

**SPR-821: DEVELOP NEW METHODS TO USE ODOT WEIGH-IN-MOTION DATA
FOR PREDICTING FREIGHT FLOW AND/OR COMMODITY PATTERNS**

Observed Weight Density Plots for ODOT Class 11 to ODOT Class 19 Trucks

by

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OBSERVED WEIGHT DENSITY PLOTS BY CLASSIFICATION

As part of the data comparisons, empirical observed truck weight was determined to account for only the observed weight of the payload. This was completed due to the Freight Analysis Framework (FAF) data representing only the weight of the commodity. This was accomplished by generating a series of density plots of the observed weight and identifying the value at which the lower peak occurs. This was done using the 2016 WIM data. In addition, with Woodburn accounting for both the highest volumes and observed weights, plots were generated at the Woodburn WIM stations only. For these density plots, only classifications that appeared to have both a lower and upper peak were included in the calculation of truck weight; however, density plots for all classifications (ODOT Class 11 to ODOT Class 19) are presented here. This decision stems from the assumption that the higher truck classifications will have a lower peak representing unloaded conditions and an upper peak representing loaded conditions.

The following figures show the observed weight density plots for ODOT Class 11 to ODOT Class 19 trucks by classification..

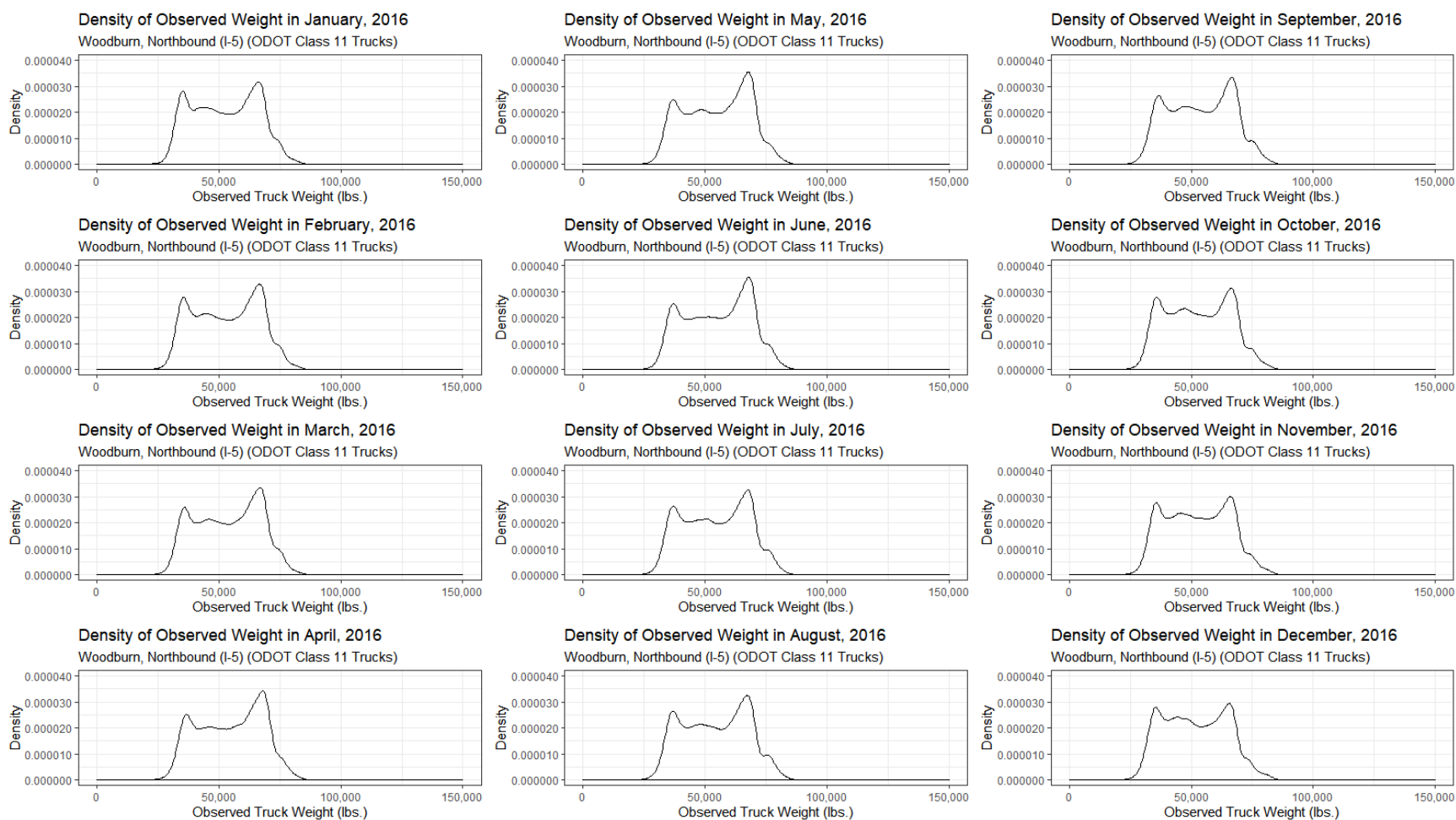


Figure 1: Observed Weight Density Plots for ODOT Class 11 Trucks at Woodburn (NB) WIM Station in 2016

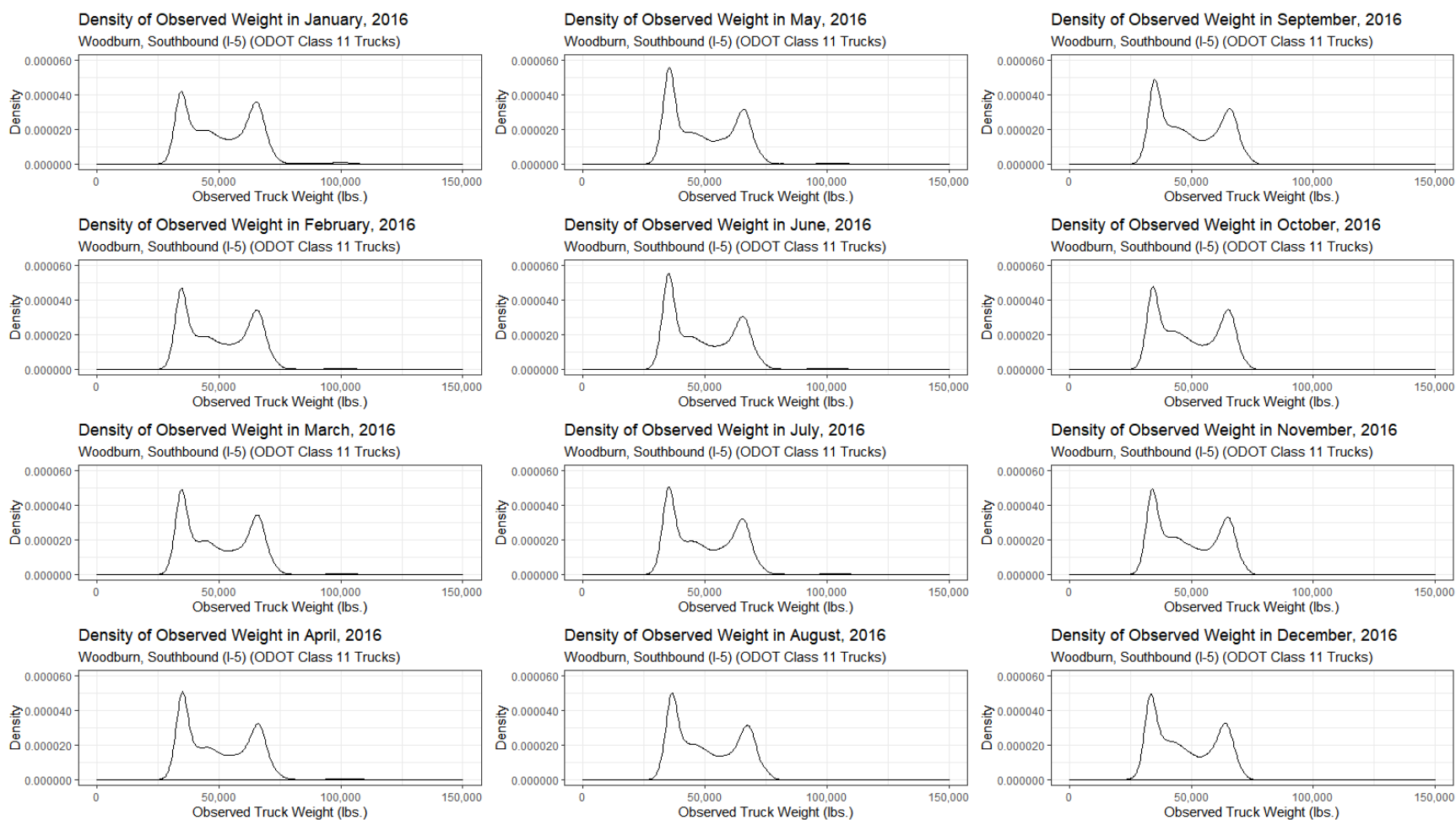


Figure 2: Observed Weight Density Plots for ODOT Class 11 Trucks at Woodburn (SB) WIM Station in 2016

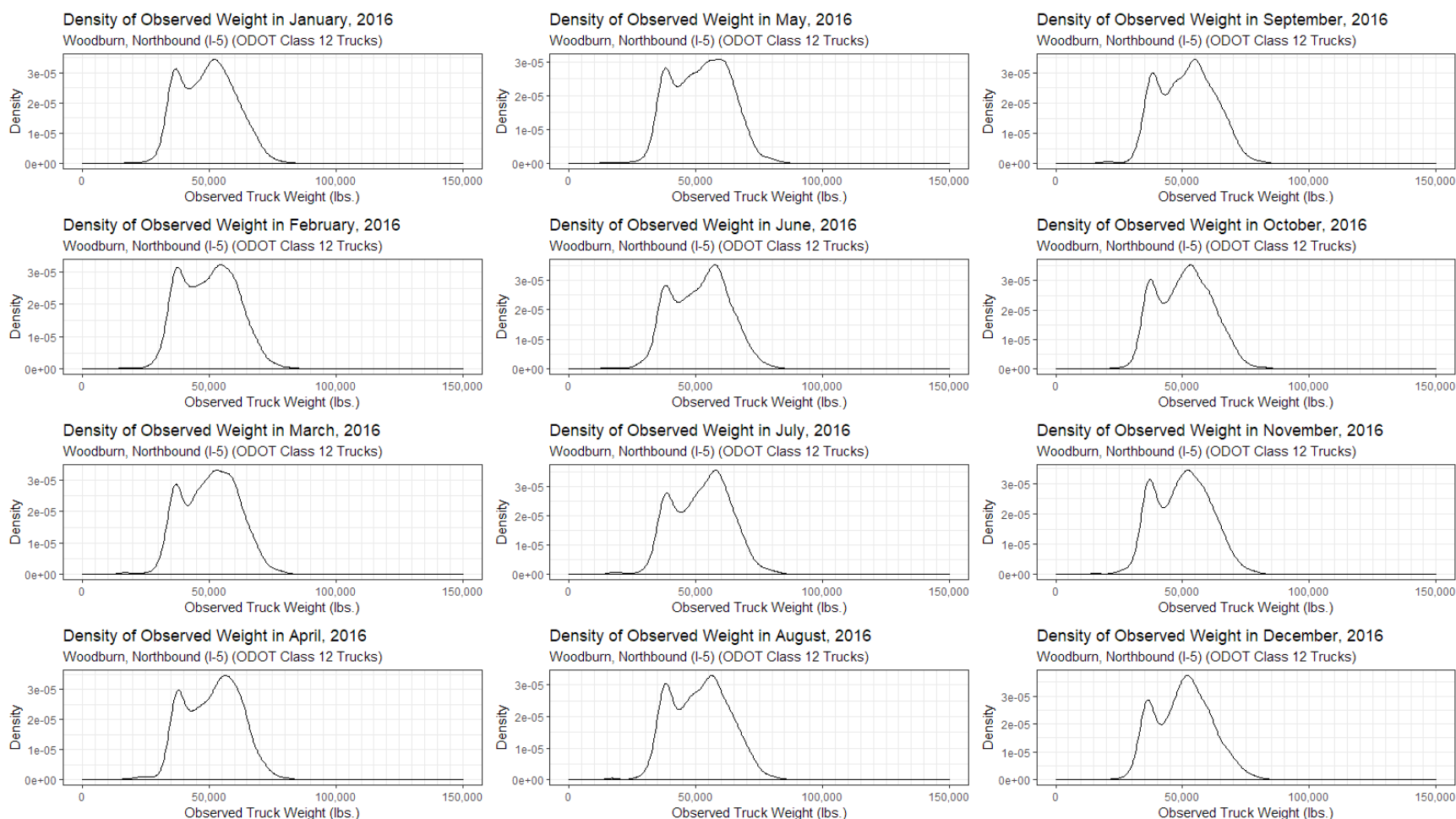


Figure 3: Observed Weight Density Plots for ODOT Class 12 Trucks at Woodburn (NB) WIM Station in 2016

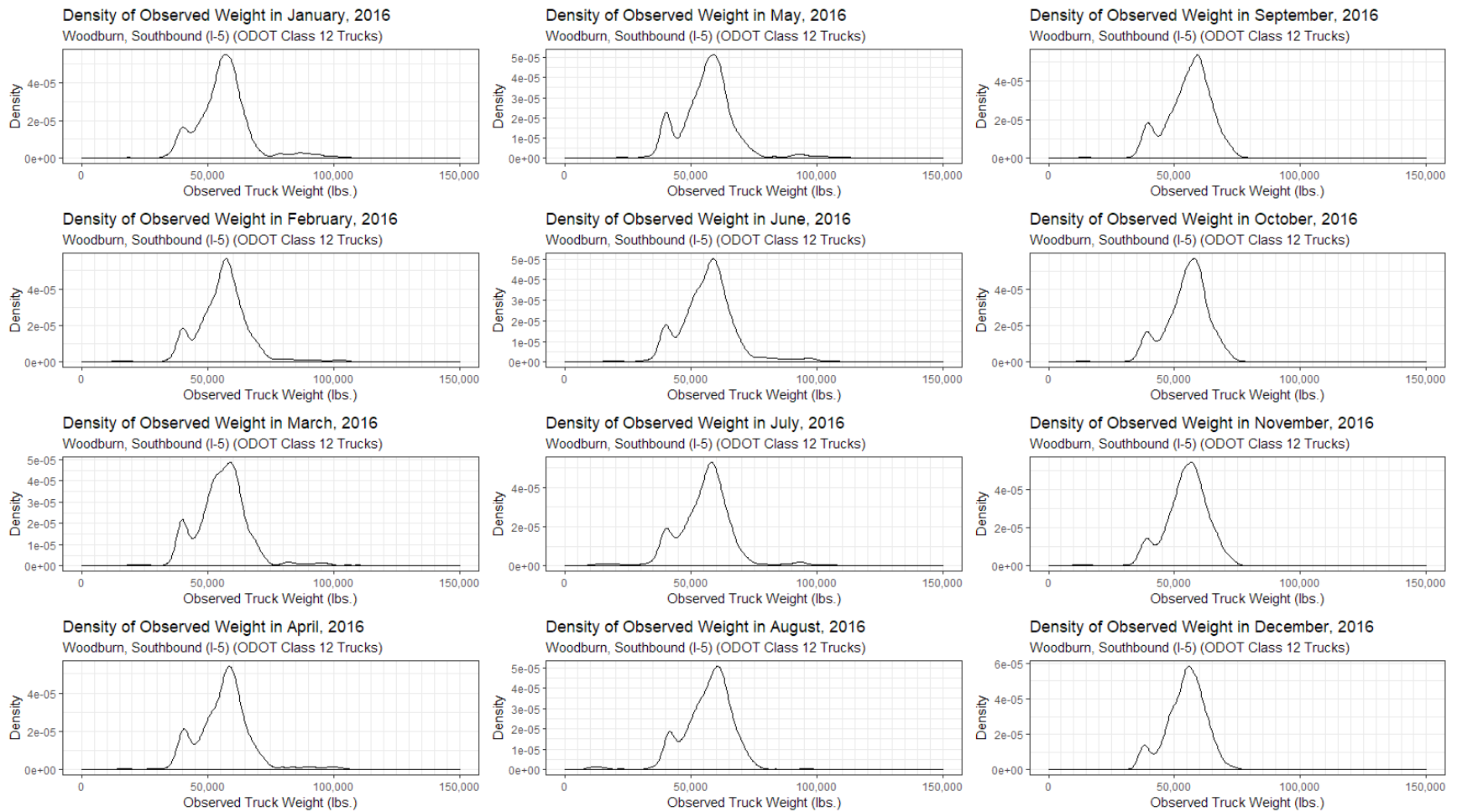


Figure 4: Observed Weight Density Plots for ODOT Class 12 Trucks at Woodburn (SB) WIM Station in 2016

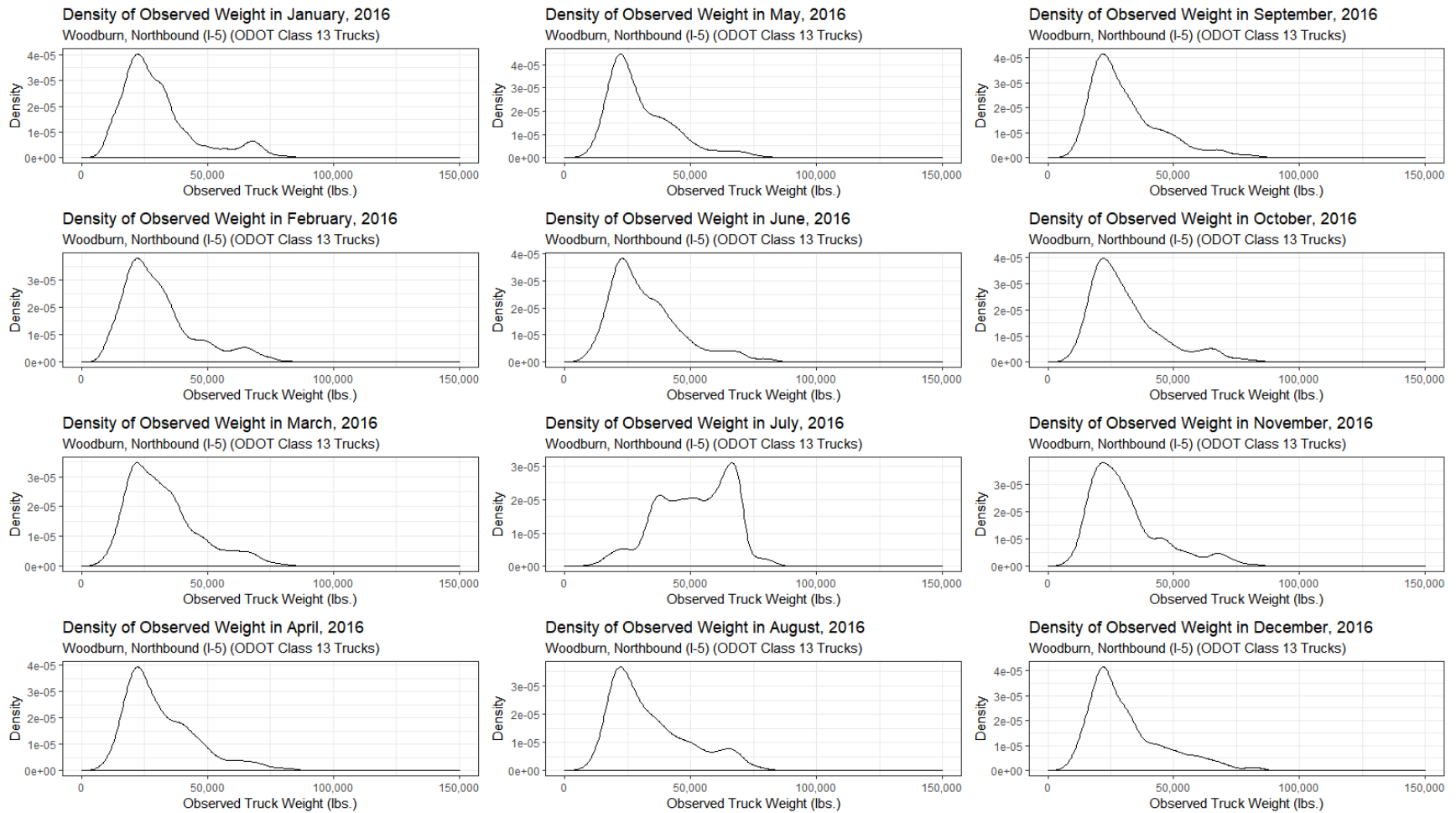


Figure 5: Observed Weight Density Plots for ODOT Class 13 Trucks at Woodburn (NB) WIM Station in 2016

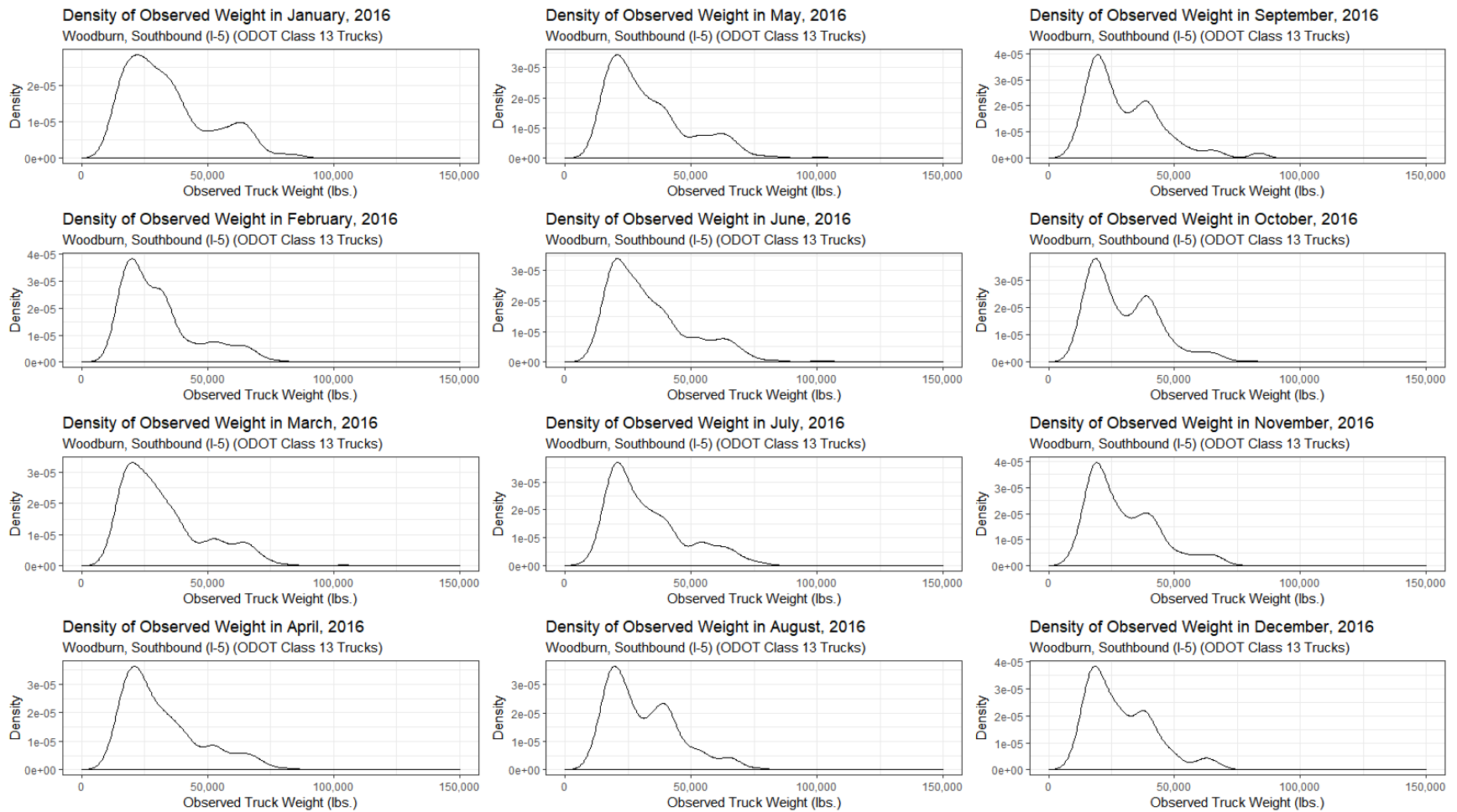


Figure 6: Observed Weight Density Plots for ODOT Class 13 Trucks at Woodburn (SB) WIM Station in 2016

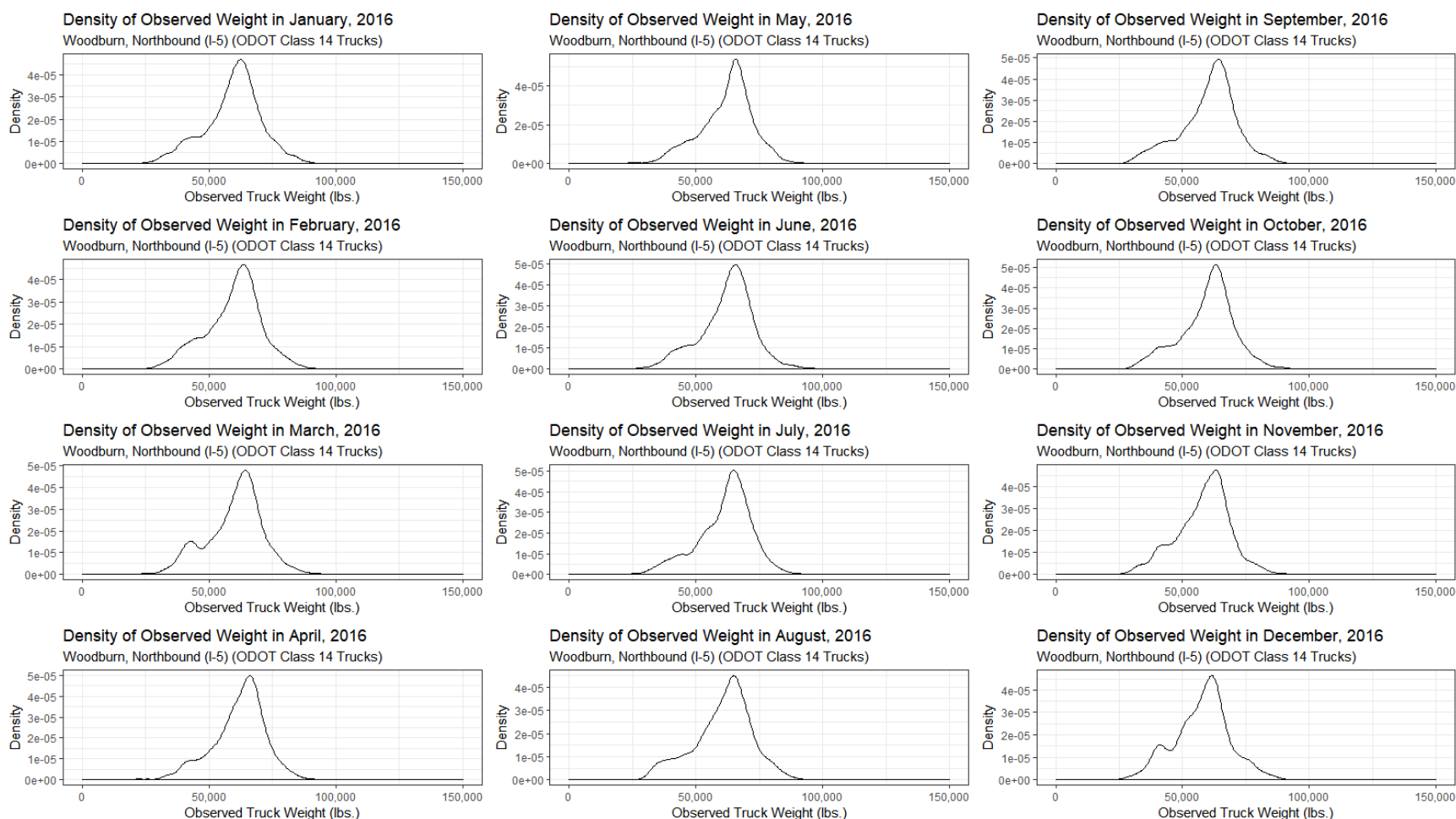


Figure 7: Observed Weight Density Plots for ODOT Class 14 Trucks at Woodburn (NB) WIM Station in 2016

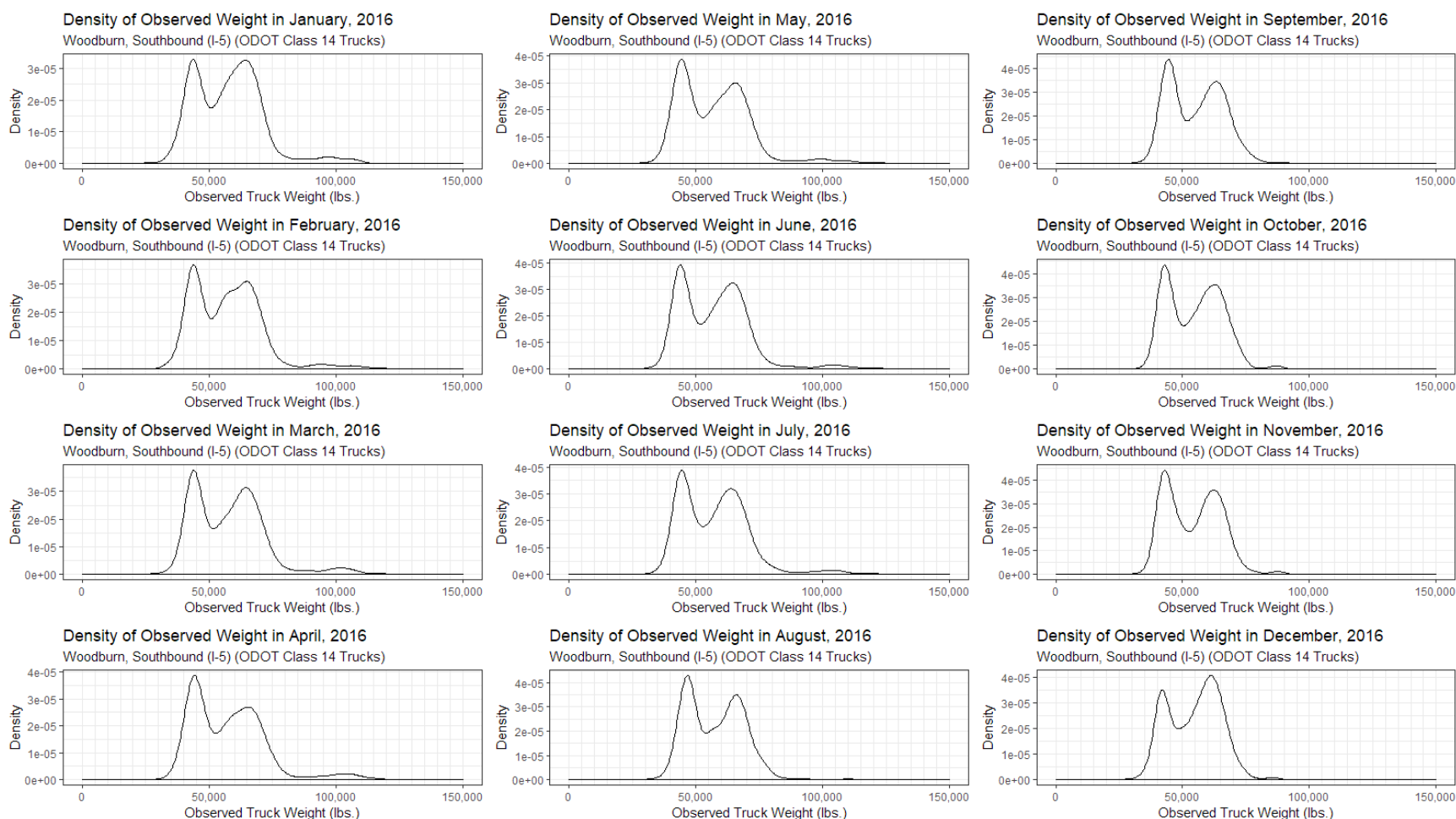


Figure 8: Observed Weight Density Plots for ODOT Class 14 Trucks at Woodburn (SB) WIM Station in 2016

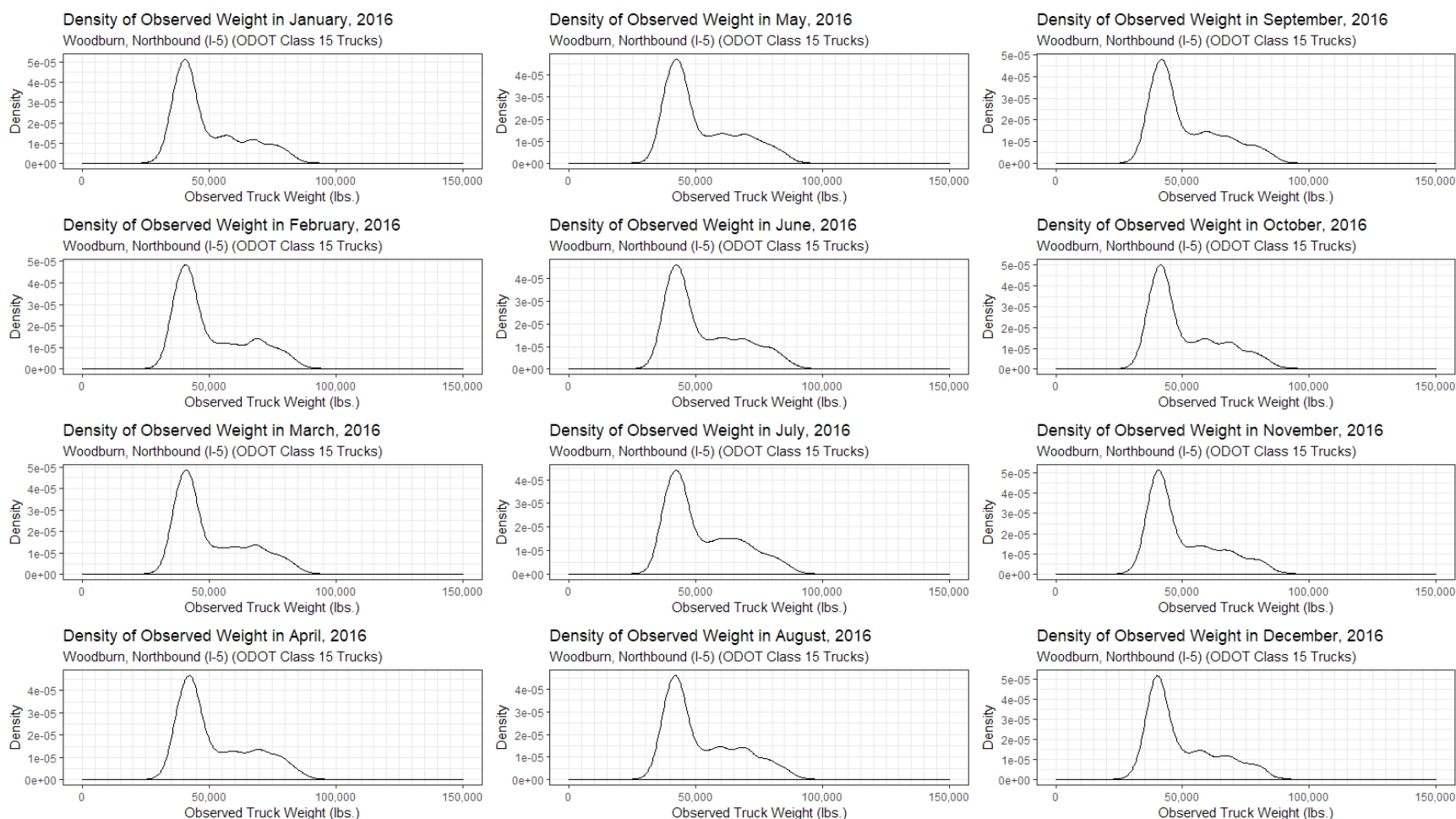


Figure 9: Observed Weight Density Plots for ODOT Class 15 Trucks at Woodburn (NB) WIM Station in 2016

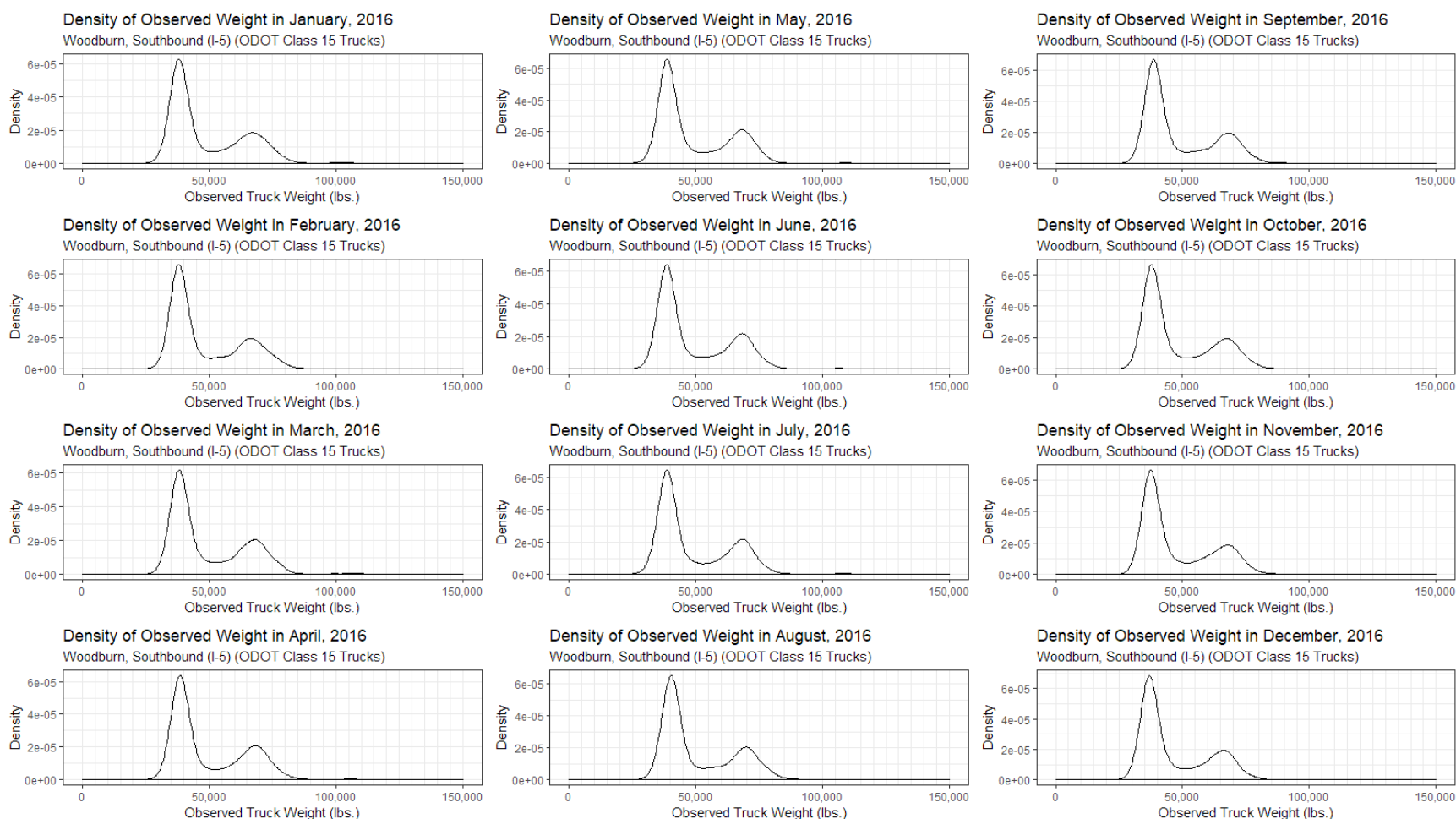


Figure 10: Observed Weight Density Plots for ODOT Class 15 Trucks at Woodburn (SB) WIM Station in 2016

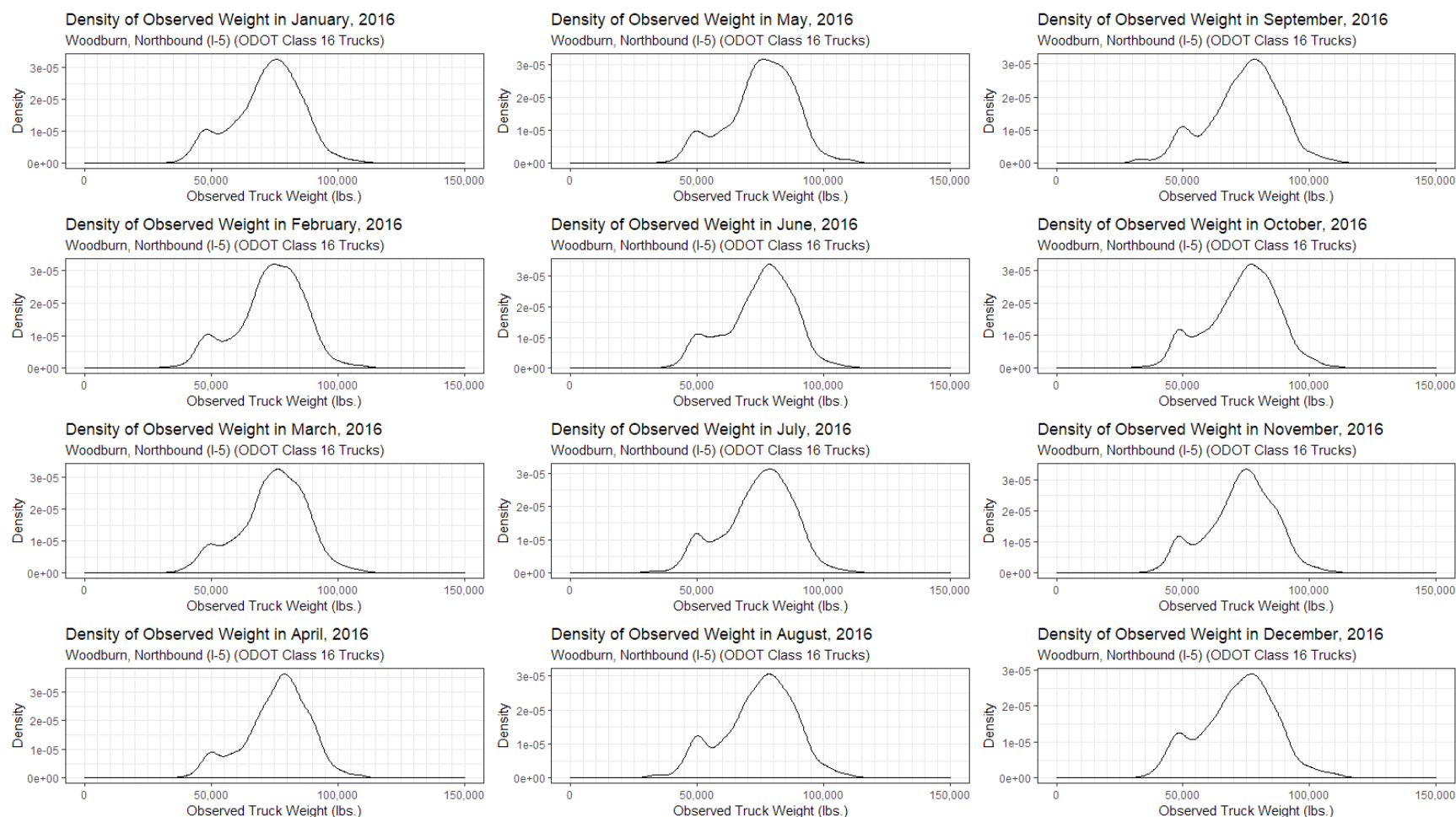


Figure 11: Observed Weight Density Plots for ODOT Class 16 Trucks at Woodburn (NB) WIM Station in 2016

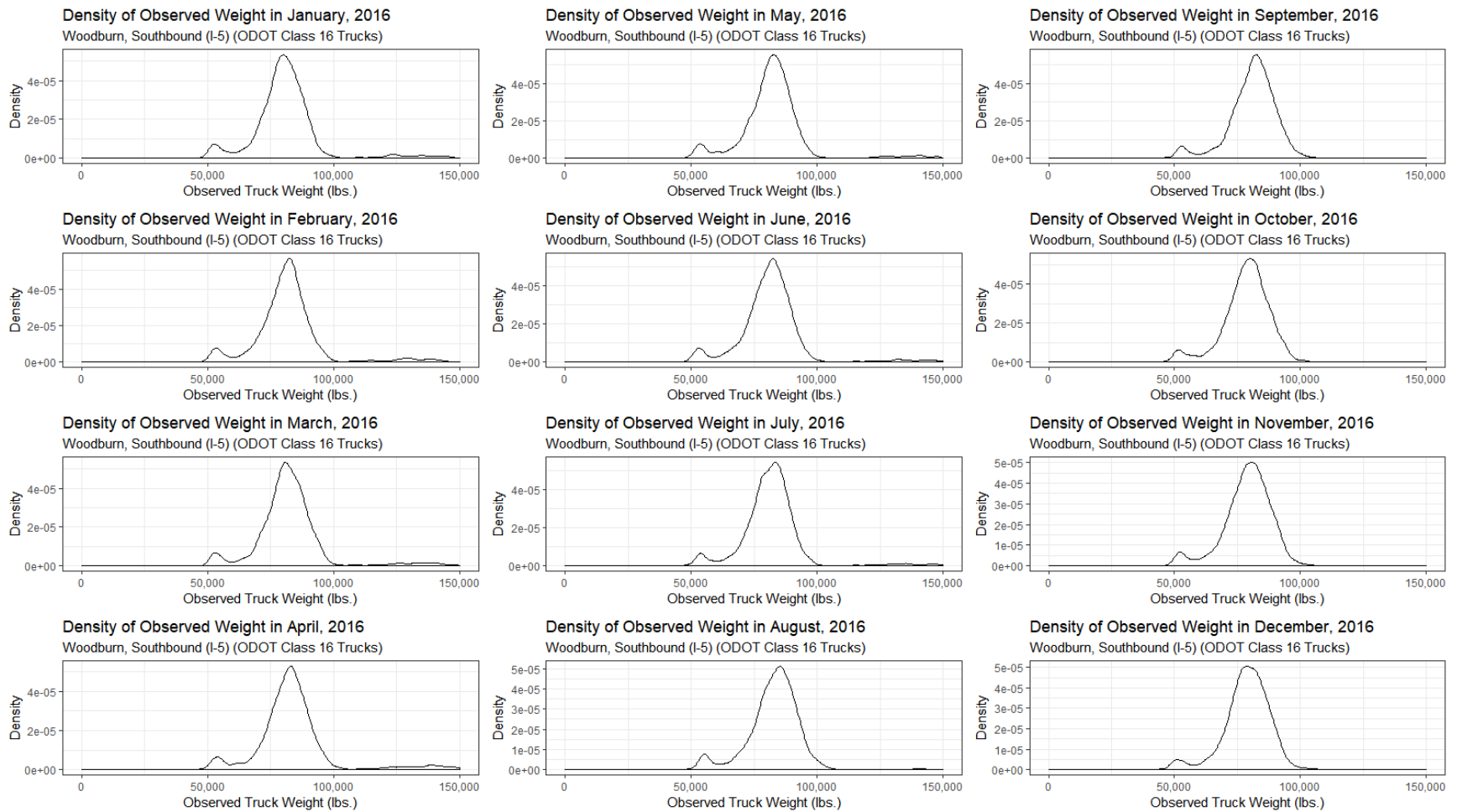


Figure 12: Observed Weight Density Plots for ODOT Class 16 Trucks at Woodburn (SB) WIM Station in 2016

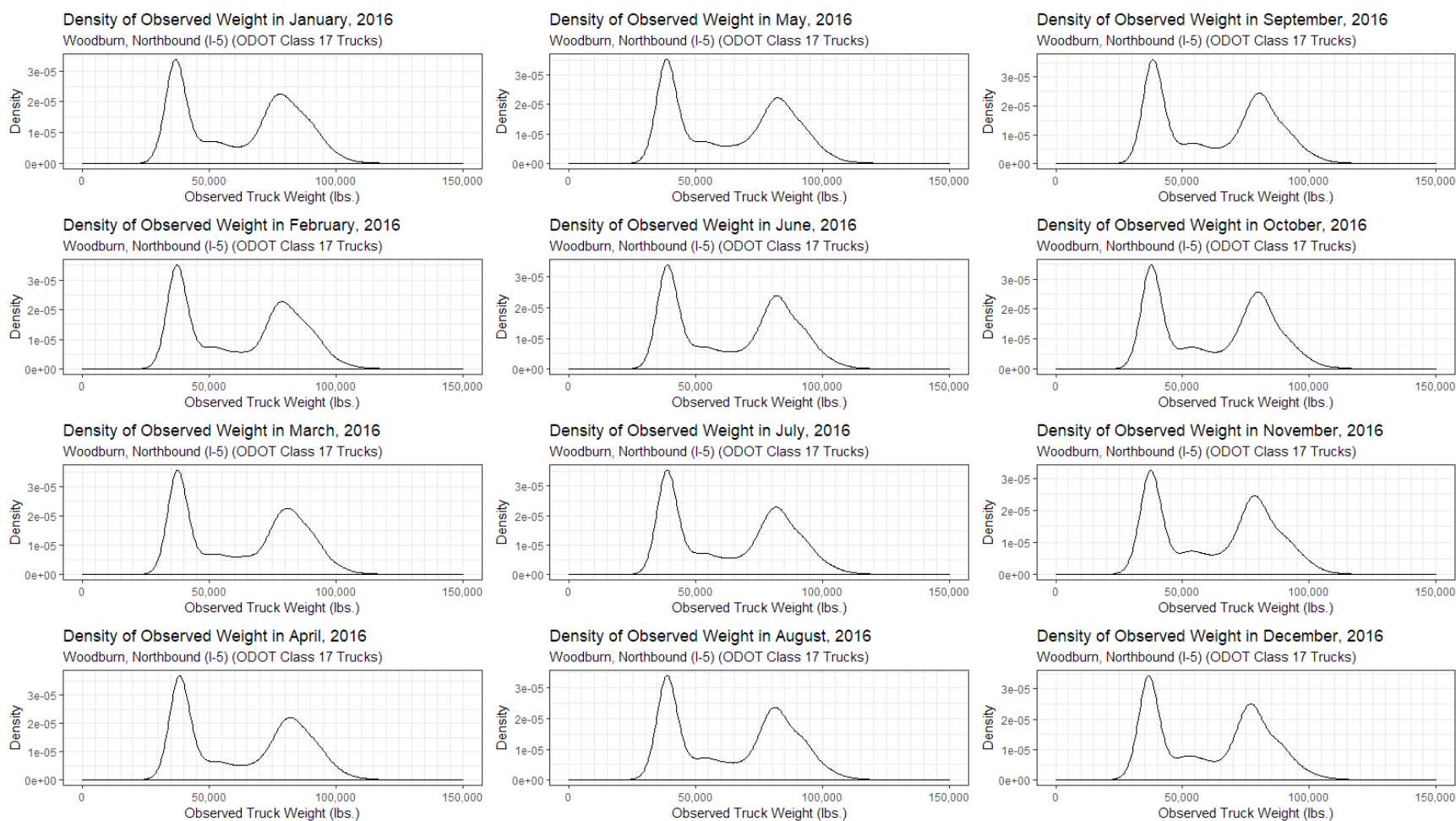


Figure 13: Observed Weight Density Plots for ODOT Class 17 Trucks at Woodburn (NB) WIM Station in 2016

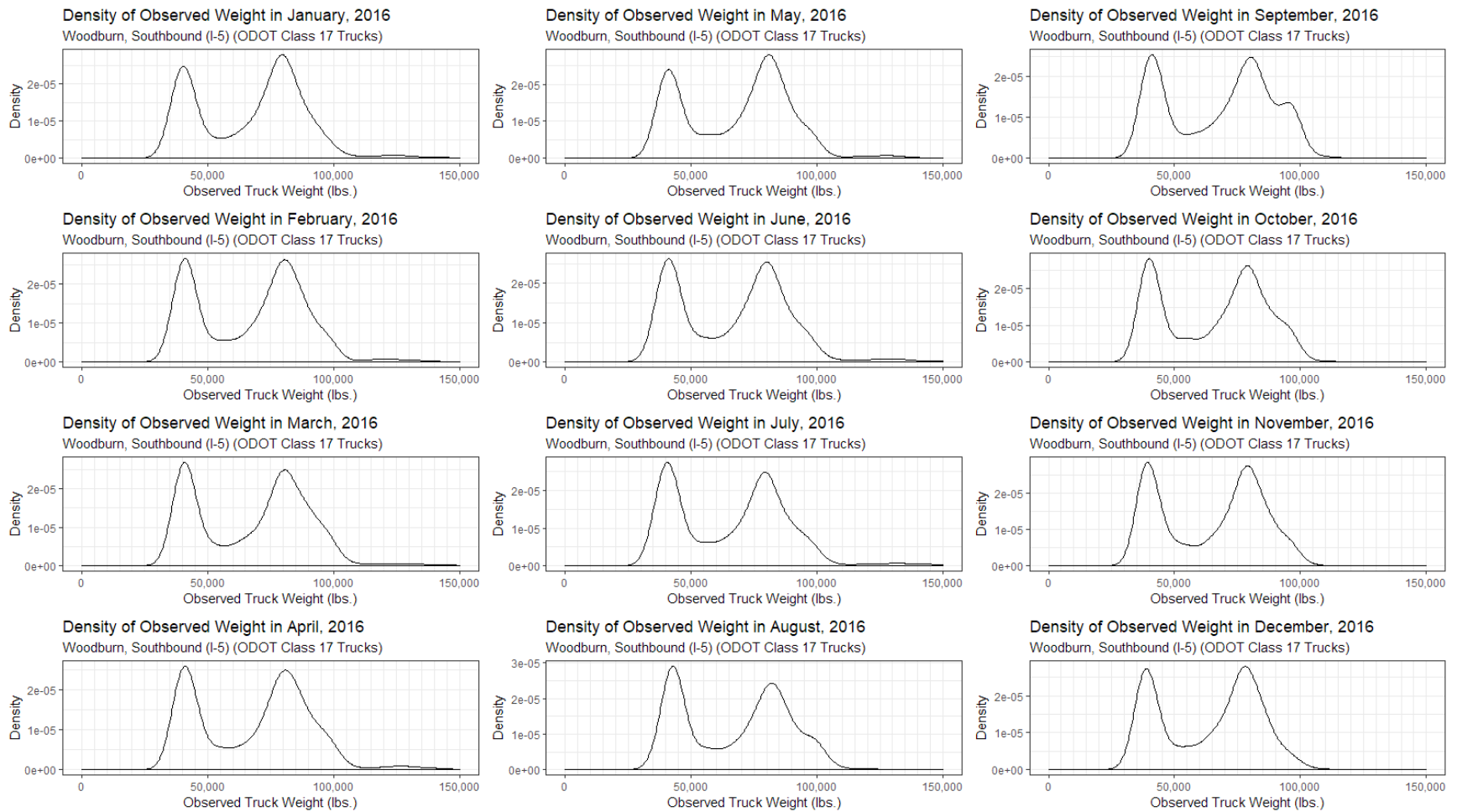


Figure 14: Observed Weight Density Plots for ODOT Class 17 Trucks at Woodburn (SB) WIM Station in 2016

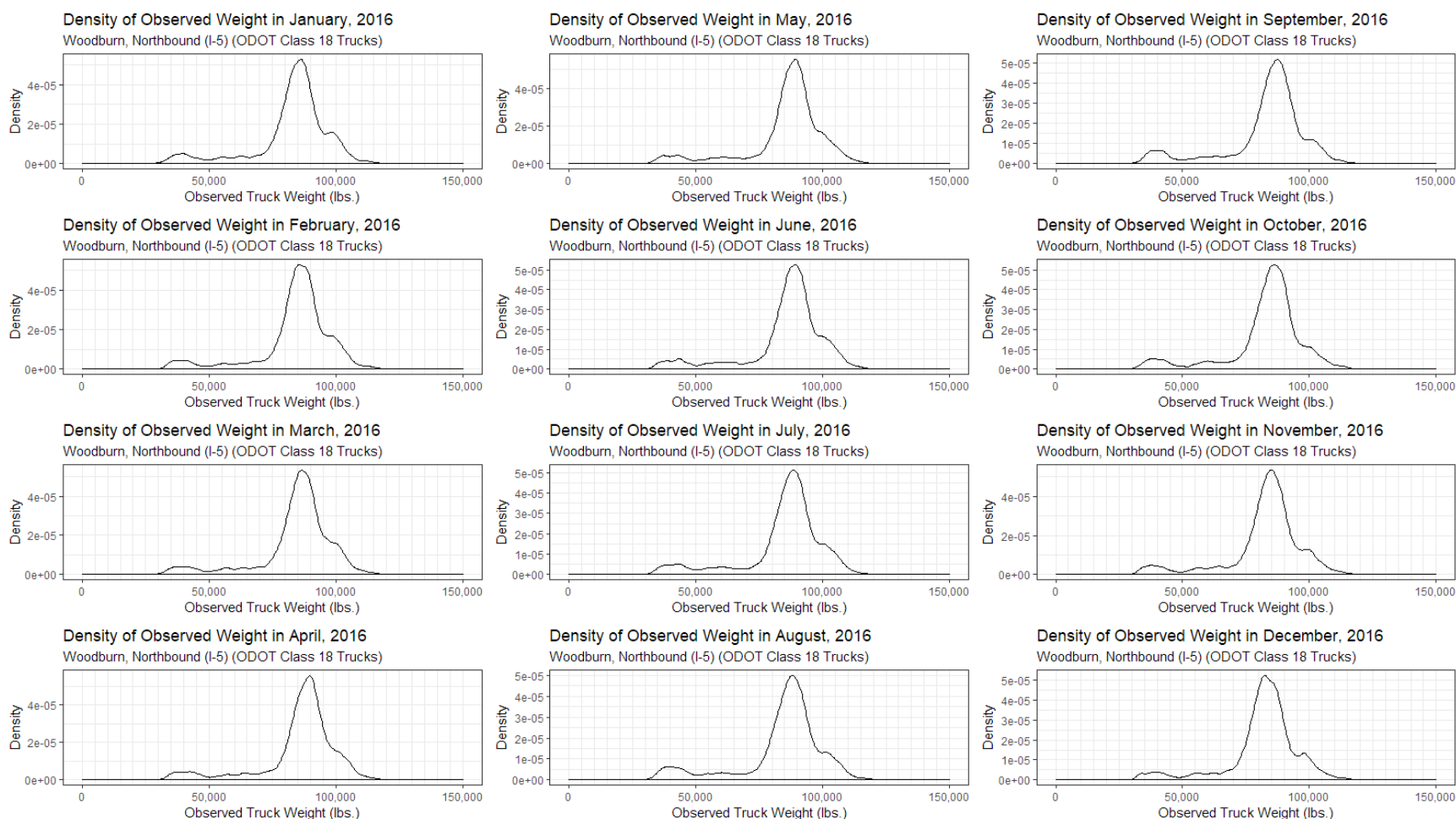


Figure 15: Observed Weight Density Plots for ODOT Class 18 Trucks at Woodburn (NB) WIM Station in 2016

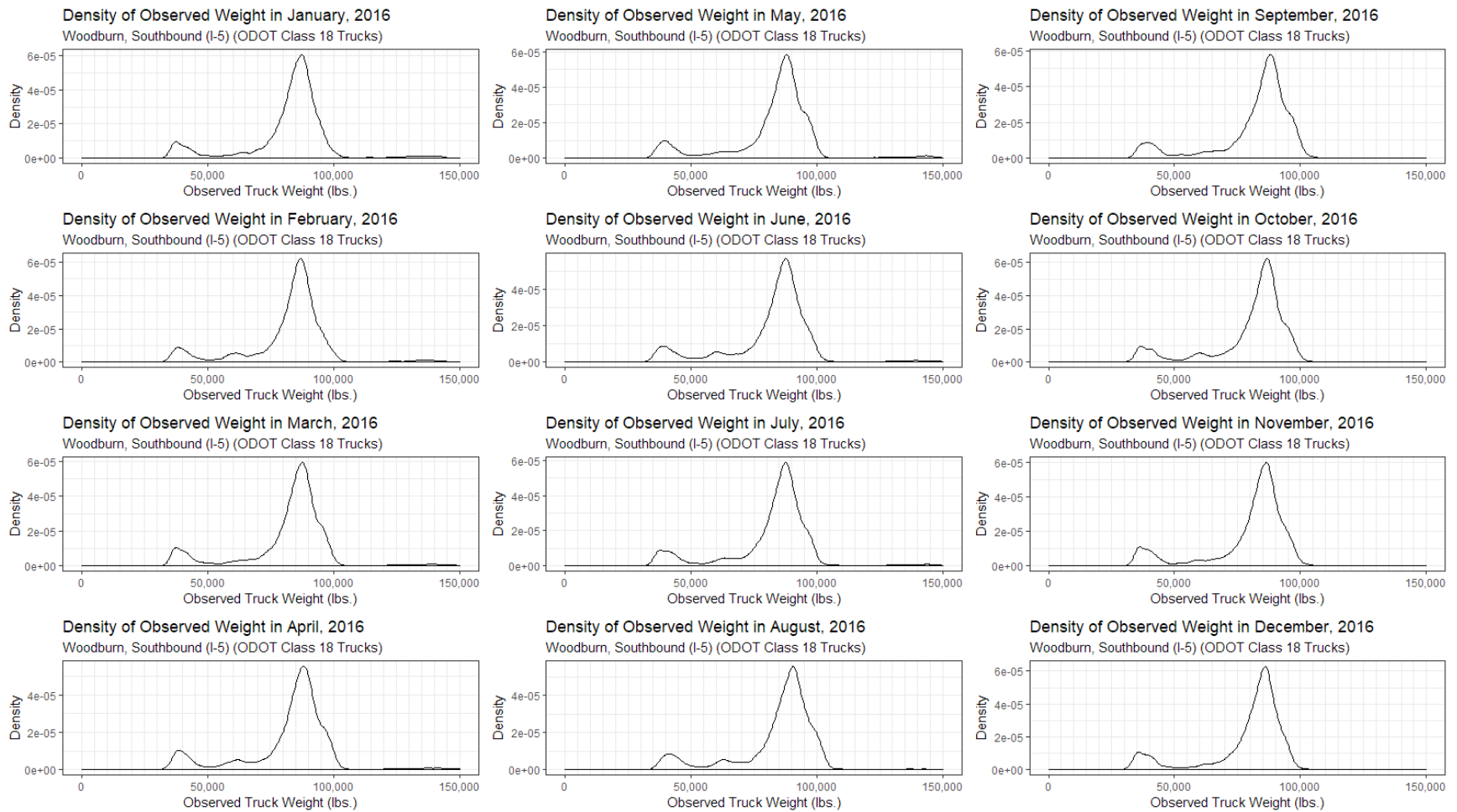


Figure 16: Observed Weight Density Plots for ODOT Class 18 Trucks at Woodburn (SB) WIM Station in 2016

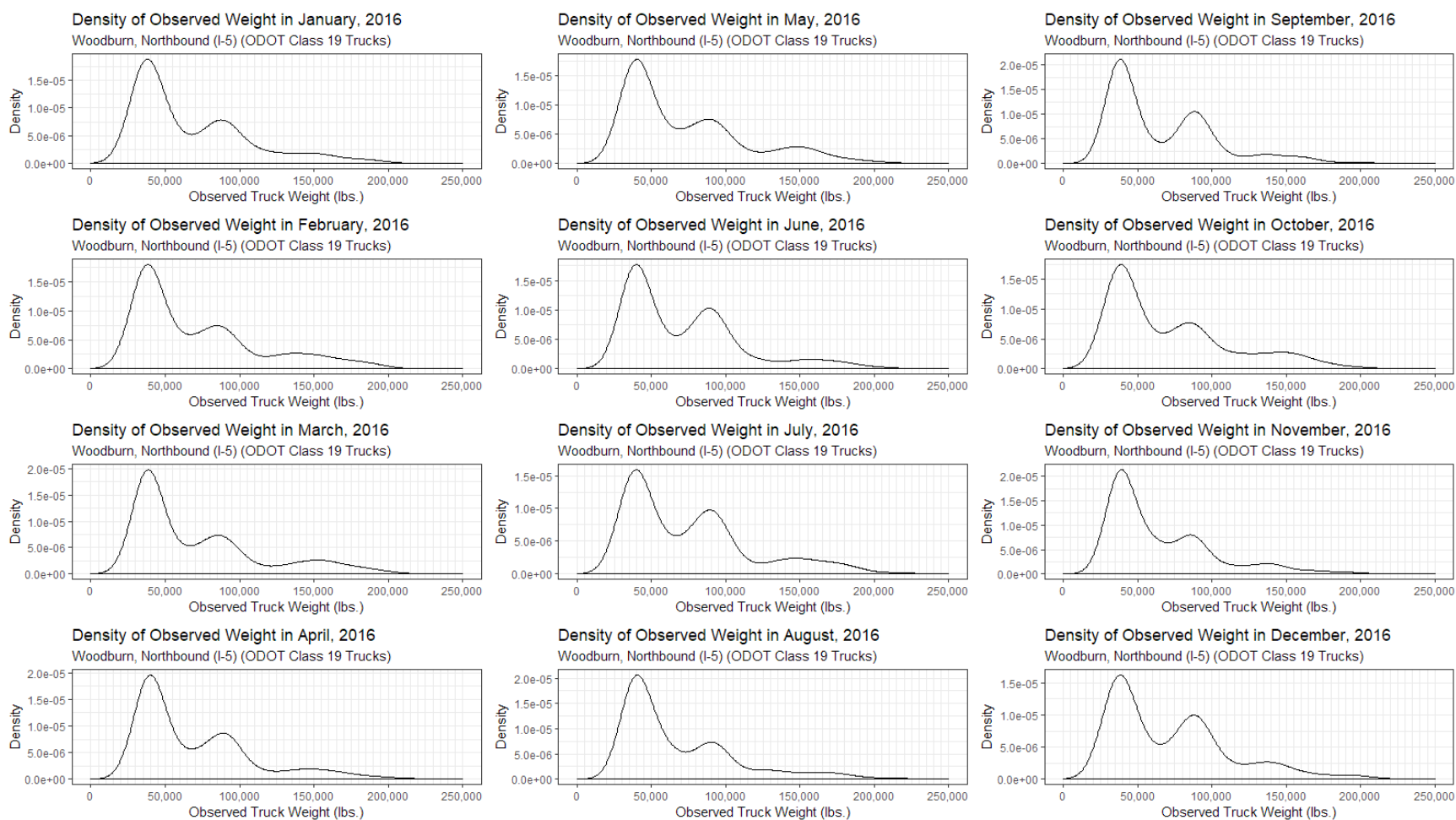


Figure 17: Observed Weight Density Plots for ODOT Class 19 Trucks at Woodburn (NB) WIM Station in 2016

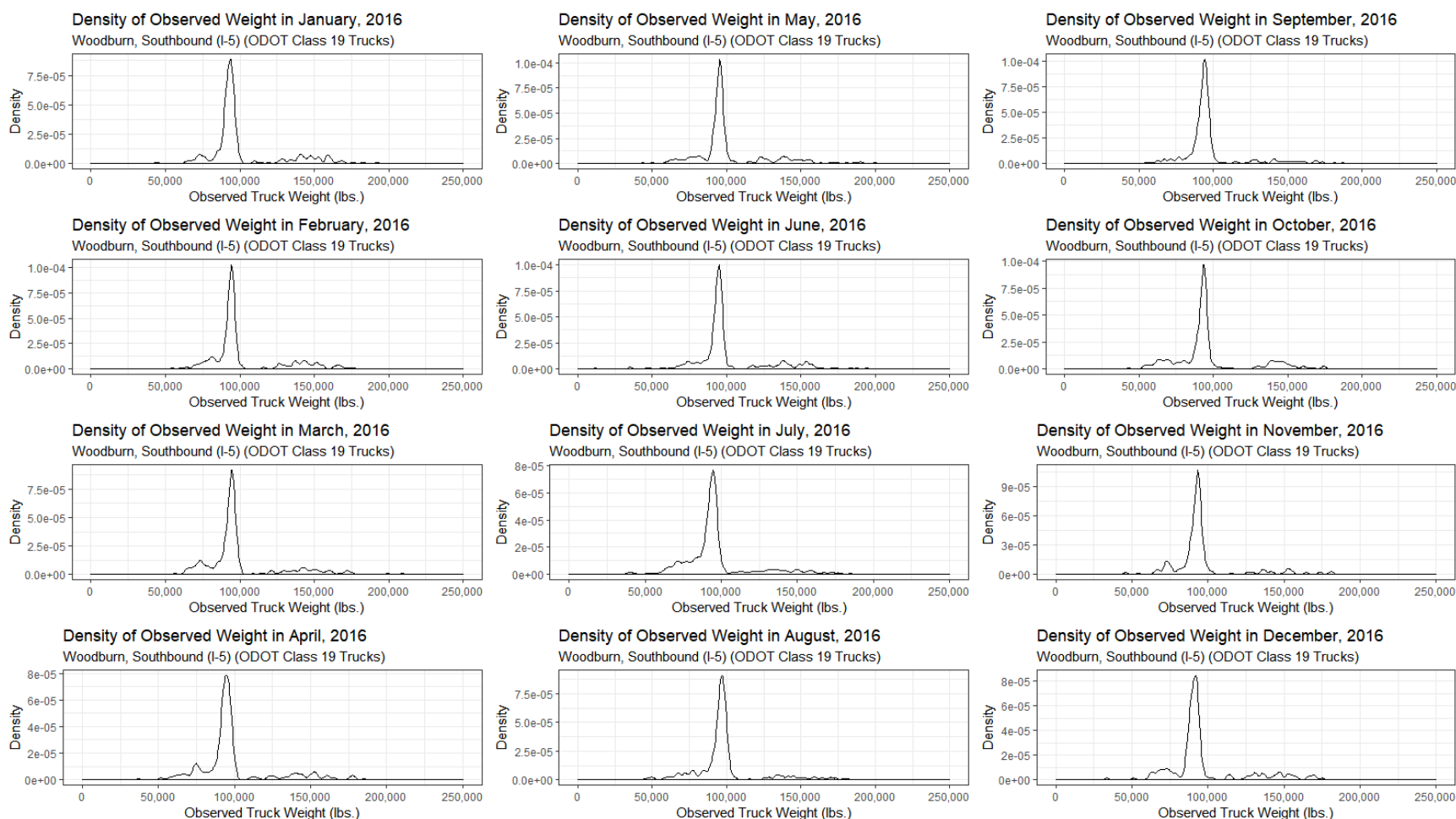


Figure 18: Observed Weight Density Plots for ODOT Class 19 Trucks at Woodburn (SB) WIM Station in 2016