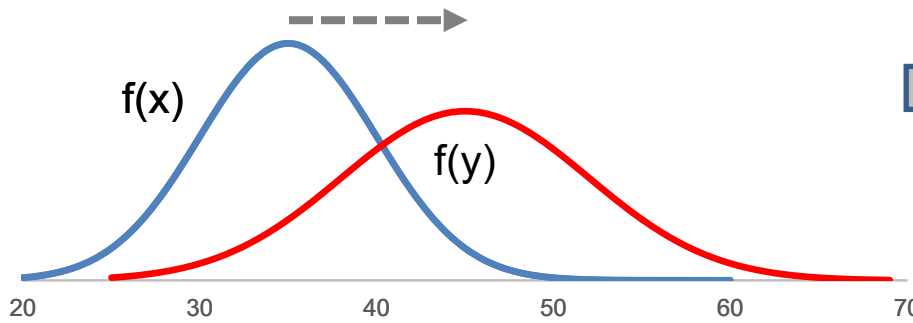
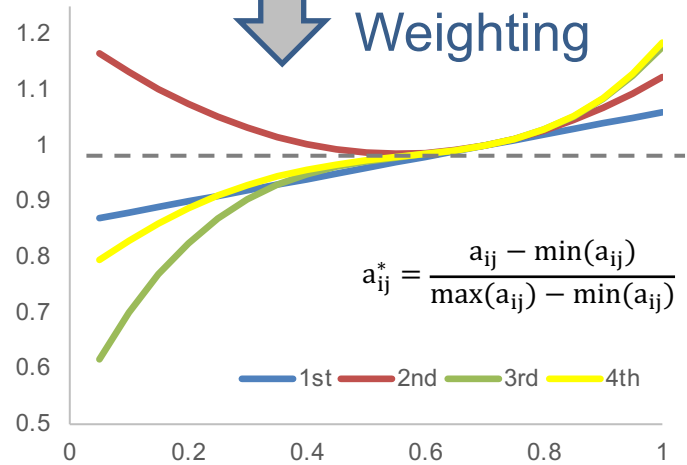


MAIC - Which Method is Best?



Signorovitch or Entropy Balancing?

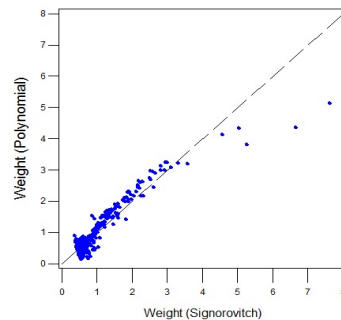
Polynomial Weighting



- $w_{ij}^* = \left| \beta_{2j} + \beta_{3j}(a_{ij}^* - \beta_{1j}) + \beta_{4j}(a_{ij}^* - \beta_{1j})^2 + \beta_{5j}(a_{ij}^* - \beta_{1j})^3 + \beta_{6j}(a_{ij}^* - \beta_{1j})^4 \right|$
 - $w_i = \frac{\sum_j w_{ij}^*}{\sum_{ij} w_{ij}^*}$, then calculate weighted mean Mw_j & SD SDw_j of a_{ij}
 - Minimise $L = \sum_j \frac{[(Mw_j - Mt_j)^2 + (SDw_j - SDt_j)^2]}{SDt_j}$ w.r.t. β_{ij}
- j =baseline parameter, i =patient. Mt_j , SDt_j = target mean & SD (aggregated data)

Which method is best?

- Signorovitch/Entropy balancing produced similar weights
- Polynomial weighting matched target



- BUT...Polynomials offer
- ✓ Non-central moment matching
 - ✓ ESS maximisation
 - ✓ Easier implementation!