APPENDIX

APPENDIX A: PARAMETER TEST

In our analysis, we employed the one day per month randomly to reduce computational complexity. To ensure the random sampling does not affect the stability of estimates, we conducted model estimation by employing multiple random samples following the same process used for the estimation sample. For all of these samples the linear regression model specifications described were estimated. The reader would note that across the samples, it is not likely that the parameters estimates remain identical. However, the focus is on examining if the parameters across these multiple samples exhibit statistically significant variability. For this purpose, we consider the mean of the parameters across the 11 samples as the population estimate. Subsequently, a revised Wald test statistic is generated for each sample parameter relative to population mean parameter as follows (see Hoover et al. (2021) for a similar approach):

$$\text{Parameter test statistic} = abs\left[\frac{Sample\ parameter - Population\ benchmark}{\sqrt{SE_{sample}^2 + SE_{population}^2}}\right]$$

If the parameter test statistic is less than critical t statistic value (1.65) for 90% confidence interval, the result indicates that the parameter is not significantly different from the population mean. Using the parameters estimates for 10 data samples, revised t-statistics for all variables were computed. From the comparison, both weekday and holiday model test statistics values for all the variables are less than 1.65, indicating that sample selection does not cause a significant change in the model. The detailed comparison results are included in supplementary materials (Figure A.1 and A.2).

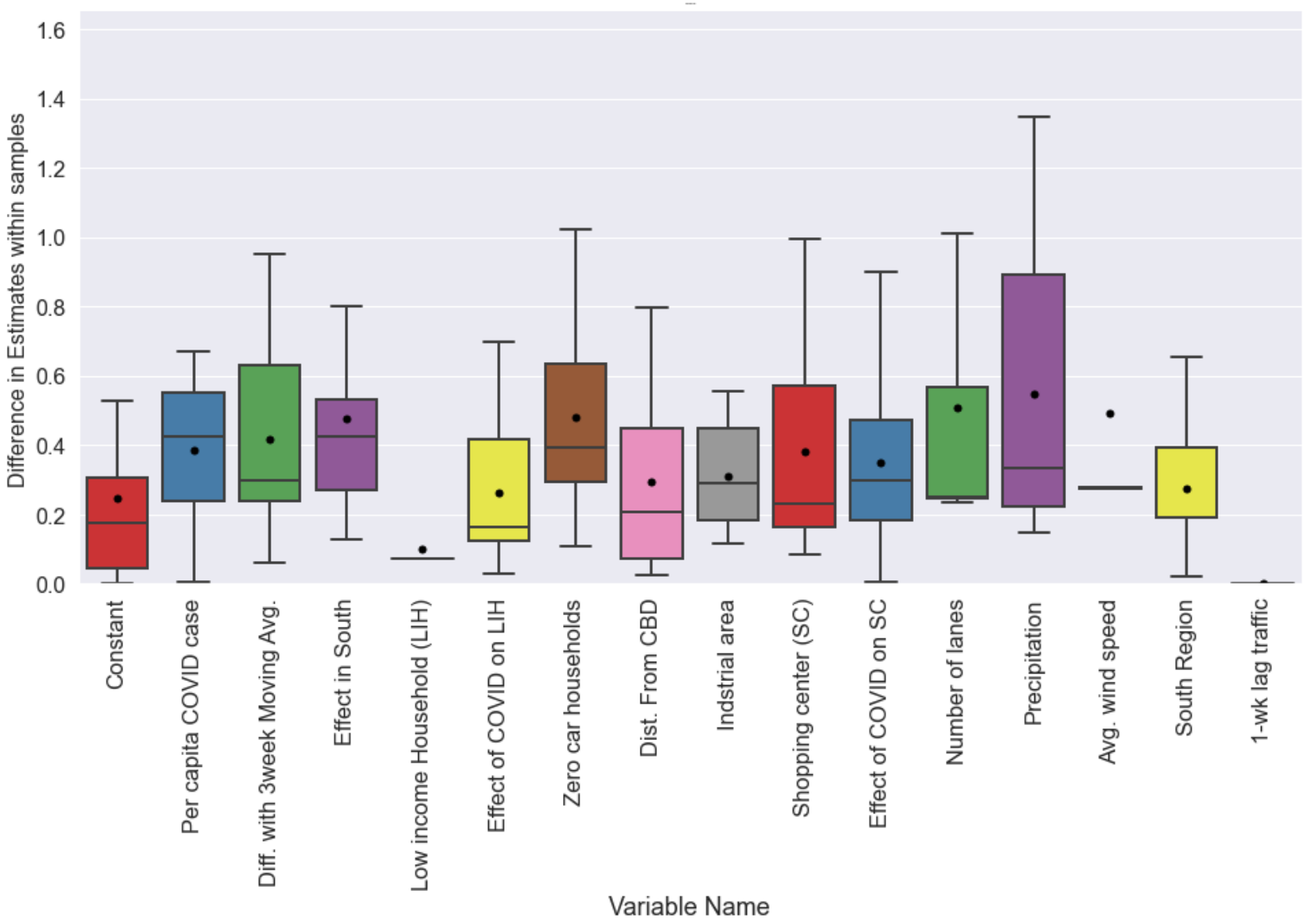

Figure A.1: Variation of the coefficients of linear regression model for different random samples (Weekday Model)

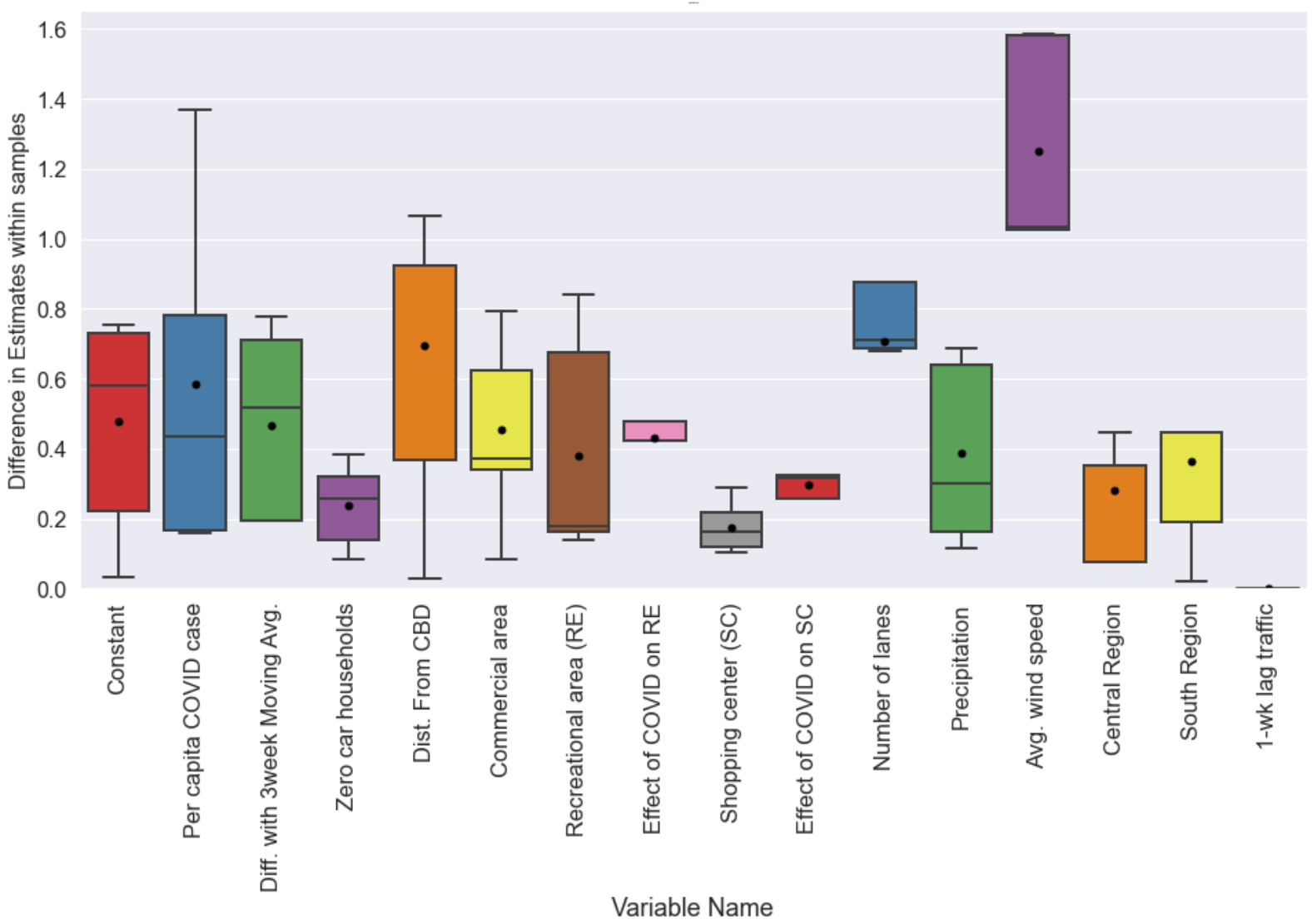

Figure A.2: Variation of the coefficients of linear regression model for different random samples (Holiday Model)

APPENDIX B: FIGURES OF SPATIOTEMPORAL VARIATION

The recovery rates of traffic volume from January 2021 through April 2021 across the entire state for both weekdays and holidays have been shown in Figure A.3 and A.4.

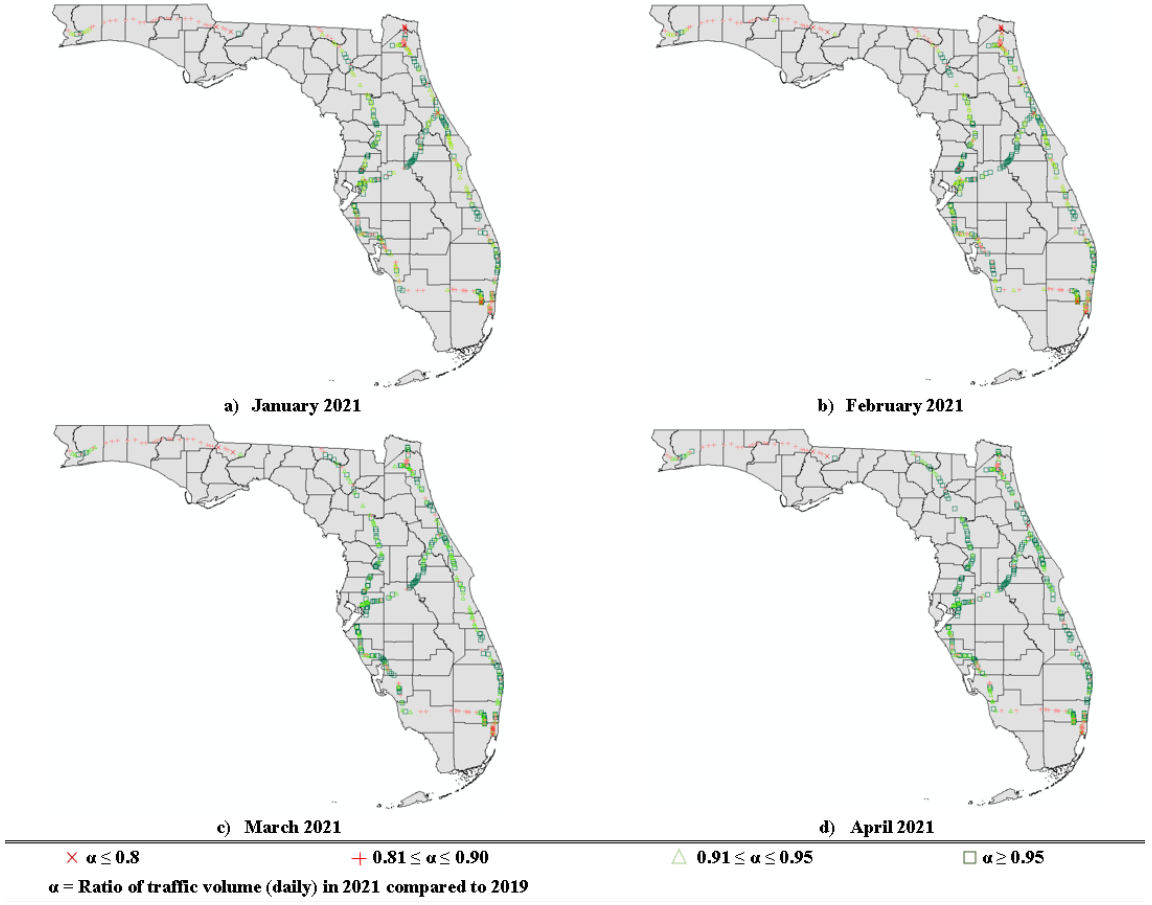

Figure A.3: Spatial and temporal changes in weekday's traffic volume (January 2021 through April 2021)

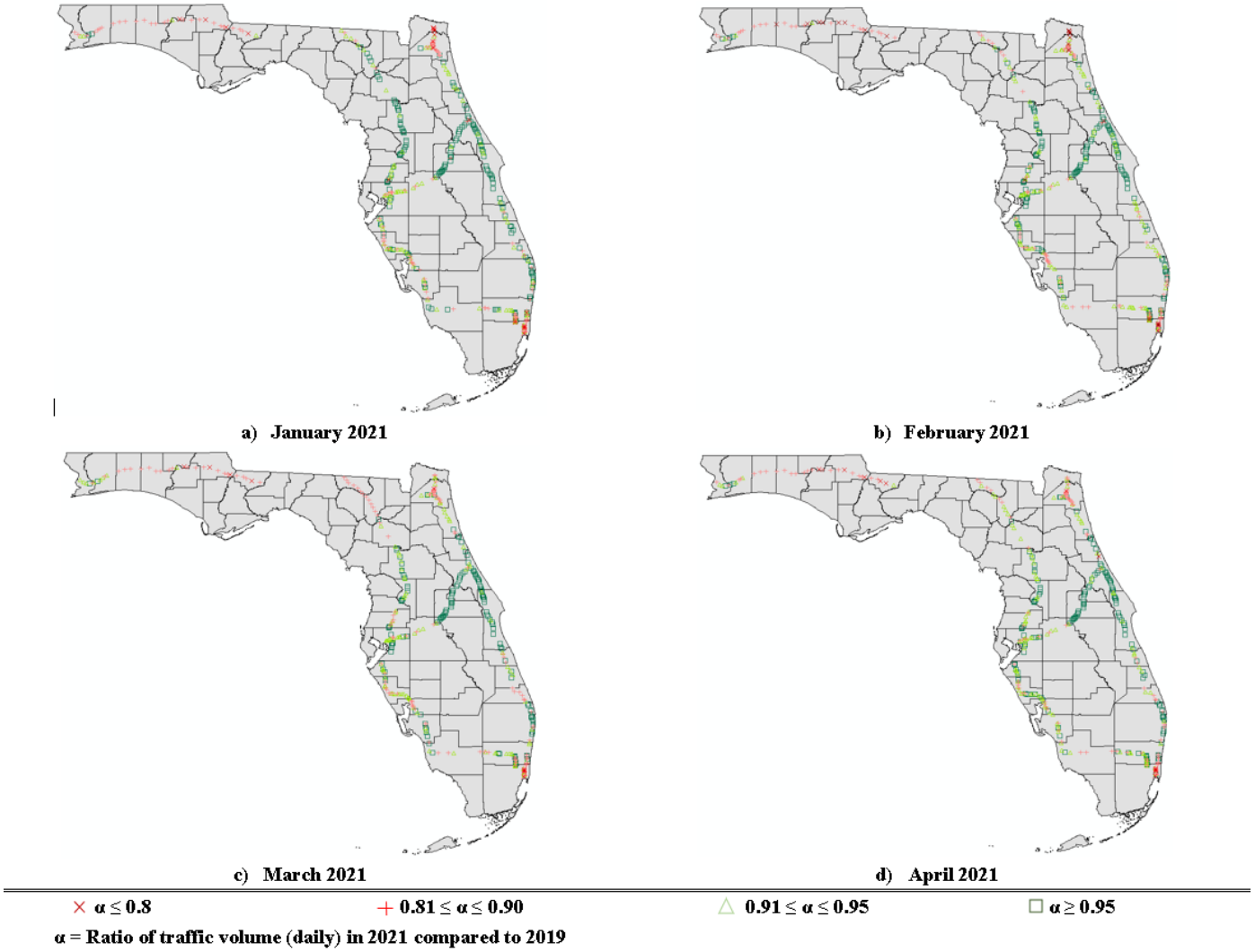

Figure A.4: Spatial and temporal changes in holiday's traffic volume (January 2021 through April 2021)