



TERMINAL 6

Industry Leader Committee

Meeting #4
November 16, 2017 3:00-6:00 pm

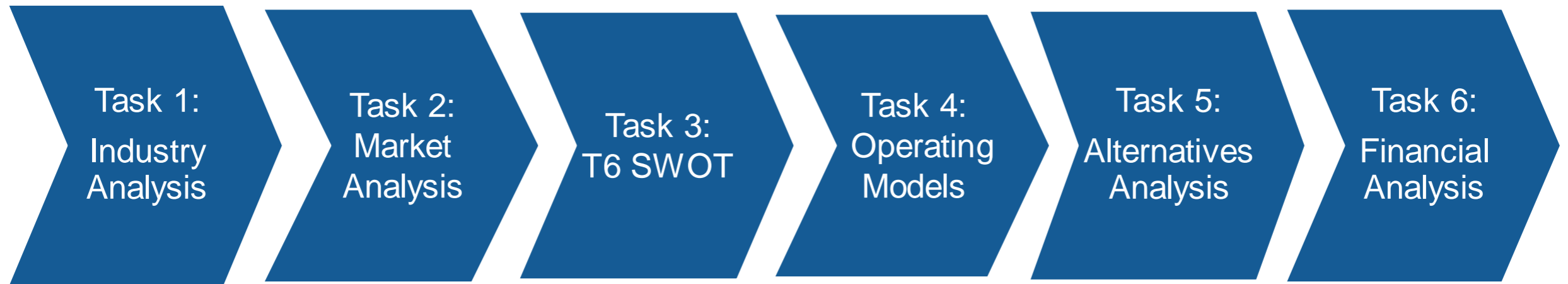


Welcome

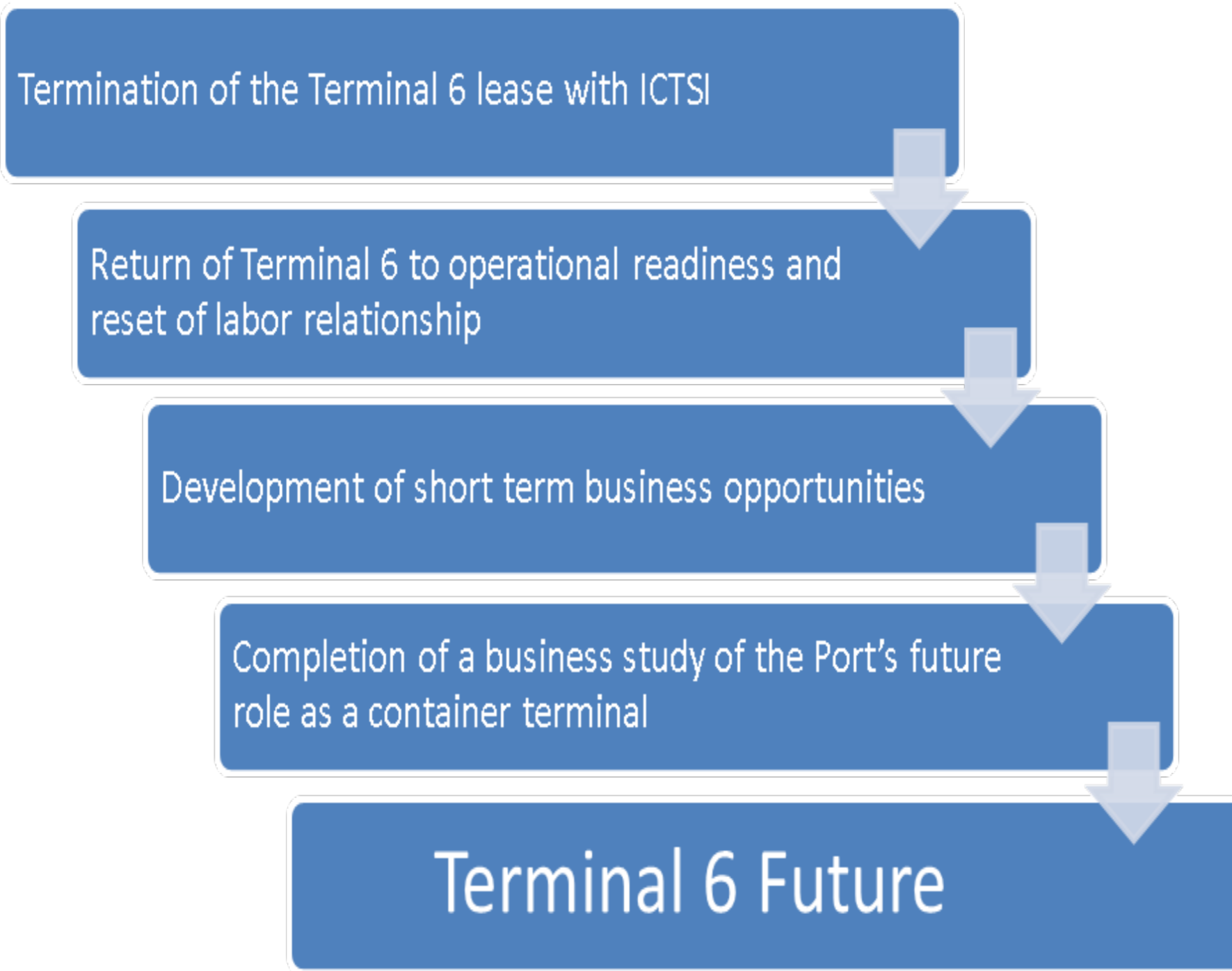
- Meeting 3 Recap - Meeting Summary Review
 - Committee approval
- Review of November 16th Agenda
 - Financial Analysis (Task 6) and Alternatives Analysis (Task 5)
- Review of Committee Charge and Purpose
 - Charge: Provide industry knowledge and guidance to the Port of Portland leadership on the Port's future role in container shipping at Terminal 6 and a sustainable business model for managing and developing the container business.



Business Study Tasks and Findings



Terminal 6 Overall Business Strategy



Terminal 6 Business Updates

- Swire Shipping Service
- Intermodal
- Carrier Targets





Port of Portland T6 Business Strategy

Task 6 – Financial Analysis

Nolan Gimpel, Project Manager, Advisian

Jim Daly, Tangent Services

Rob Schultz, Port of Portland

November 16, 2017

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Financial Performance Key Drivers

Volume

- Container Moves to/from Vessels

Productivity

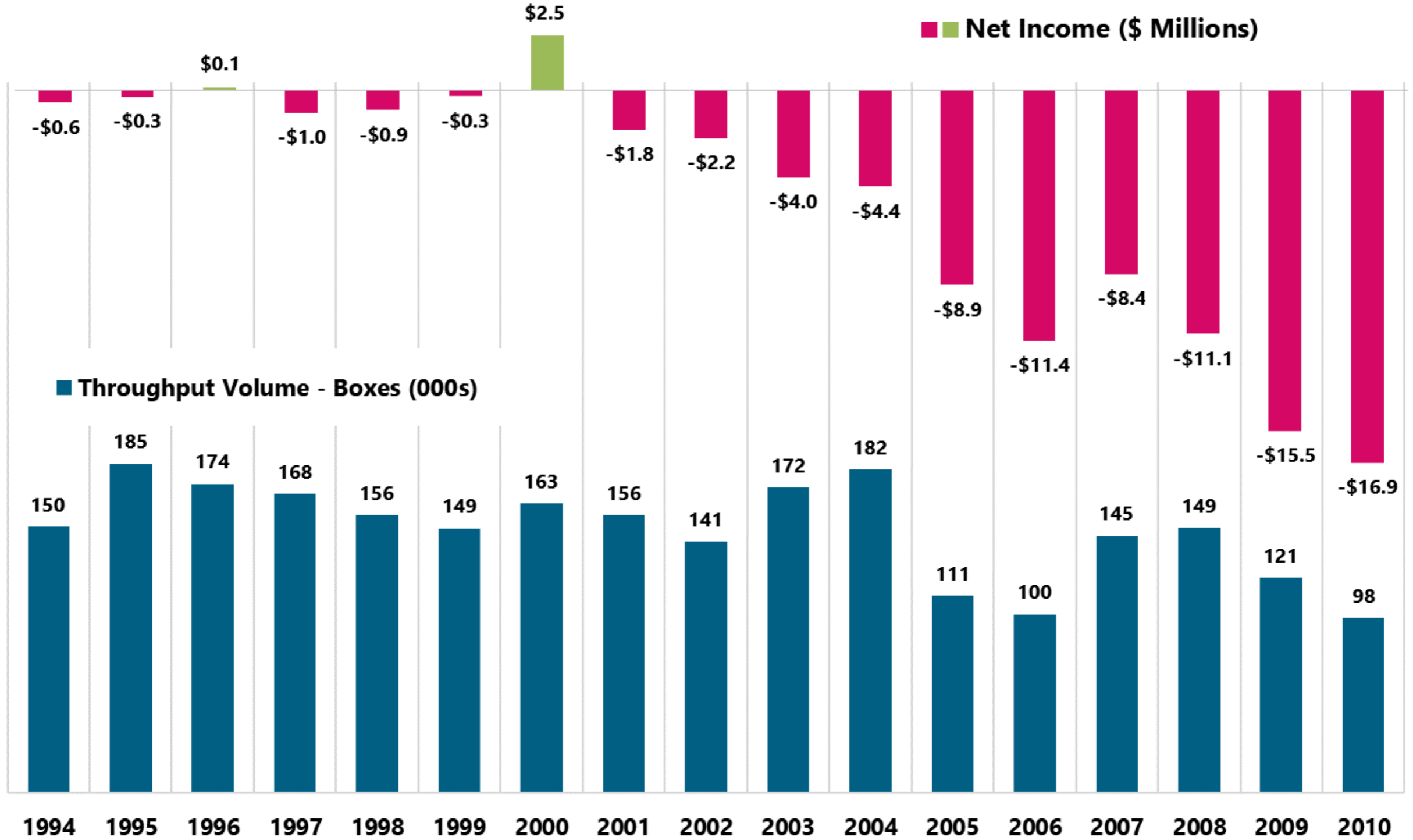
- Labor Hours per Move

Pricing

- Per Box Charges to Carriers

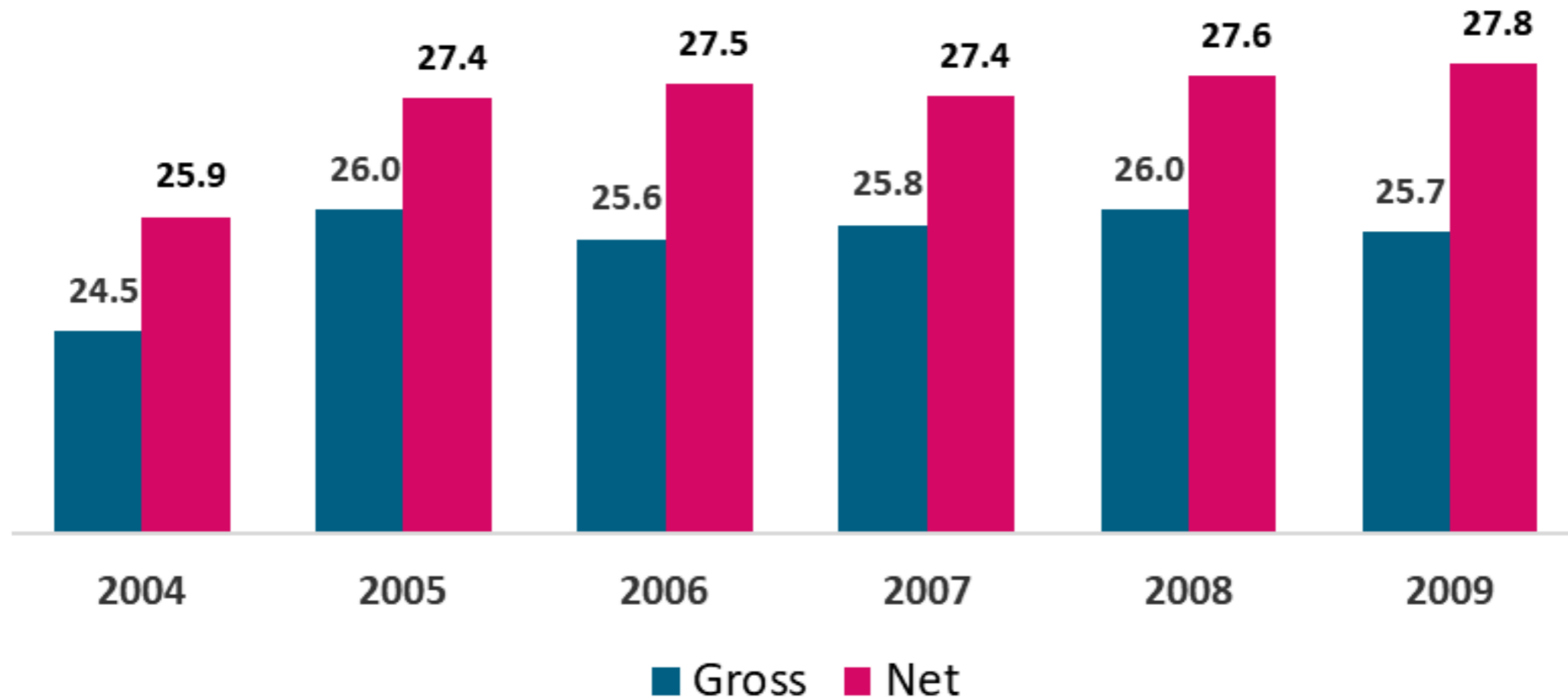


Volume and Net Income



Productivity

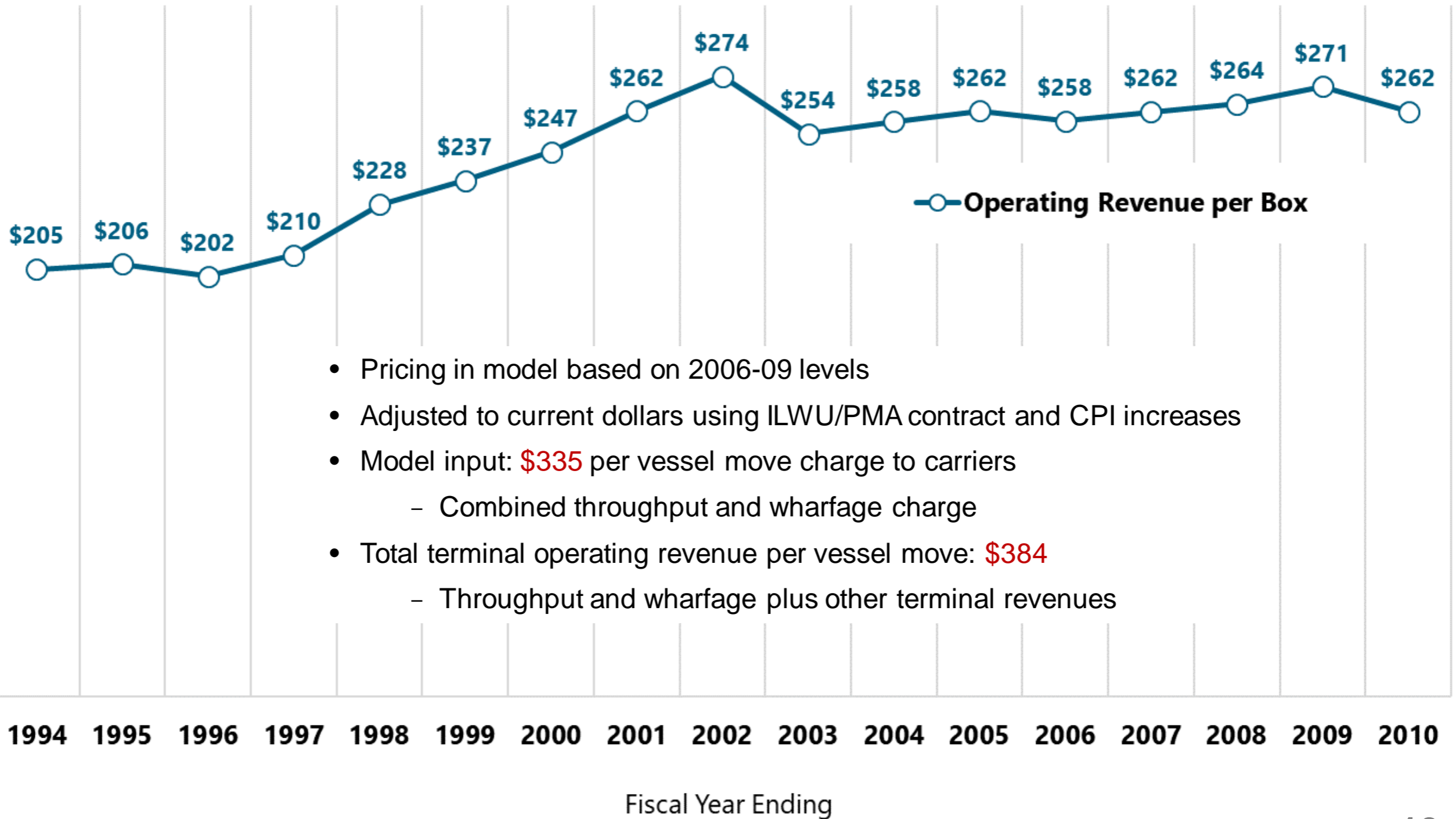
Crane Moves Per Hour



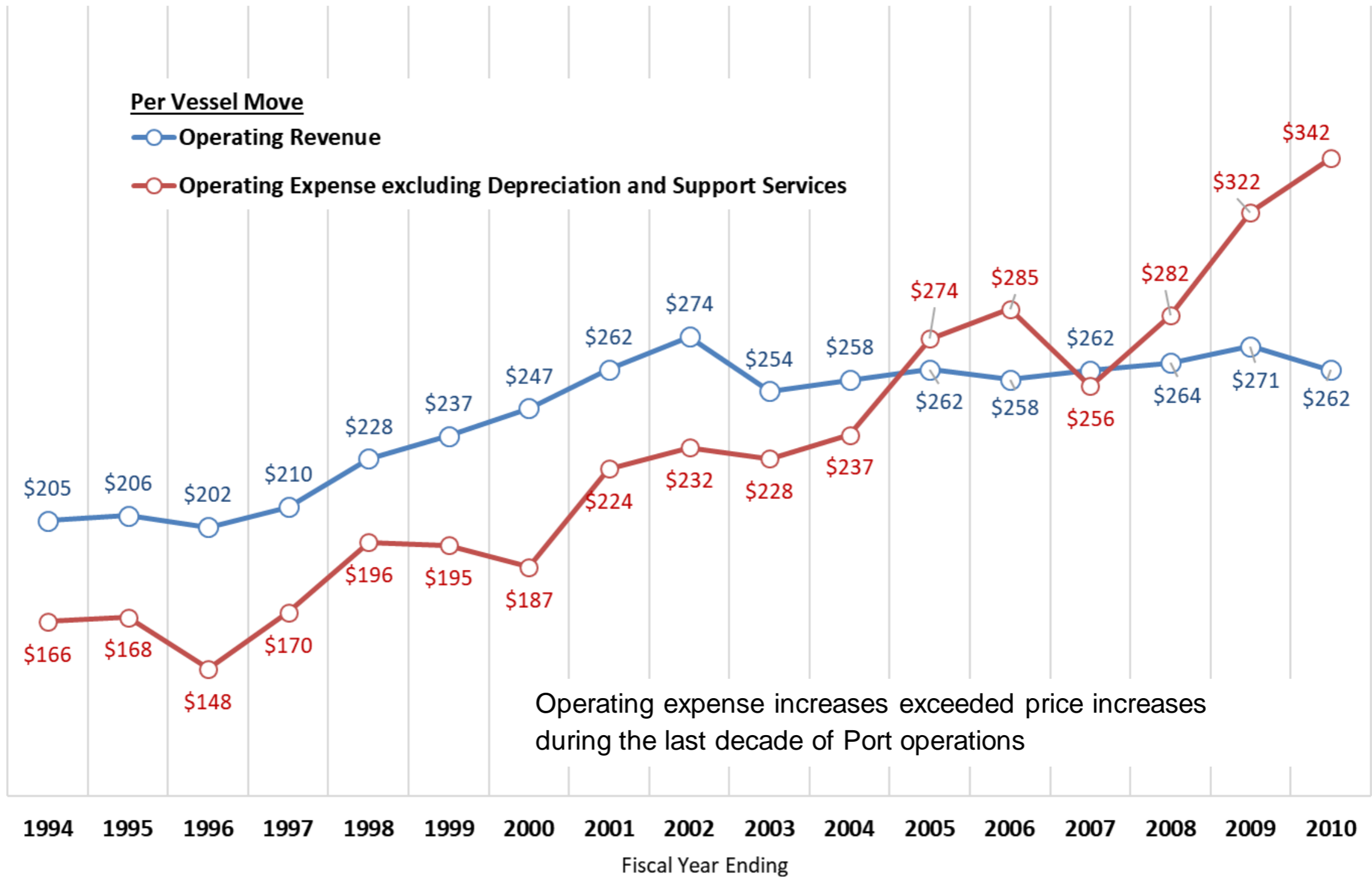
- Modeling based on 2006-09 productivity levels
- Terminal 6 productivity at or near West Coast productivity averages during that period



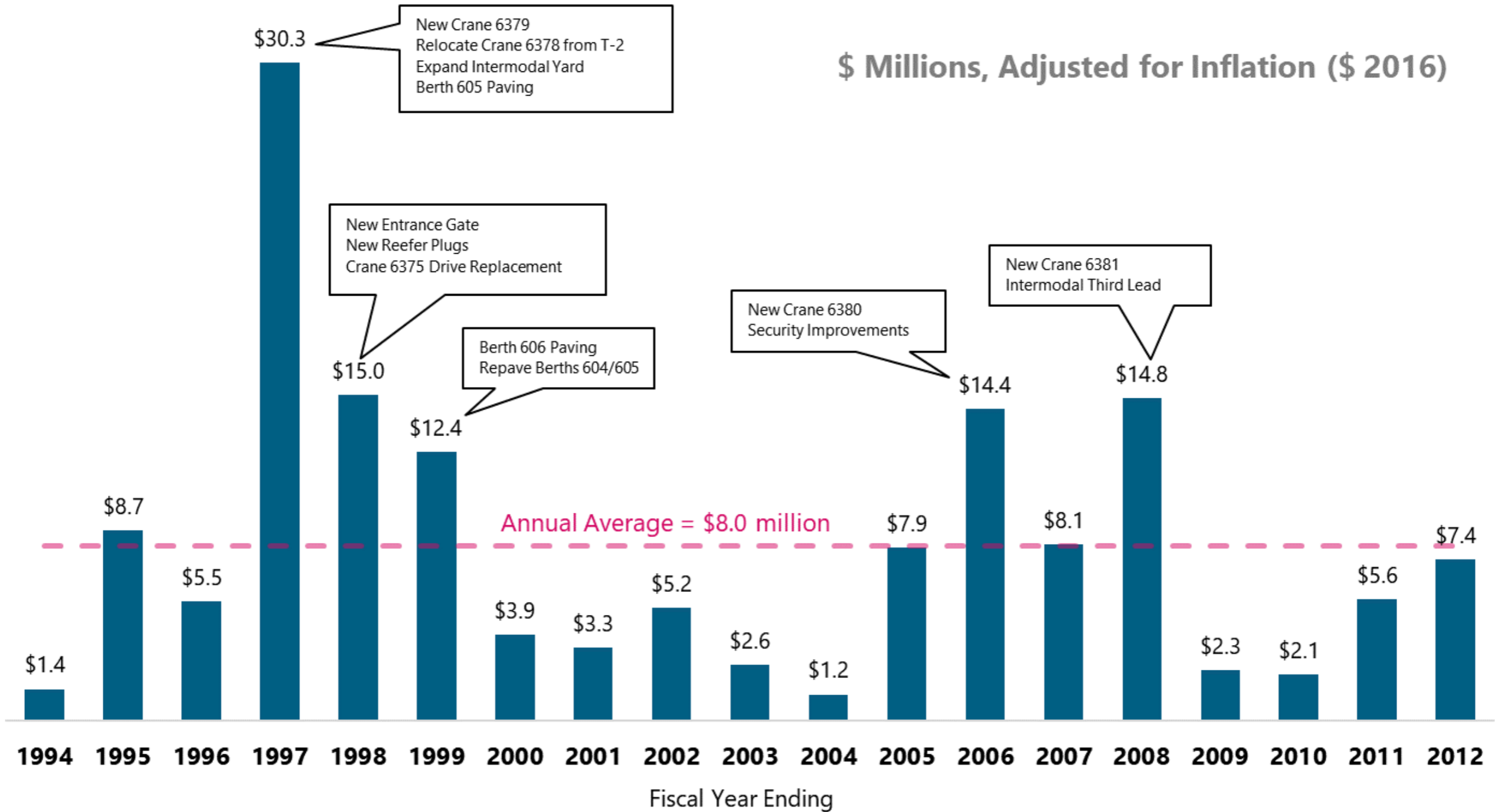
Pricing



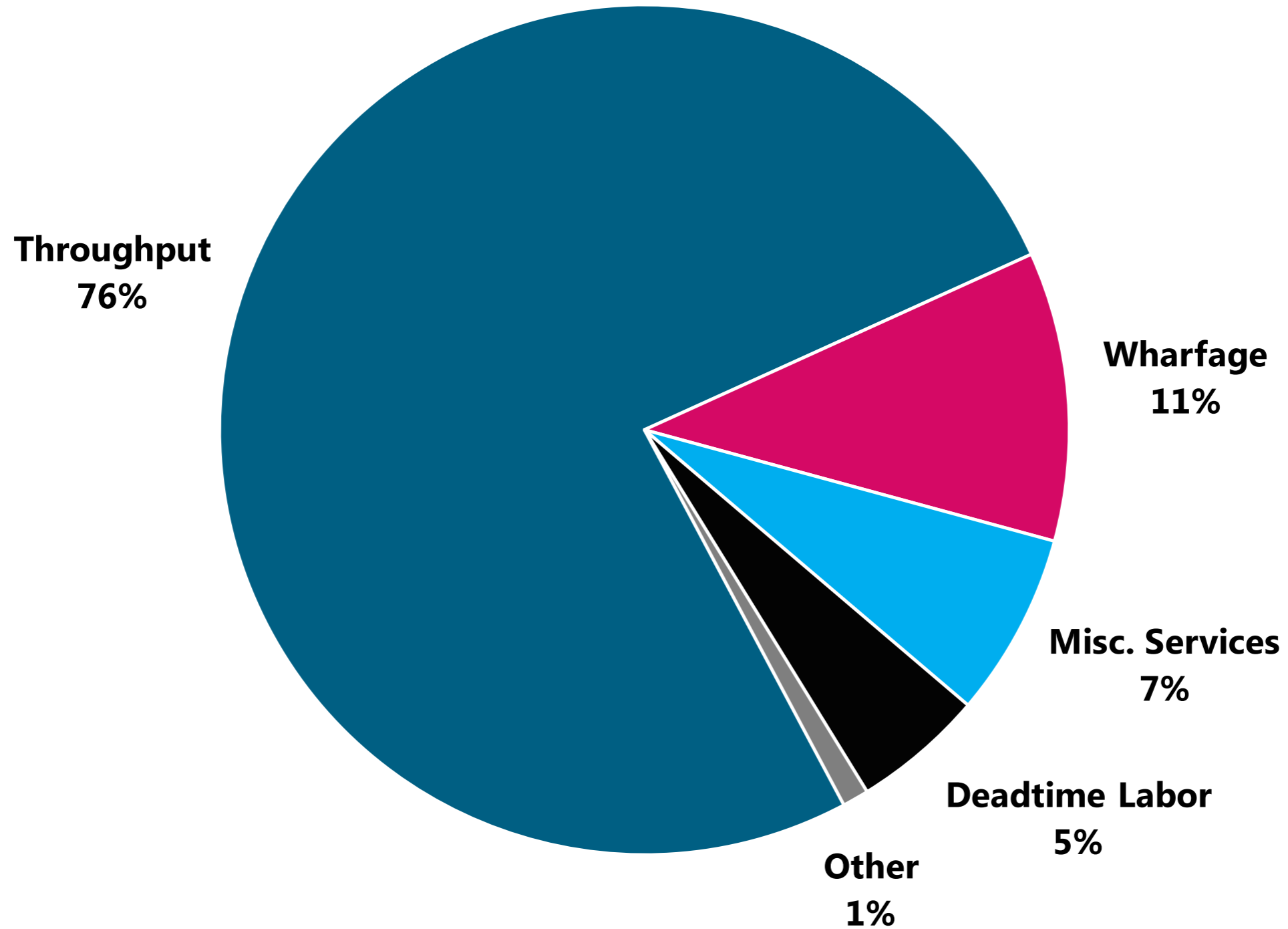
Revenue & Operating Expense



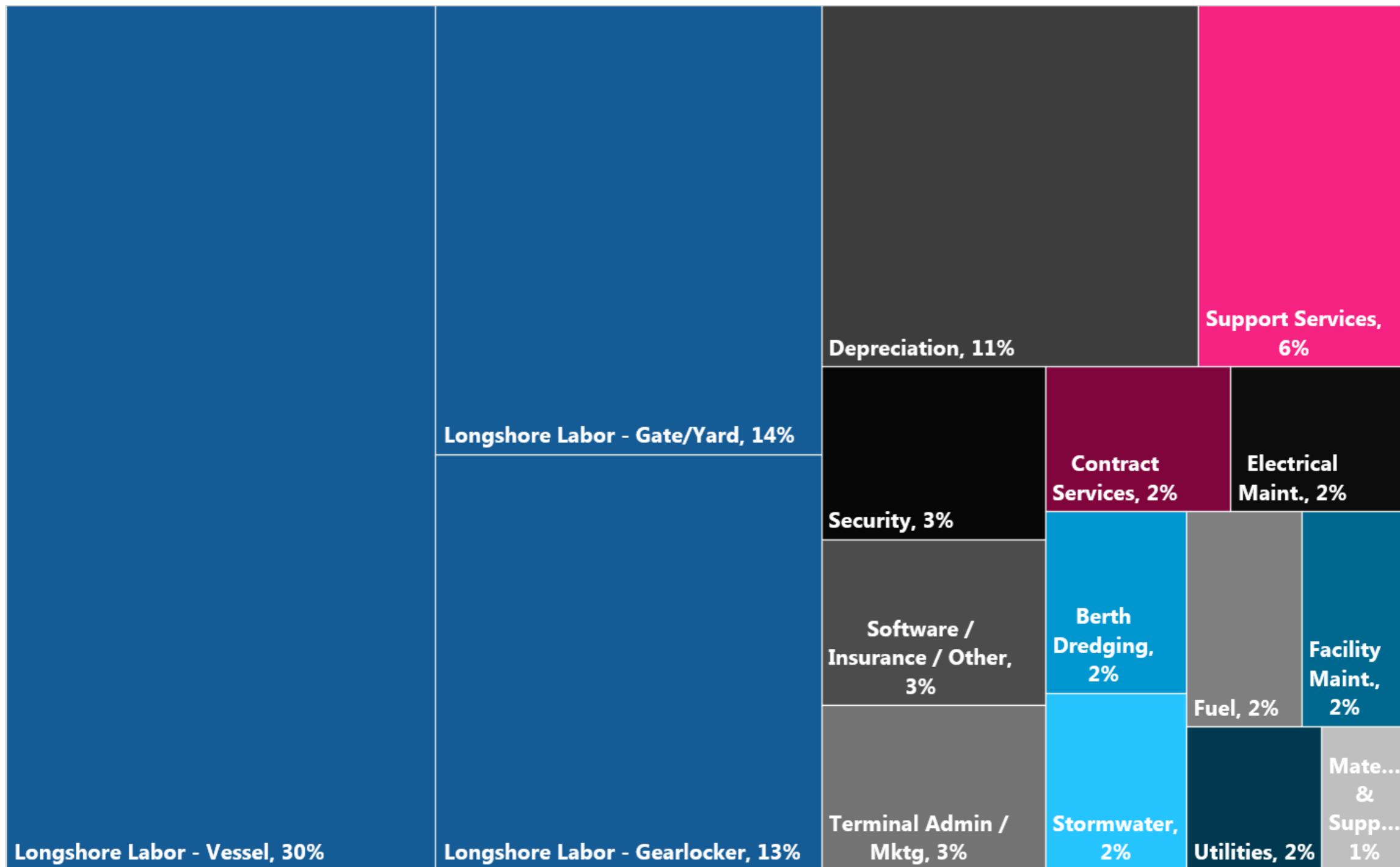
Cash Investments



Operating Revenue



Operating Expense



Based on 100,000 vessel moves and \$51.0 million of operating expense.

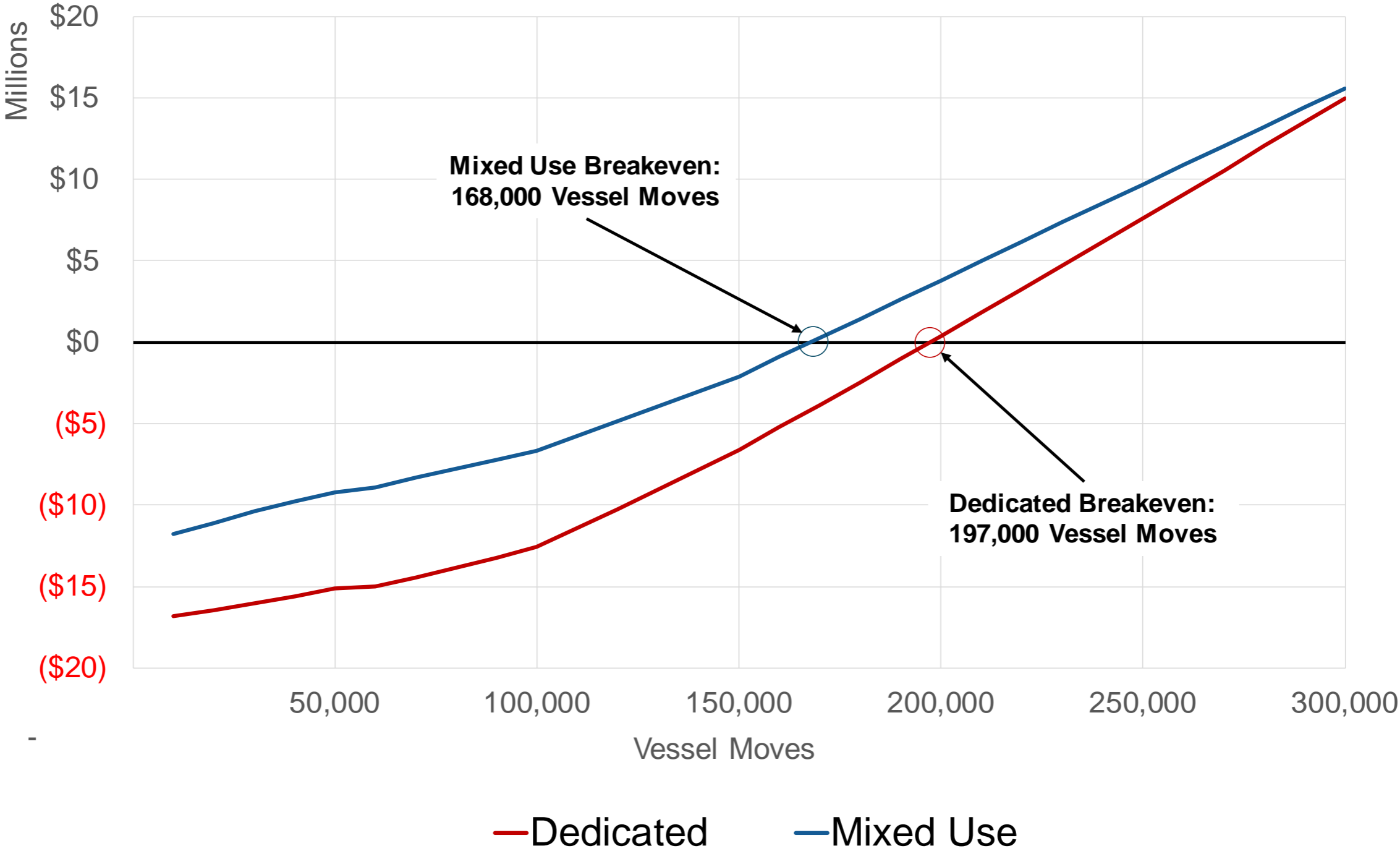


Financial Model

- Base Assumptions
 - Productivity at 2006-09 levels
 - Prices at 2006-09 levels, adjusted for inflation
 - Support Services capped at \$3M/year
 - Depreciation increases with activity; \$4M/year to start, capped at \$6M
 - Port “semi-operate” model (previous MTC set up)
- “Dedicated” Terminal Alternative
 - Entire terminal is used to support container vessel operations
- “Mixed Use” Terminal Alternative
 - Terminal use is split between containers, intermodal, & breakbulk operations
 - Container footprint reduced to about 50% - 60% of terminal
 - Certain terminal expenses are “shared” by the different operations

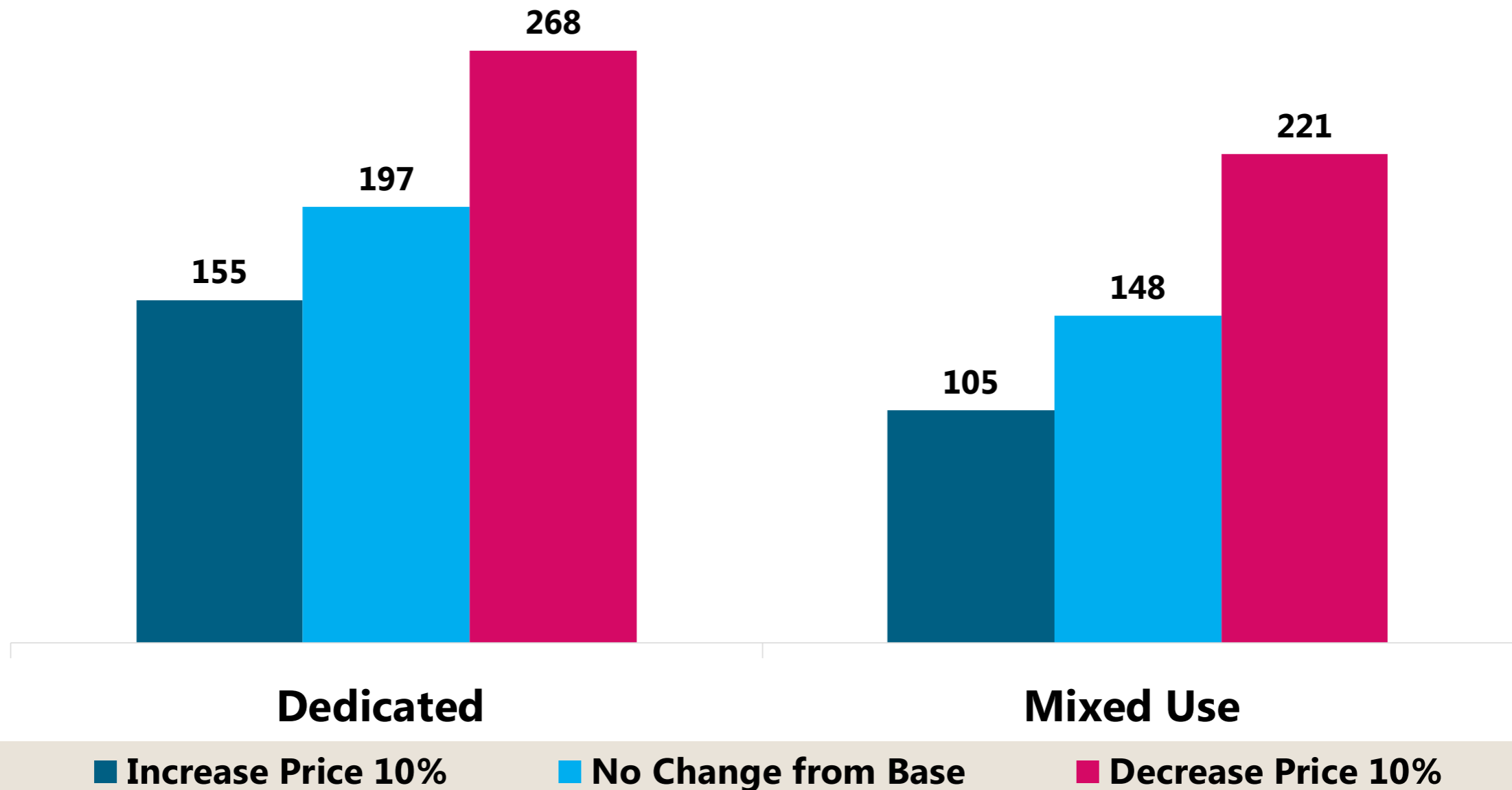


Model Results – Net Income



Sensitivity Analysis - Pricing

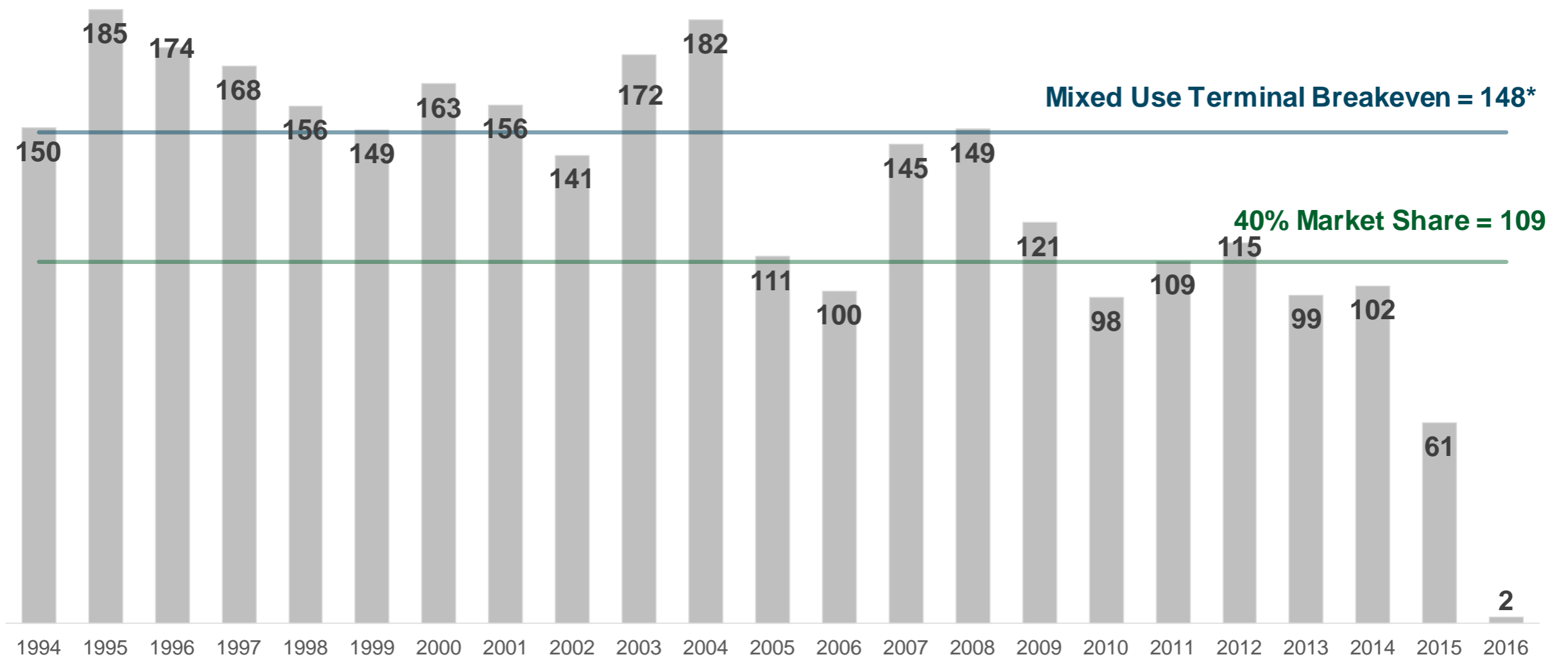
Annual Vessel Moves (000s) Needed to Breakeven



Terminal 6 Volumes vs. Breakeven

Thousands of Vessel Moves

Dedicated Terminal Breakeven = 197



*Corrected amount. Previously listed as 168. **18**



Summary

- Volume/scale the key to profitability
- Prices must be set at “sustainable” levels and match expense growth
 - *Prices failed to keep pace with expenses from 2002 - 2009*
- Productivity must meet or exceed coastwide standards
 - *Especially important in low volume situations*
- “Mixed Use” of the terminal will improve financial performance
 - *But losses are likely unavoidable if box volumes remain low*



Committee Engagement

- Clarifying questions?
- Anything missing?
- Any areas of concern?
- What are the key takeaways from this analysis?



Break



Port of Portland T6 Business Strategy

Task 5 – Alternatives Analysis

Nolan Gimpel, Project Manager, Advisian
November 16, 2017



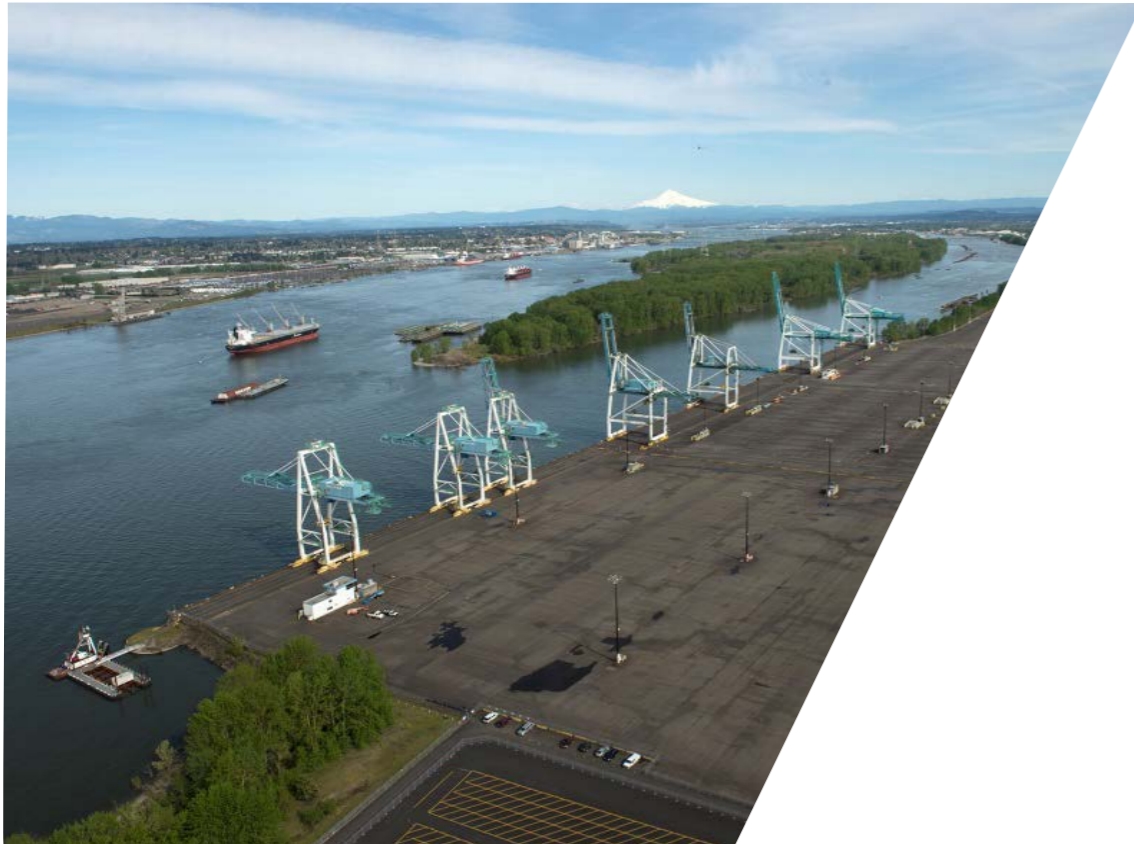
Alternatives Key Elements



- Cost and location
- Alliances/Carrier decisions
- Relatively small volume
- Asian cargo represents 90% of Portland volumes
- Carriers participate in Portland cargo today
- Reputation



Alternatives

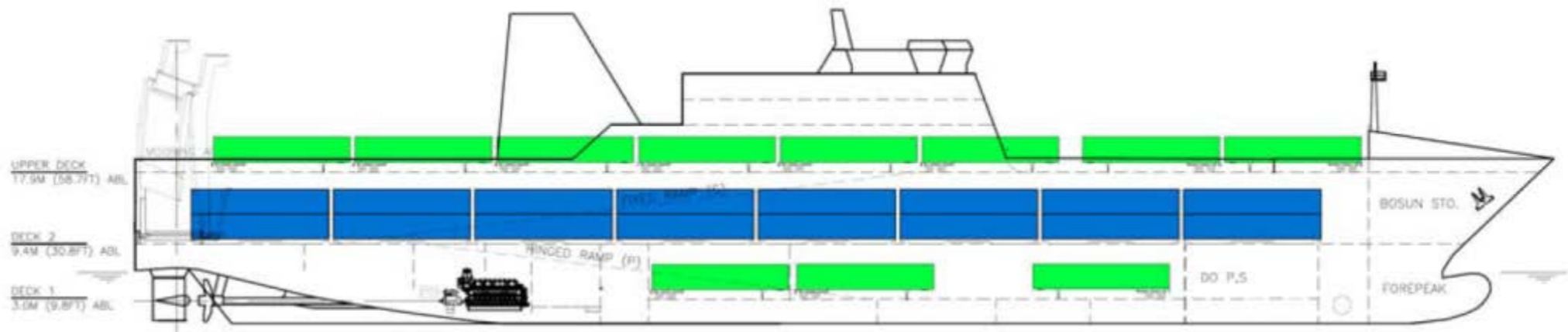


- Short Sea Shipping
- Rail Service
- Trucking Service
- Equipment Pooling Service
- Bulk Container Option
- Niche Container Service
- Mixed Use Terminal



Short Sea Shipping

- Vessel has been designed but not built.
- A specific short sea shipping vessel (not barge) is used.
- Transshipment via Vancouver, BC is most viable.
- Additional handling makes this alternative cost prohibitive.



Rail Service



- Using rail to transport containers from Terminal 6 to Seattle/Tacoma via the adjacent BNSF intermodal yard facility.
- Terminal 6 would share a gate with BNSF and utilize the presence of the railroad to offset costs.
- NW Container has been providing this type of service for many years using Union Pacific.
- This option is a viable potential alternative particularly during a start-up operation.

Trucking Service



- Operating as a drop-off point for truck delivery to Seattle/Tacoma terminals.
- Alternative would add considerable cost and is unlikely to appeal to a broad sector of the market.

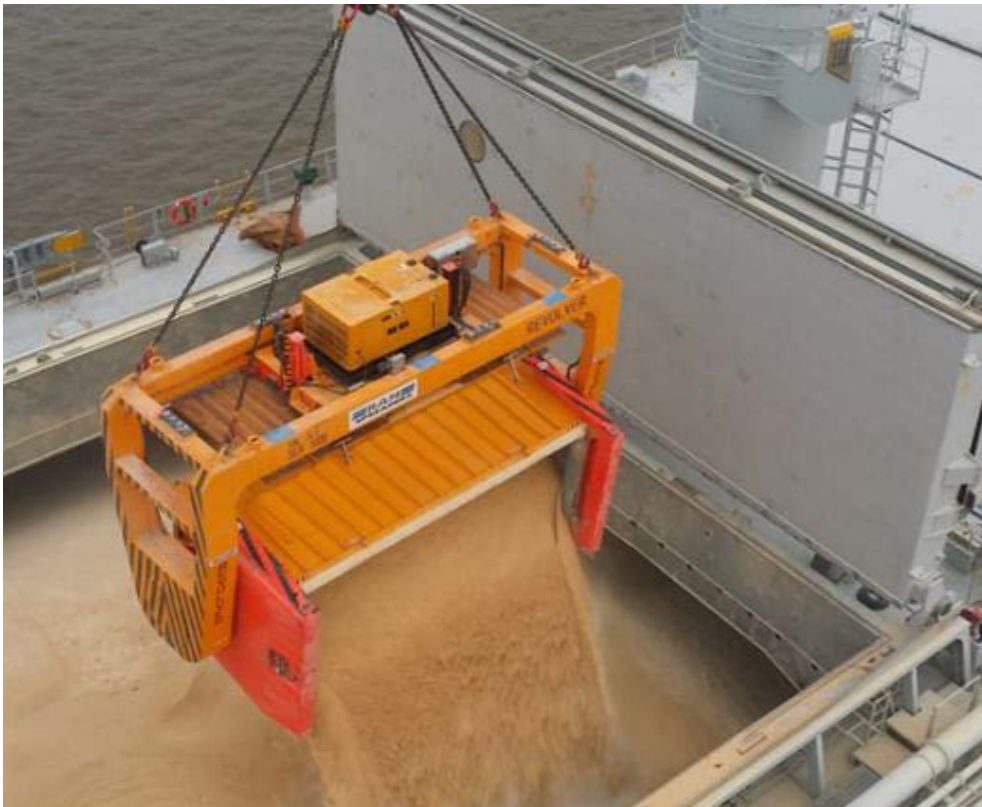


Equipment Pooling Service



- Having the terminal store, maintain and dispatch/receive container, and or chassis, for use by shippers and logistics providers in the Portland-metro area.
- Many private services are available.
- Viability is improved when used in conjunction with rail feeder service especially during start-up.

Bulk Container Option



- Bringing bulk material (*normally mining or agriculture products*) typically transported by railcar or truck to a marine terminal to be loaded into a bulk carrier vessel in a special container.
- The container arrives by rail or truck and is stored in container stacks versus bulk material piles on the terminal.
- Container is lifted by existing gantry crane and container is lowered into the bulk carrier vessel where the container's content is then dumped into the hold, eliminating the need for a bulk ship loader.
- Cost of transportation is reduced, storage issues of space and contamination are eliminated and air quality emissions typically associated with bulk materials is also eliminated.
- While this is a very viable option, it does not provide market access to local importer and exporters.



Niche Container Service



- Niche carriers typically do not operate Asia-US direct service.
- Volume is likely to be small.
- Service could be infrequent (not weekly).
- Service would be viable for start-up operations.
- Viable if done in conjunction with other alternatives to serve regional importers and exporters.

Mixed Use Terminal



- Terminal is mixed use of container, intermodal and breakbulk.
- Some terminal operating expenses are shared by the different operations.
- Offsets some of the fixed costs and overhead of the container operation.



Summary



- Without further detailed analysis of operational alternatives, leaving the terminal idle costs the Port significant dollars each year.
- While none of the alternatives work as a stand alone solution, alternatives need to be combined or mixed to be viable.
- The Port needs to generate profits from a combination of a mixed use terminal, container bulk handling operation and BNSF rail service operations in order to subsidize the start-up of container operations with a niche carrier.

Tying It All Together: Committee Engagement Exercises



Alternatives Analysis Preference Exercise

1. Of the existing alternatives that have been presented, which do you prefer and why?
2. Are there other alternatives that we have not discussed that have greater potential? What are they and why should they be pursued.



Consultant Guidance for December 21 Meeting

Thinking about everything you've learned to date as a member of this committee, what are the key questions or topics that should be addressed as part of the consultant recommendations/conclusions that will be presented at the December 21 meeting?



Confidence in Terminal 6 Strategy

What is your confidence level that there is a sustainable business model for the Port in container shipping at Terminal 6?



Next Meeting and Evaluations

December 21, 2017 3-6 pm

Consultant Recommendation and
Committee Guidance

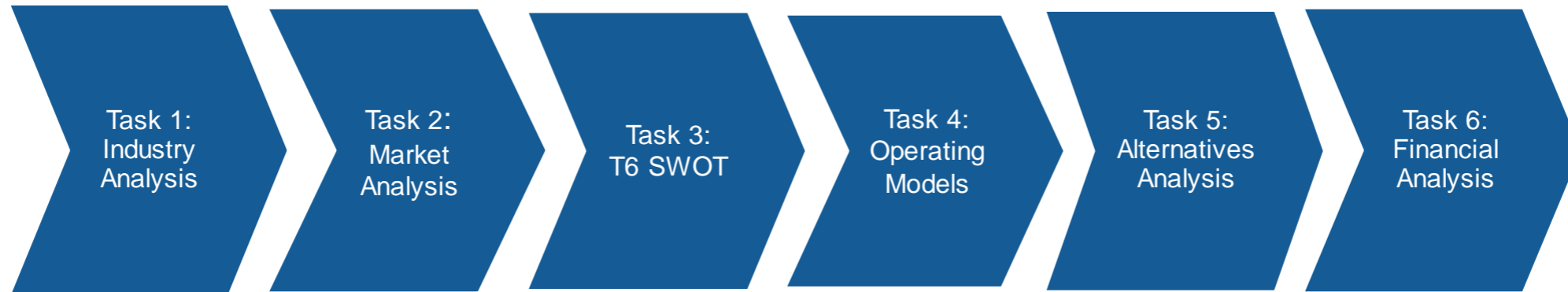


Business Study Questions

- Portland Terminal 6's future role in container shipping?
- Value proposition of Terminal 6 to container carriers and prospective container terminal operators?
- Opportunity for Terminal 6 to provide efficient market access for cargo shippers?
- Niche for Terminal 6 in the direct trans-ocean container service market?
- Feasibility of Terminal 6 as a feeder facility to other West Coast terminals, either as a complement or an alternative to direct trans-ocean carrier service?
- Financially sustainable operating models that maximize business opportunity at the terminal while providing effective service to shippers and carriers?



Business Study Tasks and Findings



- Bigger, deeper draft ships
- Consolidation
- Rationalization
 - Terminals
 - Vessels
 - Alliances
- Excess capacity
- Expanded order book
- Increasing competition

- Asia key import/export market
- Reasonable market size
- Cargo now moves over other gateways and did so even with direct service

- **S:** Terminal facility, container market
- **W:** Pilotage costs, reputation repair
- **O:** Congestion at other ports, niche market
- **T:** Empty terminals in Seattle and Tacoma

- Short term:
 - Semi-operating port
 - Operating port
- Longer term:
 - Landlord port
 - Concession port

- Short term:
 - Niche carrier
 - Reduced footprint container terminal with mixed use
 - Intermodal container service
- Long term:
 - Attract a transpacific carrier

- High volumes required
- Rate increase – inflation adj.
- Labor productivity
- Mixed use terminal approach more sustainable
- Financial gap and business case challenges

