#confounder: 2, #non-confounding covari correlation with the unconfounded 0.8 0.7 (causal genes) method 0.6 CoCoA Total confounder 0.5 0.4 0.3 0.1 0.2 0.3 V[Y|W] correlation with the unconfounded (non-causal genes) 0.7 method CoCoA Total confounder 0.6 0.5 0.2 0.3 0.1 V[Y|W] correlation with the confounders (non-causal genes) 0.45 method 0.40 confounder Total CoCoA 0.35 0.30 0.25 0.1 0.2 0.3 V[Y|W]