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# Analysis of 24-Hour versus 48-Hour Traffic Counts for HPMS Sampling

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**Impact of HPMS Sample Counting for 24 Hours versus 48 Hours  
(Special Project)**

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<b>16. Abstract</b> The Illinois Department of Transportation (IDOT) has requested a waiver from the Federal Highway Administration (FHWA) to allow IDOT to implement a 24-hour traffic-count program on the non-state HPMS routes, as opposed to the current Highway Performance Monitoring System (HPMS) count cycle and duration requirement for a 48-hour minimum counting cycle. IDOT proposes to count these routes twice in a 5-year cycle. IDOT's concern is that the collection of 24-hour counts, as opposed to 48-hour counts, would enable more efficient use of agency resources, yet still maintain the statistical integrity of the annual average daily traffic (AADT) estimation process for HPMS reporting. IDOT had conducted research in the 1980s comparing the two count durations and has been following the conclusions from that study in conducting 24-hour counts. IDOT had been granted an FHWA waiver for the 24-hour counts on state routes since 1992. Because traffic patterns have changed over the years, IDOT wanted to review the relative differences between the two count durations. The objective of this study was to perform a statistical analysis on IDOT's automated traffic recorder (ATR) continuous-count traffic data, collected from 103 statewide ATR locations, to compare the relative differences between 24-hour count periods and 48-hour count periods that are factored to compute AADT. Statistical analyses were performed for statewide ATR data across various roadway functional classification categories and also split by District 1 and downstate (Districts 2-9). In general, the analyses found that, with the application of appropriate daily traffic-count adjustment factors, the 24-hour counts were statistically comparable to 48-hour traffic counts.					
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The contents of this report reflect the view of the authors, who are responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the University of Illinois Springfield, the Illinois Center for Transportation, the Illinois Department of Transportation, or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

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## EXECUTIVE SUMMARY

The Illinois Department of Transportation (IDOT) has requested a waiver from the Federal Highway Administration (FHWA) to allow IDOT to implement a 24-hour traffic-count program on the HPMS non-state routes, as opposed to the current Highway Performance Monitoring System (HPMS) count cycle and duration requirement for a 48-hour minimum counting cycle. IDOT proposes to count these routes twice in a 5-year cycle. IDOT's concern is that the collection of 24-hour counts, as opposed to 48-hour counts, would enable more efficient use of agency resources, yet still maintain the statistical integrity of the annual average daily traffic (AADT) estimation process for HPMS reporting. IDOT had conducted research in the 1980s comparing the two count durations and has been following the conclusions from that study in conducting 24-hour counts on state routes with an approved FHWA waiver in 1992. Because traffic patterns have changed over the years, IDOT wanted to review the relative differences between the two count durations.

The objective of this study was to perform a statistical analysis on IDOT's automated traffic recorder (ATR) continuous-count traffic data, collected from 103 statewide ATR locations, to compare the relative differences between 24-hour count periods and 48-hour count periods that are factored to compute the AADT. Statistical analyses were performed for statewide ATR data across various roadway functional classification categories and also split by District 1 and downstate (Districts 2–9). In general, the analyses found that, with the application of appropriate daily traffic-count adjustment factors, the 24-hour counts were statistically comparable to 48-hour traffic counts.

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## LIST OF ACRONYMS

AADT	Annual average daily traffic
AASHTO	American Association of State Highway and Transportation Officials
ATR	Automated traffic recorder
FHWA	Federal Highway Administration
HPMS	Highway Performance Monitoring System
IDOT	Illinois Department of Transportation
OPP	IDOT Office of Planning and Programming
TDV	Total daily volume
TMG	<i>Traffic Monitoring Guide</i>
TRP	Technical Review Panel
UIS	University of Illinois Springfield
VMT	Vehicle miles of travel

# CHAPTER 1 RESEARCH PLAN

## 1.1 BACKGROUND

Chapter 3 of the 2013 Federal Highway Administration (FHWA) *Traffic Monitoring Guide* (TMG) recommends 48-hour, short-duration counts for estimating traffic volume for Highway Performance Monitoring System (HPMS) reporting. In May 2012, the Illinois Department of Transportation (IDOT) submitted a proposal to the Federal Highway Administration (FHWA) for a waiver in the HPMS count cycle and duration requirements from the 48-hour minimum counting cycle to allow IDOT to implement a 24-hour traffic-count program on the non-state HPMS routes. IDOT proposes to count these routes twice in a 5-year cycle. This waiver was requested to improve the overall quality and timeliness of the HPMS counts, to comply with the TMG's recommendation to integrate HPMS counts into the agency's count program, and to allow IDOT to use available traffic resources more efficiently. In November 2012, FHWA provided conditional approval to continue the 24-hour count waiver and asked for additional data and statistical documentation to support IDOT's proposal by November 30, 2014.

Over the years, there have been ongoing questions about the costs, benefits, and data quality in using a 24-hour versus a 48-hour traffic count to develop the annual average daily traffic (AADT). IDOT conducted research in the 1980s comparing the two durations and has been following the conclusions from that study. Because traffic patterns have changed over the years, IDOT wanted to take a fresh look at the relative statistical differences or advantages in using a longer count.

IDOT has historically performed 24-hour, short-duration counts on the state roadway network. IDOT has maintained the use of 4-year rolling ATR data to maintain the daily factors used in AADT processing for daily factors for the four factor groups. Focusing on a 24-hour count program rather than a 48-hour program has enabled IDOT to perform manual counts every 2 years on the entire marked state roadway network and every 5 years (every 4 years for District 1) on the unmarked state roadway network. This pattern is more often than the FHWA TMG 6-year cycle requirement. IDOT has determined that the change to a 24-hour count instead of 48-hour count on the non-state route HPMS sections would generate the following benefits:

- Cost savings on the traffic-counting consultant contract and more efficient travel and scheduling of the counts by IDOT traffic-counting staff. These savings would allow more counts to be conducted with the available resources.
- Due to a greater number of counts, a better temporal distribution of the counting on non-state route HPMS samples would be provided for Illinois traffic data.
- The same equipment, staff, and procedures would be used for all HPMS samples, as well as the other 15,000 counts taken throughout the year, which is another recommendation of the FHWA TMG.
- The HPMS samples on state routes continue to be counted more frequently than the TMG recommends, and the non-state HPMS samples would also be counted more frequently than recommended.

## 1.2 RESEARCH OBJECTIVE

The objective of this study is to perform a statistical analysis on IDOT's automated traffic recorder (ATR) continuous-count traffic data to compare the relative differences between 24-hour count periods and 48-hour count periods that are factored to compute the AADT. Statistical analyses will be performed for statewide ATR data across various roadway functional classification categories and will also include a separate analysis for District 1 and downstate (Districts 2–9). In addition, this research will produce a summary of conclusions with recommendations for IDOT's HPMS traffic-counting program.

## 1.3 RESEARCH APPROACH

IDOT operates 107 ATR sites across multiple geographic and functional classification categories, which are representative of statewide traffic patterns. Data from 103 ATR sites with sufficient historical data were used in this study. Table 1 is a breakdown of these 103 ATR sites across functional classification and geographic categories. The ATR sites continuously collect traffic-count data throughout the year. For the purposes of this study, the ATR data was aggregated into total daily volumes (TDV) for each day.

The Technical Review Panel (TRP) decided to analyze the ATR data over the typical IDOT traffic-counting season. As a result, ATR data from the months April through October and the days Monday through Thursday were selected for the analysis, representing typical count days. Weeks with abnormal traffic patterns, because of such events as major holidays, were to be eliminated from the sample. Statistical analyses were performed for this subset of the statewide ATR data across various roadway functional classification categories and also split by District 1 and downstate (Districts 2–9).

The research team employed a paired t-test statistical approach to compare the predicted 48-hour count, based on the 24-hour count for the first day, with the actual 48-hour count. The following presents the results of this investigation.

**Table 1. Automated Traffic Recorder Location Breakdown**

<b>Functional Classification</b>	<b>District 1 (NE)</b>	<b>Downstate (DS)</b>	<b>Totals</b>
Rural Interstate	2	20	22
Rural Other	2	9	11
Urban Interstate	5	9	14
Urban Other	36	20	56
<b>Totals</b>	<b>45</b>	<b>58</b>	<b>103</b>



## **CHAPTER 2 INVESTIGATION OF ATR DATA**

### **2.1 INITIAL INVESTIGATION**

To begin the investigation, the University of Illinois Springfield (UIS) research team explored with the TRP a variety of analyses of 2012 ATR data across four subsets: Rural Interstate, Rural Other, Urban Interstate, and Urban Other. IDOT's day-of-week traffic-count adjustment factors were applied to the daily ATR data to conduct the 24-hour and 48-hour count comparison. The initial analyses compared the actual 48-hour count with the predicted 48-hour count based on the 24-hour count for the first day. For example, the Monday count was used to predict the Monday–Tuesday total count and then compared to the actual 48-hour total daily volume (TDV) count for the 2 days.

The results of the initial analyses were statistically inconsistent in predicting the 48-hour count based on the first day's 24-hour count for the adjusted TDVs. To further cleanse the data to eliminate outliers, the TRP decided to eliminate the entire week of TDV data for weeks in which the difference of the TDV between any two adjoining days exceeded 50%. This eliminated weeks in which an abnormal event, such as a holiday, resulted in nonroutine travel patterns. In cleansing the data using this criterion, the weeks of Memorial Day, Fourth of July, and Labor Day holidays were among those eliminated.

#### **2.1.1 Day-of-Week Traffic-Count Adjustment Factors**

Historical IDOT data had shown that there are differences between each day of the week across urban/rural and functional classification categories. In accordance with the *Traffic Monitoring Guide* (TMG), IDOT has used the traffic-count adjustment factors displayed in Table 2 over the last several years. These adjustment multiplication factors are applied to the manual counts to help estimate the AADT. IDOT uses a 4-year average of ATR data to adjust the daily factors annually.

#### **2.1.2 Base File for ATR Data Analysis**

The Technical Review Panel (TRP) then decided to expand the analysis file to include the 2008 through 2012 ATR data. After data cleansing was applied, as previously described, the base file contained 8,783 weekly ATR traffic counts across the 103 ATR sites.

**Table 2. Day-of-Week Traffic-Count Adjustment Factors by Functional Classification Group**

<b>Factor Group</b>	<b>Description</b>	<b>Day of Week</b>	<b>Factor</b>
1	Interstate Rural	Monday	1.042
1	Interstate Rural	Tuesday	1.037
1	Interstate Rural	Wednesday	1.000
1	Interstate Rural	Thursday	0.929
2	Other Rural	Monday	1.029
2	Other Rural	Tuesday	1.002
2	Other Rural	Wednesday	0.992
2	Other Rural	Thursday	0.979
3	Interstate Urban	Monday	1.105
3	Interstate Urban	Tuesday	1.006
3	Interstate Urban	Wednesday	0.995
3	Interstate Urban	Thursday	0.983
4	Other Urban	Monday	1.028
4	Other Urban	Tuesday	0.999
4	Other Urban	Wednesday	0.996
4	Other Urban	Thursday	0.978

## **2.2 STATISTICAL ANALYSIS**

### **2.2.1 Statistical Analysis Approach**

The purpose of the analysis was to compare the predicted 48-hour count based on the first day’s 24-hour count with the actual 48-hour count. For example, the Monday count was used to predict the Monday–Tuesday total count and then compared to the actual 48-hour TDV count for the 2 days. The actual TDV value for each day was adjusted, using the daily adjustment factor.

As outlined in the appendix, this analysis employs a paired t-test statistical approach. The hypothesis is that there is no significant difference between the average of the adjusted 48-hour counts and twice the average of the adjusted 24-hour counts for the initial day. The 0.05 level of significance is used for these paired t-test analyses.

### **2.2.2 Review of Daily Traffic-Count Adjustment Factors**

The analysis using the original IDOT daily adjustment factors did not quite reach the paired t-test 0.05 level of significance in most categories, as indicated by the category P-values less than 0.05 in Table A-1 in the appendix. However, the error rate for each category was generally within 0.5%, which appears reasonably low in the context of estimating AADT. The TRP decided to further review the daily traffic-count adjustment factors to determine if any adjustments were necessary because of changes in current traffic patterns.

Subsequently, the research team reviewed 2008–2012 ATR base file data across four different models, as shown in Table 3. The review included the development of model-derived daily traffic-count adjustment factors and the 24-hour to 48-hour count analysis after applying the new adjustment factors. All four of the models analyzed the four functional classification categories of Rural Interstate, Rural Other, Urban Interstate, and Urban Other.

For Models A and B, the District 1 and downstate data were analyzed separately, while the data analysis for Models C and D was stratified by District 1 and downstate for the urban categories and statewide for the rural categories because there were limited rural ATR sites in District 1. Models A and C analyses further stratified the data by each month for the period April through October.

**Table 3. Day-of-Week Traffic-Count Adjustment Factors by Functional Classification Group**

<b>Model</b>	<b>Functional Classification Categories</b>	<b>Geography</b>	<b>Months</b>
<b>A</b>	Rural Interstate (1), Rural Other (2), Urban Interstate (3), Urban Other (4)	District 1 (NE) and downstate (DS)	Split by Month: April, May, June, July, August, September, October
<b>B</b>	Rural Interstate (1), Rural Other (2), Urban Interstate (3), Urban Other (4)	District 1 (NE) and downstate (DS)	April through October combined
<b>C</b>	Rural Interstate (1), Rural Other (2), Urban Interstate (3), Urban Other (4)	Urban: District 1 (NE) and downstate (DS) Rural: Statewide (RI and RO)	Split by Month: April, May, June, July, August, September, October
<b>D</b>	Rural Interstate (1), Rural Other (2), Urban Interstate (3), Urban Other (4)	Urban: District 1 (NE) and downstate (DS) Rural: Statewide (RI and RO)	April through October combined

Tables A-2 through A-5 in the appendix present the revised daily TDV traffic-count adjustment factors for each of the four models. These revised daily adjustment factors were applied to the base file for each model, and the statistical analyses compared the actual 48-hour count with the predicted 48-hour count based on the 24-hour count for the first day, as previously described.

As indicated in Tables A-6 through A-9 in the appendix, for all four models, all of the P-values, except one category in Model A, are greater than 0.05. Therefore, the research team concludes that the average of adjusted 48-hour counts is **not** significantly different from the average of the twice of the adjusted 24-hour counts. Thus, the research team further concludes that, with these revised daily adjustment factors, the 24-hour counts are statistically similar to 48-hour counts within a 0.05 significance level for the paired t-test.

## **CHAPTER 3 CONCLUSIONS AND RECOMMENDATIONS**

In summary, to assess the relative difference between a 24-hour count program and a 48-hour count program, this investigation statistically analyzed Monday through Thursday ATR TDV data over the months of April through October for the years 2008 through 2012. To cleanse outlier data, the Monday through Thursday TDV data were eliminated for any week in which the difference of the TDV between any two adjoining days exceeded 50%. A paired t-test statistical analysis was then applied to the base file to determine the adequacy of estimating the actual 48-hour count based on the first day's 24-hour count.

### **3.1 CONCLUSIONS**

#### **3.1.1. Data Analysis**

Based on this investigation, and with the application of appropriate daily traffic-count adjustment factors, the research team believes that the ATR data statistically supports IDOT's application of agency resources toward a 24-hour count program instead of a 48-hour count program on their roadway network.

The paired t-test statistical analysis of the current factor groups and factors did not meet the 0.05 level of significance in most of the categories. However, the overall error rate between the 24-hour count and the 48-hour counts was generally within 0.5%. The research team believes this is reasonably low in the context of estimating AADT. The application of updated daily adjustment factors and the modification of the factor groups would bring the 24-hour counts to the 0.05 level of significance. These changes would also reduce the error rate of the 24-hour count to the 48-hour count comparison, from approximately 0.50% to approximately less than 0.12% overall.

#### **3.1.2. Traffic Adjustment Factors**

Based on the 2008–2012 ATR data, the UIS research team developed statistically derived daily traffic-count adjustment factors for the variety of models, as detailed in Chapter 2. The analysis found that, when the model-developed, day-of-week adjustment factors are applied, there is no statistically significant difference between the actual 48-hour count, adjusted for each day of week, and twice the adjusted 24-hour count of the first day. The models provide a range of options for IDOT to apply revised daily adjustment factors based on the efficient use of resources.

### **3.2 RECOMMENDATIONS**

As a result of this study, the TRP recommends that IDOT continue the 24-hour count program, as opposed to the 48-hour, for the short-duration traffic counts. IDOT's current program is accurate to within 0.5% for AADT estimation and HPMS reporting purposes. The TRP believes that the benefits of conducting 24-hour, short-duration counts at a greater number of sites and at a greater frequency than FHWA TMG requirements justifies the adequacy of the current program.

To improve the relative accuracy of the 24-hour count program, the research team suggests that IDOT assess the application of the daily traffic-count adjustment factors. This study reviewed four models, all of which met the paired t-test 0.05 level of significance. The research team believes Model D, which further stratifies daily adjustment factors for the urban functional classifications by District 1 and downstate is a reasonable choice. Model D

contains six adjustment groupings: Rural Interstate, Rural Other, District 1 Urban Interstate, Downstate Urban Interstate, Downstate Urban Interstate and Downstate Other as opposed to the current four groupings which do not separate district one and downstate.

However, since this Illinois Center for Transportation study was initiated, state DOTs and AASHTO have initiated a FHWA Pooled Fund Study to research traffic-counting issues, including an analysis of the relative accuracy of 24-hour versus 48-hour counts. Because the FHWA Pooled Fund Study may result in other findings, and given the significant effort involved in modifying existing information processing programs and traffic-counting contracts, the TRP recommends that IDOT not make any changes to their short-duration count program until after the FHWA Pooled Fund Study completion.

Finally, the TRP recommends that IDOT continue to collect and review ATR data on an annual basis to analyze changes in travel patterns and to continue to update their current daily traffic-count adjustment factors based on their current 4-year average.

**APPENDIX      AUTOMATED TRAFFIC RECORDER STATISTICAL  
ANALYSIS**

## SECTION A-1    ATR STATISTICAL ANALYSIS: ORIGINAL DAILY TRAFFIC-COUNT ADJUSTMENT FACTORS

Hypothesis: There is no significance difference between the average of the adjusted 48-hour counts and twice of the average of the adjusted 24-hour counts.

Test: Paired-t test

$$H_0: \mu = 0 \text{ vs } H_a: \mu \neq 0$$

Where  $\mu$  is the average of (Adjusted 48-Hour Count – 2 × Adjusted 24-Hour Count of the starting day)

$$\text{Adjusted 48-Hour Count} = \text{Adjusted 24-Hour Count of the Starting Day} + \text{Adjusted 24-Hour Count of the Consecutive Day}$$

**Table A-1. Statistical Analysis Based on the Original Traffic-Count Adjustment Factors**

Group	Starting Day	Sample Size	Average	Standard Error	t Statistic	P-value	Error Rate
1	Monday	1295	-188.01	45.16	-4.16	<.01	-0.3704%
	Tuesday	1295	86.60	44.81	1.93	0.05	0.1703%
	Wednesday	1295	234.91	41.38	5.68	<.01	0.4648%
	Overall	3885	44.50	25.45	1.75	0.08	0.0877%
2	Monday	994	21.86	7.92	2.76	<.01	0.2880%
	Tuesday	994	-34.32	8.45	-4.06	<.01	-0.4513%
	Wednesday	994	-36.87	9.47	-3.89	<.01	-0.4804%
	Overall	2982	-16.44	5.01	-3.28	<.01	-0.2157%
3	Monday	967	-546.38	84.17	-6.49	<.01	-0.4548%
	Tuesday	967	-297.66	112.62	-2.64	<.01	-0.2460%
	Wednesday	967	-962.34	108.91	-8.84	<.01	-0.7873%
	Overall	2901	-602.13	59.48	-10.12	<.01	-0.4971%
4	Monday	5527	-25.91	14.26	-1.82	0.07	-0.0645%
	Tuesday	5527	-178.90	12.77	-14.01	<.01	-0.4431%
	Wednesday	5527	74.56	17.70	4.21	<.01	0.1842%
	Overall	16581	-43.42	8.73	-4.98	<.01	-0.1076%

**Note:**

$$\text{Error Rate} = \frac{\text{Total of } \{ \text{Adjusted 48-Hour Count} - 2 \times (\text{Adjusted 24-Hour Count of the starting day}) \}}{\text{Total of Adjusted 48-Hour Count}}$$

From the P-values shown in Table A-1, we should reject almost all of the hypotheses at a 0.05 level of significance ( $P\text{-value} < 0.05$ ). **Thus, based on the use of the original traffic-count adjustment factors, the study team concludes that the adjusted 24-hour counts are unable to make statistically significant predictions for the adjusted 48-hour counts at the 0.05 confidence level. However, the error rate for the projected data is generally within 0.5%, which still appears relatively low in the context of estimating AADT data.**



## SECTION A-2 ATR ANALYSIS: REVISED DAILY TRAFFIC-COUNT ADJUSTMENT FACTORS FOR VARIOUS MODELS

### A-2.1 ANALYSIS MODELS

#### Model A

Dependent Variable: Average of the weekdays' counts

Independent Variables:

**Group** (DS1, DS2, DS3, DS4, NE1, NE2, NE3, NE4)

**Month** (April, May, June, July, August, September, October)

Co-variable: Daily counts

#### Model B

Dependent Variable: Average of the weekdays' counts

Independent Variables: **Group** (DS1, DS2, DS3, DS4, NE1, NE2, NE3, NE4)

Co-variable: Daily counts

#### Model C

Dependent Variable: Average of the weekdays' counts

Independent Variables:

**Group** (DS3, DS4, NE3, NE4, RI, RO)

**Month** (April, May, June, July, August, September, October)

Co-variable: Daily counts

#### Model D

Dependent Variable: Average of the weekdays' counts

Independent Variables: **Group** (DS3, DS4, NE3, NE4, RI, RO)

Co-variable: Daily counts

**NOTE 1:** DS = Downstate, NE = District One, RI = Rural Interstate, RO = Rural Other

**NOTE 2:** 1 = Rural Interstate, 2 = Rural Other, 3 = Urban Interstate, 4 = Urban Other

## A-2.2 ANALYSIS RESULTS: R<sup>2</sup> AND ERROR RATE\*

### Model A

Day	R <sup>2</sup>
Monday	0.998057
Tuesday	0.998314
Wednesday	0.998773
Thursday	0.997086

Error Rate: 0.11085189%     **Note:** Error Rate =  $\frac{\text{Total of Actual Counts} - \text{Total of Adjusted Counts}}{\text{Total of Actual Counts}}$

### Model B

Day	R <sup>2</sup>
Monday	0.997956
Tuesday	0.998242
Wednesday	0.998741
Thursday	0.996949

Error Rate: 0.11449299%

### Model C

Day	R <sup>2</sup>
Monday	0.997940
Tuesday	0.998232
Wednesday	0.998735
Thursday	0.996947

Error Rate: 0.11492321%

### Model D

Day	R <sup>2</sup>
Monday	0.998040
Tuesday	0.998303
Wednesday	0.998766
Thursday	0.997082

Error Rate: 0.11139653%

**A-2.2 REVISED TRAFFIC-COUNT ADJUSTMENT FACTORS FOR VARIOUS MODELS**

**Table A-2. Revised Traffic-Count Adjustment Factors for Model A**

<b>Group</b>	<b>Month</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>
DS1	<b>April</b>	1.041800436	1.022460596	0.993390182	0.937697287
	<b>May</b>	1.061847163	1.016113224	0.994495985	0.925314966
	<b>June</b>	1.058021846	1.030361802	0.993374489	0.921737906
	<b>July</b>	1.032332852	1.031331724	1.000677288	0.937132865
	<b>August</b>	1.047686179	1.026548215	0.988180711	0.940947355
	<b>September</b>	1.057109228	1.020108778	0.988326812	0.939269047
	<b>October</b>	1.021536171	1.024622766	1.001321878	0.948016569
DS2	<b>April</b>	1.036180233	1.018110933	0.983654039	0.954197196
	<b>May</b>	1.045621908	0.992673414	0.989419935	0.963888895
	<b>June</b>	1.048913962	1.009182921	0.982255935	0.956903000
	<b>July</b>	1.035532941	1.007452743	0.986061434	0.966586415
	<b>August</b>	1.034959086	1.007639756	0.985188603	0.967923639
	<b>September</b>	1.036757503	1.011683421	0.984645457	0.963400187
	<b>October</b>	1.008487232	1.008814985	0.998826363	0.973100912
DS3	<b>April</b>	1.039339665	1.021257740	0.989958300	0.949539491
	<b>May</b>	1.042069972	1.013244775	1.003486401	0.941971769
	<b>June</b>	1.037356675	1.030592720	0.993494359	0.941775691
	<b>July</b>	1.026268205	1.030574849	0.995503161	0.949408437
	<b>August</b>	1.032048800	1.019560011	0.991574879	0.957503362
	<b>September</b>	1.039974972	1.010167604	0.993695107	0.956559956
	<b>October</b>	1.022936091	1.019468045	0.987586128	0.963564187
DS4	<b>April</b>	1.032454409	1.005492740	0.987506608	0.973024948
	<b>May</b>	1.022049624	0.995770666	1.000216389	0.974735772
	<b>June</b>	1.025920891	1.009989311	0.992129099	0.968262032
	<b>July</b>	1.028076116	1.012415711	0.986744004	0.969778011
	<b>August</b>	1.018278108	1.004141707	0.990378729	0.983071019
	<b>September</b>	1.027091351	0.999599271	0.995253993	0.974918832
	<b>October</b>	1.027256414	1.004632035	0.983027994	0.978199342

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<b>Group</b>	<b>Month</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>
NE1	<b>April</b>	1.000966214	1.045237335	1.010466046	0.943780875
	<b>May</b>	1.037444801	1.053128052	1.006783927	0.911964767
	<b>June</b>	1.034209520	1.046085827	1.006394533	0.911905375
	<b>July</b>	1.005705803	1.043576240	1.019368460	0.933803644
	<b>August</b>	1.021901923	1.049280896	1.007828570	0.924363549
	<b>September</b>	1.024904240	1.029657781	1.011658079	0.936483979
	<b>October</b>	0.994000290	1.056237700	1.023998322	0.929932414
NE2	<b>April</b>	1.032594893	1.004464817	0.987294571	0.975962228
	<b>May</b>	1.020931929	1.004712303	0.993321796	0.980986657
	<b>June</b>	1.035893148	1.005857754	0.991532485	0.966658884
	<b>July</b>	1.013298211	1.006402779	0.987250835	0.987870566
	<b>August</b>	1.012465827	1.012236796	0.994490919	0.980391813
	<b>September</b>	1.023585993	1.013852157	0.987746456	0.975432702
	<b>October</b>	1.014335799	1.013241807	0.985971075	0.985729978
NE3	<b>April</b>	1.031400416	1.009620933	0.995429856	0.965003471
	<b>May</b>	1.031987756	1.003256014	0.994669795	0.970786883
	<b>June</b>	1.014144668	1.013618865	0.998792946	0.971289395
	<b>July</b>	1.014052241	0.998583068	0.997553045	0.985742723
	<b>August</b>	1.014917985	0.991490720	0.996319920	0.992297150
	<b>September</b>	1.024233777	0.996607128	0.992393865	0.983577365
	<b>October</b>	1.015382356	0.992781762	0.999028744	0.988468126
NE4	<b>April</b>	1.040296803	1.002854221	0.984162961	0.973350835
	<b>May</b>	1.031608515	0.998948672	0.998363567	0.971607085
	<b>June</b>	1.028412632	1.000244177	0.993830193	0.975821471
	<b>July</b>	1.031634586	0.998232737	0.984806522	0.981566298
	<b>August</b>	1.030586466	1.000957157	0.991342412	0.976905416
	<b>September</b>	1.041196181	0.999740521	0.986375674	0.973856914
	<b>October</b>	1.028433587	0.995498972	0.984932357	0.984823497

**Table A-3. Revised Traffic-Count Adjustment Factors for Model B**

<b>Group</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>
DS1	1.045765095	1.024997540	0.994166330	0.934820225
DS2	1.034079494	1.008174329	0.987238325	0.963987357
DS3	1.033672722	1.021623112	0.993305670	0.951135257
DS4	1.025614961	1.004831781	0.990475612	0.974671570
NE1	1.017814280	1.046575347	1.011448606	0.926147499
NE2	1.022533151	1.008099750	0.989942633	0.978272739
NE3	1.020740676	0.999544521	0.996268566	0.980466887
NE4	1.032887299	0.999594689	0.989227306	0.976770291

**Table A-4. Revised Traffic-Count Adjustment Factors for Model C**

<b>Group</b>	<b>Month</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>
DS3	<b>April</b>	1.0393396650	1.0212577400	0.9899583000	0.9495394906
	<b>May</b>	1.0420699720	1.0132447750	1.0034864010	0.9419717685
	<b>June</b>	1.0373566750	1.0305927200	0.9934943590	0.9417756910
	<b>July</b>	1.0262682050	1.0305748490	0.9955031610	0.9494084374
	<b>August</b>	1.0320488000	1.0195600110	0.9915748790	0.9575033622
	<b>September</b>	1.0399749720	1.0101676040	0.9936951070	0.9565599561
	<b>October</b>	1.0229360910	1.0194680450	0.9875861280	0.9635641866
DS4	<b>April</b>	1.0324544090	1.0054927400	0.9875066080	0.9730249481
	<b>May</b>	1.0220496240	0.9957706660	1.0002163890	0.9747357724
	<b>June</b>	1.0259208910	1.0099893110	0.9921290990	0.9682620317
	<b>July</b>	1.0280761160	1.0124157110	0.9867440040	0.9697780114
	<b>August</b>	1.0182781080	1.0041417070	0.9903787290	0.9830710191
	<b>September</b>	1.0270913510	0.9995992710	0.9952539930	0.9749188324
	<b>October</b>	1.0272564140	1.0046320350	0.9830279940	0.9781993419
NE3	<b>April</b>	1.0314004160	1.0096209330	0.9954298560	0.9650034708
	<b>May</b>	1.0319877560	1.0032560140	0.9946697950	0.9707868833
	<b>June</b>	1.0141446680	1.0136188650	0.9987929460	0.9712893953
	<b>July</b>	1.0140522410	0.9985830680	0.9975530450	0.9857427233
	<b>August</b>	1.0149179850	0.9914907200	0.9963199200	0.9922971499
	<b>September</b>	1.0242337770	0.9966071280	0.9923938650	0.9835773647
	<b>October</b>	1.0153823560	0.9927817620	0.9990287440	0.9884681255
NE4	<b>April</b>	1.0402968030	1.0028542210	0.9841629610	0.9733508352
	<b>May</b>	1.0316085150	0.9989486720	0.9983635670	0.9716070845
	<b>June</b>	1.0284126320	1.0002441770	0.9938301930	0.9758214713
	<b>July</b>	1.0316345860	0.9982327370	0.9848065220	0.9815662976
	<b>August</b>	1.0305864660	1.0009571570	0.9913424120	0.9769054164
	<b>September</b>	1.0411961810	0.9997405210	0.9863756740	0.9738569140
	<b>October</b>	1.0284335870	0.9954989720	0.9849323570	0.9848234966

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<b>Group</b>	<b>Month</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>
RI	<b>April</b>	1.0360383500	1.0253463930	0.9955739650	0.9384893902
	<b>May</b>	1.0581859110	1.0211307990	0.9962305530	0.9233418504
	<b>June</b>	1.0547607070	1.0323856560	0.9950576580	0.9204187460
	<b>July</b>	1.0293824230	1.0326000980	1.0025916000	0.9367783732
	<b>August</b>	1.0431352270	1.0302598520	0.9914017100	0.9380575864
	<b>September</b>	1.0518074120	1.0215767470	0.9918305440	0.9388322336
	<b>October</b>	1.0173497180	1.0289806250	1.0044927860	0.9453016094
RO	<b>April</b>	1.0349614790	1.0134155690	0.9848785680	0.9613501393
	<b>May</b>	1.0360408820	0.9971414650	0.9908830830	0.9701924140
	<b>June</b>	1.0440114610	1.0079455600	0.9856520830	0.9604719770
	<b>July</b>	1.0277860160	1.0070967650	0.9864634940	0.9735762713
	<b>August</b>	1.0286147640	1.0088867140	0.9876942410	0.9712666997
	<b>September</b>	1.0329234150	1.0123013450	0.9855277930	0.9667793813
	<b>October</b>	1.0098899020	1.0098790060	0.9956536660	0.9760991722

**Table A-5. Revised Traffic-Count Factors for Model D**

<b>Group</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>
DS3	1.0336727220	1.0216231120	0.9933056699	0.9511352570
DS4	1.0256149610	1.0048317810	0.9904756120	0.9746715700
NE3	1.0207406760	0.9995445210	0.9962685665	0.9804668872
NE4	1.0328872990	0.9995946890	0.9892273057	0.9767702911
RI	1.0416625410	1.0279160000	0.9965195601	0.9335856968
RO	1.0303598060	1.0081506740	0.9880928221	0.9684285153



## **SECTION A-3    ATR STATISTICAL ANALYSIS: REVISED DAILY TRAFFIC-COUNT ADJUSTMENT FACTORS FOR VARIOUS MODELS**

### **A-3.1 STATISTICAL ANALYSIS CRITERIA**

Hypothesis: There is no significance difference between the average of the adjusted 48-hour counts and twice of the average of the adjusted 24-hour counts.

Test: Paired-t test

$$H_0: \mu = 0 \text{ vs } H_a: \mu \neq 0$$

Where  $\mu$  is the average of [Adjusted 48-Hour Count – (2 × Adjusted 24-Hour Count of the starting day)]

$$\begin{aligned} \text{Adjusted 48-Hour Count} &= \text{Adjusted 24-Hour Count of the Starting Day} + \\ &\quad \text{Adjusted 24-Hour Count of the Consecutive Day} \end{aligned}$$

**A-3.2 STATISTICAL ANALYSIS APPLYING REVISED TRAFFIC-COUNT ADJUSTMENT FACTORS FOR VARIOUS MODELS**

**Table A-6. Statistical Analysis for Model A Traffic-Count Adjustment Factors**

Group	Month	Starting Day	n	Mean	Std. Err	t	P-Value	Error Rate
DS1	April	Monday	185	15.13	141.43	0.11	0.91	0.0313%
		Tuesday	185	-113.18	138.62	-0.82	0.42	-0.2335%
		Wednesday	185	5.10	121.84	0.04	0.97	0.0105%
		Overall	555	-30.98	77.40	-0.40	0.69	-0.0639%
	May	Monday	139	139.16	122.76	1.13	0.26	0.2660%
		Tuesday	139	-135.81	212.72	-0.64	0.52	-0.2597%
		Wednesday	139	-16.14	145.50	-0.11	0.91	-0.0308%
		Overall	417	-4.26	95.09	-0.04	0.96	-0.0081%
	June	Monday	181	144.74	101.19	1.43	0.15	0.2732%
		Tuesday	181	-114.06	152.11	-0.75	0.45	-0.2154%
		Wednesday	181	13.68	110.51	0.12	0.90	0.0258%
		Overall	543	14.79	71.19	0.21	0.84	0.0279%
	July	Monday	155	50.31	110.09	0.46	0.65	0.0958%
		Tuesday	155	-85.70	125.15	-0.68	0.49	-0.1630%
		Wednesday	155	19.64	93.63	0.21	0.83	0.0373%
		Overall	465	-5.25	63.65	-0.08	0.93	-0.0100%
	August	Monday	197	91.39	86.53	1.06	0.29	0.1888%
		Tuesday	197	19.16	57.14	0.34	0.74	0.0397%
		Wednesday	197	-31.27	63.50	-0.49	0.62	-0.0647%
		Overall	591	26.43	40.52	0.65	0.51	0.0547%
	September	Monday	145	48.64	92.59	0.53	0.60	0.1078%
		Tuesday	145	5.60	40.84	0.14	0.89	0.0124%
		Wednesday	145	24.24	70.54	0.34	0.73	0.0539%
		Overall	435	26.16	41.03	0.64	0.52	0.0581%
	October	Monday	175	29.97	111.86	0.27	0.79	0.0674%
		Tuesday	175	-30.52	101.43	-0.30	0.76	-0.0687%
		Wednesday	175	-10.53	142.62	-0.07	0.94	-0.0237%
		Overall	525	-3.69	69.11	-0.05	0.96	-0.0083%

**Note:**

$$\text{Error Rate} = \frac{\text{Total of } \{ \text{Adjusted 48-Hour Count} - 2 \times ( \text{Adjusted 24-Hour Count of the starting day} ) \}}{\text{Total of Adjusted 48-Hour Count}}$$

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<b>Group</b>	<b>Month</b>	<b>Starting Day</b>	<b>n</b>	<b>Mean</b>	<b>Std. Err</b>	<b>t</b>	<b>P- Value</b>	<b>Error Rate</b>
DS2	April	<b>Monday</b>	117	2.34	24.17	0.10	0.92	0.0331%
		<b>Tuesday</b>	117	18.26	21.59	0.85	0.40	0.2583%
		<b>Wednesday</b>	117	11.03	32.98	0.33	0.74	0.1567%
		<b>Overall</b>	351	10.54	15.37	0.69	0.49	0.1493%
	May	<b>Monday</b>	102	10.77	24.64	0.44	0.66	0.1559%
		<b>Tuesday</b>	102	-1.18	35.25	-0.03	0.97	-0.0171%
		<b>Wednesday</b>	102	-16.92	29.64	-0.57	0.57	-0.2447%
		<b>Overall</b>	306	-2.44	17.37	-0.14	0.89	-0.0354%
	June	<b>Monday</b>	103	27.39	28.28	0.97	0.33	0.3368%
		<b>Tuesday</b>	103	-17.70	27.29	-0.65	0.52	-0.2180%
		<b>Wednesday</b>	103	-5.31	26.70	-0.20	0.84	-0.0652%
		<b>Overall</b>	309	1.46	15.82	0.09	0.93	0.0179%
	July	<b>Monday</b>	98	30.63	21.39	1.43	0.16	0.3910%
		<b>Tuesday</b>	98	7.95	28.88	0.28	0.78	0.1020%
		<b>Wednesday</b>	98	-31.77	30.47	-1.04	0.30	-0.4063%
		<b>Overall</b>	294	2.27	15.72	0.14	0.89	0.0291%
	August	<b>Monday</b>	134	11.06	24.49	0.45	0.65	0.1411%
		<b>Tuesday</b>	134	7.67	20.47	0.37	0.71	0.0981%
		<b>Wednesday</b>	134	-7.56	23.58	-0.32	0.75	-0.0966%
		<b>Overall</b>	402	3.73	13.20	0.28	0.78	0.0476%
	September	<b>Monday</b>	99	0.95	24.68	0.04	0.97	0.0135%
		<b>Tuesday</b>	99	7.47	21.05	0.35	0.72	0.1061%
		<b>Wednesday</b>	99	1.33	28.32	0.05	0.96	0.0189%
		<b>Overall</b>	297	3.25	14.31	0.23	0.82	0.0461%
	October	<b>Monday</b>	139	23.03	23.42	0.98	0.33	0.3183%
		<b>Tuesday</b>	139	17.38	29.11	0.60	0.55	0.2415%
		<b>Wednesday</b>	139	-8.10	29.05	-0.28	0.78	-0.1127%
		<b>Overall</b>	417	10.77	15.75	0.68	0.49	0.1495%

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<b>Group</b>	<b>Month</b>	<b>Starting Day</b>	<b>n</b>	<b>Mean</b>	<b>Std. Err</b>	<b>t</b>	<b>P-Value</b>	<b>Error Rate</b>
DS3	April	<b>Monday</b>	118	-100.28	211.61	-0.47	0.64	-0.1333%
		<b>Tuesday</b>	118	-11.39	130.31	-0.09	0.93	-0.0151%
		<b>Wednesday</b>	118	119.07	181.44	0.66	0.51	0.1582%
		<b>Overall</b>	354	2.46	102.39	0.02	0.98	0.0033%
	May	<b>Monday</b>	94	-111.22	141.02	-0.79	0.43	-0.1408%
		<b>Tuesday</b>	94	124.87	231.32	0.54	0.59	0.1582%
		<b>Wednesday</b>	94	143.35	277.04	0.52	0.61	0.1822%
		<b>Overall</b>	282	52.34	128.89	0.41	0.69	0.0664%
	June	<b>Monday</b>	107	-103.21	173.77	-0.59	0.55	-0.1191%
		<b>Tuesday</b>	107	48.99	160.98	0.30	0.76	0.0565%
		<b>Wednesday</b>	107	126.68	178.77	0.71	0.48	0.1464%
		<b>Overall</b>	321	24.15	98.75	0.24	0.81	0.0279%
	July	<b>Monday</b>	93	-56.55	245.09	-0.23	0.82	-0.0646%
		<b>Tuesday</b>	93	-1.02	213.99	0.00	1.00	-0.0012%
		<b>Wednesday</b>	93	114.66	175.01	0.66	0.51	0.1311%
		<b>Overall</b>	279	19.03	122.78	0.16	0.88	0.0217%
	August	<b>Monday</b>	113	-136.44	158.14	-0.86	0.39	-0.1731%
		<b>Tuesday</b>	113	78.51	105.18	0.75	0.46	0.0995%
		<b>Wednesday</b>	113	10.98	198.87	0.06	0.96	0.0139%
		<b>Overall</b>	339	-15.65	91.52	-0.17	0.86	-0.0199%
	September	<b>Monday</b>	79	-23.91	161.94	-0.15	0.88	-0.0347%
		<b>Tuesday</b>	79	62.78	198.11	0.32	0.75	0.0913%
		<b>Wednesday</b>	79	14.43	236.02	0.06	0.95	0.0210%
		<b>Overall</b>	237	17.77	115.56	0.15	0.88	0.0258%
	October	<b>Monday</b>	120	-146.25	162.69	-0.90	0.37	-0.1932%
		<b>Tuesday</b>	120	13.09	158.78	0.08	0.93	0.0173%
		<b>Wednesday</b>	120	221.86	374.38	0.59	0.55	0.2935%
		<b>Overall</b>	360	29.57	145.81	0.20	0.84	0.0391%

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<b>Group</b>	<b>Month</b>	<b>Starting Day</b>	<b>n</b>	<b>Mean</b>	<b>Std. Err</b>	<b>t</b>	<b>P-Value</b>	<b>Error Rate</b>
DS4	April	<b>Monday</b>	315	-8.54	40.27	-0.21	0.83	-0.0306%
		<b>Tuesday</b>	315	-10.38	42.76	-0.24	0.81	-0.0371%
		<b>Wednesday</b>	315	0.34	41.62	0.01	0.99	0.0012%
		<b>Overall</b>	945	-6.19	23.97	-0.26	0.80	-0.0222%
	May	<b>Monday</b>	268	16.74	46.37	0.36	0.72	0.0595%
		<b>Tuesday</b>	268	-36.21	66.40	-0.55	0.59	-0.1287%
		<b>Wednesday</b>	268	32.12	84.70	0.38	0.70	0.1141%
		<b>Overall</b>	804	4.21	39.03	0.11	0.91	0.0150%
	June	<b>Monday</b>	342	-4.84	60.42	-0.08	0.94	-0.0169%
		<b>Tuesday</b>	342	-20.62	55.78	-0.37	0.71	-0.0719%
		<b>Wednesday</b>	342	24.60	45.92	0.54	0.59	0.0857%
		<b>Overall</b>	1026	-0.29	31.37	-0.01	0.99	-0.0010%
	July	<b>Monday</b>	282	-27.28	60.95	-0.45	0.65	-0.0983%
		<b>Tuesday</b>	282	39.83	52.38	0.76	0.45	0.1436%
		<b>Wednesday</b>	282	14.46	46.63	0.31	0.76	0.0522%
		<b>Overall</b>	846	9.00	30.95	0.29	0.77	0.0325%
	August	<b>Monday</b>	372	-24.64	39.33	-0.63	0.53	-0.0884%
		<b>Tuesday</b>	372	-27.12	42.41	-0.64	0.52	-0.0971%
		<b>Wednesday</b>	372	-17.68	48.34	-0.37	0.71	-0.0632%
		<b>Overall</b>	1116	-23.15	25.10	-0.92	0.36	-0.0828%
	September	<b>Monday</b>	258	16.85	46.71	0.36	0.72	0.0609%
		<b>Tuesday</b>	258	-64.57	53.61	-1.20	0.23	-0.2329%
		<b>Wednesday</b>	258	27.29	60.61	0.45	0.65	0.0983%
		<b>Overall</b>	774	-6.81	31.14	-0.22	0.83	-0.0246%
	October	<b>Monday</b>	317	-59.68	56.24	-1.06	0.29	-0.2133%
		<b>Tuesday</b>	317	46.39	45.46	1.02	0.31	0.1657%
		<b>Wednesday</b>	317	-30.77	80.32	-0.38	0.70	-0.1100%
		<b>Overall</b>	951	-14.69	36.02	-0.41	0.68	-0.0525%

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<b>Group</b>	<b>Month</b>	<b>Starting Day</b>	<b><i>n</i></b>	<b>Mean</b>	<b>Std. Err</b>	<b>t</b>	<b>P- Value</b>	<b>Error Rate</b>
NE1	April	<b>Monday</b>	14	77.36	662.51	0.12	0.91	0.1091%
		<b>Tuesday</b>	14	-18.46	206.72	-0.09	0.93	-0.0261%
		<b>Wednesday</b>	14	-112.45	321.86	-0.35	0.73	-0.1585%
		<b>Overall</b>	42	-17.85	249.00	-0.07	0.94	-0.0252%
	May	<b>Monday</b>	16	-35.53	265.48	-0.13	0.90	-0.0542%
		<b>Tuesday</b>	16	-43.58	281.69	-0.15	0.88	-0.0665%
		<b>Wednesday</b>	16	32.95	320.39	0.10	0.92	0.0502%
		<b>Overall</b>	48	-15.39	163.96	-0.09	0.93	-0.0235%
	June	<b>Monday</b>	21	-137.70	583.36	-0.24	0.82	-0.2177%
		<b>Tuesday</b>	21	-9.84	236.20	-0.04	0.97	-0.0155%
		<b>Wednesday</b>	21	161.09	540.65	0.30	0.77	0.2547%
		<b>Overall</b>	63	4.52	272.51	0.02	0.99	0.0071%
	July	<b>Monday</b>	14	120.06	582.66	0.21	0.84	0.1954%
		<b>Tuesday</b>	14	1.12	256.70	0.00	1.00	0.0018%
		<b>Wednesday</b>	14	-148.43	297.54	-0.50	0.63	-0.2414%
		<b>Overall</b>	42	-9.08	229.12	-0.04	0.97	-0.0148%
	August	<b>Monday</b>	24	131.22	317.35	0.41	0.68	0.2049%
		<b>Tuesday</b>	24	-104.07	267.86	-0.39	0.70	-0.1626%
		<b>Wednesday</b>	24	153.37	381.64	0.40	0.69	0.2398%
		<b>Overall</b>	72	60.17	185.85	0.32	0.75	0.0940%
	September	<b>Monday</b>	13	86.79	264.02	0.33	0.75	0.1307%
		<b>Tuesday</b>	13	-28.61	202.65	-0.14	0.89	-0.0431%
		<b>Wednesday</b>	13	115.93	498.63	0.23	0.82	0.1749%
		<b>Overall</b>	39	58.04	194.77	0.30	0.77	0.0875%
	October	<b>Monday</b>	16	27.72	429.94	0.06	0.95	0.0446%
		<b>Tuesday</b>	16	19.03	200.99	0.09	0.93	0.0306%
		<b>Wednesday</b>	16	-60.13	300.44	-0.20	0.84	-0.0968%
		<b>Overall</b>	48	-4.46	183.30	-0.02	0.98	-0.0072%

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<b>Group</b>	<b>Month</b>	<b>Starting Day</b>	<b>n</b>	<b>Mean</b>	<b>Std. Err</b>	<b>t</b>	<b>P-Value</b>	<b>Error Rate</b>
NE2	April	<b>Monday</b>	35	-24.06	21.49	-1.12	0.27	-0.3255%
		<b>Tuesday</b>	35	-19.40	21.42	-0.91	0.37	-0.2608%
		<b>Wednesday</b>	35	13.57	27.28	0.50	0.62	0.1823%
		<b>Overall</b>	105	-9.96	13.57	-0.73	0.46	-0.1342%
	May	<b>Monday</b>	30	-23.22	26.64	-0.87	0.39	-0.2854%
		<b>Tuesday</b>	30	18.03	22.90	0.79	0.44	0.2215%
		<b>Wednesday</b>	30	-1.37	20.81	-0.07	0.95	-0.0169%
		<b>Overall</b>	90	-2.19	13.57	-0.16	0.87	-0.0269%
	June	<b>Monday</b>	28	-2.91	36.62	-0.08	0.94	-0.0267%
		<b>Tuesday</b>	28	-11.89	43.39	-0.27	0.79	-0.1091%
		<b>Wednesday</b>	28	10.62	55.97	0.19	0.85	0.0974%
		<b>Overall</b>	84	-1.40	26.27	-0.05	0.96	-0.0128%
	July	<b>Monday</b>	23	-5.49	30.00	-0.18	0.86	-0.0524%
		<b>Tuesday</b>	23	7.57	37.15	0.20	0.84	0.0723%
		<b>Wednesday</b>	23	13.38	117.99	0.11	0.91	0.1279%
		<b>Overall</b>	69	5.15	41.81	0.12	0.90	0.0492%
	August	<b>Monday</b>	30	-16.63	23.86	-0.70	0.49	-0.1979%
		<b>Tuesday</b>	30	-6.83	33.27	-0.21	0.84	-0.0811%
		<b>Wednesday</b>	30	2.90	21.47	0.13	0.89	0.0344%
		<b>Overall</b>	90	-6.86	15.26	-0.45	0.65	-0.0814%
	September	<b>Monday</b>	26	-29.67	14.00	-2.12	0.04	-0.4318%
		<b>Tuesday</b>	26	-0.82	25.15	-0.03	0.97	-0.0119%
		<b>Wednesday</b>	26	6.78	26.09	0.26	0.80	0.0983%
		<b>Overall</b>	78	-7.90	12.91	-0.61	0.54	-0.1147%
	October	<b>Monday</b>	30	-26.67	24.69	-1.08	0.29	-0.3874%
		<b>Tuesday</b>	30	5.79	27.49	0.21	0.83	0.0839%
		<b>Wednesday</b>	30	3.44	23.23	0.15	0.88	0.0499%
		<b>Overall</b>	90	-5.81	14.47	-0.40	0.69	-0.0843%

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<b>Group</b>	<b>Month</b>	<b>Starting Day</b>	<b>n</b>	<b>Mean</b>	<b>Std. Err</b>	<b>t</b>	<b>P-Value</b>	<b>Error Rate</b>
NE3	April	<b>Monday</b>	35	-116.91	501.24	-0.23	0.82	-0.0450%
		<b>Tuesday</b>	35	-205.56	584.86	-0.35	0.73	-0.0790%
		<b>Wednesday</b>	35	116.59	407.32	0.29	0.78	0.0448%
		<b>Overall</b>	105	-68.63	287.94	-0.24	0.81	-0.0264%
	May	<b>Monday</b>	28	-175.78	859.51	-0.20	0.84	-0.0677%
		<b>Tuesday</b>	28	-118.32	553.47	-0.21	0.83	-0.0455%
		<b>Wednesday</b>	28	47.80	389.19	0.12	0.90	0.0184%
		<b>Overall</b>	84	-82.10	360.35	-0.23	0.82	-0.0316%
	June	<b>Monday</b>	23	-666.18	1145.55	-0.58	0.57	-0.2557%
		<b>Tuesday</b>	23	-87.47	1461.16	-0.06	0.95	-0.0335%
		<b>Wednesday</b>	23	-16.51	973.58	-0.02	0.99	-0.0063%
		<b>Overall</b>	69	-256.72	689.37	-0.37	0.71	-0.0983%
	July	<b>Monday</b>	25	184.82	622.94	0.30	0.77	0.0821%
		<b>Tuesday</b>	25	-549.26	1311.13	-0.42	0.68	-0.2435%
		<b>Wednesday</b>	25	-53.84	858.02	-0.06	0.95	-0.0238%
		<b>Overall</b>	75	-139.43	555.56	-0.25	0.80	-0.0618%
	August	<b>Monday</b>	49	85.70	498.00	0.17	0.86	0.0344%
		<b>Tuesday</b>	49	-460.56	1053.78	-0.44	0.66	-0.1844%
		<b>Wednesday</b>	49	123.20	794.24	0.16	0.88	0.0493%
		<b>Overall</b>	147	-83.89	467.43	-0.18	0.86	-0.0336%
	September	<b>Monday</b>	38	-134.59	402.23	-0.33	0.74	-0.0584%
		<b>Tuesday</b>	38	-294.59	920.21	-0.32	0.75	-0.1276%
		<b>Wednesday</b>	38	13.12	804.60	0.02	0.99	0.0057%
		<b>Overall</b>	114	-138.69	425.30	-0.33	0.74	-0.0601%
	October	<b>Monday</b>	45	116.81	675.44	0.17	0.86	0.0479%
		<b>Tuesday</b>	45	-272.95	1052.77	-0.26	0.80	-0.1118%
		<b>Wednesday</b>	45	-13.36	869.51	-0.02	0.99	-0.0055%
		<b>Overall</b>	135	-56.50	504.17	-0.11	0.91	-0.0231%

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Group	Month	Starting Day	n	Mean	Std. Err	t	P-Value	Error Rate
NE4	April	Monday	515	-4.29	44.51	-0.10	0.92	-0.0090%
		Tuesday	515	-3.27	35.09	-0.09	0.93	-0.0068%
		Wednesday	515	-8.99	35.12	-0.26	0.80	-0.0188%
		Overall	1545	-5.52	22.21	-0.25	0.80	-0.0115%
	May	Monday	432	0.04	38.30	0.00	1.00	0.0001%
		Tuesday	432	-1.35	42.28	-0.03	0.97	-0.0027%
		Wednesday	432	5.83	43.99	0.13	0.89	0.0119%
		Overall	1296	1.51	23.99	0.06	0.95	0.0031%
	June	Monday	521	0.89	44.53	0.02	0.98	0.0018%
		Tuesday	521	-28.30	58.98	-0.48	0.63	-0.0560%
		Wednesday	521	17.12	54.33	0.32	0.75	0.0339%
		Overall	1563	-3.43	30.56	-0.11	0.91	-0.0068%
	July	Monday	455	65.69	93.03	0.71	0.48	0.1359%
		Tuesday	455	15.13	57.69	0.26	0.79	0.0314%
		Wednesday	455	-87.55	83.08	-1.05	0.29	-0.1812%
		Overall	1365	-2.25	45.81	-0.05	0.96	-0.0047%
	August	Monday	567	1.98	35.44	0.06	0.96	0.0043%
		Tuesday	567	-16.63	28.73	-0.58	0.56	-0.0357%
		Wednesday	567	15.87	39.38	0.40	0.69	0.0341%
		Overall	1701	0.41	20.08	0.02	0.98	0.0009%
	September	Monday	407	30.45	37.22	0.82	0.41	0.0645%
		Tuesday	407	8.40	34.44	0.24	0.81	0.0178%
		Wednesday	407	1.74	36.38	0.05	0.96	0.0037%
		Overall	1221	13.53	20.79	0.65	0.52	0.0287%
	October	Monday	476	-66.54	52.05	-1.28	0.20	-0.1412%
		Tuesday	476	-0.13	36.23	0.00	1.00	-0.0003%
		Wednesday	476	-114.33	119.75	-0.95	0.34	-0.2416%
		Overall	1428	-60.33	45.15	-1.34	0.18	-0.1278%

From Table A-6, we can see that all the p-values, except one, are greater than 0.05. **Therefore, we can conclude that the average of adjusted 48-hour counts is not significantly different from the average of twice of the initial day adjusted 24-hour counts.**

**Table A-7. Statistical Analysis for Model B Traffic-Count Adjustment Factors**

Group	Starting Day	<i>n</i>	Mean	Std. Err	<i>t</i>	P-Value	Error Rate
DS1	Monday	1177	77.50	43.59	1.78	0.08	0.1578%
	Tuesday	1177	-60.80	47.75	-1.27	0.20	-0.1238%
	Wednesday	1177	15.75	42.22	0.37	0.71	0.0320%
	Overall	3531	10.82	25.75	0.42	0.67	0.0220%
DS2	Monday	792	15.35	9.56	1.61	0.11	0.2062%
	Tuesday	792	7.17	10.13	0.71	0.48	0.0967%
	Wednesday	792	-7.95	10.89	-0.73	0.47	-0.1072%
	Overall	2376	4.85	5.89	0.82	0.41	0.0654%
DS3	Monday	724	-113.94	71.43	-1.60	0.11	-0.1444%
	Tuesday	724	50.19	65.44	0.77	0.44	0.0635%
	Wednesday	724	121.57	95.62	1.27	0.20	0.1542%
	Overall	2172	19.27	45.40	0.42	0.67	0.0244%
DS4	Monday	2154	-15.36	19.29	-0.80	0.43	-0.0548%
	Tuesday	2154	-9.58	19.57	-0.49	0.62	-0.0342%
	Wednesday	2154	6.46	22.50	0.29	0.77	0.0230%
	Overall	6462	-6.16	11.84	-0.52	0.60	-0.0220%
NE1	Monday	118	29.85	181.26	0.16	0.87	0.0462%
	Tuesday	118	-31.73	96.10	-0.33	0.74	-0.0491%
	Wednesday	118	30.67	157.10	0.20	0.85	0.0475%
	Overall	354	9.60	85.90	0.11	0.91	0.0149%
NE2	Monday	202	-17.99	10.70	-1.68	0.09	-0.2155%
	Tuesday	202	-2.63	11.47	-0.23	0.82	-0.0315%
	Wednesday	202	8.02	17.53	0.46	0.65	0.0959%
	Overall	606	-4.20	7.84	-0.54	0.59	-0.0503%
NE3	Monday	243	-69.23	251.75	-0.27	0.78	-0.0281%
	Tuesday	243	-289.44	391.82	-0.74	0.46	-0.1172%
	Wednesday	243	76.85	307.55	0.25	0.80	0.0311%
	Overall	729	-93.94	185.86	-0.51	0.61	-0.0380%
NE4	Monday	3373	2.15	19.72	0.11	0.91	0.0045%
	Tuesday	3373	-5.63	16.59	-0.34	0.73	-0.0117%
	Wednesday	3373	-20.20	24.95	-0.81	0.42	-0.0420%
	Overall	10119	-7.89	11.95	-0.66	0.51	-0.0164%

From Table A-7, we can see that all of the p-values are greater than 0.05. **Therefore, we can conclude that the average of the adjusted 48-hour counts is not significantly different from the average of twice of the initial day adjusted 24-hour counts.**

**Table A-8. Statistical Analysis for Model C Traffic-Count Adjustment Factors**

<b>Group</b>	<b>Month</b>	<b>Starting Day</b>	<b>n</b>	<b>Mean</b>	<b>Std. Err</b>	<b>t</b>	<b>P-Value</b>	<b>Error Rate</b>
DS3	April	<b>Monday</b>	118	-100.28	211.61	-0.47	0.64	-0.1333%
		<b>Tuesday</b>	118	-11.39	130.31	-0.09	0.93	-0.0151%
		<b>Wednesday</b>	118	119.07	181.44	0.66	0.51	0.1582%
		<b>Overall</b>	354	2.46	102.39	0.02	0.98	0.0033%
	May	<b>Monday</b>	94	-111.22	141.02	-0.79	0.43	-0.1408%
		<b>Tuesday</b>	94	124.87	231.32	0.54	0.59	0.1582%
		<b>Wednesday</b>	94	143.35	277.04	0.52	0.61	0.1822%
		<b>Overall</b>	282	52.34	128.89	0.41	0.69	0.0664%
	June	<b>Monday</b>	107	-103.21	173.77	-0.59	0.55	-0.1191%
		<b>Tuesday</b>	107	48.99	160.98	0.30	0.76	0.0565%
		<b>Wednesday</b>	107	126.68	178.77	0.71	0.48	0.1464%
		<b>Overall</b>	321	24.15	98.75	0.24	0.81	0.0279%
	July	<b>Monday</b>	93	-56.55	245.09	-0.23	0.82	-0.0646%
		<b>Tuesday</b>	93	-1.02	213.99	0.00	1.00	-0.0012%
		<b>Wednesday</b>	93	114.66	175.01	0.66	0.51	0.1311%
		<b>Overall</b>	279	19.03	122.78	0.16	0.88	0.0217%
	August	<b>Monday</b>	113	-136.44	158.14	-0.86	0.39	-0.1731%
		<b>Tuesday</b>	113	78.51	105.18	0.75	0.46	0.0995%
		<b>Wednesday</b>	113	10.98	198.87	0.06	0.96	0.0139%
		<b>Overall</b>	339	-15.65	91.52	-0.17	0.86	-0.0199%
	September	<b>Monday</b>	79	-23.91	161.94	-0.15	0.88	-0.0347%
		<b>Tuesday</b>	79	62.78	198.11	0.32	0.75	0.0913%
		<b>Wednesday</b>	79	14.43	236.02	0.06	0.95	0.0210%
		<b>Overall</b>	237	17.77	115.56	0.15	0.88	0.0258%
	October	<b>Monday</b>	120	-146.25	162.69	-0.90	0.37	-0.1932%
		<b>Tuesday</b>	120	13.09	158.78	0.08	0.93	0.0173%
		<b>Wednesday</b>	120	221.86	374.38	0.59	0.55	0.2935%
		<b>Overall</b>	360	29.57	145.81	0.20	0.84	0.0391%

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<b>Group</b>	<b>Month</b>	<b>Starting Day</b>	<b>n</b>	<b>Mean</b>	<b>Std. Err</b>	<b>t</b>	<b>P-Value</b>	<b>Error Rate</b>
DS4	April	<b>Monday</b>	315	-8.54	40.27	-0.21	0.83	-0.0306%
		<b>Tuesday</b>	315	-10.38	42.76	-0.24	0.81	-0.0371%
		<b>Wednesday</b>	315	0.34	41.62	0.01	0.99	0.0012%
		<b>Overall</b>	945	-6.19	23.97	-0.26	0.80	-0.0222%
	May	<b>Monday</b>	268	16.74	46.37	0.36	0.72	0.0595%
		<b>Tuesday</b>	268	-36.21	66.40	-0.55	0.59	-0.1287%
		<b>Wednesday</b>	268	32.12	84.70	0.38	0.70	0.1141%
		<b>Overall</b>	804	4.21	39.03	0.11	0.91	0.0150%
	June	<b>Monday</b>	342	-4.84	60.42	-0.08	0.94	-0.0169%
		<b>Tuesday</b>	342	-20.62	55.78	-0.37	0.71	-0.0719%
		<b>Wednesday</b>	342	24.60	45.92	0.54	0.59	0.0857%
		<b>Overall</b>	1026	-0.29	31.37	-0.01	0.99	-0.0010%
	July	<b>Monday</b>	282	-27.28	60.95	-0.45	0.65	-0.0983%
		<b>Tuesday</b>	282	39.83	52.38	0.76	0.45	0.1436%
		<b>Wednesday</b>	282	14.46	46.63	0.31	0.76	0.0522%
		<b>Overall</b>	846	9.00	30.95	0.29	0.77	0.0325%
	August	<b>Monday</b>	372	-24.64	39.33	-0.63	0.53	-0.0884%
		<b>Tuesday</b>	372	-27.12	42.41	-0.64	0.52	-0.0971%
		<b>Wednesday</b>	372	-17.68	48.34	-0.37	0.71	-0.0632%
		<b>Overall</b>	1116	-23.15	25.10	-0.92	0.36	-0.0828%
	September	<b>Monday</b>	258	16.85	46.71	0.36	0.72	0.0609%
		<b>Tuesday</b>	258	-64.57	53.61	-1.20	0.23	-0.2329%
		<b>Wednesday</b>	258	27.29	60.61	0.45	0.65	0.0983%
		<b>Overall</b>	774	-6.81	31.14	-0.22	0.83	-0.0246%
	October	<b>Monday</b>	317	-59.68	56.24	-1.06	0.29	-0.2133%
		<b>Tuesday</b>	317	46.39	45.46	1.02	0.31	0.1657%
		<b>Wednesday</b>	317	-30.77	80.32	-0.38	0.70	-0.1100%
		<b>Overall</b>	951	-14.69	36.02	-0.41	0.68	-0.0525%

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<b>Group</b>	<b>Month</b>	<b>Starting Day</b>	<b>n</b>	<b>Mean</b>	<b>Std. Err</b>	<b>t</b>	<b>P-Value</b>	<b>Error Rate</b>
NE3	April	<b>Monday</b>	35	-116.91	501.24	-0.23	0.82	-0.0450%
		<b>Tuesday</b>	35	-205.56	584.86	-0.35	0.73	-0.0790%
		<b>Wednesday</b>	35	116.59	407.32	0.29	0.78	0.0448%
		<b>Overall</b>	105	-68.63	287.94	-0.24	0.81	-0.0264%
	May	<b>Monday</b>	28	-175.78	859.51	-0.20	0.84	-0.0677%
		<b>Tuesday</b>	28	-118.32	553.47	-0.21	0.83	-0.0455%
		<b>Wednesday</b>	28	47.80	389.19	0.12	0.90	0.0184%
		<b>Overall</b>	84	-82.10	360.35	-0.23	0.82	-0.0316%
	June	<b>Monday</b>	23	-666.18	1145.55	-0.58	0.57	-0.2557%
		<b>Tuesday</b>	23	-87.47	1461.16	-0.06	0.95	-0.0335%
		<b>Wednesday</b>	23	-16.51	973.58	-0.02	0.99	-0.0063%
		<b>Overall</b>	69	-256.72	689.37	-0.37	0.71	-0.0983%
	July	<b>Monday</b>	25	184.82	622.94	0.30	0.77	0.0821%
		<b>Tuesday</b>	25	-549.26	1311.13	-0.42	0.68	-0.2435%
		<b>Wednesday</b>	25	-53.84	858.02	-0.06	0.95	-0.0238%
		<b>Overall</b>	75	-139.43	555.56	-0.25	0.80	-0.0618%
	August	<b>Monday</b>	49	85.70	498.00	0.17	0.86	0.0344%
		<b>Tuesday</b>	49	-460.56	1053.78	-0.44	0.66	-0.1844%
		<b>Wednesday</b>	49	123.20	794.24	0.16	0.88	0.0493%
		<b>Overall</b>	147	-83.89	467.43	-0.18	0.86	-0.0336%
	September	<b>Monday</b>	38	-134.59	402.23	-0.33	0.74	-0.0584%
		<b>Tuesday</b>	38	-294.59	920.21	-0.32	0.75	-0.1276%
		<b>Wednesday</b>	38	13.12	804.60	0.02	0.99	0.0057%
		<b>Overall</b>	114	-138.69	425.30	-0.33	0.74	-0.0601%
	October	<b>Monday</b>	45	116.81	675.44	0.17	0.86	0.0479%
		<b>Tuesday</b>	45	-272.95	1052.77	-0.26	0.80	-0.1118%
		<b>Wednesday</b>	45	-13.36	869.51	-0.02	0.99	-0.0055%
		<b>Overall</b>	135	-56.50	504.17	-0.11	0.91	-0.0231%

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<b>Group</b>	<b>Month</b>	<b>Starting Day</b>	<b>n</b>	<b>Mean</b>	<b>Std. Err</b>	<b>t</b>	<b>P-Value</b>	<b>Error Rate</b>
NE4	April	<b>Monday</b>	515	-4.29	44.51	-0.10	0.92	-0.0090%
		<b>Tuesday</b>	515	-3.27	35.09	-0.09	0.93	-0.0068%
		<b>Wednesday</b>	515	-8.99	35.12	-0.26	0.80	-0.0188%
		<b>Overall</b>	1545	-5.52	22.21	-0.25	0.80	-0.0115%
	May	<b>Monday</b>	432	0.04	38.30	0.00	1.00	0.0001%
		<b>Tuesday</b>	432	-1.35	42.28	-0.03	0.97	-0.0027%
		<b>Wednesday</b>	432	5.83	43.99	0.13	0.89	0.0119%
		<b>Overall</b>	1296	1.51	23.99	0.06	0.95	0.0031%
	June	<b>Monday</b>	521	0.89	44.53	0.02	0.98	0.0018%
		<b>Tuesday</b>	521	-28.30	58.98	-0.48	0.63	-0.0560%
		<b>Wednesday</b>	521	17.12	54.33	0.32	0.75	0.0339%
		<b>Overall</b>	1563	-3.43	30.56	-0.11	0.91	-0.0068%
	July	<b>Monday</b>	455	65.69	93.03	0.71	0.48	0.1359%
		<b>Tuesday</b>	455	15.13	57.69	0.26	0.79	0.0314%
		<b>Wednesday</b>	455	-87.55	83.08	-1.05	0.29	-0.1812%
		<b>Overall</b>	1365	-2.25	45.81	-0.05	0.96	-0.0047%
	August	<b>Monday</b>	567	1.98	35.44	0.06	0.96	0.0043%
		<b>Tuesday</b>	567	-16.63	28.73	-0.58	0.56	-0.0357%
		<b>Wednesday</b>	567	15.87	39.38	0.40	0.69	0.0341%
		<b>Overall</b>	1701	0.41	20.08	0.02	0.98	0.0009%
	September	<b>Monday</b>	407	30.45	37.22	0.82	0.41	0.0645%
		<b>Tuesday</b>	407	8.40	34.44	0.24	0.81	0.0178%
		<b>Wednesday</b>	407	1.74	36.38	0.05	0.96	0.0037%
		<b>Overall</b>	1221	13.53	20.79	0.65	0.52	0.0287%
	October	<b>Monday</b>	476	-66.54	52.05	-1.28	0.20	-0.1412%
		<b>Tuesday</b>	476	-0.13	36.23	0.00	1.00	-0.0003%
		<b>Wednesday</b>	476	-114.33	119.75	-0.95	0.34	-0.2416%
		<b>Overall</b>	1428	-60.33	45.15	-1.34	0.18	-0.1278%

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<b>Group</b>	<b>Month</b>	<b>Starting Day</b>	<b>n</b>	<b>Mean</b>	<b>Std. Err</b>	<b>t</b>	<b>P-Value</b>	<b>Error Rate</b>
RI	April	<b>Monday</b>	199	-33.49	144.46	-0.23	0.82	-0.0671%
		<b>Tuesday</b>	199	-103.39	129.97	-0.80	0.43	-0.2064%
		<b>Wednesday</b>	199	4.69	115.67	0.04	0.97	0.0093%
		<b>Overall</b>	597	-44.06	75.28	-0.59	0.56	-0.0880%
	May	<b>Monday</b>	155	94.86	122.89	0.77	0.44	0.1767%
		<b>Tuesday</b>	155	-119.06	194.24	-0.61	0.54	-0.2218%
		<b>Wednesday</b>	155	2.40	136.02	0.02	0.99	0.0045%
		<b>Overall</b>	465	-7.27	88.93	-0.08	0.93	-0.0135%
	June	<b>Monday</b>	202	103.87	111.35	0.93	0.35	0.1922%
		<b>Tuesday</b>	202	-103.04	138.59	-0.74	0.46	-0.1907%
		<b>Wednesday</b>	202	35.55	114.18	0.31	0.76	0.0657%
		<b>Overall</b>	606	12.13	70.40	0.17	0.86	0.0224%
	July	<b>Monday</b>	169	44.32	114.10	0.39	0.70	0.0832%
		<b>Tuesday</b>	169	-80.01	116.79	-0.69	0.49	-0.1501%
		<b>Wednesday</b>	169	11.10	90.32	0.12	0.90	0.0208%
		<b>Overall</b>	507	-8.20	62.12	-0.13	0.90	-0.0154%
	August	<b>Monday</b>	221	59.21	89.98	0.66	0.51	0.1182%
		<b>Tuesday</b>	221	7.35	58.37	0.13	0.90	0.0147%
		<b>Wednesday</b>	221	17.06	73.94	0.23	0.82	0.0341%
		<b>Overall</b>	663	27.87	43.37	0.64	0.52	0.0557%
	September	<b>Monday</b>	158	11.35	92.23	0.12	0.90	0.0242%
		<b>Tuesday</b>	158	-8.63	41.92	-0.21	0.84	-0.0184%
		<b>Wednesday</b>	158	54.31	77.84	0.70	0.49	0.1161%
		<b>Overall</b>	474	19.01	42.51	0.45	0.65	0.0406%
	October	<b>Monday</b>	191	-12.01	113.85	-0.11	0.92	-0.0261%
		<b>Tuesday</b>	191	-21.96	94.76	-0.23	0.82	-0.0478%
		<b>Wednesday</b>	191	15.68	135.35	0.12	0.91	0.0341%
		<b>Overall</b>	573	-6.10	66.77	-0.09	0.93	-0.0133%

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Group	Month	Starting Day	n	Mean	Std. Err	t	P-Value	Error Rate
RO	April	Monday	152	-0.03	19.26	0.00	1.00	-0.0005%
		Tuesday	152	3.34	17.57	0.19	0.85	0.0468%
		Wednesday	152	5.42	26.37	0.21	0.84	0.0760%
		Overall	456	2.91	12.33	0.24	0.81	0.0407%
	May	Monday	132	-12.82	20.96	-0.61	0.54	-0.1785%
		Tuesday	132	6.52	27.81	0.23	0.82	0.0907%
		Wednesday	132	-19.07	23.54	-0.81	0.42	-0.2649%
		Overall	396	-8.46	13.99	-0.60	0.55	-0.1176%
	June	Monday	131	16.53	23.60	0.70	0.48	0.1897%
		Tuesday	131	-22.10	23.45	-0.94	0.35	-0.2534%
		Wednesday	131	-2.26	24.09	-0.09	0.93	-0.0258%
		Overall	393	-2.61	13.68	-0.19	0.85	-0.0299%
	July	Monday	121	14.60	18.77	0.78	0.44	0.1754%
		Tuesday	121	6.95	24.38	0.29	0.78	0.0837%
		Wednesday	121	-31.32	33.31	-0.94	0.35	-0.3760%
		Overall	363	-3.25	15.11	-0.22	0.83	-0.0391%
	August	Monday	164	-2.84	20.89	-0.14	0.89	-0.0358%
		Tuesday	164	3.58	17.80	0.20	0.84	0.0451%
		Wednesday	164	-6.67	19.69	-0.34	0.74	-0.0840%
		Overall	492	-1.98	11.24	-0.18	0.86	-0.0249%
	September	Monday	125	-9.86	19.89	-0.50	0.62	-0.1407%
		Tuesday	125	5.47	17.45	0.31	0.75	0.0780%
		Wednesday	125	-0.06	23.13	0.00	1.00	-0.0009%
		Overall	375	-1.49	11.69	-0.13	0.90	-0.0212%
	October	Monday	169	14.60	19.80	0.74	0.46	0.2035%
		Tuesday	169	19.78	24.49	0.81	0.42	0.2769%
		Wednesday	169	-12.55	24.47	-0.51	0.61	-0.1760%
		Overall	507	7.27	13.28	0.55	0.58	0.1017%

From Table A-8, we can see that all of the p-values are greater than 0.05. **Therefore, we can conclude that the average of the adjusted 48-hour counts is not significantly different from the average of twice of the initial day adjusted 24-hour counts.**



**Table A-9. Statistical Analysis for Model D Traffic-Count Adjustment Factors**

<b>Group</b>	<b>Starting Day</b>	<b><i>n</i></b>	<b>Mean</b>	<b>Std. Err</b>	<b>t</b>	<b>P-Value</b>	<b>Error Rate</b>
DS3	<b>Monday</b>	724	-113.94	71.43	-1.60	0.11	-0.1444%
	<b>Tuesday</b>	724	50.19	65.44	0.77	0.44	0.0635%
	<b>Wednesday</b>	724	121.57	95.62	1.27	0.20	0.1542%
	<b>Overall</b>	2172	19.27	45.4	0.42	0.67	0.0244%
DS4	<b>Monday</b>	2154	-15.36	19.29	-0.80	0.43	-0.0548%
	<b>Tuesday</b>	2154	-9.58	19.57	-0.49	0.62	-0.0342%
	<b>Wednesday</b>	2154	6.46	22.50	0.29	0.77	0.0230%
	<b>Overall</b>	6462	-6.16	11.84	-0.52	0.60	-0.0220%
NE3	<b>Monday</b>	243	-69.23	251.75	-0.27	0.78	-0.0281%
	<b>Tuesday</b>	243	-289.44	391.82	-0.74	0.46	-0.1172%
	<b>Wednesday</b>	243	76.85	307.55	0.25	0.80	0.0311%
	<b>Overall</b>	729	-93.94	185.86	-0.51	0.61	-0.0380%
NE4	<b>Monday</b>	3373	2.15	19.72	0.11	0.91	0.0045%
	<b>Tuesday</b>	3373	-5.63	16.59	-0.34	0.73	-0.0117%
	<b>Wednesday</b>	3373	-20.20	24.95	-0.81	0.42	-0.0420%
	<b>Overall</b>	10119	-7.89	11.95	-0.66	0.51	-0.0164%
RI	<b>Monday</b>	1295	43.40	44.65	0.97	0.33	0.0859%
	<b>Tuesday</b>	1295	-56.56	44.36	-1.27	0.20	-0.1119%
	<b>Wednesday</b>	1295	32.41	41.46	0.78	0.43	0.0641%
	<b>Overall</b>	3885	6.42	25.13	0.26	0.80	0.0127%
RO	<b>Monday</b>	994	4.39	7.96	0.55	0.58	0.0576%
	<b>Tuesday</b>	994	4.19	8.40	0.50	0.62	0.0550%
	<b>Wednesday</b>	994	-8.83	9.42	-0.94	0.35	-0.1159%
	<b>Overall</b>	2982	-0.09	4.97	-0.02	0.99	-0.0011%

From Table A-9, we can see that all of the p-values are greater than 0.05. **Therefore, we can conclude that the average of the adjusted 48-hour counts is not significantly different from the average of twice of the initial day adjusted 24-hour counts.**

