Software | Records Management                             | 20         |
|                                     | Hardware & Software Maintenance Site Licensing |            |
|                                     | Linux                                          |            |
|                                     | Mission Computing Services                     |            |
|                                     | Sandia Partnering Network                      |            |
| Telecom                             | Entrust                                        | 27         |
|                                     | ICS                                            |            |
|                                     | Network / Telephone                            |            |
|                                     | SCN                                            |            |



# Benefits of a Service Center

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- Costs are allocated to those who actually use/benefit from the service provided
- Creates more cost conscious behavior by SC customers - they pay for what they use



# Why do we have Service Centers?

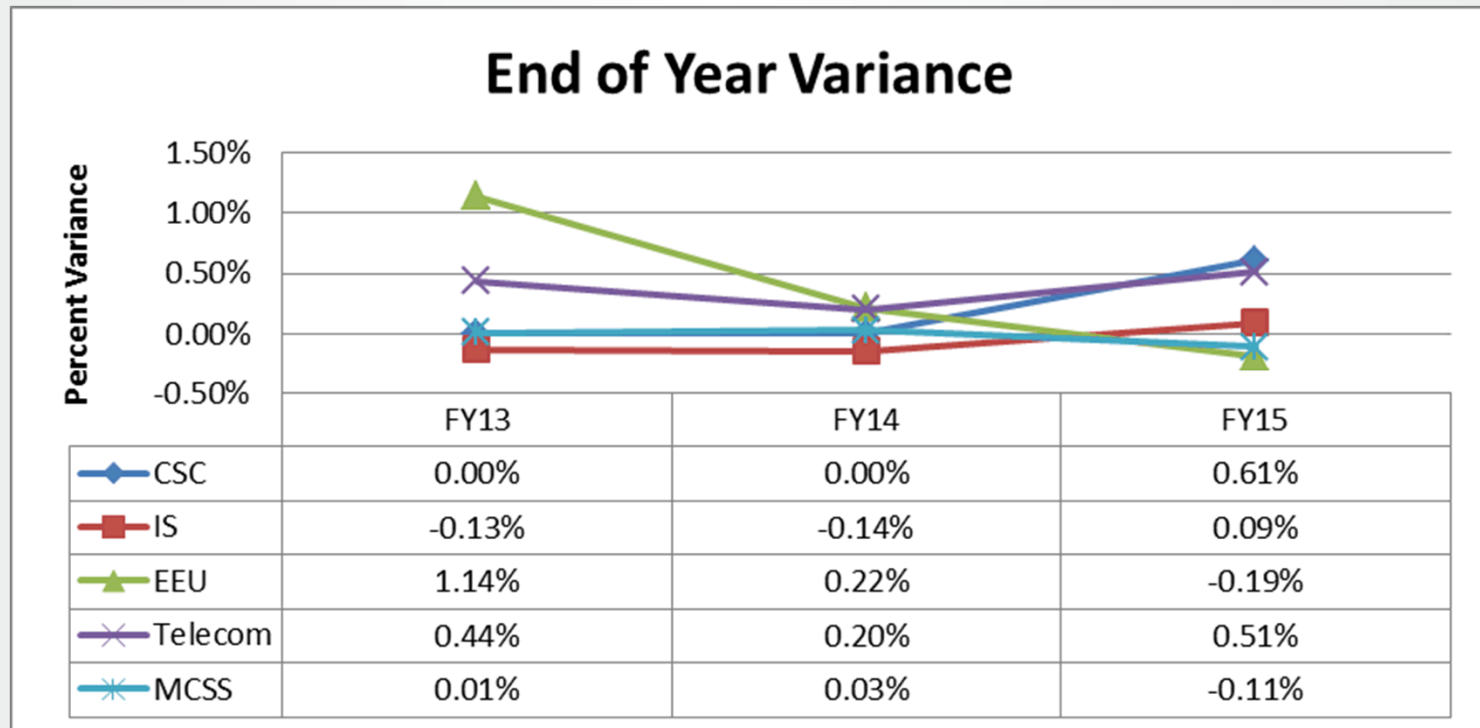
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- Service Centers are established for the primary purpose of providing goods and services to support the internal IT operational activities of Sandia National Laboratories.
- Compliance with Cost Accounting Standards (CAS)
- Not enough indirect funding provided after investments are done
- No baseline is provided after product is created
- Funding sustainment models need to exist

# **Compliance with Cost Accounting Standards (CAS)**

- The 3 pillars of CAS are:
  - Consistency: charging every customer the same price for the same service, utilizing the same accounting practices on a regular basis, and utilizing identical accounting practices for the same types of services.
  - Causal/Beneficial: only charging customers that benefited from the service provided, charging customers a rate that reasonably reflects the costs incurred to provide the service.
  - Full Cost Recovery: setting rates that allow for recovery with +- 1%, billing customers for services rendered.

# IT SC End of Year Variance



# Service Centers: What is our role?

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- Our role as service center business professionals is to ensure proper rates, financial transactions, work breakdown structures, and appropriate spending.
- Meeting each of these responsibilities is heavily reliant on sound accounting practices and measures.
- Our financial role as service center service providers is to ensure customers are receiving reasonably fair rates, our budgets are being handled appropriately, and that our financial structures are adequate with optimal service delivery.

# Roles Continued

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- It is important to know how Service Centers fit into the accounting structure at Sandia.
  - Intermediate Cost Objectives
  - Indirect Financials
  - Chargebacks
  - Rate Disclosures
  - Cost Accounting Compliance
- Risk: If we do not properly monitor and act-upon the accounting in service centers we run the risk of a forced shutdown of services which soon thereafter turns into bad publicity.
- Authority: Due to Service Centers not having a revenue cap, there is greater potential for slush funds; therefore appropriate accounting and sizing of our cost pools is a must.
- Oversight: Sandia has more service centers than other National Laboratories, this leads to greater oversight and attention, therefore we must take extra care with our accounting and financial management.

# Roles Continued

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- Monitoring and controlling weekly costs
- Managing service center activities
- Transferring inappropriate costs to the applicable final cost objective
- Developing ad-hoc financial reports
- Project Cost Estimating and Budgeting
  - consists of preparing and updating Cost Plans and Spend Plans with the use of the CET
- Gathering all information for beginning of year, mid-year and end of year funding proposals and providing Full Time Equivalent (FTE) affordability to assist with hiring decisions
- Rate Renewals
  - Due 6 months before new FY
  - Marketing Plan – Discloses rates and services
  - Who reviews them
  - CAS Disclosure
  - OFFM

# Tools to manage Service Centers?

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## Financials Tools

- Analytics Reporting Capability (ARC)
- Procurement Analytical Reporting Capability (PARC)
- Reportville
- Self Service Analysis (SSA) aka PowerPivot
- Tabular Model
- Oracle
- Cost Estimating Tool (CET)
- Project Estimating Tool (PET)
- Cost Transfer tool

## Billings Tools

- NetWork Information Systems (NWIS)
- Oracle
  - Service Orders
  - Miscellaneous Billings
- Overhead Billing Application
- Contractor Cost Management Tool (CCM)



# Service Centers: Key Components

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- Cost Pool – the cost of providing a service
  - Includes Direct and Overhead Costs
- Allocation Base (AKA Cost Driver)– The quantifiable measure of an activity or product that results in changes to the cost pool
- Rate – The cost charged to customers of the service center.  $\text{Rate} = \text{Cost Pool} / \text{Allocation Base}$



# How we manage Service Centers

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Cost Pool – The cost of providing a service

- Per CAS 418, Your cost pool should be homogenous, meaning that the costs must:
  - Have the same/similar causal/beneficial relationship to the cost objectives as the other activities whose costs are included in the pool or, (Example, Assign Server maintenance costs on a basis of server space/gigabytes)
  - If the allocation of the costs of the activities included in the cost pool result in an allocation to cost objectives which is not materially different from the allocation that would result if the costs of activities were allocated differently.
    - Example: A computing service desk that provides low-end desktop support and high-end desktop support wouldn't want to use one rate of \$150 per hour if having two separate rates results in having a \$100/hour rate and a \$200/hour rate. Having one rate in this case is likely not homogenous and results in the low-end support user subsidizing the high-end support user

# Allocation Base (Cost Driver) Detailed

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- It can be difficult to understand whether use of the term cost driver is related to a causal effect (# of hours) or to the output (# of invoices processed), but CAS418 helps clarify which to use:
  - If a material amount of the costs included in a cost pool are costs of management or supervision of activities involving direct labor or direct material costs, resource consumption cannot be specifically identified with cost objectives. In that circumstance, a base shall be used which is representative of the activity being managed or supervised (e.g. labor costs)
  - If the cost pool does not contain a material amount of the costs of management or supervision of activities involving direct labor or direct material costs, the following hierarchy should be followed:
    - A resource consumption measure
    - An output measure, or
    - A surrogate that is representative of resources consumed
- Ultimately, the allocation based should be reasonably compliant with CAS 418 and also make good business sense.

# Examples of Activities and Allocation Bases

| Service           | Allocation Base | Type of Allocation Base |
|-------------------|-----------------|-------------------------|
| Storage           | Gigabytes       | Resource Consumption    |
| Maintenance       | Hours           | Surrogate               |
| Software Licenses | # of Licenses   | Units of Output         |

# Rate (Cost Pool / Allocation Base)

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## Rate

- Rates should be the result of taking your Cost pool and dividing it by the allocation base
  - Examples:  $\frac{\text{Cost Pool}}{\text{Allocation Base}}$ 
    - \$200 per telephone move
    - \$100 per hour of service provided
    - \$40 per month per person for wi-fi service
    - \$250 per every pound of waste disposed of
- Rates should provide reasonably equitable distribution of costs
  - A \$30/Month flat rate for Wi-Fi isn't as exact in allocation of costs as a rate based on \$/Gigabyte, but is likely a better business practice based on consumer behavior and efficiency

# Service Center Models

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- Hourly
  - Total Costs/ Labor Hours
- Flat Fee
  - Cost of Software/License + Overhead
- Cost Plus
  - Labor + Overhead
- Percentage
  - Overhead/Total Costs

# Hourly



|  | Estimated<br>Total Costs for<br>FY | Overhead<br>Cost Pool | Base           | Rate (including<br>Calculation) |                          |
|--|------------------------------------|-----------------------|----------------|---------------------------------|--------------------------|
|  | \$2,020,291                        | \$260,110             | 15000<br>Hours | \$135                           | $2020K/15000 =$<br>\$135 |

- Advantage
  - Customer's prefer a simple hourly fee because it is easier to project costs.
- Disadvantage
  - Service Center financials are harder to manage due to varying labor rates.

# Flat Fee Plus

|  | Estimated Total<br>Costs for FY | Overhead Cost Pool                        | Base                                | Rate (including<br>Calculation)                                                                                                                                       |
|--|---------------------------------|-------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | \$855K                          | ARAS: \$112,443.00<br>DOORS: \$137,307.39 | ARAS: 300 users<br>DOORS: 250 users | ARAS: \$375 + Cost<br>of License<br>(\$112,443/300<br>users)+cost of<br>license<br><br>DOORS: \$550 +<br>Cost of License<br>(137,307/250<br>users)+cost of<br>license |

Best used for a License/Software Service Center

# Cost Plus

|  | Estimated<br>Total Costs for<br>FY | Overhead<br>Cost Pool | Base             | Rate (including<br>Calculation) |                                      |
|--|------------------------------------|-----------------------|------------------|---------------------------------|--------------------------------------|
|  | \$3,116,500                        | \$3,116,500           | 132,610<br>Hours | \$23.50                         | $\$3,116,500 / 132,610 =$<br>\$23.50 |

- Advantage
  - Service Center financials are straightforward as we are recovering for the total cost of the labor.
- Disadvantage
  - Customer's financials are harder to manage due to varying labor rates.

# Percentage

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|  | Estimated<br>Total Costs for<br>FY | Overhead<br>Cost Pool | Base             | Rate (including<br>Calculation) |                          |
|--|------------------------------------|-----------------------|------------------|---------------------------------|--------------------------|
|  | \$1,180,000                        | \$237,000             | 132,610<br>Costs | 17.1%                           | $\$237K/1,180K = 17.1\%$ |

Best used for a stable and consistent Service Center

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# Questions?