

**Supplemental Figure S5** - Histogram of p-values testing for differences between BOS regions and permutation regions. Data is binned in 0.05 intervals and the bar on the left represents p-values below 0.05 with no multiple test correction. If there were no real effects, we'd expect the p-values uniformly distributed between zero and one. Color-coding shows whether the test was looking at enrichment, CpG density, methylation, or residual methylation.