

Local/Global Interactions: Solving freight externality problems in trade node cities

FUT Symposium 2012
Urban Freight for Livable Cities:
How to deal with collaboration and trade-offs

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Presentation outline

- Trade node cities defined
- Urban freight problems in trade node cities
- Governance considerations
- Comparative case study
 - Seattle, WA and Los Angeles, CA
 - Addressing port-related rail and road congestion

Trade node cities

- Metro areas that serve as major nodes in the global economy
 - Control centers
 - London, New York, Tokyo
 - Intermodal centers
 - Los Angeles, Shanghai, Rotterdam
- Concentration of physical flows
 - 10 US gateways account for 44% of all US based international trade
 - 5 container ports account for 70% of all US container trade

Local impacts of global trade

- Congestion
 - Trade related flows + local/last mile flows
 - Heavy freight flows on road, rail systems
- Scale economies and concentration
 - Ports, airports, warehouse/distribution clusters
 - Concentrated, localized impacts
- Air pollution
 - Ocean vessels, airplanes, trucks, trains
- Noise, livability, environmental justice

Challenges

- Who benefits vs who pays
 - Negative impacts local, efficiency benefits global
 - Local economic benefits vs environmental costs
- Complexity of global supply chain
 - Many interdependent actors
 - Flexibility

Governance considerations

- Decentralized, fragmented governance systems
- Multiple authorities at multiple levels
- Consequences
 - Many stakeholders, perspectives, veto power
 - Cost and benefit considerations at reduced geographic scale
 - Politicization of decision-making

Outcomes

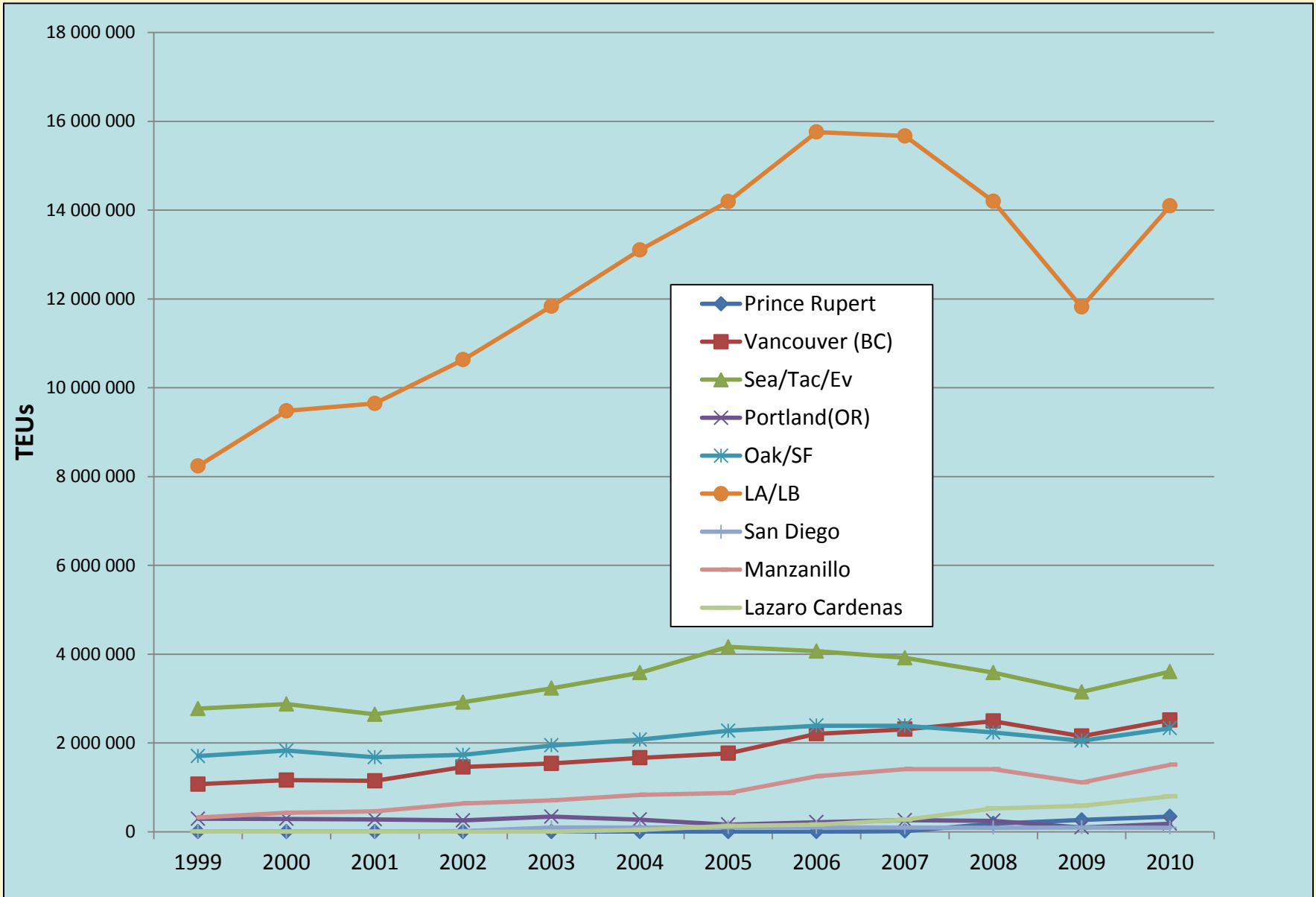
- Growing reliance on consensus-based, deliberative processes
- Engagement with industry
- Voluntary agreements
- Industry as environmental innovators

Comparative Case Study

Solving port-related traffic congestion
and community impacts in Seattle and
Los Angeles



West Coast TEUs 1999 - 2010



Source: AAPA

The 2 regions

	Los Angeles Region	Seattle Region
US rank size	2	15
Population	18.2 million	3.7 million
Employment	8.3 million	1.7 million
Local gov't units	5 counties, 189 cities	4 counties, 73 cities
Size	38,000 sq mi	6,300 sq mi
Port volumes 2010	14.2 TEU	3.8 TEU

Los Angeles/Long Beach Port Complex



Port of Seattle



The problem

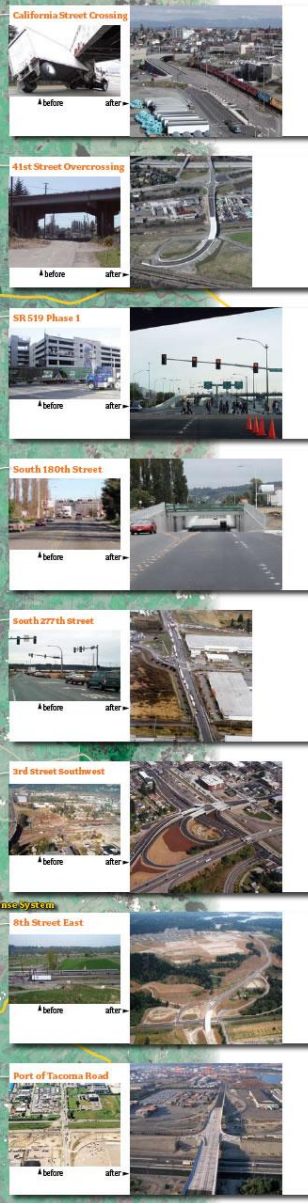
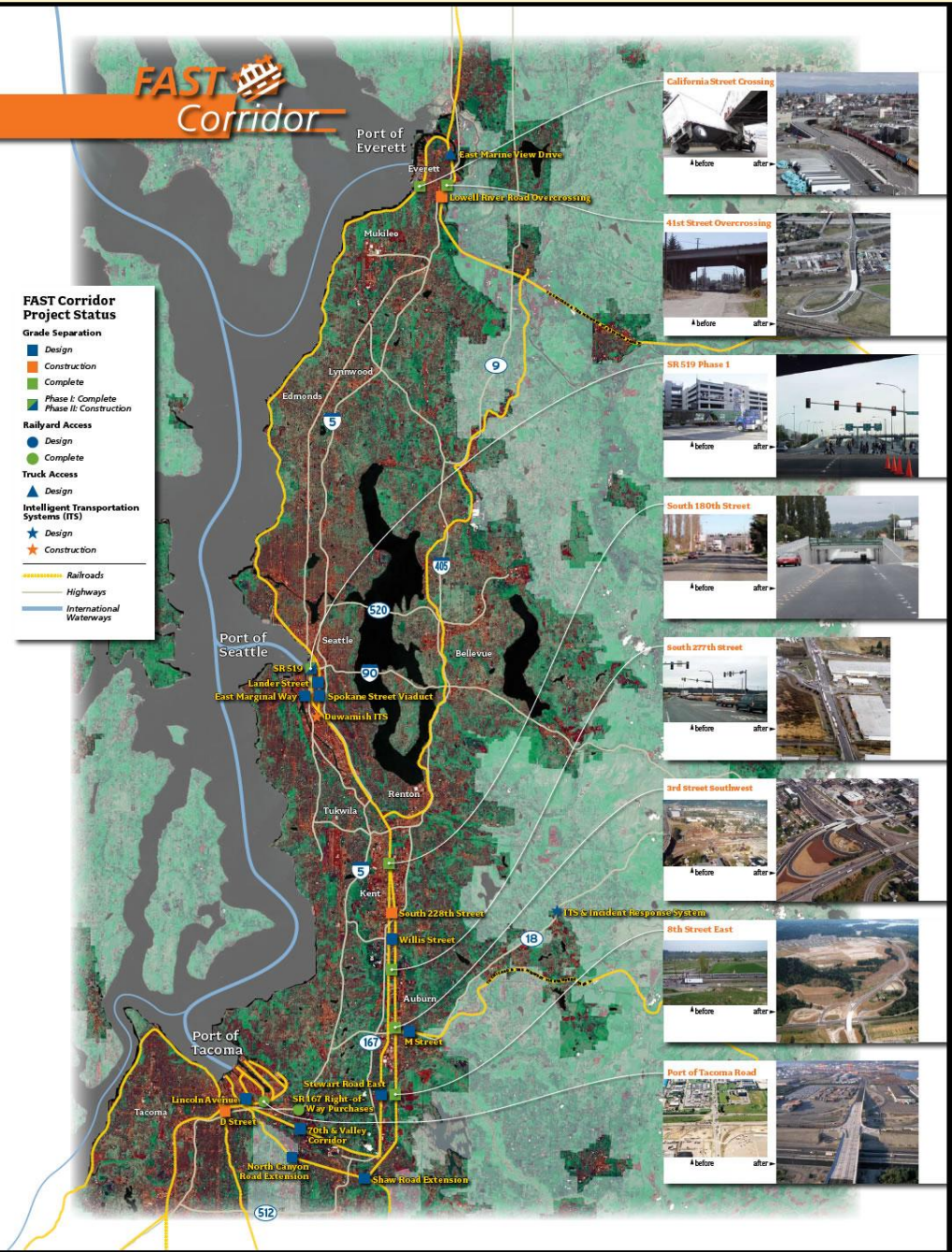
- How to reduce congestion on the highway system while facilitating port activity
- Problem of at-grade rail crossings
 - Rising port volumes = more rail traffic = more conflicts with road traffic at at-grade crossings
- Grade separations
 - Costly solution – bridges or trenches
 - Who should pay?

FAST Process

- Leadership of PSRC, Governor's office
- Multiple organizations, overlapping membership
- Comprehensive representation, participation of stakeholders
- Collaboration over several years
- Consensus-based development
 - Phase 1: 12 grade separations, 3 truck access projects, \$470M
 - Non-binding MOU
 - Each project individually funded and managed

FAST Corridor

- FAST Corridor Project Status**
- Grade Separation**
 - Design
 - Construction
 - Complete
 - Phase I: Complete
 - Phase II: Construction
 - Railroad Access**
 - Design
 - Complete
 - Truck Access**
 - Design
 - Intelligent Transportation Systems (ITS)**
 - Design
 - Construction
- Railroads
 Highways
 International Waterways



FAST Corridor Project Plan

Outcomes

- 2003, 2005
 - State fuel and weight taxes to fund transport infrastructure
- 2006
 - Expand to 25 projects, \$868M
- 2009
 - 14 projects completed or under construction, 2 suspended

AC East trade corridor



ACE Process

- Initial leadership of MPO, ports, then devolves to COGs and counties
- Independent local public agencies
- Mostly elected public officials
- Collaboration and consensus within local units, not across local units
- Results
 - Four county plans, \$4.5B, mostly unfunded, related but not coordinated

Case study comparison

	Seattle	Los Angeles
Scope	25 projects, \$868 M	172 projects, \$4.6B
Purpose	Increase safety, reduce road congestion, improve port access	Increase safety, reduce road congestion, reduce vehicle emissions
Development process	Decentralized and consensus based; MPO leadership, broad public and private participation	Decentralized and consensus based at county level; no clear leadership; mostly public sector participation
Plan	Formalized by MOU	Formalized in LA county; unfunded portion of transport plans in other counties

Case study comparison, con't

	Seattle	Los Angeles
Governance structure	FAST special purpose authority; broad representation in Board membership	ACE-LA special purpose authority under sub-regional MPO; 1 county MPO; 1 county transportation commission; 1 county transport authority
Funding sources	Federal earmarks, fed formula funds, various state funds (fuel taxes), local city and county, private	Federal earmarks, various state funds (bonds), local city and county, private

Observations from case studies

- Similarities:
 - Mitigate impacts on local communities
 - Extensive bottoms-up, collaborative process
 - Funding from many sources
- Differences:
 - Scale
 - Extent of regional/state common interests
 - Level and breadth of consensus, participation
 - One project vs 4 related projects
 - Progress, funding availability

Conclusions from case studies

- Relatively greater success of FAST
 - Smaller, more homogeneous region
 - Shared goals re port growth, impact mitigation
 - Less serious environmental problems
 - Leadership of PSRC
 - Industry/state/local partnerships
 - “Ownership” of the problem
 - Willingness to increase fuel taxes

Final thoughts on multi-level interactions

- Inter-governmental collaboration
 - Vertical and horizontal
 - Authority, funding
- Leadership, program champions
- Public/private collaboration
 - Voluntary agreements, mutual objectives
- Community engagement
 - Risks and rewards

Thank You



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