

North Quay Truck Survey 2017



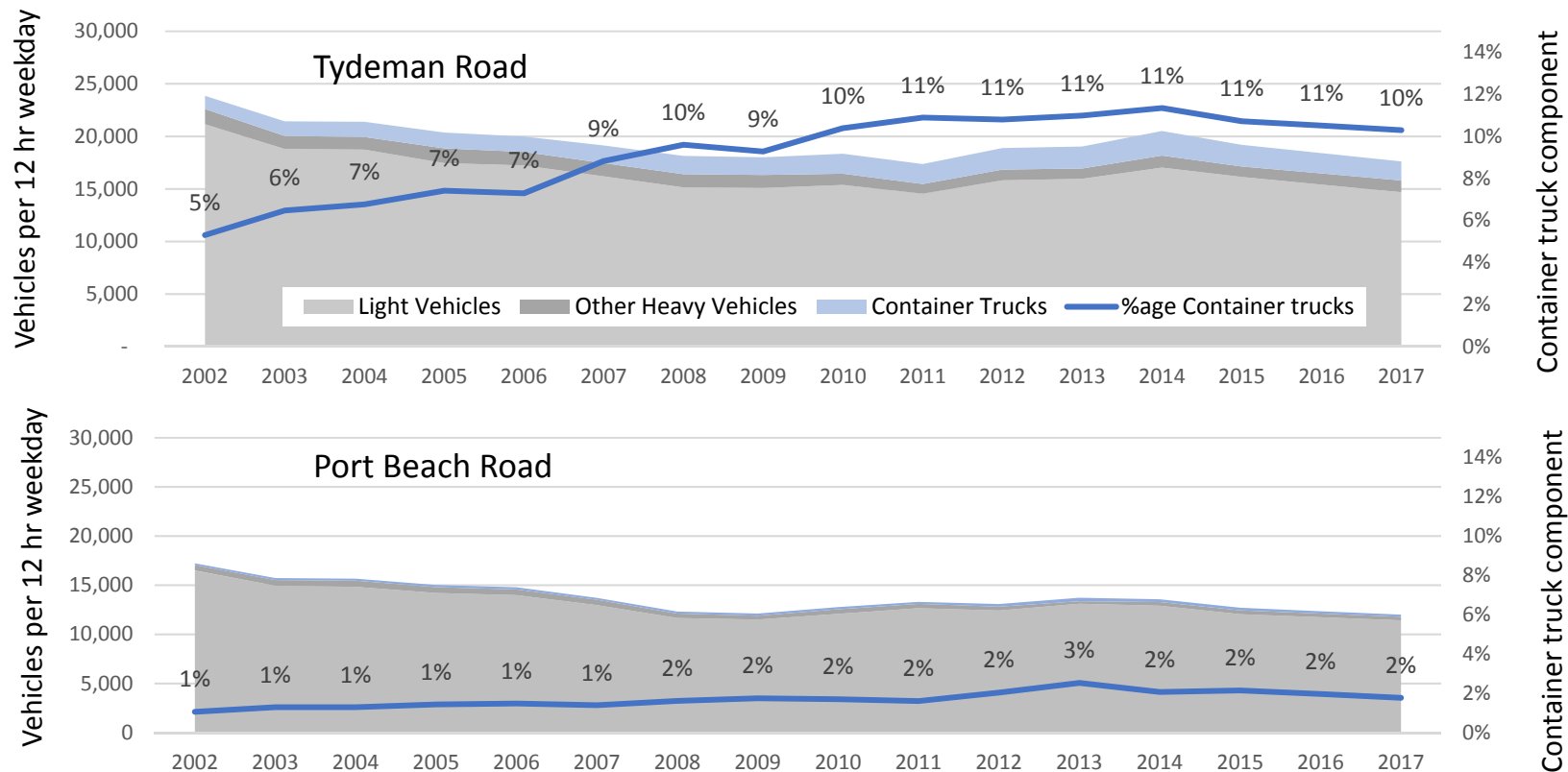
16th Annual Survey of Container Truck Volumes and Loading at Fremantle Inner Harbour

Survey characteristics

- To monitor container truck:
 - numbers
 - contribution to overall traffic volumes
 - axle configuration
 - loading (number of containers and size)
 - lifting capacity
- Data collected 24 hours over two week period
- Monday 14th to Sunday 27th August 2017
- Timed to coincide with “Container movement study”



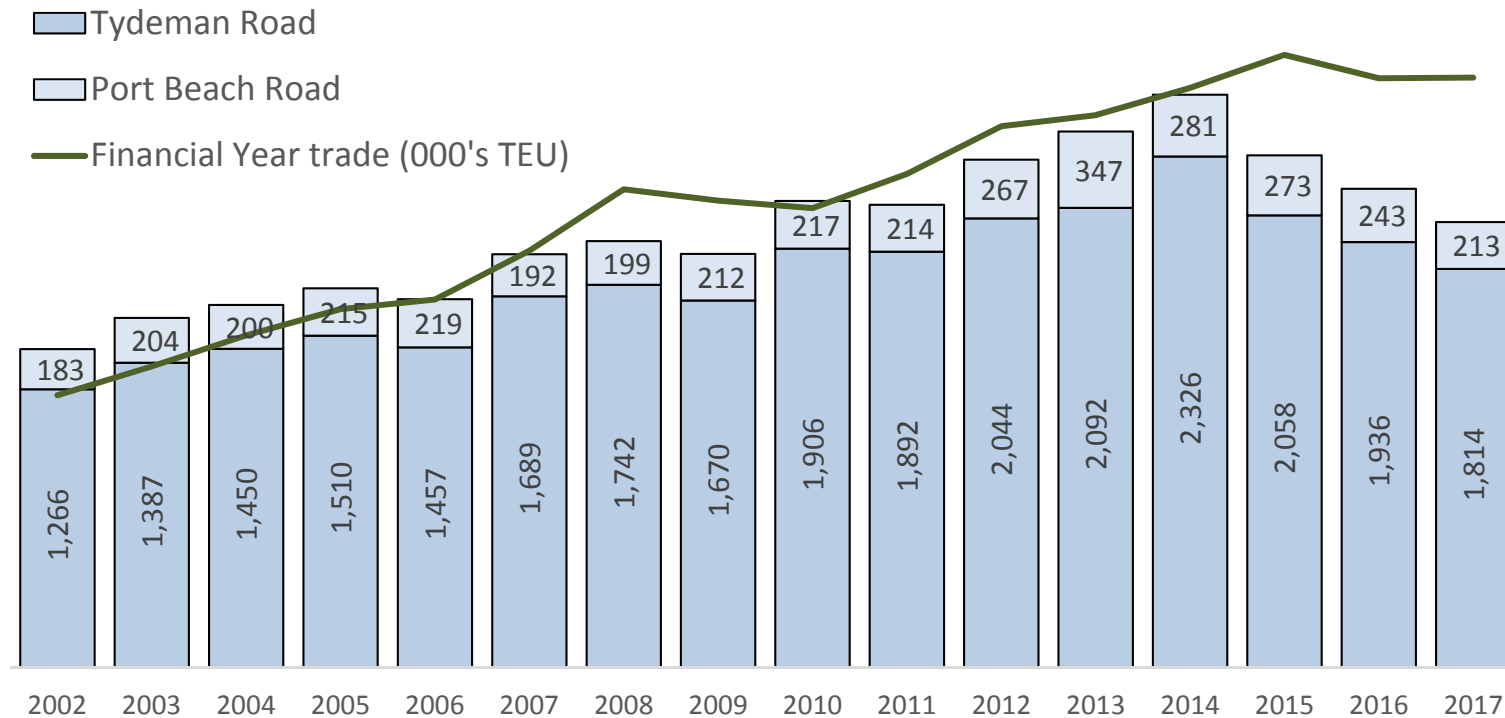
Container trucks in general traffic



Container trucks form 10% of all vehicles on Tydemman Road and 2% on Port Beach Road between 6am and 6pm.

While these are larger proportions than when the survey began the figures have steadied in recent years and are, of course, dependant on the quantum of other, predominantly car traffic.

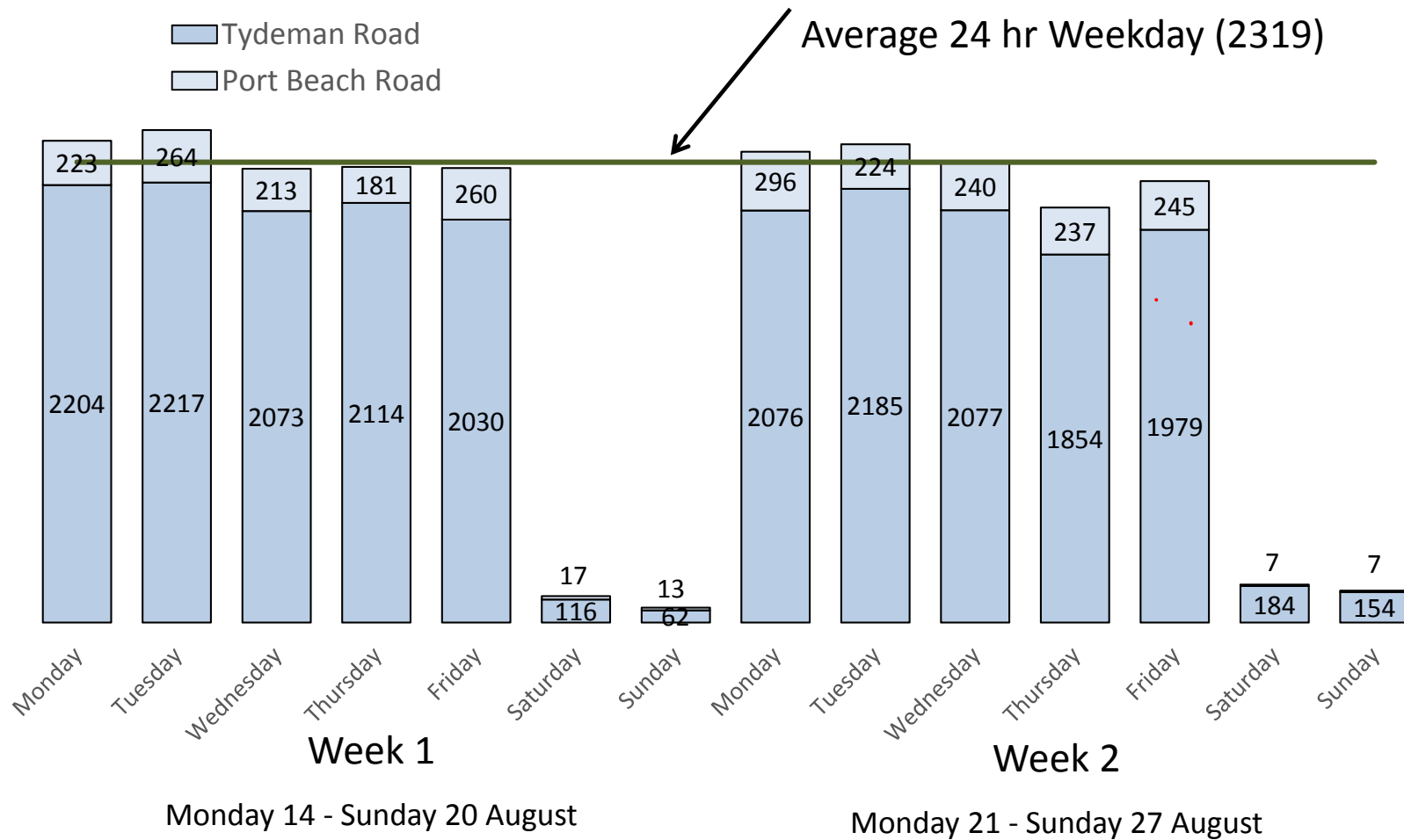
Historic container truck numbers



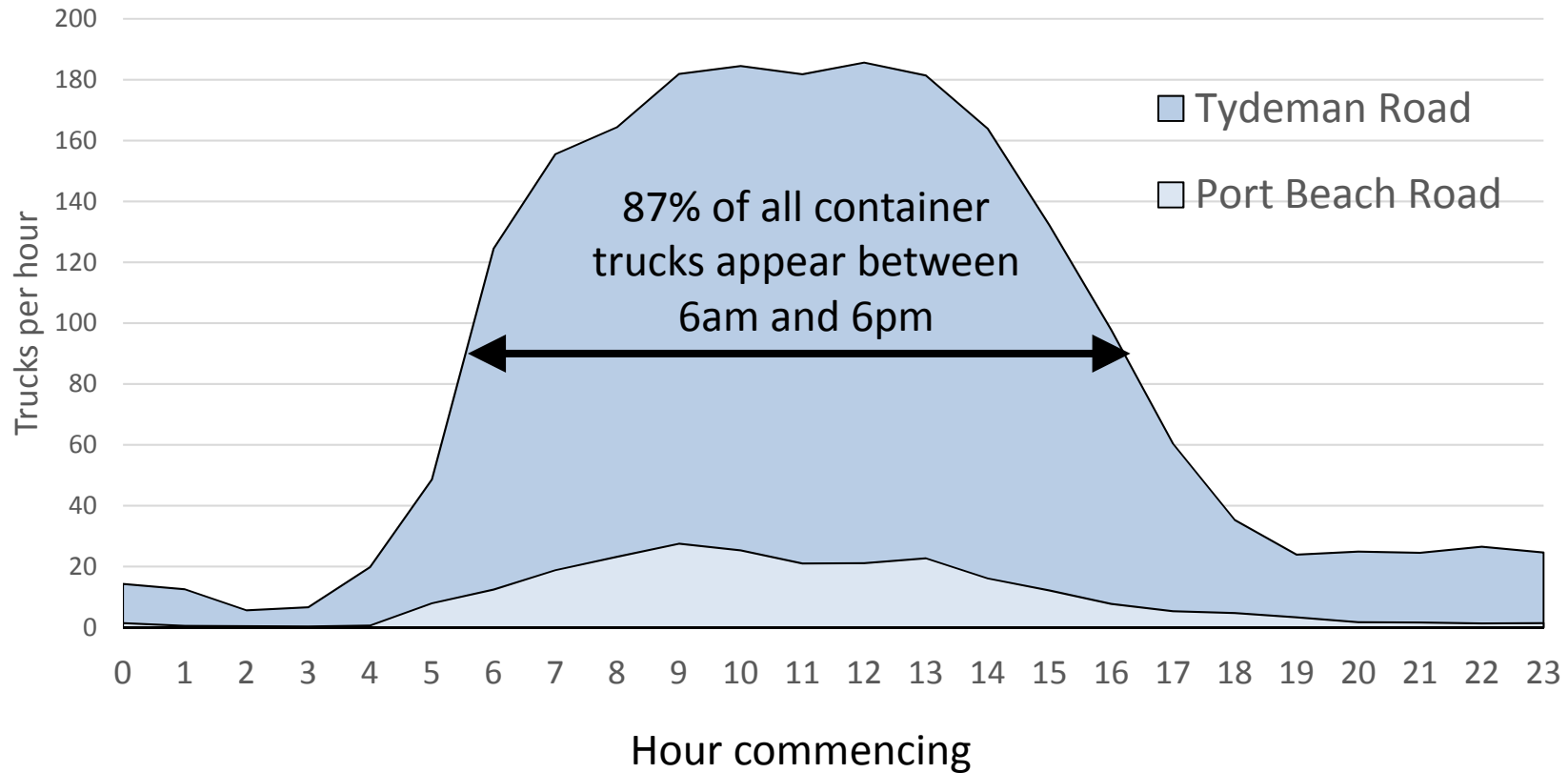
Truck numbers (between 6am and 6pm) have increased, broadly in line with trade growth until 2014.

Since then, observed numbers have declined while trade continues to grow, albeit at a lower rate.

Container truck numbers over the survey period



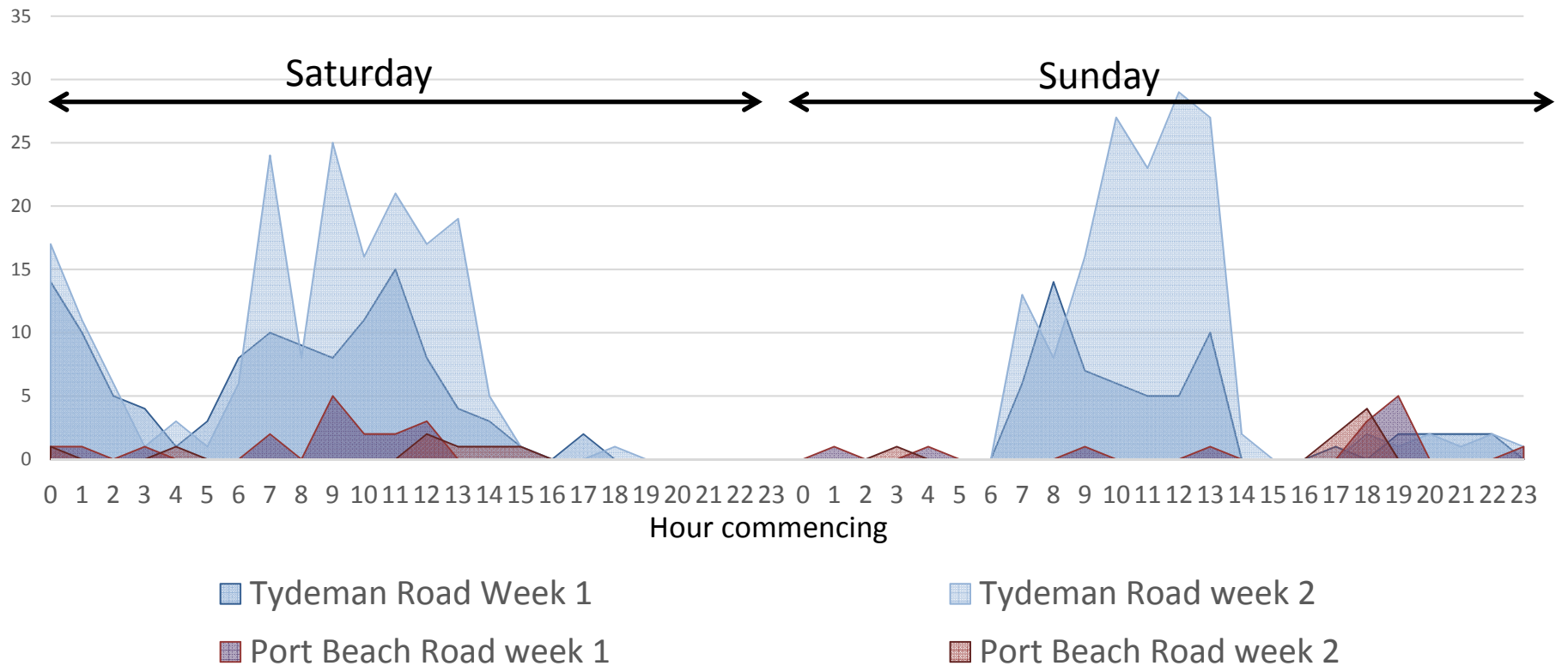
Truck activity over the weekday



Truck activity remains concentrated during the normal working day
Relatively little activity outside “normal” working hours

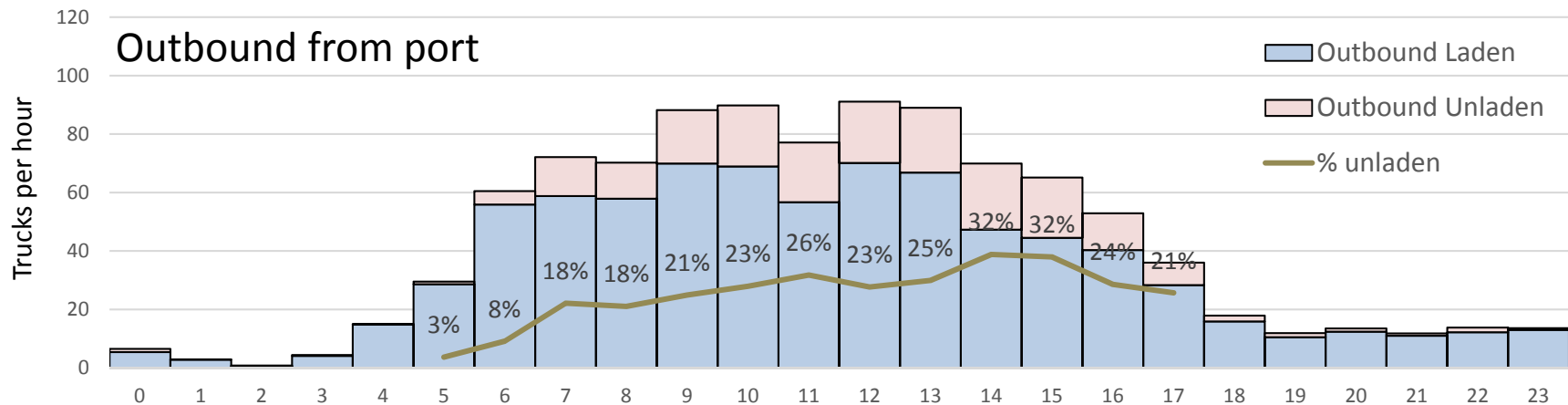
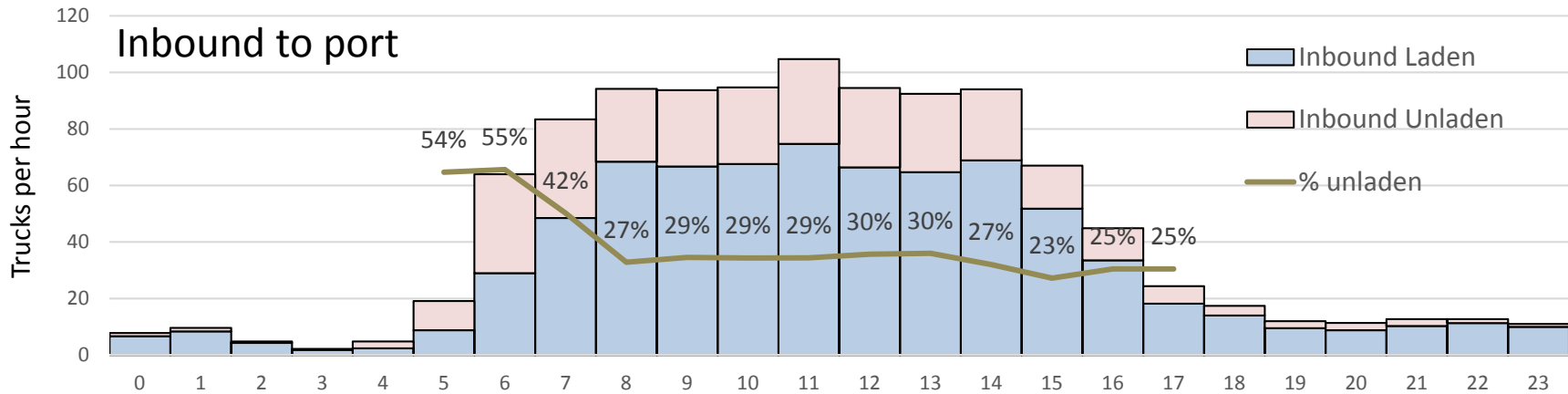
Truck activity over the weekend

Truck activity (trucks observed per hour) over the weekend remains very low



Tydeman Road – weekday unladen running

(24 hour average weekday)

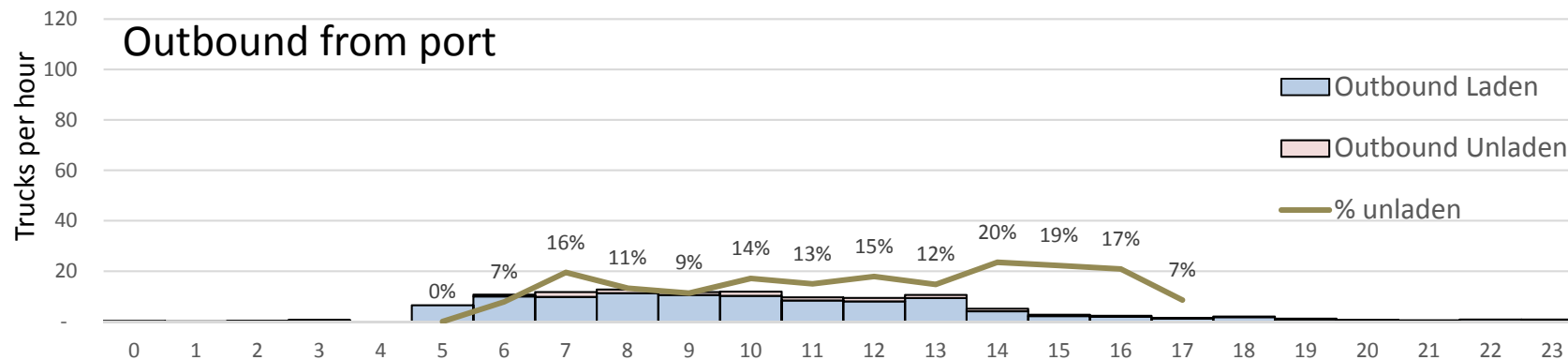
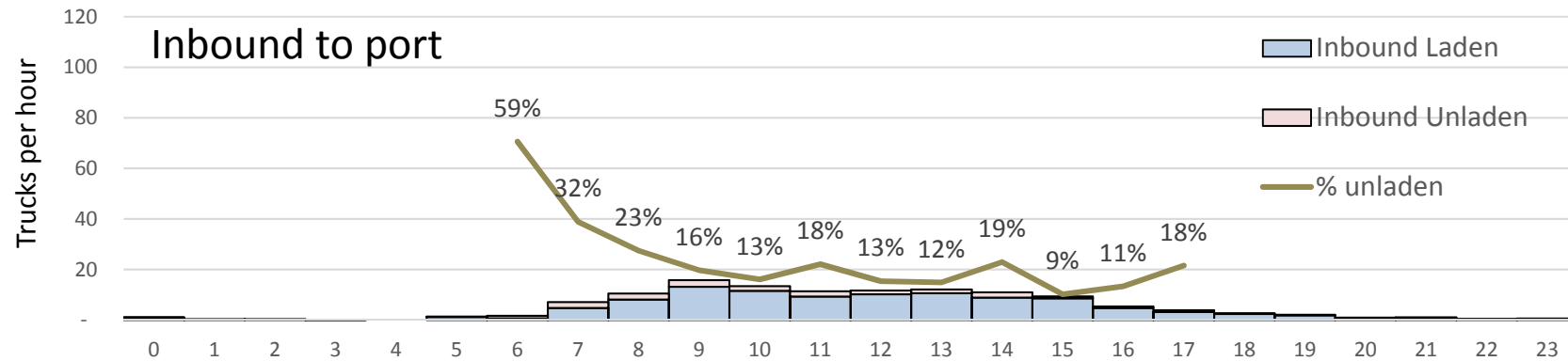


Over 24 hours, 25% of all container trucks on Tydeman Road are unladen (30% inbound and 21% outbound)

This equates to 530 trucks every 24hr weekday

Port Beach Road – weekday empty running

(24 hour average weekday)

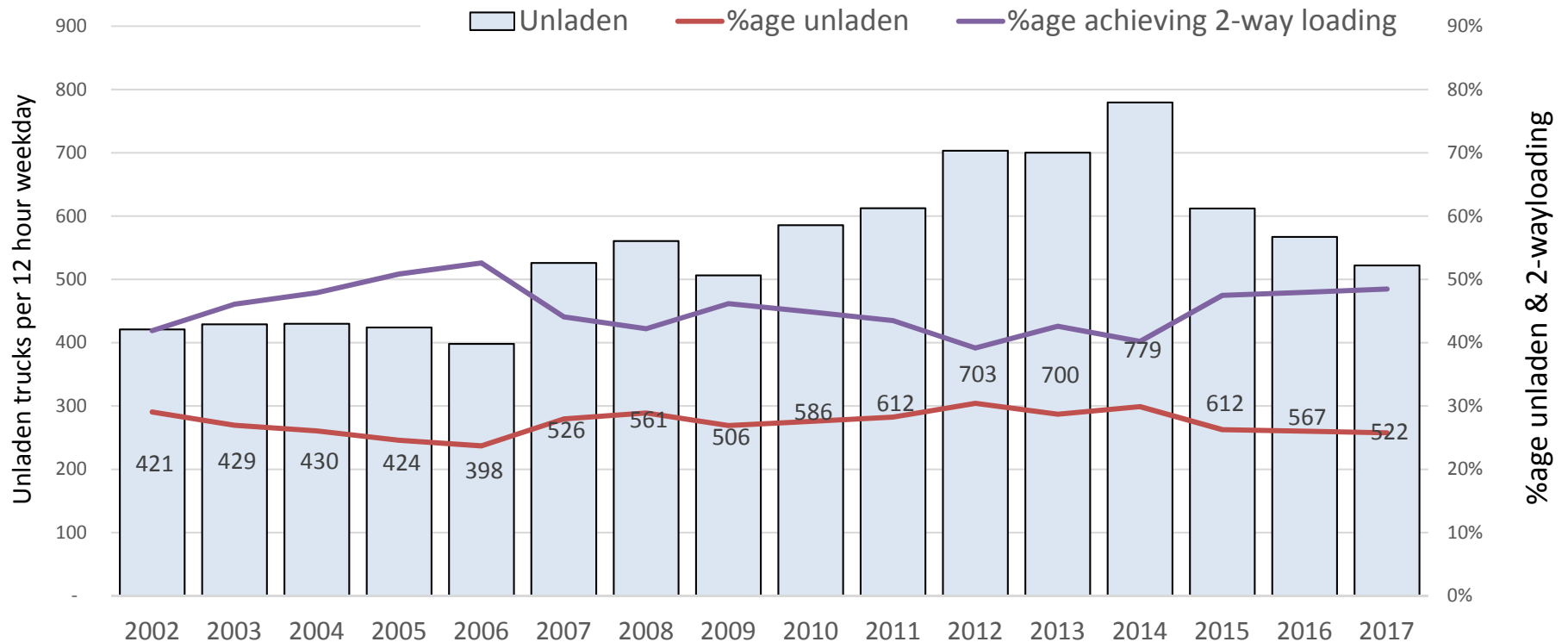


Over 24 hours, 14% of all container trucks on Port Beach Road are unladen (17% inbound and 12% outbound)

This equates to 34 trucks every 24hr weekday

Weekday unladen trucks and 2 way loading over time

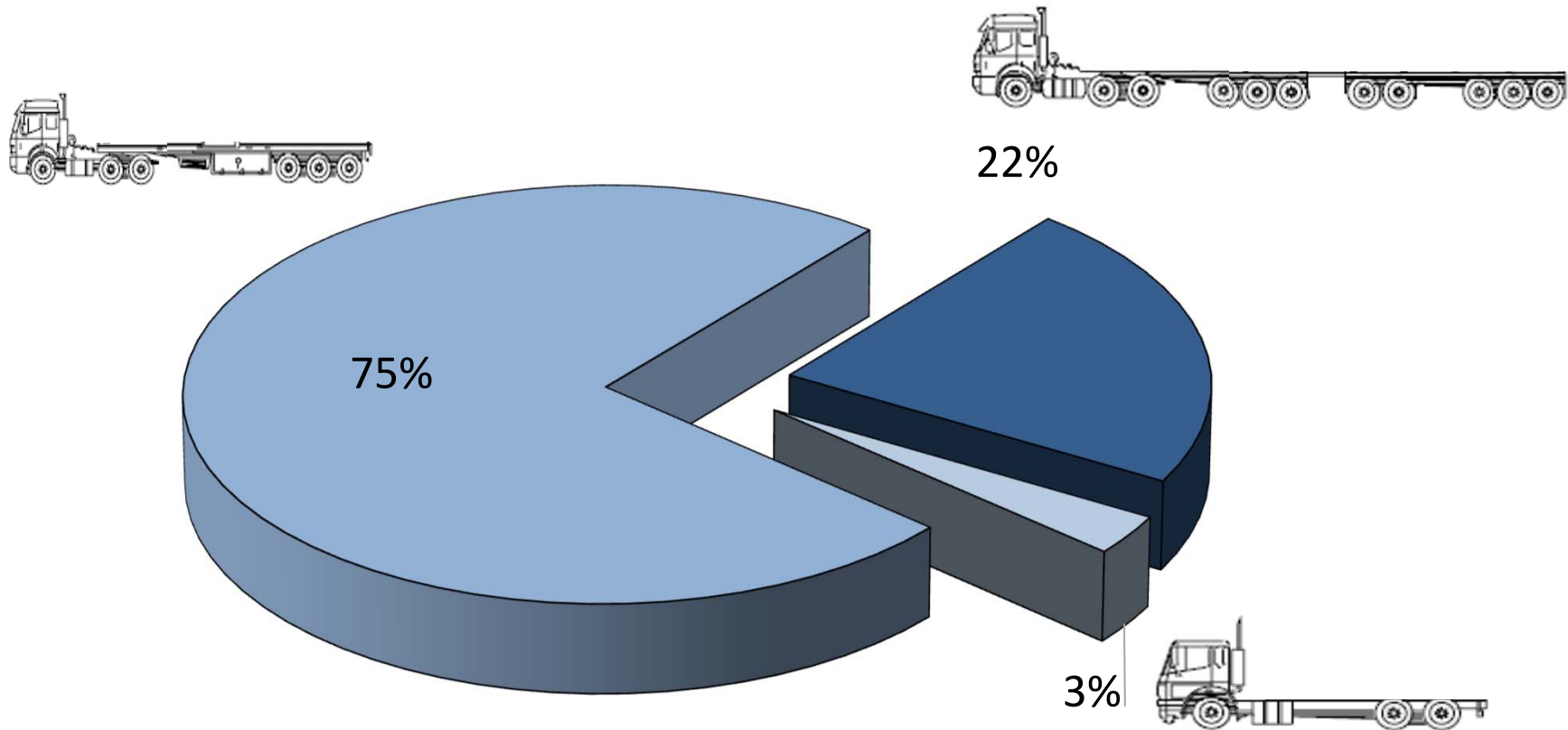
(over 12 hours, 6am to 6pm)



In 2017, 26% of all truck observed between 6am and 6pm were travelling unladen

This means that 48% of trucks were loaded in both directions

What type of truck is servicing the trade?

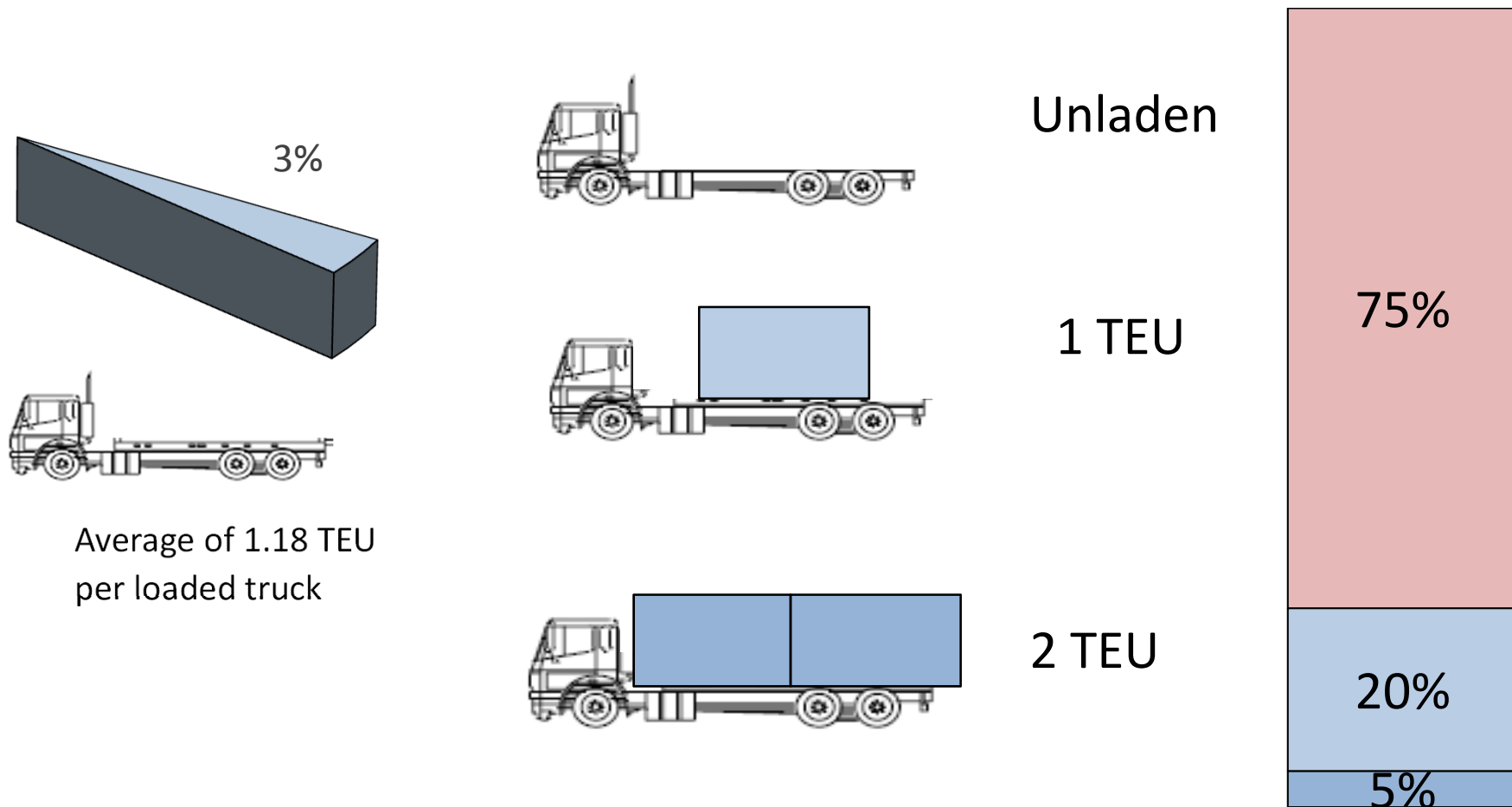


The truck fleet continues to be dominated by 6-axle semi-trailers, but large, combination trucks are common

Small vehicles (3% of all container trucks)



Small vehicles (3% of all container trucks)

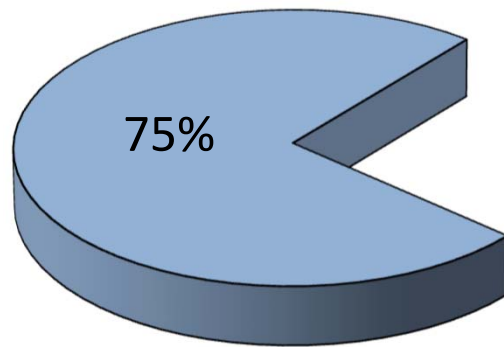


Small trucks carry less than 1% of all TEU

Medium vehicles (75% of all container trucks)

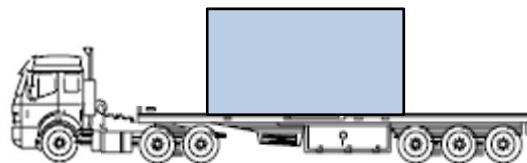


Medium vehicles (75% of all container trucks)



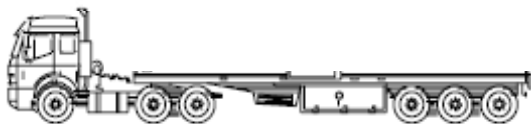
Unladen

23%

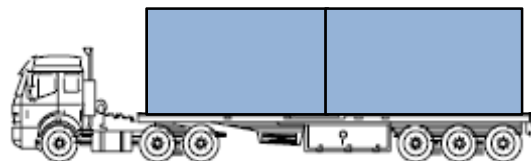


1 TEU

20%

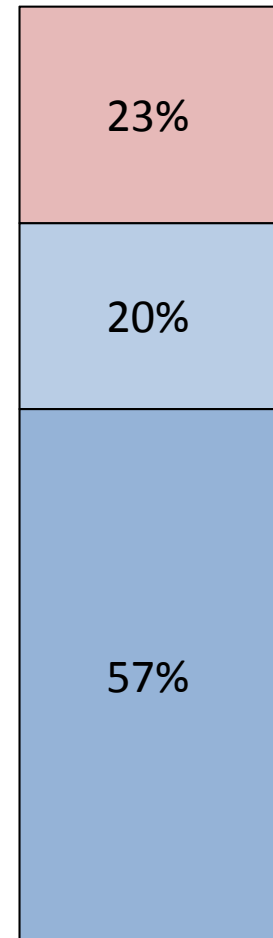


Average of 1.75 TEU per loaded truck



2 TEU

57%

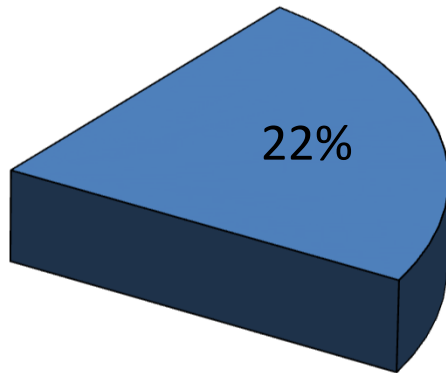


Medium trucks carry 70% of all TEU

Large combination trucks (22% of all container trucks)

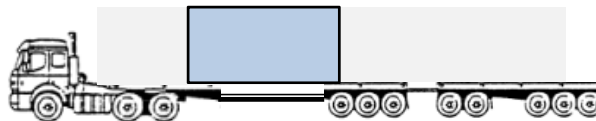


Large combination vehicles (22% of all container trucks)



Unladen

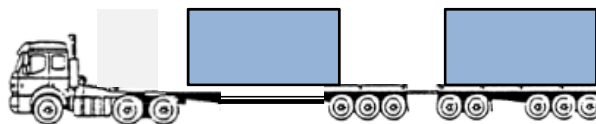
22%



1 TEU

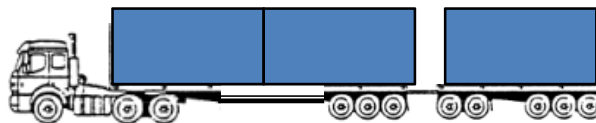
3%

43%



2 TEU

Average of 2.44 TEU
per loaded truck

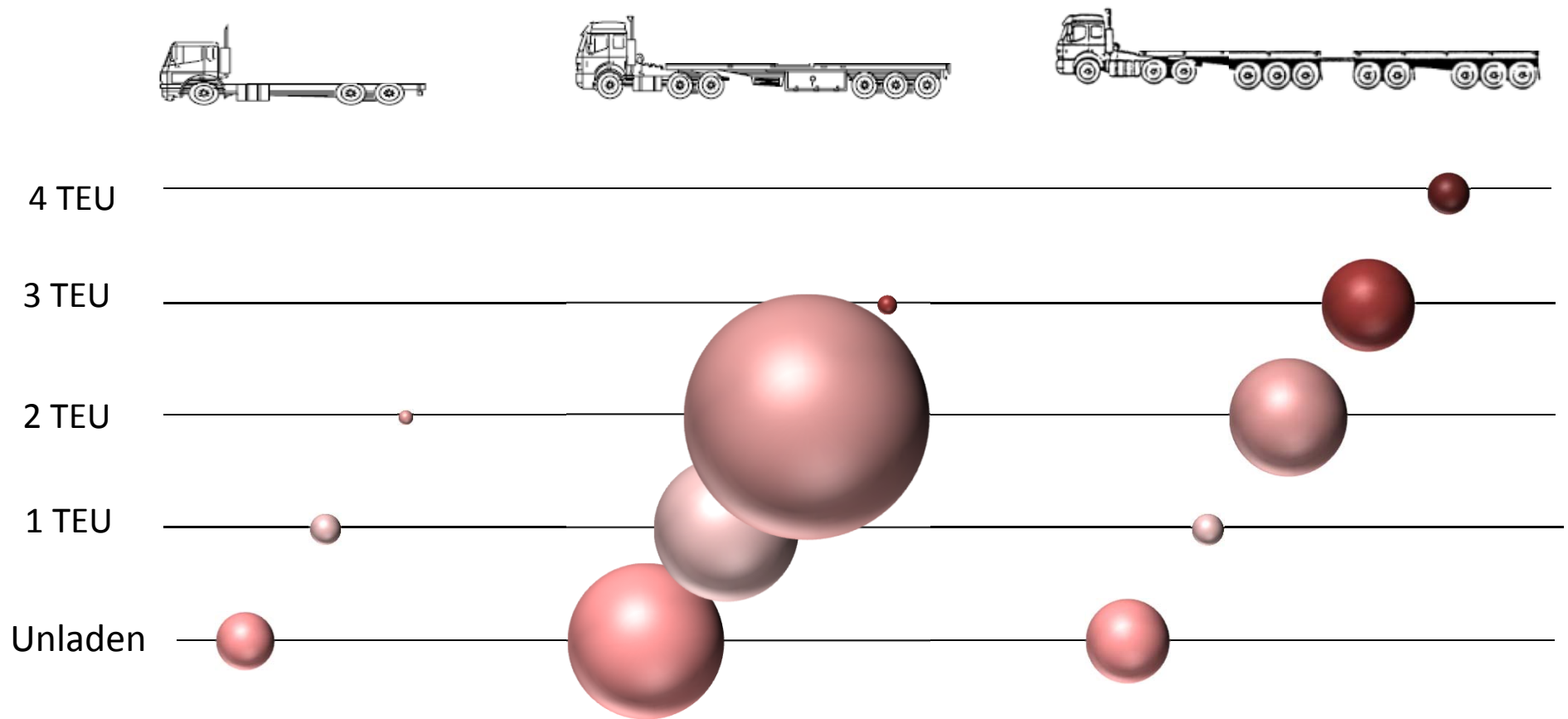


3+ TEU

32%

Large trucks carry 30% of all TEU

Overall truck fleet and TEU loading



Trucks with lifting capacity

36% of all container trucks serving the port
have container lifting capacity
(33% on Tydeman Road and 63% on Port
Beach Road)



What type of truck has lifting capacity?

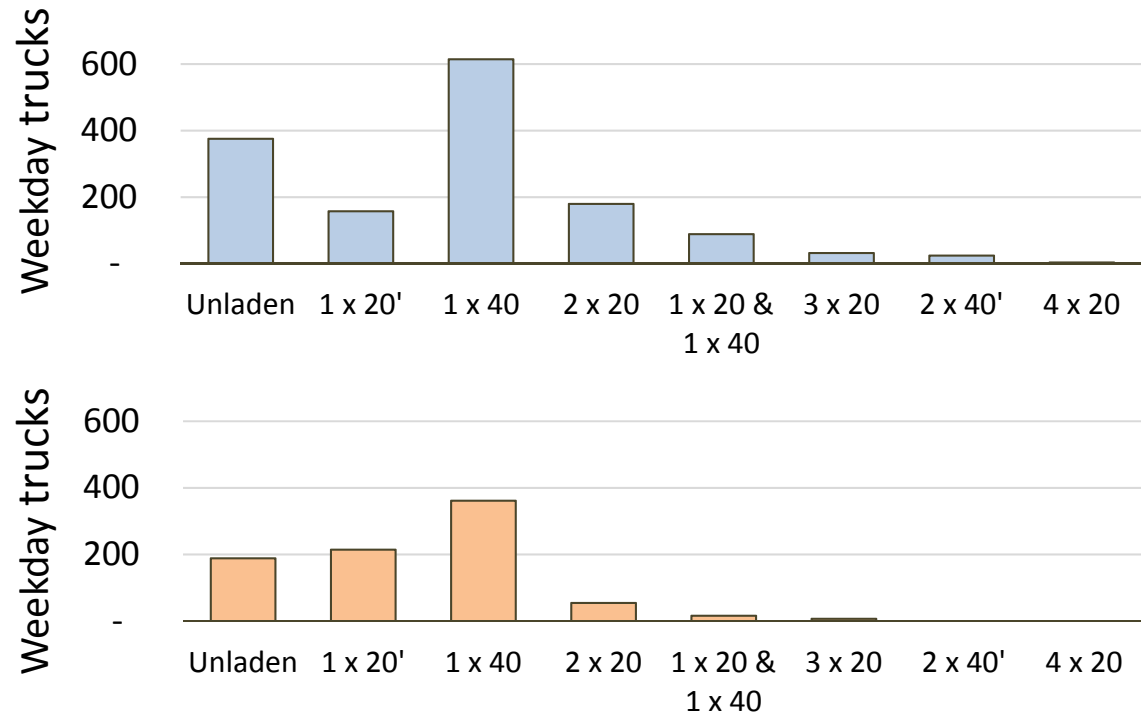
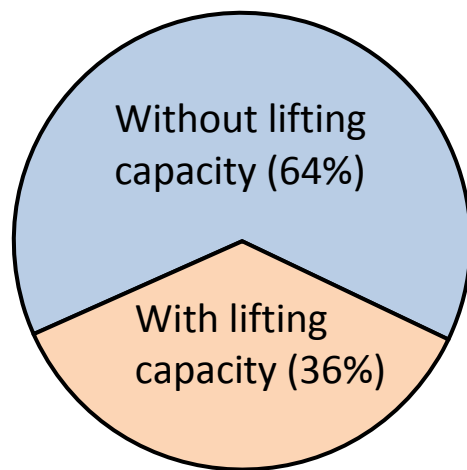


92% are
6-axle semi
trailers



8% form
part of large
combination
vehicles

Container combinations on trucks with and without lifting capacity



88% of loaded trucks with lifting capacity carry a single container (70% for other trucks)

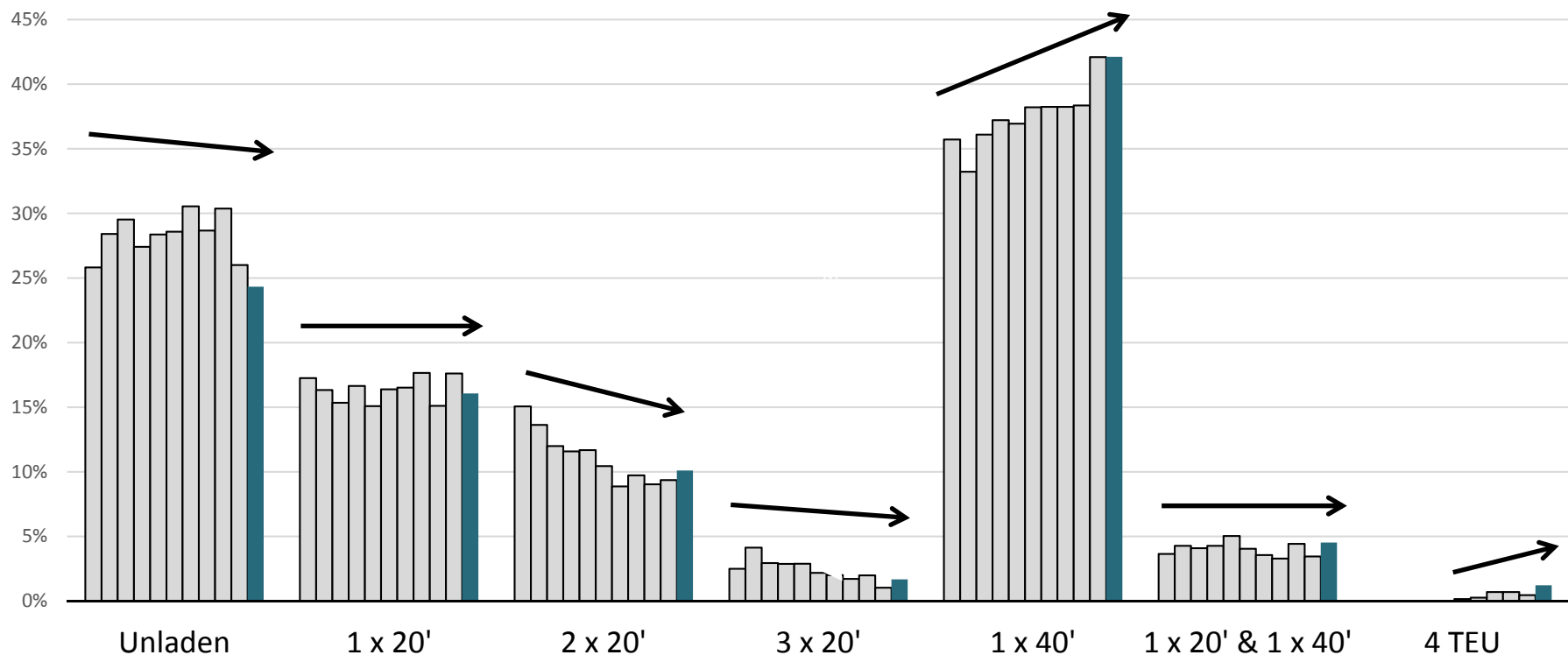
12% of loaded trucks with lifting capacity carry two or more containers (30% for other trucks)

Historic container size and truck loading

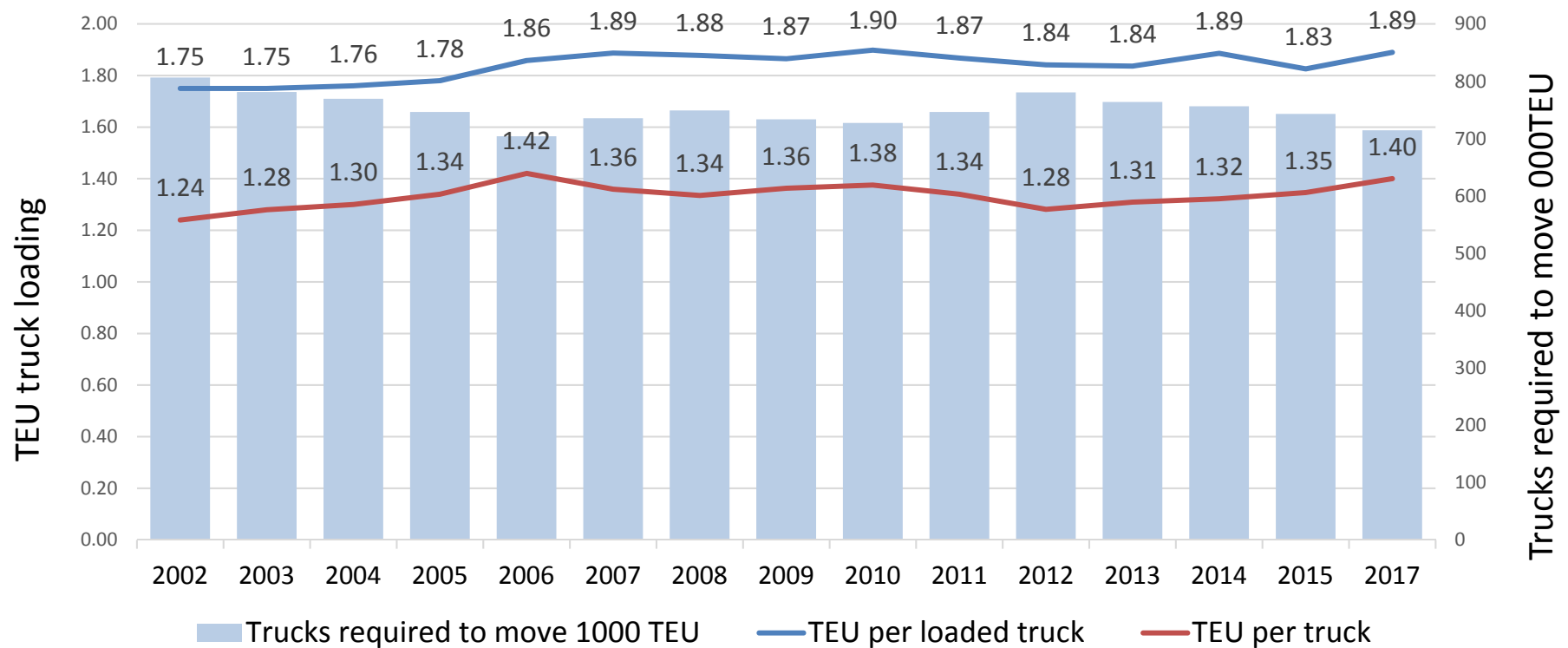
(over surveyed period)

In 2006, 40' containers comprised 57% of all observed TEU and 40% of all containers

In 2017, 40' containers comprised 68% of all observed TEU and 51% of all containers



How has truck loading been changing? (Over 12hrs)



Overall productivity has improved steadily over the past 5 years

Observations

Good news:

- Increased overall productivity
- Lower empty running
- Fewer small trucks serving the port

Challenging questions:

- How can we reduce unladen truck numbers?
- How can we spread the task more across evenings and weekends?