JAMES L. SPENCER, Department of Psychology, West Virginia State University, Institute, WV, 25112. Comparison of 2011 – 2015 average daily/monthly temperatures in Charleston, WV, to 30 year norms (1981 – 2010): evidence for warming/climate change?

Climate change is a contentious subject to many. Despite its overwhelming support by climatologists, many challenge its impact, source, or even existence. These doubts may stem from insufficient knowledge about climate and statistics, lack of appreciation for how small temperature changes can have global environmental impacts, or simple resistance to change. Additionally, many erroneously equate their local weather with conditions world – wide. As such, studying regional conditions for evidence of change might have greater psychological impact to the average individual. Accordingly, daily and monthly temperature averages for Charleston, WV, for the period 2011 – 2015 were compared to their immediately prior 30 year standards. Sample size differences between the measurements limited detailed statistical investigations. Daily temperatures in Charleston per calendar year are sinusoidal, with maximums and minimums in late July and late January respectively; winter temperatures vary more than summer. Three of the recent years were warmer than average, two cooler. There were three notable outliers for monthly average (+/- 10° F. or more) during the examined period: February, 2014 (below), March 2012, and December, 2015 (both above). Sixty - nine of the 120 monthly average high/low temperatures for 2011 - 2015 were above normal, 51 below. Overall, average temperatures for the past five years have increased by  $\frac{3}{4}$  ° F. relative to 1981 - 2010norms, with nearly 90% of that difference attributable to higher daily maximums; minimums changed very little. While conclusions remain tentative, temperature change was in the predicted direction, and consistent with other investigations of this type.