APC / PennDOT Fall Seminar
Consultant Issues

Consultant Profit Factors
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Profit Factors

ACEC/PennDOT Contract Administration Subcommittee tasked to re-engineer Profit Factor determination.

Objectives:

• Define market rate for Direct Labor costs
• Define market rate for Indirect Labor costs
• Define market rate for Profit
• Incentivize Overhead Rate reduction
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OH Rate Distribution

Number of Firms vs Overhead Percentage
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Office OH Rate Distribution

-2 SD  -1 SD  -3/2 SD  +1/2 SD  +1 SD  +2 SD

Dollars/10,000

Overhead Percentage

50%  60%  70%  80%  90%  100%  110%  120%  130%  140%  150%  160%  170%  180%  190%  200%  210%  220%  230%  240%  250%
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Background

Prior to 1999, Office Overhead Rate capped at 135%, Profit as follows:

- Final Design = 10%
- Preliminary Engineering = 9%
- Feasibility Studies = 8%
- Bridge Inspection = 12%
- Construction Inspection = 10%
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**Background**

In 1999, Office Overhead Rate cap removed, Profit as follows:

- Final Design = 23.5%
- Preliminary Engineering = 21.2%
- Feasibility Studies = 18.8%
- Bridge Inspection = 28.2%

These values resulted in same payout when Overhead Rate = 135%

Construction Inspection = 10% (Based on Overhead Rate = 100%)

\[
\begin{align*}
\text{Total} & = \text{Direct} + (\text{OH} \times \text{Direct}) + (\text{Profit} \times \text{Direct}) \\
\text{Profit} & = ((135\%/\text{OH}) \times 10\% \times (\text{OH} \times \text{Direct})) + (10\% \times \text{Direct}) \\
& = (135\% \times 10\% \times \text{Direct}) + (10\% \times \text{Direct}) \\
& = (135\% +1) \times 10\% \times \text{Direct} \\
& = 2.35 \times 10\% \times \text{Direct} \\
& = 0.235 \times \text{Direct}
\end{align*}
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Objectives met:

• Market defined for overhead
• Market defined for profit
• Overhead reduction is incentivized
• Profit rate and payout increase for any reduction in overhead
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Office OH Rate Distribution
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**Implementation:**

- Final refinement by Contract Administration Subcommittee
- Annual market determination (all firms Payouts and Overhead rate)
  - Mean/Standard Deviation
- Annually calculate each firm’s Profit Factor for each Phase, based on Overhead Rate
  - Annually establish ECMS conversion rates for each firm
  - ECMS Rate = Profit x (1 + Overhead Rate)
- Distribute to Districts for use in negotiations.

**Future:**

- ECMS enhancement to calculate profit based on new methodology and eliminate need for conversion rates.
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Questions ?