Nuclear Waste Cooperative Agreement
Project
Collaboration Study

Final Briefing
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Presentation Outline

- Background
- Purpose of Evaluation
- Program Sponsor Interests
- Definition of Collaboration
- Where Collaboration Occurs
- Finalized Plan for Evaluation
- Findings
- Recommendations
BACKGROUND

- The Department of Energy (DOE) is tasked to build a high level nuclear repository at the Nevada Test Site.
- The State of Nevada is opposed to a disposable site within the boundaries of the state.
- Under a Cooperative Agreement (Co-op), the Nevada System of Higher Education (NSHE) conducts independent research related to the proposed repository.
- A formally stated goal of the Co-op/Financial Assistance Award is to foster collaboration between government and NSHE researchers.
PURPOSE OF EVALUATION

To understand the extent of collaboration (or lack of) between DOE and NSHE researchers.
DEFINITION OF COLLABORATION

For the purpose of this evaluation, Collaboration (Working together) equals:

- Co-Operation (Willingness to work together) +
- Commitment (An obligation or pledge) +
- Communication (An exchange of information) +
- Coordination (Harmonious functioning or interaction) +
- Performance (Fulfillment of obligation)

Our data collection instruments were built around this definition.
Where does Collaboration Occur?

We are measuring the extent of collaboration between DOE and NSHE.

1. Submit Research Proposal
2. Approval (Funding) or Denial
3. Submit Progress Report
4. Submit Research Data

Collaboration?
PLAN OF EVALUATION

- Phase 1: Obtained Evaluation Project Plan Signoff
- Phase 2: Analysis
  - Investigate Collaboration (Literature Reviews)
  - Organizational Document Reviews
  - Focus Group Interviews
  - Define Independent Variables
  - Program Theory and Structure Review
  - Develop Collaboration Formula and test
- Phase 3: Execute Analysis
- Phase 4: Validate Results
- Phase 5: Develop Recommendations
Communication – Findings Example

The number of times tasks were presented to DOE.

Tasks Presented to DOE

- 3 tasks never presented (10%)
- 7 tasks presented 1 time each (15%)
- 5 tasks presented 2 times each (10%)
- 2 tasks presented 3 times each (5%)
- 2 tasks presented 2 times each (10%)
- 1 task presented 6 times (25%)

- 35%
Coordination – Findings Example

The number of DOE meetings attended by Principal Investigators.

DOE Project Meetings Attended

- 9 PIs did not attend any DOE meeting in relation to their task.
- 1 PI attended 1 DOE meeting for their task.
- 2 PIs attended 2 DOE meeting each for their task.
- 1 PI attended 3 DOE meetings for their task.
- 4 PIs attended 4 DOE meetings each for their task.
- 2 PIs attended 5 DOE meetings each for their task.
- 1 PI attended 1 DOE meeting for their task.
Because of a budgetary externality, we could not collect data in this area.
96% of the task worked on by NSHE are in budget. Only one task (ORD-FY04-004 Bomb Pulse Chlorine-36) was over budget.

Although DOE may have been sluggish in delivering funds, NSHE researchers continue working!
## Performance – Findings Example

<table>
<thead>
<tr>
<th>Task ID</th>
<th>Estimated Months</th>
<th>Actual Months</th>
<th>Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORD-FY04-004</td>
<td>24</td>
<td>40</td>
<td>16 Months Over Estimate</td>
<td>67% Over</td>
</tr>
<tr>
<td>*ORD-FY04-009</td>
<td>60</td>
<td>14</td>
<td>46 Months Under Estimate</td>
<td>77% Under</td>
</tr>
<tr>
<td>*ORD-FY04-011</td>
<td>36</td>
<td>21</td>
<td>15 Months Under Estimate</td>
<td>42% Under</td>
</tr>
<tr>
<td>ORD-FY04-013</td>
<td>24</td>
<td>38</td>
<td>14 Months Over Estimate</td>
<td>58% Over</td>
</tr>
<tr>
<td>ORD-FY04-016</td>
<td>24</td>
<td>35</td>
<td>11 Months Over Estimate</td>
<td>46% Over</td>
</tr>
<tr>
<td>ORD-FY04-017</td>
<td>24</td>
<td>34</td>
<td>10 Months Over Estimate</td>
<td>42% Over</td>
</tr>
<tr>
<td>ORD-FY04-018</td>
<td>12</td>
<td>34</td>
<td>22 Months Over Estimate</td>
<td>183% Over</td>
</tr>
<tr>
<td>ORD-FY04-020</td>
<td>18</td>
<td>25</td>
<td>7 Months Over Estimate</td>
<td>39% Over</td>
</tr>
<tr>
<td>*ORD-FY04-021</td>
<td>60</td>
<td>19</td>
<td>41 Months Under Estimate</td>
<td>68% Under</td>
</tr>
<tr>
<td>9 Completed Task</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Task Over Estimate</td>
<td></td>
<td></td>
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</tr>
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</table>

*Tasks were stopped by DOE.*
<table>
<thead>
<tr>
<th>Collaboration Category</th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Poor</td>
</tr>
<tr>
<td>Coordination</td>
<td>Fair</td>
</tr>
<tr>
<td>Cooperation</td>
<td>Nil</td>
</tr>
<tr>
<td>Commitment</td>
<td>Good</td>
</tr>
<tr>
<td>Performance</td>
<td>Poor</td>
</tr>
</tbody>
</table>
Summing up the values from the collaboration categories and applying those values against a grading scale produces an overall collaboration score.

NSHE earned an evaluation score of ‘Fair’.

Because of the difficulty of collecting comprehensive data, the results are constrained.
Recommendations

- Behind the scenes, integrate ‘Collaboration’ measures inside of quarterly reports produced by Principal Investigators.

- Update NSHE website to track agencies that download data.

- Implement an anonymous feedback system and encourage DOE to provide responses to tasks listed in quarterly reports.
Questions
See the NSHE Collaboration Evaluation Study Final Report for full details.