

Evaluation of the Washington SPF SIG: An Initial Look

Linda Becker, Ph.D., Research Manager



One

Department

Vision

Mission

Core set of Values

Today's Presentation

- **Review of Washington's SPF SIG evaluation design.**
- **Early results.**
- **Implications.**



One

Department

Vision

Mission

Core set of Values

Brief Review

- **Washington received the SPF SIG grant in the Fall of 2004, and ...**
- **Funded 12 communities from the Spring of 2006 to the Fall of 2010.**
- **Randomized research design.**
- **Prevention priority: Reduce underage drinking and associated problems.**



One

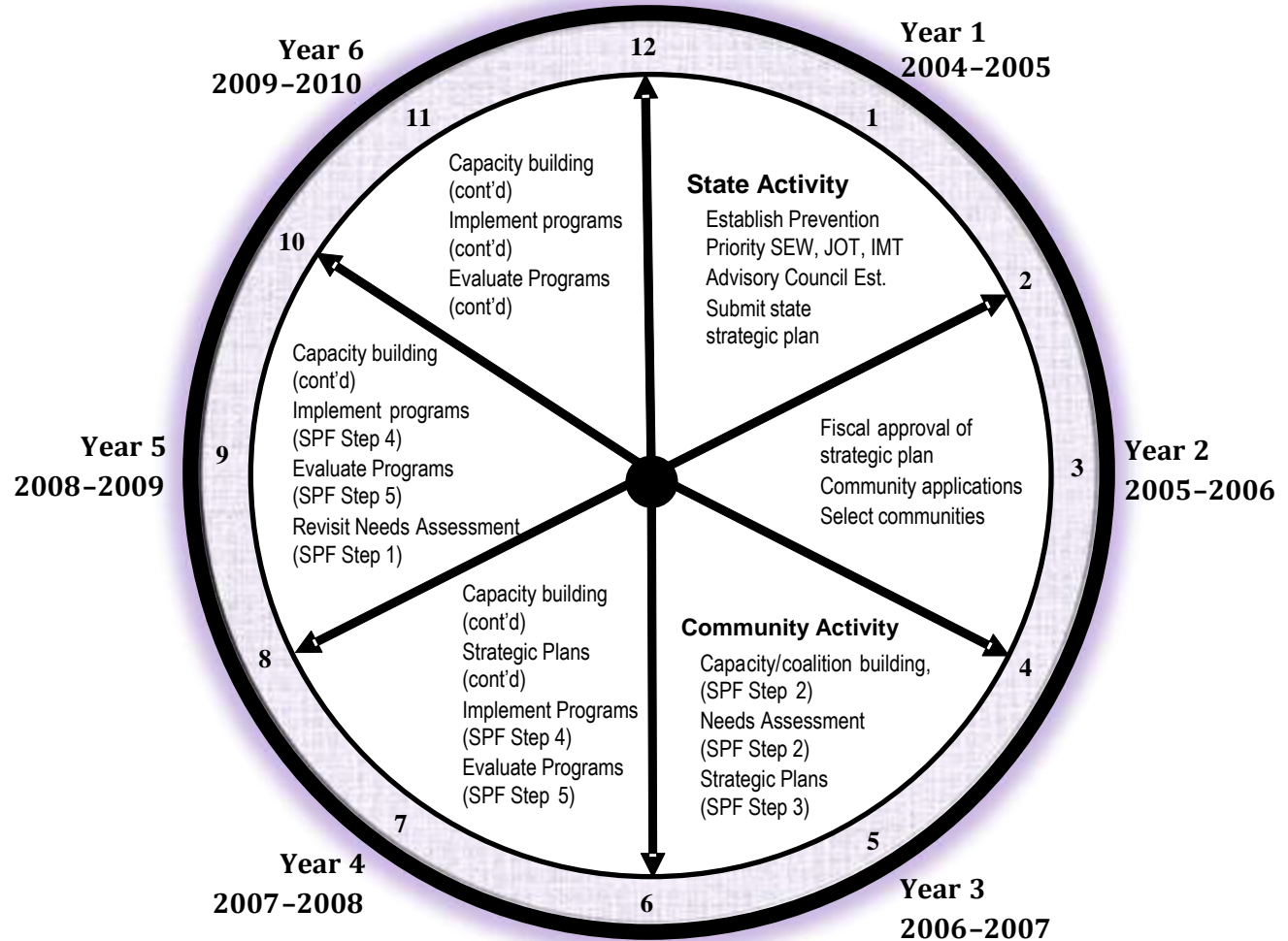
Department

Vision

Mission

Core set of Values

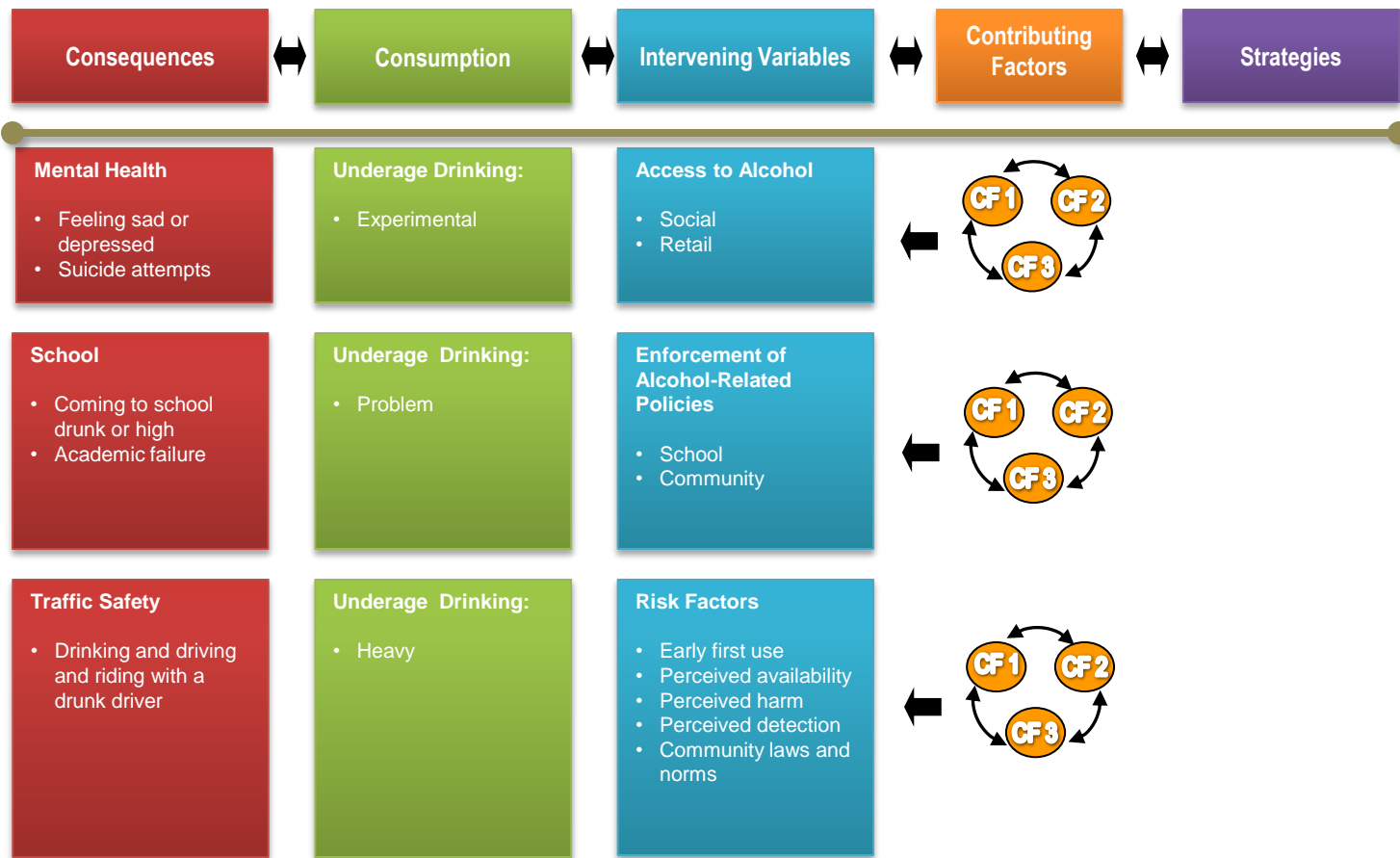
Chronology of Washington SPF SIG Activities



One

Department
Vision
Mission
Core set of Values

Logic Model for Washington State SPF SIG Priority: Reducing Underage Drinking



One

Department
Vision
Mission
Core set of Values

Research Questions

- 1. Does implementing the SPF lead to better outcomes?**
- 2. What explains differences in outcomes?**
 - Characteristics of the communities.
 - Differences in prevention efforts.



One

Department

Vision

Mission

Core set of Values

To answer the 1st question...

...we need to learn if SPF SIG communities do better than they would *without* SPF SIG.

Therefore:

- Comparison communities
- Random selection



One

Department

Vision

Mission

Core set of Values

Random selection of sites.

- **Identified eligible sites (47 total)**
- **Clustered into community types**
 - Non-urban, low poverty, low minority
 - Non-urban, high poverty, high minority
 - Urban
 - Two American Indian concentrations
- **Drew from each cluster (12)**
- **The rest are “comparison” sites**



One

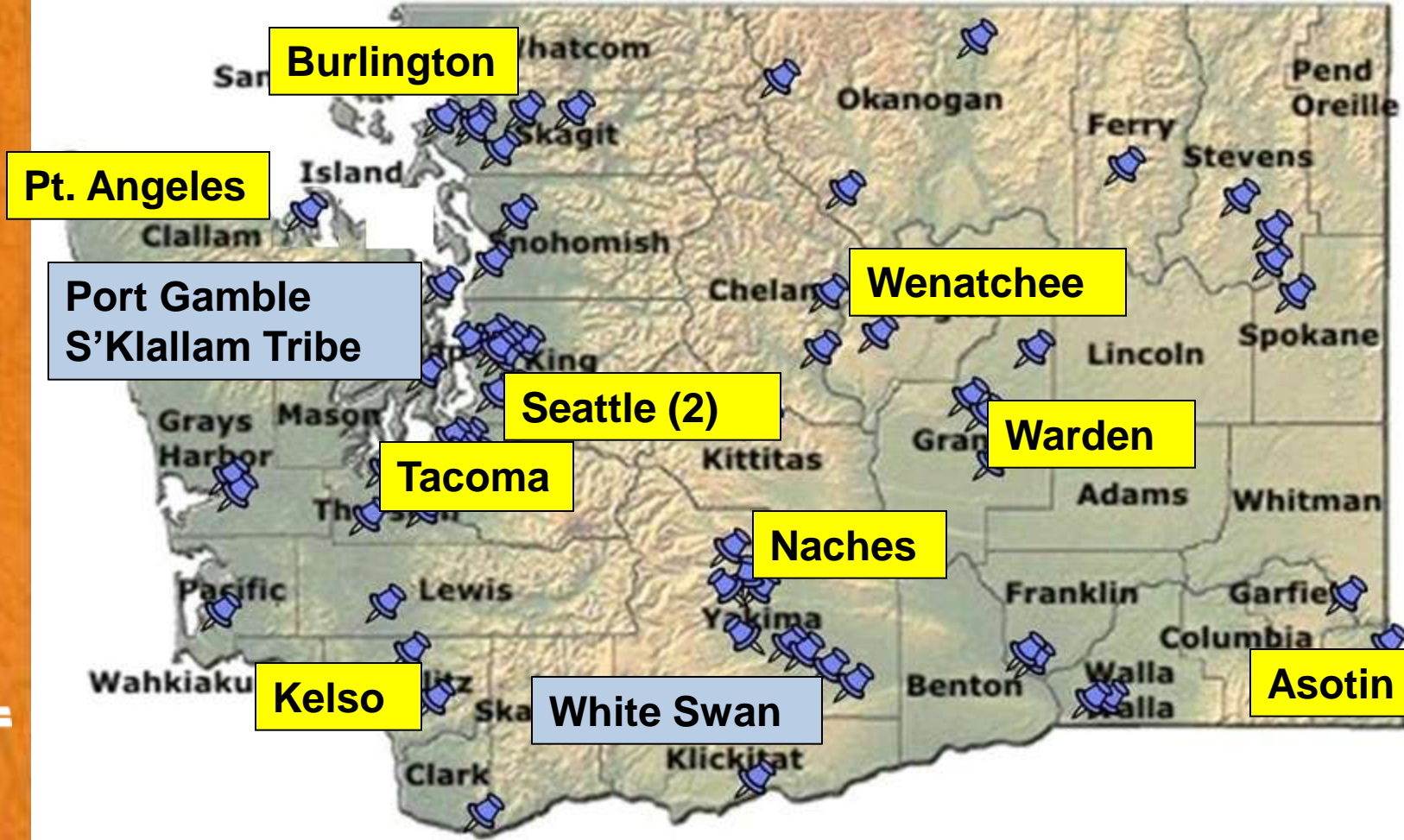
Department

Vision

Mission

Core set of Values

Geographic distribution of SPF-SIG sites and comparison communities



One

Department
Vision
Mission
Core set of Values

Research Question 1

Evaluation Design

		2004	2006	2008	2010
SPF SIG Communities (n = 12) (N = 5,252)	Non-urban, low poverty, low minority (n = 4)				
	Non-urban, high poverty, high minority (n = 5)				
	Urban (n = 3)				
Comparison Communities (n = 35) (N = 12,694)	Non-urban, low poverty, low minority (n = 20)				
	Non-urban, high poverty, high minority (n = 9)				
	Urban (n = 6)				



One

Department
 Vision
 Mission
 Core set of Values

To answer the 2nd question...

...Compare the SPF SIG sites to each other on important aspects of the project.

- Characteristics of the community and the coalition
- Differences in prevention efforts



One

Department

Vision

Mission

Core set of Values

How will we measure the outcomes?

- **Cohort or cross-sectional?**
 - and the related question: what age group?
- **HYS Alcohol use:**
 - what level of alcohol use?



One

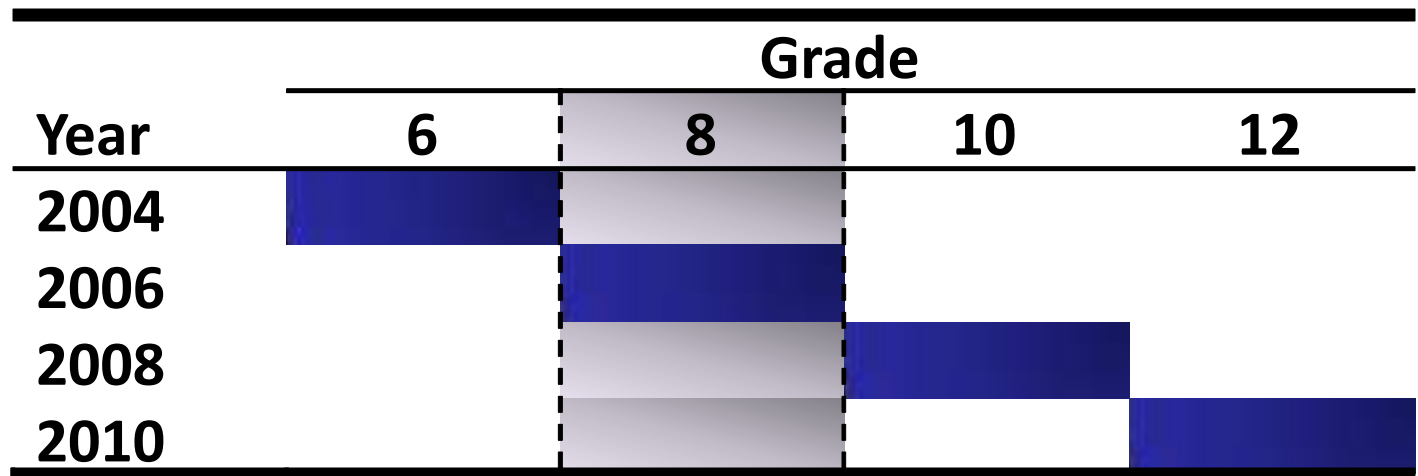
Department

Vision

Mission

Core set of Values

Cohort and Grade Level (Cross-Sectional) Comparisons Over Time



 Cross-sectional or grade level.

 Longitudinal or cohort trend.



One

Department
Vision
Mission
Core set of Values

Defining Underage Drinking: A Composite of 30-Day Alcohol Use & Binge Drinking

No. of times consumed alcohol in the past 30 days	Number of times binge drinking in past 2 weeks		
None	None	1	2 +
1 to 2 days			
3 to 5 days			
6 + days			
Legend			
	1 to 2 days in the past 30 days, but no binge drinking – “experimental drinking”		
	3 to 5 days in the past 30 days OR 1 binge – “problem drinking”		
	6 + days in the past 30 days OR 2 + binges – “heavy drinking”		
NOTE: Inconsistent responses, delete cases from further analysis			



One

Department
Vision
Mission
Core set of Values

In the analyses that follow, this composite is turned into a four-point scale:

Example: class of 8th graders, n=30

20 report no use: $20 \times 1 = 20$

5 report experimental use: $5 \times 2 = 10$

3 report problem use: $3 \times 3 = 9$

2 report heavy use: $2 \times 4 = 8$

$20 + 10 + 9 + 8 = 47$

$47/30 = 1.6$ average alcohol use on composite



One

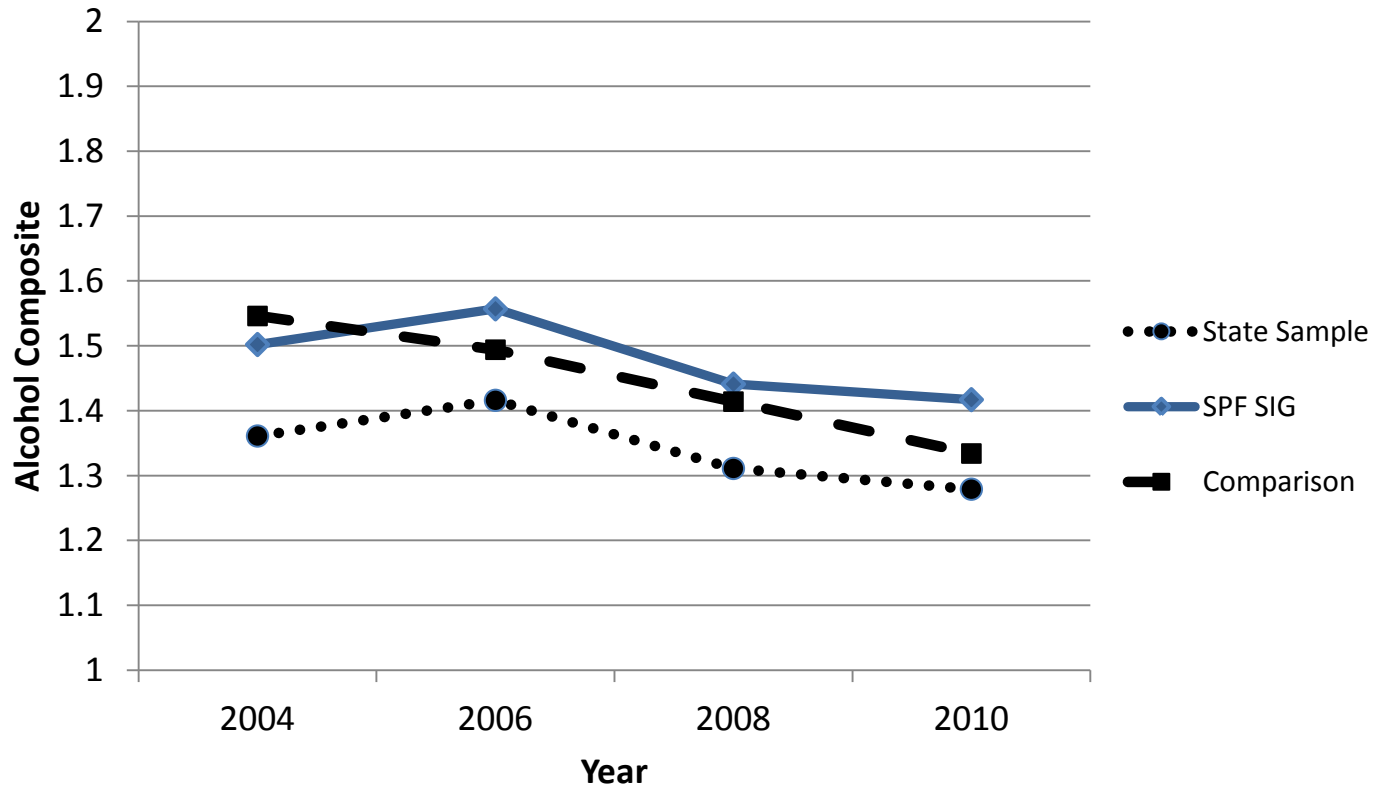
Department

Vision

Mission

Core set of Values

Grade 8 Trends in Alcohol Use (Composite): 2004-2010



Scale: 1 = no use, 2 = experimental, 3 = problem, 4 = heavy



One

Department
Vision
Mission
Core set of Values

Analysis of These Trends

- **Differences in trends between SPF SIG and Comparison sites are not statistically significant.**
 - State rate going down
 - Prevention activity in comparison sites?
- **Highly significant 3-way interaction:**
 - “Study Group” by Year by Cluster, (i.e., the SPF SIG vs. Comparison sites trends over time are different for the 3 demographic clusters).



One

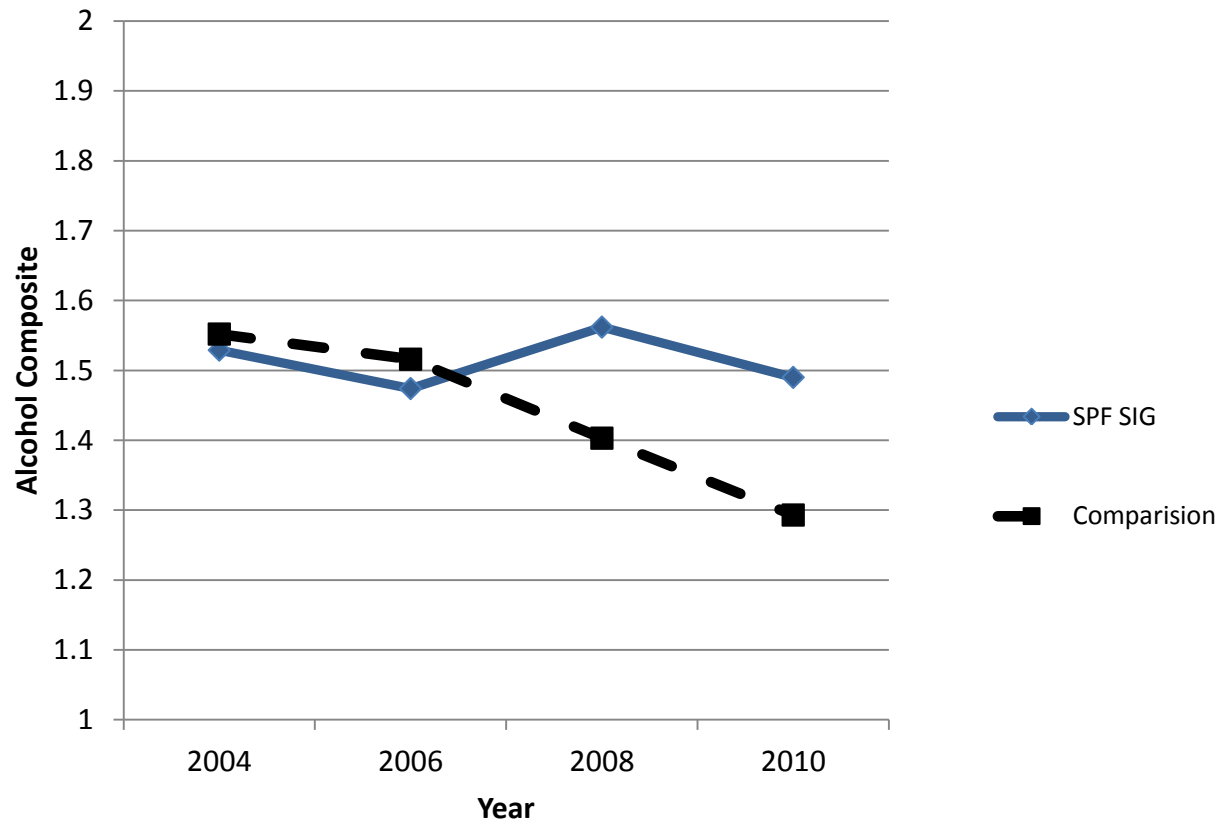
Department

Vision

Mission

Core set of Values

Study Group x Year Interaction for Cluster 1: Non-Urban, Low Poverty, Low Minority Sites



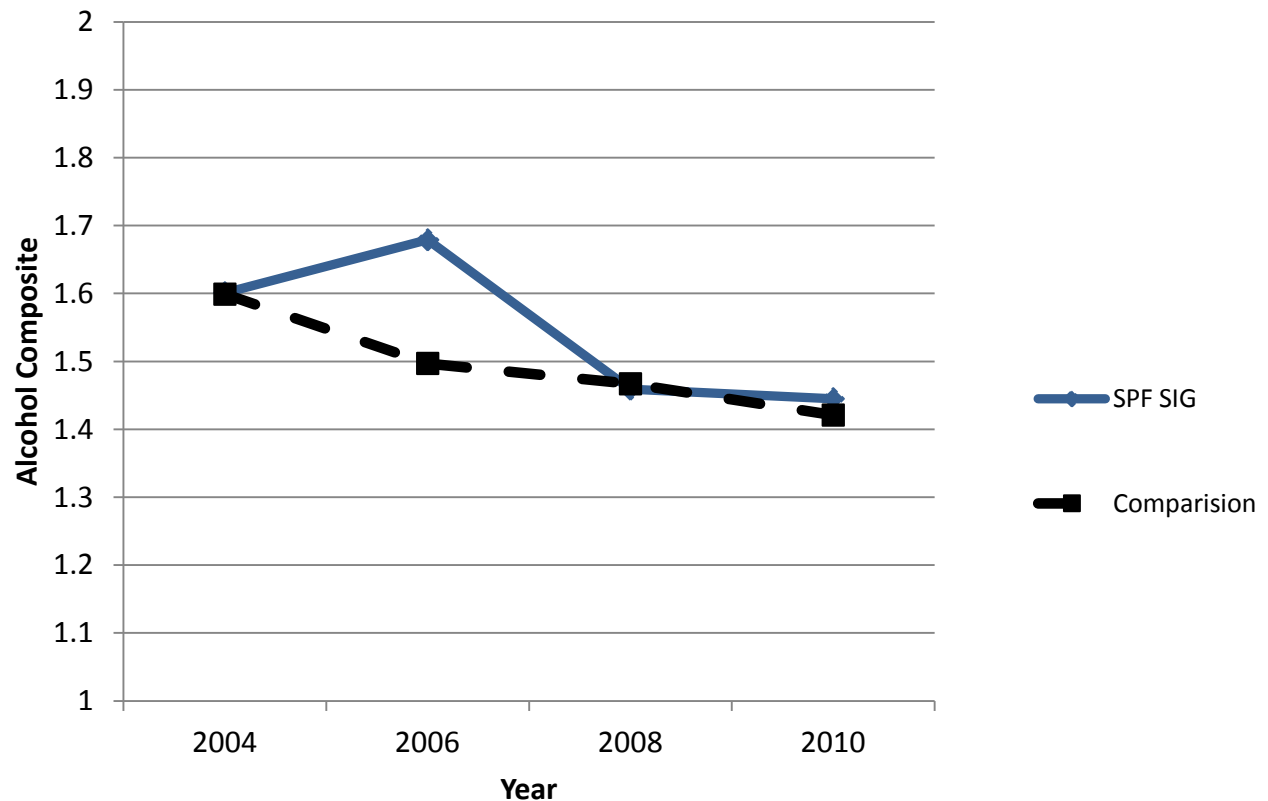
Scale: 1 = no use, 2 = experimental, 3 = problem, 4 = heavy



One

Department
Vision
Mission
Core set of Values

Study Group x Year Interaction for Cluster 2: Non-Urban, High Poverty, High Minority Sites



Scale: 1 = no use, 2 = experimental, 3 = problem, 4 = heavy



One

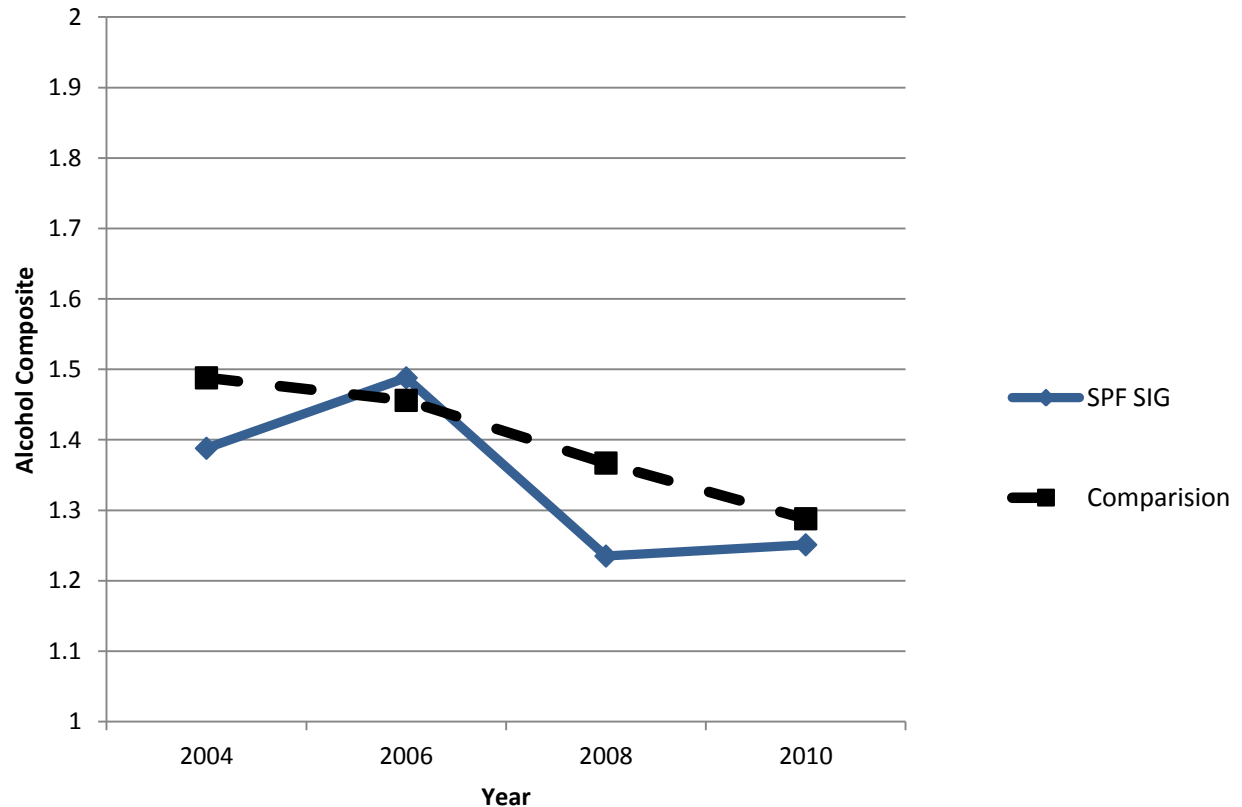
Department

Vision

Mission

Core set of Values

Study Group x Year Interaction for Cluster 3: Urban Sites



Scale: 1 = no use, 2 = experimental, 3 = problem, 4 = heavy



One

Department

Vision

Mission

Core set of Values

Same Analysis, Different Outcome Measure

Constructed a “Total Risk” and “Total Protection” scale --- these are more proximal outcome measures.

- Results for Total Risk scale similar to those of the alcohol use (composite)
- Fewer and less significant effects for Total Protection scale.



One

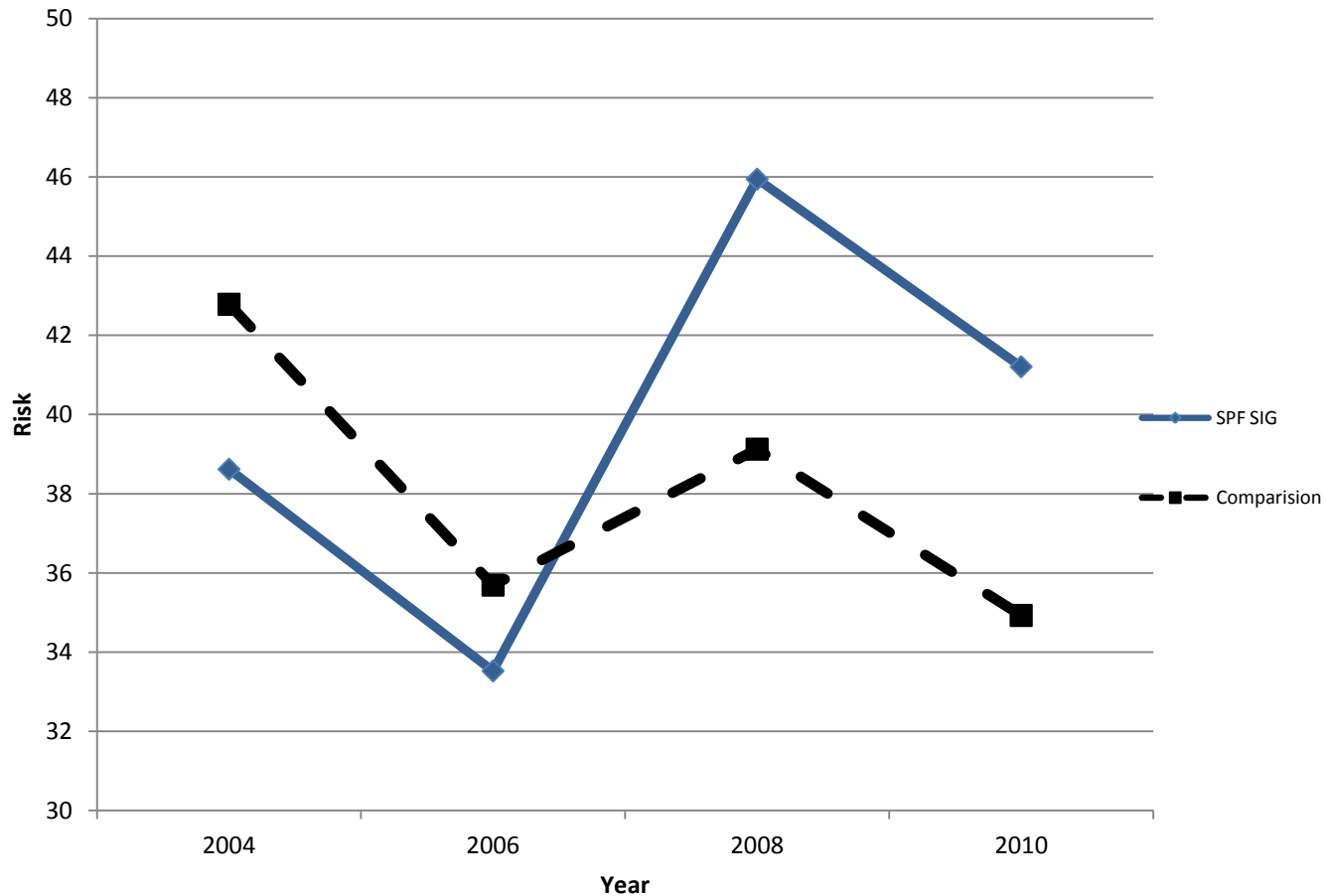
Department

Vision

Mission

Core set of Values

Study x Year Trends in Total Risk for Cluster 1: Non-Urban, Low Poverty, Low Minority Sites



One

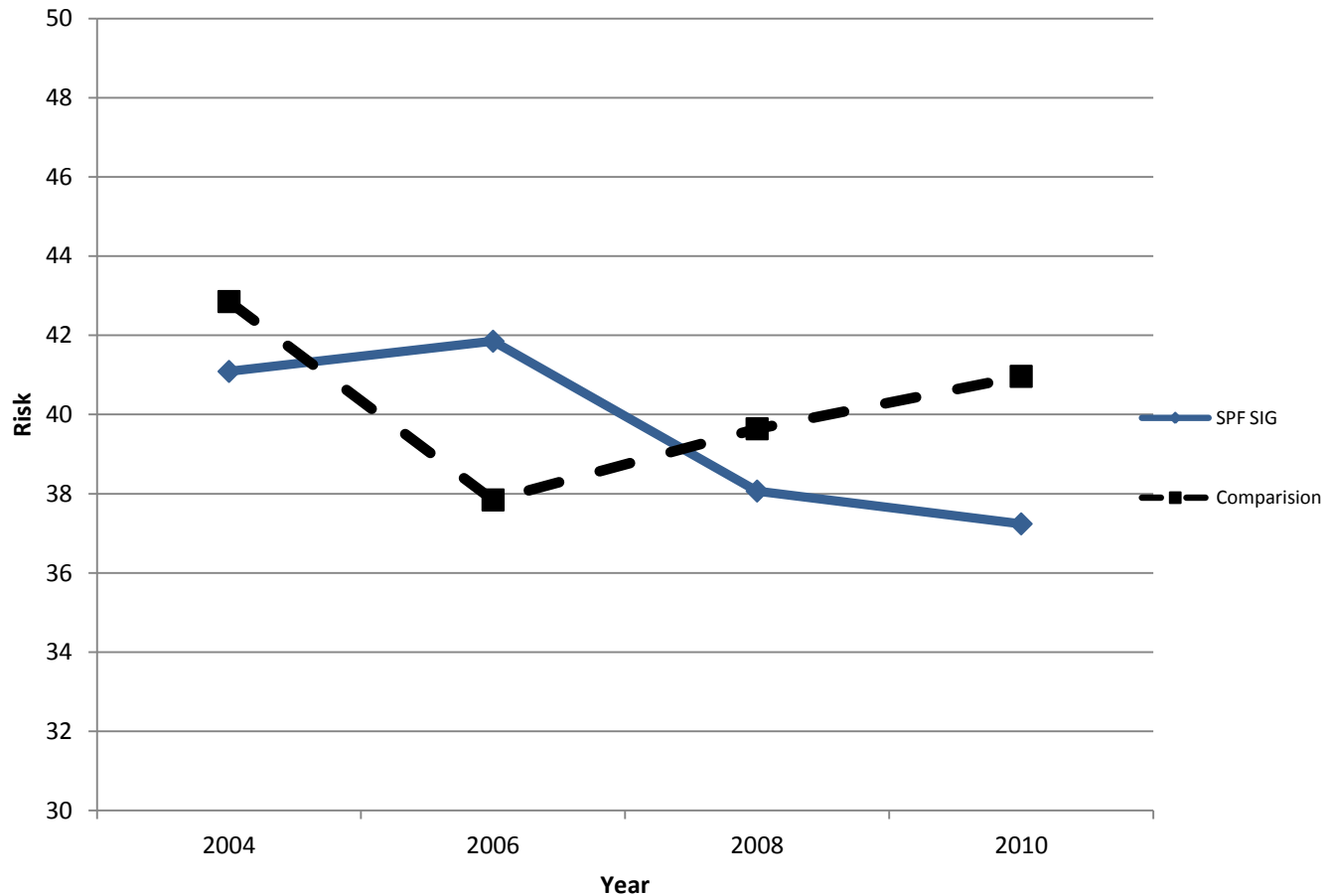
Department

Vision

Mission

Core set of Values

Study x Year Trends in Total Risk for Cluster 2: Non-Urban, High Poverty, High Minority Sites



One

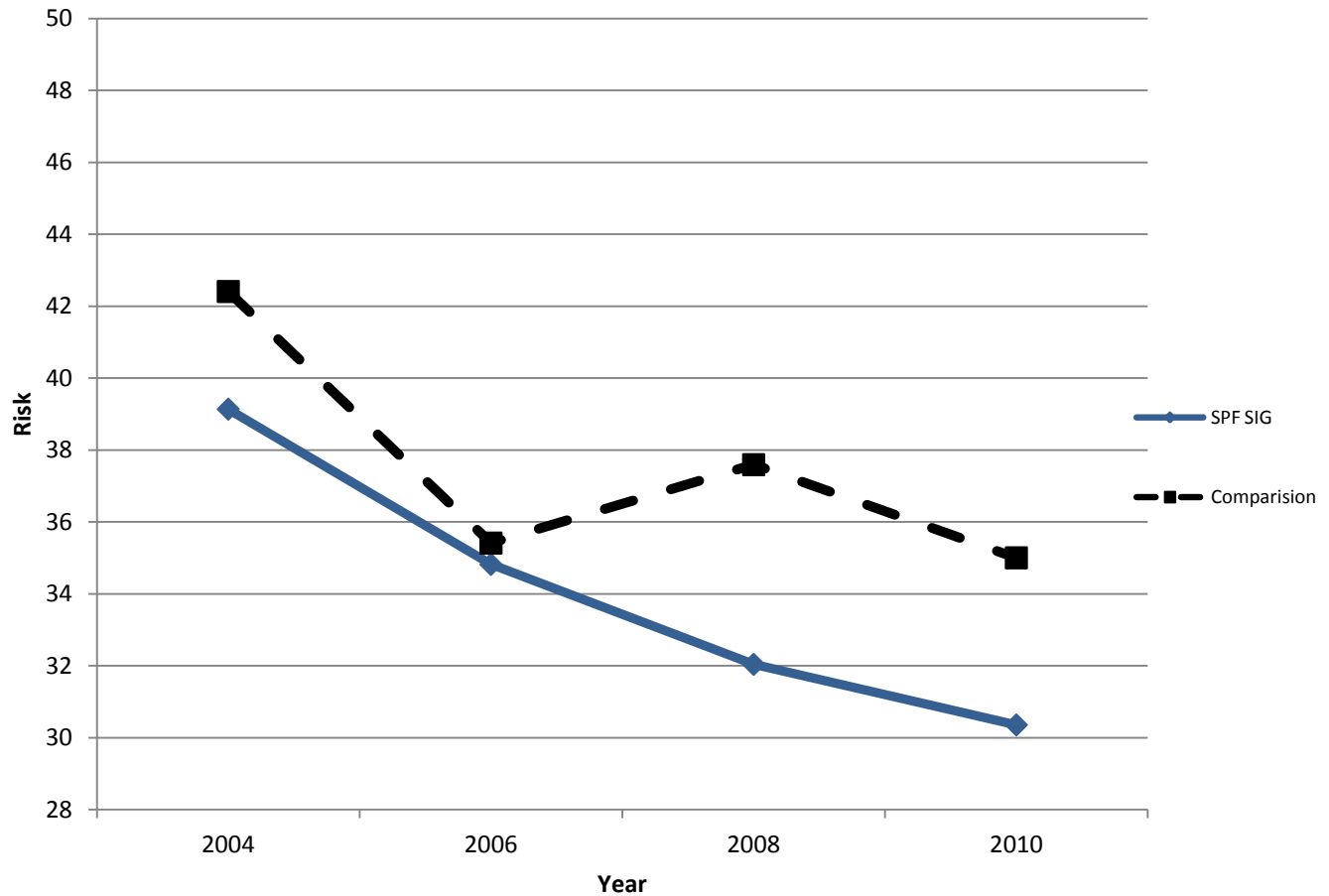
Department

Vision

Mission

Core set of Values

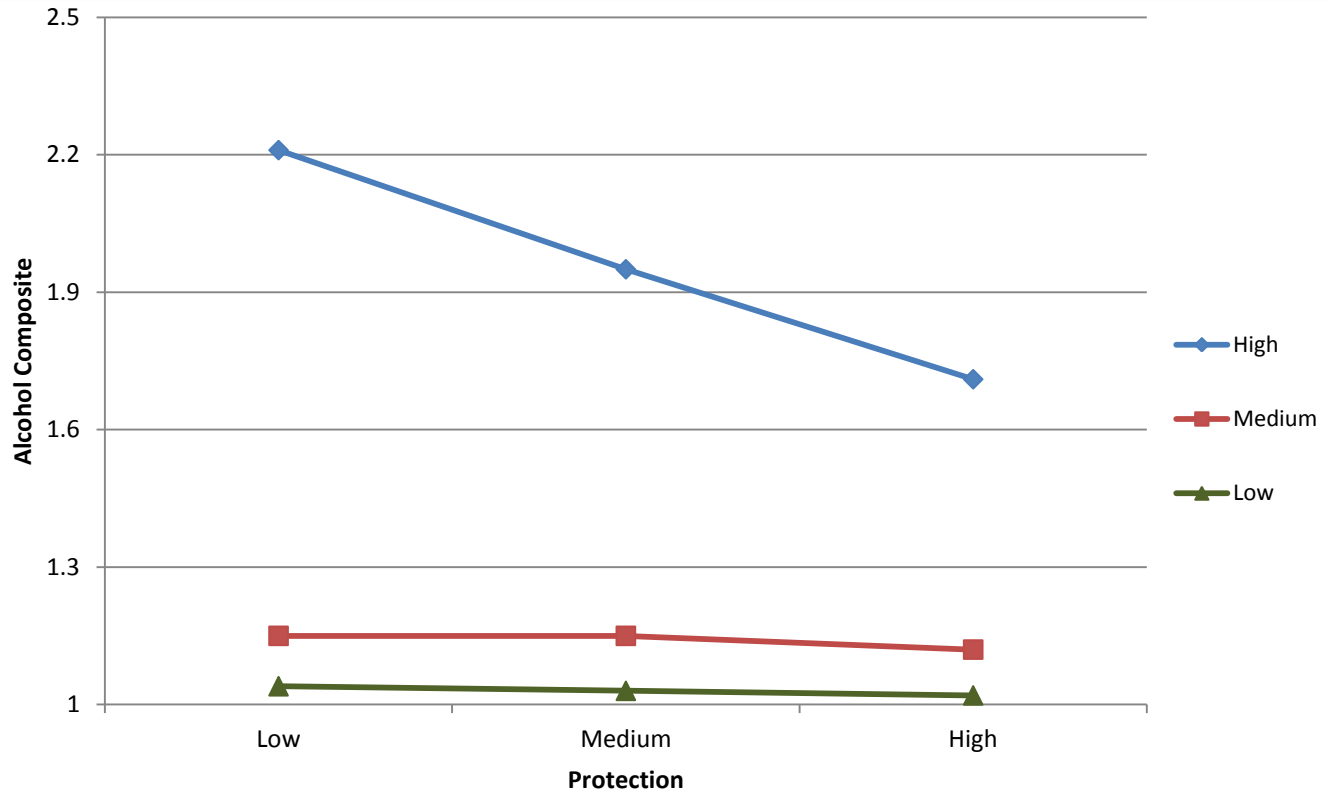
Study x Year Trends in Total Risk for Cluster 3: Urban Sites



One

Department
Vision
Mission
Core set of Values

Key Relationship Between Total Risk, Total Protection and Alcohol Use



Scale: 1 = no use, 2 = experimental, 3 = problem, 4 = heavy



One

Department

Vision

Mission

Core set of Values

Research Question 2

What explains the differences in outcomes across the communities and clusters?



One

Department

Vision

Mission

Core set of Values

Specific Characteristics for Comparisons Among SPF SIG Sites

- **Strength of Implementation of the SPF model**
 - 44 activity rubrics developed by cross-state SPF SIG workgroup.
- **Coalition survey results.**
 - 9 scales (3 subscales).
- **Community survey results.**
 - Permissive attitudes toward youth alcohol use.
- **P/I program.**
 - Presence or absence.



One

Department
Vision
Mission
Core set of Values

Specific Characteristics for Comparisons Among SPF SIG Sites

- **Program/Strategy Penetration Rates.**
 - Youth direct services (YDS).
 - P/I selective/indicated services.
 - Family direct services.
 - Parent-focused environmental strategies.
 - Enforcement/policy-focused environmental strategies.
- **Multi-year exposure to YDS.**
- **YDS facilitator buy-in.**



One

Department
Vision
Mission
Core set of Values

SPF SIG-Only Comparisons

- **7 of 13 Factor by Year interactions were statistically significant ($p < .01$).**
- **Three were in theoretically hypothesized direction.**
 - Strength of Implementation of SPF model ($p < .001$).
 - Penetration/Reach of Enforcement/Policy-related environmental strategies ($p < .001$).
 - Strength of Coalition Leadership ($p < .001$).



One

Department

Vision

Mission

Core set of Values

Using the Fidelity Rating Scales to Measure Strength of SPF Implementation

- **SPF Step 1: Profiling Needs, etc. (10 core activities).**
- **SPF Step 2: Building Capacity (9).**
- **SPF Step 3: Creating Strategic Plan (8).**
- **SPF Step 4a: Selecting and Implementing EBPs (6):**
 - SPF Step 4b1: Implementing Participant-based Interventions (6 core issues).
 - SPF Step 4b2: Implementing Environmental Strategies (4 core issues).
- **SPF Step 5: Evaluation and Monitoring (11).**



One

Department
Vision
Mission
Core set of Values

Fidelity Rating Scales: An Example

- **SPF Step 1, Key Component: Data Collection.**
 - 0 = No data reported for any of the areas (consequences, consumption, etc.).
 - 1 = Some data reported, but inadequate (all areas not addressed, poor reliability/validity of data, no trends over time, etc.).
 - 2 = All areas included, but data access issues preclude multiple estimates for each area.
 - 3 = All areas included with trends over time, comparable data and multiple sources.



One

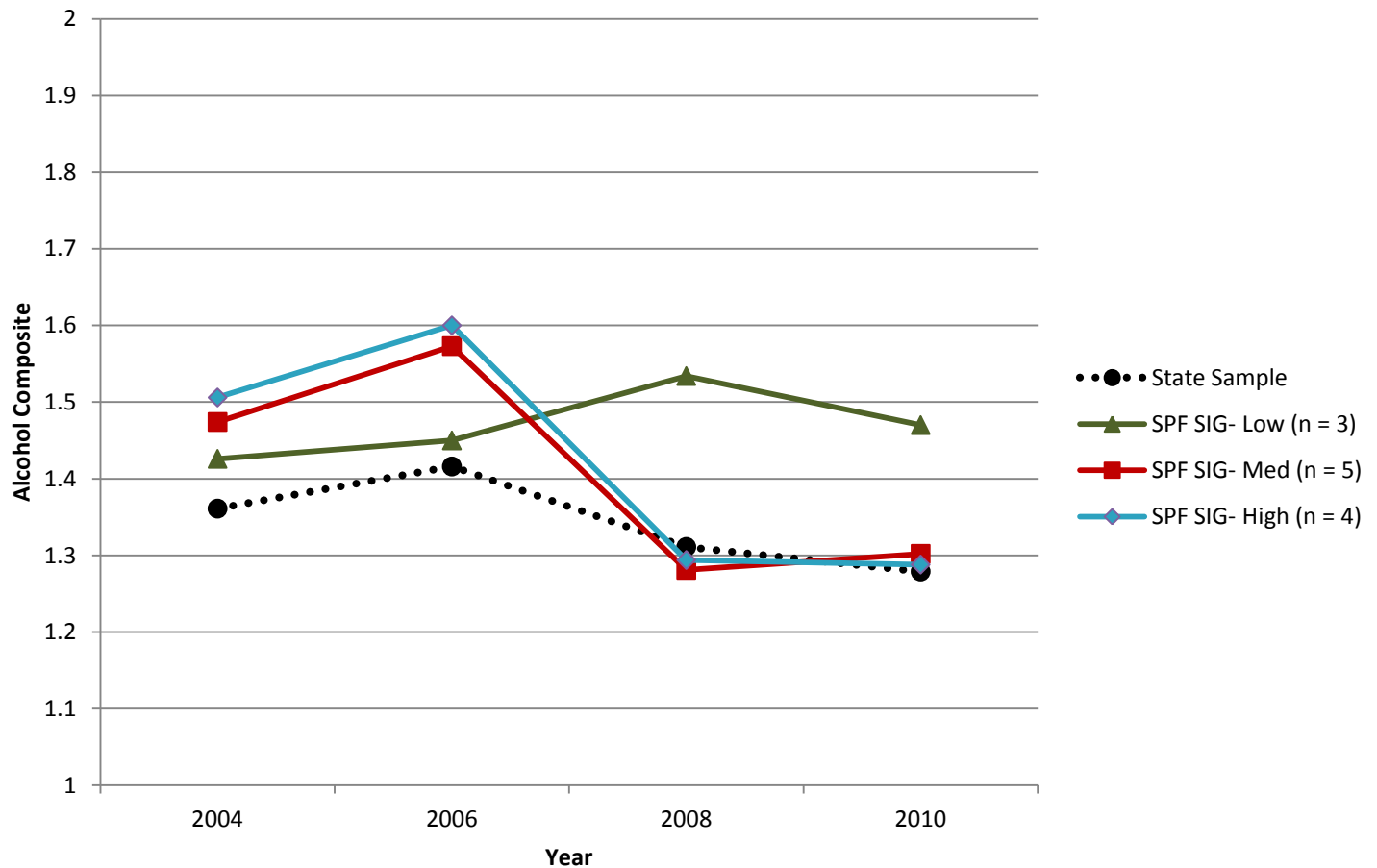
Department

Vision

Mission

Core set of Values

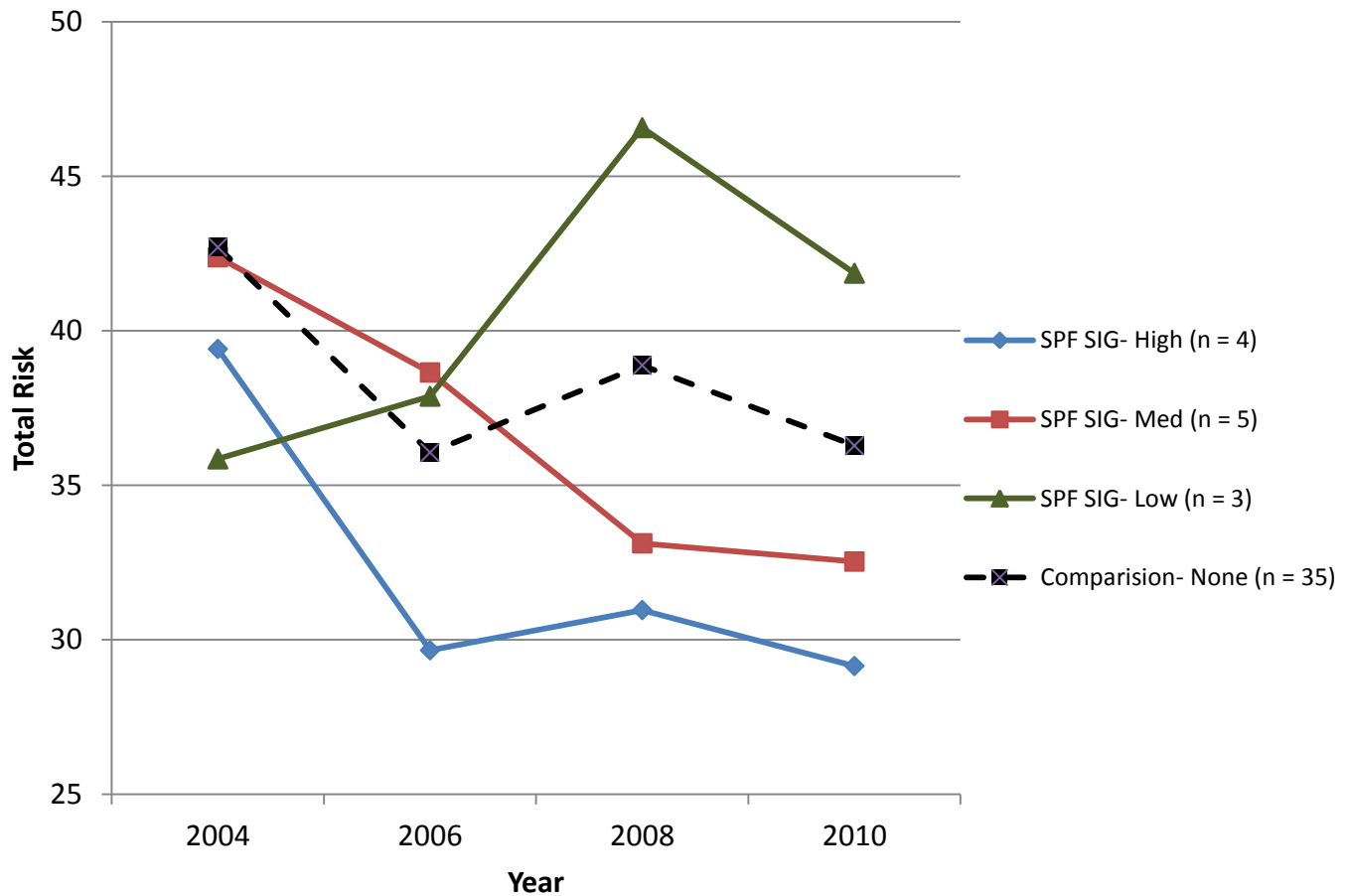
Trends in Alcohol Use (Composite) by Strength of SPF Implementation



One

Department
Vision
Mission
Core set of Values

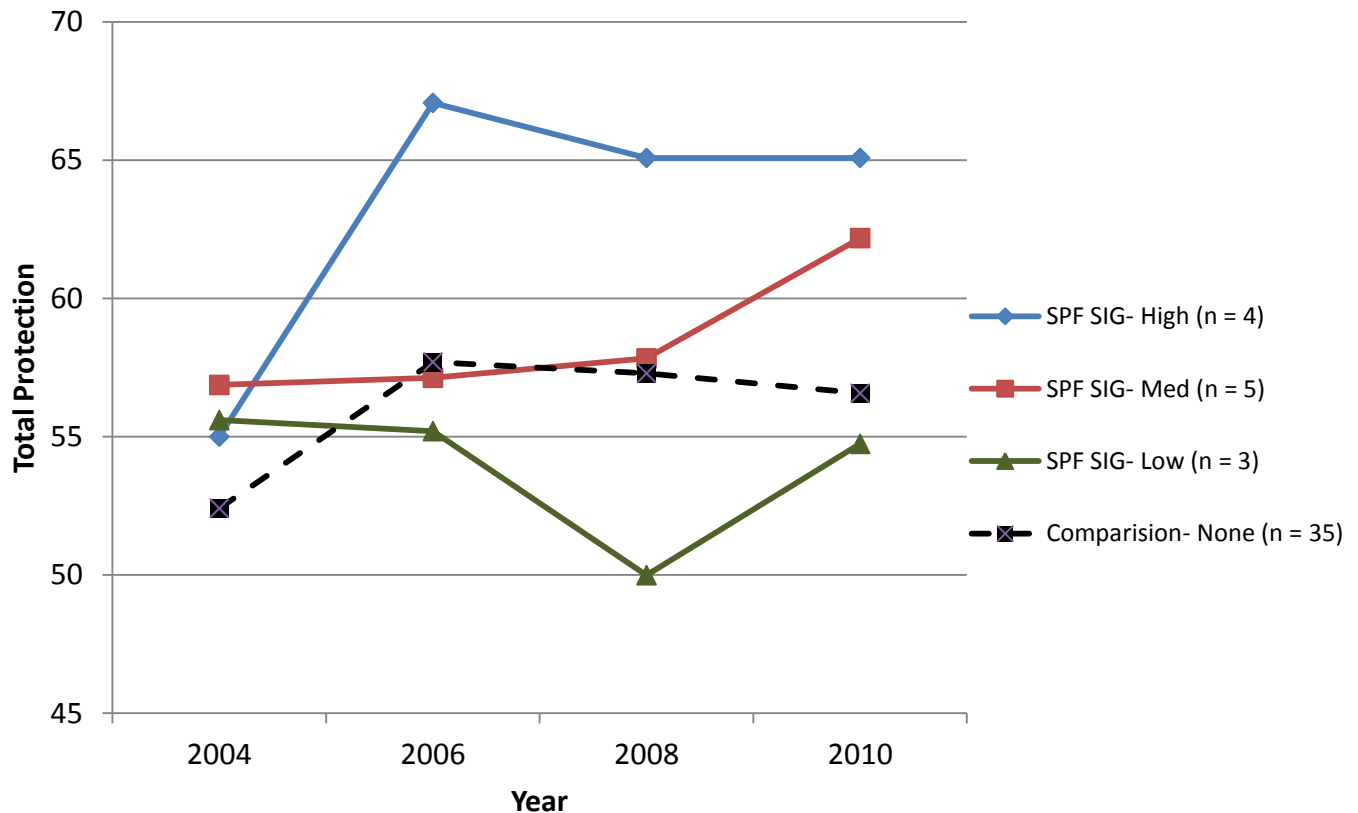
Total Risk by Strength of SPF SIG Implementation



One

Department
Vision
Mission
Core set of Values

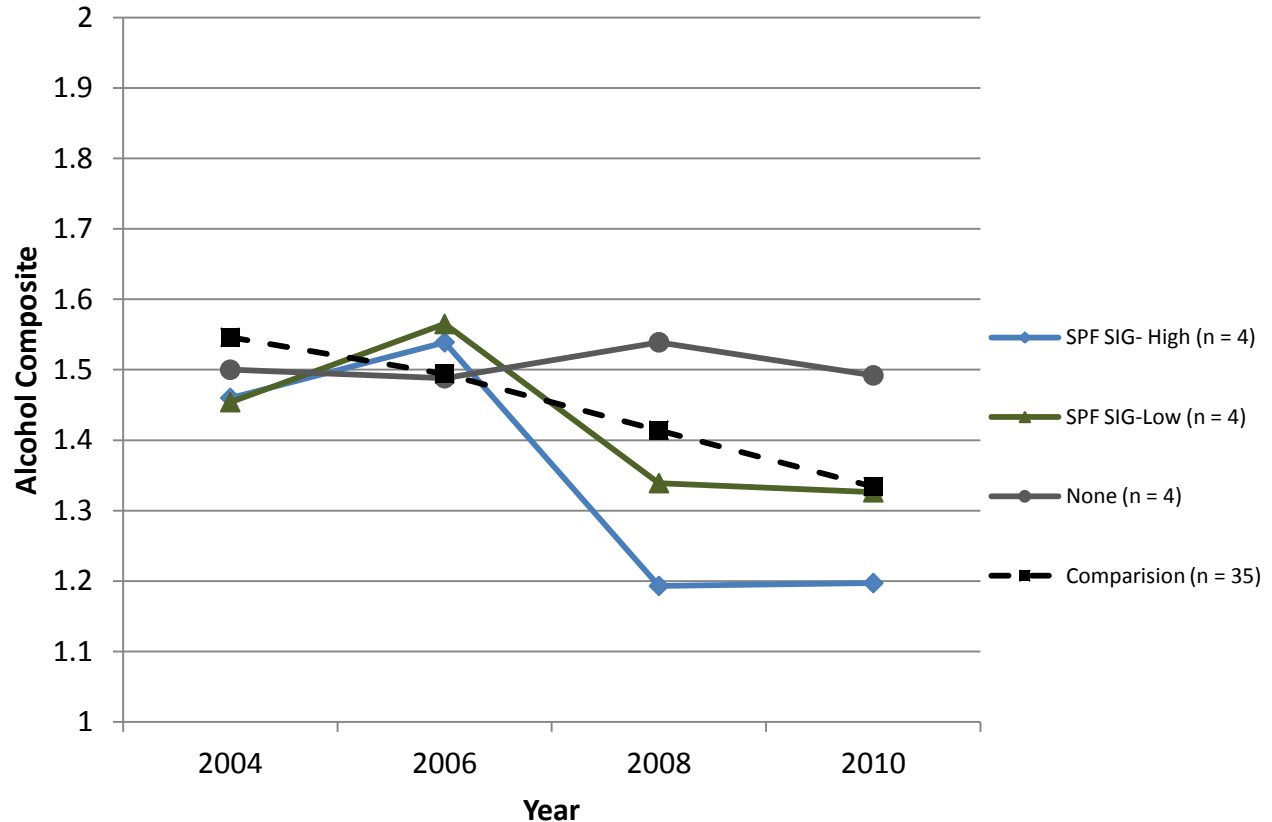
Total Protection by Strength of SPF SIG Implementation



One

Department
Vision
Mission
Core set of Values

Trends in Alcohol Use by Penetration of Enforcement/Policy Environmental Strategies



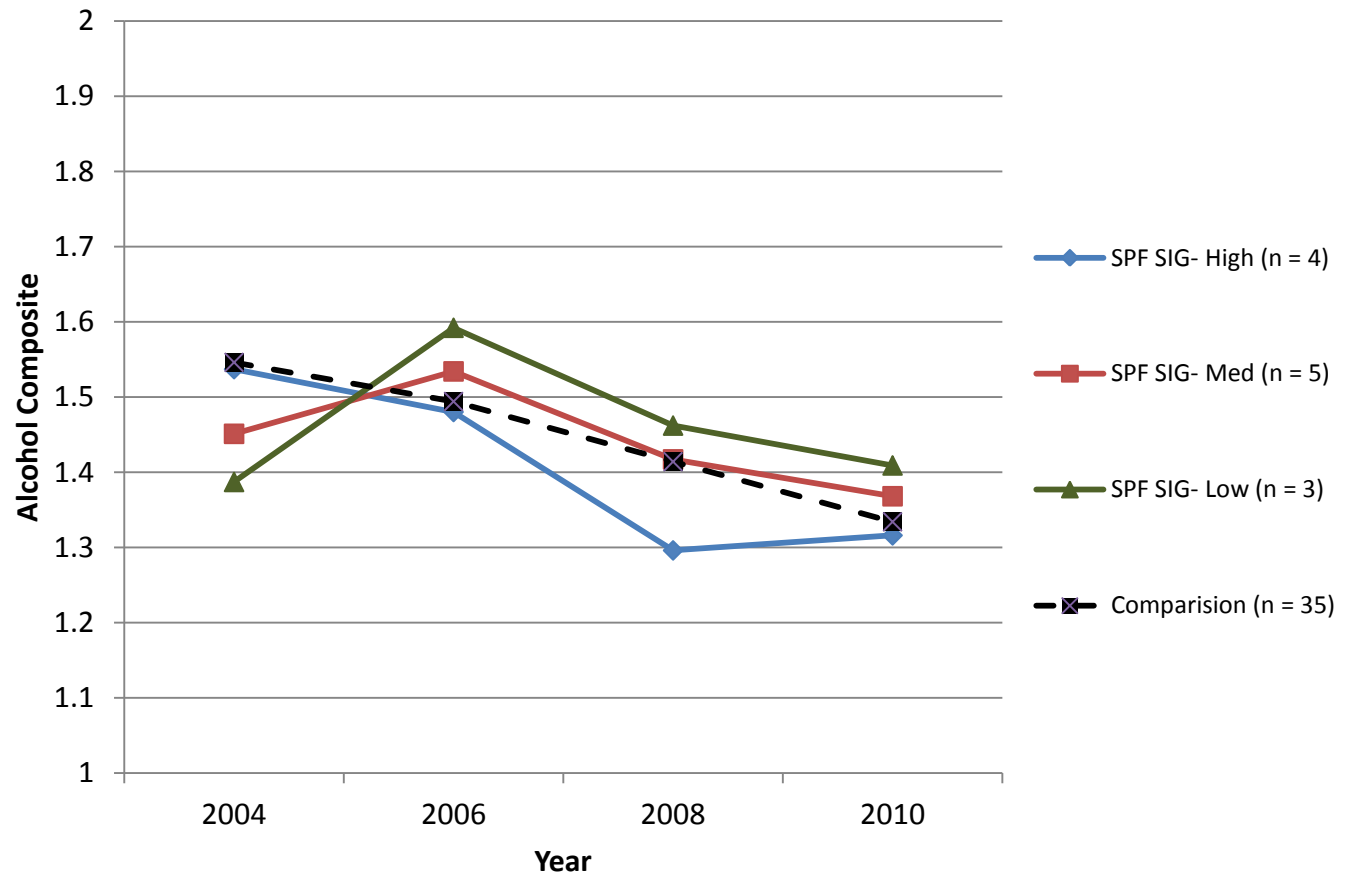
Scale: 1 = no use, 2 = experimental, 3 = problem, 4 = heavy



One

Department
Vision
Mission
Core set of Values

Trends in Alcohol Use by Strength of Coalition Leadership



Scale: 1 = no use, 2 = experimental, 3 = problem, 4 = heavy



One

Department

Vision

Mission

Core set of Values

Some things we can't interpret!

- **Some of the variables have results that are hard to explain:**
 - the interaction between “permissiveness” and alcohol is statistically significant, but not in the way we expect...

(see next slide)



One

Department

Vision

Mission

Core set of Values

Summary

- Since 2004 there has been a significant reduction in alcohol use among Washington's eighth graders.
- Overall, there are no significant differences between SPF SIG and Comparison sites over time in key outcome measures. However:
 - SPF SIG and Comparison sites do differ significantly within demographic clusters.
 - Analyses to date do not include data on prevention activity in comparison sites.



One

Department

Vision

Mission

Core set of Values

Summary (cont.)

- **Among SPF SIG sites, there are statistically significant and theoretically consistent relationships between three key factors and reductions in total risk and alcohol use.**
 - Fidelity of Implementation of SPF model.
 - Penetration rate of Enforcement/Policy environmental strategies.
 - Strength of Coalition Leadership.



One

Department
Vision
Mission
Core set of Values

Possible Directions for Further Analysis

- **Develop further the Resource Assessment data (supplement w/PBPS?) to sharpen the SPF SIG vs. Comparison sites trends.**
- **Probe further into SPF Implementation Fidelity (e.g., which specific SPF steps are most strongly related to reductions in alcohol use and total risk).**
- **Probe further into specifics of enforcement/policy environmental strategy implementation.**
- **Others???**



One

Department

Vision

Mission

Core set of Values

Michael Langer says: “Collecting evaluation data is like herding cats, folks! Details matter!”



One

Department

Vision

Mission

Core set of Values

Thank YOU for Your Time!



Questions or Comments?

Please contact:

Linda Becker, Ph.D., Research Manager
Division of Behavioral Health & Recovery
(360) 725-3705
Linda.Becker@dshs.wa.gov



DBHR Division of Behavioral
Health and Recovery



One

Department
Vision
Mission
Core set of Values