Ag. & Rural Transportation

School of Economic Sciences

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Transportation & WSU

• James C. Nelson (1947-1975)
  • Early proponent of deregulation (truck, rail)
  • Shaped subsequent changes to ICC

• Ken L. Casavant (1968-2018)
  • $1.25m (1993-1998) Eastern Washington Intermodal Transportation Study (EWITS)
  • $2.43m (2003-2009) Strategic Freight Transportation Analysis (SFTA)
  • $1.67 m (2009-2019) Freight Policy Transportation Institute (FPTI)

• Eric L. Jessup (2001-2019)
  • Director: Freight Policy Transportation Institute
What is the function of Transportation...?

- Transportation creates time and place utility
- Movement of people & products
- Creation of markets ... and value that otherwise would not exist
- This is not a recent phenomenon (driven by technological change)
- Transportation affects almost everything

- Especially when considering global supply-chains:
  - Food
  - Energy
  - Environment
  - Health

Issues are often quite complicated
Relationship Between Freight Performance and the Economy

GDP Index  Freight Index
The Road Ahead...

- Current U.S. Freight Situation
- Primary Ag. & Rural Freight Issues
- Columbia / Snake River
- Technological Change
- Current & recent FPTI research projects
U.S. Freight Picture

- Excess capacity, compared to 1-year prior
  - Class I rail & truck markets
  - Not the case for ocean freight
- Product of weakened import/export demand
- Should be good news for bulk grain shippers
Primary Ag. & Rural Transportation Issues

- Market Access
  - Availability (cost & service) of ocean containers
  - Availability of multi-modal transportation options (truck, barge, rail) (Ag. inputs and export markets)
  - Congestion at ports

- Infrastructure needs

- Maintaining shortlines railroads

- Class I railroad cooperation
TIGER (BUILD) Funding to Rural Areas:

2016 TIGER Grants

2018 BUILD Grants
Columbia / Snake River

- USACE Environmental Impact Study
- Washington State Legislature ($750,000)
- Columbia River Water Treaty
Snake River Grain Tons

Ritzville (Templin) Grain
McCoy Grain
High Line Grain
Lacross Grain

2.1 million tons

Snake River Grain Tons

Technological Change
Technology that is Changing Transportation

• E-Commerce & online ordering / home delivery (Amazon, Blue Apron, Walmart)
  • Freight supply-chain needs
  • Congested cities

• Electric Vehicles
  • Charging stations
  • 15% of cars by 2025
  • Decreasing costs (over $1,000/kw hour in 2010 to below $130/kw hour today)
  • Increasing demand for Lithium carbonate (Australia, Chile, Argentina, China)

• Generating Electricity.....
  • Renewables
  • Oceans of natural gas
  • Technology on managing power grids (SEL)
Technology that is Changing Transportation

- Autonomous vehicles
  - Infrastructure needs
  - Large reduction in space allocated to parking and highway capacity

- Connected vehicles

- Drone delivery?

- How do we fund that future public transportation infrastructure?
  - Policies that link revenue to utilization of public infrastructure
Freight Policy Transportation Institute

• Recently Completed Projects:
  ✓ WSDOT: Improved Methodology to Evaluate Benefits of Highway Preservation
  ✓ USDA: Infrastructure Investment & Economic Modeling: Export Supply Chains
  ✓ USDA: PNW Container Availability Study
  ✓ USACE: Upper Mississippi Transportation Study

• Current Projects:
  ✓ Idaho Transportation Dept. Freight Supply Chain Analysis (EROADS)
  ✓ PacTrans: Confounding Factor Analysis of Commercial Vehicle Accidents
  ✓ USDA: Agricultural Truck Safety Study
  ✓ USDA: PNW Inland Terminal Optimization Model
  ✓ USDA: Livestock Transportation and ELD Mandate
  ✓ USDOT: Freight Data Warehouse:

  [Link to Freight Data Warehouse]

http://ses.wsu.edu/fpti/freight-data-warehouse/
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