



STB UPDATE

NOVEMBER 7, 2017



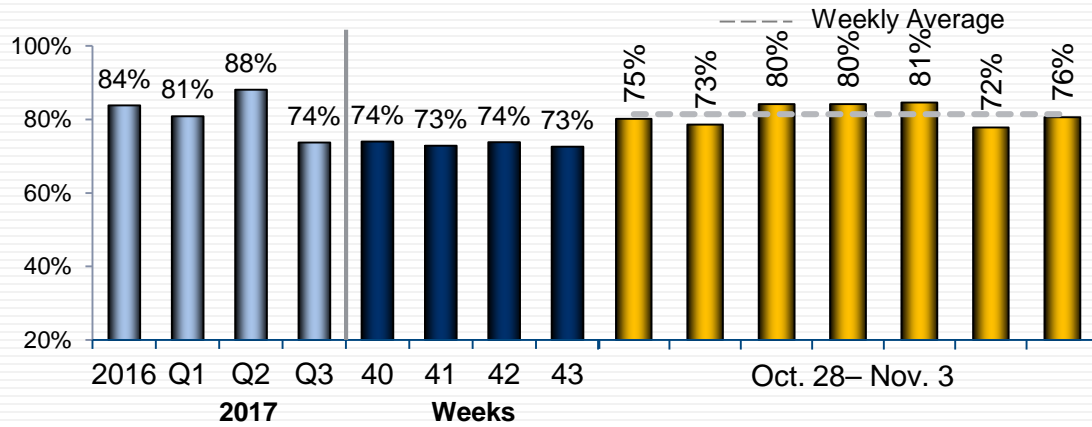
# Network performance levels consistent

- Dwell and velocity performance steady
- Right Car Right Train stable
- Crew and power resource levels remain well matched to demand
- Hump yard performance steady, four humps remaining
- Western terminals performing well
- Empty car fulfillment above 80%<sup>1</sup>
- Local pull and place performance moving higher
- Customer problem logs remain near lowest level in measurement period and in normal range
- Interchange volumes current and gateways fluid

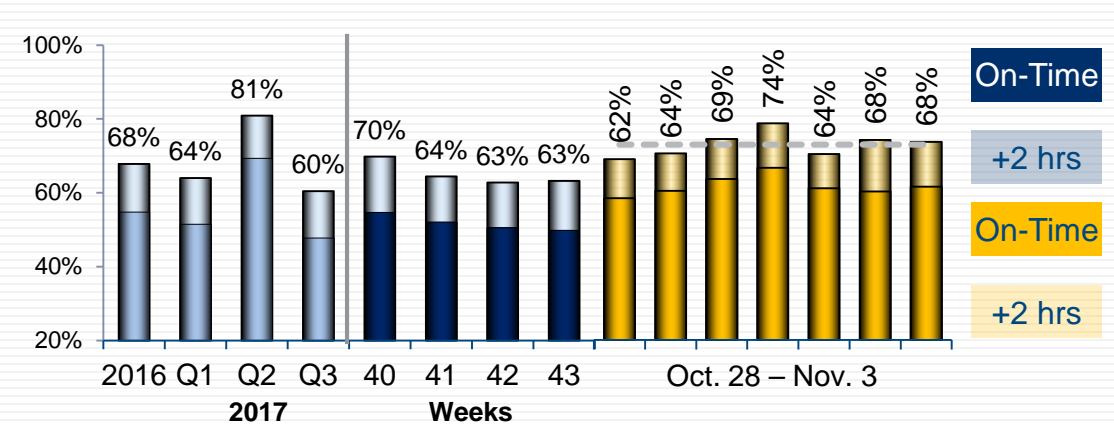


# Dwell and velocity performance steady

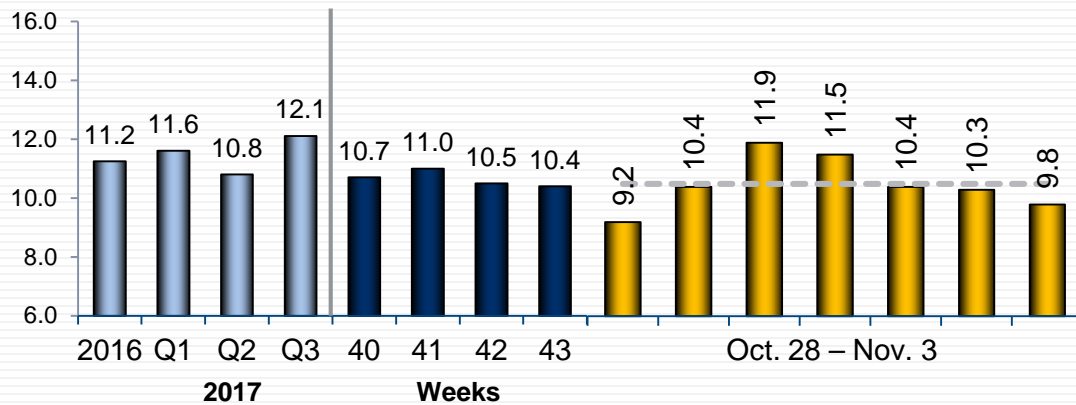
## On Time Originations (%)



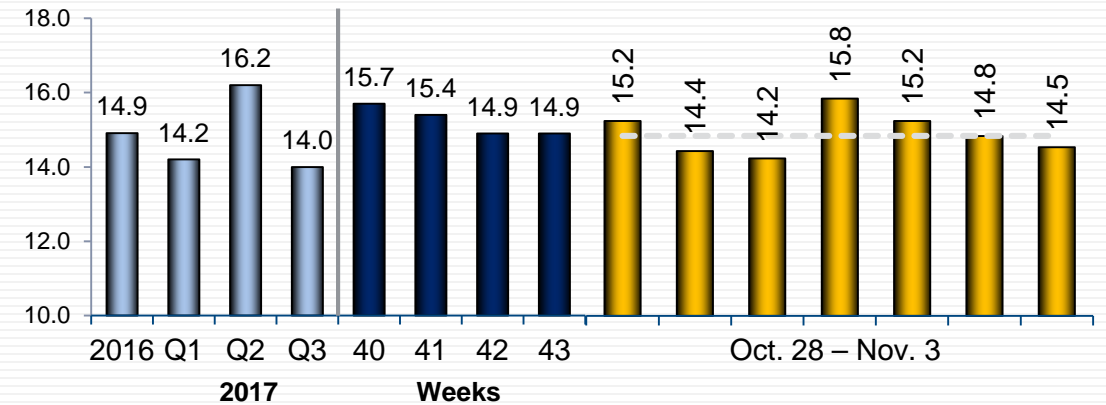
## On Time Arrivals (%)



## Dwell (hours)

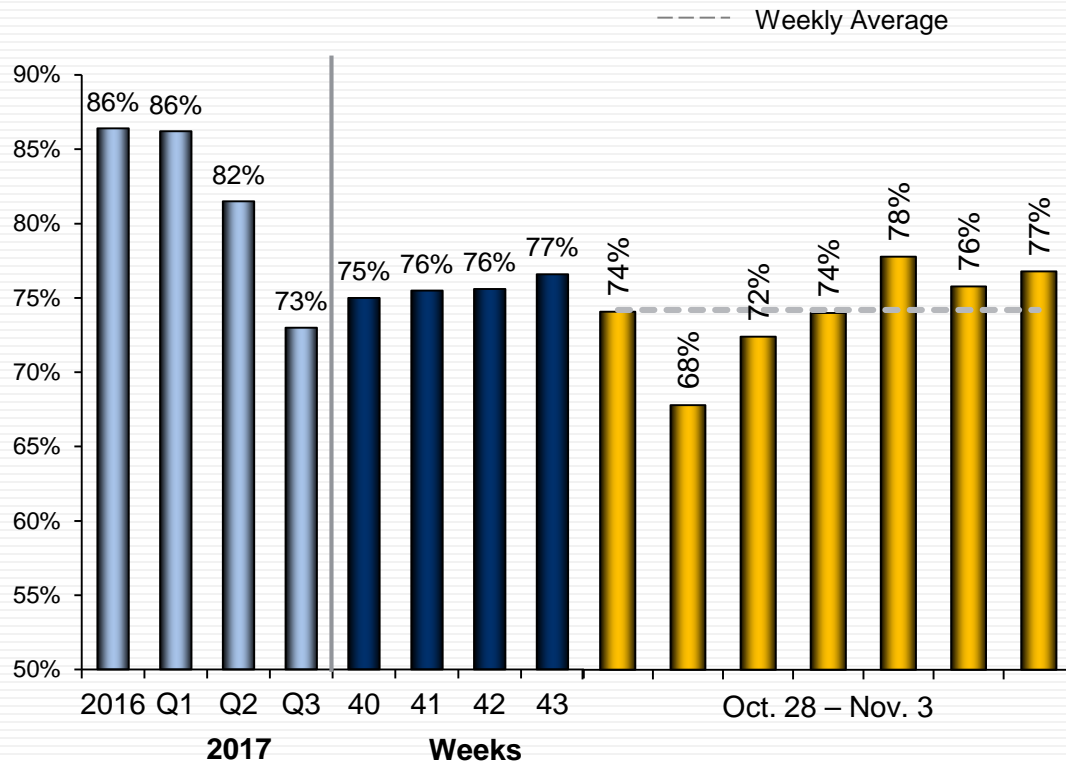


## Velocity (mph)



# Right Car Right Train down slightly; less relevant in PSR

## Right Car Right Train<sup>1</sup>



- Right Car Right Train is no longer a measure that CSX uses to manage its operation
  - In precision scheduled railroading (PSR), if a car can be advanced on another train to speed transit or ensure its on-time arrival, there is not one “right train”
- Car priority is to move cars quickly, on next available train
  - Asset utilization a key tenet of PSR
- Train priority is blocking integrity and departing all available, relevant cars from the yard
  - Blocking integrity certifies that a train is built correctly and shipments are headed to the correct location
  - Managed through field supervision

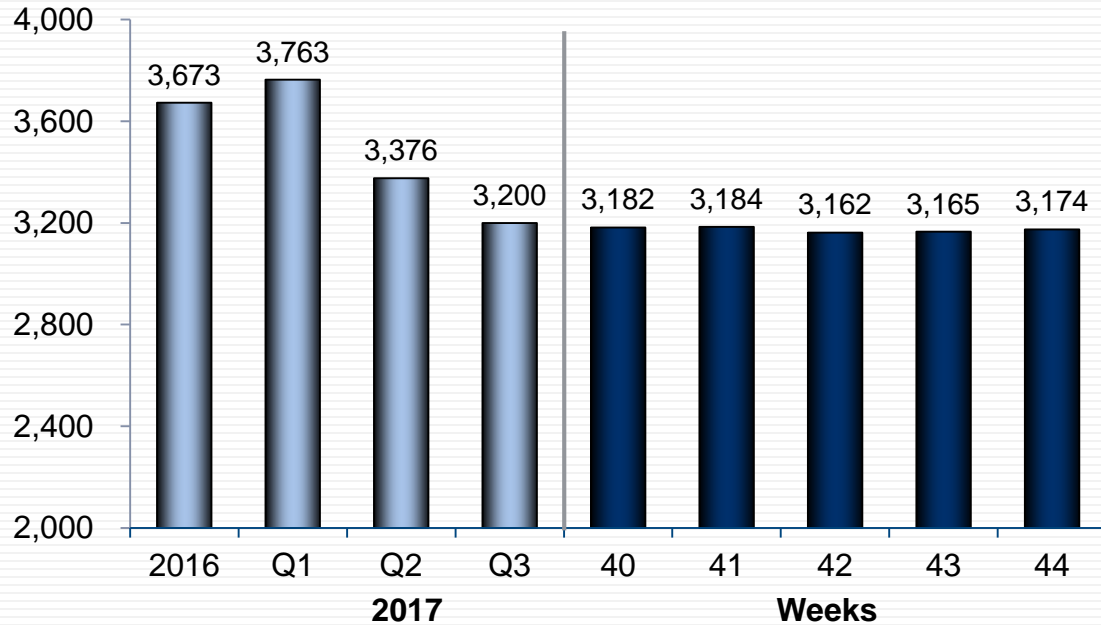
<sup>1</sup> 'Right Car Right Train' is defined as the percentage of cars that departed from a yard in accordance with their car scheduling trip plan



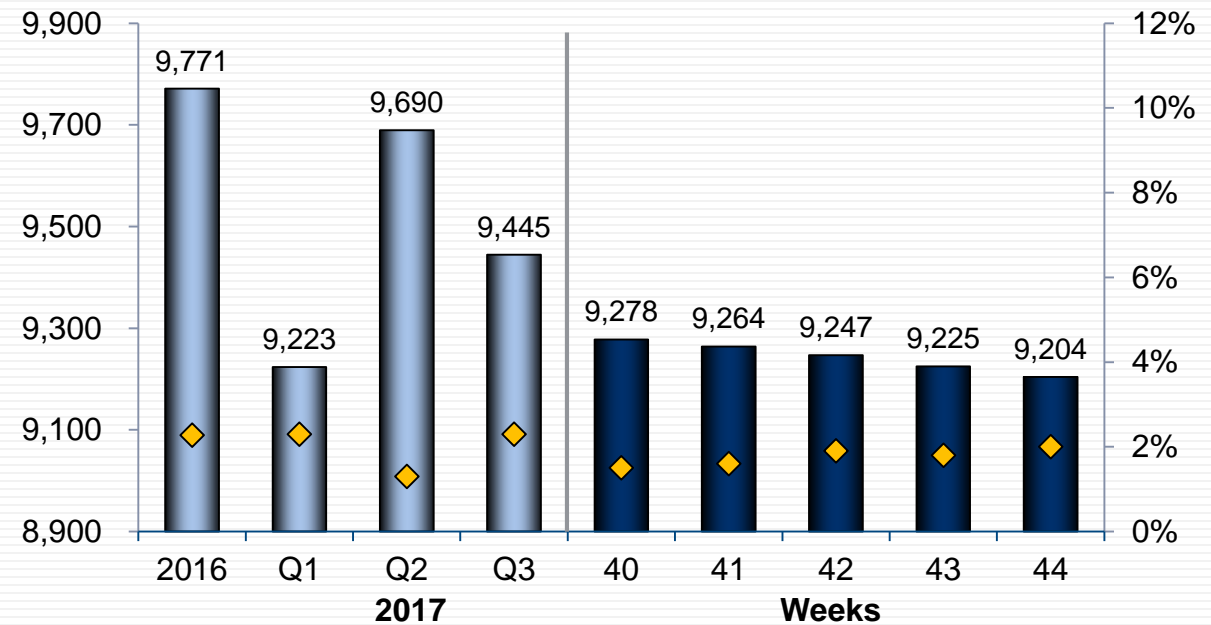


# Resourcing appropriately to meet business needs

Active Locomotives



Train & Engine Headcount and Re-crew Rate<sup>1</sup>



- Locomotive level stable; engines in place to support grain harvest season

- Re-crew rates remain at historic lows and stable

Power and crew availability steady in fourth quarter at approximately 99% and 95%, respectively

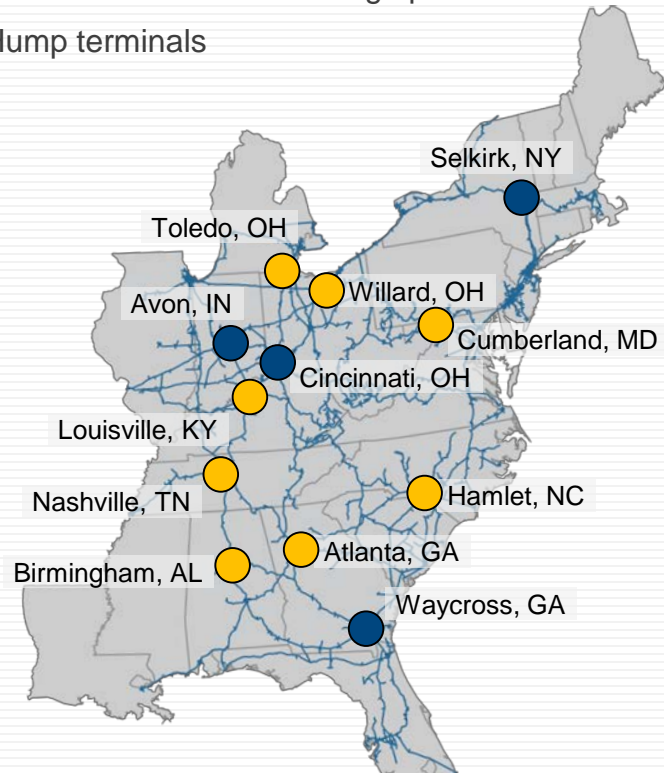
<sup>1</sup> Re-crew rate is re-crew people starts as a percent of total measured people starts, and represents incidences of replacing a crew on the same train ID (generally due to hours of service)



# Hump yard performance steady

## CSX Hump Terminal Overview

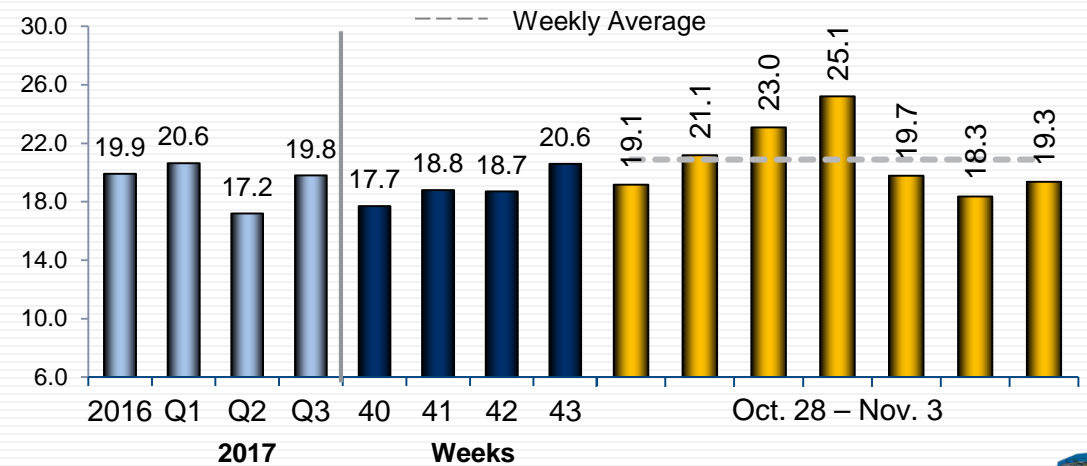
- Transitioned to flat-switching operations
- Hump terminals



*Absolute number of humps not “good” or “bad”; goal is best mix of hump and flat yards for processing efficiency*

- Total hump yard volumes remain in a consistent band week-over-week, well below capacity of yards
- Key hump productivity and efficiency measures performing well, four humps remaining

## Dwell at Hump Terminals<sup>1</sup>

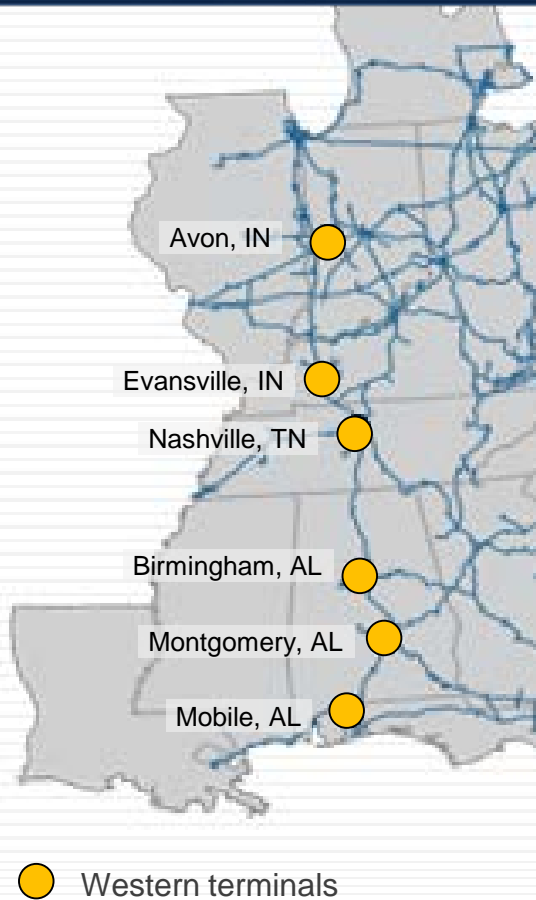


<sup>1</sup> Dwell displayed according to CSX methodology; explanation of CSX methodology can be found in appendix. Q3 dwell excludes the Hurricane Irma-impacted period for terminals that held cars through the storm.



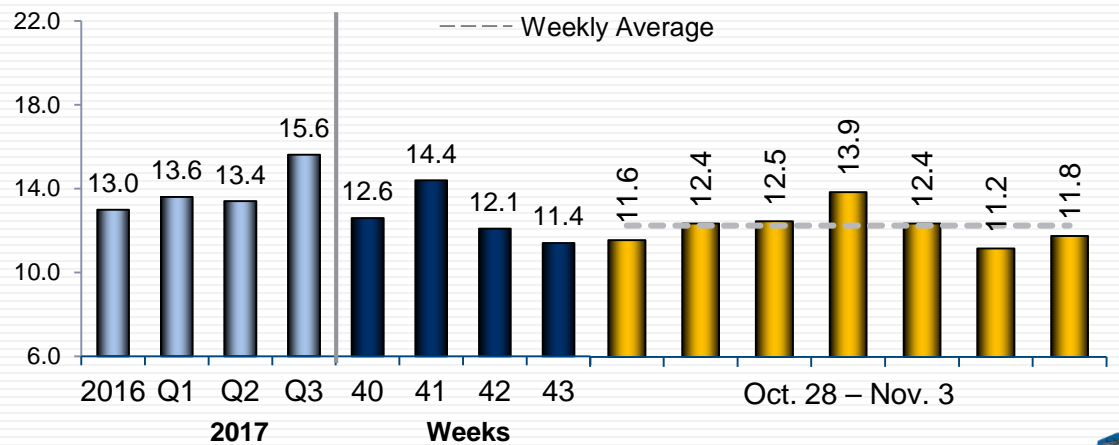
# Western terminals performing well

## Western Corridor Key Terminals



- Key terminal productivity and performance measures recovered in former “trouble” spots
  - Dwell remains well below 2016 levels
- Train plan adjustments have recovered service
  - Leveraged Avon as offset of increased volume flow through Russell, Columbus and Louisville

## Dwell at Western Terminals<sup>1</sup>

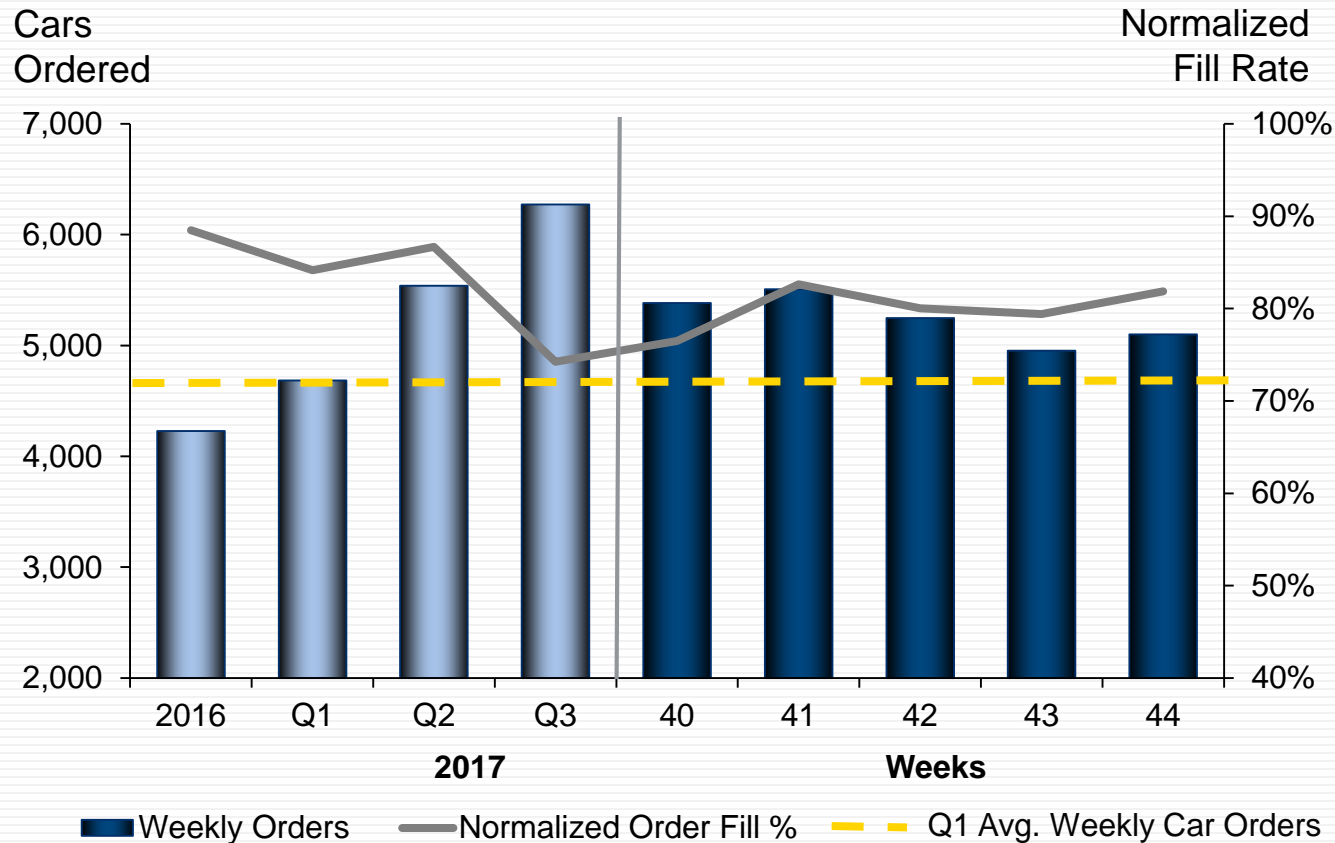


<sup>1</sup> Dwell displayed according to CSX methodology; explanation of CSX methodology can be found in appendix. Q3 dwell excludes the Hurricane Irma-impacted period for terminals that held cars through the storm.



# Car order fulfillment above 80%

## Weekly Car Orders and Normalized Fill Rate<sup>1</sup>



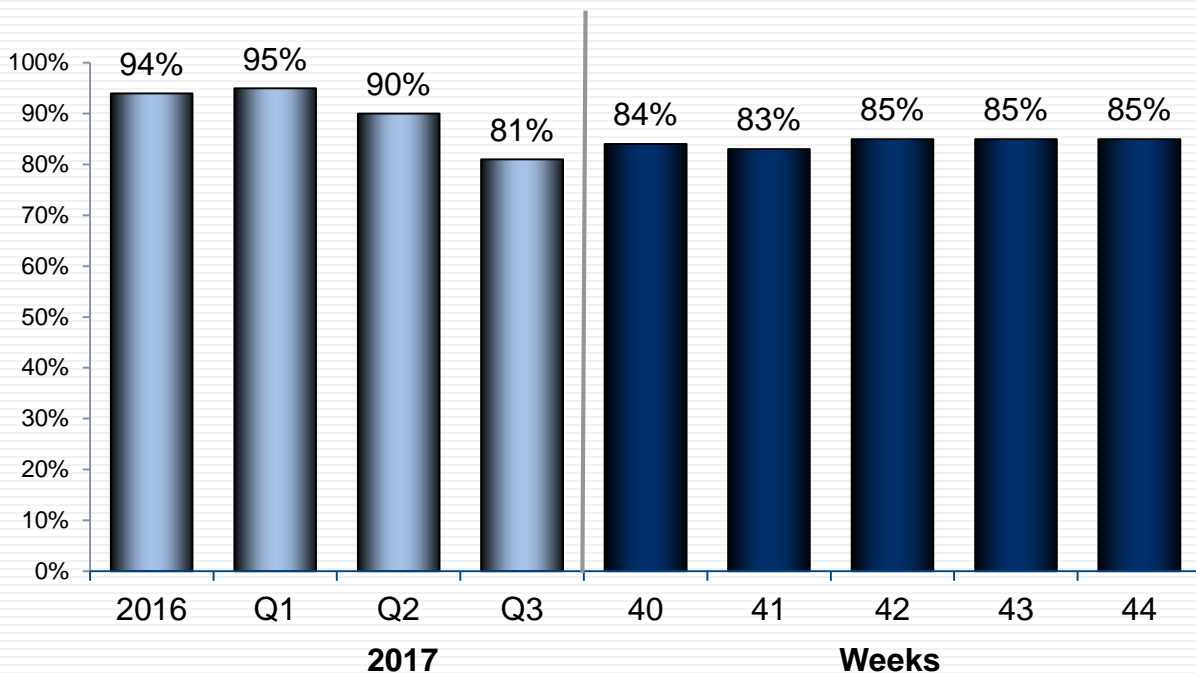
- Empty car dwell remains elevated at customer locations
  - Indicates improved car supply and availability
  - Customers maintaining increased buffer stock, which elongates total asset turn times and reduces asset pool available to fill other customers' requests
- Improvements to car ordering process being introduced
  - Intended to improve accountability in ordering and fulfillment to better capture demand in a timely manner
  - Active communication underway and to continue over coming weeks to ensure customer understanding/alignment





# Last mile performance moving higher

Local Service Measurement<sup>1</sup>

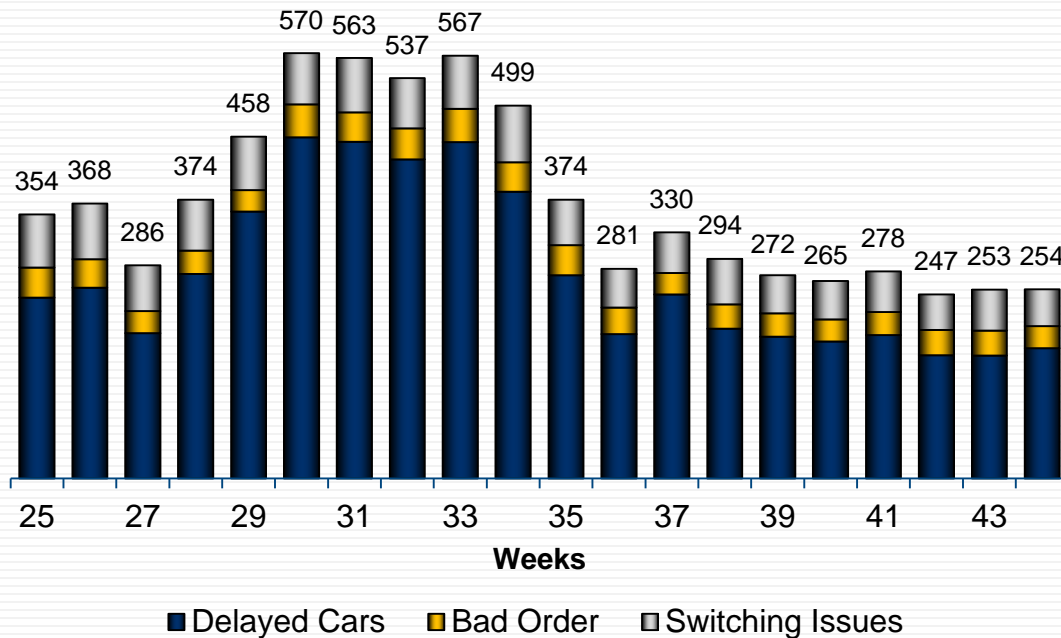


- Local Service Measurement (LSM) is no longer a metric that CSX uses to manage its operation
  - In precision scheduled railroading (PSR), focus on end-to-end transit and customer expectations
  - Last mile performance must be in combination with, not independent of, overall performance
- Accordingly, LSM as a reported metric was discontinued upon start of PSR implementation
  - At request of STB, last mile tracking reinstated to monitor through implementation period
  - Data reflects passive information flow, lacking prior focus on field reporting to ensure LSM capture
- Reliable pull and place expected as part of service to customers



# Customer problem logs stable at lower levels

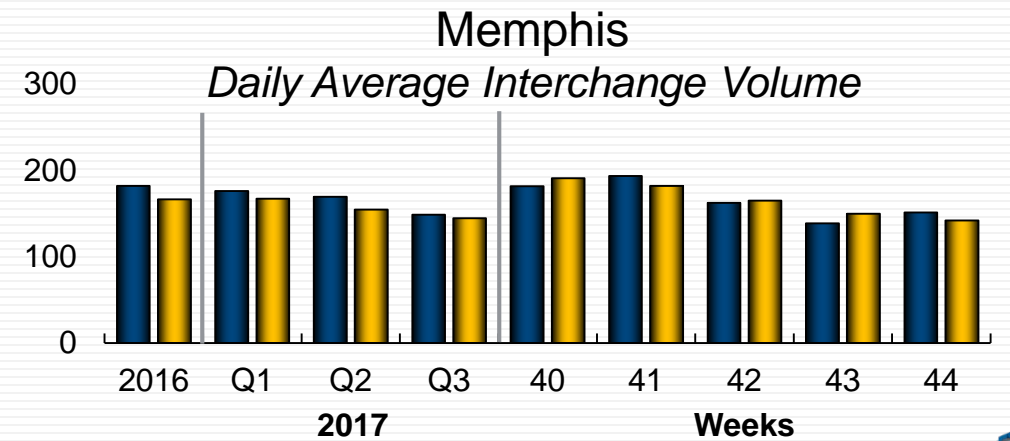
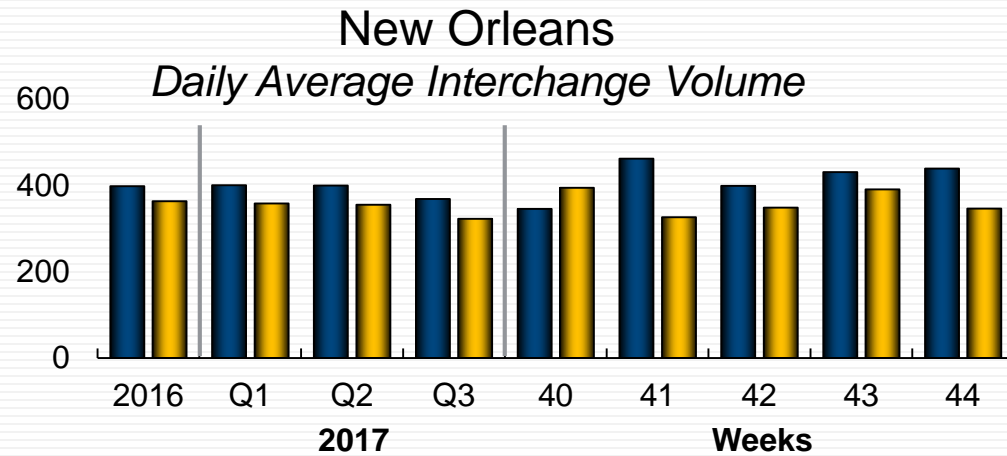
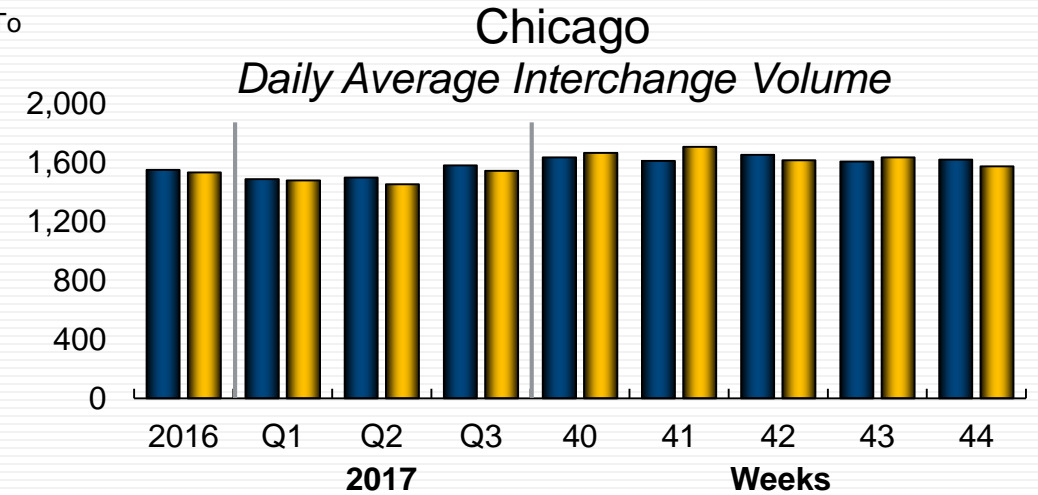
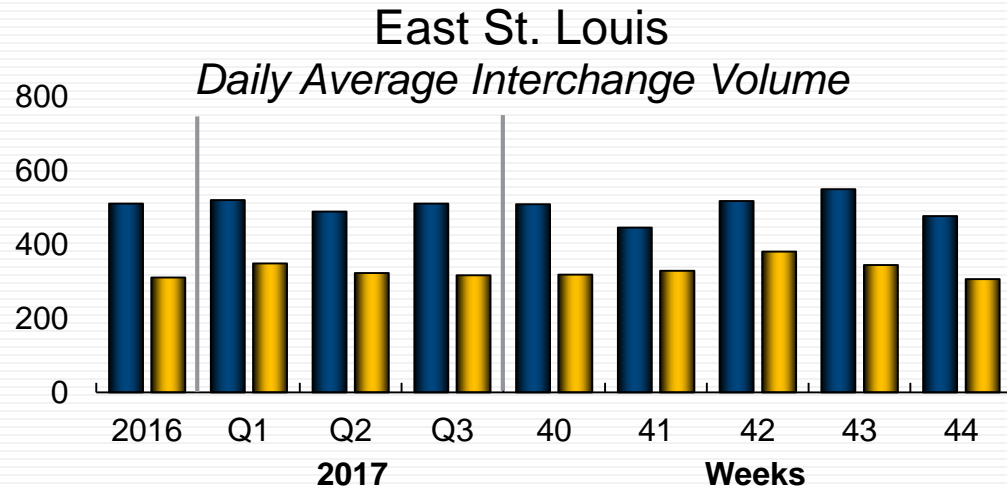
Customer Inquiries  
Daily Average Log Volume



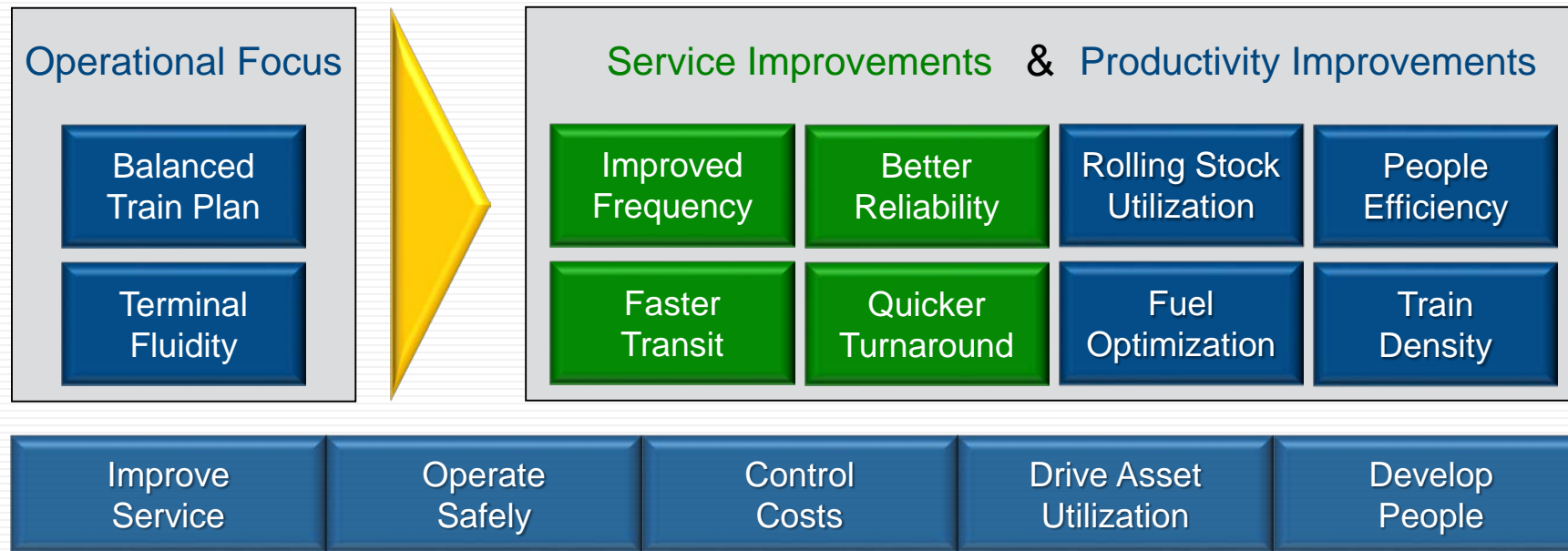
- Delayed cars have returned to normal levels (<1% of traffic)
  - Trend in problem logs mirrors timeframe of network challenges and recovery, followed by Hurricane Irma
  - Lower levels of long-dwelling cars reflects overall fluidity improvements
- Lower level of logs, improved communication allowing faster, more comprehensive resolution
  - Managing pipeline of customer concerns to full resolution



# Interchanges current and performing to expectations



# Precision scheduled railroading producing service improvement



- Realigned service frequency in second quarter
- Set the groundwork of a balanced train plan in early July
- Terminals' improved efficiency and traffic flow adjustments have recovered service
- Improved execution on this foundation to drive long-term service and productivity improvements



# APPENDIX

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HOW TOMORROW MOVES





# CSX has changed methodology on some metrics reported publicly

## Velocity

Former	Line of road miles per hour
Current	Total miles traveled per hour, including intermediate dwell of the train
Change Reason	Includes full trip of a train and ability to diagnose overall speed profile (in support of improvement in asset cycle)
Effect on Metric	Reported velocity will be lower

## Dwell

Former	Car time at terminal, excluding cars on the same train ID
Current	All car time with a terminal work event, including through cars on same train ID (e.g. crew change)
Change Reason	Includes all dwell with ability to diagnose all events impacting car movement (in support of improvement in asset cycle)
Effect on Metric	Reported dwell will be lower

## Cars Online

Former	All cars on CSX, as determined by RailInc
Current	RailInc cars on CSX, excluding cars stored, under repair, sold, and private cars ex online inventory
Change Reason	More accurate measurement of active cars on line, i.e. cars for which CSX is focused on real-time, efficient movement
Effect on Metric	Reported cars online will be lower

Restated historical data in new methodology available on [csx.com/service/metrics](https://www.csx.com/service/metrics)

