

# The Alaskan Way Viaduct & Seawall Replacement Program



## Central Waterfront

**Alaskan Way Viaduct  
Stakeholder Advisory Committee**

**Economic Evaluation  
December 4, 2008**

# Maintain or improve downtown Seattle, regional, the port and state economies.

## Guiding Principle 3, Measures 1 and 2:

Assess long-term economic implications, based on the level of investment in the transportation infrastructure and changes to the following:

- Urban amenities and attractiveness of the central waterfront.
- Environmental quality of the central waterfront.
- Transportation access and user costs for travel to and through the central waterfront and greater Central City.

Assess short-term economic implications during the construction period based on displacements, changes in access over time and disruptions, noise, and other consequences of the construction activities.

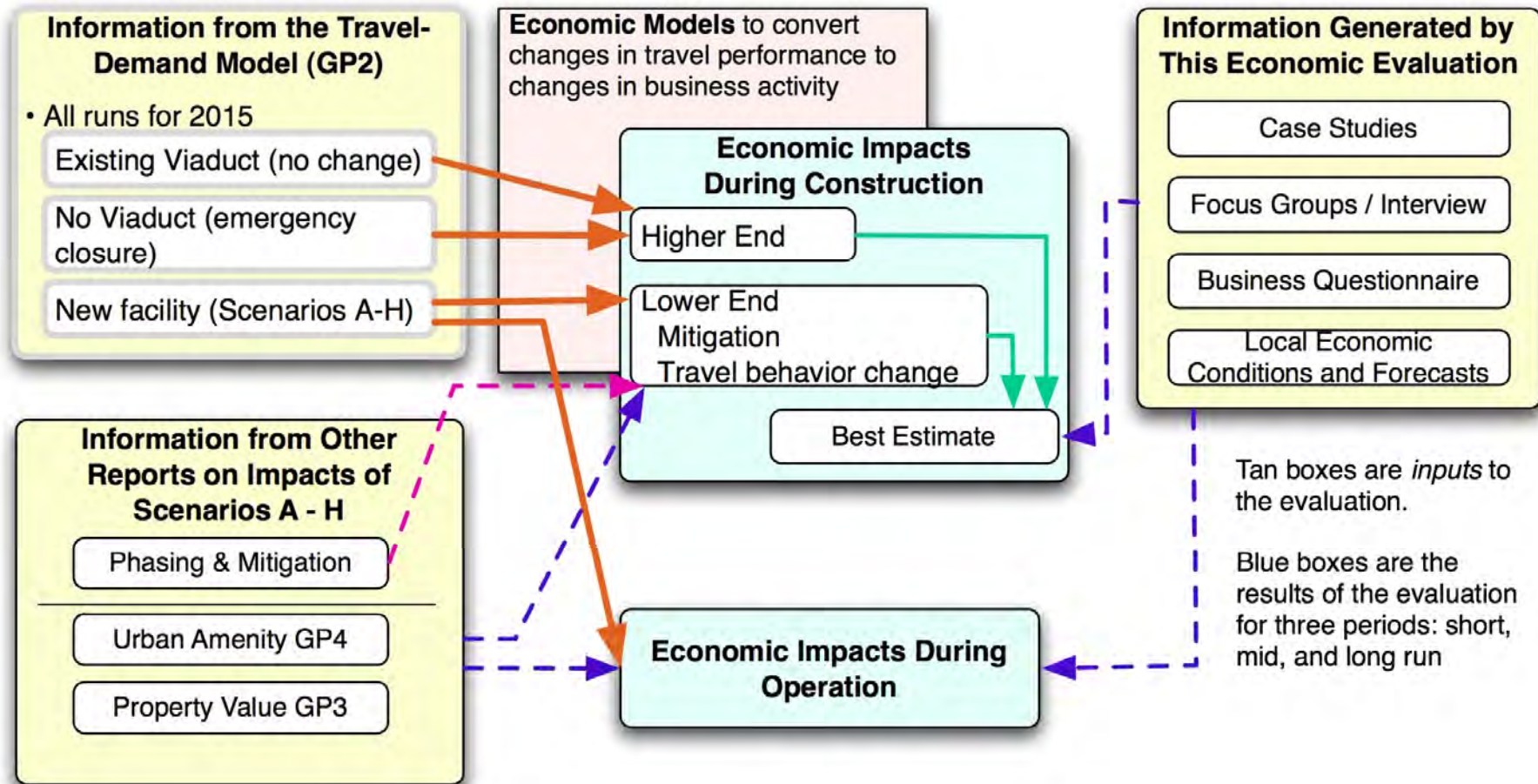
## Questions to Address

- Overall effects on regional economy.
- Types of economic impacts (e.g., on travel, property value).
- Distribution of impacts (by subarea and business sector).
- Timing of impacts (construction and operation).

## Evaluation in Concept

- By time of impact
  - Operation
  - Construction
- By type of impact
  - Transportation
  - Amenity / Disamenity
- By geography
  - Region
  - Seattle (Central & N/S Study Areas)
  - Subareas
    - E.g., Downtown, Central Waterfront, Duwamish, Ballard
- By business type/sector
  - E.g., manufacturing, retail, professional services

# Evaluation in More Detail



## Evaluation Principles

- Three paths for economic impact. Changes in:
  - Transportation performance, amenity, cost.
- In all scenarios, existing viaduct comes down.
  - Compare scenarios to no viaduct.
  - For scenario choice, focus on differences.
- Avoid double counts; identify transfers.
- Where strict quantification not possible, use simulations to put some bounds on impacts.

# This Presentation

- Economic Context
- Operation (when the facility is completed)
  - Geography: Regional and Seattle subareas
    - Type of impact; type of business
- Construction (while the facility is being built)
  - Geography: Regional and Seattle subareas
    - Type of impact; type of business
- Lessons Learned

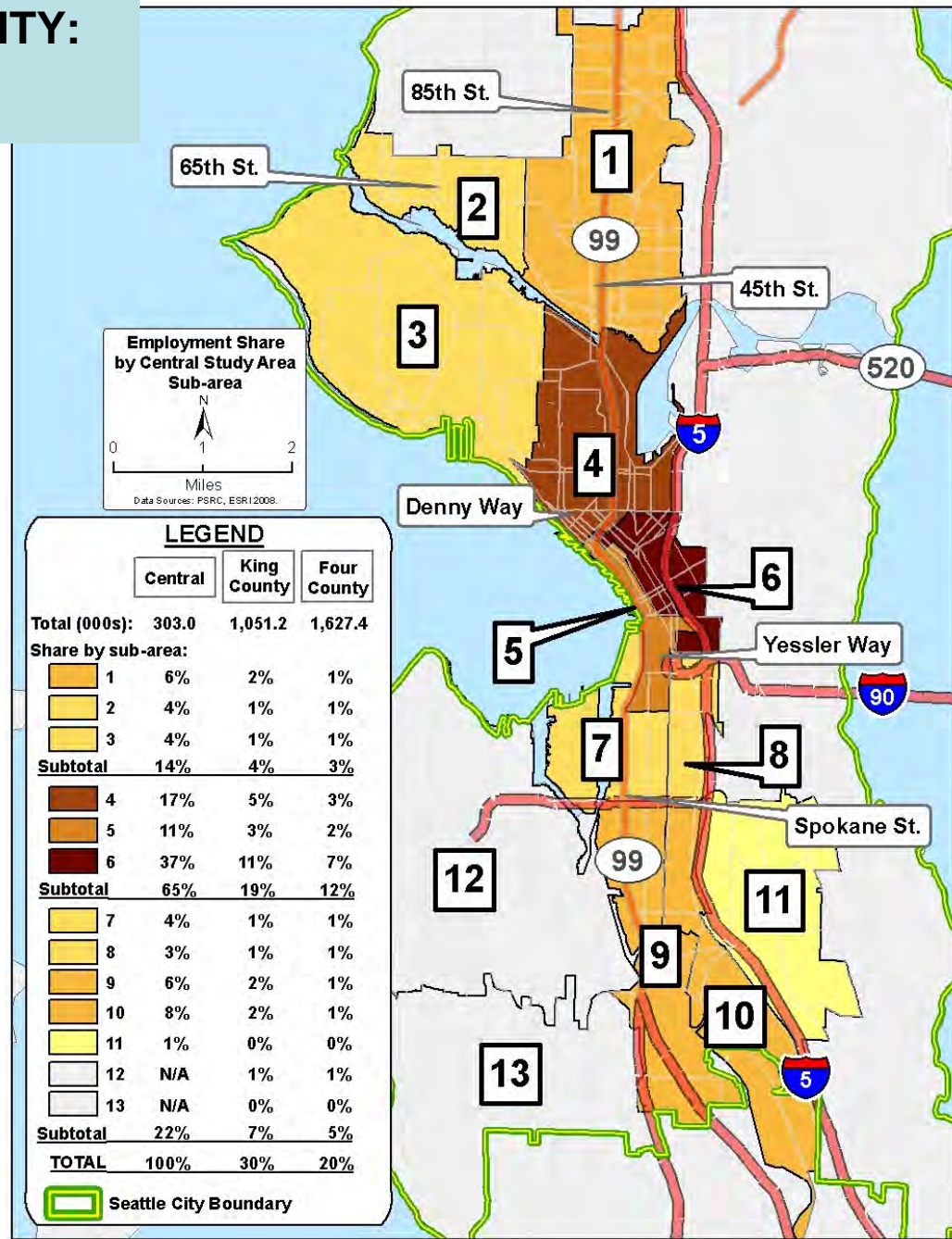
# **Context for the Economic Analysis**

# Measuring Economic Change

- Many measures of economic activity.
  - Output, employment, wages, sales.
  - Analysis shows them to be well correlated.
  - Using employment for next illustration.
- How big is the regional four-county economy?
  - Output: \$350 billion/yr 30% goods; 70% services.
  - Employment: 2.3 million 15% goods; 85% services.
- The study area: about 20% of regional four-county economy.

# MEASURE OF ECONOMIC ACTIVITY: EMPLOYMENT

LEGEND			
	Central	King County	Four County
<b>Total (000s):</b>	303.0	1,051.2	1,627.4
<b>Share by sub-area:</b>			
1	6%	2%	1%
2	4%	1%	1%
3	4%	1%	1%
<b>Subtotal</b>	<b>14%</b>	<b>4%</b>	<b>3%</b>
4	17%	5%	3%
5	11%	3%	2%
6	37%	11%	7%
<b>Subtotal</b>	<b>65%</b>	<b>19%</b>	<b>12%</b>
7	4%	1%	1%
8	3%	1%	1%
9	6%	2%	1%
10	8%	2%	1%
11	1%	0%	0%
12	N/A	1%	1%
13	N/A	0%	0%
<b>Subtotal</b>	<b>22%</b>	<b>7%</b>	<b>5%</b>
<b>TOTAL</b>	<b>100%</b>	<b>30%</b>	<b>20%</b>



# Primary Economic Drivers

- Operation
  - All scenarios better than No Viaduct case.
  - Bypasses generally reduce delay more than surface street scenarios.
  - Surface-street scenarios have on the order of 10-15 minute delay on longer SR 99 through trips during peaks compared to existing (partially from growth, 2008 - 2015).
  - Better transit.
  - Improved waterfront amenities.

# Primary Economic Drivers

- Construction

- Travel effects: increases in travel times for SR 99 through trips.
- Disruption effects:
  - Less waterfront amenity and accessibility (construction zone).
  - Areas north and south not disrupted (S. Holgate to S. King, Battery Street Tunnel completed).

# **Impacts During Operation**

## Regional Impacts during Operation

- No significant impact, because:
  - Most scenarios replace most of viaduct person capacity; many in the same place.
  - Surface scenarios slower for some SR 99 trips, but those trips represent a small part of total regional trips.
  - Small changes to travel times on regional freight routes.
  - Primary impact area accounts for approximately 5% of the regional economy.

## Subarea Impacts during Operation

- No significant impact for most bypass scenarios
  - I-5 trips show little change from existing beyond that caused by growth. E.g., North I-5 to Sea-Tac: generally within + 3 to 4 minutes for all scenarios on a 40-minute trip.
- Bigger travel-time impacts for surface scenarios, and especially for trips in SR 99 corridor. Impacts more likely on:
  - Some trips headed downtown from north and south.
  - Businesses that have heavier use (for employees or freight) of longer through trips in SR 99 corridor.
  - Areas north and south (and westerly of downtown).

## Subarea Impacts during Operation

- Downtown (mainly waterfront) businesses / property owners.
  - Loss due to parking removal
    - 250 - 300 spaces
    - May be mitigated in joint use facility TBD
  - Increase value of existing development (present value).
    - Noise reduction: \$10 - \$30 million
    - Open space: \$20 - \$50 million
    - Views: \$0 - \$100 million
  - Increased land value of underutilized property.
    - \$10 - \$50 million
  - Increased property value: \$50 - \$250 million.

## Business Sector Impacts during Operation

- Economic modeling showed small impacts on business sectors. No job loss or economic activity of any of the scenarios are replaced.
  - If the viaduct was taken down and not replaced, the change in output or jobs less than 0.5% on average.
  - Construction losses recovered following completion.
- From south Seattle, freight travel times around and out of the region have minimal impacts.
- Benefits for most businesses in waterfront and downtown. But, a timing issue.
  - Will those businesses survive construction?

# **Impacts During Construction**

## Impacts on the Regional Economy during Construction

- Moderate impacts, because:
  - For through traffic, travel time increases in SR 99 corridor (max increase of 10 - 15 min/trip). But:
    - Only small percent of all trips take that full trip.
    - Value of lost time during construction is small - about 0.02% of the value of all regional trips.
  - Primary impact area accounts for approximately 5% of the regional economy.
  - Negative impacts on specific properties in construction area, but small part of regional economy (2%).
  - Mitigation measures.
  - Market adjustments.

## Seattle Subarea Impacts during Construction

- All through traffic slower during construction.
  - Slower times mean more congestion and increased probability of incidents and recovery time.
- South end projects will be completed (ITS, SR 519, Spokane Street, S. Holgate to S. King).
  - Impacts are mainly on travel time through downtown, not from disruption in south end.
- Impacts north and south of the study area.
  - Slower travel times for some trips.
  - No direct construction disruption.

## Seattle Subarea Impacts during Construction

- Impacts on waterfront area:
  - Increases in travel times to the subarea.
  - Decreases in access in the area; parking.
  - Noise, dust.
  - Scenarios G and H create the largest impacts on the central waterfront.
  - Mitigation can reduce but not eliminate impacts.

## **Business Sector Impacts during Construction**

- In general, most difficult for businesses that are:
  - Located close to the major construction.
  - Rely on on-site customers.
  - Small, with low margins and capitalization.
- Retail in the waterfront area hardest hit.

## Business Sector Impacts during Construction

- Some lost business and closed businesses.
  - Retail / Tourism in waterfront.
  - Order of magnitude for potential loss of business value in waterfront area: \$50 - \$100 million in present value.
- Some problems but do not relocate.
  - Port, fishing and seafood.
- Lesser problems but a big sector, some so relocation (but generally in the region).
  - Professional services.

## Lessons Learned

- All scenarios have limited effects on the regional economy during operation and construction.
- Waterfront and its businesses / property owners feel the most pain during construction and have the most gain when it is over.
- Amenity effects on property value are small relative to total project costs.
- Some impacts on businesses can be mitigated and are small relative to total project costs.
- Need to investigate more ways to address travel time increases for through trips using the SR 99 corridor.

## Lessons Learned

- No clear 'best' scenario on economic effects.
- There are tradeoffs between construction approaches.
  - Regionally: construction efficient.
  - For affected businesses and property owners: it depends.
- Decide soon and allow people to plan for coming change.