Planned Special Events: Its role in the Economy and the tools of Cost Management and Cost Recovery

Laurel Radow

Conference on Transportation Operations
for Planned and Unplanned Events

March 25, 2009

U.S. Department of Transportation
Federal Highway Administration

Planned Special Events – Economic Role and Congestion Effects

- Purpose of the study is to estimate the economic magnitude and congestion effects of PSEs.
- Awareness of the scale of PSEs essential to understanding role of transportation planning.

Study Overview: Annual Estimates of PSEs with More Than 10,000 Attendees

24,000 large PSEs

- 600 million in attendance
- $40 billion “in-event” revenue or spending
- $160 billion in economic impact
- $4 billion in local government revenue
- $1.7 to $3.5 billion in congestion cost
- 90-185 million hours & 65-130 million gallons wasted

Methodology: Micro and Macro Approaches

- Micro based on case studies of four cities
  - Different sizes and regions
  - Understand venue types and locations
  - Types of events
- Macro to develop national estimates
  - Based on data from leagues and associations (MLB, NBA, NCAA, etc.)
  - Scaled–up data from case studies
- Event size of 10,000 and up selected

Methodology: Economic Activity Types

- Professional Team Sports
  - Football, basketball, baseball, hockey
- College Sports
  - Football, basketball
- Individual Professional Sports
  - Auto racing, horse racing, golf
- Street and Park Events
  - Marathons/Walks, Parades, Fairs, Festivals, Political Events
- Shows and Concerts
  - Exhibitions & Shows, Concerts

Case Studies: Portland (Large Western City)

- Portland had 187 PSEs or about 3.6 per week.
- PSEs dominated by pro basketball, concerts, festivals and shows.
- Majority of events hosted in stadiums, arenas, and convention centers.
- Two arenas, one stadium, and two convention centers host 70% of PSEs.
- One quarter of PSEs are hosted in parks.
- Portland is home of the very large Rose Festival.

Case Studies: Summary of Findings

- Large differences between regions and cities in the types of PSEs
- Number of events per million capita fairly equal
- Most PSEs in relatively few permanent venues (9=Detroit, 8=Portland, 6=El Paso, 6=Columbia)
- Almost all venues within 3 miles of Interstate and served by public transportation

National Economic Estimates: Number of Events

- 24,000 event days of more than 10,000 attendance draw 600 million attendees annually
- Pro team sports have the most events while street/park events draw the most spectators
- Data on team sports are of higher quality than other event categories

National Economic Estimates: Events Per Million Capita

- Nationally, 80 event days/million persons annually
- For 3 of 4 cities, range from 108 to 142, reflecting higher urban rate
- The relatively high events per capita may reflect presence of State Fairgrounds

National Economic Estimates: Revenue & Economic/Fiscal Impact

- Attendees spent $40 billion at large PSEs
- Spending outside events plus multiplier effects raise total economic impacts to over $160 billion
- $4 billion fiscal contribution to local government

Congestion Estimates: Methodology

- Congestion Costs Based on Texas Transportation Institute (University of Texas) data
- Measures include delay, wasted fuel, and cost
- PSEs assumed to only add to PM peak congestion
- PSE contribution to congestion assumed to be between 4 and 8 percent of total congestion

Congestion Estimates: Results

- PSEs resulted in annual delay per traveler of 0.8 to 1.7 hours or about 100 to 200 million hours nationally
- Each drivers wasted about 0.6 to 1.2 gallons of fuel each year or about 64 to 128 million gallons nationally
- PSE congestion cost the nation between $1.74 and $3.49 billion annually

Mitigation Strategies

- Freeway Sections
- Street Level Congestion
- Intersection Congestion
- Incident Management
- Public Transit Service
- Travel Demand Management
- Provide Public Information

Mitigation Strategies: Effectiveness

- Very little quantitative data on effectiveness
- U of CA study using simulation model found Intelligent Transportation Systems (ITS) reduced delays by 14-34% for attendees and 10-13% for non-attendees
- Maricopa County DOT (Arizona) study estimated outbound travel time for the Phoenix Int'l Raceway decreased from 5.5 to 2.5 hours as a result of ITS introduction
- Additional quantitative studies needed

Recommendations: Future Research

- Additional research on the number of PSE event days, attendance and revenues
- Development of a GIS database of events
- Conduct controlled PSE congestion studies
- Examine benefits, costs, equity and fiscal impacts of PSEs

Recommendations: For Planners and Venue Operators

- Develop understanding of the numbers of events and their attendance
- Develop a list of the venues that are hosting PSEs
- Assess the congestion impacts of the events
- Assess the available mitigation techniques
- Examine economic and fiscal aspects of these events

Cost Management and Cost Recovery Primer

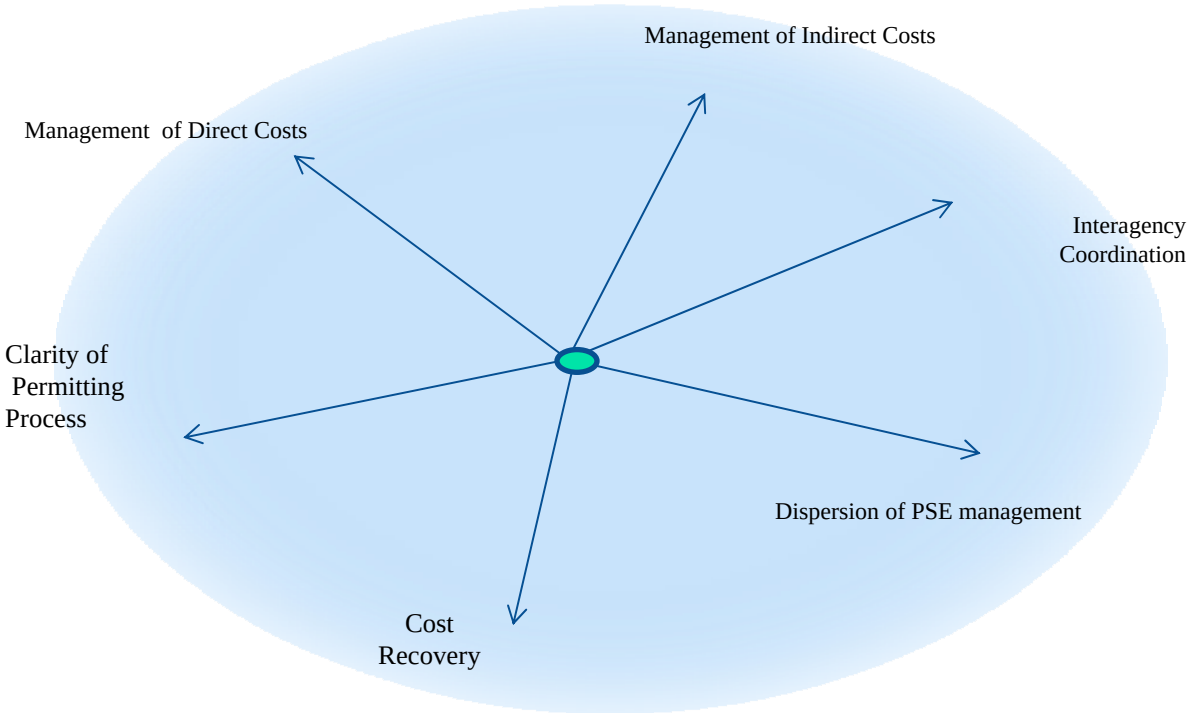
Budget Concerns 1

- The number of PSEs held annually around the nation is growing and increasing the strain on the already tight budgets of many cities.
- The Portland Tribune recently published an article noting that in 2006, the traffic division of the Portland Police Department spent $363,000 in overtime expenses alone for special events out of which the department recovered only $48,000.

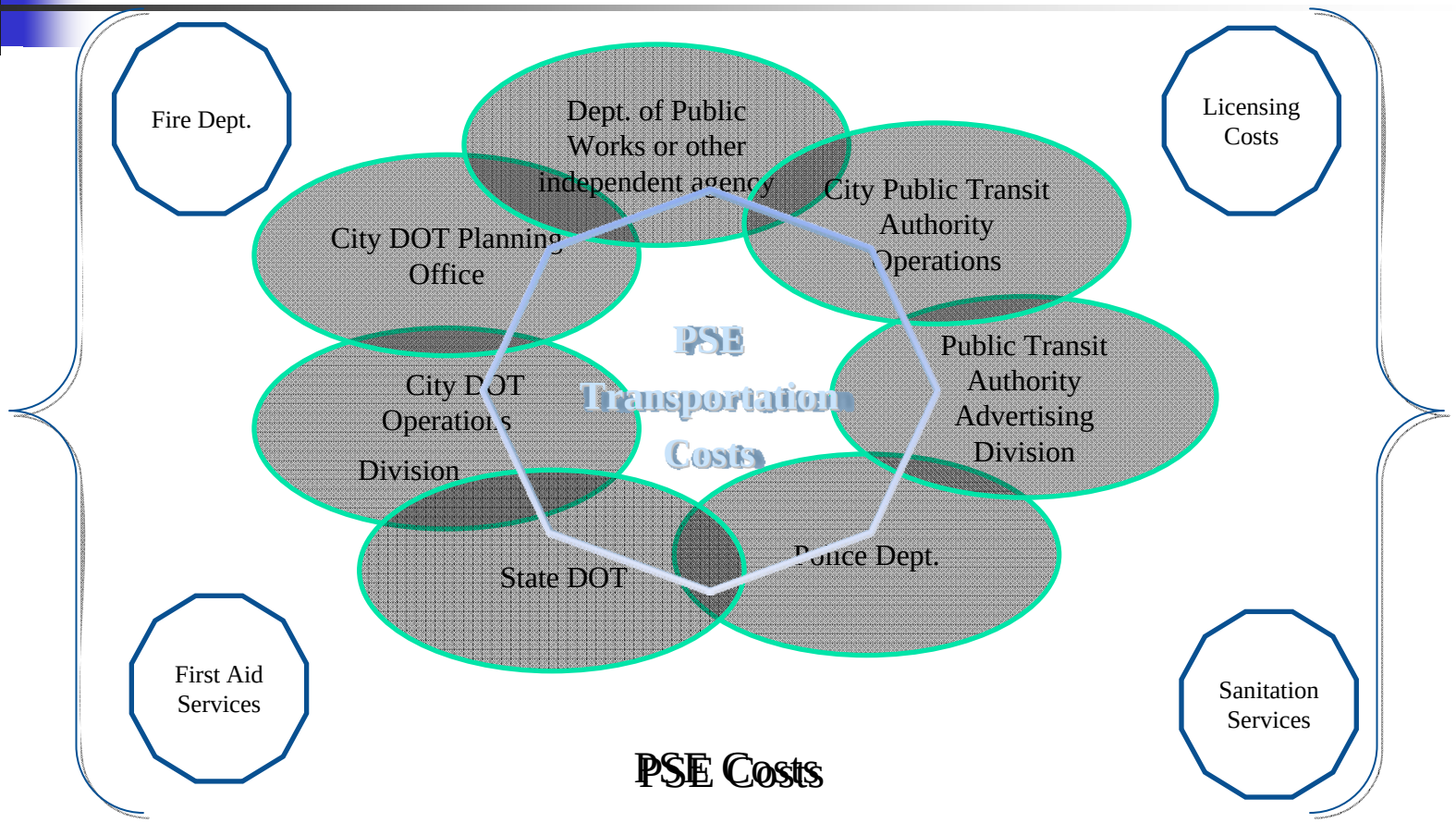
Budget Concerns 2

- Recovering only a small percentage of expenses is a common occurrence.
- Government agencies involved in planning and operations work for planned special event frequently lack sufficient budgets to account for such large overtime expenses.
- The effort to reduce public spending on planned special events (while retaining the many benefits of such events) includes cost tracking and improved cost recovery methods, and has garnered public attention and media coverage.

Dimensions of PSE Management



Dispersion of PSE Costs



Jurisdictional Concerns

- PSE costs, traffic management issues, and benefits often cross political jurisdiction and involve roads that are managed at different levels of the political hierarchy.
- State authorities may also face different incentives than individual cities, which are often willing to absorb the costs in exchange for greater name recognition and social benefits for residents.
- Cost recovery can be most comprehensive when instituted as a collaborative, focused effort among affected departments and jurisdictions. However, this holistic approach must conform to political realities as well.

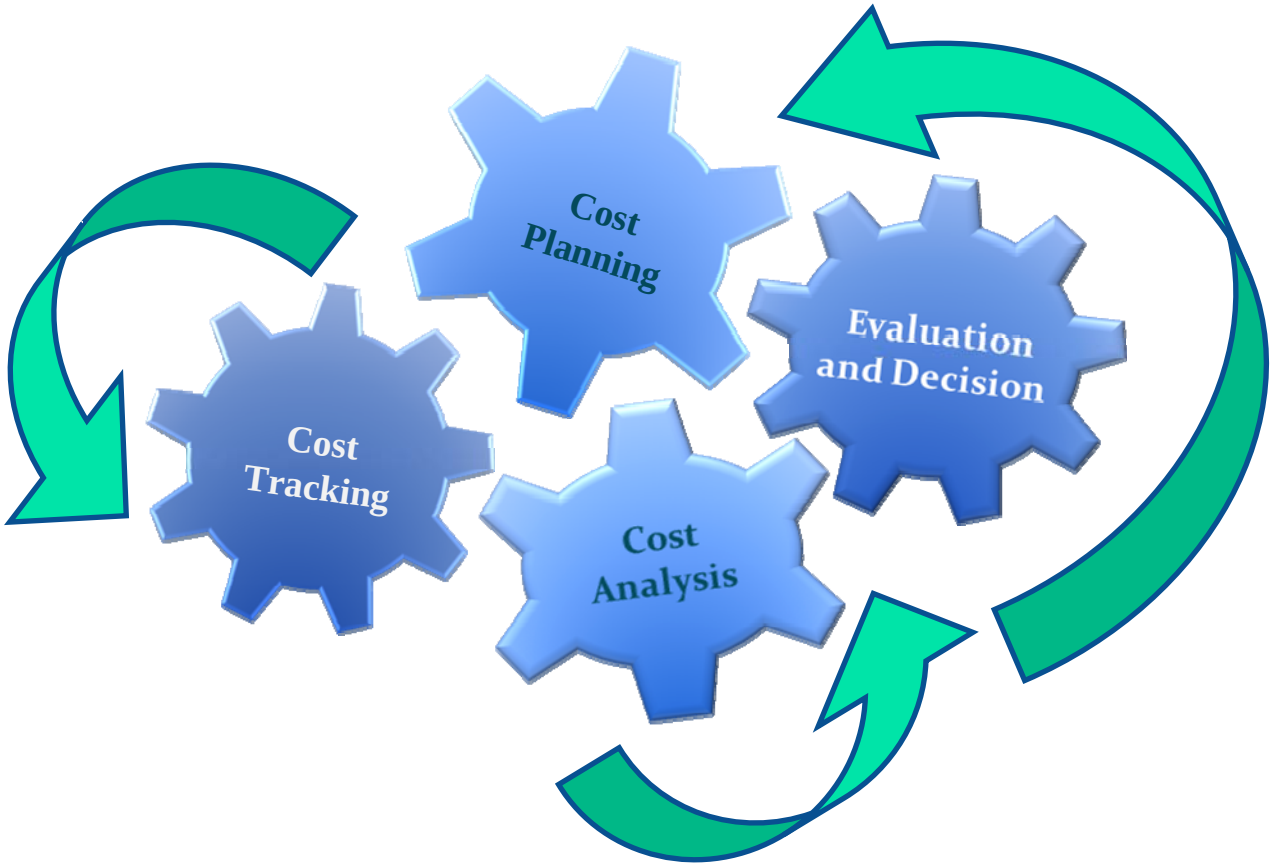
Key Principles 1

- Cost management is effective, overarching control of an organization's finances across multiple stages.
- Cost management is an organizational responsibility and an integral element of general management; good management implies good cost management.
- Cost management may include a policy of full cost recovery, partial cost recovery, or none at all.

Key Principles 2

- Effective cost management is only possible with a comprehensive understanding of an organization's service provisions:
  - What services are provided?
  - Who benefits from these services?
  - What is the cost to the organization of providing these services?

Gears of Cost Management



Gears of Cost Management

- **Cost Planning** includes activities such as cost estimating, forecasting, and budgeting.
- **Cost Tracking** requires discrete coding of activities and their associated costs, such as personnel time sheets, expense accumulation, and the use of financial systems.
- **Cost Analysis** includes reporting on actual costs incurred and an analysis of these costs.
- **Evaluation and Decision** involves evaluation of the costs with process changes implemented as necessary, regular consideration of shifting funding sources and options, assessment of current asset management and resource utilization, and decisions regarding cost recovery.

Asset Management and Resource Utilization

- Asset Management is central to the idea of cost management.
- Asset Management includes the ability to show how, when, and why resources were committed.
- The Asset Management Primer published in December 1999 by the U.S. Department of Transportation, Federal Highway Administration's Office of Asset Management is an excellent resource for additional information about this topic.

Identifying Costs

- Costs can also be broken down between labor, material, and overhead, each of which may be either a direct or indirect cost as well as a fixed, variable, or mixed cost.
  - **Direct costs** are costs that can easily be linked to a specific service, activity, or department.
  - **Indirect costs** are costs that cannot be easily linked to a single specific service, activity, or department.
  - **Fixed costs** are costs that typically do not change (in total) in response to changes in volume of activity.
  - **Variable costs** are costs that change (in total) in response to the changes in the volume of activity.
  - **Mixed costs** occur when both fixed and variable costs are present.

Direct and Indirect Costs

- The distinction between direct and indirect costs is important, as a department need only assign direct costs to event and activity codes.
- Indirect costs will be pooled in the financial accounting system and distributed according to either some grouping of direct costs or some other measure such as employee hours.

Tracking Costs

- Time sheets and equipment logs with codes for each event and activity are the best way to track direct costs.
- Activity codes are specific categories such as *determine pedestrian routing* or *determine routes that require additional capacity.*
- Keeping track of employee hours by activity will enable proper resource utilization

Cost Recovery

- The level of cost recovery activities is usually a decision based on practical and political considerations.
- In general, organizations may choose not to cost recover for activities that are seen as benefiting the community as a whole and fulfilling the organization's mission.
- Regardless of the decision to engage in cost recovery, it is beneficial for each organization to know what their costs are so they can develop a well defined cost recovery policy.

Methods for Cost Management and Cost Recovery

- The methods fall into four groups. Each of these groups has a number of cost management & recovery strategies that can be implemented by a PSE-involved government agency:
  - **Data collection**: 3 strategies
  - **Cost mitigation**: 2 strategies
  - **Direct cost recovery**: 5 strategies
  - **Indirect cost recovery**: 2 strategies

Questions?

- Contact
  - Laurel Radow
    - Laurel.Radow@dot.gov
    - 202/366-2855