Translating Project Performance into Dollars and Cents

Eric McCamey
Executive Vice President
NYMBUS Corporation
09 November 2017
Objectives

• The objectives of this training are for you to

  • Gain a basic understanding of the factors influencing financial controls.
  
  • Gain a basic financial accounting literacy as it pertains to projects.
  
  • Understand a few of the more essential drivers of profit and cash flow for projects.
  
  • Develop an understanding of the corporate perspective on your project’s financial performance.
Financial Outcomes Expected from PMs

- Project Managers are not only expected to deliver quality project work on time and under budget, but they also have a role in ensuring that their projects are:
  - Profitable
  - Cash Positive (Liquidity)

- Non-revenue generating projects may not have expressed profit or cash flow goals, but similar skillsets are needed to ensure that there are no effective losses and do not present a cash burden on the organization.

This training will focus on the financial skills needed by project managers and other project team staff from the perspective of for-profit Government Contracting companies.
## Critical Financial Skills by Objective

### Profit Objectives
- Contract Type Application
- Indirect Rates
- Project Financial Controls
- Project Revenue Recognition
- Risk and Reserves Management

### Cash Flow Objectives
- Contract Payment and Billing Terms
- Billing Structure Considerations in Project Charge Number Logic
- ERP System Billing and Cost Controls
- Labor Categories and Qualifications Management
- Receivables Management and Days Sales Outstanding (DSO)
Financial Skill Topics
Most Influencing Profitability
Basic Terminology

- **Revenue**
  - Total compensation to be receive by a company for goods, services, etc.
  - Usually recognized incrementally vs. when cash is received.
  - How, when, and how much revenue is recognized is a topic of high interest to auditors, shareholders, etc.

- **Expenses**
  - The cost of doing business
  - Labor, Materials, Other Direct Costs (ODCs), Allocated Indirect Costs (overheads)

- **Profit**
  - Revenues less Expenses
  - Sometimes referred to as “fee” (which can be misleading depending on the contract type), margin
  - Measured as a return on cost or a return on sales
    - Accounting and corporate stakeholders usually measure as a return on total sales at an aggregate level
    - Project managers usually measure as a return on cost and tend to refer to it’s measure as a “fee rate” or “booking rate”.

CONTRACT TYPES AND APPLICATIONS
Basic Contract Types

- Detailed in the Federal Acquisition Regulations (FAR) Part 16

- Firm Fixed Price (FFP)
  - A fixed price is paid to the contractor regardless of the effort expended.
  - Higher risk for completion or hard deliverables based projects where technical functionality must be verified.
  - Fixed Price contracts can also be used for soft deliverables and for services with monthly payments.
    - These forms are usually lower risk if the contractor is experienced in estimating the labor required to provide the service.

- Time & Materials (T&M) / Fixed Price Level of Effort (FPLOE)
  - Fixed hourly rate for various categories of labor
  - Can have labor certifications requirements with stiff penalties for billing uncertified/unapproved employees.

- Cost Reimbursable Types
  - Cost Plus Fixed Fee
  - Cost Plus Incentive Fee
  - Cost Plus Award Fee

NOTE: FPLOE was highlighted above as a “Contract type” because of the frequency of this form, but technically, any contract type can have a “Level of Effort” clause requiring a minimum level of labor to be provided to achieve the full fee, contract value, etc.

“LOE” is not a contract type, but a clause included in some contract awards.
More on Cost Plus Types

• All Cost reimbursable Types
  • Customer pays all direct and indirect expenses
  • Requires DCAA approved indirect rates which may undergo rate adjustments.
  • A fee is paid on top of these expenses.

• Cost Plus Fixed Fee (CPFF)
  • A fixed dollar amount is paid on top of all costs.
  • Initially determined by a markup on costs
  • Billed monthly by a markup on cost
  • BUT the final fee to be billed is a FIXED dollar amount NOT a markup on final cost.

• Cost Plus Incentive Fee (CPIF)
  • A fee incentive is paid to the contractor which depends on EITHER
    • A set of objective performance criteria
      • (i.e. criteria in an Integrated Master Plan)
    • A cost sharing incentive for cost underruns
      • (i.e. cost over and underruns shared 30% by contractor /70% by customer)

• Cost Plus Award Fee (CPAF)
  • An award fee is paid based on customer evaluation of performance.
  • Is typically viewed as being very subjective
  • Does the customer generally “like” you.
Contract Types and Risk Profiles

- **Contractor's Risk & Reward**
  - **FFP** (hard deliverable)
  - **FFP** (soft deliverable)
  - **FFP Monthly** (services)

- **Customer's Risk**
  - **T&M/FPLOE**
  - **CPAF**
  - **CPIF**
  - **CPFF**

**Definitions:**
- **FFP**: Firm Fixed Price
- **CPIF**: Cost Plus Incentive Fee
- **CPFF**: Cost Plus Fixed Fee
- **CPAF**: Cost Plus Award Fee
- **T&M/FPLOE**: Time and Material/Fixed Price Labor

**Notes:**
- FFP Monthly (services) indicates a monthly payment for services, typically with more flexible risk management compared to a hard deliverable contract.
Profit Strategies by Contract Type

- **Firm Fixed Price**
  - Disciplined estimating and costing approach
  - Use of resource loaded schedules
  - Quantitative assessment of risk and application of reserves
  - Active risk management, cost controls, and scope control
  - Fluctuations in indirect rates can affect profit

- **Time & Materials / FPLOE**
  - Optimum talent mix and development of human resources
  - Blend of profit levels on a per labor category basis
  - Fluctuations in indirect rates can affect profit

- **Cost Plus types**
  - Attempt to achieve higher EFFECTIVE profit rates by minimizing costs
  - May have a long time to wait for final billing due to timeline for DCAA to approve final indirect rates
  - Cost sensitivity to indirect rate changes.
Example of Effective Profit on CPFF

<table>
<thead>
<tr>
<th></th>
<th>Bid / Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$1,070,000</td>
<td>970000</td>
</tr>
<tr>
<td>Cost</td>
<td>$1,000,000</td>
<td>900000</td>
</tr>
<tr>
<td>Fee</td>
<td>$70,000</td>
<td>$70,000</td>
</tr>
<tr>
<td>Fee % on Cost</td>
<td>7.00%</td>
<td>7.78%</td>
</tr>
</tbody>
</table>

Basic Definition:

Revenue less Expenses (cost) = Profit or Effective Fee
INDIRECT RATES
Direct and Indirect Costs

**Direct Expenses**

- Costs that can be easily identified as benefitting a specific contract.

  - Examples
    - Employee labor worked for a specific contract.
    - Materials purchased for a specific contract
    - Software purchased to execute a contract Statement of Work

**Indirect Expenses**

- Costs that benefit multiple contracts and are not easily identified with a single contract or set of contracts.

  - Examples
    - Rent for company facilities
    - Employee benefits
    - Accounting department costs
    - Executive salaries
    - General use software (MS Office, etc.)
Indirect Pools

- Indirect costs are charged into General Ledger Accounts that are identified with certain indirect pools. Generally
  - On/Offsite Overhead
  - Fringe Benefits
  - General & Administrative (G&A)
  - Materials & Subcontracts Overhead
Applied Indirect Rates

• Once costs are collected in pools, they are allocated to all contracts that are associated with a given pool.

• Allocation of indirect costs are allocated based on a rate that is usually derived from a percentage of the indirect cost pool divided by whatever the “base” for the pool is:

<table>
<thead>
<tr>
<th>Indirect Rate Pool</th>
<th>Pool Costs / Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fringe</td>
<td>Fringe Pool Cost / Direct Labor Costs</td>
</tr>
<tr>
<td>Overhead</td>
<td>Overhead Pool Costs / (Direct Labor or Direct Labor + Fringe Costs)</td>
</tr>
<tr>
<td>Materials &amp; Subcontracts (M&amp;S) Overhead</td>
<td>M&amp;S Pool Costs / (Direct Materials &amp; Subcontracts Costs)</td>
</tr>
<tr>
<td>General &amp; Administrative (G&amp;A)</td>
<td>G&amp;A Pool Costs / (Direct Labor &amp; ODCs + above pool costs)</td>
</tr>
</tbody>
</table>

• Using these calculated indirect rates direct costs are “burdened” with additional costs to give a more complete picture of the cost of running the contract.

• Contracts bear “their share” of the costs of running the business.
DCAA and Indirect Rates

- Companies have to maintain DCAA audit ready indirect rates for all cost reimbursable and non-labor costs for T&M types.

- Indirect rates are used and approved on a year by year basis and have several types and uses.

**Forward Pricing Rates**
- Target rates proposed to DCAA for use in pricing new proposals, but also often used for internal Estimates At Completion (EACs).

**Provisional Billing Rates**
- DCAA rates approved for billing the Government on an interim basis until final rates are audited and approved for final billing.

**Final Provisional Billing Rates**
- Near final indirect rates used to close contracts as near as possible until the very final rates are audited and approved.

**Final Billing Rates**
- Very final set of indirect rates for a given year that can be final billed on contracts. This process may take years given DCAA trends.

Internal use only “target rates” are often used for internal cost reports and recognizing revenue on contracts. May use forward pricing or provisional billing rates.

With approval, rates can be adjusted throughout the year.
# Sample Indirect Burdening

<table>
<thead>
<tr>
<th>Labor Build-up Example</th>
<th>Non-Labor Build-up Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Labor</td>
<td>$100.00</td>
</tr>
<tr>
<td>Fringe @32% on DL</td>
<td>$32.00</td>
</tr>
<tr>
<td>OH @35% on (DL + Fr)</td>
<td>$46.20</td>
</tr>
<tr>
<td><strong>Labor TVACI subT</strong></td>
<td><strong>$178.20</strong></td>
</tr>
<tr>
<td>G&amp;A @12% TVACI</td>
<td>$21.38</td>
</tr>
<tr>
<td><strong>Total Loaded Labor Cost</strong></td>
<td><strong>$199.58</strong></td>
</tr>
</tbody>
</table>

| Non-Labor TVACI subT   | **$1,030.00**               |
| G&A @12% TVACI         | $123.60                     |
| Materials & Subcontractors | $1,000.00               |
| **Total Loaded Non-Labor** | **$2,153.60**               |

**Labor Wrap Rate =** 1.9958

*Do not generally speak in terms of a wrap-rate on non-labor.*
PROJECT FINANCIAL CONTROLS
NYMBUS Learning Systems Model Applied to Cost Controls

System/Project Goals
Cost baselines, budgets, performance measurement baseline, profit and revenue targets, cash goals.

Sensors
Tool for detecting problems or threats to the system
- Cost reports
- Earned Value Management Reports
- Indirect Rate Variance Reports
- Estimates at Completion

Correction
Specific actions taken to bring costs in line:
- Change in labor mix
- Change in materials used
- Change in work methods to reduce labor
- Correction of mischarges

Feedback
The communication of positive or negative variance data for the purpose of corrective action

System Based Model for Controlling Projects

Discriminator
Variance reports that show deviations from target or expected
Elements for Effective Cost Controls

• Work authorization and charge codes

• Routine cost reports that show variances
  • Weekly and bi-weekly vs. monthly alone
  • Tools to identify unapproved costs
  • Ability to zero in on costs that are atypical – understand “normal”

• Reports that are information – not just data.
  • Reports that drive towards decision and action.
  • Effective use of Business Intelligence tools.

• Use of Earned Value Management where appropriate
Funding Management

- Costs are typically billed to customers in CLINs (Contract Line Item Numbers) or a similar variant SLINs, ACRNs, etc.

- Costs must be collected by these billing elements.

- Limitation of Funds notices should be sent to customers prior to reaching 75% of available funding at the CLIN level – not just as a whole.

- Contractors are not allowed to expend beyond funding limits and be guaranteed for payment.

- Contractors are not allowed to “borrow” from another CLIN to cover costs without a formal funding realignment modification.

- Funds spent outside of the CLIN funding limits are considered to be “at risk” and there should be internal approval to spend these funds and only with some assurances of payment from the customer.
PROJECT EACS AND REVENUE RECOGNITION
Full Components of an EAC

- **An Estimate at Completion (EAC)** is an estimate of a contract’s revenues, expenses, and profit at completion.

- **EAC Cost**
  - Actual costs incurred (ITD)
  - Estimated Costs to Complete
  - Estimate of labor, materials, ODCs to complete scope
  - Open Commitments that will be incurred
  - Accrued expenditures / commitments
  - Pending corrections, allocations, etc.
  - Any other expense that will eventually hit the project
  - Warranty or Project Reserves

- **EAC Revenue**
  - The amount of cash that the company will expect to be paid at contract end
  - Breaks down into ITD Revenue Recognized already and ETC Revenue yet to be recognized.
  - EAC Profit = EAC Revenue – EAC Cost
  - An EAC is a summary (plus all the supporting details) of the project's financial position at contract end. It’s more than just a form.
EAC Cost

• EAC Cost can be determined and summarized at many different levels
  • – Individual project tasks / charge numbers
  • – WBS
  • – Control Account
  • – CLIN/SLIN/Option Year, etc.

• Should be based on actual costs incurred

• Plus an estimate of costs to complete (ETC Cost) based on
  • Estimated hours per person of salary grade, etc. plus escalation factors
  • Actual or salary band hourly cost
  • Applicable allocated indirect rates (current and forward pricing)
  • Reasonable estimates of ODCs/travel
  • Materials based on quotes, open PO’s, etc.
  • Subcontractor costs based on Open Commitments or an estimate from sub
  • Any other applicable allocations, service center costs
  • Pending corrections, costs in suspense, etc.
EAC Revenue

• Can never exceed the exercised value of the contract

• May exceed the funded value of the contract

• Model of cash expected to be received by contract end

• May be a function of the following depending on the contract type
  • Hours and Billing Rates (T&M, FPLOE)
  • Billable Costs and Fee Pools (CPFF, CPAF, CIPF)
  • Scope Executed (FFP)
What is Revenue Recognition

- Revenue recognition is the process of “taking credit” for the value of a sale – usually incrementally over the period or performance.

- Smaller businesses with less sophisticated processes and systems usually recognized on a “cash basis” = recognize when paid.

- Generally Accepted Accounting Procedures (GAAP) requires that an accrual basis of accounting be used where revenues are recognized in proportion to expenses incurred.

- Most larger Government Contractors used what is called the “Percentage of Completion Cost to Cost Method” for Fixed Price and Cost Plus type contracts and they recognize on billable hours for T&M/FLPOE.

  - A percentage of the total sale is recognized based on the estimated percentage of completion.

  - Under the Cost to Cost method, percent complete is determined by dividing the costs incurred to date by an Estimate of Costs at Completion (EAC Cost).

  - Practically, this results in a fee rate that is a markup on costs incurred to date.
## Example of Revenue Recognition

<table>
<thead>
<tr>
<th>Contract Value</th>
<th>$10,900,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Cost at Completion</td>
<td>$10,000,000</td>
</tr>
<tr>
<td>Profit</td>
<td>$900,000</td>
</tr>
<tr>
<td>Profit (Return on Cost)</td>
<td>9.00%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Month 1</th>
<th>Month 2</th>
<th>Month 3</th>
<th>Month 4</th>
<th>Month 5</th>
<th>Month 6</th>
<th>Month 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs Incurred to Date</td>
<td>$1,500,000</td>
<td>$2,500,000</td>
<td>$4,200,000</td>
<td>$6,000,000</td>
<td>$7,500,000</td>
<td>$9,000,000</td>
<td>$10,000,000</td>
</tr>
<tr>
<td>Estimated Costs at Completion (EAC)</td>
<td>$10,000,000</td>
<td>$10,000,000</td>
<td>$10,000,000</td>
<td>$10,000,000</td>
<td>$10,000,000</td>
<td>$10,000,000</td>
<td>$10,000,000</td>
</tr>
<tr>
<td>Percentage of Completion</td>
<td>15%</td>
<td>25%</td>
<td>42%</td>
<td>60%</td>
<td>75%</td>
<td>90%</td>
<td>100%</td>
</tr>
<tr>
<td>Contract Value</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
</tr>
<tr>
<td>Amount to Recognize in Revenue</td>
<td>$1,635,000</td>
<td>$2,725,000</td>
<td>$4,578,000</td>
<td>$6,540,000</td>
<td>$8,175,000</td>
<td>$9,810,000</td>
<td>$10,900,000</td>
</tr>
<tr>
<td>Profit = Revenue Recognized - Incurred Cost</td>
<td>$135,000</td>
<td>$225,000</td>
<td>$378,000</td>
<td>$540,000</td>
<td>$675,000</td>
<td>$810,000</td>
<td>$900,000</td>
</tr>
<tr>
<td>Fee% booked (Return on Cost)</td>
<td>9.00%</td>
<td>9.00%</td>
<td>9.00%</td>
<td>9.00%</td>
<td>9.00%</td>
<td>9.00%</td>
<td>9.00%</td>
</tr>
</tbody>
</table>
Example of Revenue Recognition

<table>
<thead>
<tr>
<th></th>
<th>Month 1</th>
<th>Month 2</th>
<th>Month 3</th>
<th>Month 4</th>
<th>Month 5</th>
<th>Month 6</th>
<th>Month 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs Incurred to Date</td>
<td>$1,500,000</td>
<td>$2,500,000</td>
<td>$4,200,000</td>
<td>$6,000,000</td>
<td>$7,500,000</td>
<td>$9,000,000</td>
<td>$10,500,000</td>
</tr>
<tr>
<td>Estimated Costs at Completion (EAC)</td>
<td>$10,000,000</td>
<td>$10,000,000</td>
<td>$10,000,000</td>
<td>$10,000,000</td>
<td>$10,500,000</td>
<td>$10,500,000</td>
<td>$10,500,000</td>
</tr>
<tr>
<td>Percentage of Completion</td>
<td>15%</td>
<td>25%</td>
<td>42%</td>
<td>60%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contract Value</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
</tr>
<tr>
<td>Amount to Recognize in Revenue</td>
<td>$1,635,000</td>
<td>$2,725,000</td>
<td>$4,578,000</td>
<td>$6,540,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit = Revenue Recognized - Incurred Cost</td>
<td>$135,000</td>
<td>$225,000</td>
<td>$378,000</td>
<td>$540,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fee% booked (Return on Cost)</td>
<td>9.00%</td>
<td>9.00%</td>
<td>9.00%</td>
<td>9.00%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Suppose the EAC Cost is updated just before month 5 and another 500,000 of unplanned expenses will be incurred.

What does the revenue recognition for months 5, 6, and 7 now look like?

Suppose the EAC Cost is updated just before month 5 and another 500,000 of unplanned expenses will be incurred.

What does the revenue recognition for months 5, 6, and 7 now look like?

Fee% booked (Return on Cost) | 9.00%  
9.00%  
9.00%  
9.00%  

Example of Revenue Recognition

<table>
<thead>
<tr>
<th>Contract Value</th>
<th>$10,900,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Cost at Completion</td>
<td>$10,500,000</td>
</tr>
<tr>
<td>Profit</td>
<td>$400,000</td>
</tr>
<tr>
<td>Profit (Return on Cost)</td>
<td>3.81%</td>
</tr>
</tbody>
</table>

Suppose the EAC Cost is updated just before month 5 and another 500,000 of unplanned expenses will be incurred.

What does the revenue recognition for months 5, 6, and 7 now look like?

<table>
<thead>
<tr>
<th>Month 1</th>
<th>Month 2</th>
<th>Month 3</th>
<th>Month 4</th>
<th>Month 5</th>
<th>Month 6</th>
<th>Month 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs Incurred to Date</td>
<td>$1,500,000</td>
<td>$2,500,000</td>
<td>$4,200,000</td>
<td>$6,000,000</td>
<td>$7,500,000</td>
<td>$9,000,000</td>
</tr>
<tr>
<td>Estimated Costs at Completion (EAC)</td>
<td>$10,000,000</td>
<td>$10,000,000</td>
<td>$10,000,000</td>
<td>$10,000,000</td>
<td>$10,500,000</td>
<td>$10,500,000</td>
</tr>
<tr>
<td>Percentage of Completion</td>
<td>15%</td>
<td>25%</td>
<td>42%</td>
<td>60%</td>
<td>71%</td>
<td>86%</td>
</tr>
<tr>
<td>Contract Value</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
<td>$10,900,000</td>
</tr>
<tr>
<td>Amount to Recognize in Revenue</td>
<td>$1,635,000</td>
<td>$2,725,000</td>
<td>$4,578,000</td>
<td>$6,540,000</td>
<td>$7,785,714</td>
<td>$9,342,857</td>
</tr>
<tr>
<td>Profit = Revenue Recognized - Incurred Cost</td>
<td>$135,000</td>
<td>$225,000</td>
<td>$378,000</td>
<td>$540,000</td>
<td>$285,714</td>
<td>$342,857</td>
</tr>
<tr>
<td>Fee% booked (Return on Cost)</td>
<td>9.00%</td>
<td>9.00%</td>
<td>9.00%</td>
<td>9.00%</td>
<td>3.81%</td>
<td>3.81%</td>
</tr>
</tbody>
</table>

Month 4 Profit $540,000
Month 5 Profit $285,714
Write-Down Amount $254,286
If revenue recognition is driven by a percentage of completion where:

\[
\text{Revenue to be Recognized} = \frac{\text{Cost Incurred}}{\text{EAC Cost}}
\]

then revenue recognition becomes heavily dependent on what?
EAC (Estimate at Completion) of Cost

- Increases in the EAC Costs drive revenue recognition down resulting in write-downs of revenue and profit.

- Decreases in the EAC Cost tend to drive revenue recognition down resulting in write-ups of revenue and profit.
PROJECT RISK AND RESERVES MANAGEMENT
Project Financial Risk

• All business activity carries uncertainty which can be expressed in financial terms.

• Project risk always has
  • A potential impact
  • A probability of occurrence

• Calculations of risk can be used to establish project management or budgetary reserves.

• Calculations of risk can also be used to calculate the uncertainty in Estimates at Completion (EAC) of project cost which drive revenue recognition.

• Increases and decreases in project reserves based on updated risk assessments can drive project revenue recognition.
### Example Risk Analysis Matrix

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The selected vendor for the manufacture of component X does not have an approved quality system and is not CMMI Level 3 certified and may have high defect rates, but there are limited alternative vendors.</td>
<td>50%</td>
<td>1,000,000</td>
<td>500,000</td>
<td>Hire an onsite quality manager with contractual authority to direct process change in the supplier's project manufacturing processes and help to bring the vendor up to CMMI Level 3.</td>
<td>100,000</td>
<td>30%</td>
<td>-20%</td>
<td>300,000</td>
<td>200,000</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Matrix Logic**

(C) = (A) x (B)

(G) = (B) x (E)

(H) = (C) – (G)

A mitigation action is only worth doing if the value of the risk eliminated (H) is greater than the cost of the risk mitigation action (D)
Financial Skill Topics
Most Influencing Cash Flow
CONTRACT PAYMENT AND BILLING TERMS
Payment Terms

• “Payment Terms” refers to the agree to amount of time that a customer has to pay a contractor for goods or services.

• Measured from the date of the receipt of an accurate invoice.

• Standard is “Net 30” meaning that the net amount due on the invoice is due for payment in 30 days.

  • Net 45 is not uncommon, but is very unfavorable

  • Better than Net 30 may be achievable for a small business and strong negotiation skills and a convincing “…but I’m a little guy” story.
Billing Terms

“Billing Terms” or “Billing Instructions” refers to the contractual process defined which covers:

• How often the contractor can bill the customer
• Format of billing
• Invoice backup required
• Additional reporting requirements to accompany invoices
Before You Sign The Contract

• Regardless of the impression your customer gives (even the Government), **EVERYTHING** is negotiable.
  • They want things. (*including looking good to their superiors)*
  • You want things.
  • What customer believes is a “must have” might be satisfied a different or better way.

• Could you trade a little profit to
  • be able to bill every two weeks?
  • have better payment terms or encourage early payment with discounts?

• Avoid like the plague…
  • Anything unique that requires your team to do something differently than what is natural to the system or good processes.
  • Invoices manually generated in Excel
  • In the long run, these choices will hurt both you and the customer.
BILLING STRUCTURE CONSIDERATIONS IN PROJECT CHARGE NUMBER LOGIC
Project Number Structures

• Project Managers are typically concerned with tracking costs and mapping to the WBS structure – Control Accounts/Work Packages.

• However, the priority includes other considerations – usually in this order
  • The ability to invoice as defined by customer requirements
  • The ability to recognize revenue and profit
  • The ability to track project costs as mapped to the WBS

• Most ERP system (like Deltek Costpoint) have some level of hierarchy with the ability to “roll-up” costs and revenues, apply ceilings and limits, and generate invoice data and reports at the aggregation points.

• Better systems also accommodate “Labor Categories” where costs and hours can be collected by labor category and associated with billing rates.
Notional Project Structure Example

Contract or Task Order

Revenue Formula Calculation

Option Year
• (billing could be setup here or at the CLIN/SLIN level)

CLIN/SLIN
(System funding limits established here)

Charging Levels
• 00012
• 00013
• 00014
• 00015
• etc.

• 00012
• 00013
• 00014
• 00015
• etc.

Labor categories may also be a type of extension to this structure or alternate dimension of cost/hours tracking.
ERP SYSTEM BILLING AND COST CONTROLS
Use of System Controls

• Workforce controls
  • Who is able to see and charge to projects
  • Pre-mapping of employees to labor categories

• Project Ceilings
  • Limitations on revenue and billing against certain levels of the structure
  • Limitations on certain types of costs being billed – total or partial
  • Indirect rate ceilings if dictated by contract
  • Ceilings on certain labor categories and individual employees

• All of these limits and systems control give the opportunity to PROACTIVELY address potential errors that can keep customers from paying invoices.
LABOR CATEGORIES AND QUALIFICATIONS MANAGEMENT
Labor Categories and Qualifications

- T&M Contracts, FPLOE, and some Cost Plus contracts have labor categories associated with them.

- T&M and FPLOE have billing rates associated with each.

- Employees have to be “qualified” to work in a given labor category before they can be billed.

- The contractor must maintain written documentation of:
  - Waivers and approvals
  - Employee resumes

- Should also have a system that automates the storage of the above, but also prevents employees from being billed if they are not approved.
  - May involve setting up ceiling limitation in the ERP system on given employees until they are approved for billing.
RECEIVABLES MANAGEMENT AND DAYS SALES OUTSTANDING (DSO)
What are Receivables?

- Receivables are generated whenever revenue is recognized and they represent compensation earned by not yet turned into cash.

- Receivables management is the process of managing the aspects of billing and collections to turn revenue into cash as fast as possible.

- Most Government Contactors speak of Receivables in terms of
  - Billed Accounts Receivable (Billed A/R)
    • Amounts already billed to customers awaiting payment
  - Unbilled Accounts Receivable
    • Revenue recognized, but not yet billed to customers
  - The greatest point of influence (and often a failure point) is minimizing the obstacles to getting invoices out the door.
Cash Generation Process Overview

- **Negotiate Billing and Payment Terms**
- **Setup Project in Accounting System**
- **Setup Vendor/Sub Purchase Orders (P.O.’s)**
- **Charge labor, pay invoices against P.O.s, ODCs, etc.**

- **Recognize Revenue**
  - (Cr Revenue, Dr Unbilled A/R)

- **Manage Invoice Cycle and Approval Processes**

- **Generate Invoices**
  - (Cr Unbilled A/R, Dr Billed A/R)

- **Send Invoices**

- **Facilitate Collections**
  - (Cr Billed A/R, Dr Cash)

- **Receive and Post Cash**
  - (Cr Billed A/R, Dr Cash)

**Main “Take Away”?**
- See your cash generation process as something that starts long before you start to generate invoices.
- There are elements to monitor and optimize at EACH step.
Days Sales Outstanding

DSO = \frac{\text{Billed A/R} + \text{Unbilled A/R}}{\text{Average Revenue per Day}}

- DSO is the most commonly used metric to measure how fast your company is turning revenues into cash
- Companies have variations on what they include in the “unbilled category” – sometimes other contract level investments.
- Average Revenue per Day can be calculated over any period desired. Usually it is over a 3-month “rolling quarter” basis.
- 3 Months of Revenue / 90 days
DSO Calculation Group Exercise

• Calculate DSO given the following information:

• Revenue for the quarter was $300,500,100

• Assume 90 days in the quarter

• Unbilled Receivables are $120,000,000

• Billed Receivables awaiting payment are $106,000,000
Step 1

• What is the Average Revenue Per Day?
Step 1

• What is the Average Revenue Per Day?

• $300,500,100 / 90 days = $3,334,450 per day
Step 2

• What are the total receivables on the project?
Step 2

• What are the total receivables on the project?

• Total Receivables are:
  • $120,000,000  Unbilled A/R
  • $106,000,000  Billed A/R
  • $226,000,000
Step 3

• What is the Days Sales Outstanding Metric and What does it mean?
Step 3

• What is the Days Sales Outstanding Metric and What does it mean?

• DSO = Total Receivables / Average Revenue per Day
• = $226,000,000 / $3,334,450 per day
• = 68 days

• On average, it takes 68 days to get invoices out the door and paid.
• If customers are paying, on average, in 40 days, then the other 18 days has to be due to slow invoicing processes.
CONTRACT VALUE, ORDERS, AND BACKLOG
What is the “Contract Value”

• **Contract Ceiling Value**
  • The full value of an award inclusive of unexercised options.

• **Exercised Contract Value**
  • Can be the face value of a simple contract or it can be the cumulative value of option periods of that have been exercised. Exercised establishes a strong intent to fund.

• **Funded Value**
  • The amount that the contractor is authorized to spend and for which the client is expected to pay. This is amount is usually less than or equal to the Exercises Contract Value. Contracts can be funded incrementally up to the negotiated value of the contract depending on the client’s budget constraints, etc

• **Option Value**
  • Priced contract options that can be exercised by the client apart from the basic scope of the core project. Can be option years or additional services, hardware, etc.
What Do We Mean by an “Order”

• General Business Definition of an “Order”
  • A confirmed request by one party to another to buy, sell, deliver, or receive goods or services under specified terms and conditions. When accepted by the receiving party, an order becomes a legally binding contract. (www.businessdictionary.com)

• Orders are often tracked to:
  • Measure the rate of healthy business growth

• Depending on the tracking needs and order can be either
  • Change in Funded Value in a given period
  • Change in Exercised Contract Value

• Orders can be explained at the project level, but are usually referred to more frequently and measured as it pertains to the aggregate for the organization.
Stratta of Backlog

**CONTRACT CEILING VALUE**

Option Backlog = sum of all unexercised option values.

**EXERCISED CONTRACT VALUE**

Unfunded Backlog

**FUNDED VALUE**

Funded Backlog

Revenues Recognized (value of work already done)

Lower certainty, more future focused

High certainty of realizing revenue
• Eric.McCamey@NymbusCorp.com

• Visit us at www.NymbusCorp.com

• More on cash flow management
  • https://lnkd.in/dYfmYCk