## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: : Comparison of results from each of the methods to the SEM results using individual level data for the 301 autosomal genomewide significant SNPs from the latest GWAS of birth weight when there is sample overlap between the two GWAS.

File Name: Supplementary Data 2

Description: Comparison of results from each of the methods to the SEM results using individual level data for the 301 autosomal genomewide significant SNPs from the latest GWAS of birth weight when there is no sample overlap between the two GWAS.

File Name: Supplementary Data 3

Description: Results from the fertility GWAS for the seven loci that reached genome-wide significance (P < 5x10-8) in the conditional GWAS analysis estimating male, female and sibling specific genetic effects.