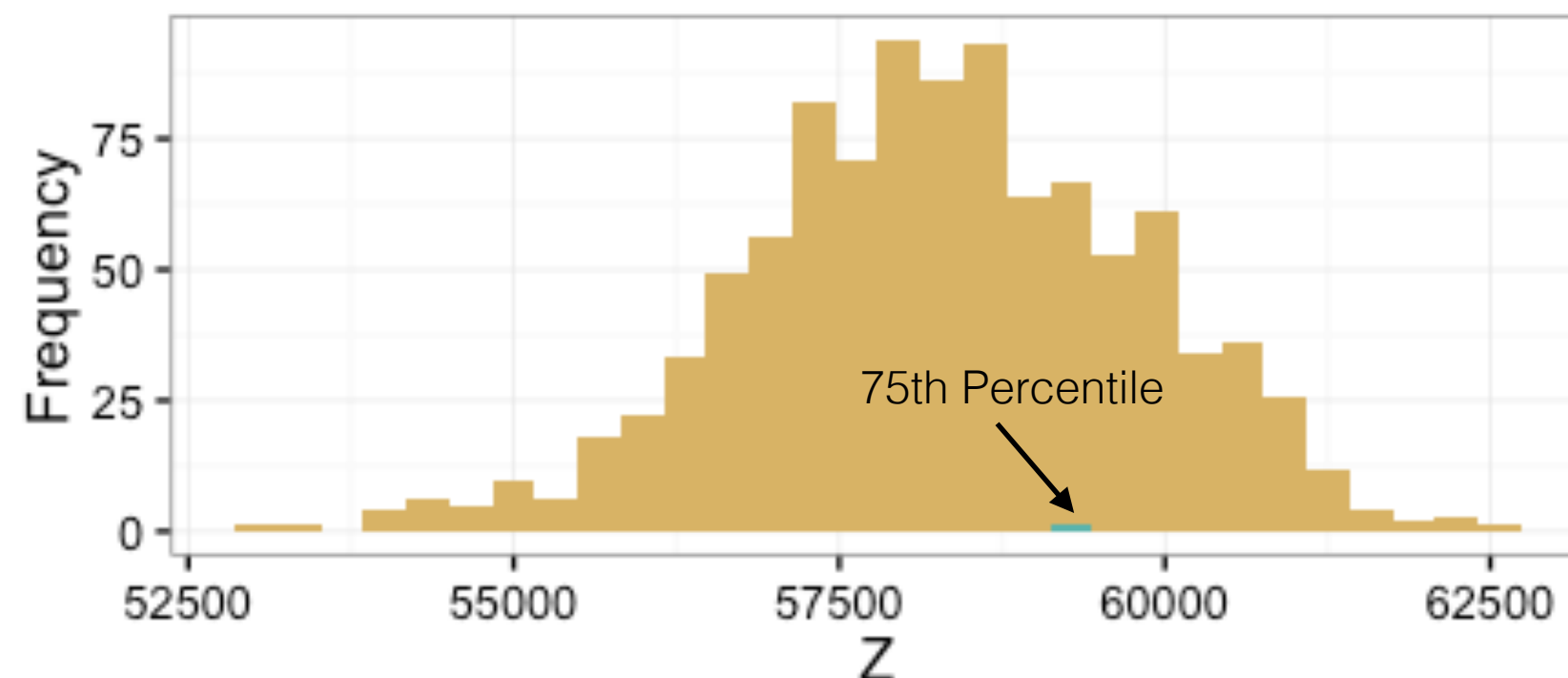


# Mantel Significance

- Based upon the magnitude of the  $z$  statistic.
- Assuming  $H_0$  is true, permute  $\mathbf{Y}$  and recalculate distribution of  $z$  values.

$H_0$ : Euclidean separation independent of Nei's Distance



$$\rho = 0.039$$

# Partial Mantel

Estimating correlation after fixing effects of other variable.

$H_0$ : IBD *after* controlling for ‘Species Cluster’

Nei ~ Physical  
 $\rho = 0.039; cdf = 0.749$

Nei ~ Physical, strata=Cluster  
 $\rho = 0.039; cdf = 0.865$

Nei ~ Physical | Cluster  
 $\rho = 0.123; cdf = 0.959$