Methods to Analyze Services Portfolio Cost Drivers and Efficiencies

Valerie Reinert - Presenter
Ginny Wydler
Why Services Portfolio Analysis?

- Portfolio Managers are responsible for evaluating how well their portfolio is serving the customer and if it is operating efficiently and effectively
  - Validate the portfolio – review the data in the portfolio and identify resources not captured in the portfolio that should have been
  - Assess the portfolio – analyze the portfolio prices and fees paid
  - Plan the portfolio vision – develop a long term portfolio vision looking at the overall data management standards which can drive future outcomes
  - Execute the portfolio – implement the short-and long-term vision and measure its success over time

**Anticipated Outcome: A more efficient and effective portfolio**
Services Portfolio Analysis Impact

- **Portfolio Health Metrics**
  - Standardized Labor Descriptions
  - Smaller Labor Rate variances
  - Skill Mix aligned to requirements

- **Cost Analysis**
  - Cost anomalies and/or outliers
  - Benchmarking labor costs for “should” cost analysis

- **Project Management**
  - Budget Decisions
  - Risk Tradeoffs

- **Acquisition Process**
  - Contract type and fee analysis
  - Source Selection clarity

- **Short and long term Portfolio Vision**
Portfolio Cost Analysis

Critical Data Input
- Contract Number
- Cost of Contract and CLINs
- Directorate
- Prime and Subcontractor
- Labor Rates
  - Prime
  - Subcontractor
- Labor Categories by Skill Level
- FTE
  - Contracted
  - Utilized

Analytical Techniques
- Descriptive data analysis
  - Cost driver determination
- Charting
  - Scatter plotting
    - Labor rate distribution
    - Labor rate outlier
- Bar Graphs
  - Commonality in labor rates
  - FTE utilization across portfolio
  - Skill mix use
  - Prime and Subcontractor labor rate comparisons
  - Labor category/Sub-discipline labor rate comparison
- Pie Charts
  - Distribution percentages
“With-in” Analysis was done across the entire Portfolio
- FTE analysis:
  - FTE and Skill mix across Directorates and Prime Contractor
- Rate Analysis
  - Average labor rate comparison across Directorates
  - Prime Contractor and Labor Category comparison
  - Labor Rate comparison by Rates with standard deviation and mean
  - Contract rate vs. Utilization Rate comparison
- Labor category differentiation
- Award Fee Distribution

“Between” analysis is done primarily between contracts
- Comparison between contractors
- Comparison between Prime Contractor and Subcontractor Labor Rates of each contract
  - Evaluation of the effect of subcontractor rates on contract rates
- Labor Categories comparison between contracts
- Subcontractor comparison between contracts
- Comparison between previous and subsequent contracts

Others: Use your imagination
FTE and Skill Level Distribution Across Directorate and Prime Contractor

Distributing FTE

Distribution of Utilized FTE by D&O

Distribution of Utilized FTE by Prime

Labor Rate Averages by Prime Contractor
Contracted vs. Utilized

Contracted vs. Utilized

Are rates being utilized at contracted rate? If not, how significant is the difference?
## Average Labor Rates by Labor Category

### Labor Rates Assigned to Labor Categories

<table>
<thead>
<tr>
<th>Labor Category</th>
<th>Rate (in $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget Analyst III</td>
<td>$55,000</td>
</tr>
<tr>
<td>Business Process</td>
<td>$60,000</td>
</tr>
<tr>
<td>Computer Engineer</td>
<td>$50,000</td>
</tr>
<tr>
<td>Contract</td>
<td>$45,000</td>
</tr>
<tr>
<td>Data Architect</td>
<td>$65,000</td>
</tr>
<tr>
<td>Enterprise Architect</td>
<td>$70,000</td>
</tr>
<tr>
<td>Hardware Support</td>
<td>$40,000</td>
</tr>
<tr>
<td>IASAE Level I</td>
<td>$48,000</td>
</tr>
<tr>
<td>IASAE Level III</td>
<td>$52,000</td>
</tr>
<tr>
<td>Info Assurance</td>
<td>$55,000</td>
</tr>
<tr>
<td>Info Management</td>
<td>$50,000</td>
</tr>
<tr>
<td>Information</td>
<td>$52,000</td>
</tr>
<tr>
<td>IT/AVM</td>
<td>$51,000</td>
</tr>
<tr>
<td>Mission Assurance</td>
<td>$53,000</td>
</tr>
<tr>
<td>Network Engineer</td>
<td>$46,000</td>
</tr>
<tr>
<td>Policy Analyst</td>
<td>$47,000</td>
</tr>
<tr>
<td>Program Manager</td>
<td>$49,000</td>
</tr>
<tr>
<td>Property Manager</td>
<td>$50,000</td>
</tr>
<tr>
<td>Service Engineer</td>
<td>$48,000</td>
</tr>
<tr>
<td>Systems Administrator</td>
<td>$49,000</td>
</tr>
<tr>
<td>Systems Engineer</td>
<td>$51,000</td>
</tr>
<tr>
<td>Systems Integrator</td>
<td>$52,000</td>
</tr>
</tbody>
</table>

- No commonality in Labor Categories.
- They do not appear to be in line with the CIO, GSA, or other standard labor categories.
- RFP should have standard Labor Categories to align to.
- No way to compare labor rates to determine reasonableness.
- This could influence rate fluctuation between contracts and misunderstanding of labor category definition and functionality.
Individual Labor Rate by Prime w/ Fee
(no Subcontractor Rates Included)

How Labor Rates are Distributed over Labor Categories

Contractor #1 Prime
Individual Labor Rates w/ Fee

Sr Lead Engineers
PM
Sr Lead Engineers

Inter Prin Eng
Inter. Lead Eng

Labor Rates appear consistently in groups based on Labor Categories and Skill Level
Little variation in Labor Rate for each Labor Category

Contractor #2 Prime
Individual Labor Rates w/ Fee

PM

Not a lot of consistent grouping of Labor Categories with Skill Level with associated Labor Rates. However most of the Labor Rates fall within a limited range indicating distribution consistency.
Adding in Subcontractor Labor Rates

Without Subcontractor Effect
Contractor #1 Prime
Individual Labor Rates w/ Fee

Subcontractor Rates may be high enough
to significantly influence the average
Labor Rate of the contract

With Subcontractor Effect
Contractor #1
Individual Labor Rates w/ Fee
Summary – The Performance Assessment (Example)

- **Portfolio Performance Assessment**
  - Are the Contractor Labor Rates within a reasonable statistical range with only a few outliers?
  - Were Contract fees within the norm?
  - Did Subcontractors affect the contract cost when added to the Prime Labor Rates?
    - Were the subcontractors and small businesses with increased overhead thus increasing the costs?
  - Did utilization equal contracted (FTE and Labor Rates)? If not, was the difference significant?
  - What Contracts are the primary cost drivers of the Portfolio (you can break them out and perform a “with-in” contract analysis)?

- **Cost Drivers**
  - Prime vs. subcontractor cost ratio
  - Utilized Labor Rate higher than contracted
  - Specialty Labor Rates drive the labor rate average higher
  - Outliers
    - Award fee
    - Specialty rates for SME and Program Managers
What Else Can Be Analyzed
(or at least looked at)

- Core vs. Non-Core
- Contract Type and its effects on FTE and Cost
- Combination of small contracts (FTE of 1s and 2s)
- Combination of labor category FTE (can fractional FTEs be assigned to a “multi-purpose” individual)
- Impact of small business on contract costs
- Impact of subcontractors driving the cost
- Impact of Award fee and its effect on final cost

...that’s not all folks
Benefits of Portfolio Cost Analysis

- **Near term source selections and re-competitions**
  - Use the data for more robust government cost estimate
  - Benchmarking data for should cost estimate
  - Reduce outlier rates being driven by statement of work

- **Contracting Strategies**
  - Evidence and data to consolidate small contracts
  - Better application of contract type (cost type to fixed price because of historical cost data) (value of using award fees)
  - Prime/sub ratio analysis for competitiveness of the top vendors

- **Portfolio Manager influence versus ownership**
  - Data to support standardization benefits across the portfolio
  - Reduction of outliers with benchmarked rates in labor and fee