ANALYSIS OF PERFORMANCE MEASURES

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PERFORMANCE MEASURES

- Obtained by collecting, analyzing, and/or reporting information regarding the performance of a group
- Regular measurement of outcomes and results, which generates reliable data on the effectiveness and efficiency of programs

PERFORMANCE MEASURES IN RELATION TO ALDOT

- Maintenance Management System (MMS) captures important values:
  - Budgets (to the District level)
  - Amount ($) budgeted by Activity Code
  - Actual Work (Daily Operations)
  - Accomplishment by Activity Code
  - Related Asset(s) & Asset Types
  - Related Resources (Labor, Equipment, Material, Contractor)
  - Total Amount ($) of Work Accomplished
  - Works against budgeted amount
  - Condition Assessments
    - Performed & entered annually by Consultants
    - Produces grades A – F on each asset feature
  - All these things work together to produce a Performance-Based Budget
### Level of Service

<table>
<thead>
<tr>
<th>Group</th>
<th>Total Spent</th>
<th>% of Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt Pavement</td>
<td>$12,116,104.62</td>
<td>9%</td>
</tr>
<tr>
<td>Concrete Pavement</td>
<td>$2,484,232.02</td>
<td>2%</td>
</tr>
<tr>
<td>Paved Shoulders</td>
<td>$3,506,997.01</td>
<td>2%</td>
</tr>
<tr>
<td>Unpaved Shoulders</td>
<td>$5,119,184.37</td>
<td>4%</td>
</tr>
<tr>
<td>Drainage</td>
<td>$14,363,745.72</td>
<td>10%</td>
</tr>
<tr>
<td>Roadside</td>
<td>$24,799,478.96</td>
<td>18%</td>
</tr>
<tr>
<td>LOS Analysis Activities</td>
<td>$91,126,789.66</td>
<td>67%</td>
</tr>
<tr>
<td>Emergency Activities</td>
<td>$7,756,732.74</td>
<td>6%</td>
</tr>
<tr>
<td>B-Code Activities</td>
<td>$11,820,931.21</td>
<td>9%</td>
</tr>
<tr>
<td>ITS Activities</td>
<td>$2,735,793.62</td>
<td>2%</td>
</tr>
<tr>
<td>Roadside Maintenance</td>
<td>$11,959,805.12</td>
<td>9%</td>
</tr>
<tr>
<td>Truck Weighting Operations</td>
<td>$2,077,609.36</td>
<td>2%</td>
</tr>
<tr>
<td>Other Maintenance Activities</td>
<td>$1,123,436.66</td>
<td>8%</td>
</tr>
<tr>
<td>Sub-Total</td>
<td>$129,612,200.17</td>
<td></td>
</tr>
<tr>
<td>Unpaid Purchase Orders</td>
<td>$14,559,824.00</td>
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</tr>
<tr>
<td>Total</td>
<td>$144,172,024.17</td>
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</tr>
</tbody>
</table>

**FY2015 Budget**: $140,000,000.00

**%+/− FY2015 Budget**: 103%

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### PERFORMANCE-BASED BUDGET

- One major problem...
- In order for this analysis to work & be accurate, the asset inventory must be accurate
- Method to provide a Performance-Based Budget Analysis WITHOUT an asset inventory
  - Very preliminary
  - Started with Guardrail only

### PERFORMANCE-BASED BUDGET WITHOUT ASSETS

- Data used:
  - Equations determined from:
    - Condition Assessment Grades
    - Expenditures for Function 6381 – Guardrail Maintenance (CPMS)
    - RoadMAP Accomplishment data (linear feet)
    - Performance Guideline - 6381

### PERFORMANCE-BASED BUDGET GRAPH & EQUATION

- Average LOS Grade vs. Total Expenditures
  - FY 2013 Expenditures → FY 2014 Grades
  - FY 2014 Expenditures → FY 2015 Grades
  - FY 2015 Expenditures → FY 2016 Grades

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**STATEWIDE GRAPH**
PERFORMANCE-BASED BUDGET

GRAPH & EQUATION

- Used Areas with ≥ 74% RoadMAP to CPMS ratio
- Entering data like they should
- Calculated:
  - Unit Cost
  - Total Linear Feet Accomplished
  - Total Working Days Needed
  - Total Man-Days Needed

- CPMS Money Divided by Unit Cost

<table>
<thead>
<tr>
<th>Year</th>
<th>Linear Feet</th>
<th>Working Days</th>
<th>Man Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
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</tbody>
</table>

- Performance Standard
- Performance Guideline Standards

TESTING APPLICATION

- Used percentage of money spent for two Districts (6381) & applied to percentage of Statewide Equation
  - 120 – 3.97%
    - Method → 30 – 40 Working Days ~ $150,000 – $180,000
    - Actual → 52 Working Days ~ $132,045.59
  - 740 – 1.20%
    - Method → 10 – 15 Working Days ~ $40,000 – $60,000
    - Actual → 8 Working Days ~ $40,054.81

MOVING VARIABLES

- Contract Work/Missing Information
- ALDOT Grades vs. Consultant Grades
- Each District Operates Differently
  - Geographic Differences between Areas/Districts
- Realignment
- Limited Years of Data
- Pavement Data
  - Special Project Money – Resurfacing Money
- Scale
- Purchase Orders stretched over two Fiscal Years

NEXT STEPS – MOVING FORWARD

- Connecting the missing link with Special Project Money as well as Resurfacing Funds
- More Accurate RoadMAP Data
  - Contract Work
  - All Data Entry
- Anticipating current LiDar & Imaging Project to capture Asset Inventory

QUESTIONS?