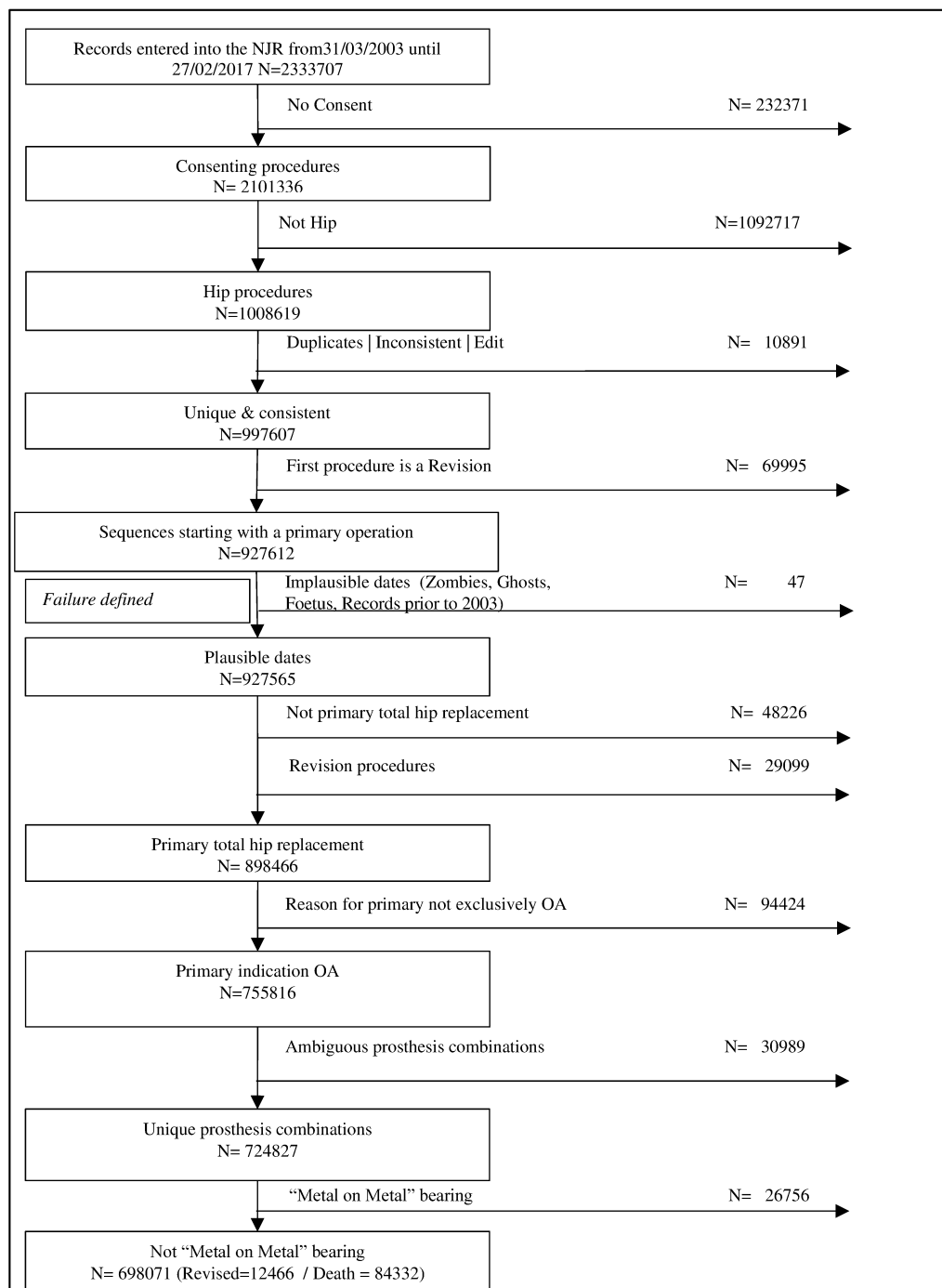
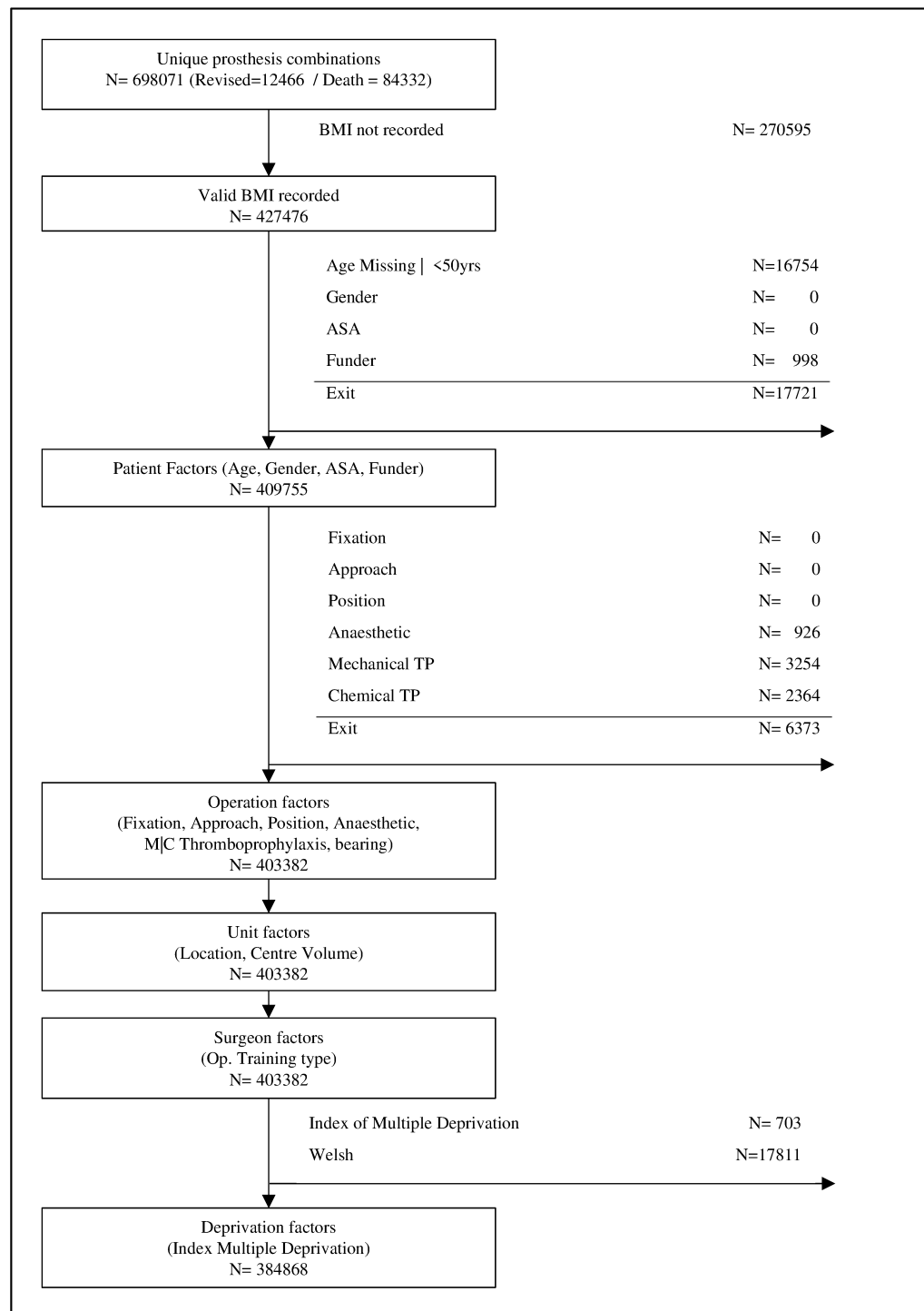


Supplementary Figures

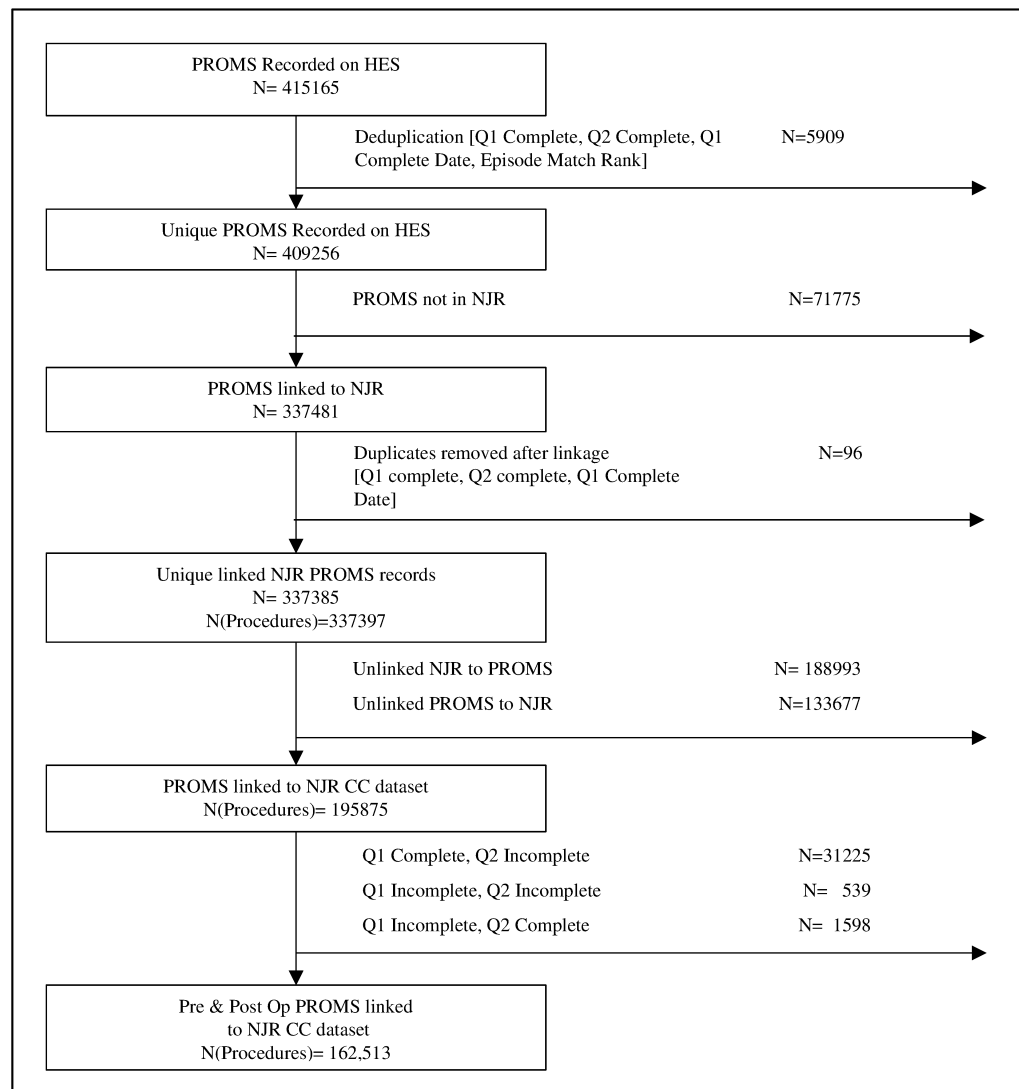
Supplementary Figure 1: Inclusion / Exclusion Criteria of the NJR study.



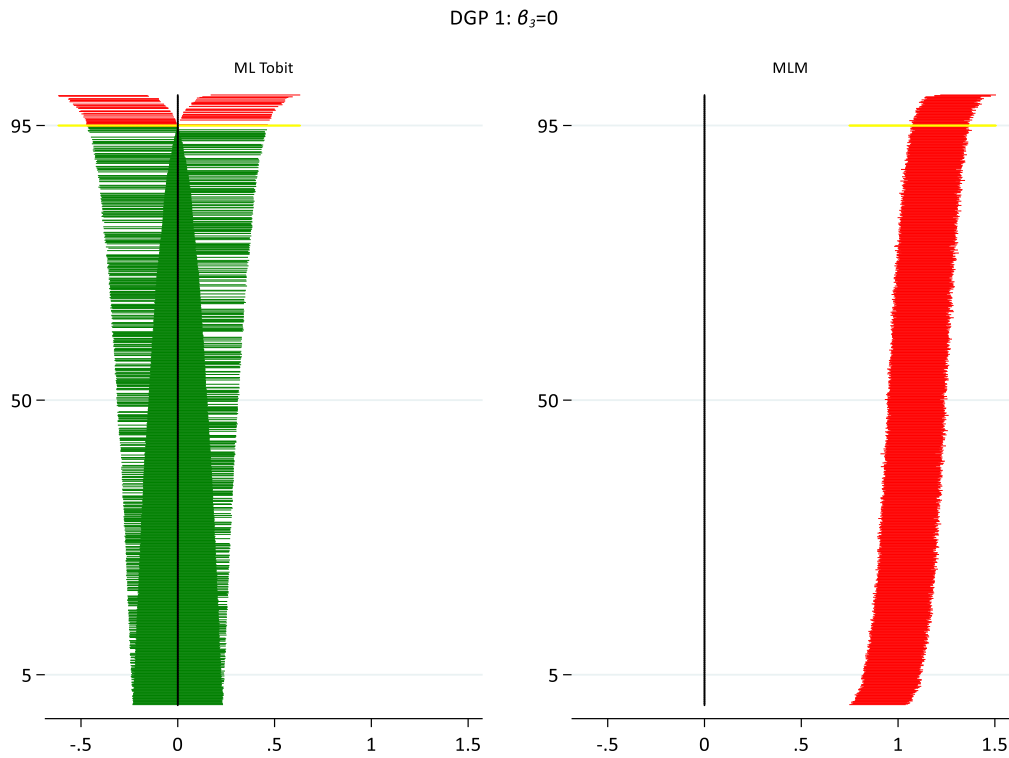
Supplementary.Figure 2: Description of covariate missing data in eligible data



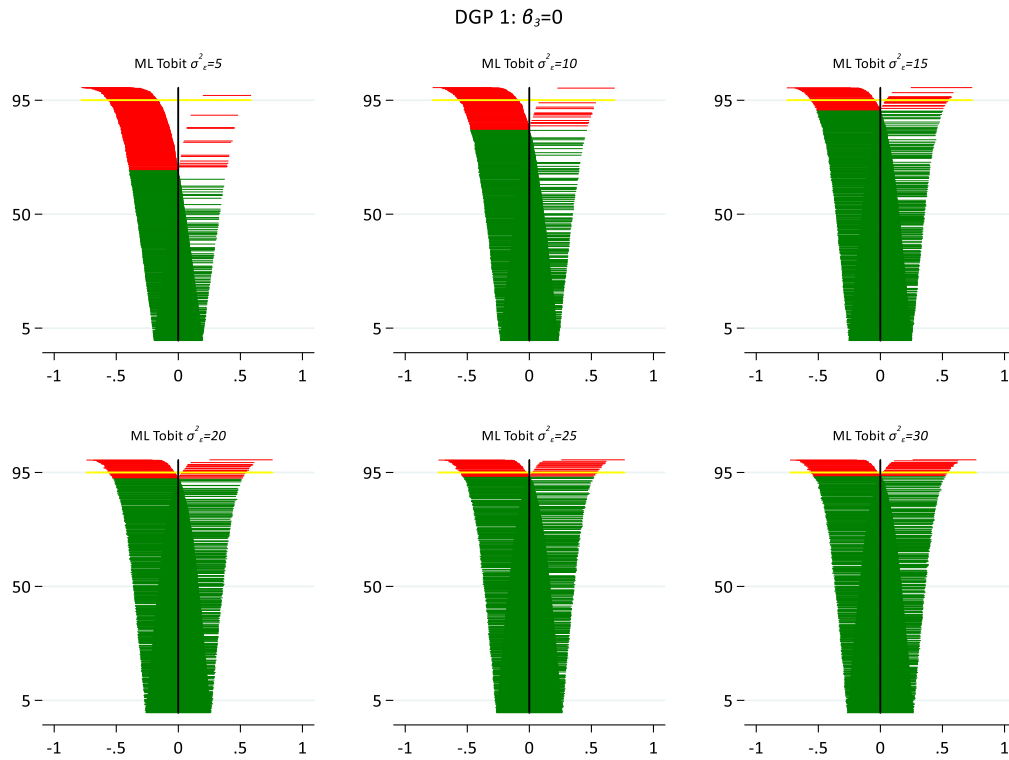
Supplementary.Figure 3: Description of National PROMS linkage to the NJR



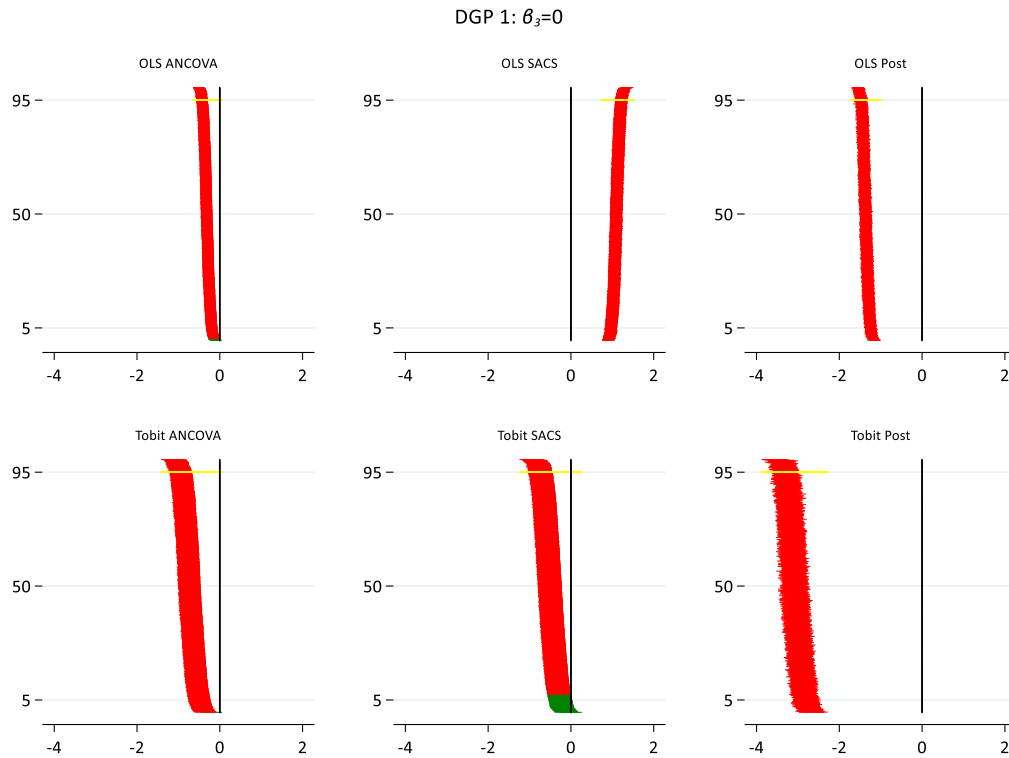
Supplementary Figure 4: “Zip Plot” of the 1000 95% Confidence intervals for each method of analysis for DGP 1. The vertical axis is the centile of the two-sided p -value against $H_0 : \beta_3=0$ associated with the confidence interval for MLM and ML Tobit models.



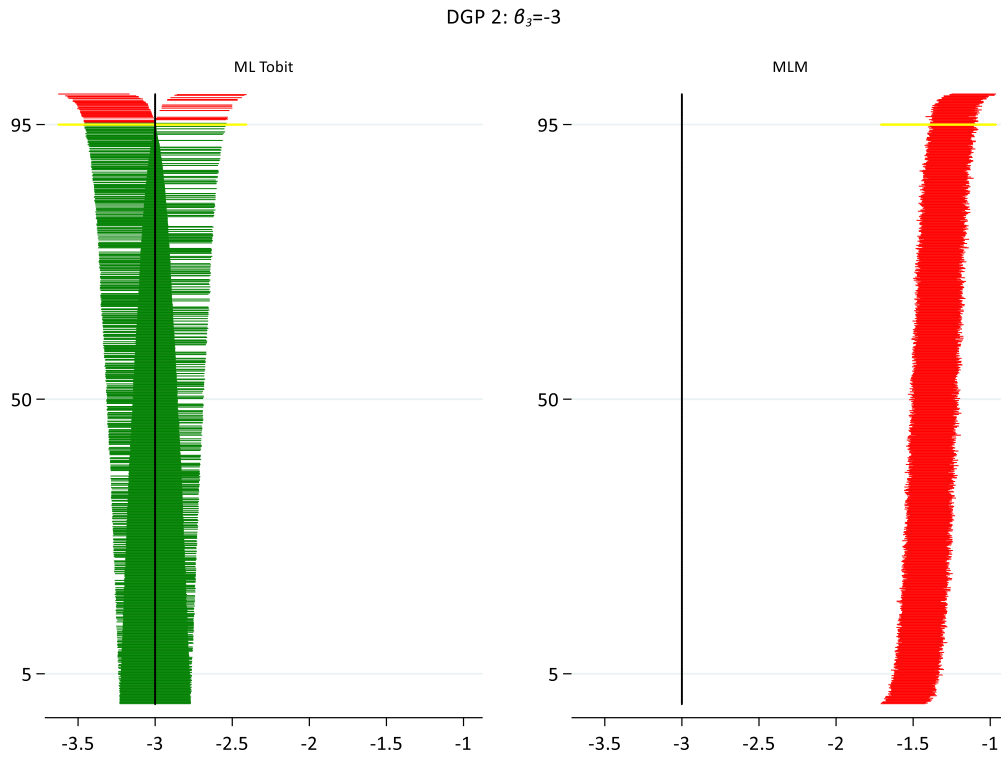
Supplementary.Figure 5: “Zip Plot” of the 1000 95% Confidence intervals for each method of analysis for DGP 1. The vertical axis is the centile of the two-sided p-value against $H_0 : \beta_3=0$ associated with the confidence interval for ML Tobit models with varying constraints of σ_ε^2



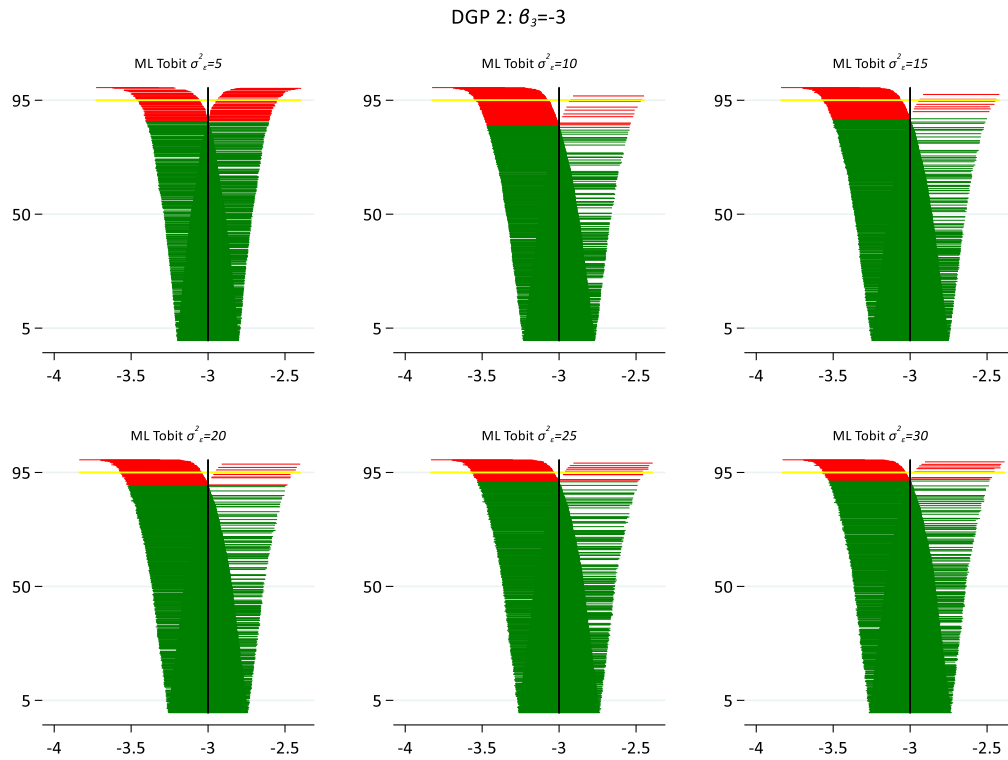
Supplementary.Figure 6: “Zip Plot” of the 1000 95% Confidence intervals for each method of analysis for DGP 1. The vertical axis is the centile of the two-sided p-value against $H_0 : \beta_3=0$ associated with the confidence interval for Single level OLS and Tobit models.



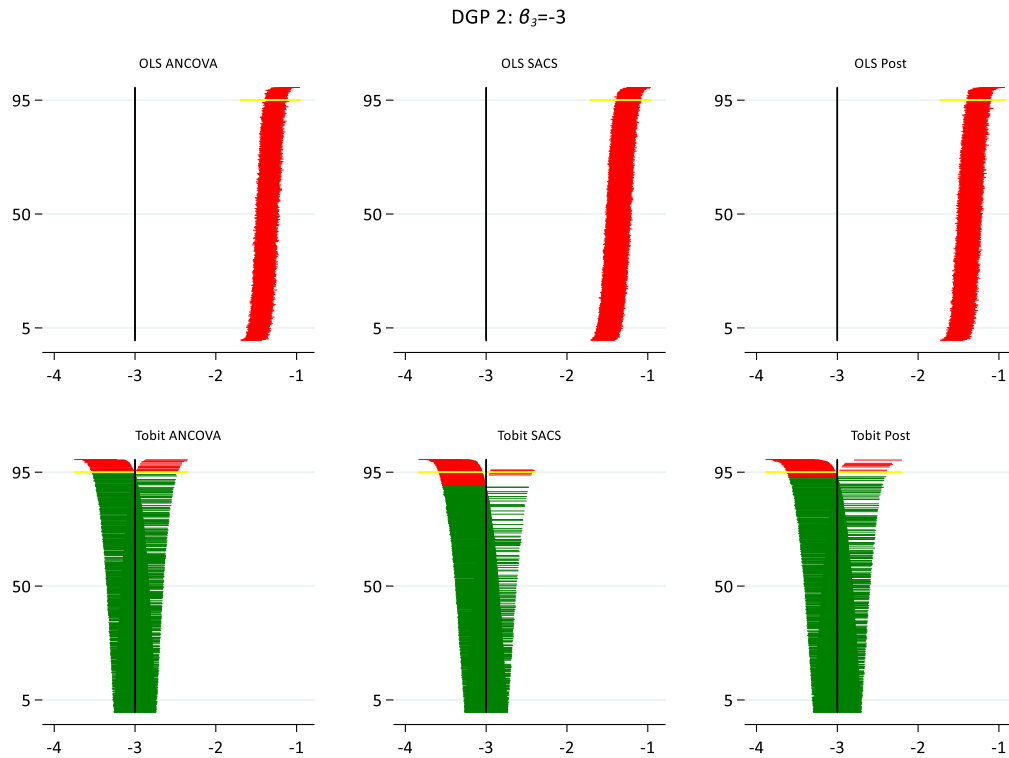
Supplementary.Figure 7: “Zip Plot” of the 1000 95% Confidence intervals for each method of analysis for DGP 2. The vertical axis is the centile of the two-sided p-value against $H_0 : \beta_3=3$ associated with the confidence interval for MLM and ML Tobit models.



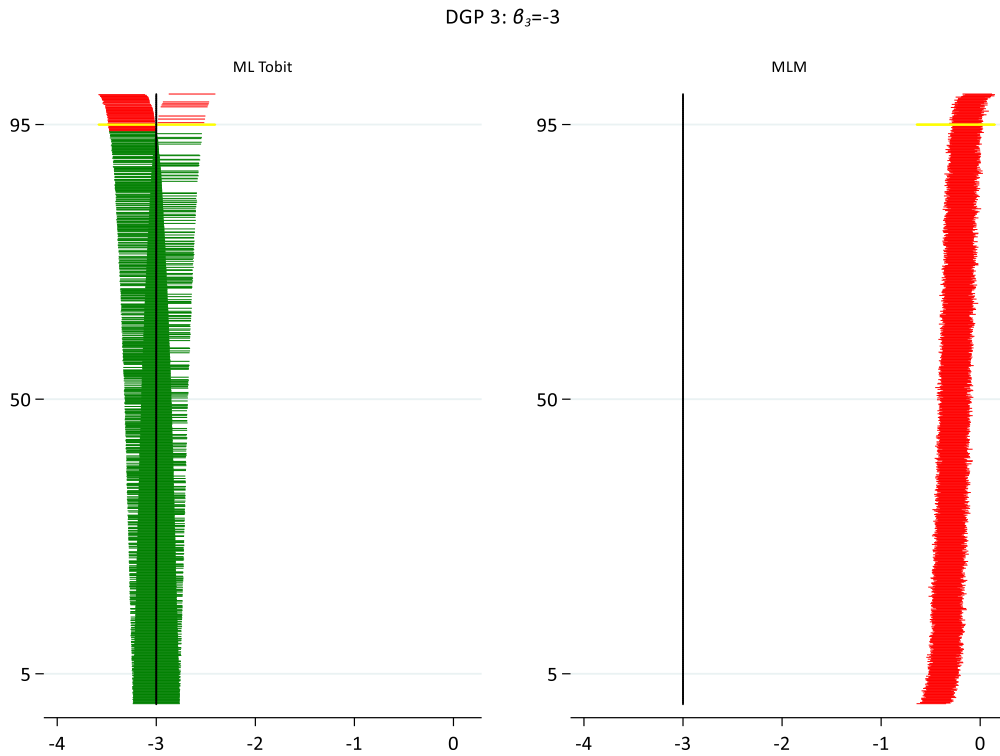
Supplementary Figure 8: “Zip Plot” of the 1000 95% Confidence intervals for each method of analysis for DGP 2. The vertical axis is the centile of the two-sided p-value against $H_0 : \beta_3=3$ associated with the confidence interval for ML Tobit models with varying constraints of σ_ε^2



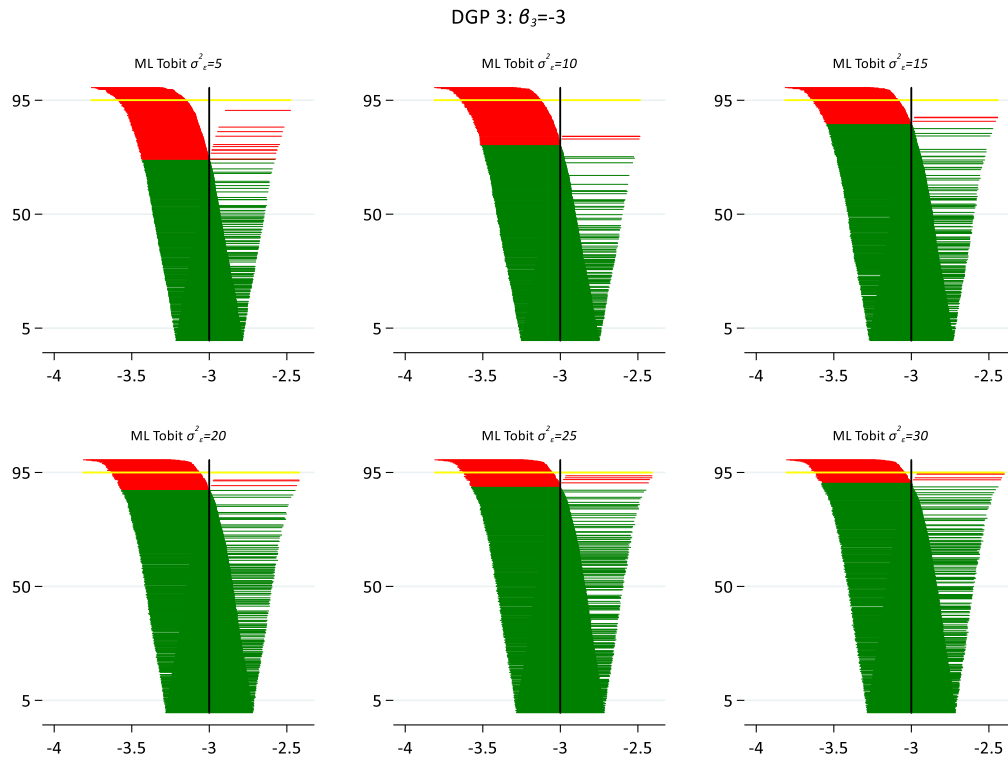
Supplementary.Figure 9: “Zip Plot” of the 1000 95% Confidence intervals for each method of analysis for DGP 2. The vertical axis is the centile of the two-sided p-value against $H_0 : \beta_3=3$ associated with the confidence interval for Single level OLS and Tobit models.



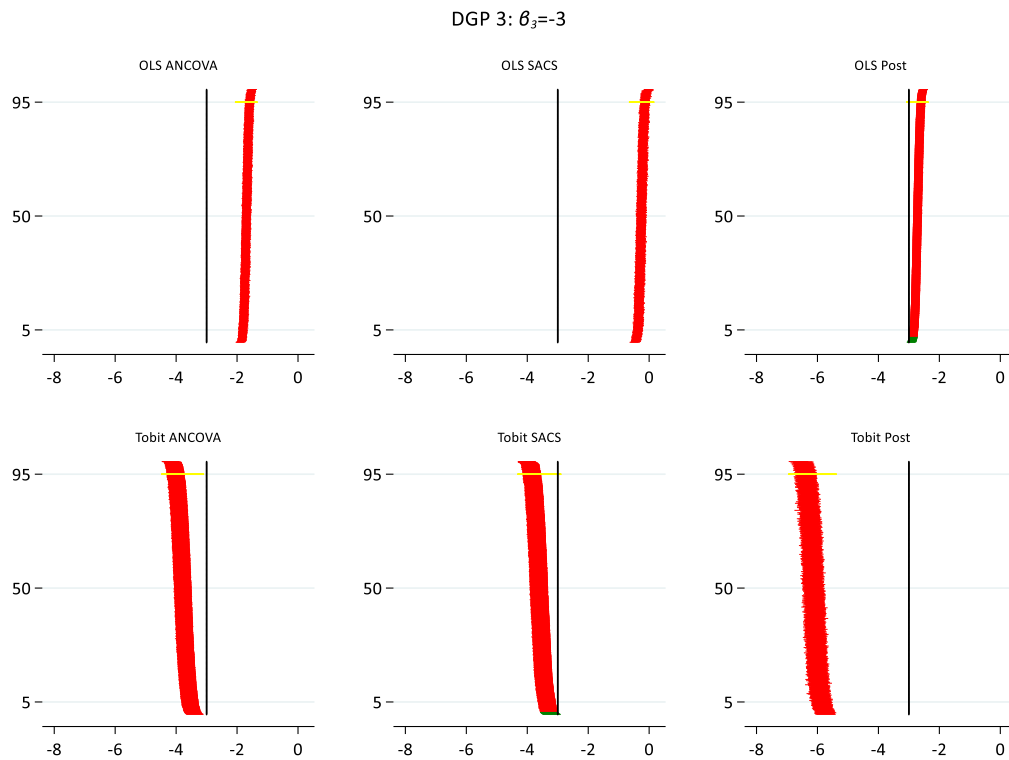
Supplementary Figure 10: “Zip Plot” of the 1000 95% Confidence intervals for each method of analysis for DGP 3. The vertical axis is the centile of the two-sided p-value against $H_0 : \beta_3=3$ associated with the confidence interval for MLM and ML Tobit models.



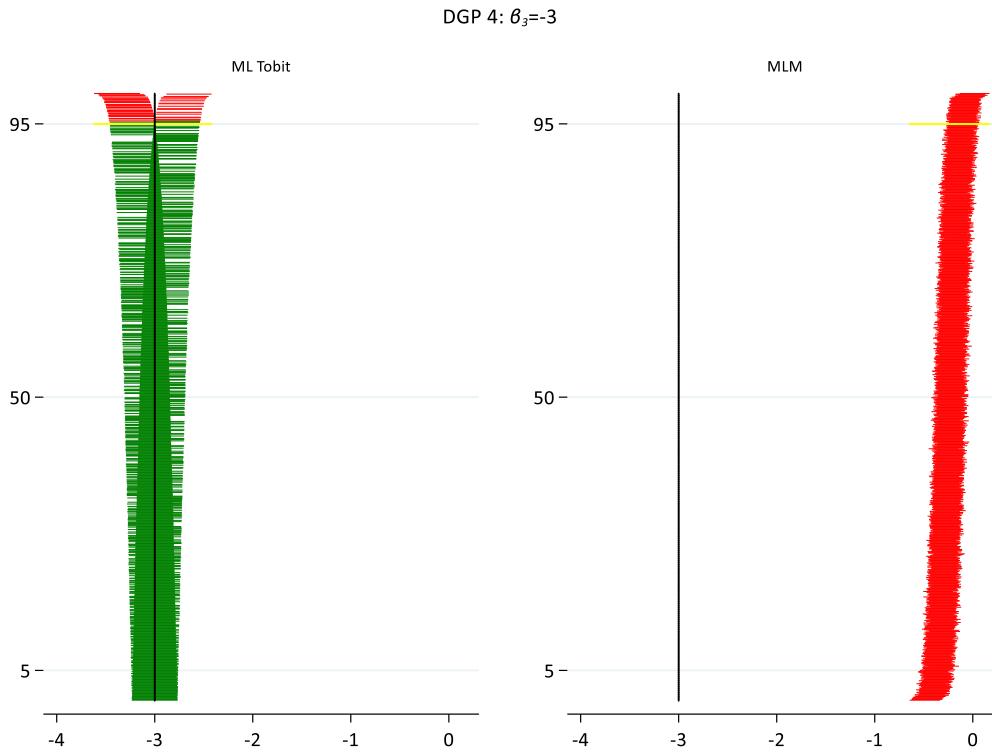
Supplementary.Figure 11: “Zip Plot” of the 1000 95% Confidence intervals for each method of analysis for DGP 3. The vertical axis is the centile of the two-sided p-value against $H_0 : \beta_3=3$ associated with the confidence interval for ML Tobit models with varying constraints of σ_ε^2



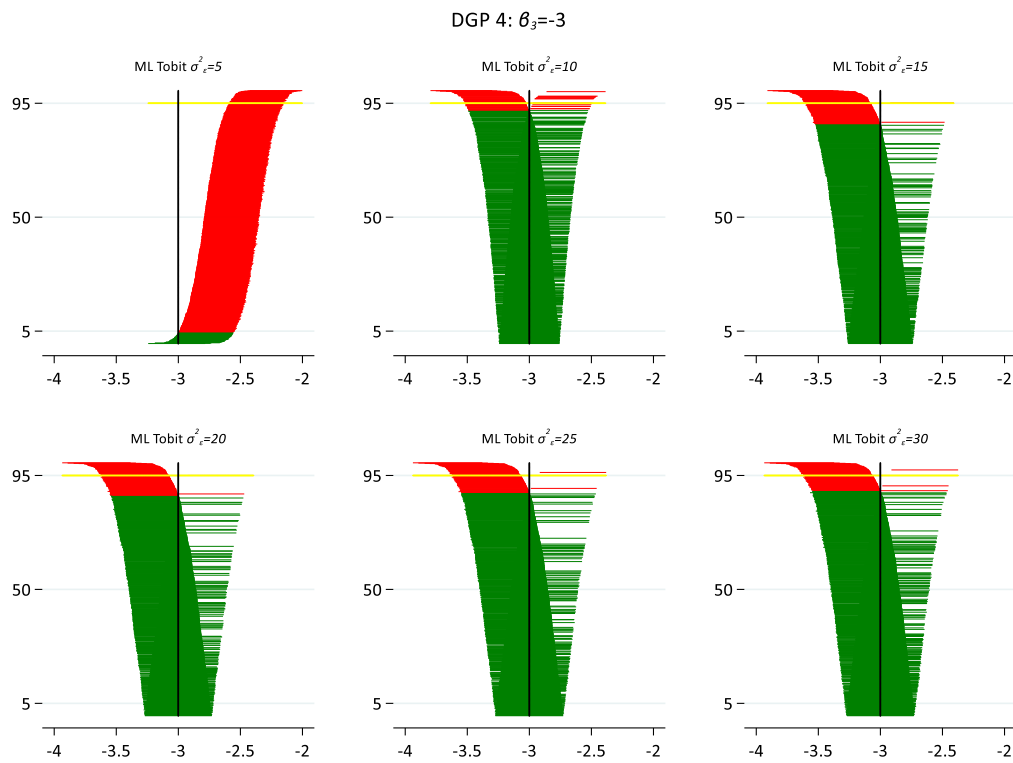
Supplementary Figure 12: “Zip Plot” of the 1000 95% Confidence intervals for each method of analysis for DGP 3. The vertical axis is the centile of the two-sided p -value against $H_0 : \beta_3=3$ associated with the confidence interval for Single level OLS and Tobit models.



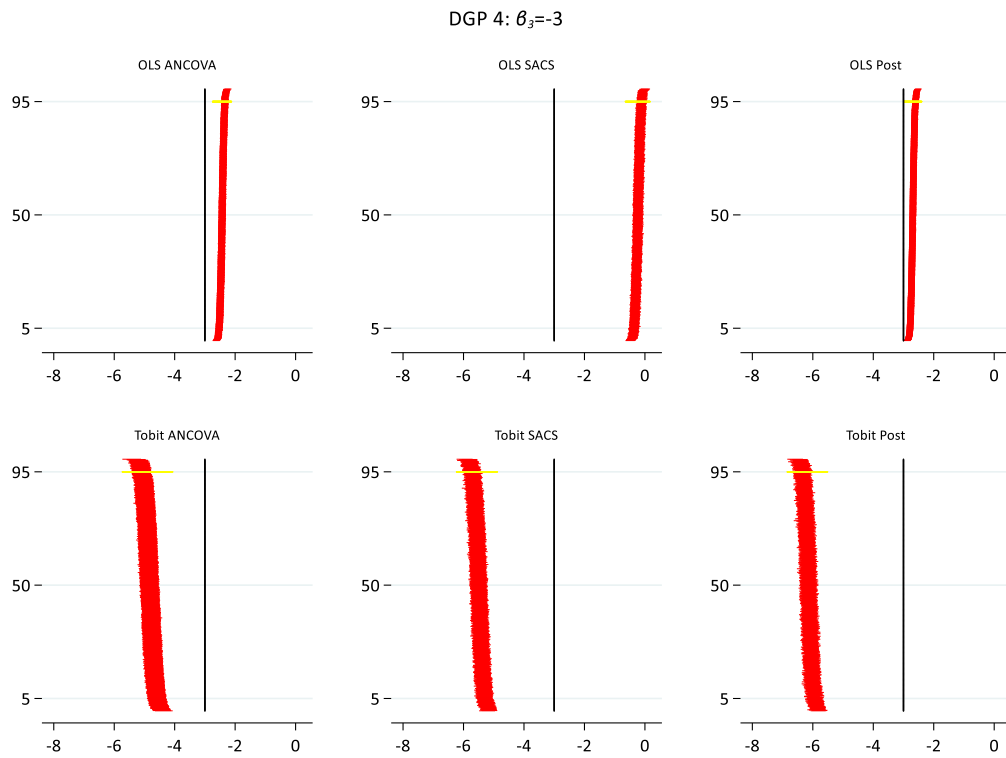
Supplementary.Figure 13: “Zip Plot” of the 1000 95% Confidence intervals for each method of analysis for DGP 4. The vertical axis is the centile of the two-sided p -value against $H_0 : \beta_3=0$ associated with the confidence interval for MLM and ML Tobit models.



Supplementary.Figure 14: “Zip Plot” of the 1000 95% Confidence intervals for each method of analysis for DGP 4. The vertical axis is the centile of the two-sided p-value against $H_0 : \beta_3=0$ associated with the confidence interval for ML Tobit models with varying constraints of σ_ε^2



Supplementary Figure 15: “Zip Plot” of the 1000 95% Confidence intervals for each method of analysis for DGP 4. The vertical axis is the centile of the two-sided p-value against $H_0 : \beta_3=0$ associated with the confidence interval for Single-level OLS and Tobit models.



Supplementary Figure 16: Marginal effect of level 1 error variance (σ_{ε}^2) constraint on level 2 variance components

