PRESENTATION TO THE JOINT TRANSPORTATION COMMITTEE

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FREIGHT & OREGON'S ROAD NETWORK

TRUCKING FAST FACTS

TRUCKING IN OREGON

- On the 79,266 miles of public road in Oregon:
  - Trucks travel 5.2 billion miles each year
  - Motorists travel 36.8 billion miles each year
- Oregon communities that depend exclusively on trucking to move their goods – 76.9%
- Manufactured tonnage in Oregon transported by truck – 88%
- Nationally, trucks move 71% of freight, equaling 10.8 billion tons of freight each year (most recent data from 2017)
- There are 8,930 trucking companies located in Oregon – most of which have fewer than five trucks

Data provided by American Transportation Research Institute (ATRI)

TRUCKING & JOBS

- Roughly 6% of jobs in the United States are in the trucking industry
  - There are 96,150 trucking-related jobs in Oregon
  - This means that 1-in-17 jobs in the state are tied to trucking
- On the national level, 40% of industry jobs are held by minorities; over 6% of those are women
- Wages paid in the trucking industry exceed $4.5 billion each year
  - Average salary: $50, 387
  - As of 2018, there were 3.13 million truck drivers in the country

Data provided by American Transportation Research Institute (ATRI)

OREGON TRUCKING & TAXES

HAULING A HEAVY BURDEN

TRUCKING & TAXES

Trucking pays nearly 1/3 of all transportation costs in Oregon

- This includes $299 million in federal and state roadway taxes
  - Trucking is responsible for over 30% of the taxes paid by Oregon motorists
  - Yet they represent only 14% of all vehicle miles traveled (VMT) in Oregon
- A standard 5-axle, 80,000 lb. semi paid $31, 414 in state and federal highway user fees and taxes in 2020
  - This puts Oregon as the #1 most expensive state in the nation – by a substantial margin
  - California comes in at #2 most expensive at $24, 560
  - Washington ranks as the #9 most expensive state at $18,982
  - National average: $16,784
- Oregon is the only state that depends exclusively on weight-mile taxes, with three other states having modest forms of weight-mile + diesel taxes
    - New York - $20,699 (#5)
    - Kentucky - $19,182 (#8)
    - New Mexico - $16,989 (#18)

THE COST OF CONGESTION

Congestion has a significant impact on overall operating costs

- Annual cost of congestion on the nation's highways - $74.5 billion
- Lost hours of productivity due to congestion – 1.2 billion
- That's the equivalent of 425, 333 truck drivers sitting idle for one year
- Congestion is defined as highways with average daily speeds of 45 mph or less
  - Areas falling into this definition increased 92% in five years
  - Outpaces growth in traffic congestion for the same period
- Three of the American Transportation Research Institute's top 100 bottlenecks are in Oregon
  - I-5/I-84 (Rose Quarter) - #19
  - I-5 Bridge (WA) - #34
  - I-5/I-205 - #88

BATTLING OREGON'S BOTTLENECK PROBLEM

- HB 2017 identified and partially funded known bottlenecks
  - I-5/I-84 (Rose Quarter) – OTA has a seat on the Executive Steering Committee
  - I-5Bridge Replacement – OTA has a seat on Community Advisory Committee
  - I-5/I-205 – Proposed tolling plan
- HB 2017 increases trucking's state highway user fees & taxes by 53%
  - To date, rate increases are up 30%
  - This will keep Oregon in the #1 position for the most expensive state to operate in for the foreseeable future
- Key takeaway: Oregon carriers must compete with regional and national carriers who have a significantly lower base cost

THE COST OF TRUCKING

OPERATING ON A NARROW MARGIN

TRUCKING COSTS – THE BREAKDOWN

A well-managed trucking company will maintain a 3-5% profit margin

- Trucking's largest expenses are labor and fuel
- Labor costs in the state continue to rise
  - Paid Family Medical Leave
  - Workers' Compensation
  - Medical Benefits
  - Infectious Disease Standards
  - Competitive driver pay to combat effects of ongoing driver shortage

FUELED BY IMPROVEMENTS

- Due to high energy output, trucking is currently diesel-dependent
  - Post-2007 trucks are cleaner and produce less particulate matter than their predecessors
  - Today's Class 8 trucks also offer improved mileage
- Factors of fuel consumption
  - Fuel consumption depends on age, condition of truck, terrain, weather and the driver
  - Trucks average 6 – 6.5 MPG (4-5 if an older truck)
  - Newer technology is pushing this to 10+ MPG – a 50% efficiency increase!
  - Impacts to fuel efficiency: Congestion, routes, speed, terrain and the driver

RENEWABLE REALITIES

- Biodiesel/Renewable diesel = less carbon, but higher costs (and more problems)
- Biodiesel
  - "Gelling" problems, especially in colder climates
  - Increased maintenance costs/engine warranties voided by manufacturers
  - Reduced capacity

- Renewable diesel
  - Extremely limited in production & supply
  - If Oregon could get a supply, moving it outside of the Portland-metro area is highly problematic

TRUCKING & TECHNOLOGY

PICKING THE BEST PATH FORWARD

ELECTRIC LIMITATIONS

- Electric Heavy Vehicles have limitations in the real world
  - Limited range that is impacted by both terrain and weather
  - Extensive recharge time required
  - Adequate charging infrastructure is not in place
  - Electric is a better solution for medium-duty vehicles within a limited travel area or that return to a home base for charging
- Hydrogen Fuel Cell
  - Offer a better range compared to electric
  - Refill time is comparable to diesel
  - Infrastructure does not yet exist and technology is not yet at a level for practical application

THE COSTS OF ALTERNATIVE TECHNOLOGY

- The cost of a Class 8 truck rises considerably, depending on the type of alternative technology.
  - Diesel: $130,000 - $150,000 per vehicle
  - Electric: $400,000+ per vehicle
  - Hydrogen Fuel Cell: $500,000+ per vehicle
- Alternative fuels – obstacles & costs involved:
  - Natural Gas: Conversion cost
  - Biodiesel: Limited by weather/equipment
  - Renewable diesel: Limited by availability

COVID-19 & THE TRUCKING INDUSTRY

E-COMMERCE & DELIVERY

PANDEMIC DRIVES UP RELIANCE ON E-COMMERCE & TRUCKING

- E-commerce in urban centers is straining road & curbside capacity
- E-Commerce volume focused on deliveries during congested periods
- Growing in-town package delivery is encouraging a shift to electric or alternative fuel vehicles
- Expanding use of delivery services from standard brick-and-mortar stores (grocery, etc.)
- "Last Mile" (6-7 miles) registrations for straight trucks grew by 7.8% (2007-2016); registrations for combination trucks grew 4.4% in the same time period

DIVERSE DELIVERY

- Carriers are exploring other forms of delivery
  - Drones
  - Electric cargo bikes
  - Electric vehicles
  - Autonomous vehicles
- In June 2020, Forbes estimated that the COVID-19 pandemic accelerated E-Commerce growth by 4-6 years
  - As of May 2020, e-commerce was up 77% year-over-year
  - Expected long-term change in consumer buying practices

TRUCKING'S OTHER CHALLENGES

UNIQUE INDUSTRY COMES WITH UNIQUE ISSUES

TRUCKING'S PARKING PROBLEM

- Urban centers lack adequate trucking parking zones
  - E-Commerce pushing demand for spots to load and unload
- UW Supply Chain Transportation & Logistics Center with Seattle DOT Study found the "Final 50 Feet" can often be the most challenging when it comes to delivery issues
- "Final Mile" studies (5 -7 miles) show that there's a reason to explore the creation of freight consolidation centers to accommodate delivery demands
- HOS regulations require drivers to take 30-minute rest breaks/off-duty time
  - This requires somewhere for trucks to park
- Recent ODOT study shows that public & private rest stops at or above capacity
- Throughout the pandemic, Oregon kept rest areas open which was a huge help to drivers out on the road while everyone else stayed home.
- As trucking demands grow, additional investment in this area will be needed

DRIVER NUMBERS CONTINUE TO DROP

- For the fourth year, the ongoing driver shortage is the top industry concern (per ATRI)
- Average age of today's truck driver: 47
  - Private fleet average age: 57
- Comparing Bureau of Labor Statistics data from October 2019 – October 2020, trucking was down 65,700 drivers, leading to even tighter capacity
- While trucking offers good family wage jobs, attracting drivers will take more than dollars
- More time at home
  - Industry and carriers will need to develop driver-centric strategies to attract younger drivers, build public awareness for available opportunities and leverage new technology to attract younger workers
  - Change federal interstate regulations to add pool of younger drivers
- More time driving
  - MIT Freight Lab shows that drivers typically only drive 6.5 out of the available 11 hours
  - Congestion & detention at delivery facilities limit driving time
  - As trucking demands grow, additional investment in this area will be needed
  - MIT forecasts that adding 12 minutes driving time per day per driver would end the driver shortage!

THE ROAD AHEAD

CONCERNS & CONSIDERATIONS

A CAUTIOUSLY OPTIMISTIC FUTURE

- Demands on trucking continue to grow while customer expectations continue to change
- Infrastructure investment is needed to have a stable system for growth – including roads, fuel and parking
- Labor demands – recruitment & retention
  - Provide monetary assistance for obtaining a commercial driver license (CDL)
  - Promote trucking as the essential industry it is
- Remain conscious of narrow operating margins, heavy tax burden, growing labor costs and equipment investment when making policy decisions
- Technology is exciting, but reality may be less so
  - Development of zero emission medium/heavy-duty vehicles is in the prototype stage
  - Transition is costly from both an equipment and infrastructure perspective

THANK YOU!

- If you have any questions or would like additional information, please feel free to contact me:
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OREGON TRUCKING ASSOCIATIONS Inc.