

## Docket No. PI2015-1

### USPS Library Reference PI2015-1/5

#### PREFACE

### USPS Proposed Internal Service Performance Measurement System Data For Quarter 4 of Fiscal Year 2016

#### Overview

This Category 2 library reference consists of service performance data generated by the proposed internal Service Performance Measurement (SPM) system for Quarter 4 of Fiscal Year 2016. It also includes a report summarizing observations on the operation of the system. The Postal Service collected data from 23.3 billion mailpieces in Q4. The Postal Service continues to employ design and software enhancements to improve the accuracy of sampling results for internal SPM.

It is important to remember that there are substantive differences between Internal SPM and the current external measurement system. Therefore, there is no expectation that the service scores can or will be identical for each product between the two systems. For example, the current EXFC system uses a comparatively small sample of test mailpieces which are measured from mail deposit to delivery, using independent contractors to start-the-clock (mail dropped) and reporters to stop-the-clock (mail received). However, measurement of Single-Piece First-Class Mail through Internal SPM uses all eligible mail processed on automation equipment to measure the Processing Duration, and samples of live mail at collection and delivery points performed by postal employees to measure First Mile (collection) and Last Mile (delivery) performance. These data are combined to measure overall transit time in Internal SPM. The measurement methodology differences will likely result in differences in performance estimates between the two systems. Neither system is measuring every piece of mail from collection to delivery; thus, estimates from both are subject to error, some of which is due to sampling and some due to non-sampling.

#### Contents

The Q4 report and accompanying summary of observations is contained in a separate Excel workbook designated as follows:

#### **FY 2016 Q4 (164):**

1. FC Flats 164 Scores Report.xls
2. FC Flats 164 Variance Report.xls
3. Package-BPMF 164 Scores Report.xls
4. Package-BPMF 164 Variance Report.xls
5. Periodicals 164 Score Report.xls

6. Periodicals 164 Variance Report.xls
7. PrstFC LC 164 Scores Report.xls
8. PrstFC LC 164 Variance Report.xls
9. SPFC LC 164 Scores Report.xls
10. SPFC LC 164 Variance Report.xls
11. Standard Mail-Carrier Route 164 Scores Report.xls
12. Standard Mail-Carrier Route 164 Variance Report.xls
13. Standard Mail-EDDM 164 Scores Report.xls
14. Standard Mail-EDDM 164 Variance Report.xls
15. Standard Mail-Flats 164 Scores Report.xls
16. Standard Mail-Flats 164 Variance Report.xls
17. Standard Mail-High Density and Saturation Flats 164 Scores Report.xls
18. Standard Mail-High Density and Saturation Flats 164 Variance Report.xls
19. Standard Mail-High Density and Saturation Letters 164 Scores Report.xls
20. Standard Mail-High Density and Saturation Letters 164 Variance Report.xls
21. Standard Mail-Letters 164 Scores Report.xls
22. Standard Mail-Letters 164 Variance Report.xls
23. Standard Mail-Mixed Flats 164 Scores Report.xls
24. Standard Mail-Mixed Flats 164 Variance Report.xls
25. Standard Mail-Mixed Letters 164 Scores Report.xls
26. Standard Mail-Mixed Letters 164 Variance Report.xls

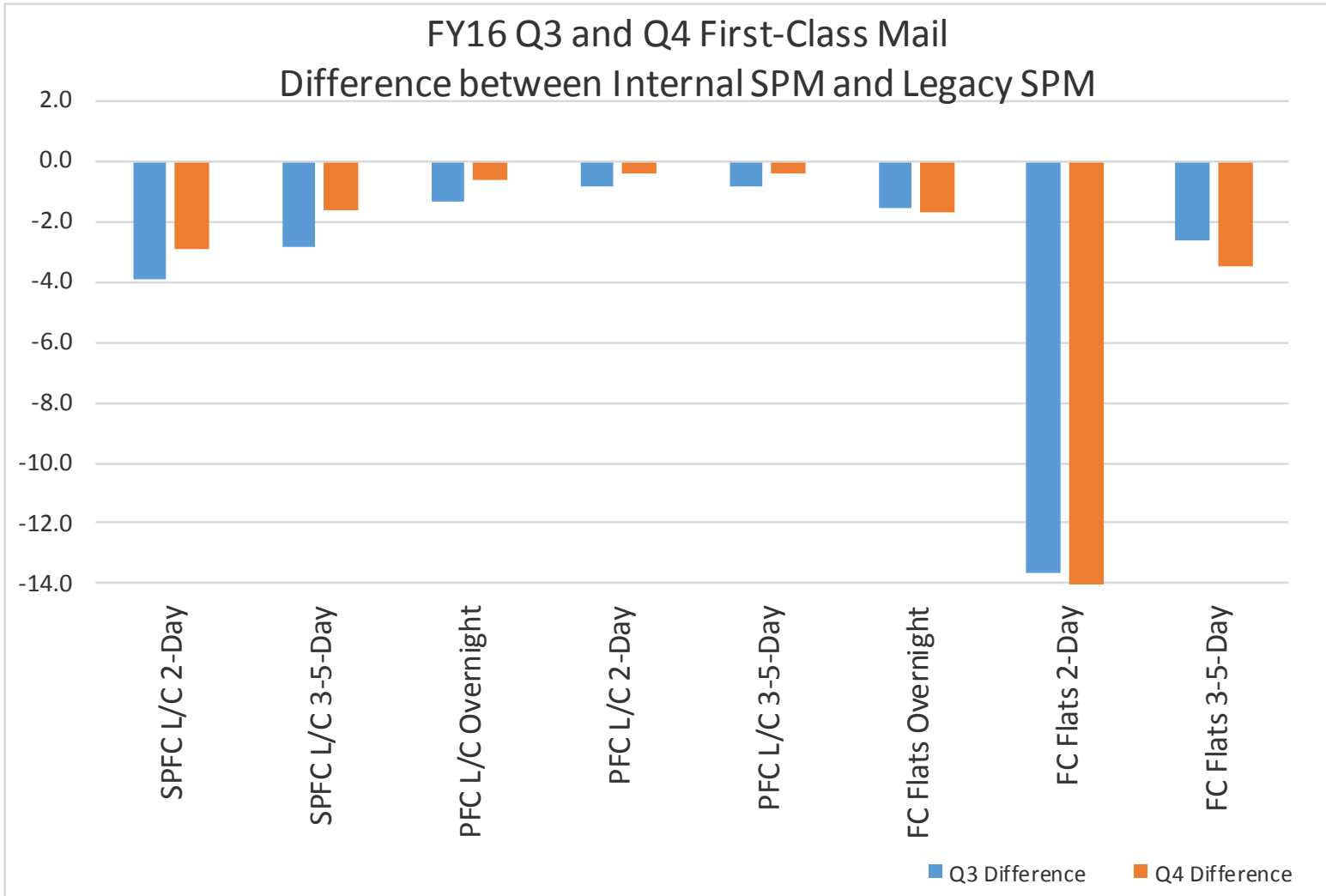
# **PRC Report Performance Comparison Internal SPM vs. Legacy Q3 and Q4 FY16**

**11/18/2016**

FY16 Q4 Scores and Margins of Error					
Product	Internal SPM		Legacy SPM		Statistically Significant Difference
	Percent On Time	Margin of Error	Percent On Time	Margin of Error	
<b>First Class Mail</b>					
Single-Piece Letters/Cards					
Two-Day	93.4	N/A	96.3	0.1	N/A
Three-To-Five-Day	88.0	N/A	89.7	0.2	N/A
Presort FC Letters/Cards					
Overnight	96.2	0.1	96.8	0.1	Yes
Two-Day	95.8	N/A	96.2	0.1	N/A
Three-To-Five-Day	94.1	N/A	94.5	0.0	N/A
FC Flats					
Overnight	84.9	0.7	86.6	0.5	Yes
Two-Day	68.5	0.5	83.2	0.6	Yes
Three-To-Five-Day	73.5	0.5	77.0	0.5	Yes
<b>Periodicals</b>	84.9	0.3	83.3	0.1	Yes
<b>Standard Mail</b>					
High Density and Saturation Letters	96.1	0.1	96.7	0.0	Yes
High Density and Saturation Flats	92.9	0.1	92.7	0.1	No
Carrier Route	93.0	0.2	90.6	0.1	Yes
Letters	92.7	0.1	93.0	0.0	Yes
Flats	86.0	0.1	87.2	0.1	Yes
Every Door Direct Mail-Retail	78.7	0.0	78.6	0.0	Yes
<b>Bound Printed Matter Flats</b>	54.1	0.3	54.6	0.2	No

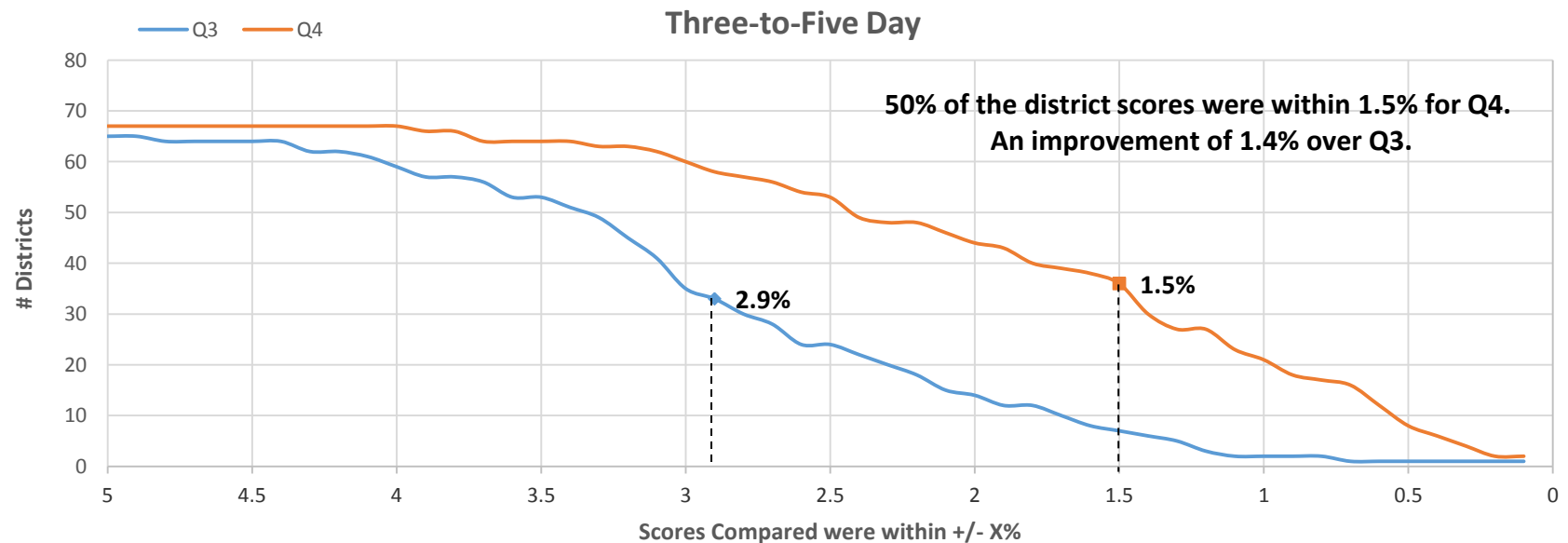
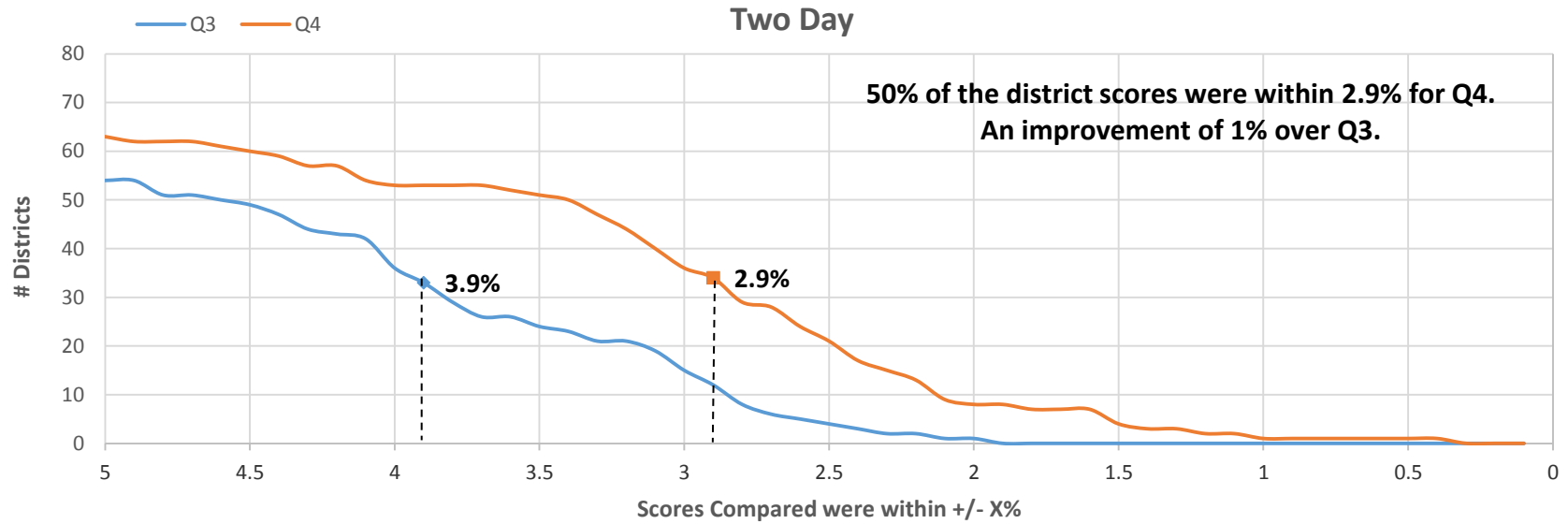
Note: N/A indicates margin of error data is not required for PRC Reporting.

# Internal SPM aligned closer to Legacy for 5 of the 8 Categories of First-Class Mail metrics



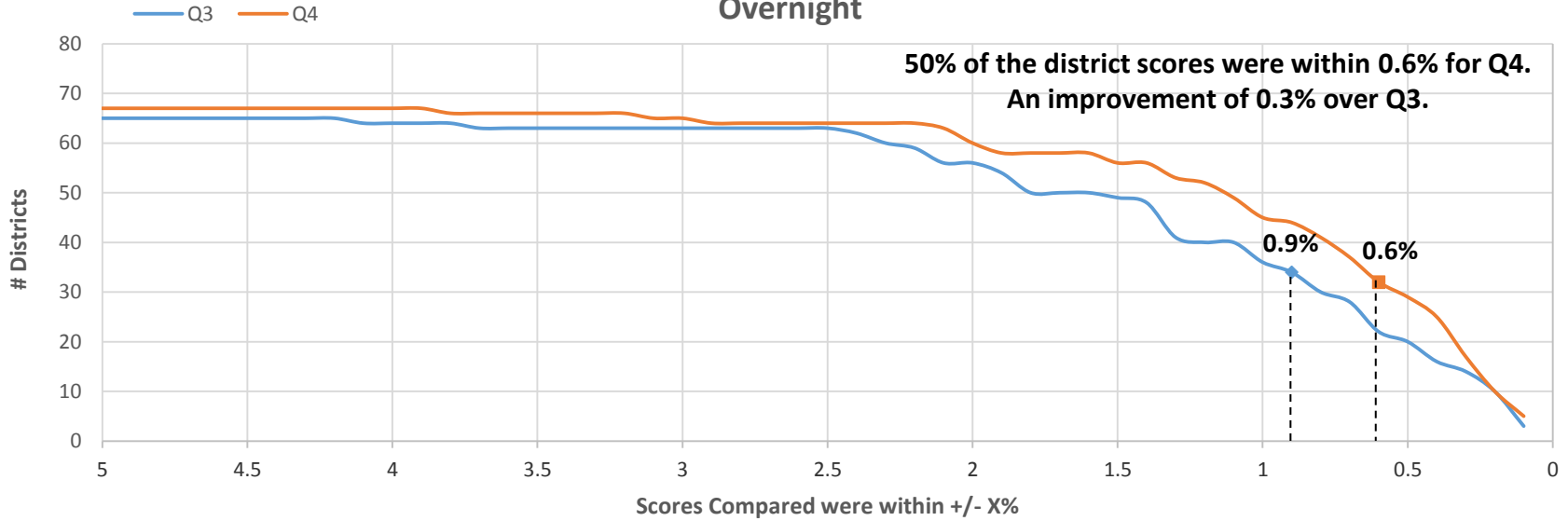
Note: Negative differences occur when Internal SPM results are lower than Legacy SPM results

# Single Piece First-Class Letters PRC Results Comparisons - District

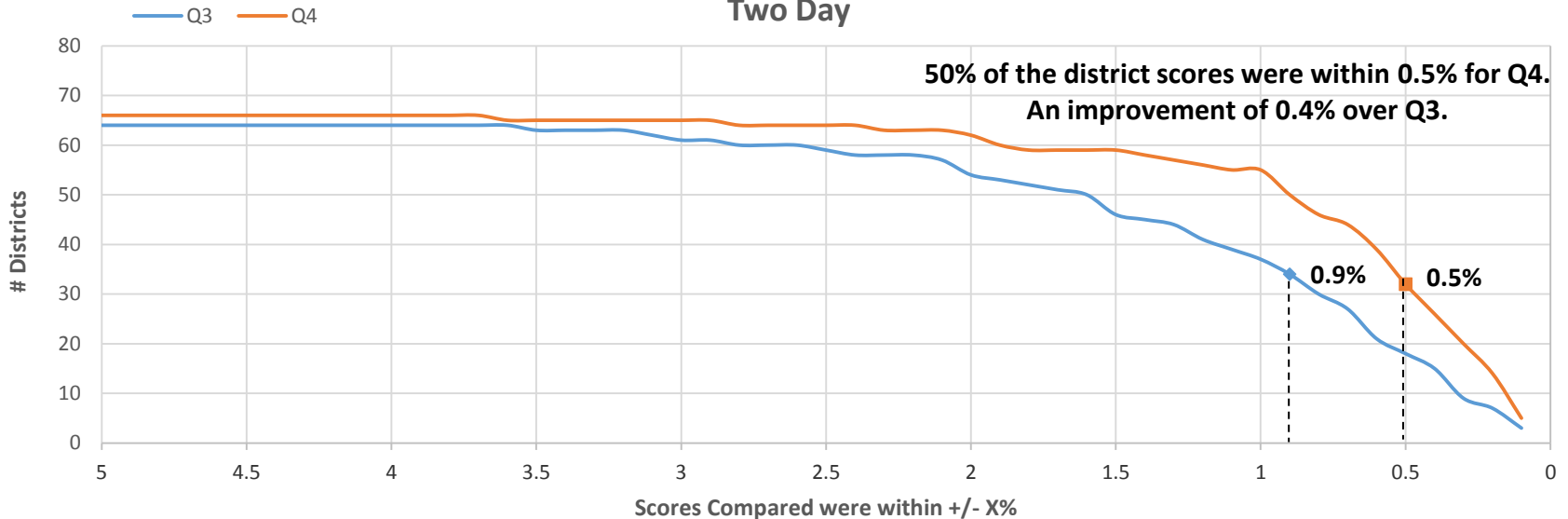


# Presort First-Class Letters PRC Results Comparisons - District

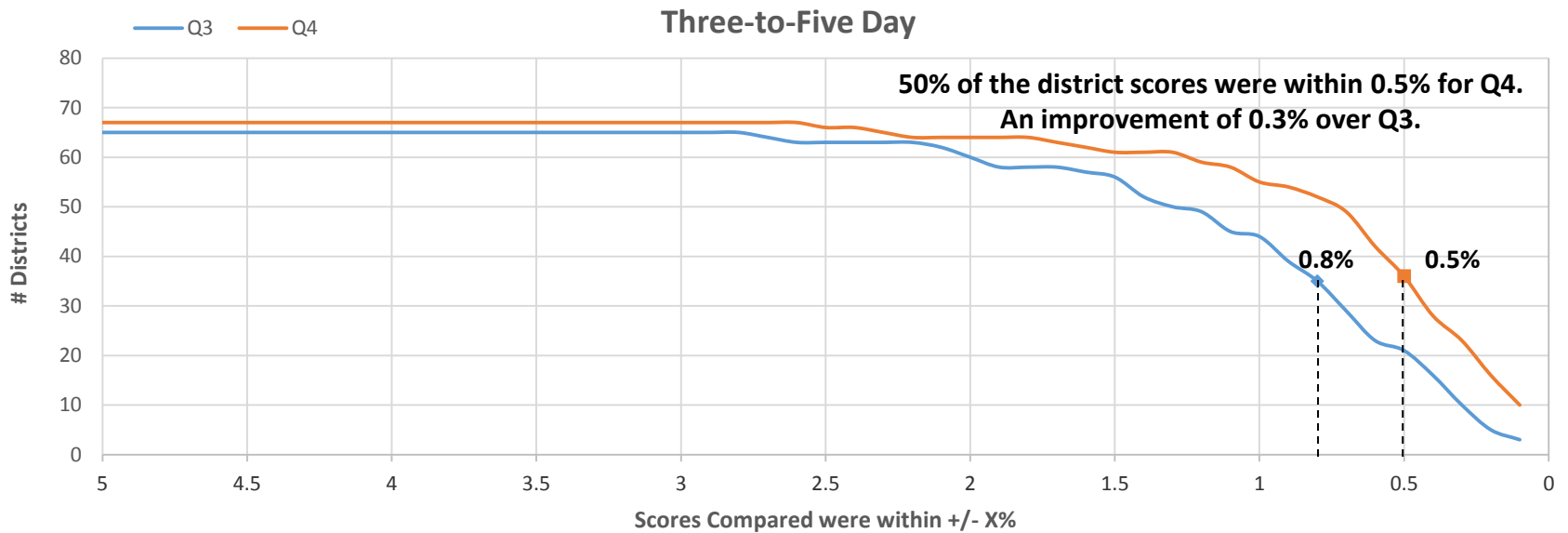
## Overnight



## Two Day

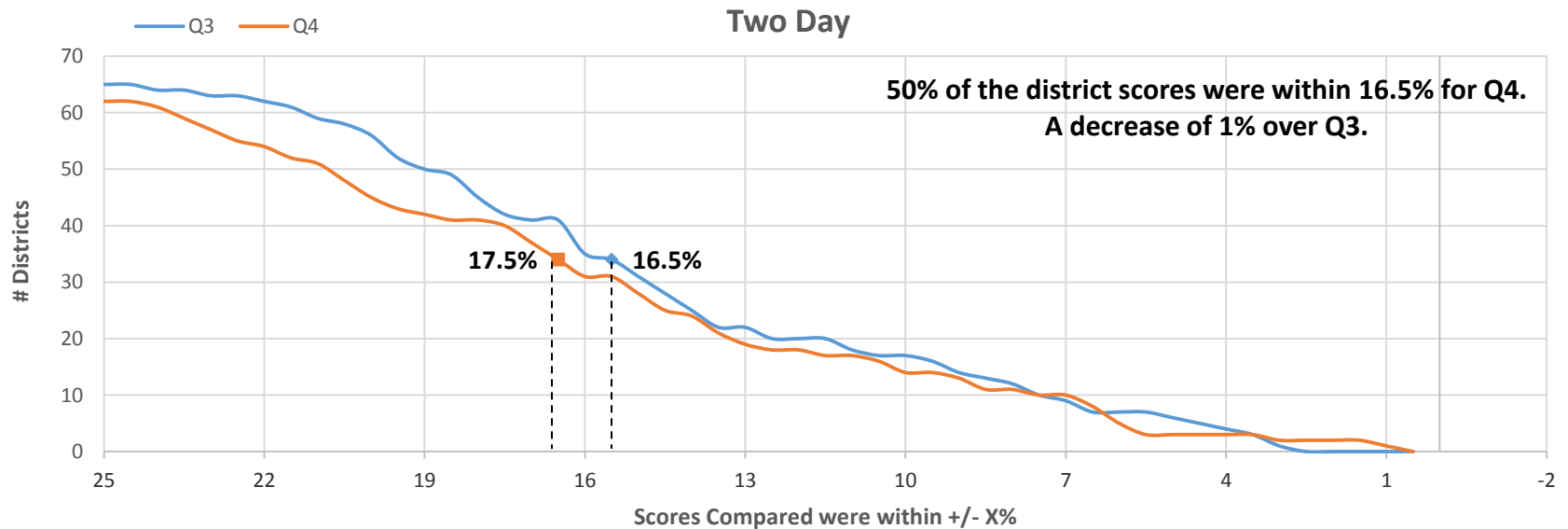
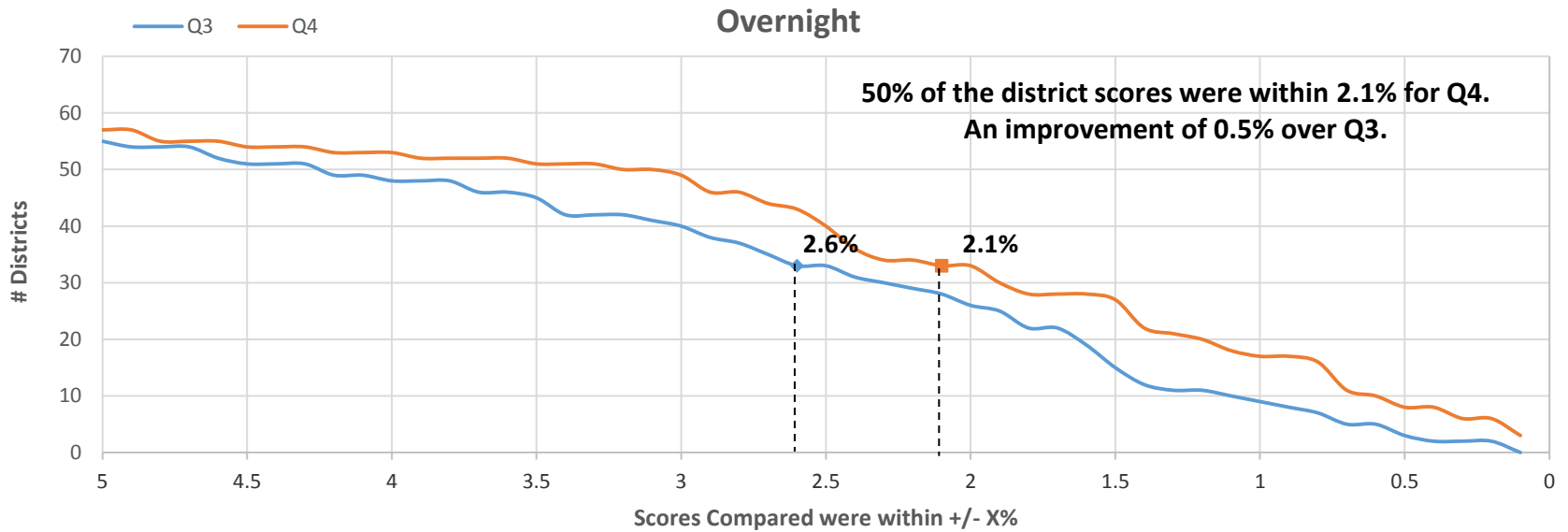


# Presort First-Class Letters PRC Results Comparisons - District

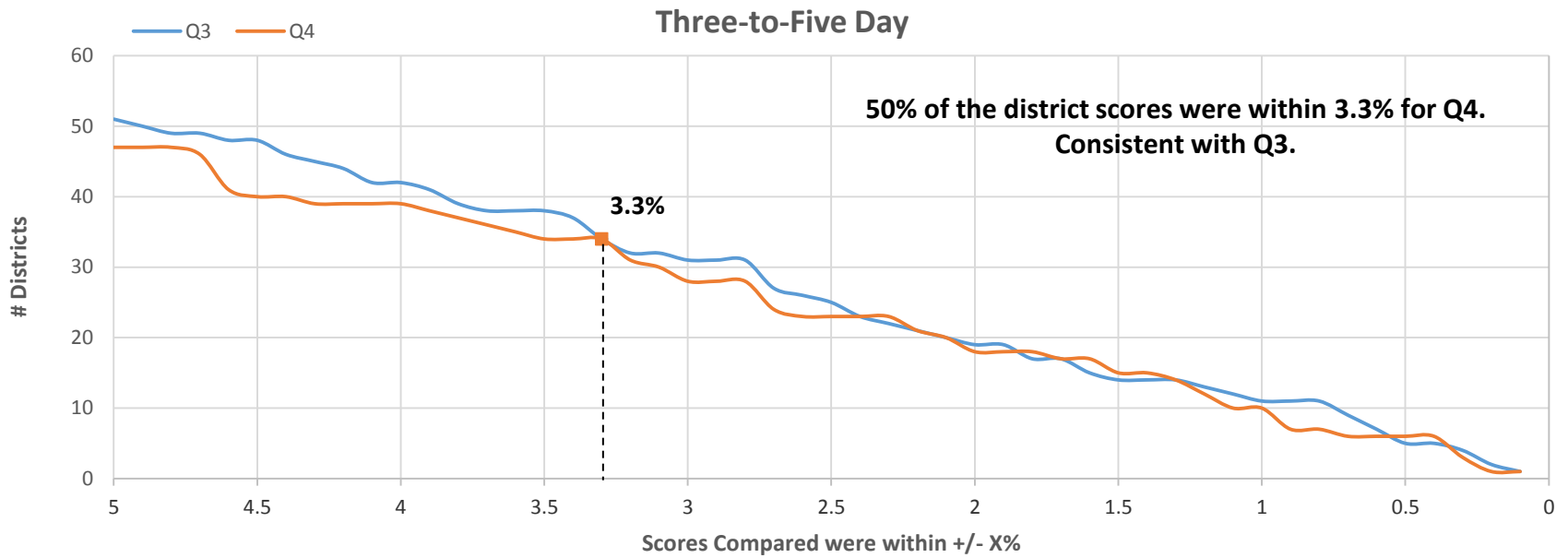




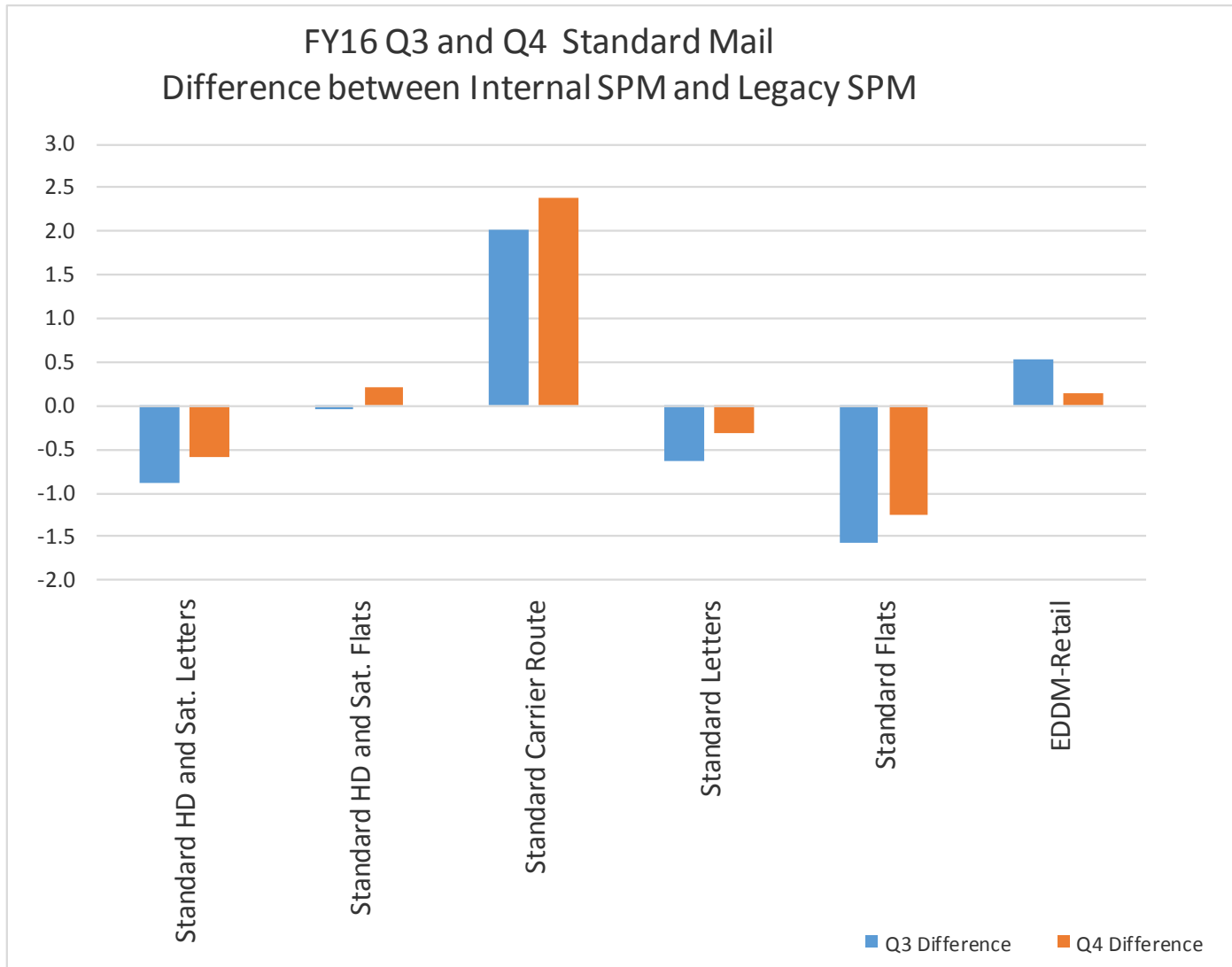
# Combined First-Class Flats PRC Results Comparisons - District



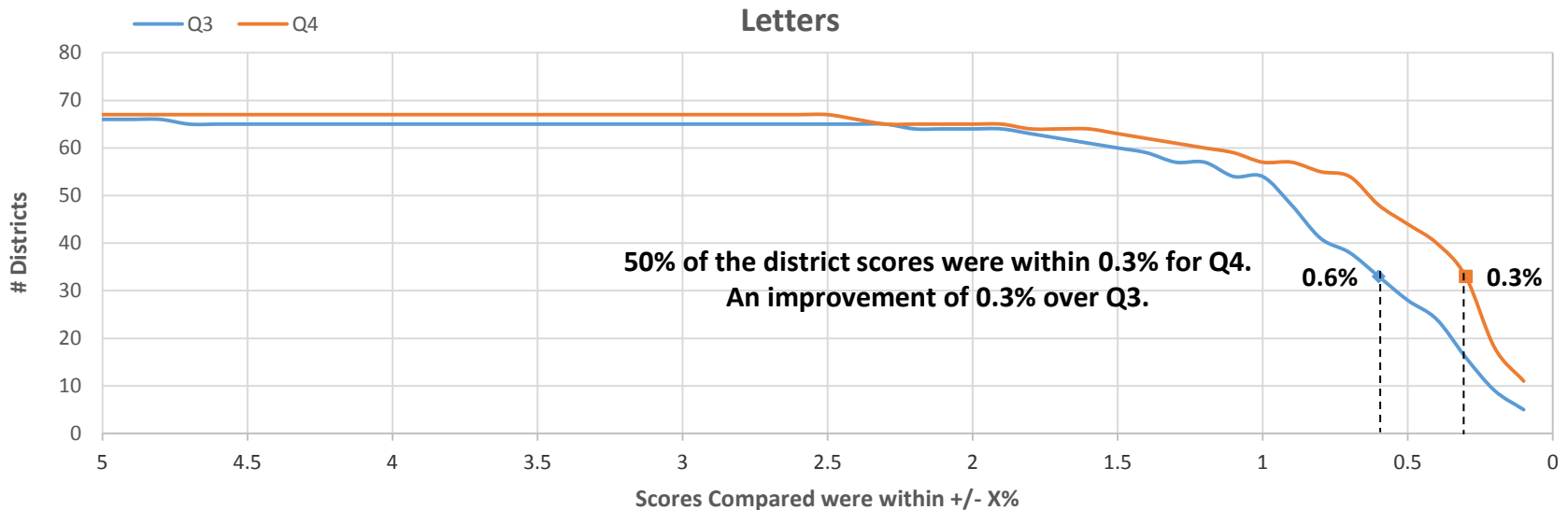
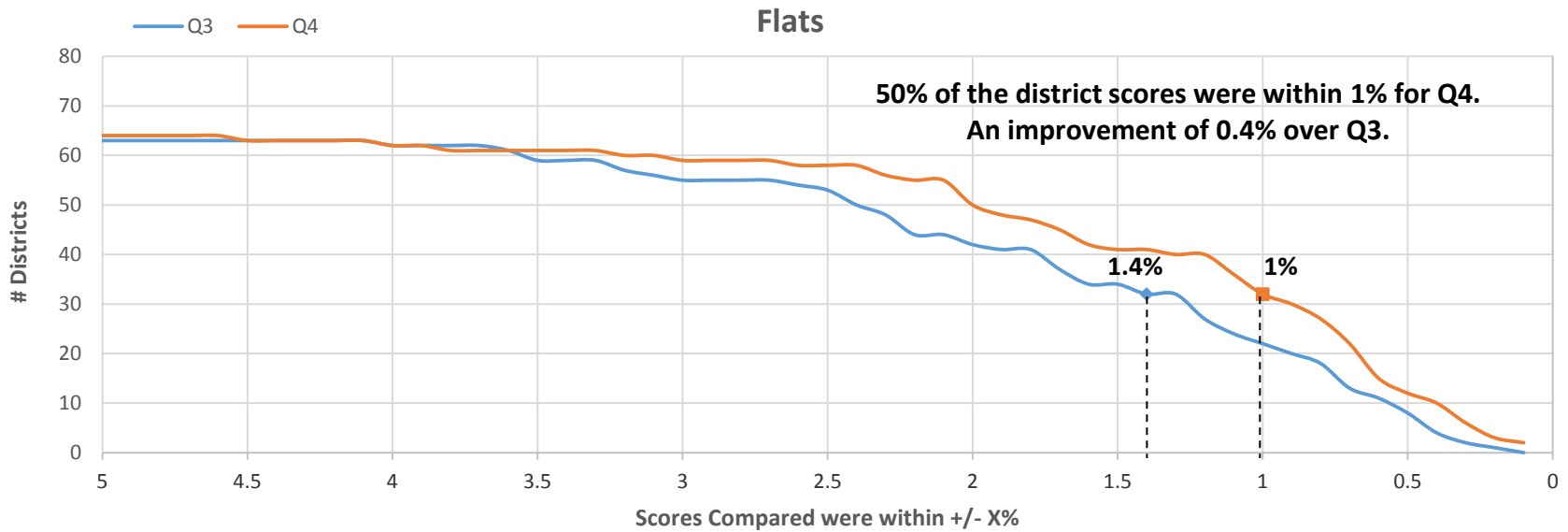
# Combined First-Class Flats PRC Results Comparisons - District



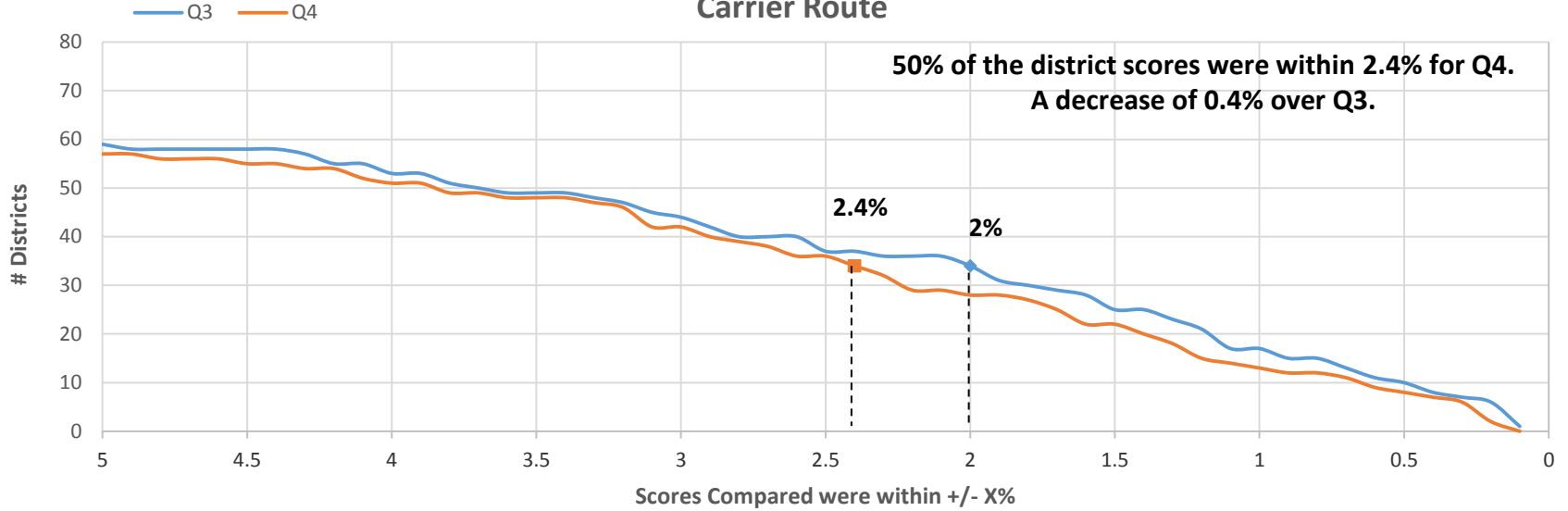
# Internal SPM aligned closer to Legacy for 4 of the 6 Categories Standard Mail metrics



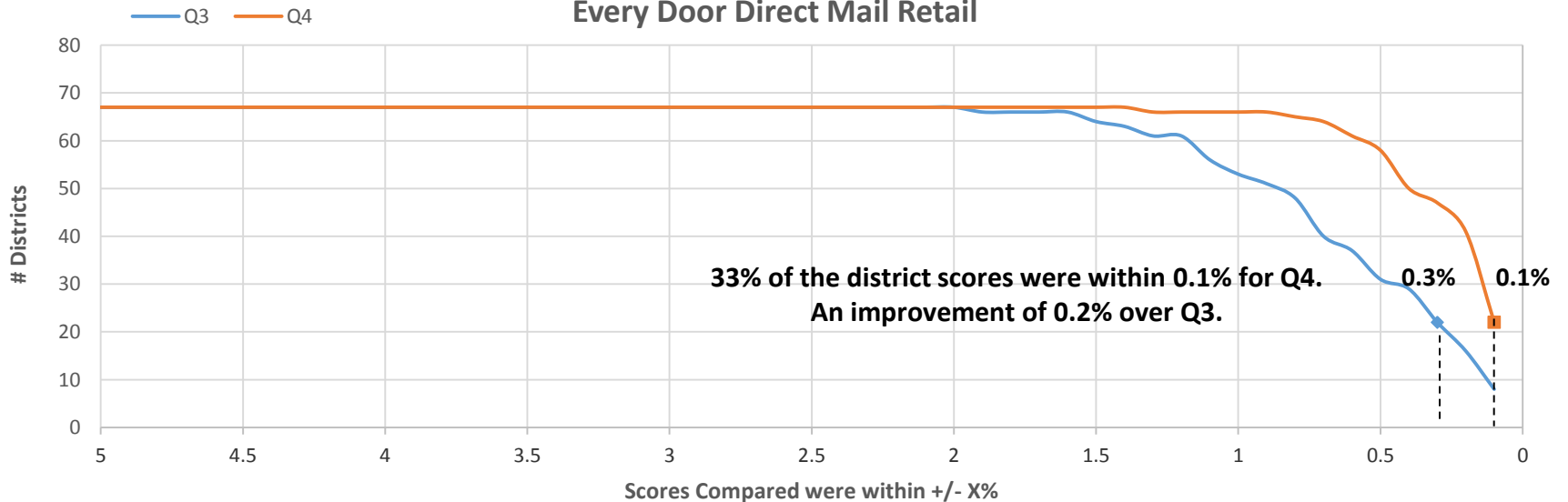
Note: Negative differences occur when Internal SPM results are lower than Legacy SPM results

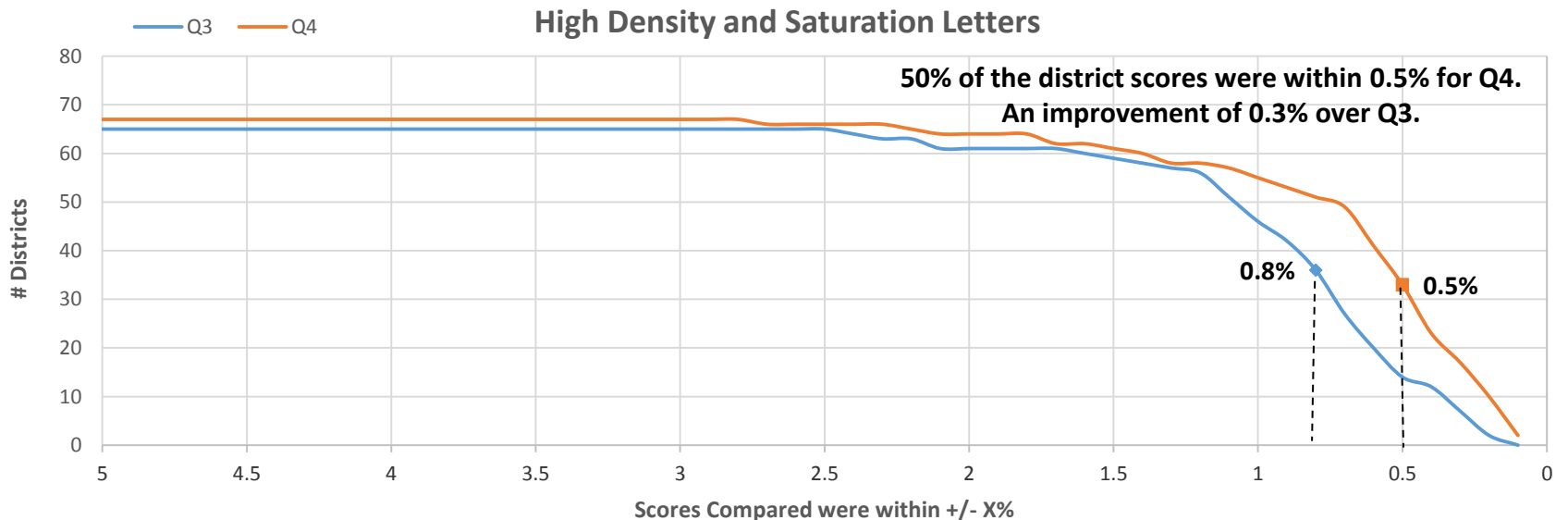
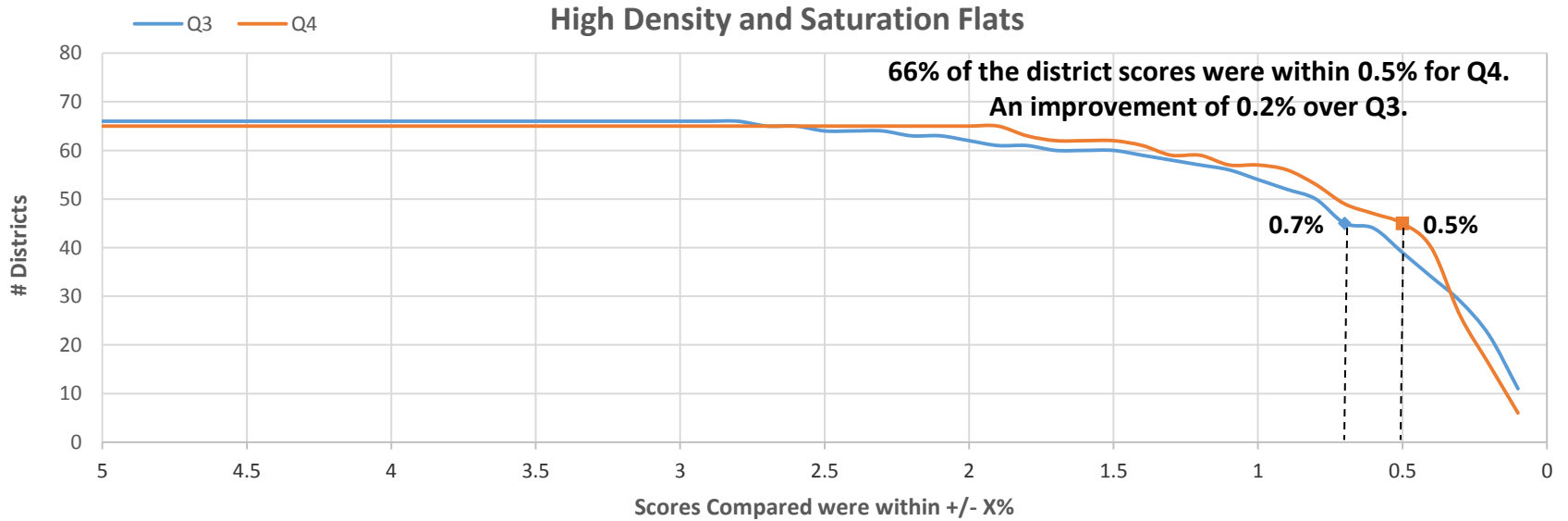


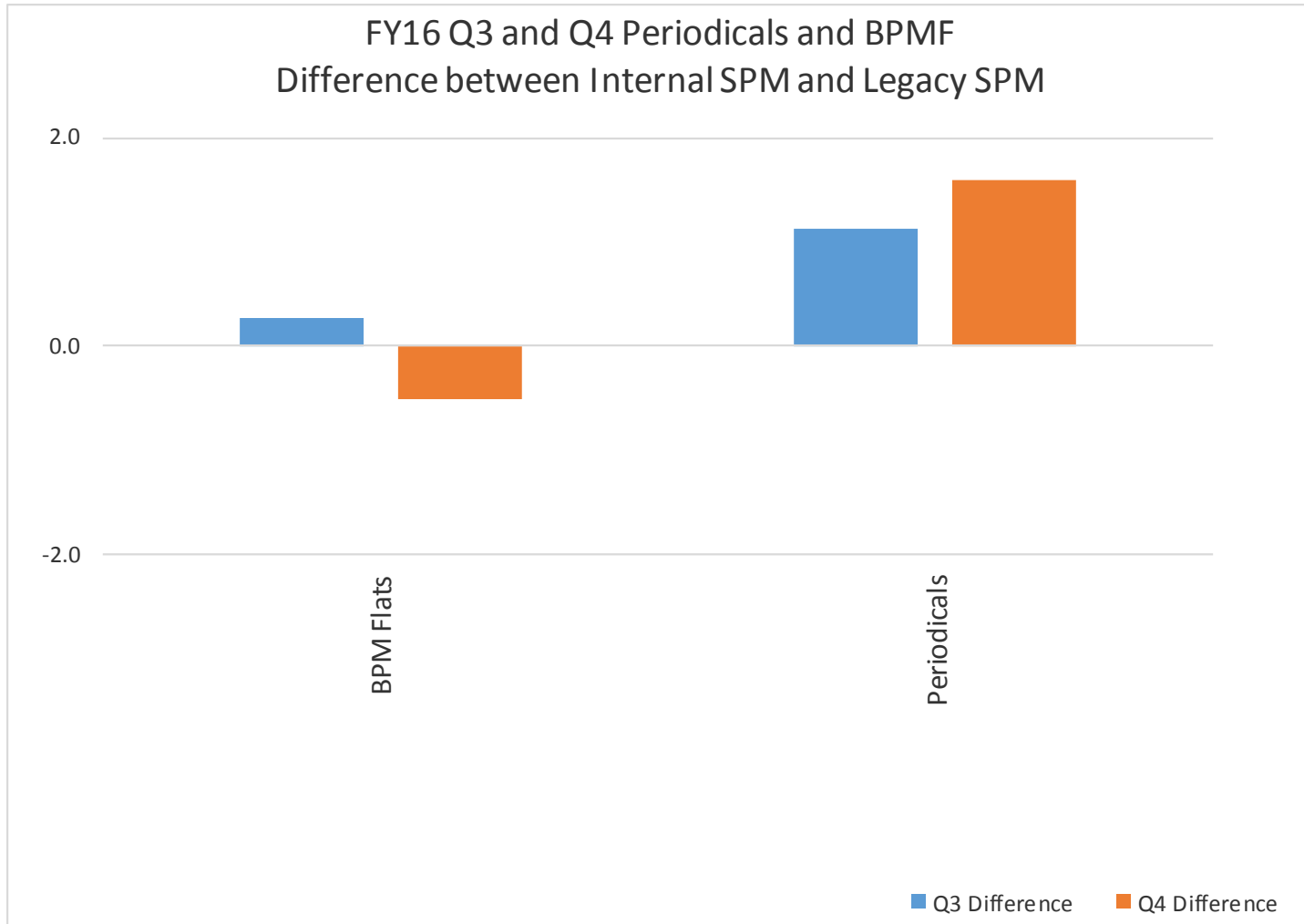
## Carrier Route



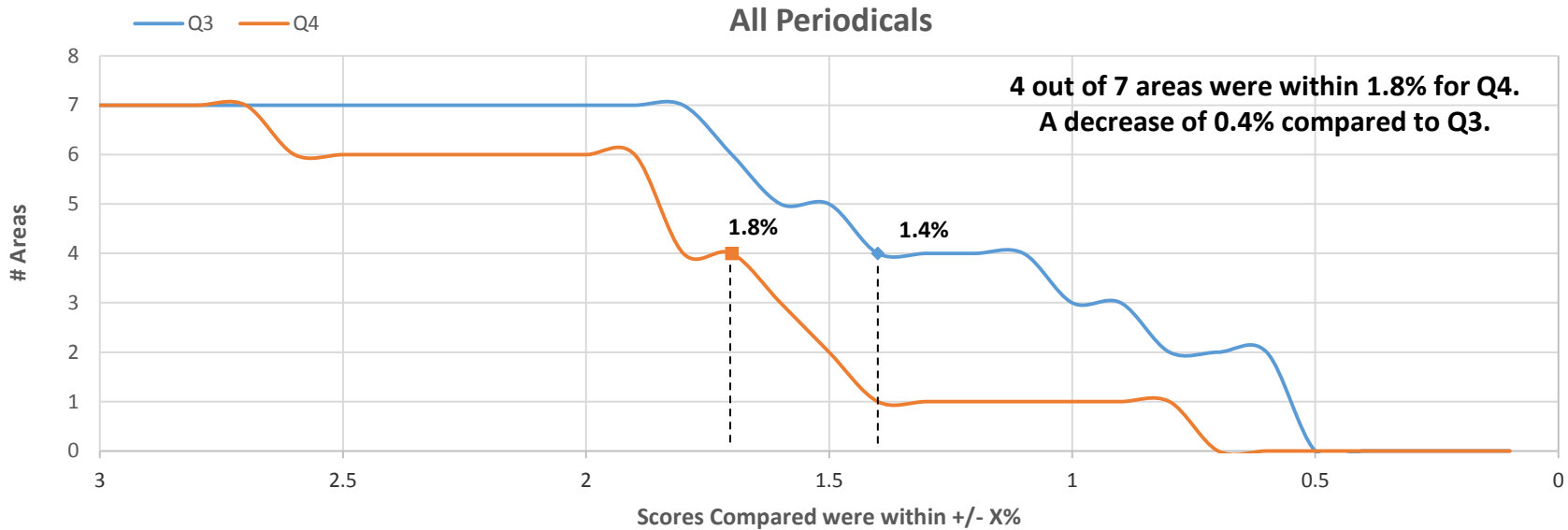
## Every Door Direct Mail Retail



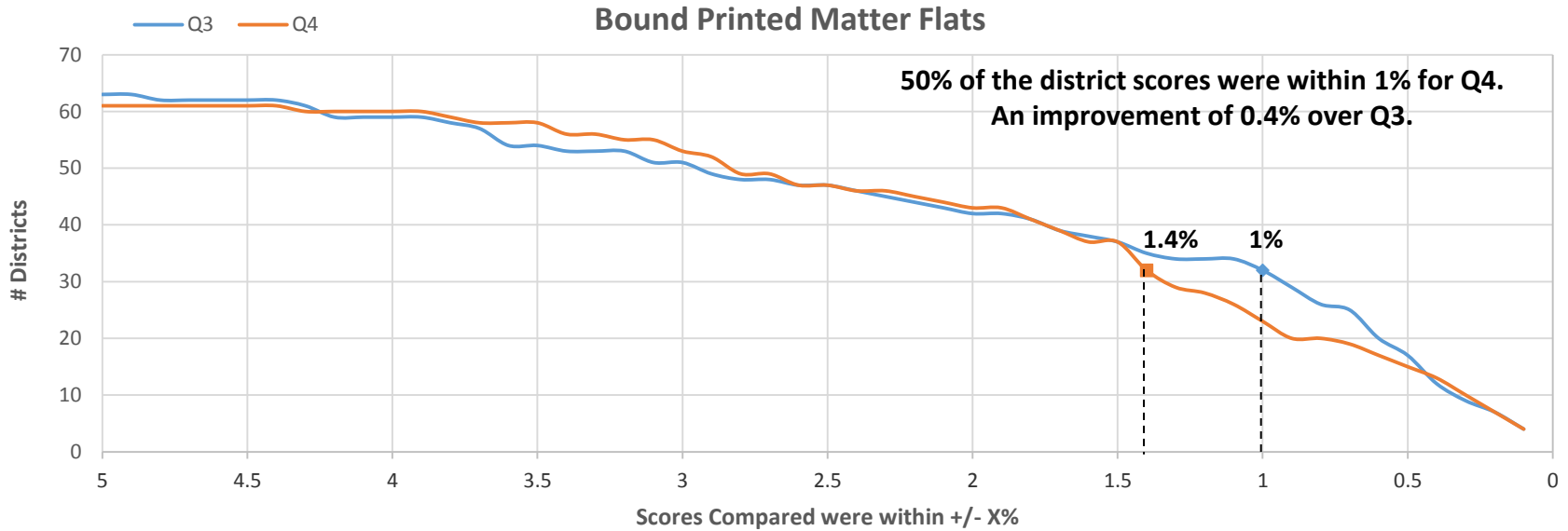




Note: Negative differences occur when Internal SPM results are lower than Legacy SPM results







- ❑ **Applies to all products except EDDM**
  - Last mile profiles were unweighted, differing from the statistical design
  - The methodology used for calculating last mile profile in the Legacy system (last processing operation) differed from the methodology used in Internal SPM (days left level).
- ❑ **Applies to all products except EDDM, SPFC Letters/Cards, and Presort First-Class Letters/Cards**
  - The methodology used to produce Q4 margins of error deviated from the statistical design. The deviation is due to a known software defect in the overall originating/destinating variance calculation identified during testing that was not resolved prior to the reporting deadline, impacting a small portion of the calculations. Additional development and testing will occur in FY17 Q1 to resolve the margins of error calculations.
- ❑ **Applies to Single-Piece First-Class Mail Only**
  - The methodology used to calculate First Mile profiles was modified from the statistical design. As a result of very limited sampling data available for one first processing operation type, all mailpieces were categorized into one group for Q4 reporting. Additional analysis is ongoing for methodology updates in FY17 Q1.
  - Some technical issues with identifying, tracking, and measuring unique mailpieces through automation based on processing scans existed this quarter. Additional validations will be undertaken to confirm that issues have been resolved in Q1 FY17.
  - This report includes performance estimates with First Mile profiles based entirely on collection mail and does not include mail sent over retail counters. The system capability to include the retail mail, which will be measured using First-Class Mail with Special Services requested, into the First Mile estimates is under development and testing. Completion is anticipated for FY17 Q1.
  - Sampling for most high-volume courtesy and business reply mail delivery points was not enabled during the quarter, and there was very limited representation of the reply mail portion of Single-Piece First-Class Mail™ letters/postcards in the Last Mile sample. Due to the very limited data available to measure the overall transit time for this mail, all of the courtesy and business reply mail were excluded from these results.
  - Challenges with sampling Single-Piece First-Class Flats at collection resulted in limited data available for estimating First Mile Profile for flats across the quarter in all districts, impacting the reliability of the estimates.
  - The observed First Mile Impact for Single-Piece First-Class Mail flats results is higher than expected, resulting in lower on-time performance scores. The combination of very few pieces sampled in collection and gaps in business rules for unique piece identification and measurement are the most significant root causes.