The Alaskan Way Viaduct & Seawall Replacement Program

Central Waterfront

Alaskan Way Viaduct
Stakeholder Advisory Committee

Economic Evaluation
December 4, 2008

U.S. Department of Transportation Federal Highway Administration

WSDOT

King County

City of Seattle

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.

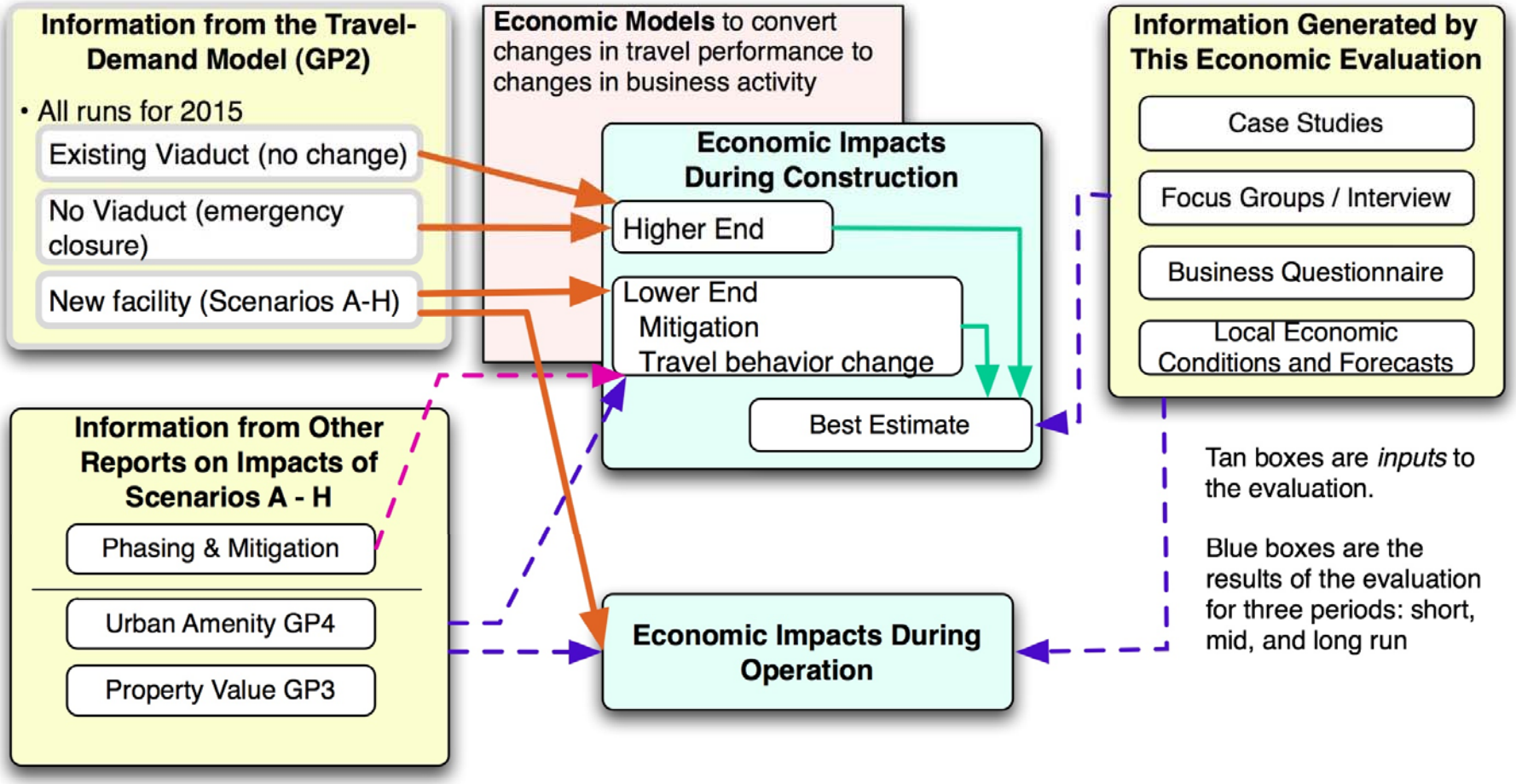
Questions to Address

- 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

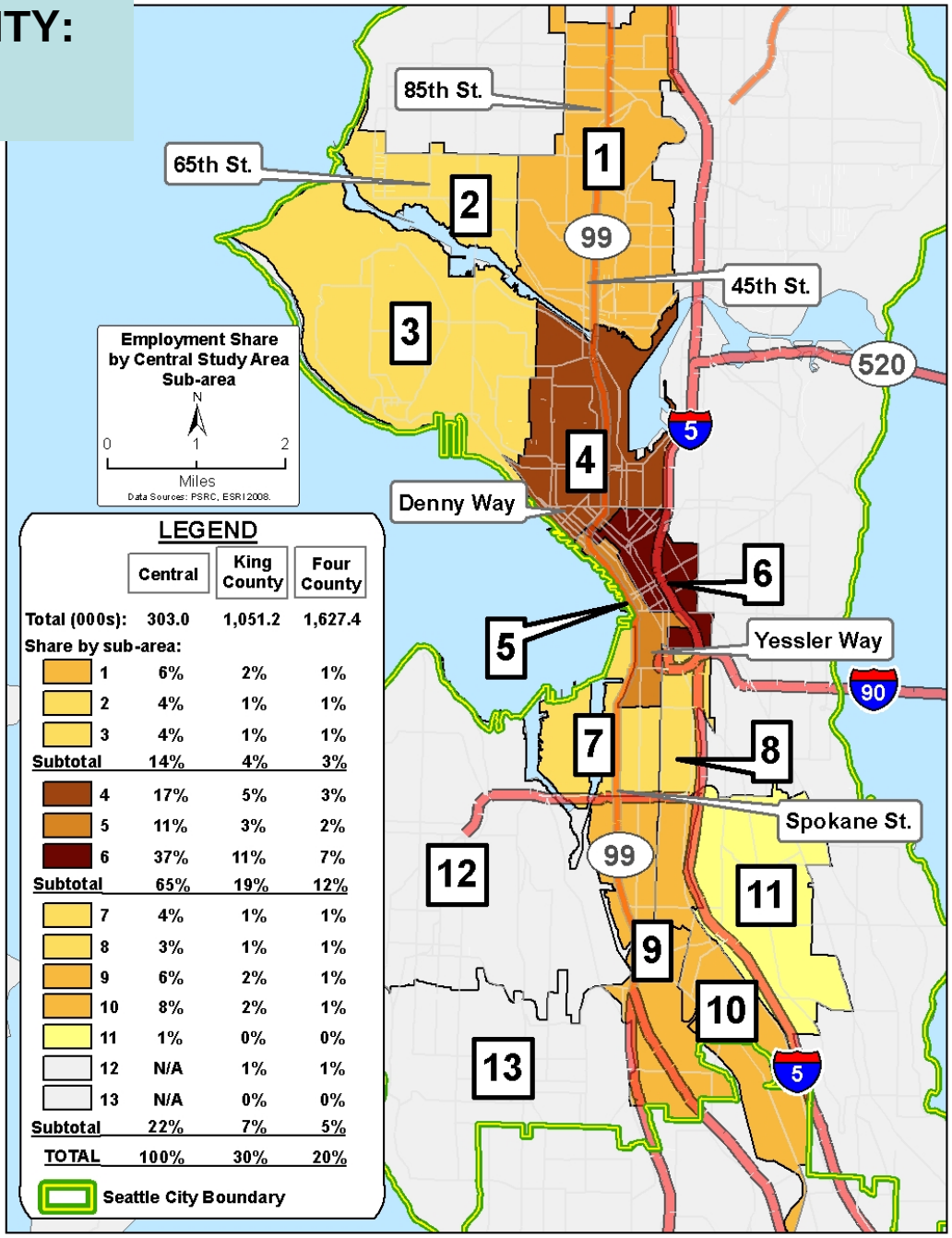
Measuring Economic Change

- 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
Total (000s):	303.0	1,051.2	1,627.4
Share by sub-area:			
1	6%	2%	1%
2	4%	1%	1%
3	4%	1%	1%
Subtotal	14%	4%	3%
4	17%	5%	3%
5	11%	3%	2%
6	37%	11%	7%
Subtotal	65%	19%	12%
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%
Subtotal	22%	7%	5%
TOTAL	100%	30%	20%



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.