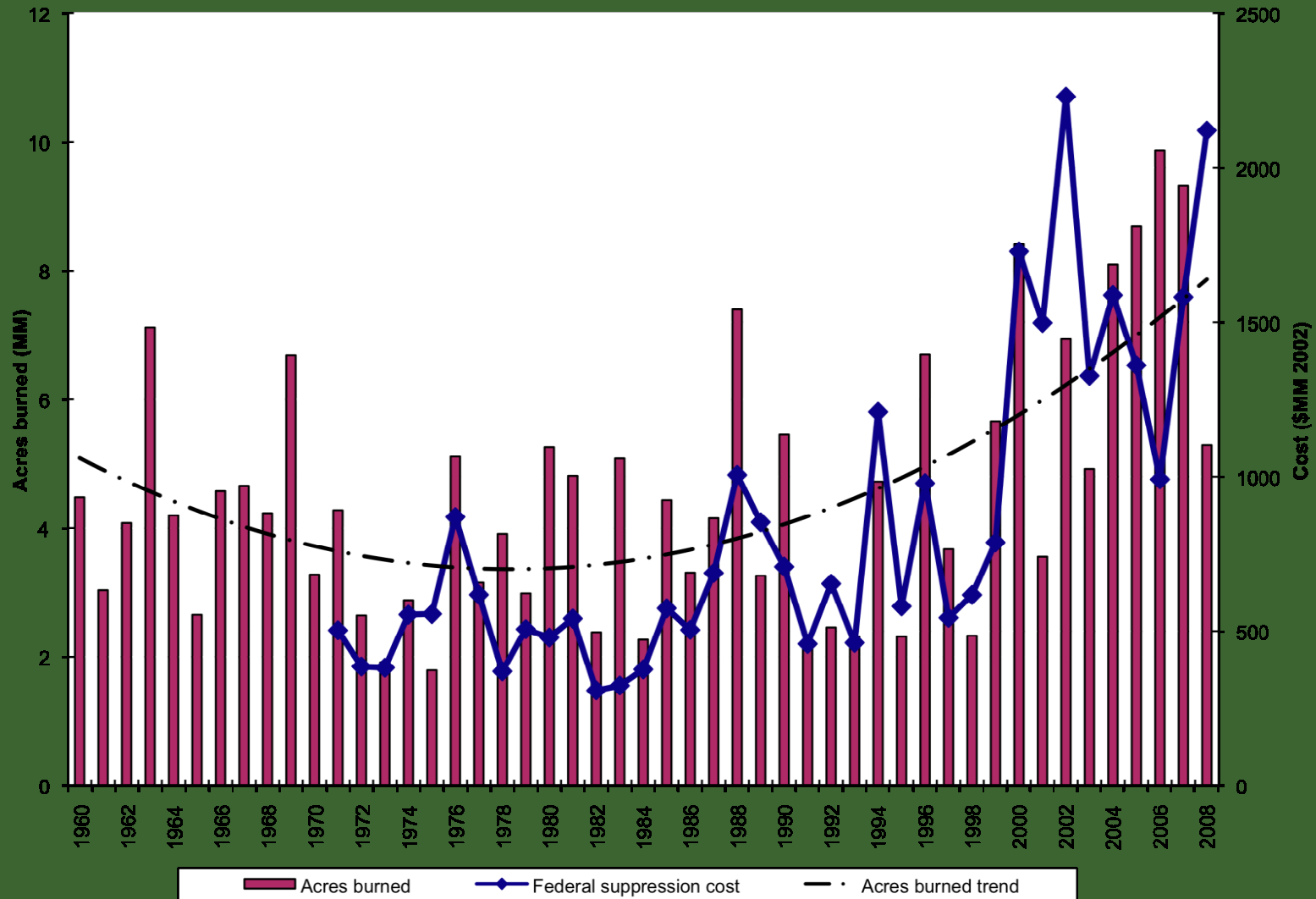


Cost Containment and Large-Scale Fire Management

Ernie Niemi

ECONorthwest
ECONOMICS • FINANCE • PLANNING

Acres Burned, Federal Cost



FY 2008 Large-Cost Fire Independent Review

Panel Members

- Richard Haynes, Chair
- Sharon Caudle
- Ian Munn
- Michael Frank
- Ernie Niemi

Support

- ECONorthwest
- Environmental Incentives
- Watershed Professionals Network
- MacGregor Bates

USFS

- Fire & Aviation Management
- Regional Offices
- Forest
- Research Stations
- Nor. Cal. GACC
- NIFC
- Incident Team Commanders

Context

Assignment

- **Fiscal diligence**
- **Risk-based management**

Background Issues

- **Individual fires vs. larger spatial & temporal horizons**
- **What are the benefits: fires, fire-suppression**
- **Behavioral change: USFS, managers, neighbors**

Methods

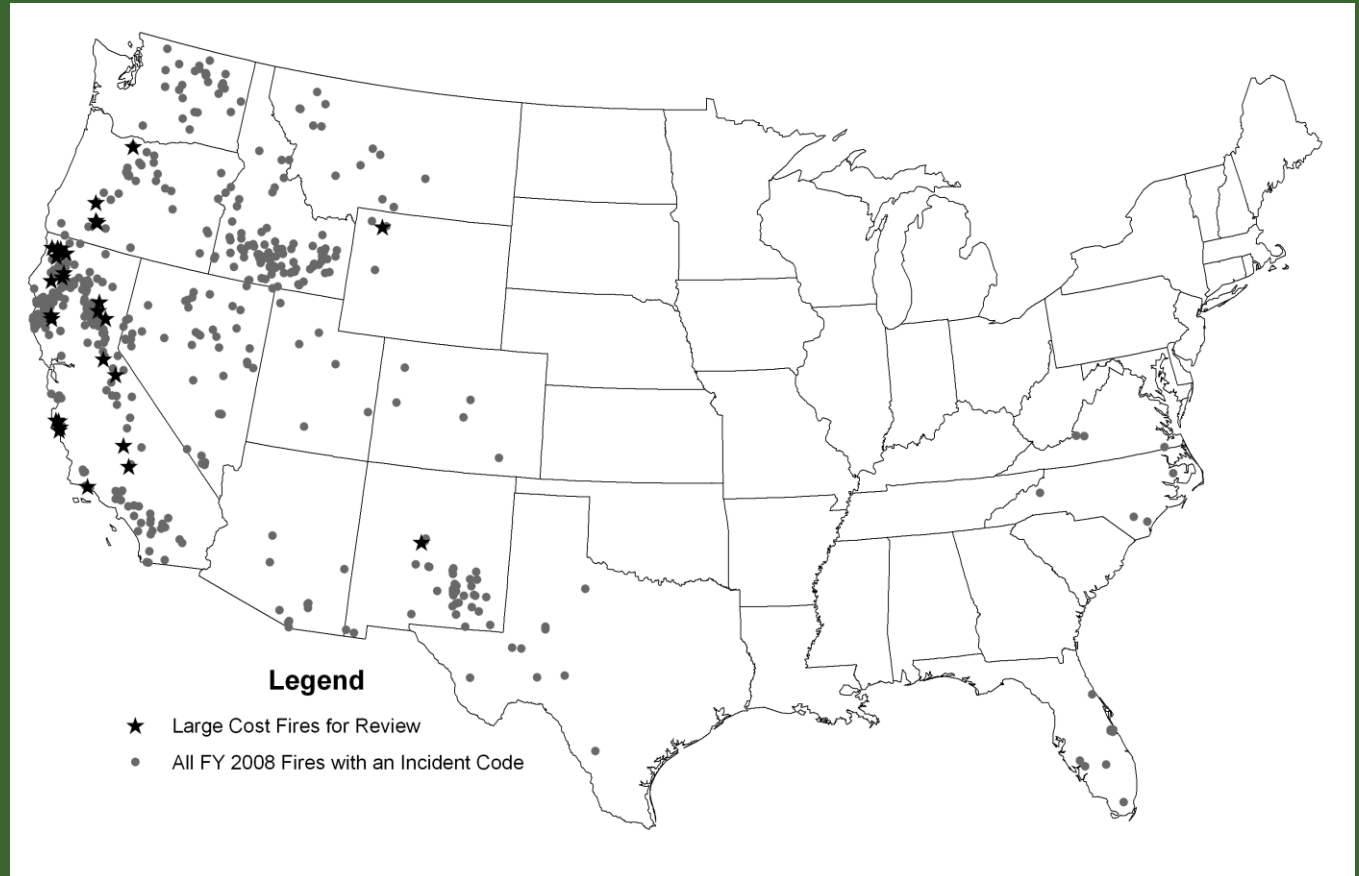
- **Meta-analysis of regional large fire cost reviews and other reviews**
- **Data analysis**
- **Review of fire-specific documentation**
- **Interviews at forest and regional level**
- **Interviews and analysis with research station staff**

2008 Fire Season

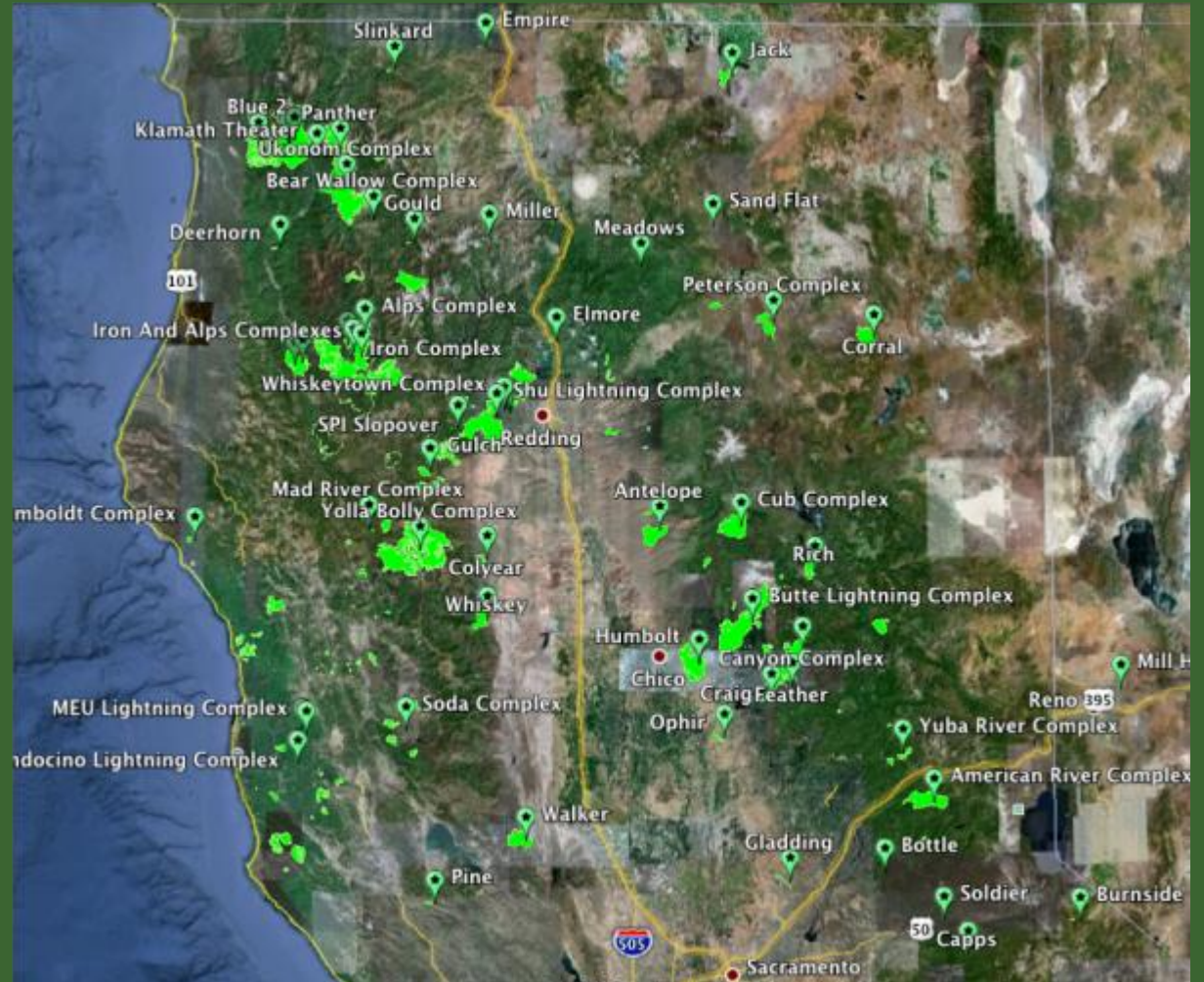
Continued
increasing
federal cost
trend

Overall
acreage
lowest since
2003

Dominated by
CA lightning,
20-21 June



2008 Fires in Northern California



2008 Large-Cost Fires

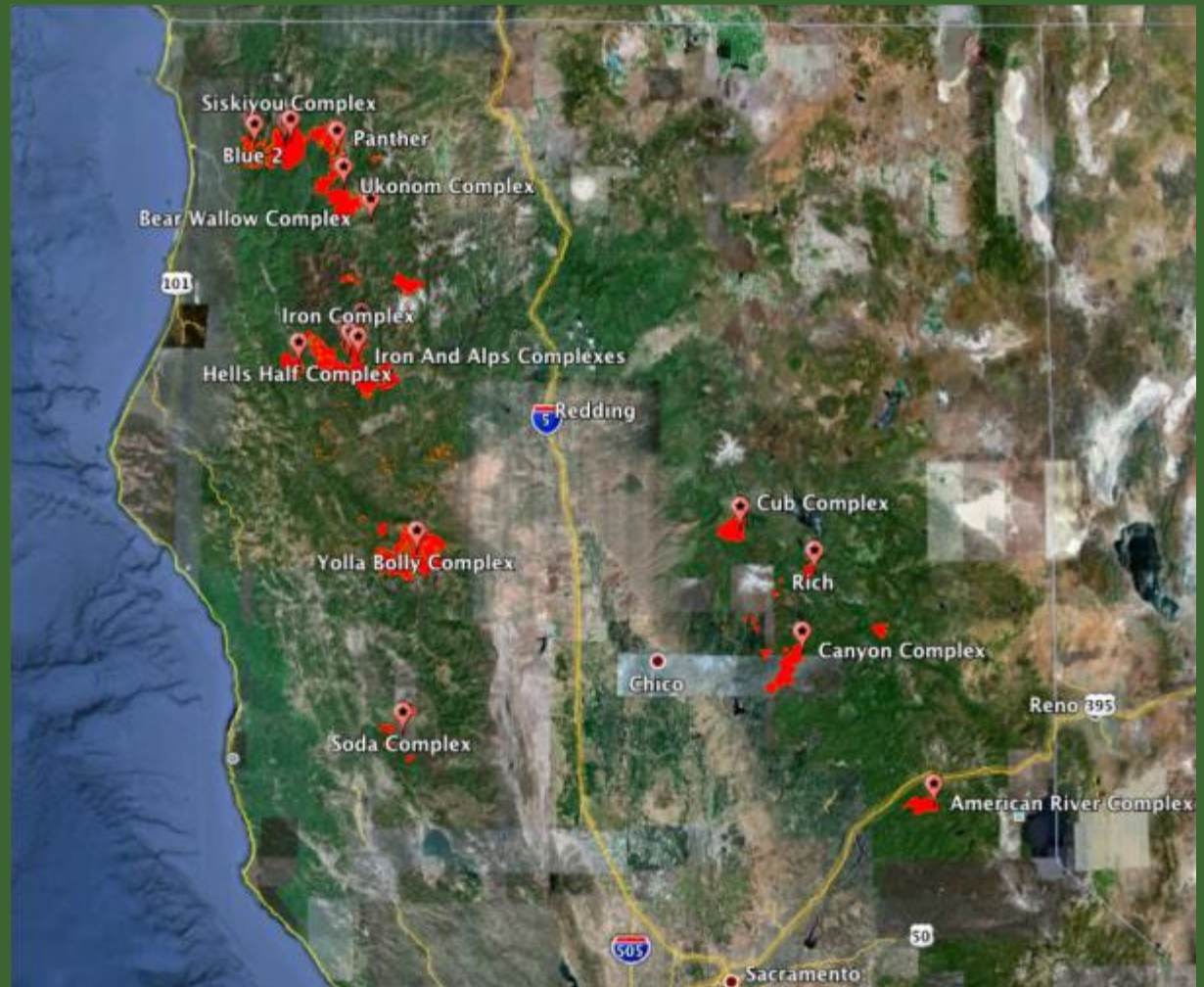
22 large-cost fires

- 17 in California
- 3 in Oregon
- 1 each in WY & NM

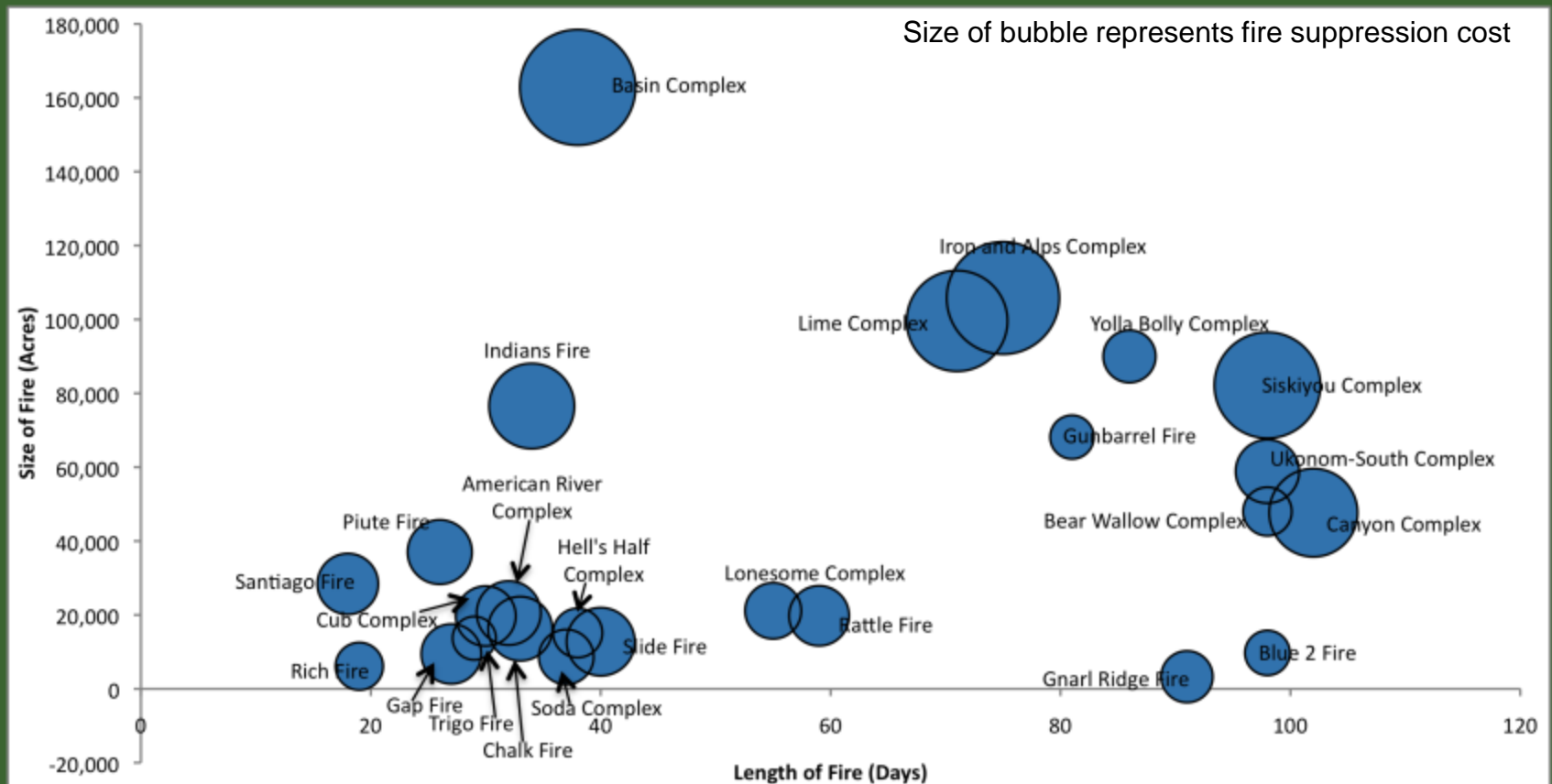
\$683M federal costs

Many regionally concentrated, simultaneous

\$124M Klamath Theater unprecedented



Acreage and Duration



Findings

Evidence of fiscal malfeasance?

No

Follow guidelines for regional cost reviews?

Regions 2 & 5: yes; 4 & 6: innovations

Appropriate, cost-effective management of large-cost fires?

Many good things, but can do more.

Recommendations

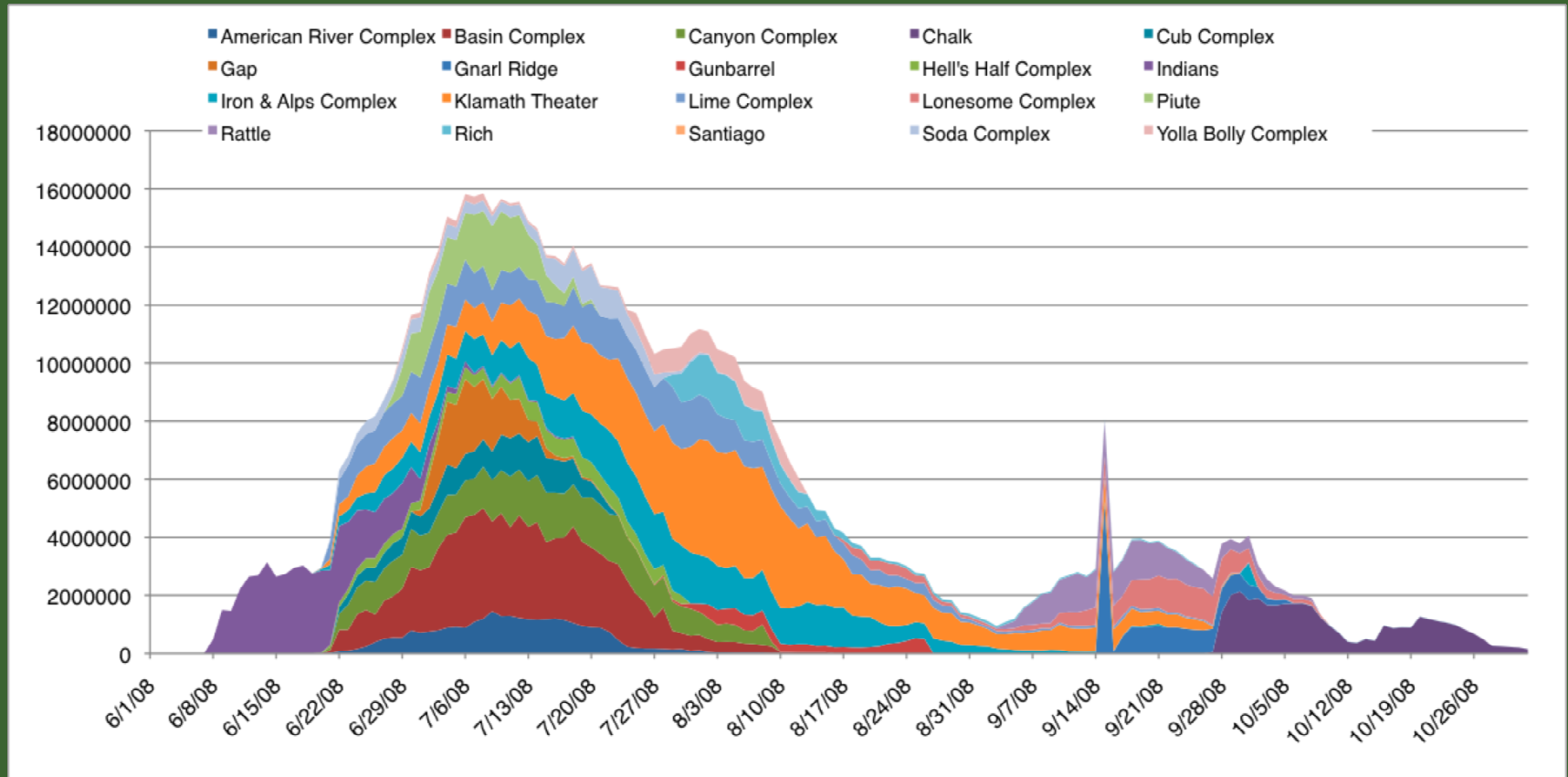
1. Develop & employ better strategic thinking

a. Sufficient resources for initial attack

- Evaluate the net benefits of a larger standing army
 - Assess risks of low-probability, high-consequence events
 - Improve scenario planning

b. Better understanding of cost patterns

Federal Costs



Recommendations

1. Develop & employ better strategic thinking

a. Sufficient resources for initial attack

b. Better understanding of cost patterns

c. Coherent accommodation of ecosystem realities

d. Better strategic framework for choosing among multiple goals

Recommendations

2. Improve Risk-Informed Management

a. Broader application of NIMO protocols

b. Continued development & use of decision-support tools

c. Realistic recognition of the tools' limitations

Recommendations

3. Better understanding of major costs

a. Costs should be inputs to decisions

b. Cost analysis of what-if scenarios

c. Better understanding of aviation costs

d. Better understanding of California costs

e. Broader accounting for non-financial costs

Recommendations

4. Strengthen the safety culture

a. Better consistency between strategic thinking and specific decisions

b. Promote the adoption of cost-effective AND safe behaviors

Recommendations

5. Provide effective incentives

a. Officers and commanders

b. Cooperating partner agencies

c. Property and structure owners

d. Non-market resources

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