RFID JOURNAL DIGITAL SUMMIT

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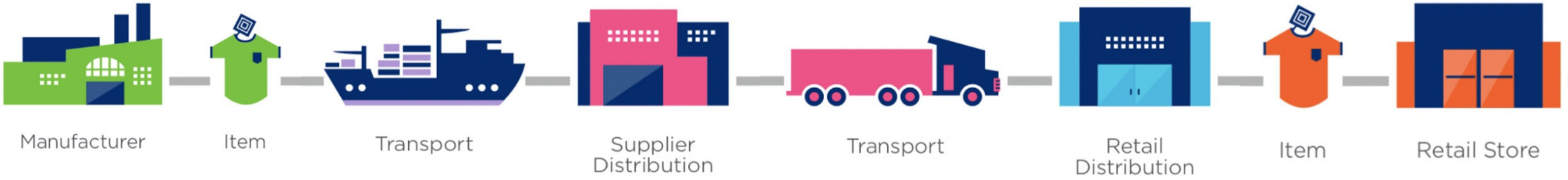
Supply Chain Data Quality

Justin Patton

Auburn University RFID Lab

The Big Idea

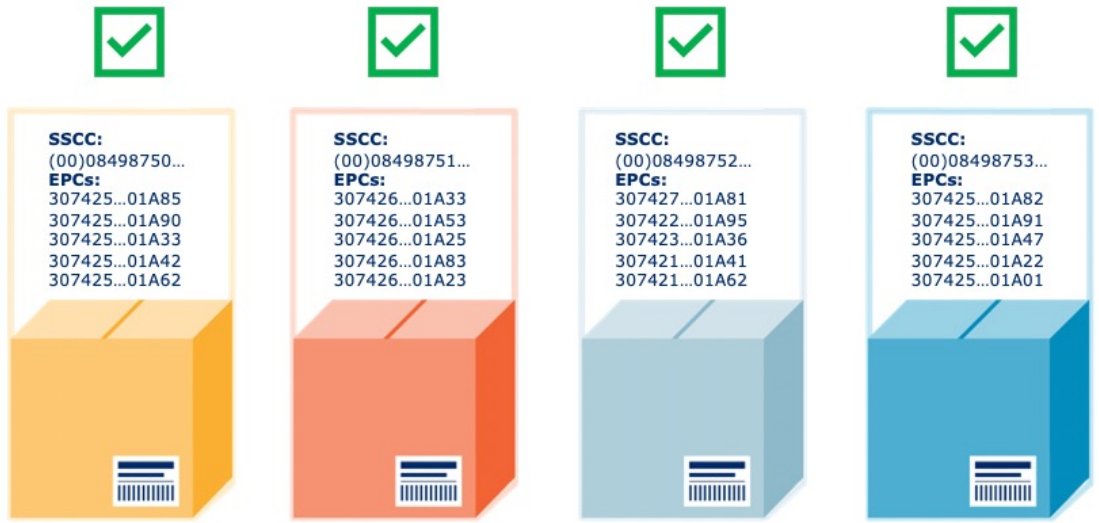
We should be able to reliably track serialized products through the supply chain.



This requires effective *serialization*, *data capture*, *standardization*, and *communication*.

Supply Chain Data Quality

What are the results of effective serialization, data capture, standardization, and communication?



- Claims Reduction
- On-Hand Accuracy
- Lower Labor Costs
- $$ Saved

Supply Chain Data Quality

How do we know we can rely on the data we are capturing?

FMEA Model

(Failure Mode Effects Analysis)

Scenario	Failure Modes	Claims (Incurred)	Occurrence (Actual)	Severity	Detection (RFID - Y/N)	Detection (Manual Audit)
EPC Count Match (E=X)	Extra untagged item present			-		-
	Tag present without item			-		-
SKU Long (E>X)	Item over picked			-		-
	Multiple tags on one item			-		-
	Extra tag in carton			-		-
	Enviornmental tag read			-		-
SKU Short (E<X)	Item under Picked			-		-
	Non-performing tag			-		-
	Untagged item			-		-
	Unencoded/Misencoded item			-		-
	Duplicate serialization			-		-
Unknown Item (U>0)	Unknown item in case			-		-
	Unencoded/Misencoded item (U>0)			-		-
Combination Scenarios	Incorrect tag on SKU (SNA)			-		-
	Incorrect tag on SKU (SA)			-		-

Supply Chain Data Quality

- **How do we prioritize failure intervention and correction?**

Perform audits to gather data on:

- Severity
- Occurrence
- Difficulty of Detection
- Ease of Resolution

This assumes we can accurately collect EPC data

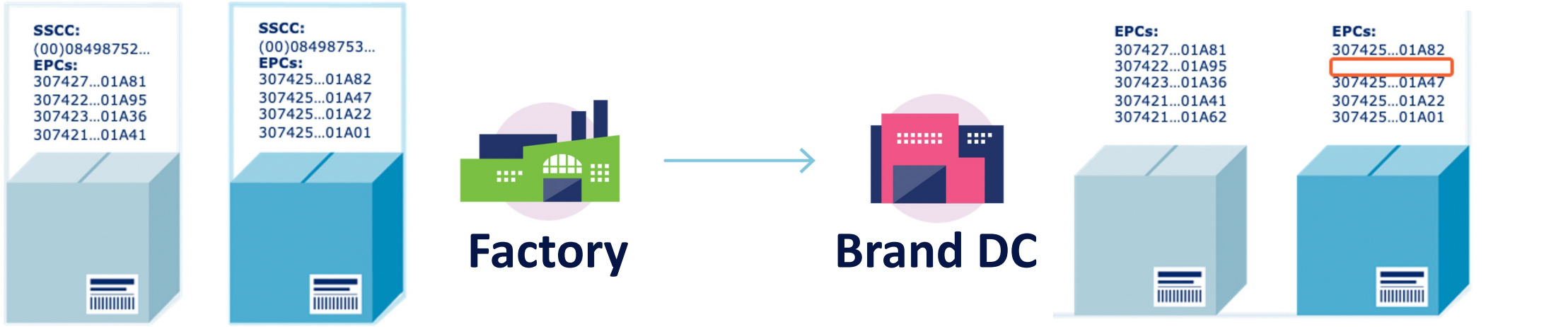
Data Collection Challenge

- How do we capture and associate EPC's to cases at speed and at scale?

- There is no one size fits all solution

Future DC Data Capture Solutions

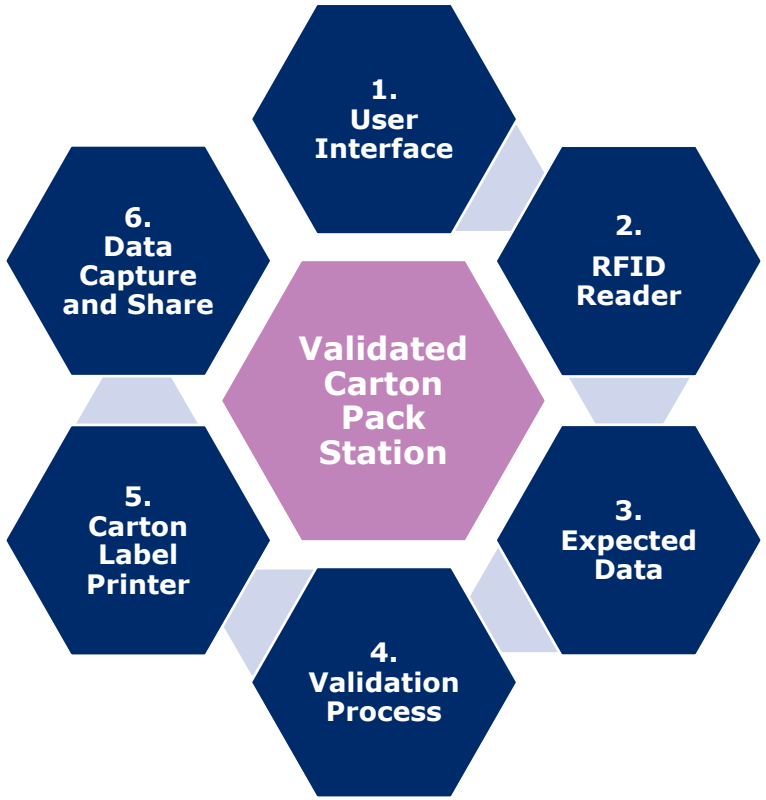
- Focus on factory scan-pack data
  - Making EPC-case associations for future reference



What we know

What we can validate

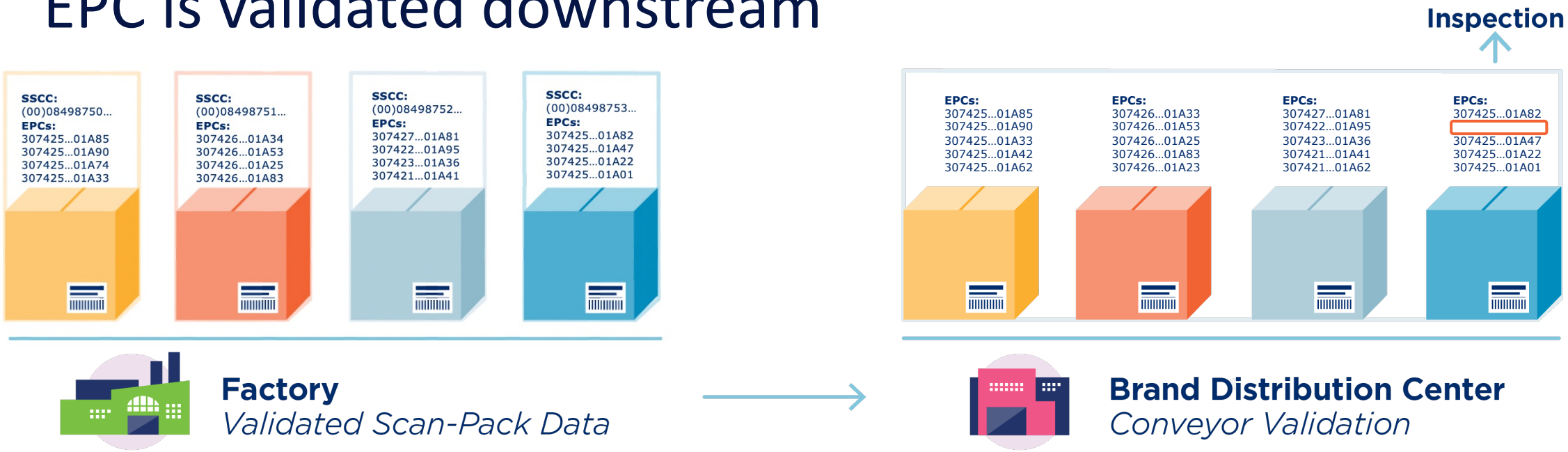
Validated Scan Pack – Factory or DC



EPC Data Repository

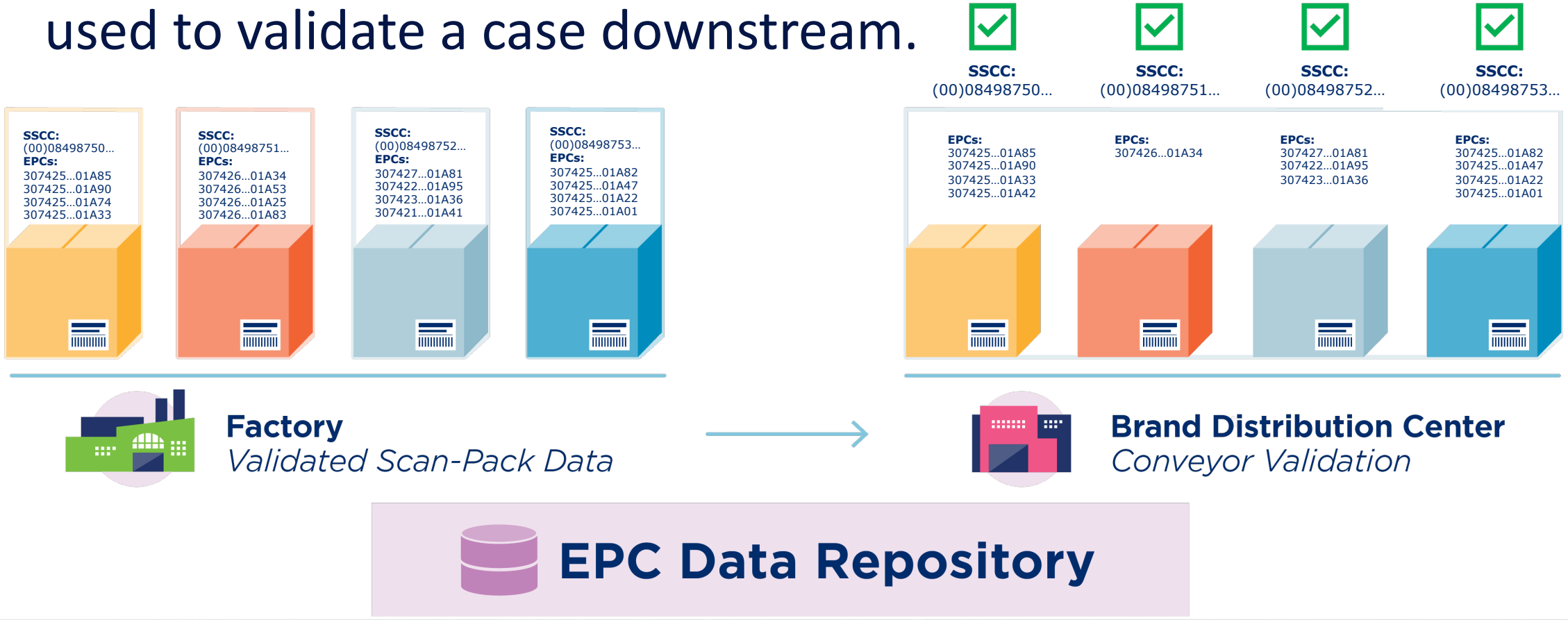
EPC-Blast Unit Validation

- EPCs are associated to cases upstream, and each EPC is validated downstream



EPC-Blast Case Validation

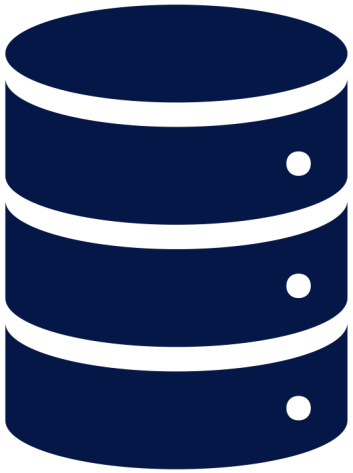
- EPCs are associated to cases upstream, and each EPC is used to validate a case downstream.



Retail Store RFID Analysis

RFID cycle-counts can be used to identify store on-hand accuracy and identify root causes.

RFID Cycle Count

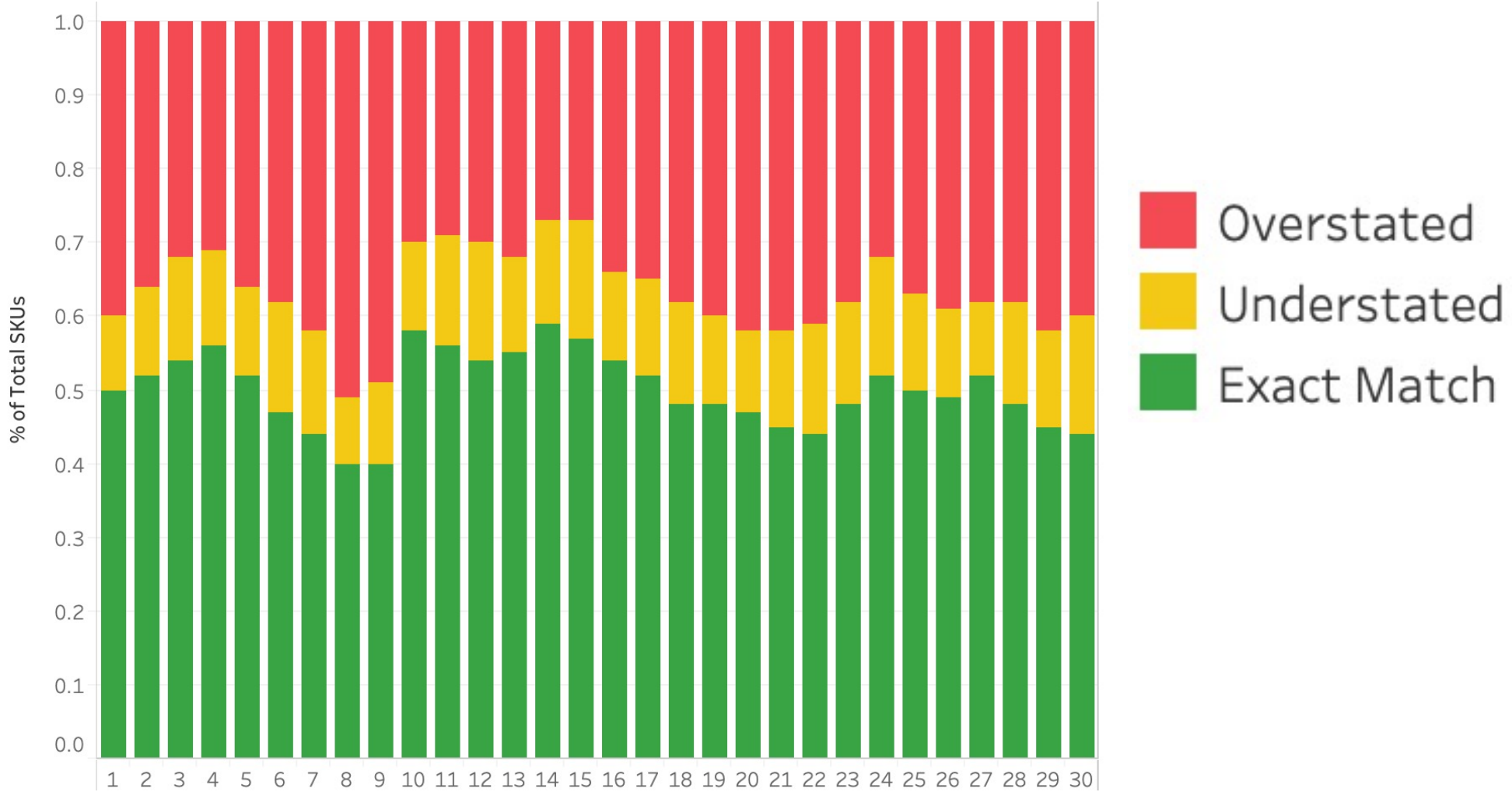


Store On-Hands

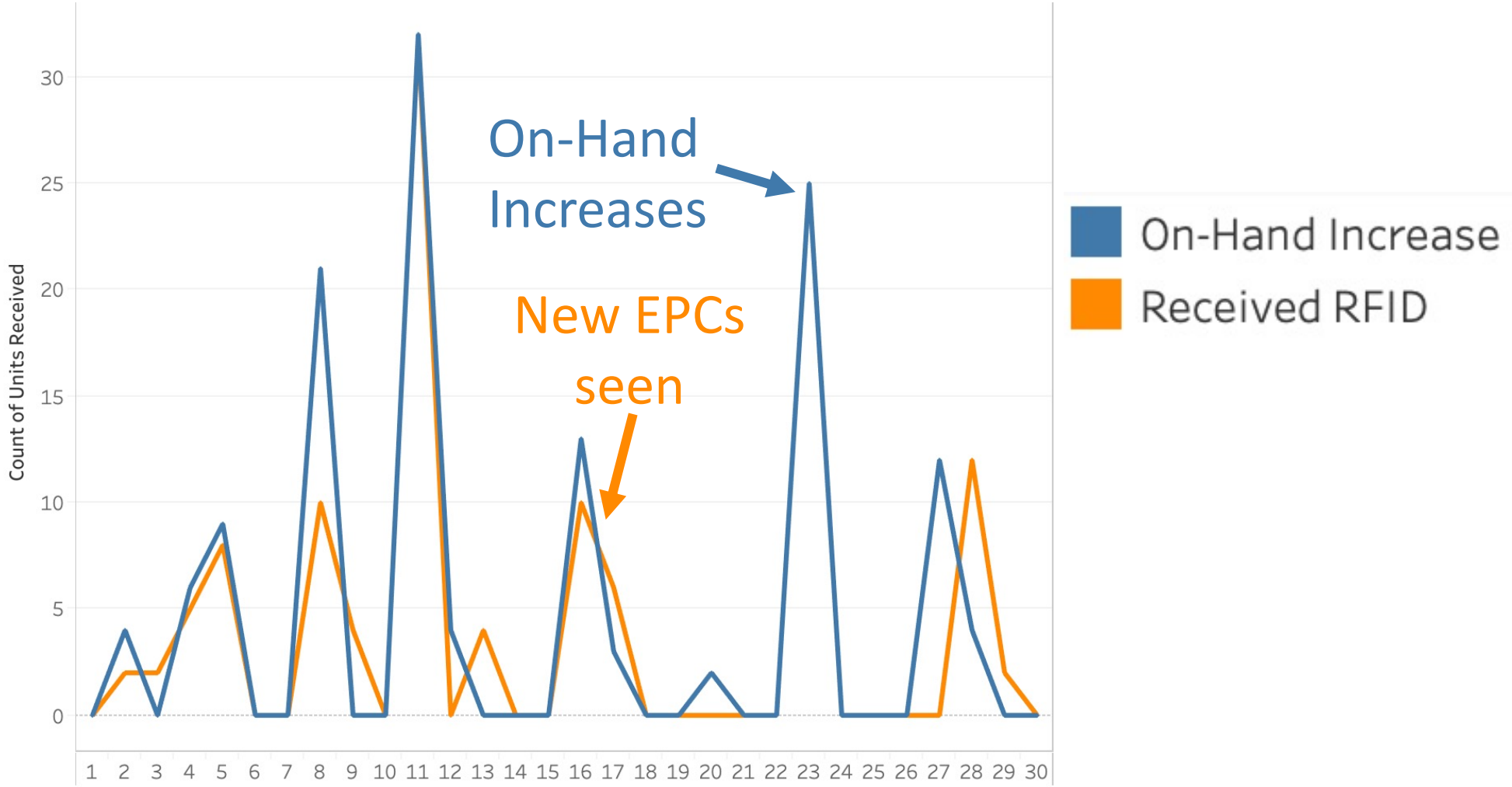
Retail Store RFID Analysis

Comparing RFID Cycle Counts to store on-hands, we can identify the accuracy of:

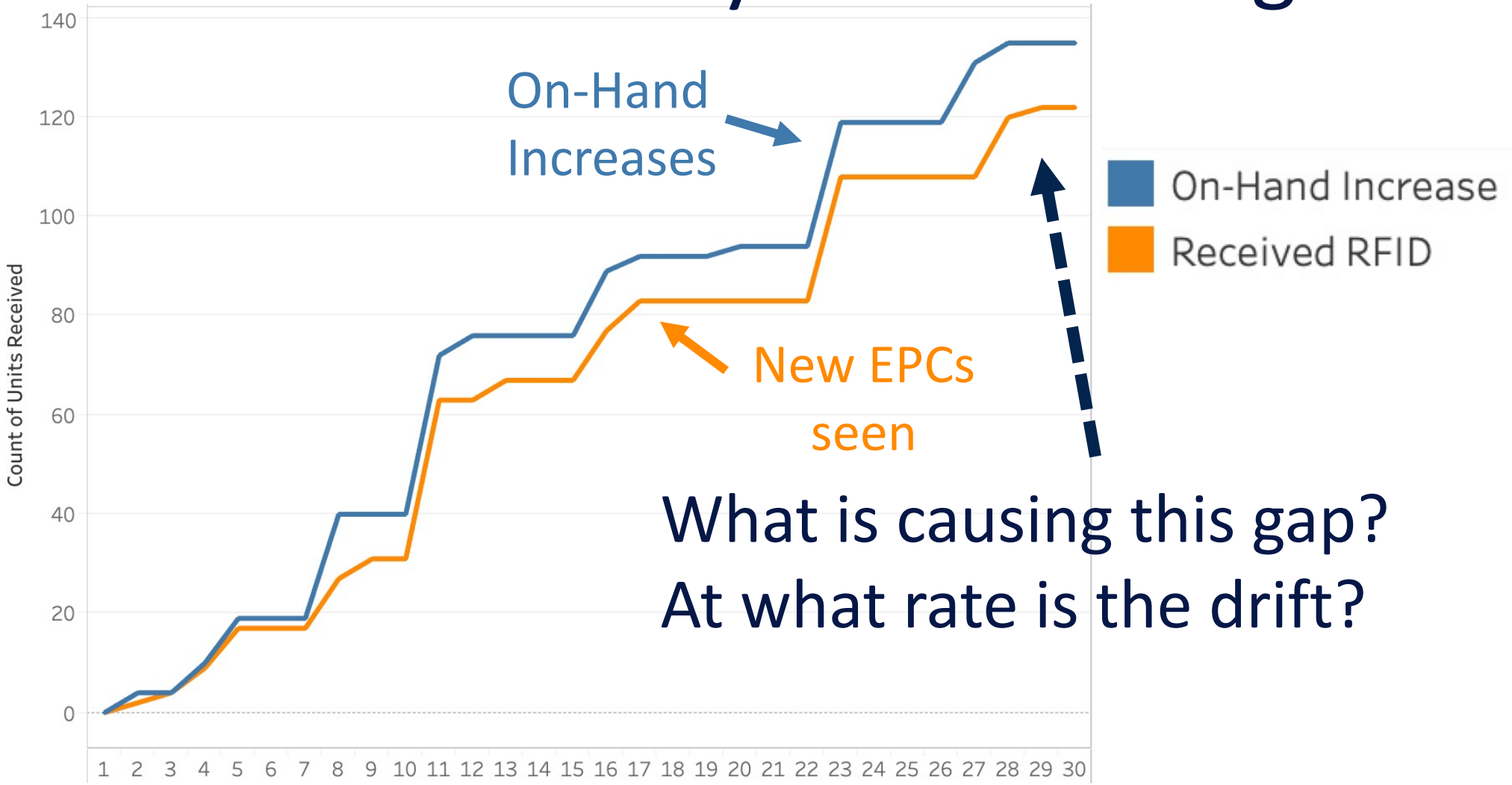
RFID Counts vs Store On-Hands



Retail Store RFID Analysis - Receiving



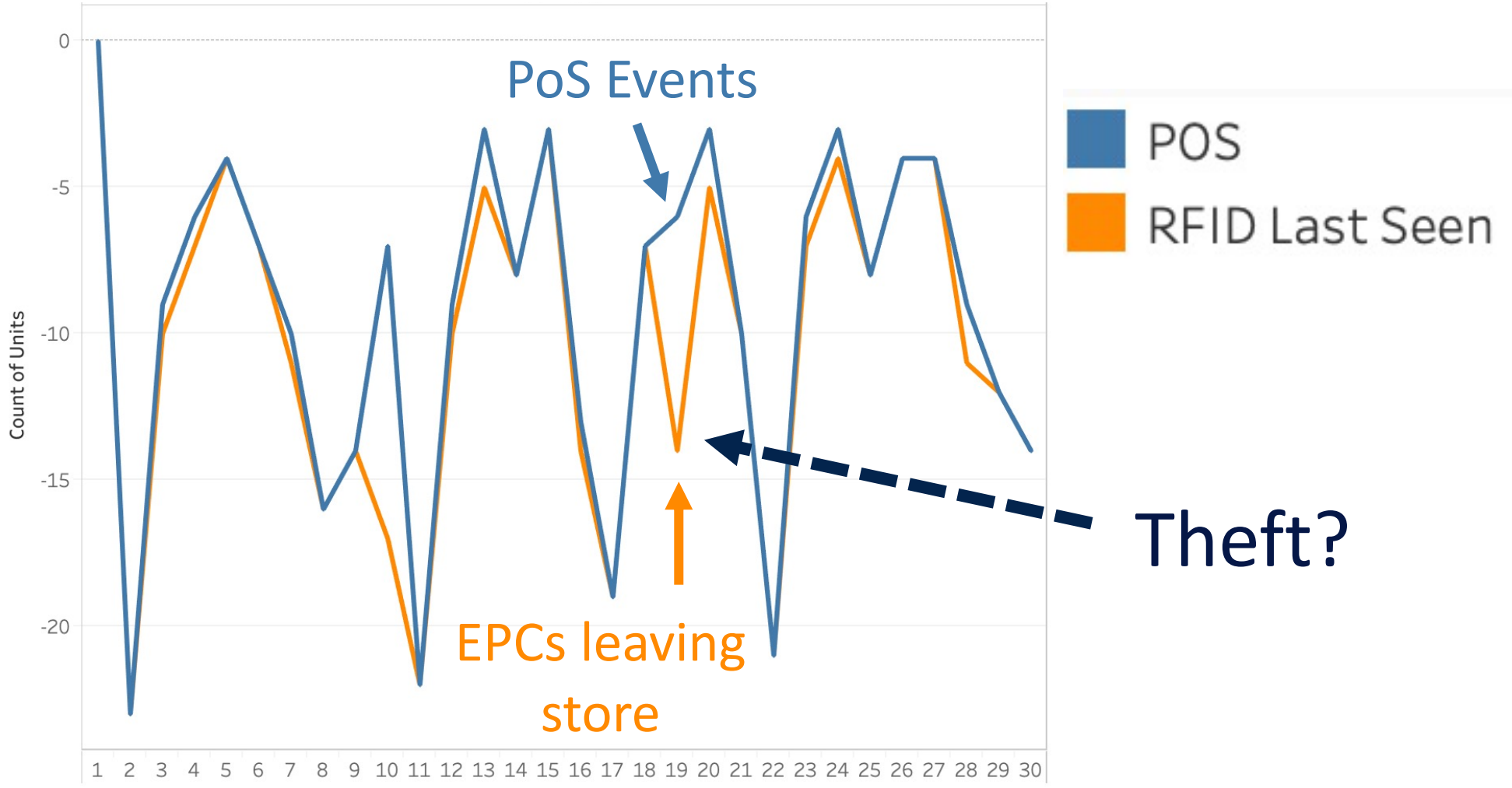
Retail Store RFID Analysis - Receiving



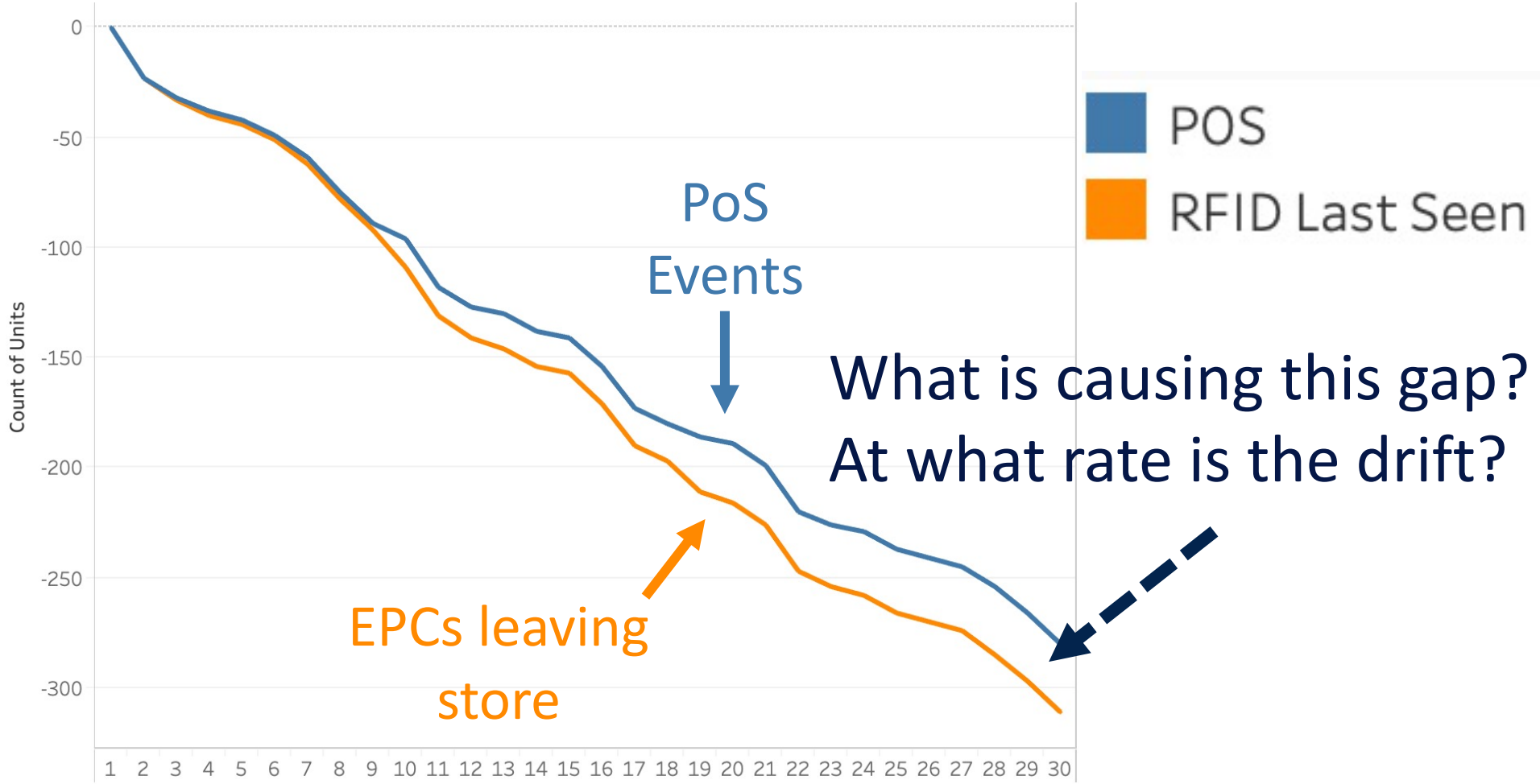
What is causing this gap?

At what rate is the drift?

Retail Store RFID Analysis - Outbound



Retail Store RFID Analysis - Outbound



Retail Store RFID Analysis

Analysis can be grouped by product subset/category

- Different subsets/categories may have different inventory patterns (more susceptible to shipment errors or theft?)

Insight into days-to-reconciliation. How long does it take for events to reconcile?


Questions?

THANK YOU

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