

Evaluating Container Fee Impacts on Port Choice

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Dr. Corbett conducts technology policy research related to marine transportation, including groundbreaking research on air emissions from maritime transport, energy and environmental impacts of freight transportation, and assessment of control strategies for goods movement.

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Ms. Green has years experience conducting policy analyses related to marine and landside transportation.. She has published a number of scholarly papers and reports, including those related to environmental, health and economic impacts of transportation and energy technologies

Purpose of the Study

To answer the question:

Given the economic structure of marine shipping on the West Coast, to what extent will port choice be affected by port user fees assessed in California?

Specifically, the report evaluates the following:

- (1) What is the likely percentage of total waterside freight costs that can be attributed to port user fees (PUFs) being discussed in California?
- (2) If fees were assessed at California ports, how significant may ship traffic diversions be to non-fee ports?

Methodology

- Evaluated over 5,000 containership calls to U.S. West Coast ports including California Ports of Los Angeles, Long Beach (LA/LB), and Oakland.
- Applied a voyage cost analysis model to analyze PUF impacts on voyages to the Ports of LA/LB and Oakland.
- Evaluated port choices for observed ship routes.
- Examined voyage cost data and observed port demand behavior to estimate ship traffic diversion to other major West Coast ports –i.e., Seattle and Tacoma (SEA/TAC).

Overall Findings for California

- On average, \$30 PUF increases direct foreign voyage costs by 1.5-2.7%
 - 0.3–1.4% increase for China multi-port voyages
- Observed behavior shows a *strong* preference for CA ports.
 - Even with greater costs to LA/LB compared to SEA/TAC
- With conditions *as is*, PUFs may cause ~2% diversion
- Projected cargo growth far exceeds estimated ship traffic diversions, rendering potential diversions virtually unobservable.
- PUF diversion estimates are likely an upper bound.
 - Infrastructure development, etc.

Findings for the Ports of LA/LB

- A PUF implemented at the Ports of LA/LB will have little effect on ship traffic diversion.
 - \$30 fee per 20-foot container increases waterside voyage costs by 1.5-2.5%, on average.
 - Implementing a \$30 PUF would result in overall ship traffic diversions of less than 1.5%.
 - Suggests inelastic port preference for LA/LB

Findings for the Port of Oakland

- A PUF implemented at Port of Oakland will have little overall effect on ship diversion
 - A \$30 fee per 20-foot container increases waterside voyage costs by 1.5-2.7%, on average.
 - For the majority of ship calls coming from LA/LB (about 75%), we expect to see little diversion.
 - A fraction of direct foreign voyages could divert, leading to an overall ship traffic diversion of 2-4.5%.
 - Given expected traffic growth, voyage diversions from the Port of Oakland due to a \$30 PUF will be virtually unobservable.

Questions?

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