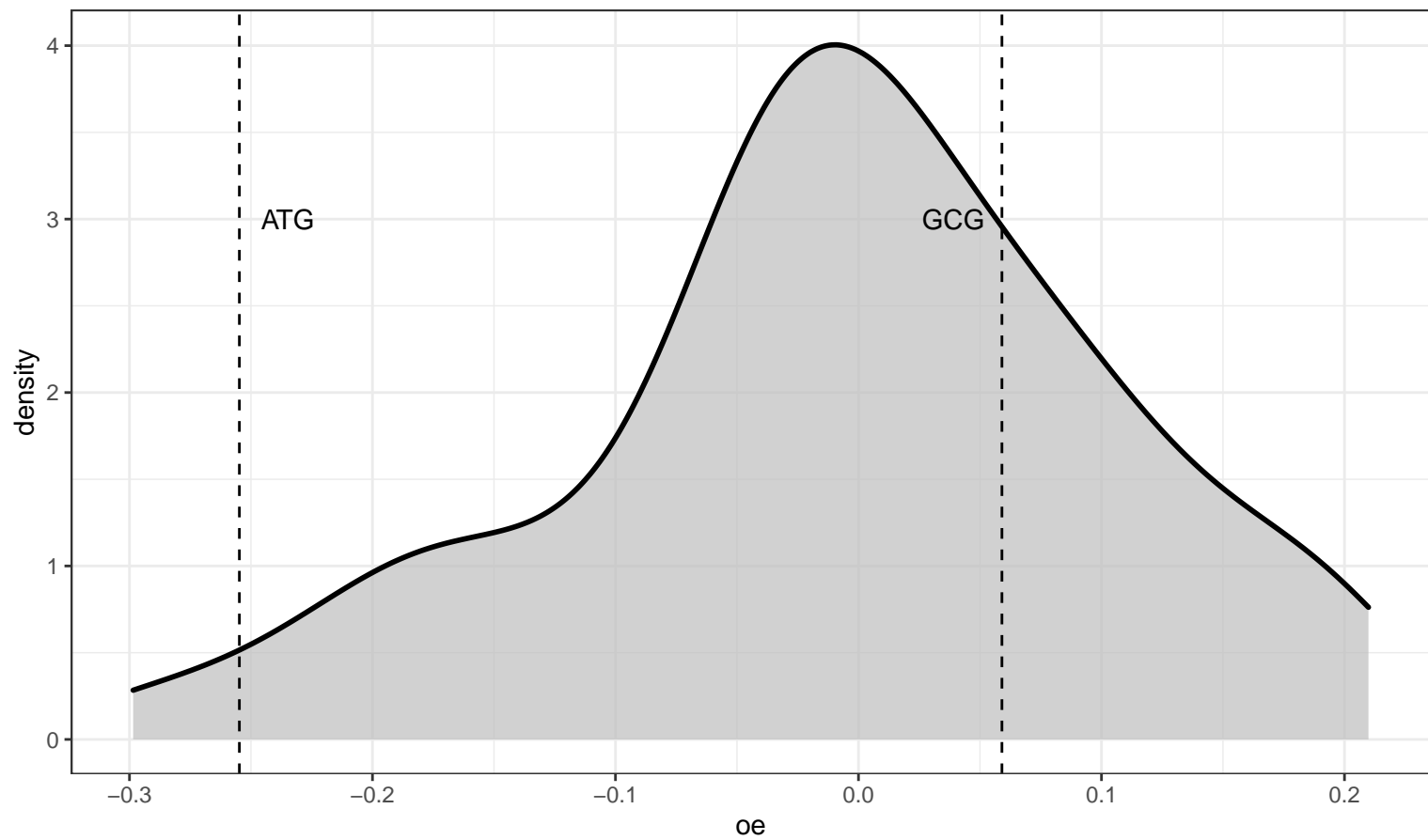
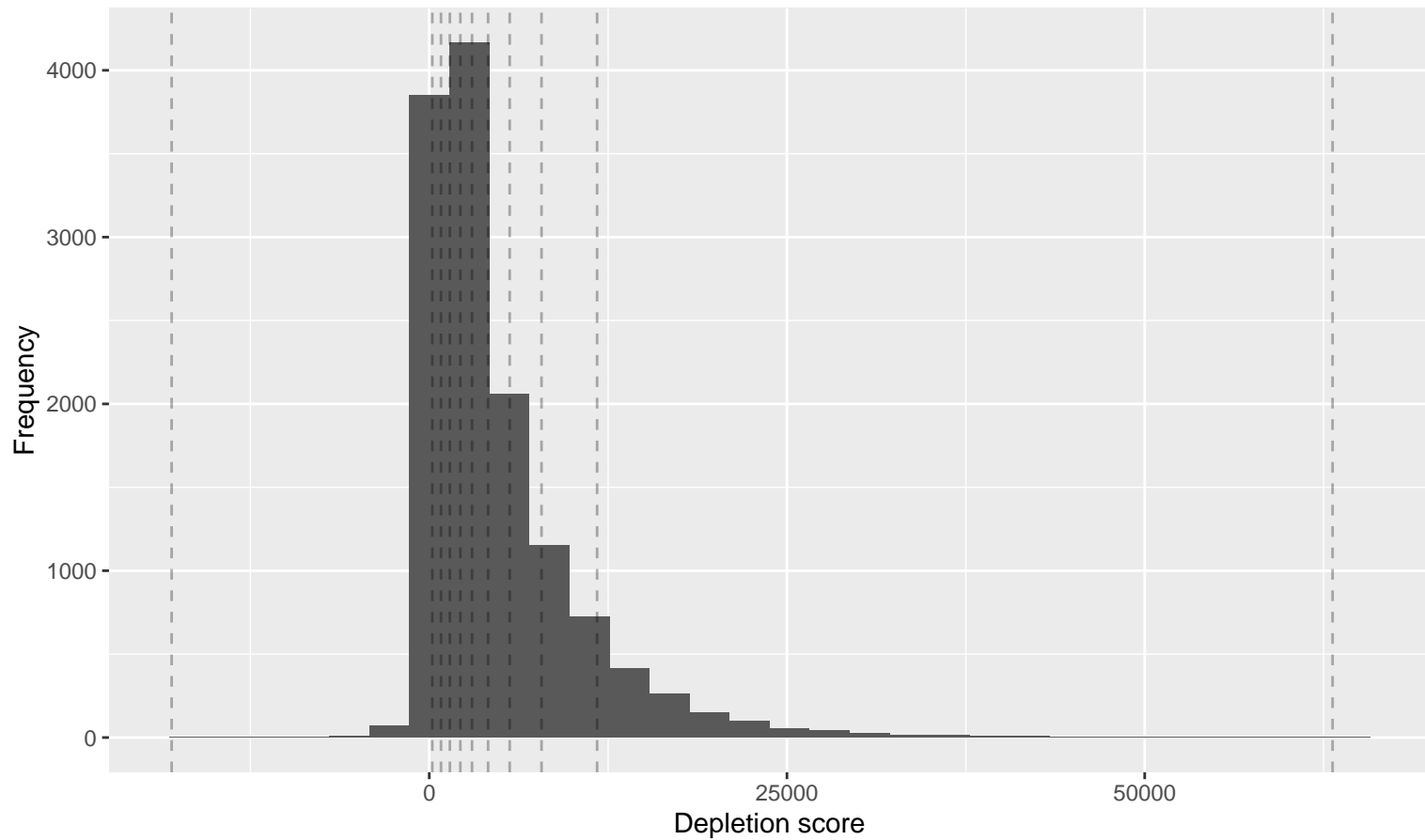


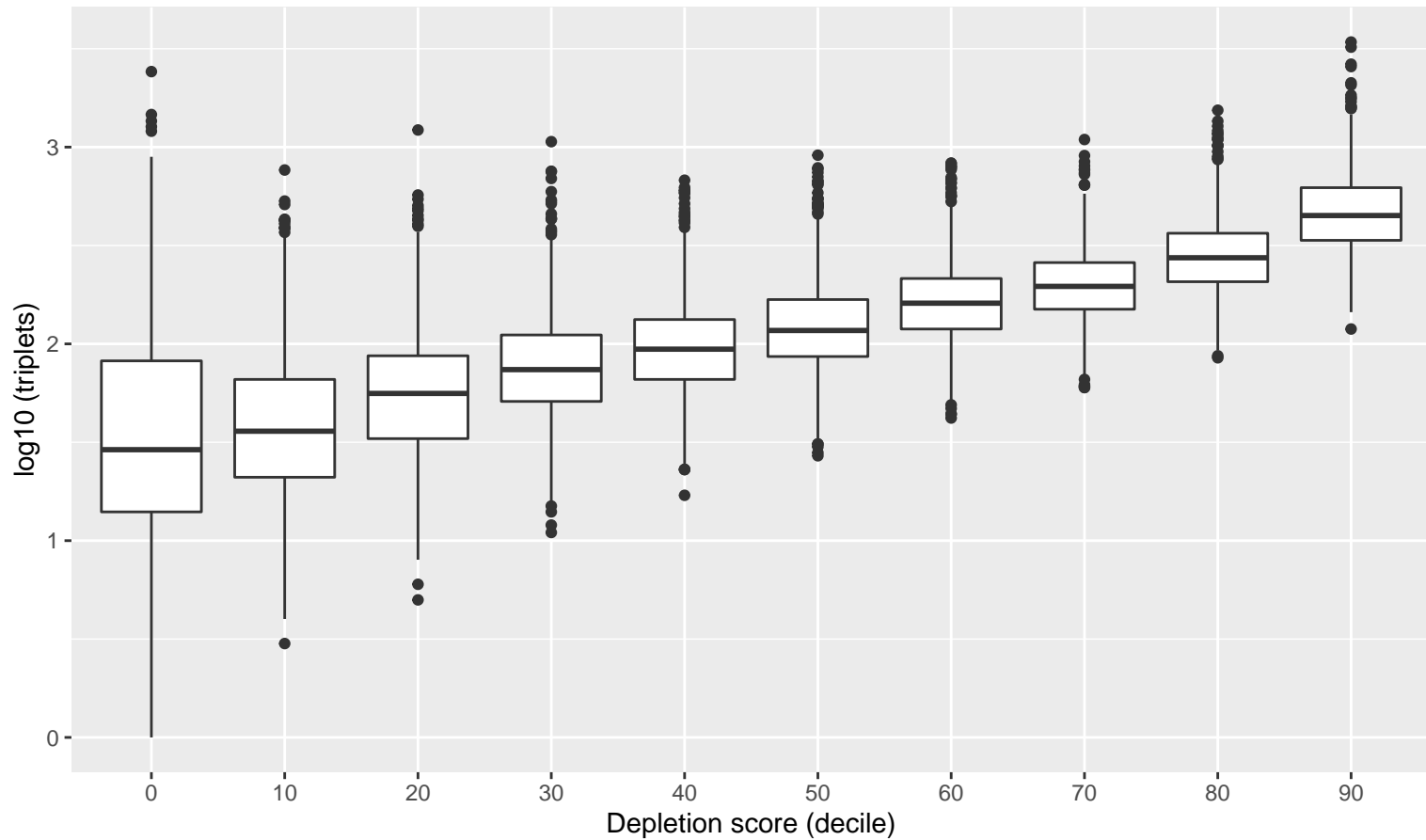
O/E weight distribution



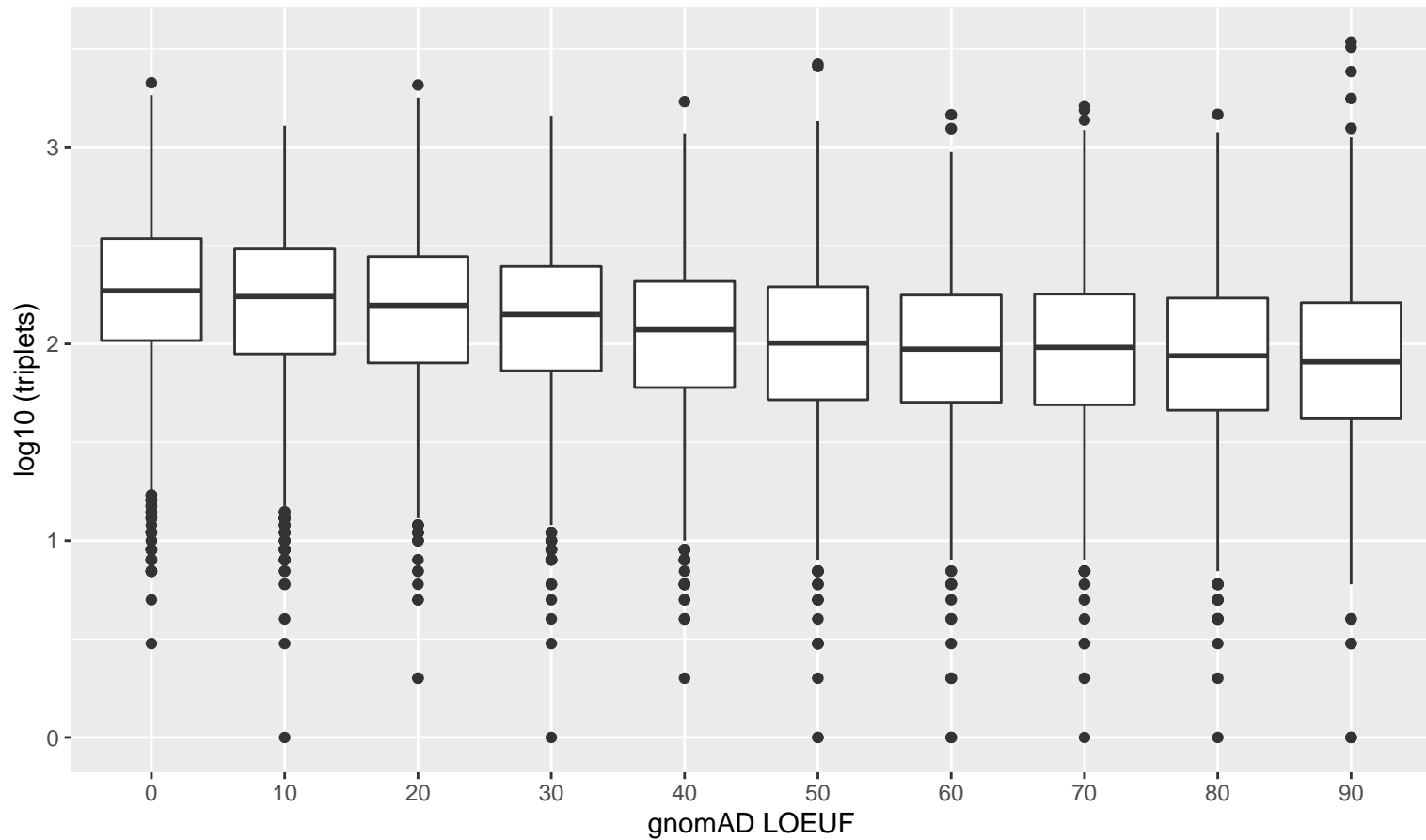
Depletion score distribution and deciles



Depletion score versus 5' UTR triplets

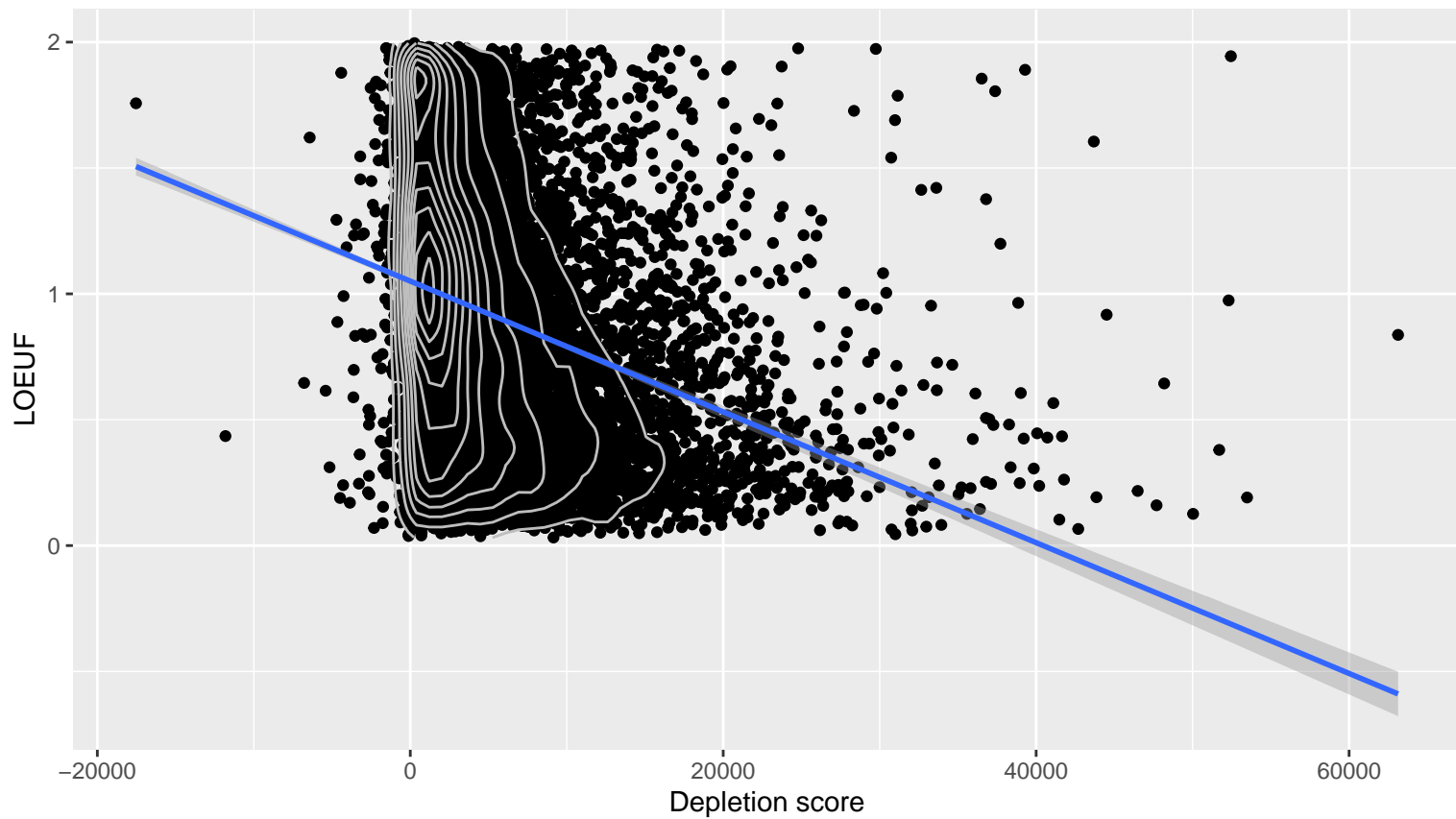


LOEUF (gnomAD) vs Triplet Count



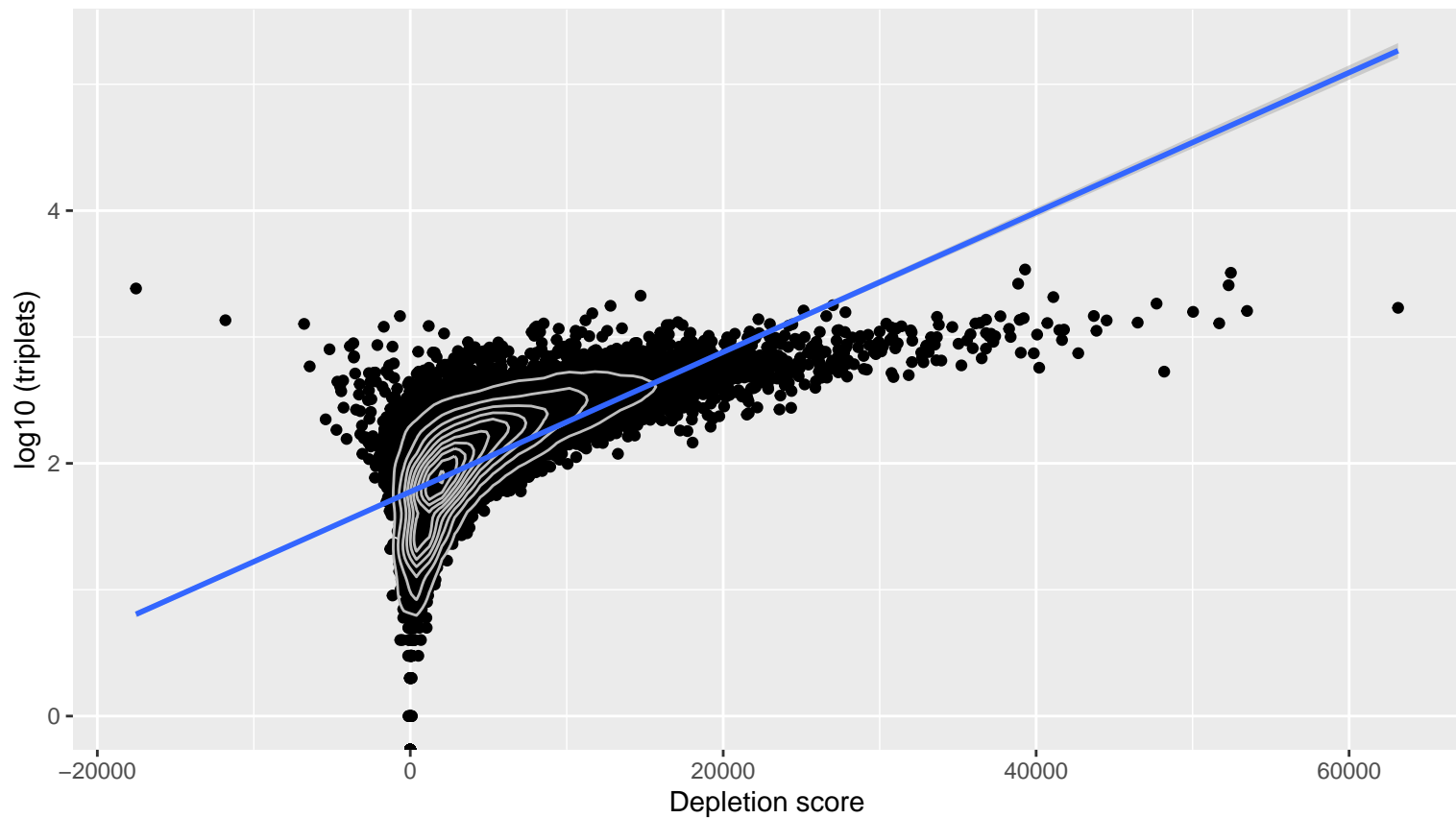
# Depletion Score versus LOEUF

Pearson correlation =  $-0.2833$  (P-value =  $6.80e-241$ )

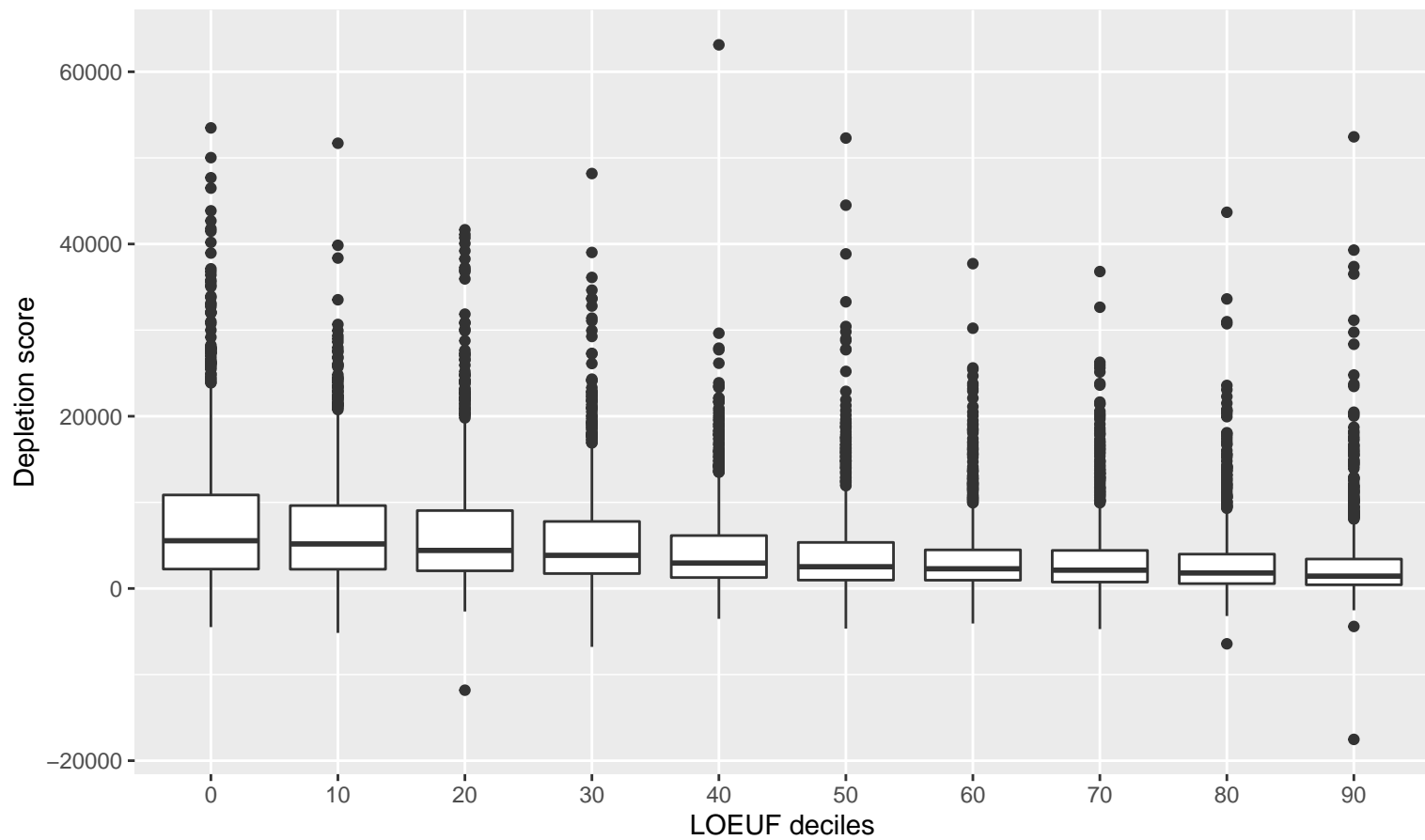


# Depletion Score versus triplets

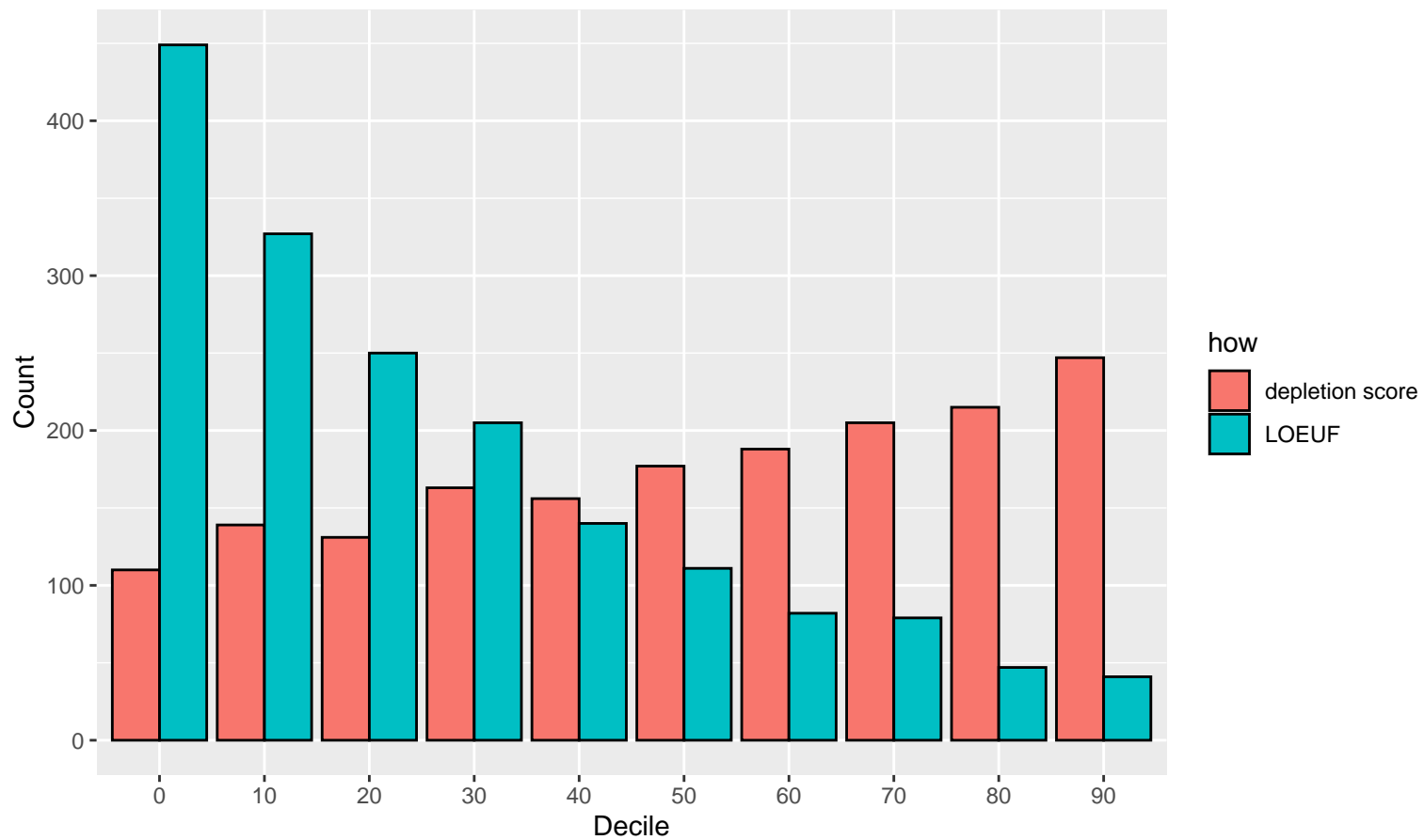
Pearson correlation = NaN (P-value = NaN)



LOEUF deciles versus depletion score

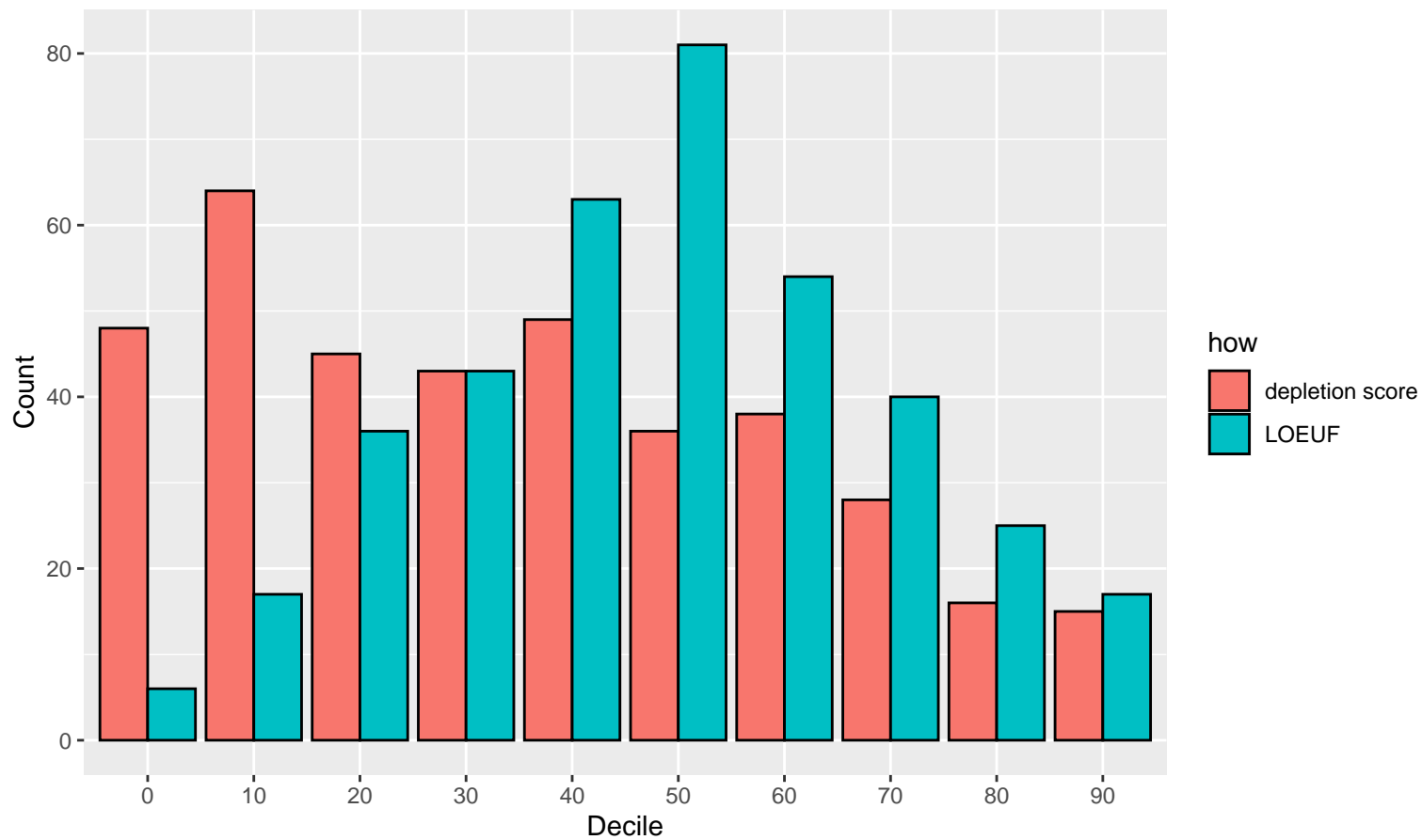


# mice essential genes

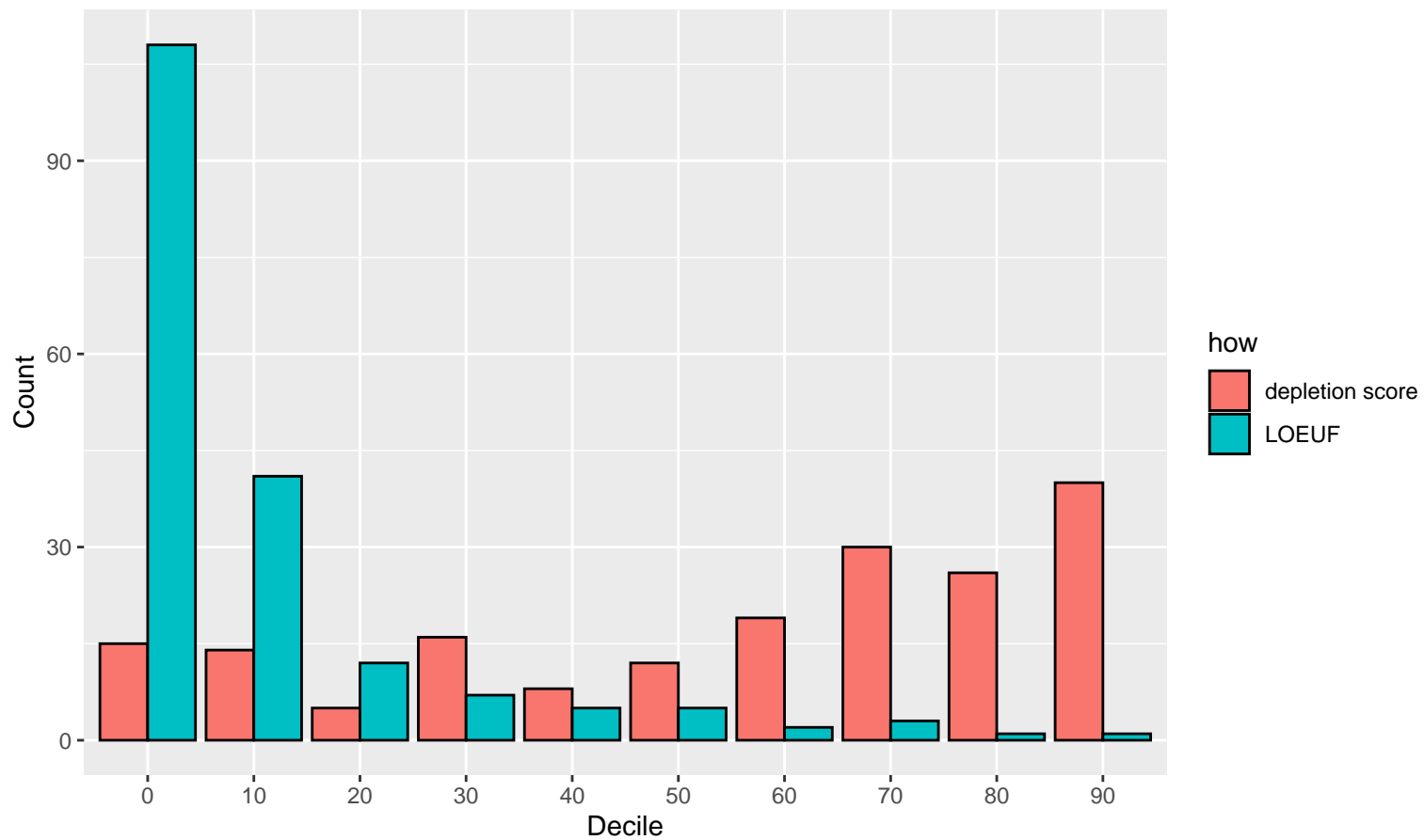




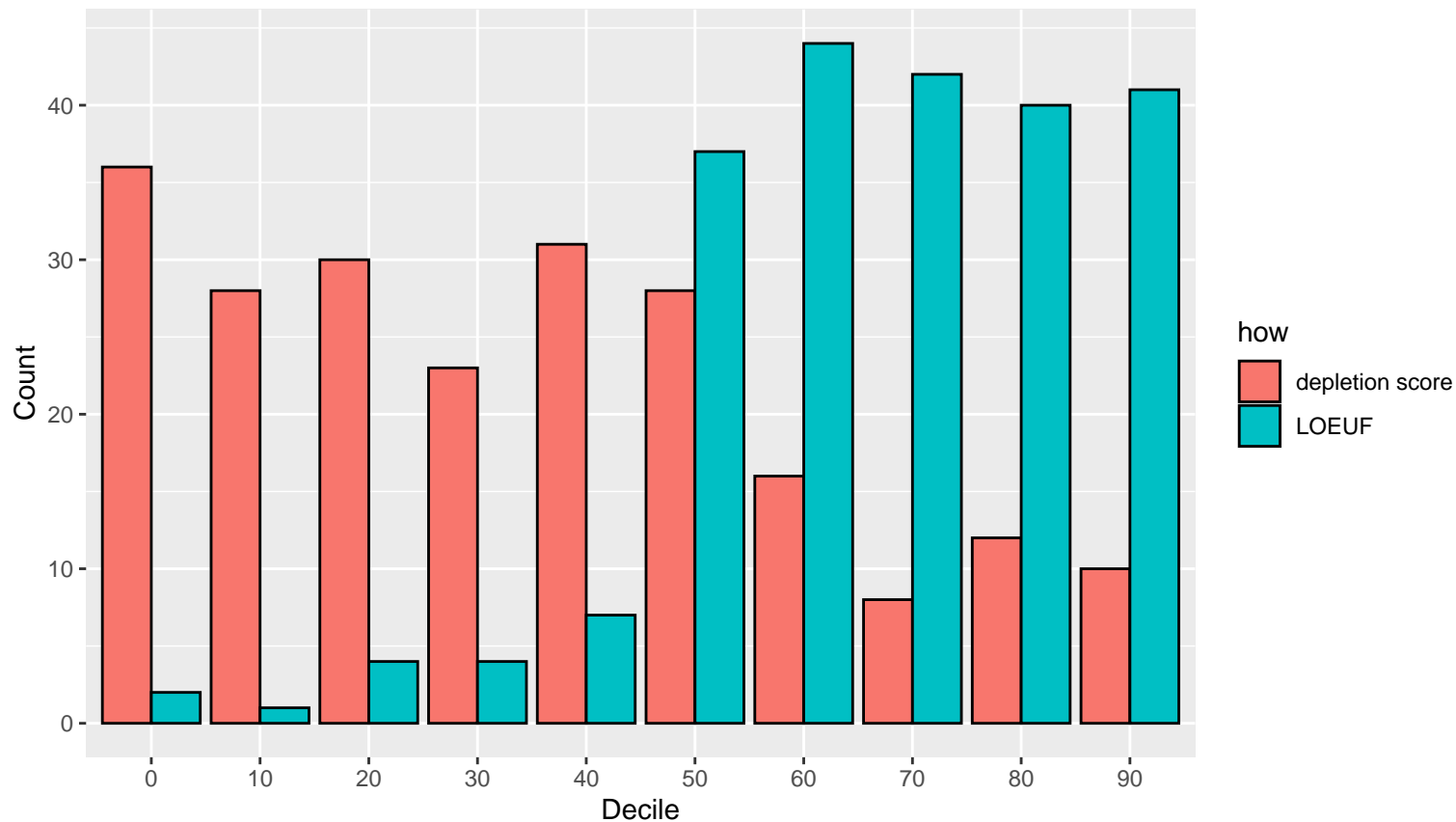
## Autosomal Recessive (Blekhman)



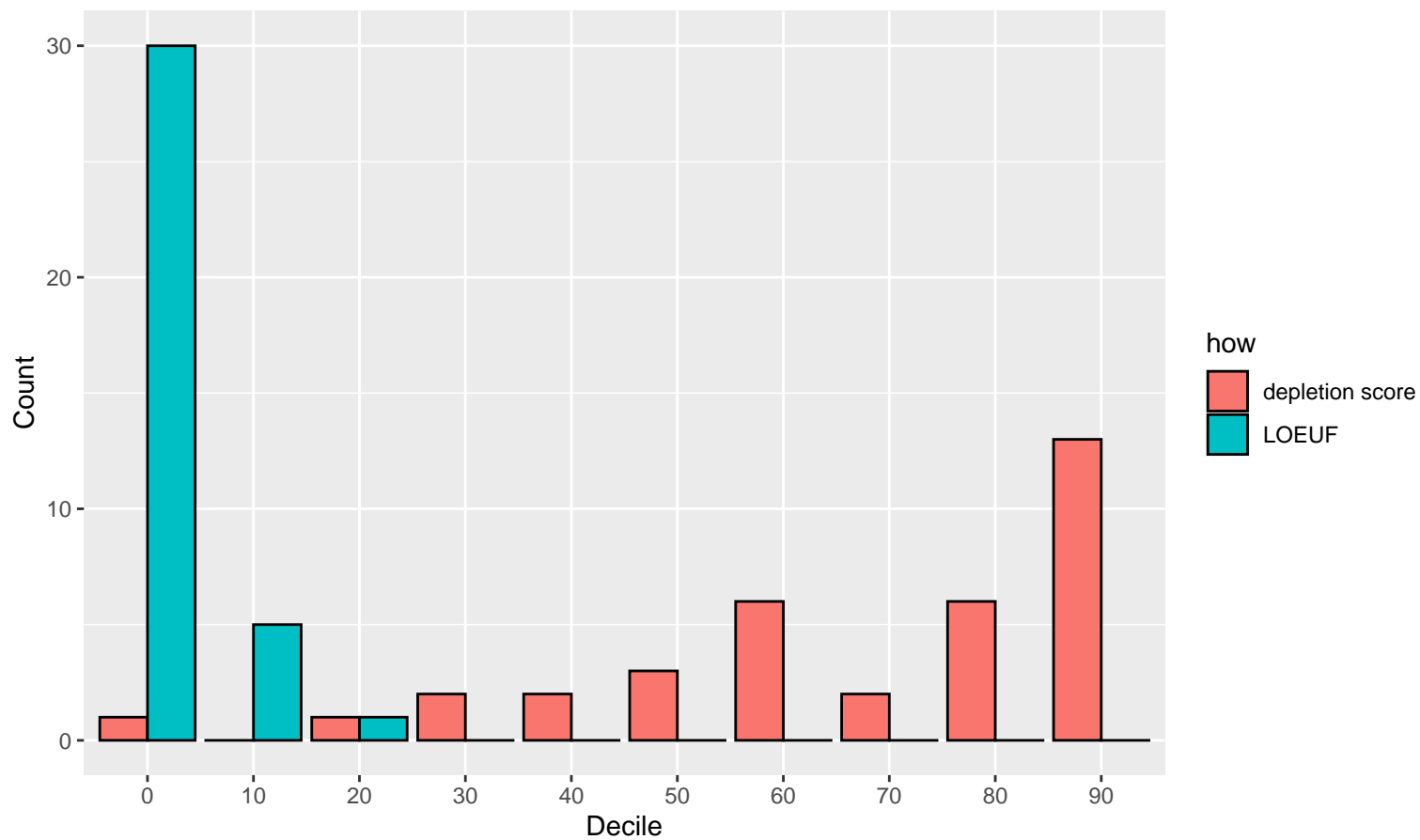
Evidence for dosage pathogenicity (Clingen, 2018)



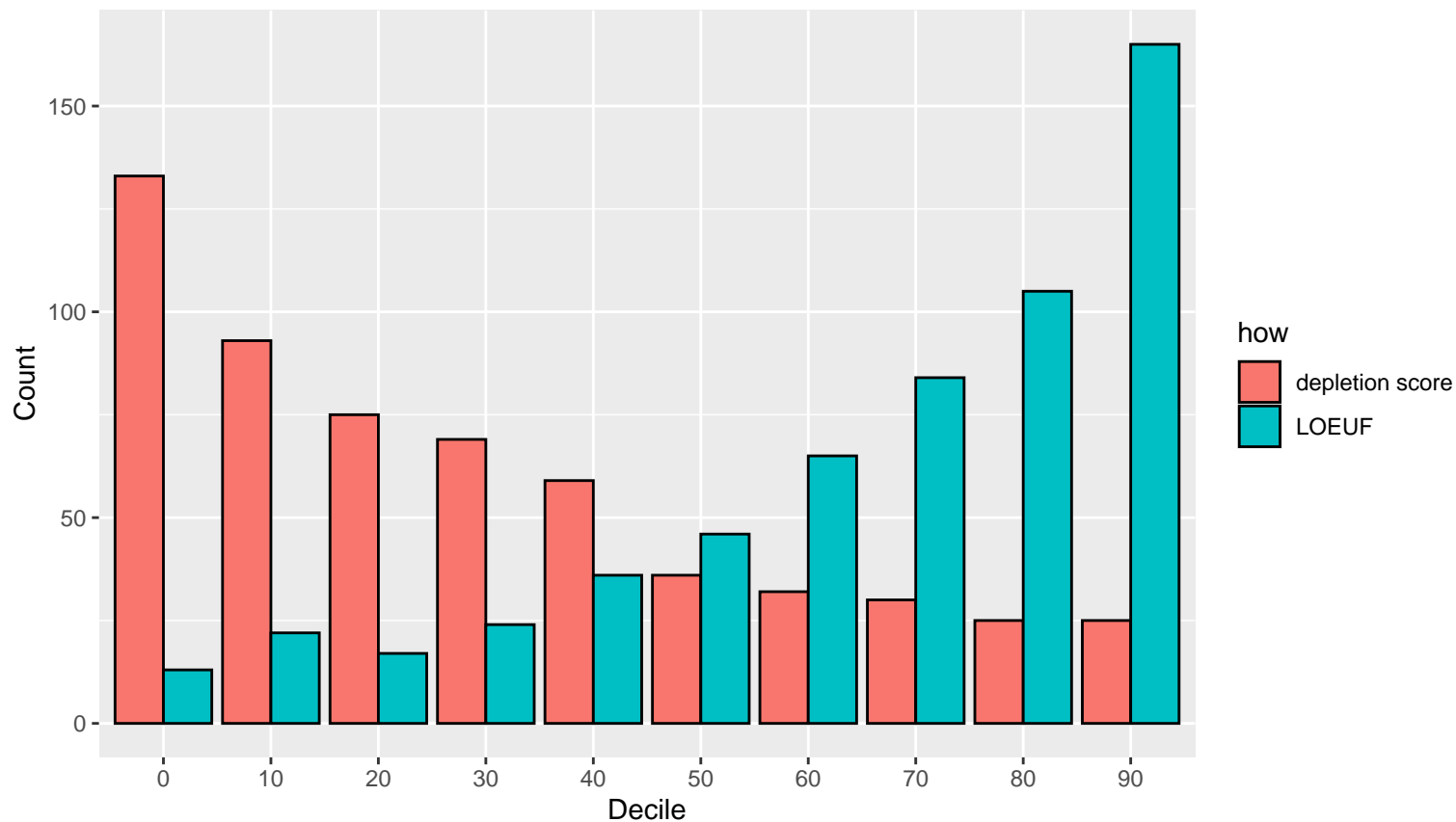
Genes with at least two different high-confidence  
LoF variants found in a homozygous state in at least one individual in ExAC



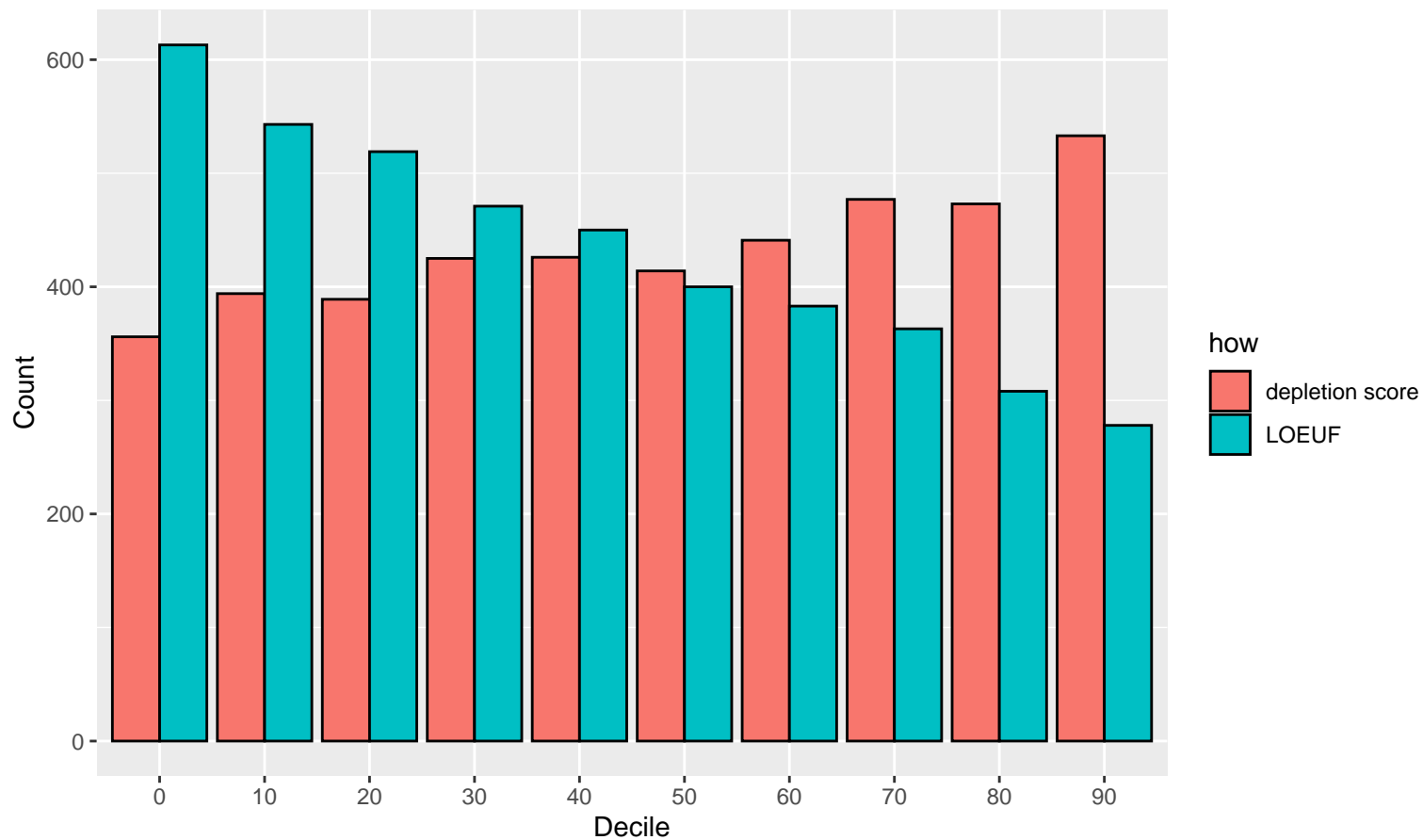
# haploinsufficiency (Severe)



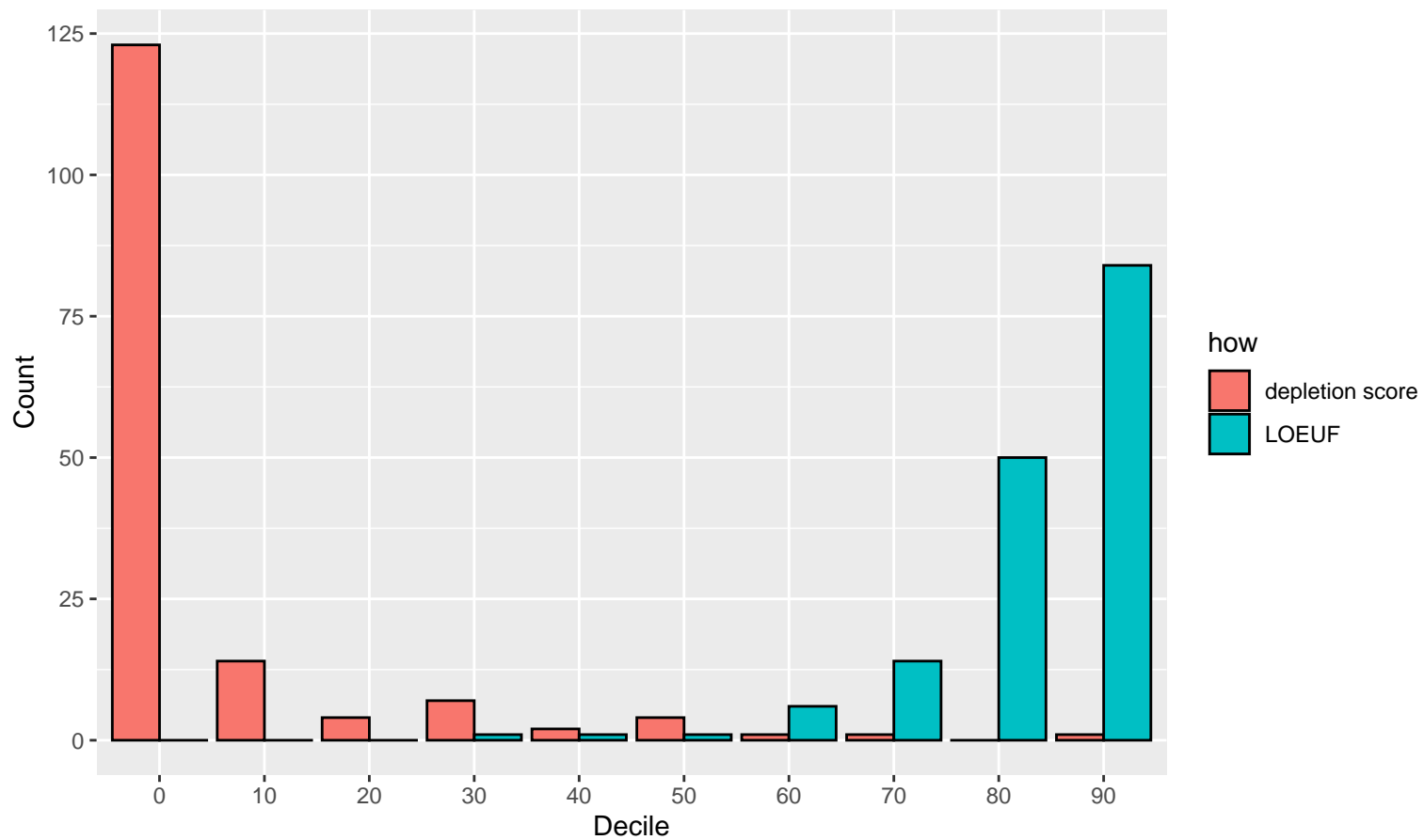
Genes deemed non-essential in multiple cultured cell lines  
based on CRISPR/Cas screen data



Closest gene to GWAS hits with  $P < 5 \times 10^{-8}$  in the NHGRI GWAS catalog



# olfactory receptors



## FMRP interactors

