

Mandatory Speed Limits: An Industry Survey

Ship Speed Limits Workshop

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Survey Background



- Non-Scientific
- Performed in Conjunction with T&E / CE-Delft Mandatory Ship Speed Limits Study
- Interviews conducted with 16 major companies involved in the freight industry
- Also: Interview with NOAA Right Whale Mandatory Speed Reduction Program lead
- Mainly entities involved in container transport

Ocean Supply Chain Stakeholders Survey

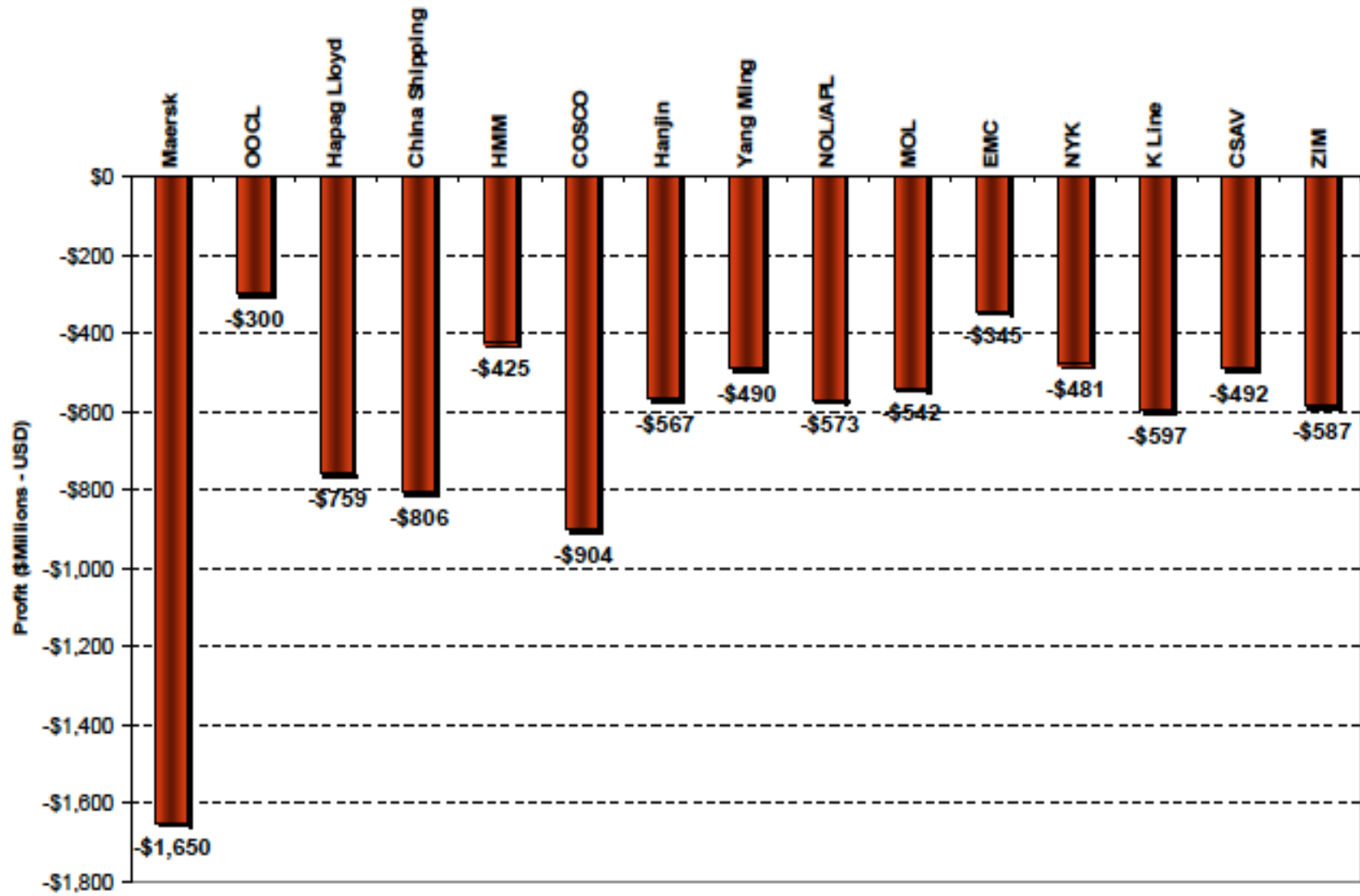
- Third-party logistics provider (3PL)
 - Company providing one stop shop service
 - importers/exporters (transportation intermediaries - freight forwarders)
 - Ex. Kuehne-Nagel, Expeditors International, DHL and UPS
- Steamship Lines
 - A line responsible for the operation of a fleet of steamships
 - Also called “Ocean Carrier” (OC’s) or “Carrier” or “Line” E.g. MAERSK, Evergreen, WWL, CMA CGM, Matson
- Shippers and Manufacturers
 - “Beneficial cargo owner” (BCO’s): big box stores (retailers: IKEA, Target, Pier-1, Wal-Mart);
 - Abercrombie and Fitch, Nike, Volvo, etc.
- Major Port Authorities
 - (Mass Port, Port of Tacoma, Virginia Port Authority)

Context: Ocean Carrier Market

- World fuel oil consumption rates escalating;
- Slow build up to peak season in 2011;
- Volumes not providing offset to investment or operating cost;
- Most retailers showing positive earnings due to cost cutting, not top line growth or import growth;
- Massive liner losses are expected.

Liner Returns - 2011 Forecast

■ 2011 Forecast

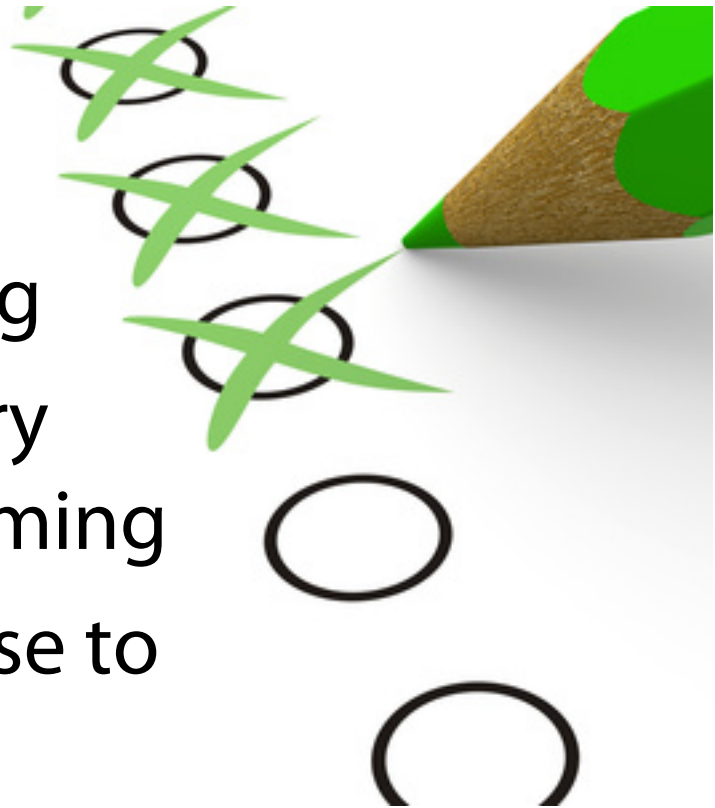


Advent of Slow Steaming

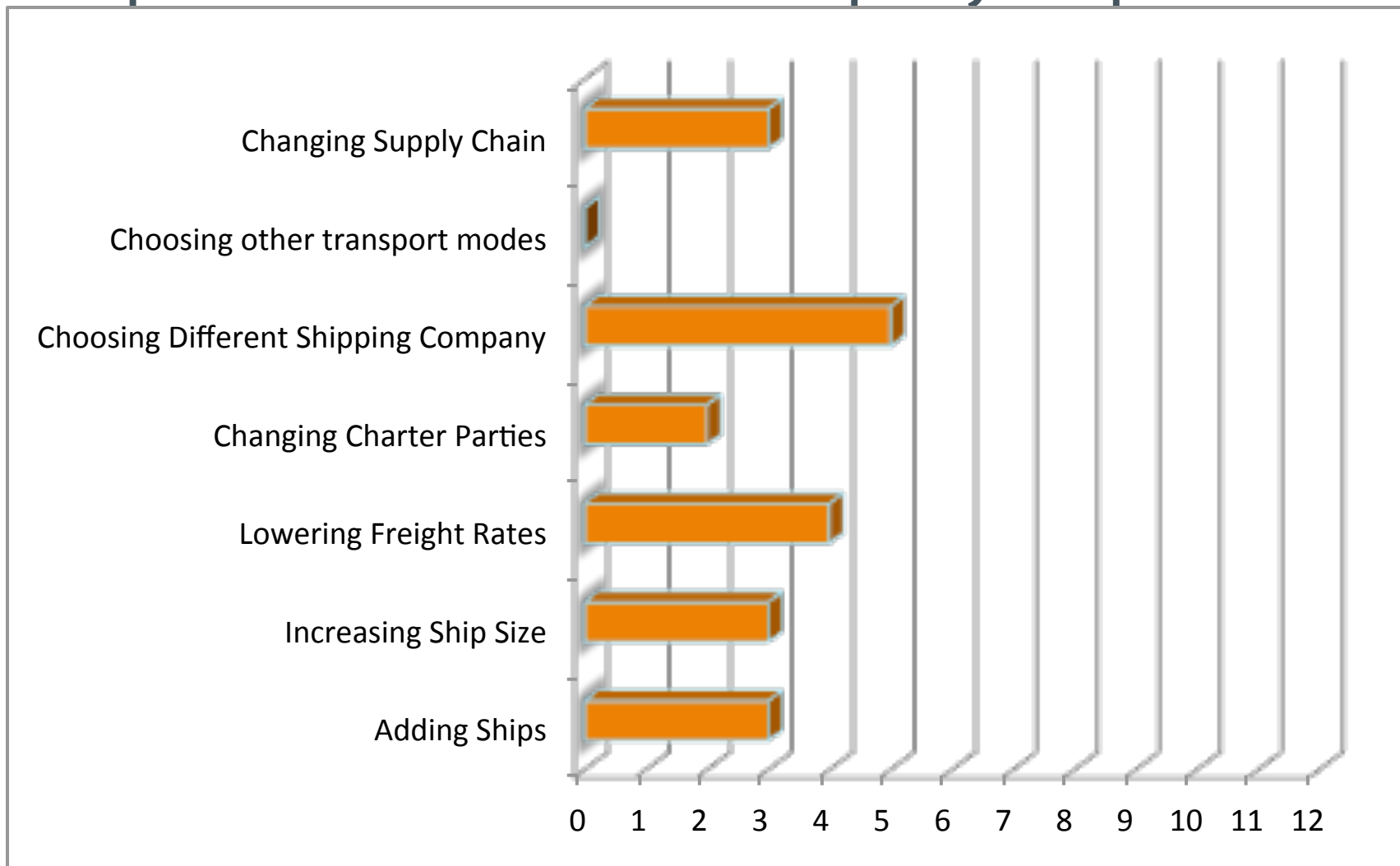
- Slow steaming has been implemented on a large scale due to over-capacity (500 vessels idle in Jan. 2010) and a rise in fuel price (\$700 IFO in July 2008)
- Industry has quickly learned to use slow steaming as a tool to adapt to changing market conditions in short and long term
- Voluntary speed reduction programs are becoming more popular strategies for conventional air pollutant reductions

Survey Structure

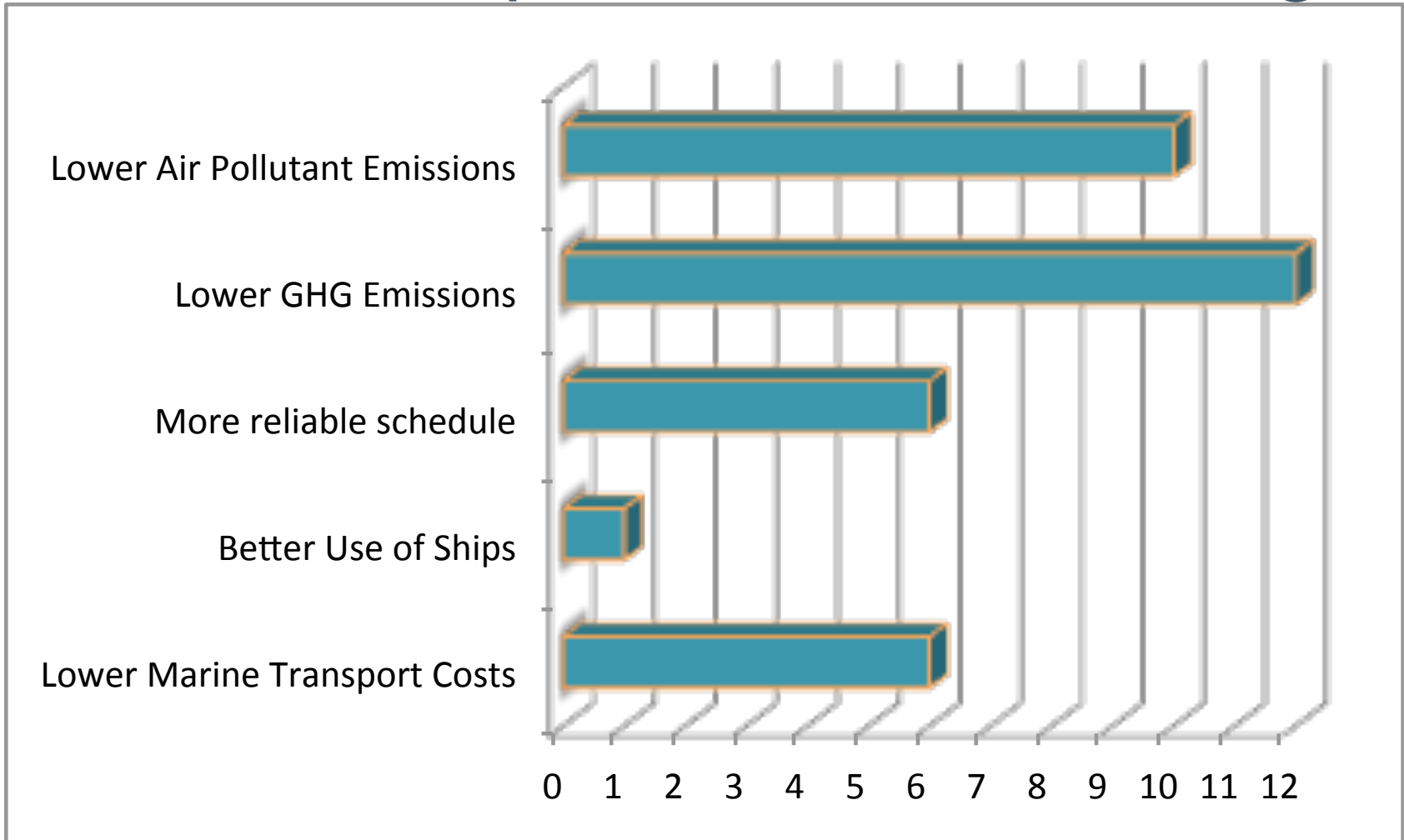
- Industry Experience with Slow Steaming
- Benefits of Slow Steaming
- Comparison of Mandatory and Voluntary Slow Steaming
- General Industry Response to Mandatory Program



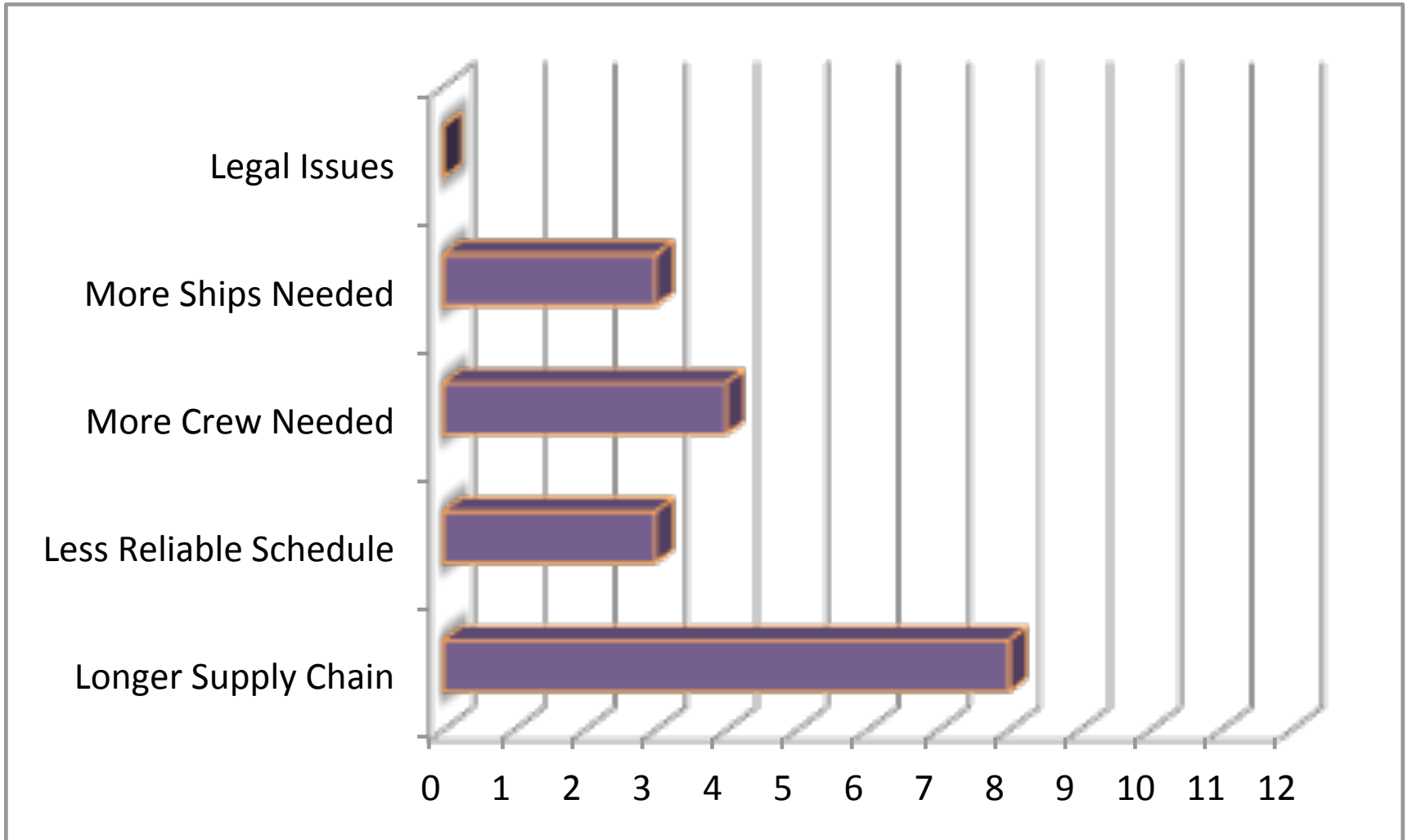
Experience: How has company responded



Benefits/Impacts of Slow Steaming



Mandatory vs. Voluntary Slow Steaming



Industry Response to Mandatory Slow Steaming

- Would Ships Revert to Previous Practices?
- Will lower design speed requirements with EEDI create distortions with new/old ships and could speed limits help this?
- Would your company react differently to Mandatory vs. Voluntary Speed Reduction?

Survey Findings by Sector

- Drivers for ocean carriers are pure economic:
 - Managing fleet size (deployment of all vessels)
 - Managing capacity (increases freight rate by reducing capacity)
 - Reducing fuel costs
 - “Greening of Supply Chain” – unintended benefit
 - Expected to return to pre-2007 speeds if market conditions change and full capacity is needed
 - Slow steaming will remain as a strategy, incentives are welcome
 - Resistant to mandates, largely because they decrease operational flexibility

Survey Findings by Sector

- 3PL has no real driver with slow steaming
 - adaptation is their business.
- Adapting to market conditions:
 - Slow steaming effectively lengthens the supply chain (time); just another variable to manage
 - Less flexibility in delay and other time factors may require ;
 - Requires closer management of entire supply including changes in ground transportation;
 - Aware of “greening” aspect of slow steaming and would seek it to meet demands of their customers (big box owners and suppliers).

Survey Findings by Sector

- Mixed drivers for cargo owner
 - Confusion per actual environmental benefits;
 - Need to maintain larger inventory and other factors increases overall costs
 - Seen as way for steamship lines to raise freight rate by decreasing capacity;
 - Feel that fuel costs are passed on as surcharge;
 - Effect; opportunity to demand transportation providers “go green” because of carriers’ public relations/marketing claim.

General Survey Conclusions

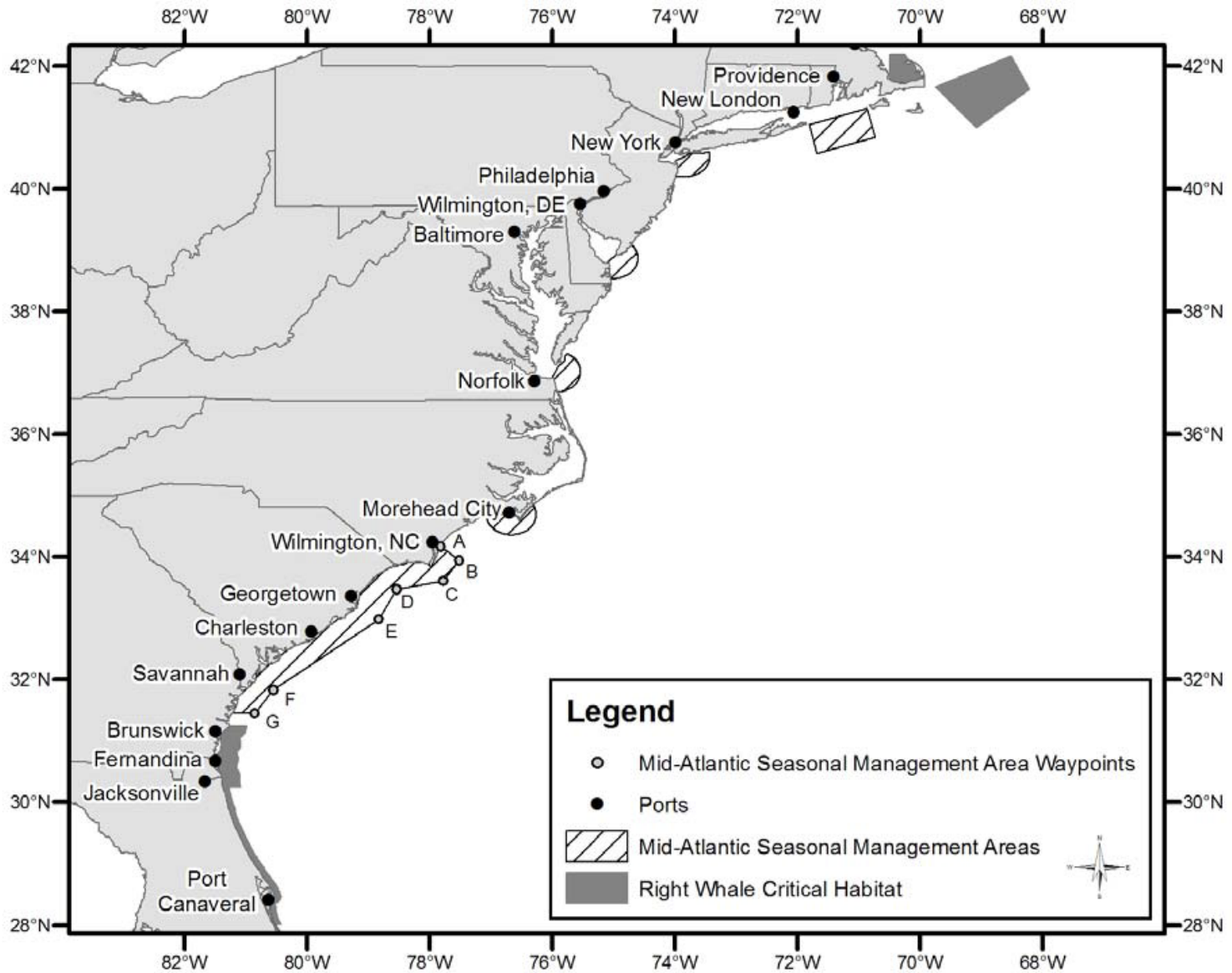
- Near universal opposition to speed limits, most strongly from carriers
- Mandatory speed limit program would need to preserve operational flexibility;
- Administrative and enforcement details are critical; need clear, fair, and reasonable process for determining appropriate speed and regional application
- Need to differentiate benefits of mandatory speed limits vs. alternatives (esp. voluntary/incentivized programs and carbon levies)

Also: Interview with Greg Silber, NOAA's Right Whale Mandatory Speed Limit Program

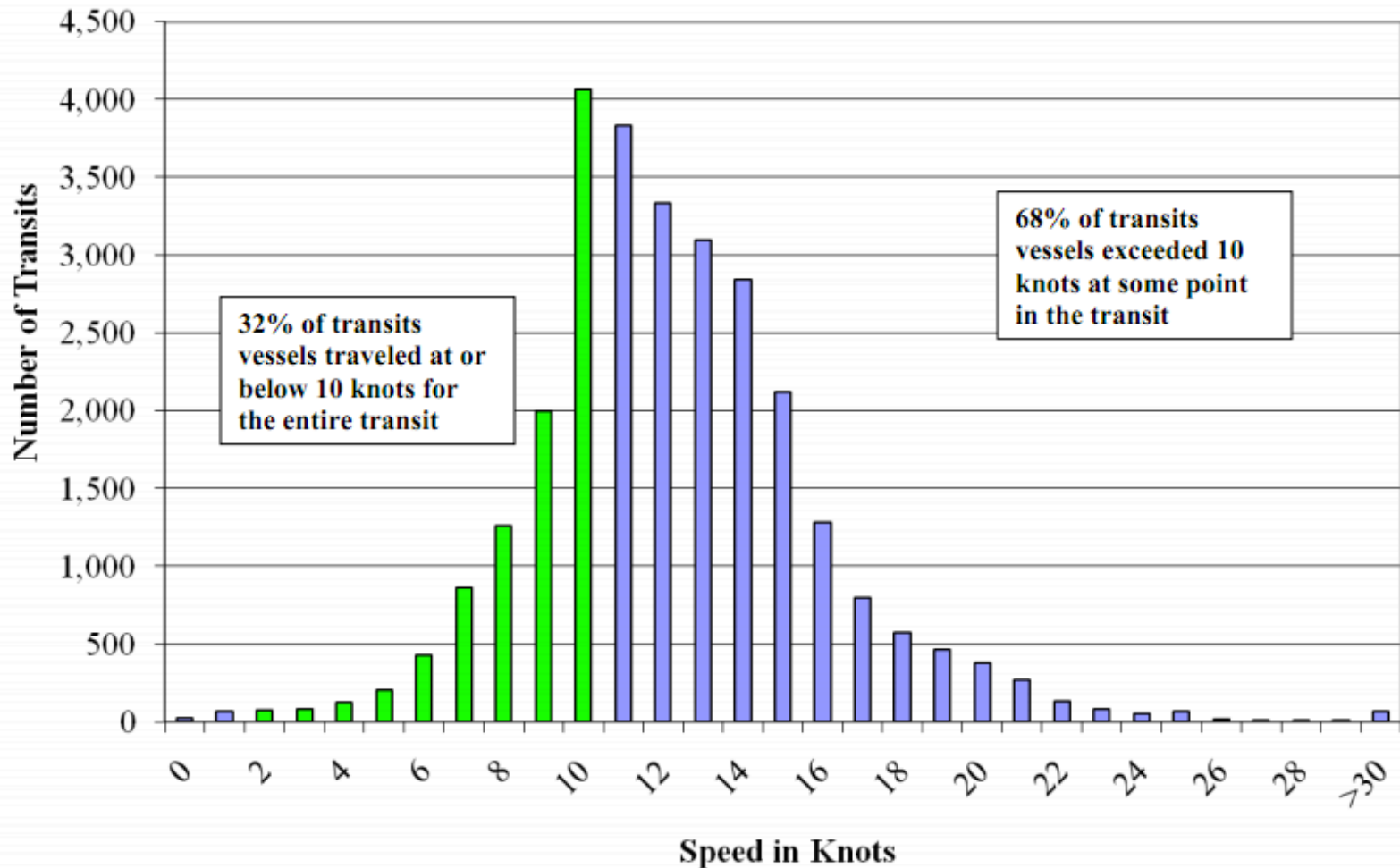


NOAA Right Whale Mandatory Speed Limit Program

- Final rule in effect October 2008
- Seasonally implemented in the US East Coast to reduce the impact of ships on the endangered right whale population
- Based on over >5 years of research and extensive Environmental Impact Report
- Mix of mandatory and voluntary speed limit “zones” that are seasonally enforced;
- Uses AIS data to track and enforce 10 knot limit on vessels larger than 65’



Distribution of Vessel Speeds in Right Whale Seasonal Management Areas during 2009



Summary of concepts applicable to other speed limit programs:

- Generally unsuccessful until fines and enforcement activity took effect; still well away from 100%
- NOAA is currently undertaking second, more comprehensive evaluation of the program
- Likely not applicable to other parts of the world:
 - no other whale populations in as much risk;
 - Endangered Species Act is unique regulation
- Would be better if backed up by IMO regulation
- Illustrates the potential for using “traffic separation schemes” for both safety and environmental benefits.

Thank You

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