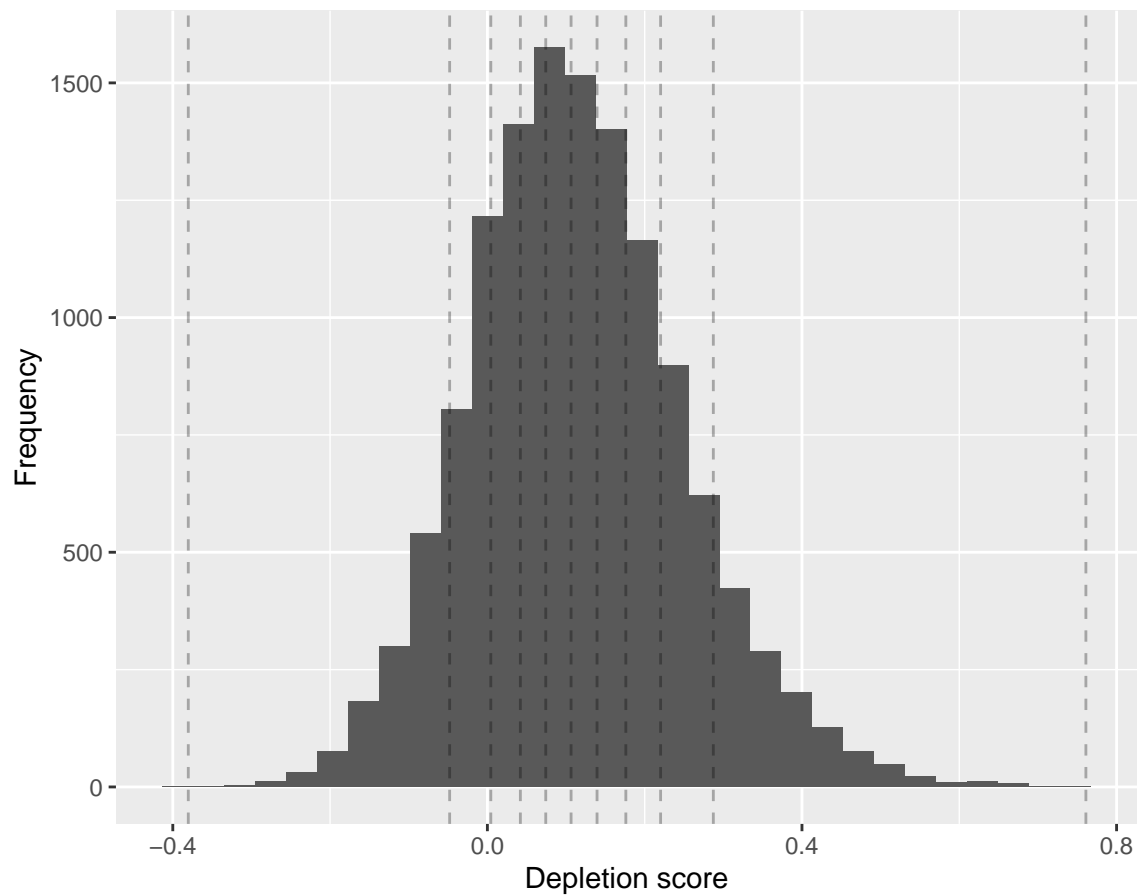
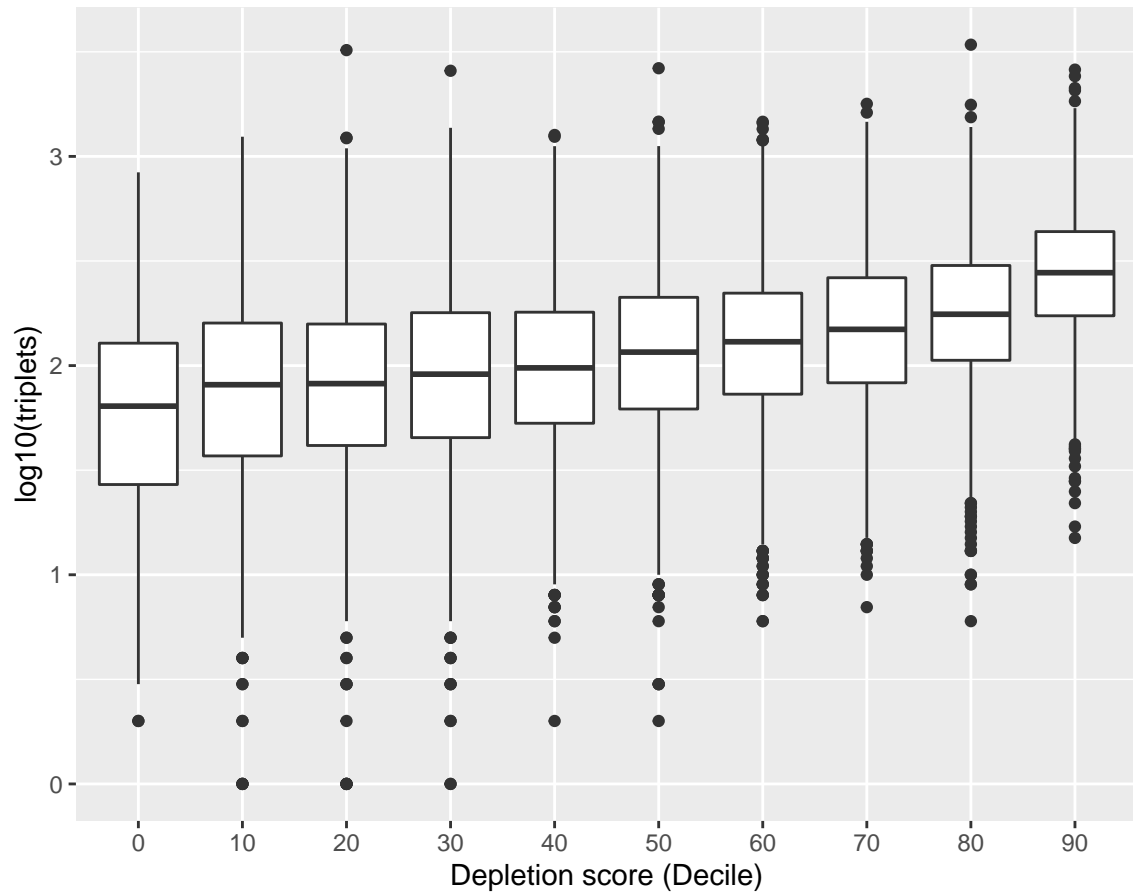


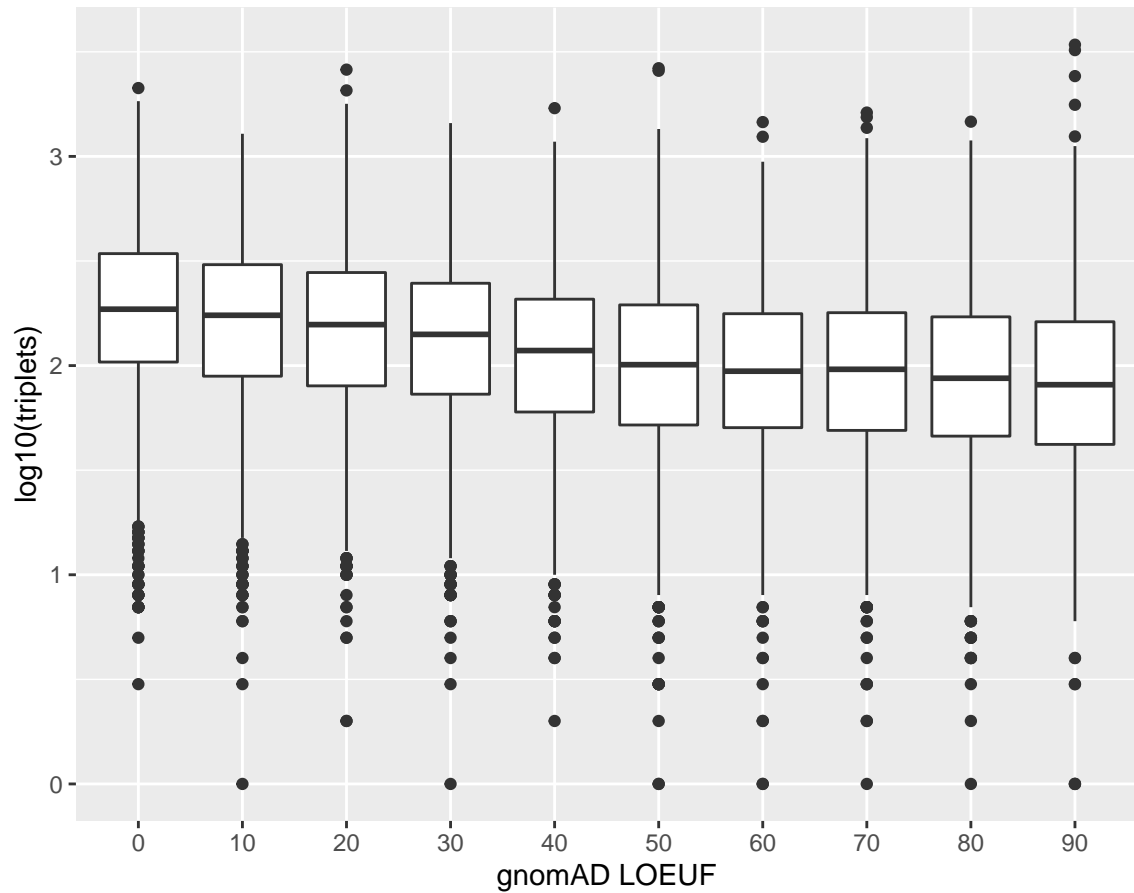
Depletion score distribution and deciles



Depletion score versus 5' UTR triplets

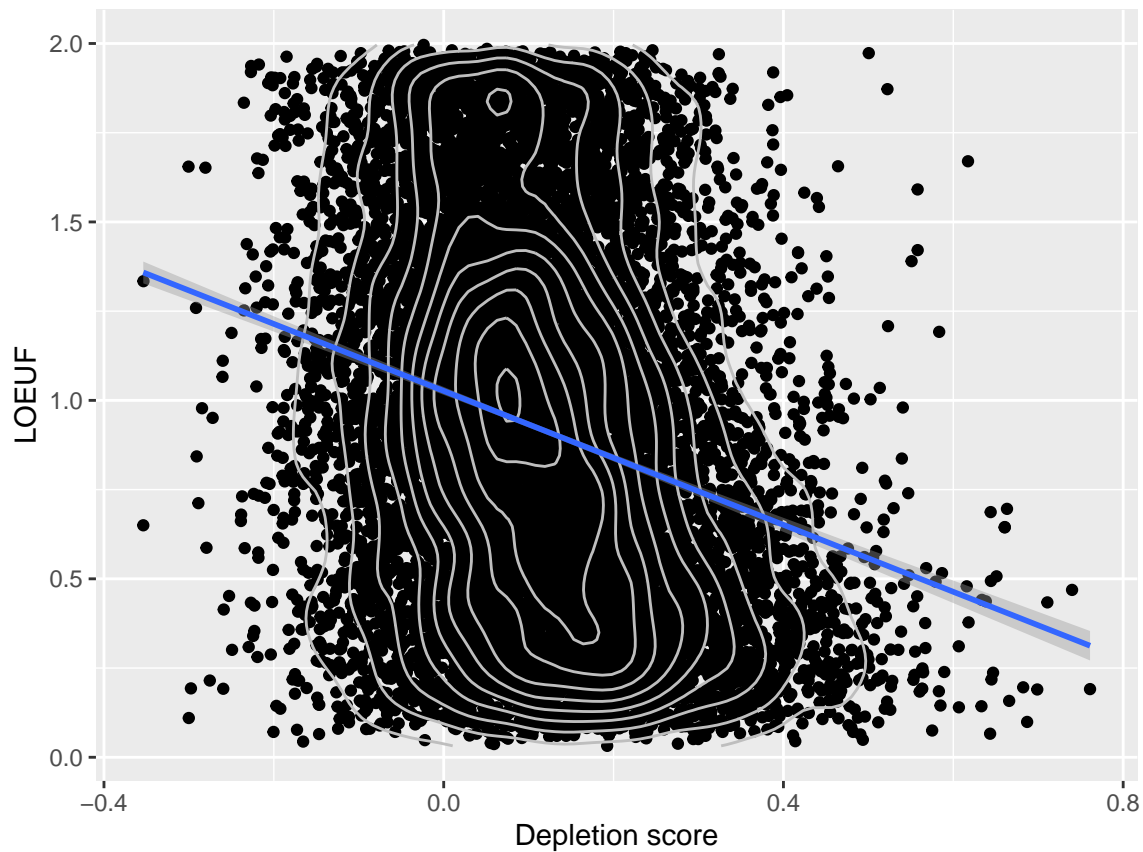


LOEUF (gnomAD) vs Triplet Count



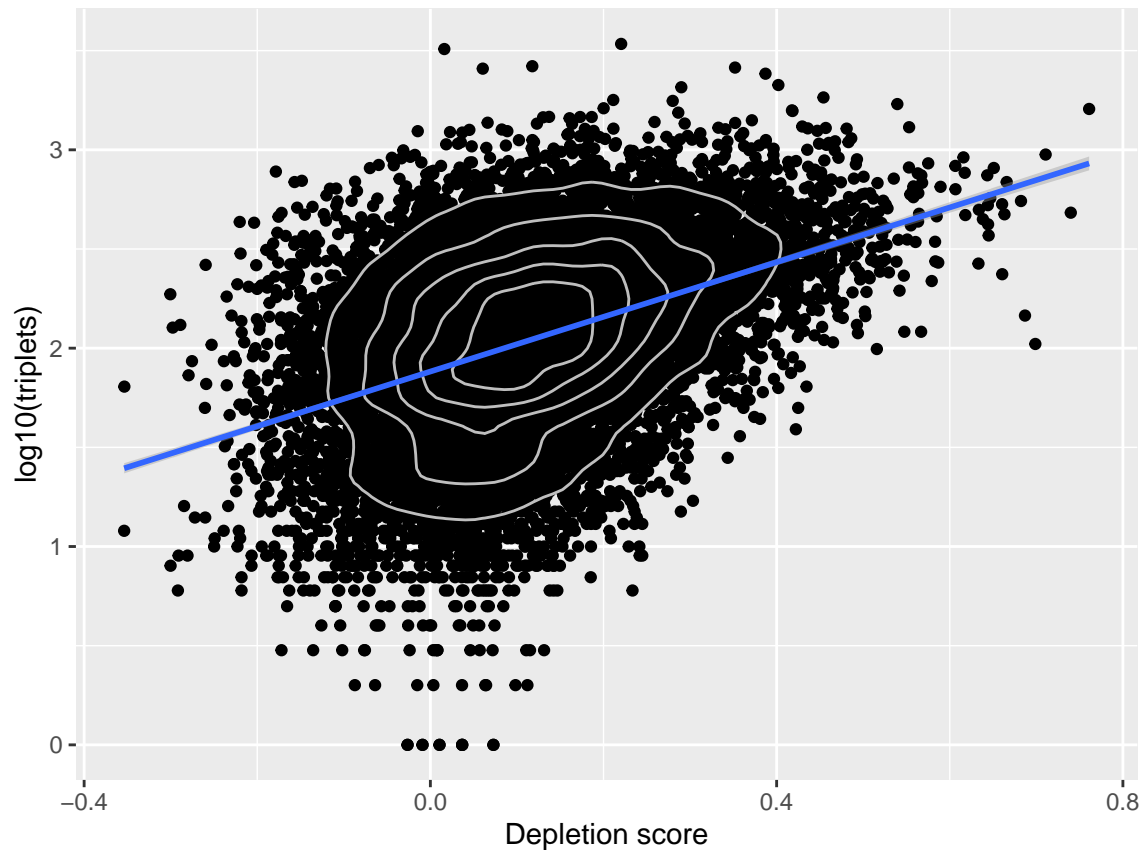
# Depletion Score versus LOEUF

Pearson correlation =  $-0.2502$  (P-value <  $2.2e-16$ )

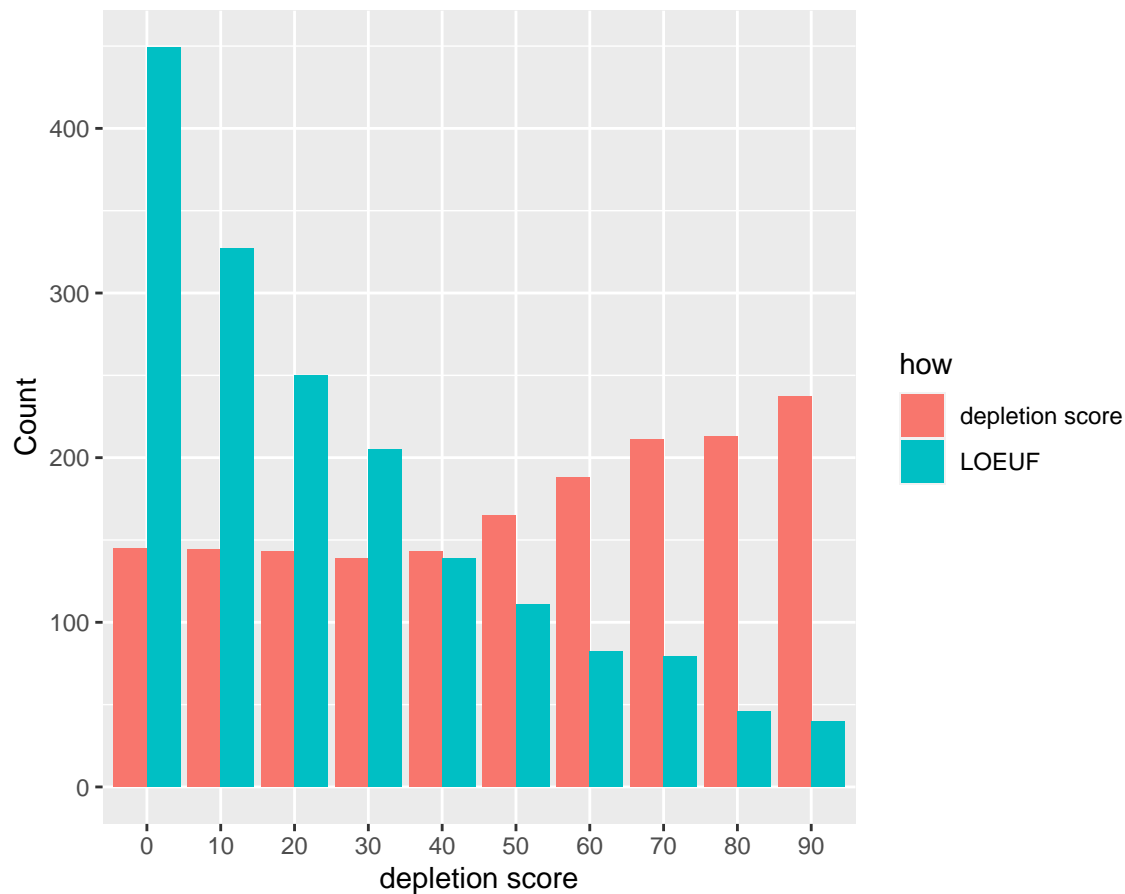


# Depletion Score versus Triplets

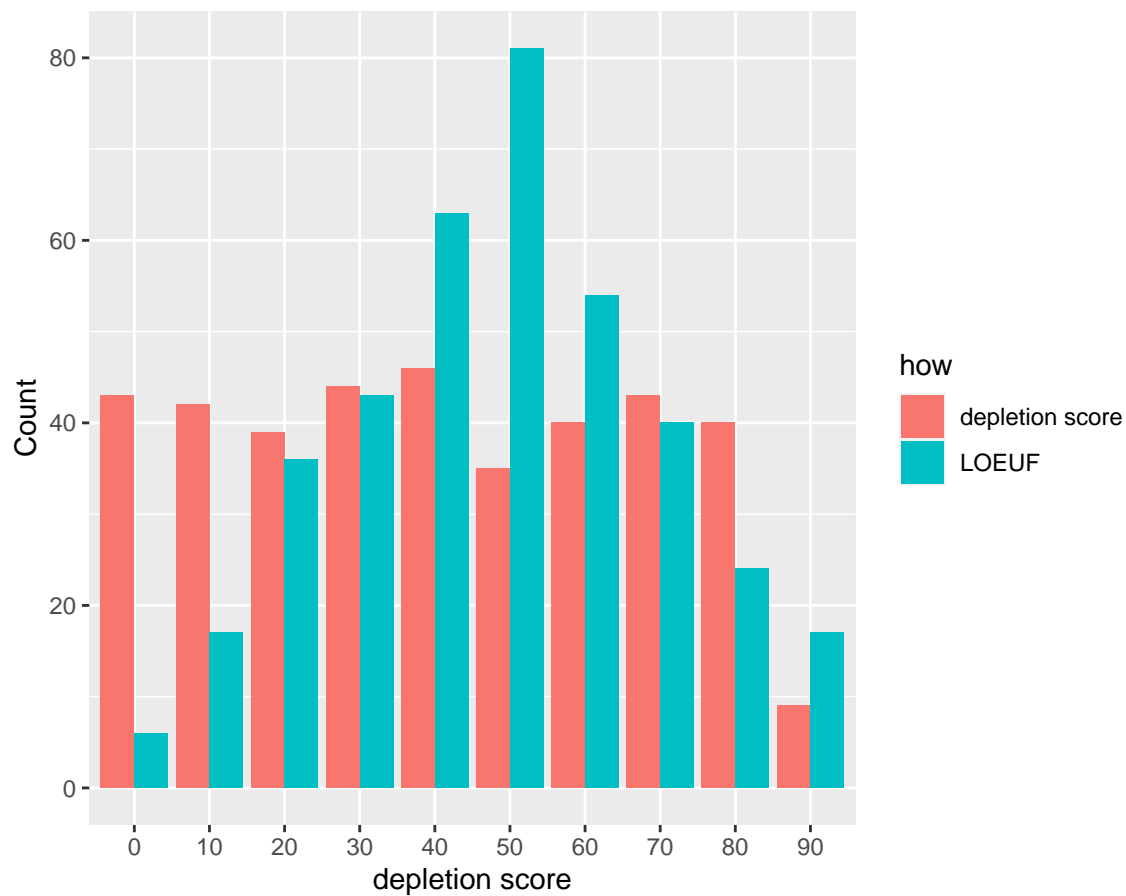
Pearson correlation = 0.4105 (P-value < 2.2e-16)



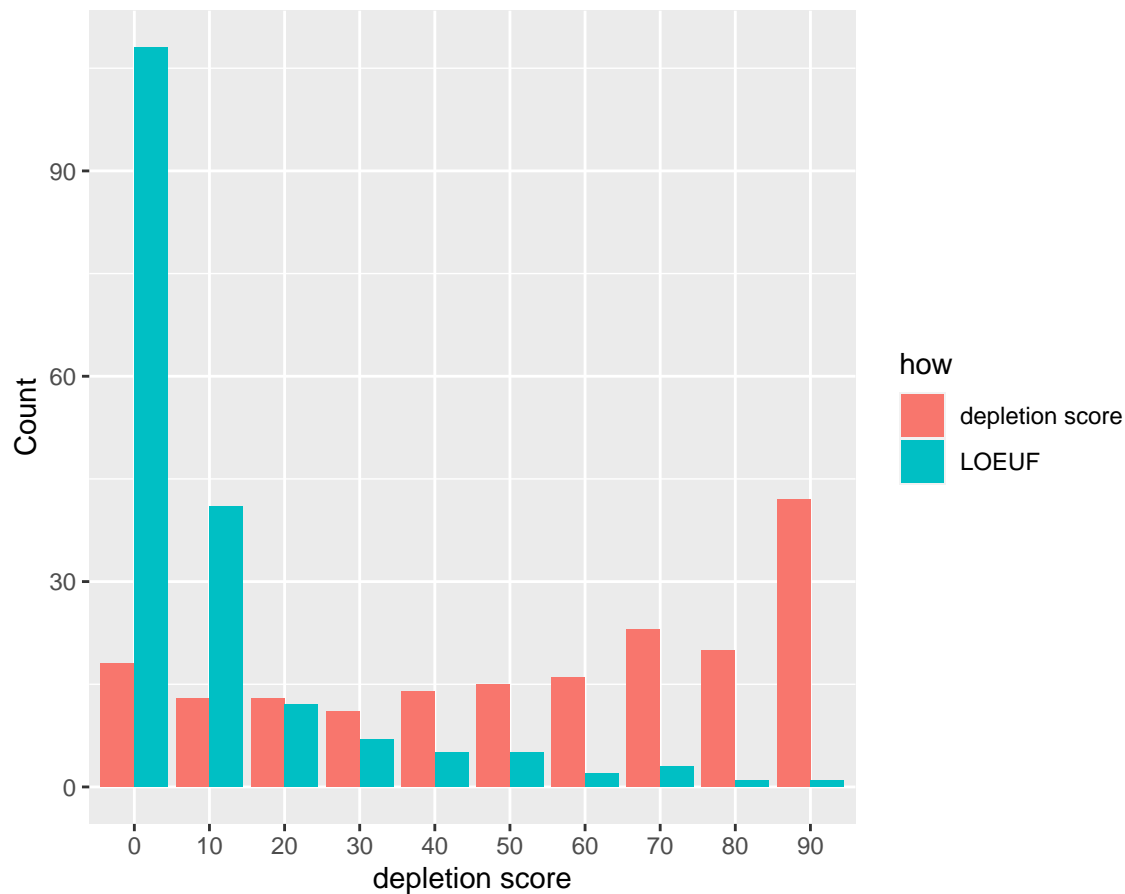
# essential genes on mice



# Autosomal Recessive (Blekhman)

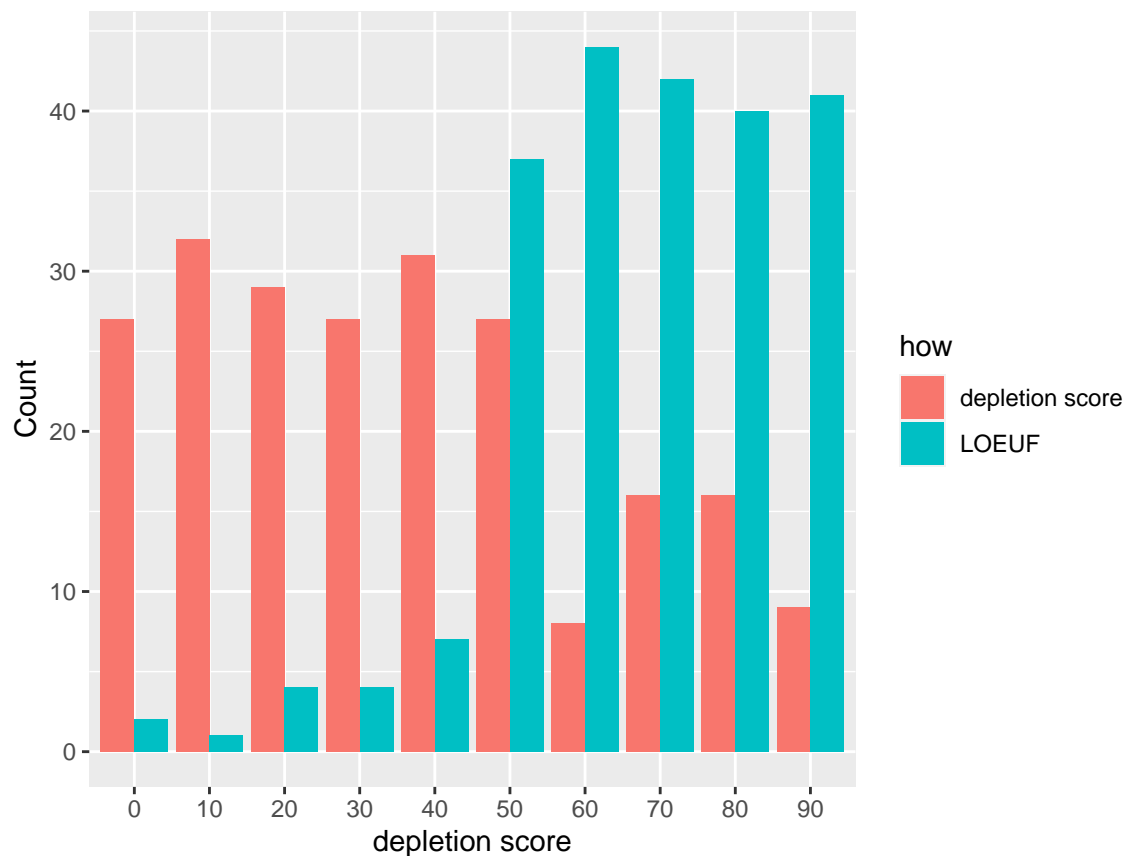


# Evidence for dosage pathogenecity (Clingen, 2018)

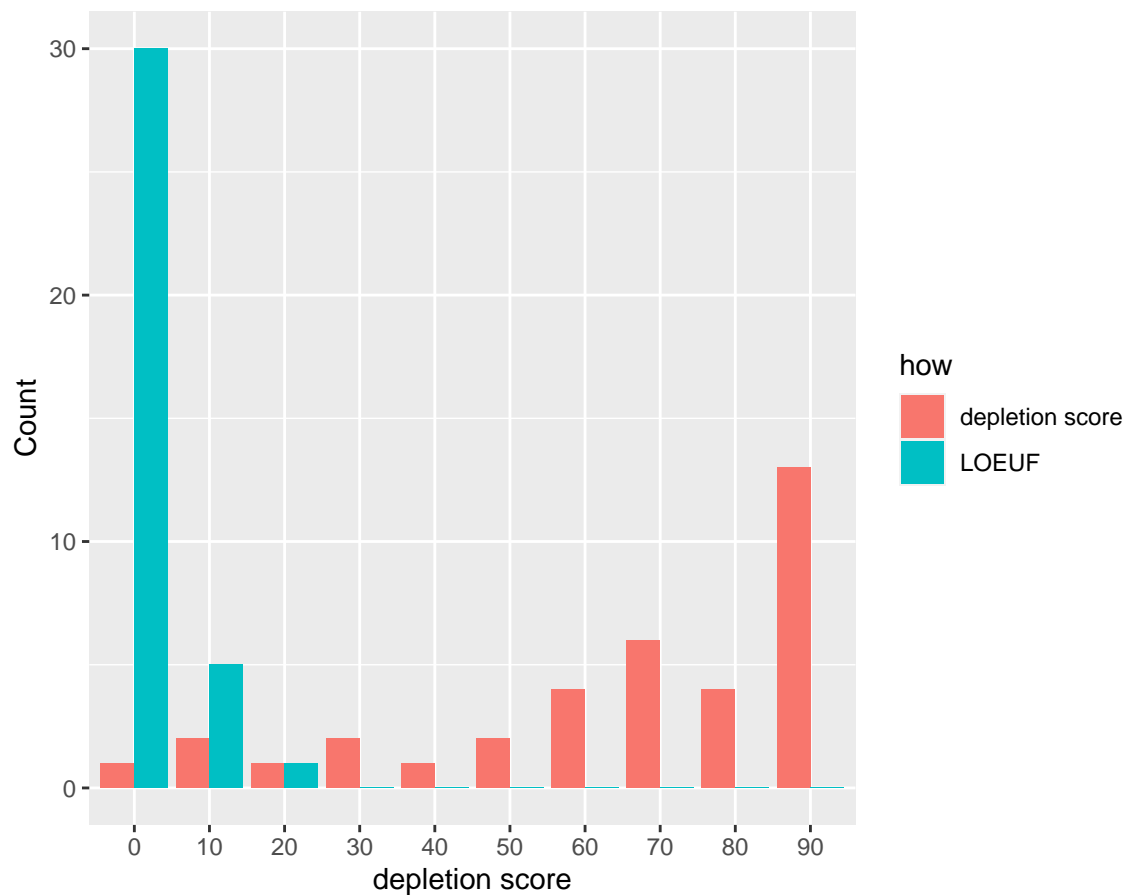




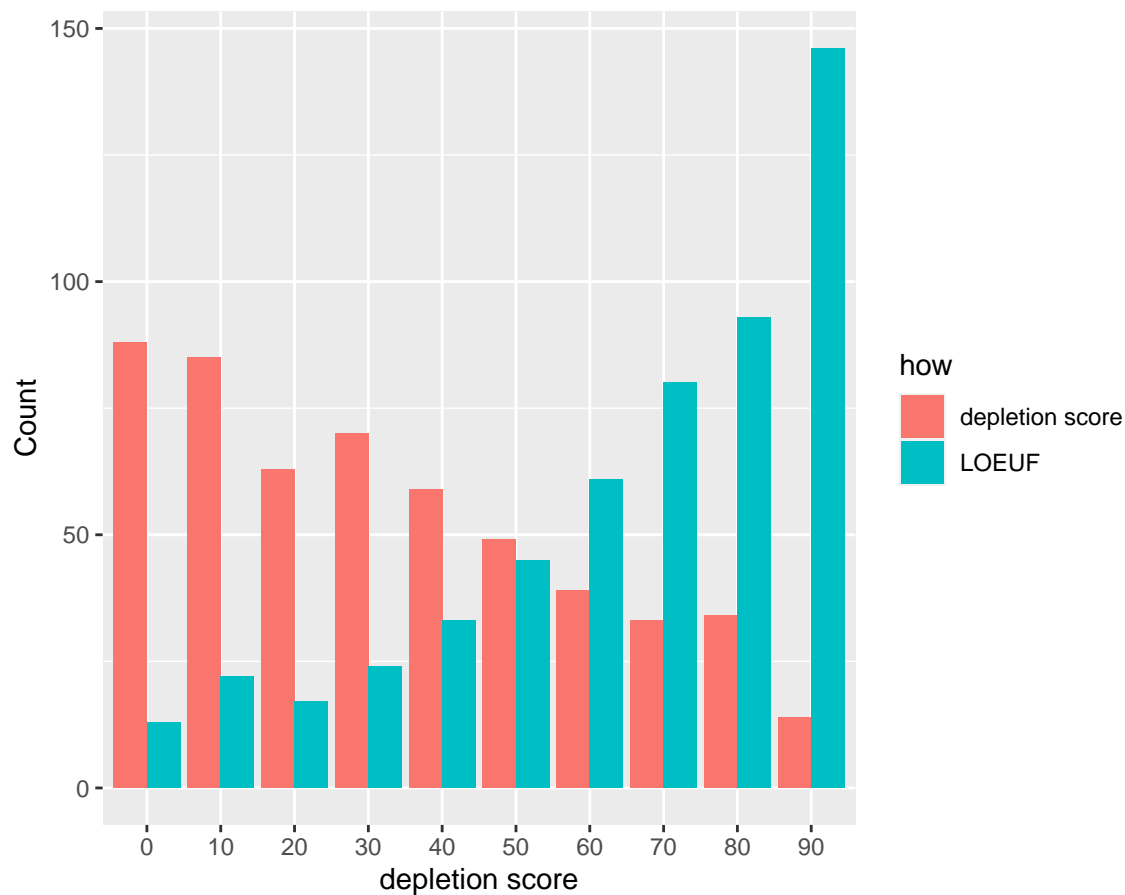
# Genes with at least two different high-confidence LoF variants found in homozygous state in at least one individual in ExAC



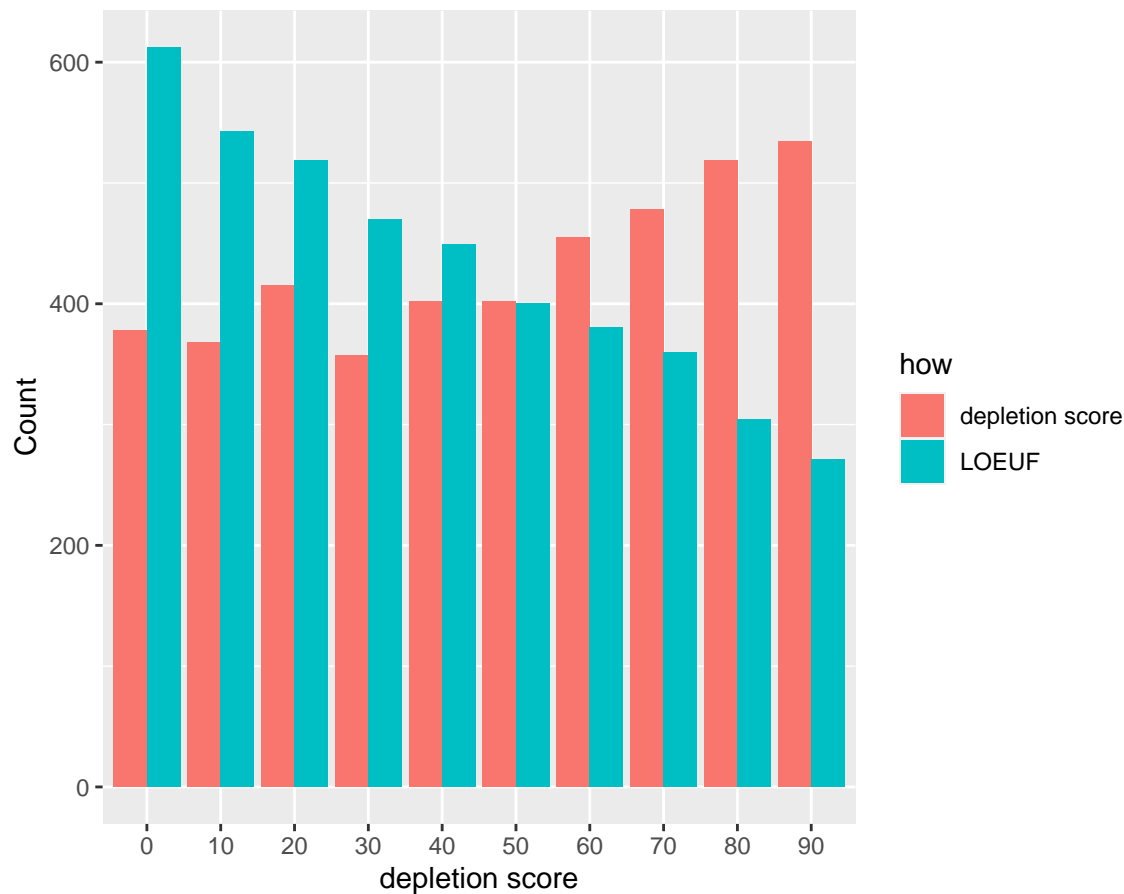
# haploinsufficiency (Severe)



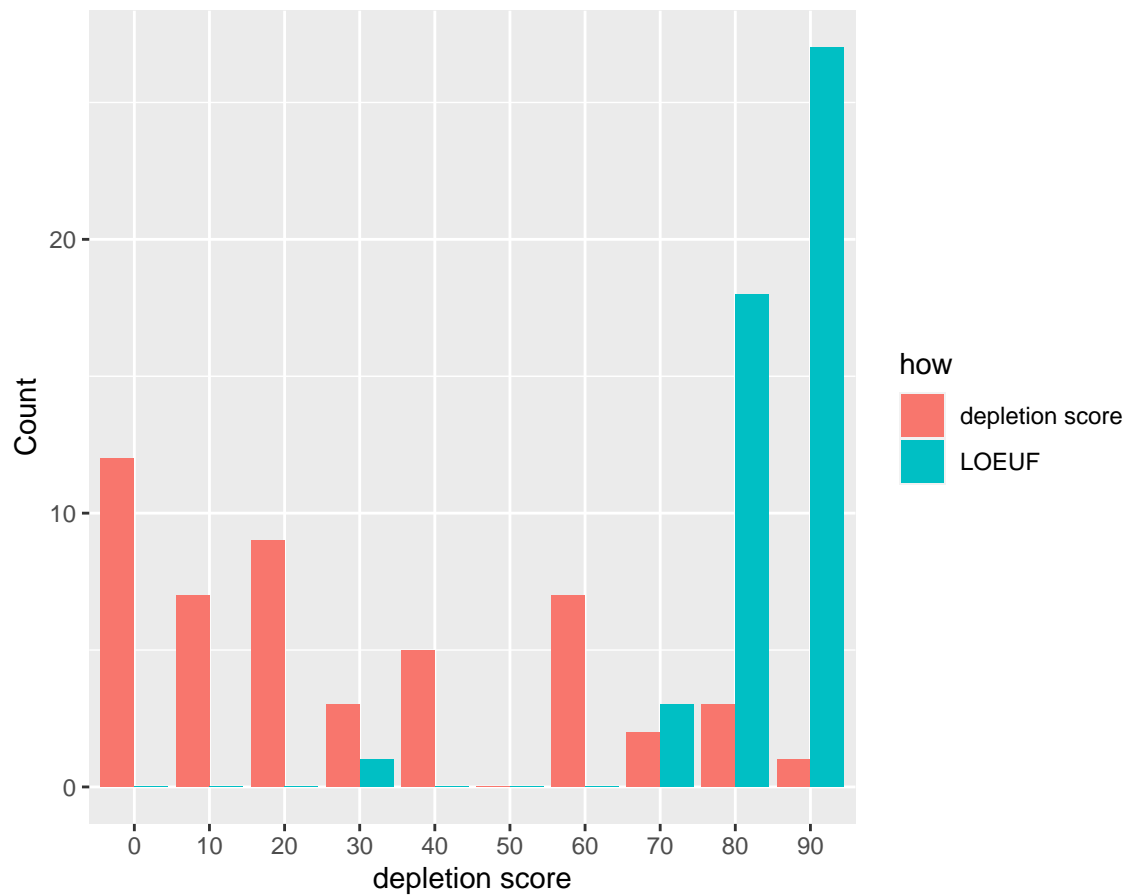
Genes deemed non-essential in multiple cultured cell lines based on



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



# olfactory receptors



# FMRP interactors

