

TRAIL PARTNERSHIP RESEARCH PROJECT

Presentation for the 2023 International Trail
Summit

FOREST RESOURCES AND ENVIRONMENTAL CONSERVATION

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AGENDA

- Project Introduction
- A Primer on Partnership Research
- The Trail Partnership Research Project
- Survey Data Analysis and Results
- Semi-Structured Interviews
- Additional Activities



Project Introduction



James Freeman - Who am I?



PhD Candidate at Virginia Tech – Forest Resources and Environmental Conservation

Trailhead Consultants – Social science research and support for government and NGOs

- US Forest Service
- National Park Service
- Pacific Crest Trail
- National Off-Highway Vehicle Conservation Council
- American Trails
- Professional Trail Builders Association

Project Background



2018 – National Strategy for a Sustainable Trail (NSSTS) released by the USFS; identifies trail partnerships as key supporting mechanism

2019 – Pilot research conducted to scope a full study of trail partnerships

2020 – Research scope expanded to include NPS and National Scenic and Historic Trails

2021 – Research project started at Virginia Tech

The Practical Problem



The USFS and NPS wish to better-utilize partnerships as a mechanism to engage communities in trail stewardship activities, but in order to do so they must better-understand:

- How trail partnership participants define a “successful” partnership;
- How trail partnership inputs and mediators may affect partnership outcomes; and
- How to adjust their partnership strategies improve trail partnerships

Project Purpose



This study will attempt to answer the primary research question:

“What are the factors that support successful trail partnerships?”

And, using the knowledge we generate, we will:

Provide recommendations on appropriate management strategies for trail partnerships, given their on-the-ground contexts.



A Primer on Partnership Research



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The Partnership Research Problem



Partnership literature cites many reasons that partnerships succeed or fail, but studies often lack causal connections between inputs processes and outputs because:

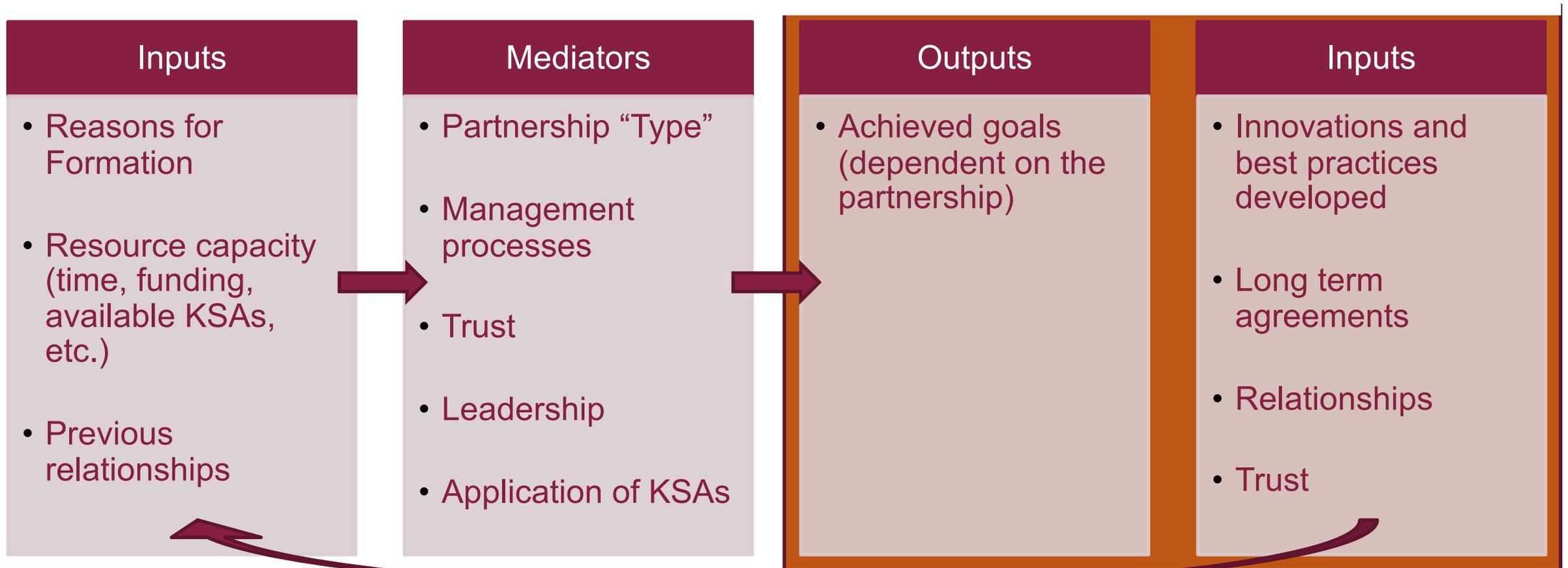
1. The time-scales on which outcomes are measured
2. The cost of collecting data
3. And the inability to control for confounding variables in long-term studies

This study can overcome these challenges due to the nature of trail partnerships



A High-Level Model of Partnerships

Generally, group work follows a cyclical “Input-Mediator-Output-Input” (or IMOI) model of operation



Partnership Factors



“Factors” generally refers to the inputs and mediators that contribute to partnership success. Over 60 factors could be cited from the literature, but not all factors are equally relevant to trail partnerships.

Examples:

- Tolerance for sharing power
- Flexibility to adapt to others needs
- Senior management support
- Shared goals
- Conflict
- Mutuality and equality
- Financial controls
- Partnership context (e.g., location, age, etc.)
- Communications procedures
- Organizational culture

Partnership “Success”



What constitutes “success” in a partnership has two major elements (Dowling et al. 2004):

Procedural Success: i.e., the success of the partnership’s working and managerial relationships

Indicators of procedural success include (but are not limited to):

- Engagement and commitment from participants
- Agreement about the purpose and need
- High levels of trust; mutual respect

Partnership “Success” (cont’d)



Outcome Success: i.e., the partnership successfully leads to mutual benefit, depending on the context of the partnership.

Indicators of outcome success include (but are not limited to):

- **Performance outcomes:** Meeting the expectations or goals of the partnership (e.g., complete trail work, creating documents, engaging in collaborative decision making).
- **Relationship outcomes:** Partner perceptions that there is value-added in the partnership

Partnership “Type”



Three major “types” of partnerships from the partnership literature may be salient to trail partnerships:

- Public Private Partnerships,
- Cross-Sector Collaborations, and
- Collaborative Governance.

Why do we care? Each type has different high-level goals, foci, reasons for partnership, and optimal work arrangement.

Understanding a partnership’s type can help us understand where to focus improvement efforts



The Trail Partnership Research Project





Revisiting the Project Purpose

The primary research question...

“What are the factors that support successful trail partnerships?”

And, using the knowledge we generate, we will:

Provide recommendations on appropriate management strategies for trail partnerships, given their on-the-ground contexts.



Study Design

The literature suggests a mixed-method approach to partnership evaluation is appropriate, as some topics lend themselves to quantitative measurement and others are more suited for qualitative case studies.

Phase 1: Partnership Identification (Complete): Using key contacts at the US Forest Service and National Park Service, identify partnerships that are viewed as “successful” and “less successful.”

Phase 2: Online Trail Partnership Survey (Complete): An online, quantitative survey of Forest Service, Park Service, and Partner contacts for the identified partnerships. The survey assesses partnership type, factors are important to partnership success, and participant perceptions of procedural and outcome success.

Phase 3: Partnership Case Studies (Under Analysis): Interviews with partnership participants will take in-depth looks at topics of interest that emerge from the quantitative analysis of survey data and topics that are more-ripe for interviews (e.g. processes for dividing responsibilities, perceptions of partner relationships, satisfaction with the partnership).



Study Design (continued)

Online Partnership Survey

- Recruited 83 Partnerships; 166 Potential respondents
- The government and the partner point of contact were asked to participate
- Survey topics included topics such as:
 - Job responsibilities
 - Partnership capacity
 - Funding
 - Why the partnership exists (instead of acting alone)
 - Partnership goals
 - Procedural and outcome success
 - Leadership
 - Trust
 - Rating of the partnership's level of overall success

Semi-Structured Interviews

- Interviewees were recruited from the survey respondents to provide more information on a variety of topics that are more-suited for interviews (instead of survey)
- Recruited 80 respondents
- Discussed the “how and why” of the respondents' partnerships





Data Analysis and Results





Survey Descriptive Statistics

- Total *valid* responses 107 (64.5% response rate)
- Forest Service responses: 92; NPS responses: 15
- Total partnerships represented: 69
- “Paired Responses”: 38 (both the Government and Partner point of contact provided a valid response)



Survey Analysis

We used several statistical methods to help determine which survey factors are related to overall partnership success including:

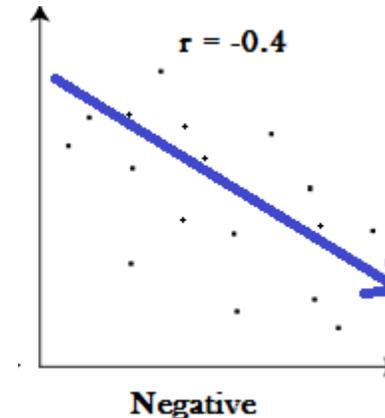
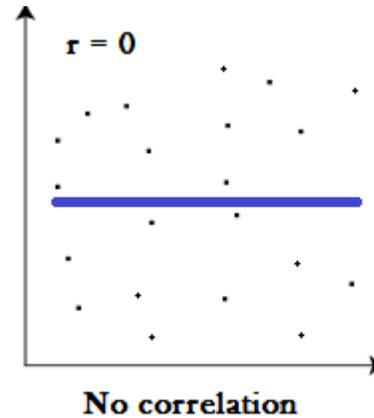
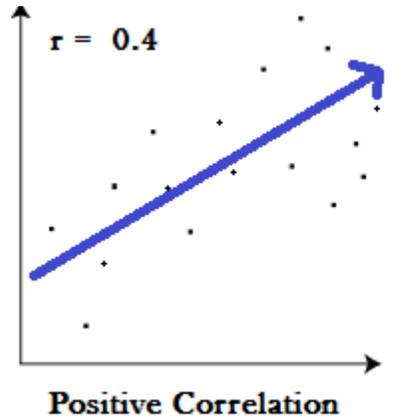
- First-order Pearson correlations
- Multiple linear regression
- Relative Importance Analysis

What's the point of using statistical modeling?

To identify the main sources of variance in the rating of overall success

Survey Analysis – Pearson Correlations

Pearson correlation coefficients help measure the strength and direction of the relationship between two variables. In this case, each factor of interest and Overall Partnership Success.



Survey Analysis – Pearson Correlations

The following factors have significant first-order correlation with overall success (non-significant factors are not listed).

| Factor | Description | Correlation Coefficient |
|---|--|-------------------------|
| Overall evaluation of trust or distrust | To what extent does the respondent trust the other party in the partnership | 0.6949 |
| Partnership Resources | Does the partnership have enough resources to do the work | 0.6139 |
| Partner Interdependence | Are the parties interdependent on each other to do the work | 0.5923 |
| Cross Sector Collaboration | To what extent does the partnership operate like a cross sector collaboration (type) | 0.3950 |
| Turnover Disruption | To what extent has turnover disrupted the partnership | -0.3076 |
| Respondent Type | Is the respondent with the government or the NGO | 0.2543 |
| Collaborative Governance | To what extend does the partnership operate like collaborative governance (type) | 0.2165 |



Survey Analysis – Regression Modeling

Next, we created a multiple linear regression model using all factors of interest from the survey. Multiple linear regression helps us evaluate the effects of all variables on overall success at in one model.

Survey Analysis – Regression Modeling

| Category | Factor | Estimate | Std Beta | t | Prob> t |
|-------------------------------|---|----------|----------|-------|-----------|
| | Overall Success Rating | -3.398 | 1.528654 | -2.22 | 0.0297 |
| Partnership Setting | USDA Urban Rural County Classification | 0.452144 | 0.312122 | 1.45 | 0.1522 |
| | USDA Amenity County Classification | 0.23873 | 0.310744 | 0.77 | 0.4451 |
| Partnership Attributes | Partnership Age ("Young" vs. "Old") | 0.622787 | 0.268256 | 2.32 | **0.0234 |
| | Does the partnership have an agreement? | 0.029726 | 0.532548 | 0.06 | 0.9557 |
| | The total number of activities the partner does in the partnership | 0.093071 | 0.085462 | 1.09 | 0.2801 |
| | Is maintenance or construction an activity in this partnership? | -0.6679 | 0.375786 | -1.78 | *0.0801 |
| Trail Attributes | Are the trails single use or multiple use? | -0.01363 | 0.313924 | -0.04 | 0.9655 |
| | Mechanized vs. non-mechanized trails | -0.46395 | 0.312155 | -1.49 | 0.142 |
| Respondent Attributes | How much time does the respondent spend on the partnership? | 0.126981 | 0.348763 | 0.36 | 0.717 |
| | Is the respondent with the government or the NGO | 0.328015 | 0.3215 | 1.02 | 0.3113 |
| | Is partnership work formalized in the respondents' job description | -0.88099 | 0.547579 | -1.61 | 0.1124 |
| Capacity | Does the partnership have enough resources to do the work | 1.144271 | 0.294664 | 3.88 | ***0.0002 |
| | Are the parties interdependent on each other to do the work | 0.489952 | 0.188886 | 2.59 | **0.0117 |
| Type | To what extent does the partnership operate like a public private partnership | 0.802927 | 0.388936 | 2.06 | **0.0429 |
| | To what extent does the partnership operate like a cross sector collaboration | 0.393233 | 0.409125 | 0.96 | 0.34 |
| | To what extent does the partnership operate like collaborative governance | 0.400375 | 0.24084 | 1.66 | 0.1012 |
| Leadership | To what extent does the respondent think leadership is important to the partnership | 0.106676 | 0.643895 | 0.17 | 0.8689 |
| | To what extent has leadership turnover disrupted the partnership | -0.05922 | 0.096679 | -0.61 | 0.5423 |
| | To what extent are executive leaders involved in the partnership | 0.231975 | 0.146327 | 1.59 | 0.1177 |
| Trust | To what extent does the respondent trust the other party in the partnership | 0.476361 | 0.100535 | 4.74 | ***<.0001 |

Survey Analysis – Regression Modeling

Comparison of factors significant in Pearson vs. Multiple Linear Regression

| Factor | Significant In Pearson? | Significant in Regression? |
|---|-------------------------|----------------------------|
| Partnership Age ("Young" vs. "Old") | No | No |
| Is maintenance or construction an activity in this partnership? | No | Yes |
| Partnership Resources | Yes | Yes |
| Partner Interdependence | Yes | Yes |
| Public Private Partnership | No | Yes |
| Cross Sector Collaboration | Yes | No |
| Partnership Disruption | Yes | No |
| Respondent Type | Yes | No |
| Overall evaluation of trust or distrust | Yes | Yes |

How can we reconcile this???????



Survey Analysis – Relative Importance Analysis

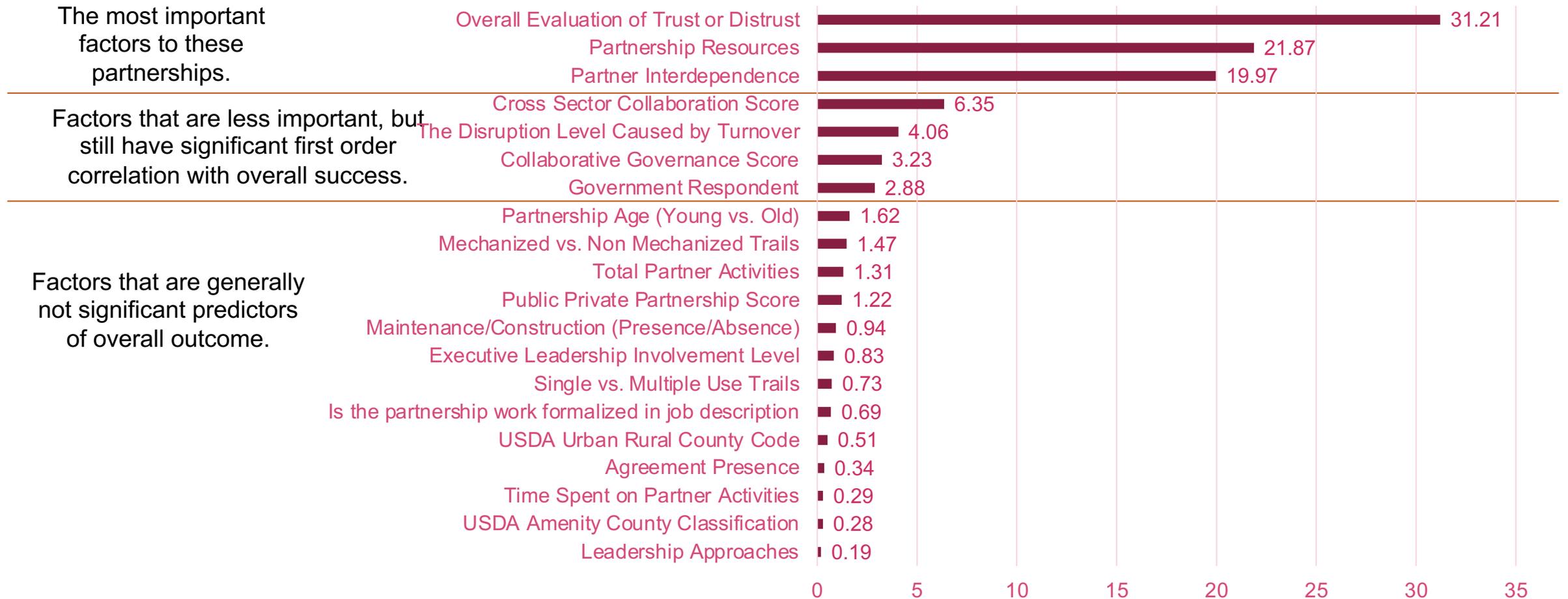
Relative Importance Analysis is...

*a way to “partition explained variance among multiple predictors to better understand the role played by each predictor in a regression equation”
(Tonidandel & LeBreton, 2011).*

Essentially, it allows you to “weigh” how each independent variable affects a dependent variable.

Survey Analysis – Relative Importance Analysis

Relative Importance Analysis Score





Survey Analysis - Interpretation

So – what does this mean??!!

The “no brainers”

- Trust and “resources” (money, people, skills, time) matter

The more you depend on each other, the better the outcome

- Interdependence and high levels of collaboration matter
- Interviews suggest that, for partners, lack of collaboration is a detriment to the partnership

Government respondents rate partnerships higher

Partnership context, in the grand scheme, doesn't affect outcomes



Semi-Structured Interviews





Semi-Structured Interviews

- 43 total interviews (two government interviews were about two partnerships)
- 40 partnerships represented
- Topics covered:
 - Work processes
 - Goal creation
 - Reasons for success
 - Challenges and their resolution
 - Leadership approaches
 - Executive leader involvement
 - Reasons for trust
 - Suggestions to improve partnership



Semi-Structured Interviews

Still analyzing the content of interviews, but here are some observations:

- Communication is frequently cited as a driver of success
- Lack of involvement in long term project planning (and to a lesser extent NEPA) can frustrate partners
- Respondents almost exclusively describe partnership goals in terms of projects and project outcomes
- Collaboration seems key:
 - Where management styles are described as more collaborative, partnerships are more successful
 - In partnerships that are less successful, respondents wish they had more collaboration



Additional Activities



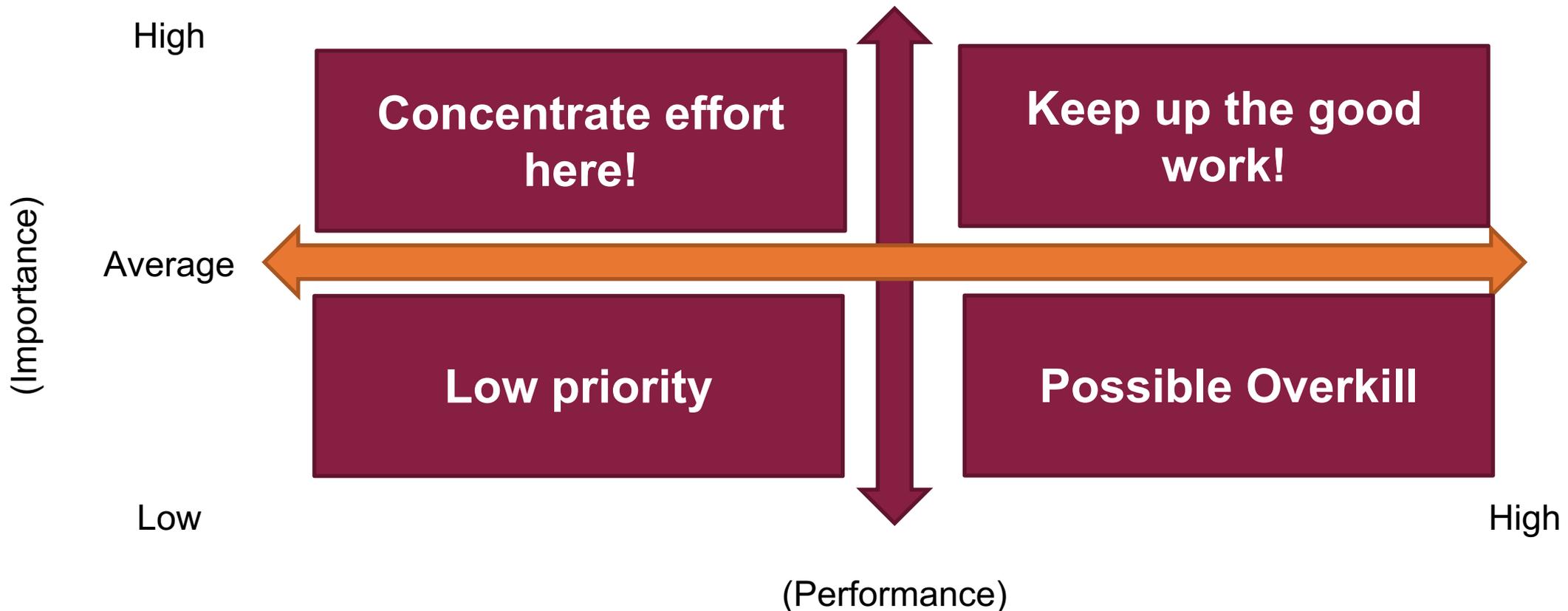
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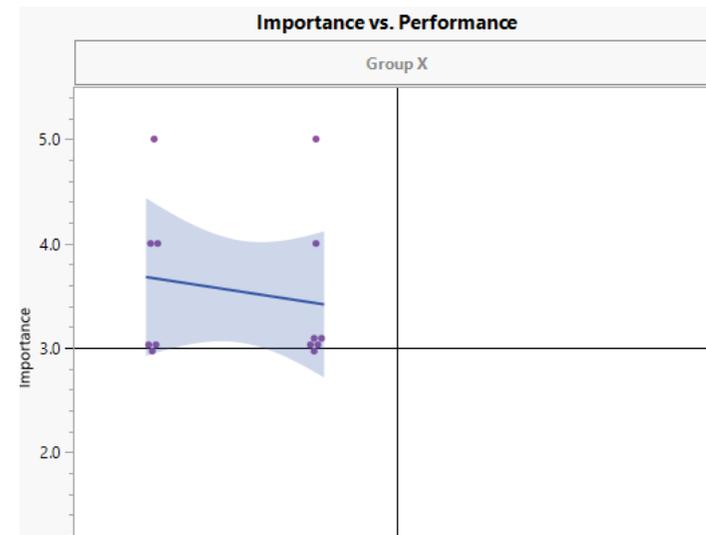
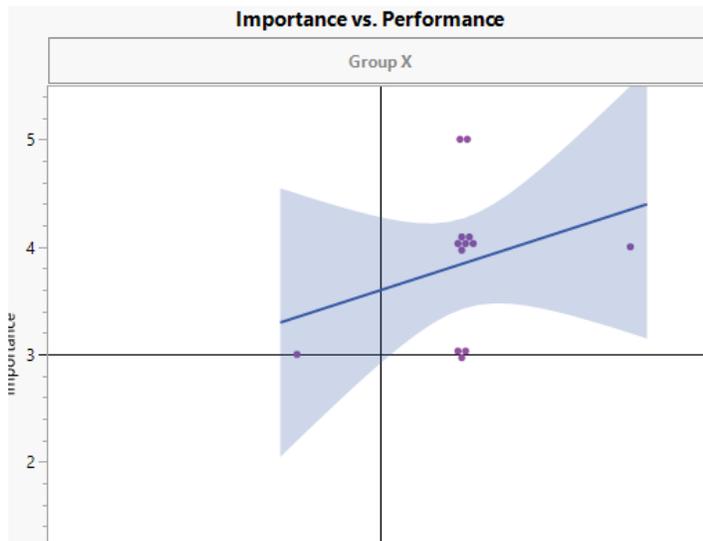
Performance Evaluations

The survey asked respondents to evaluate processes and outcome-oriented goals in their partnership. These importance-performance evaluations will help us better understand which goals are most important to trail partnerships, understand the extent to which these goals are being met, and examine differences between partner and government perceptions.



Importance Performance Comparisons

Comparing Government versus Partner perceptions of what is important to the partnership and how well they are doing can provide meaningful insights.



What causes these differences? Does it really matter?

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