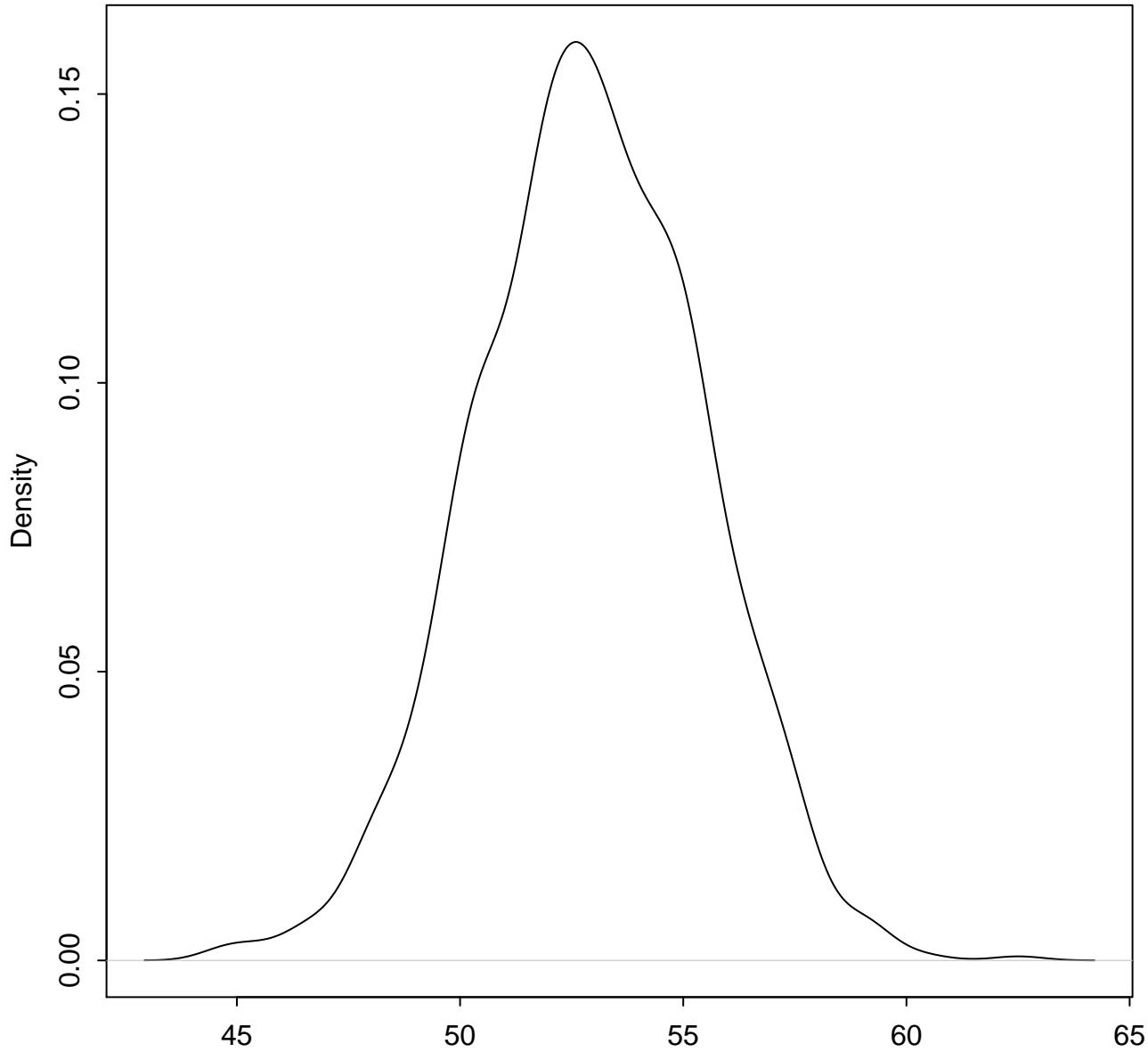
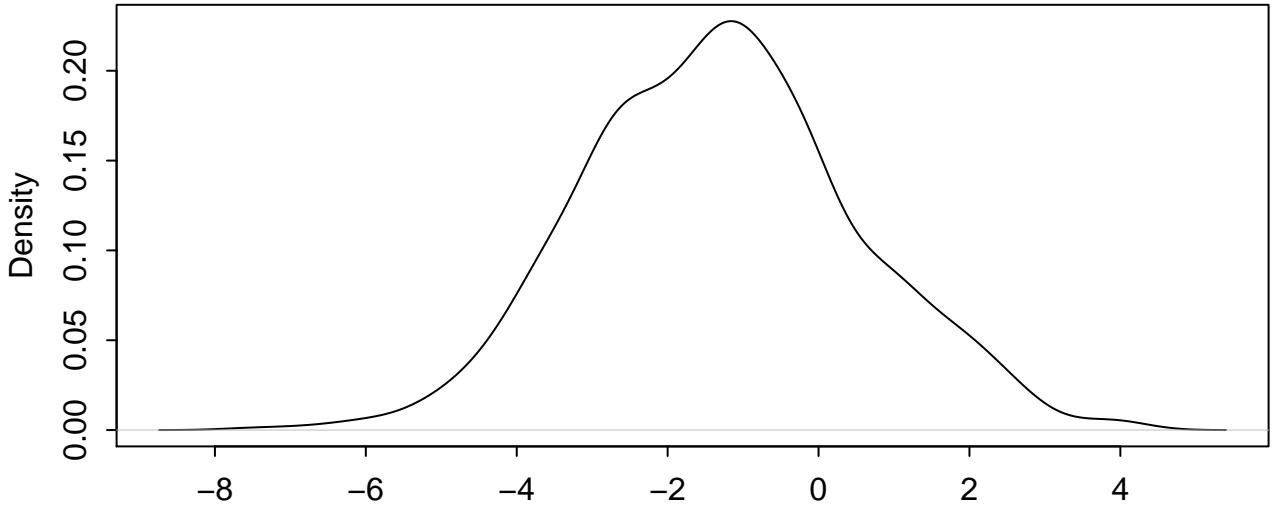


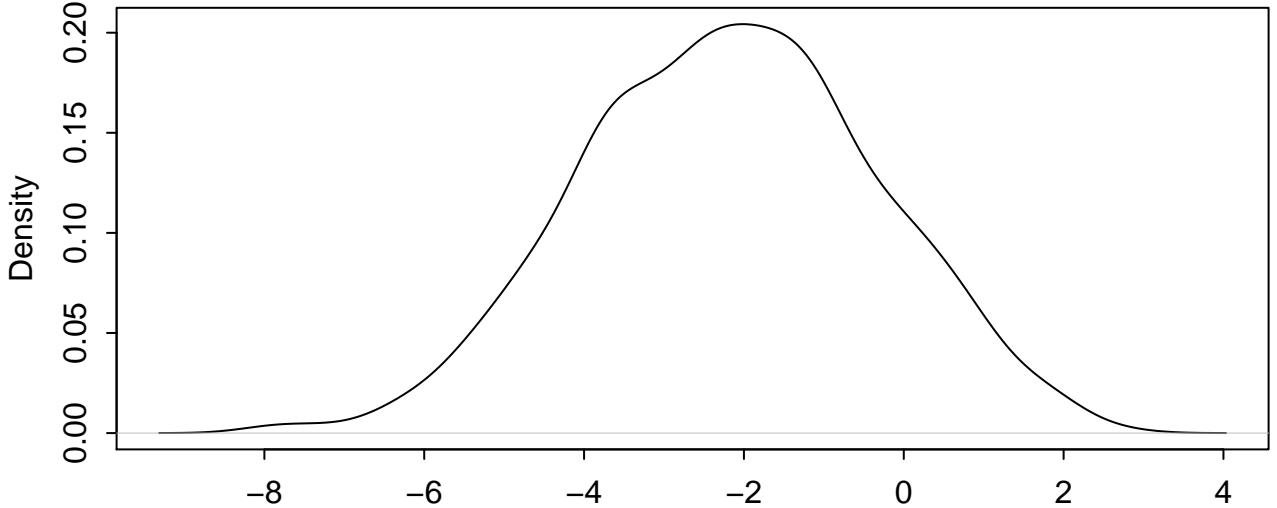
# Expected Values: $E(Y|X)$



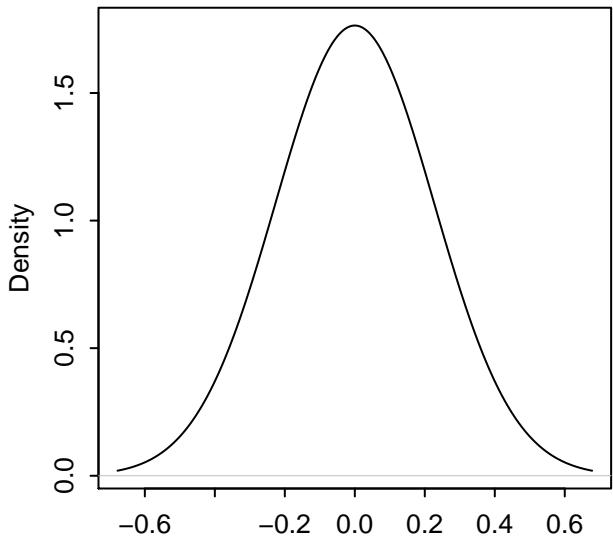
**Expected Values:  $E(Y|X)$**



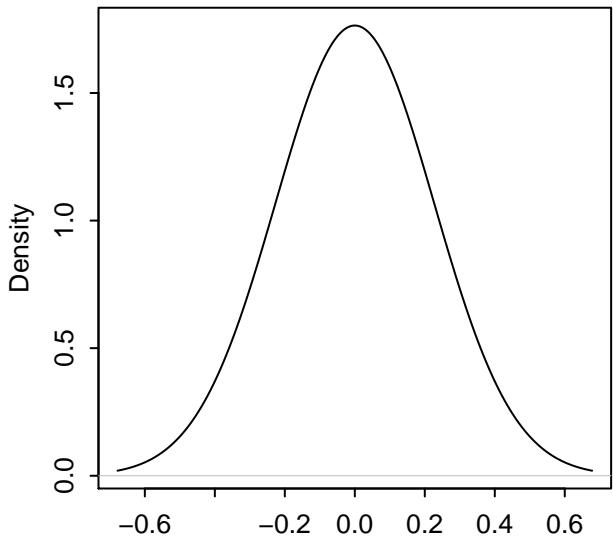
**Expected Values:  $E(Y|X)$**



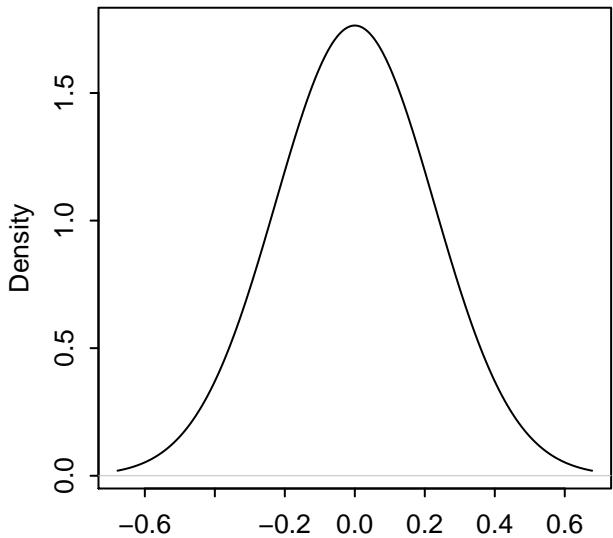
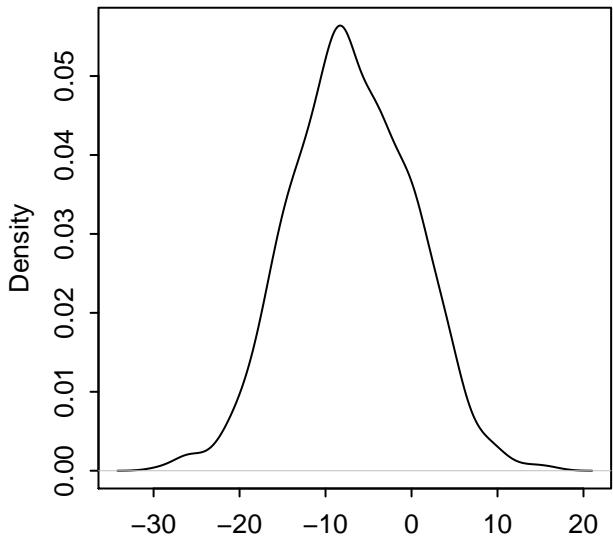
**Expected Values:  $E(Y|X)$**

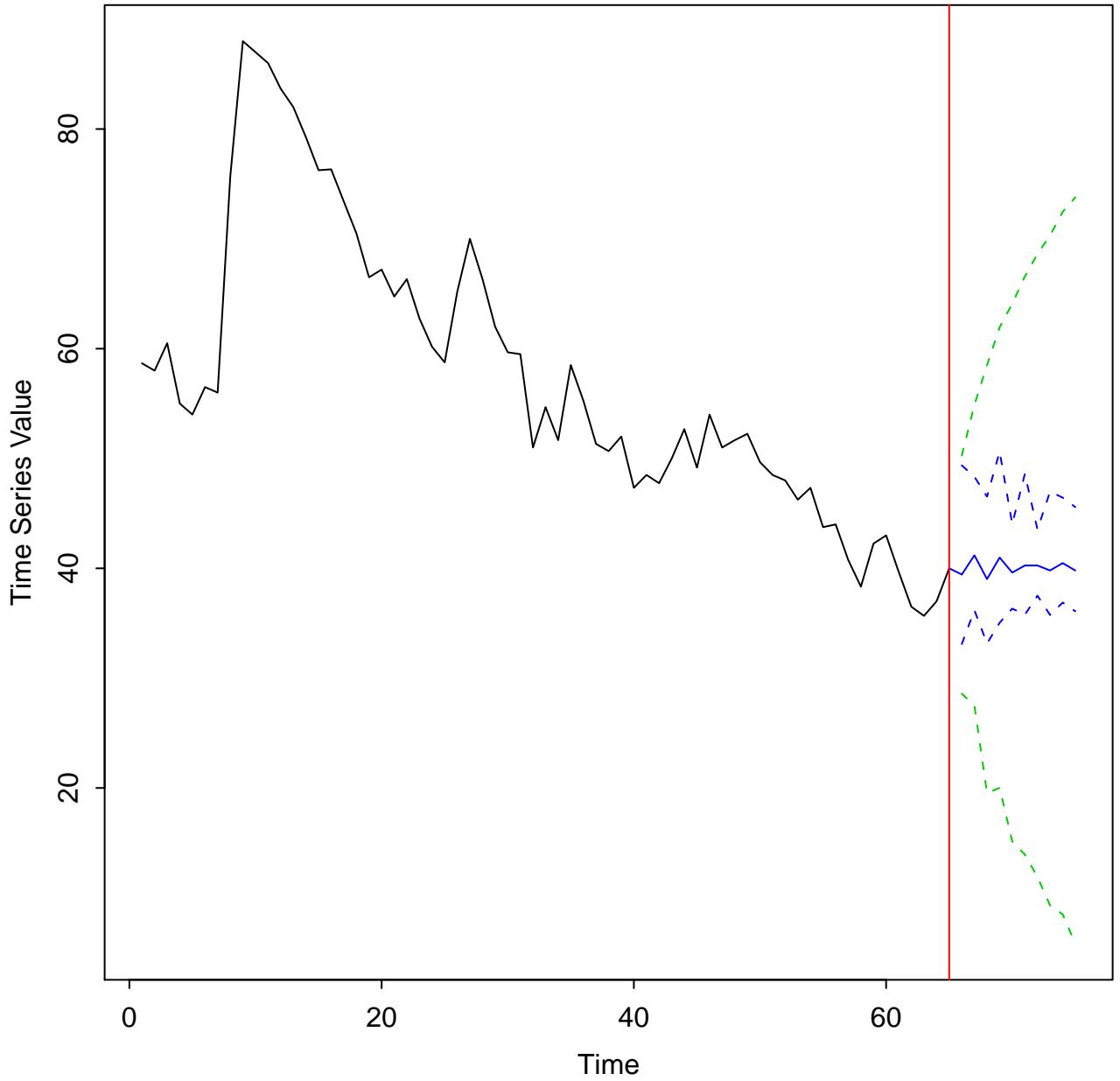


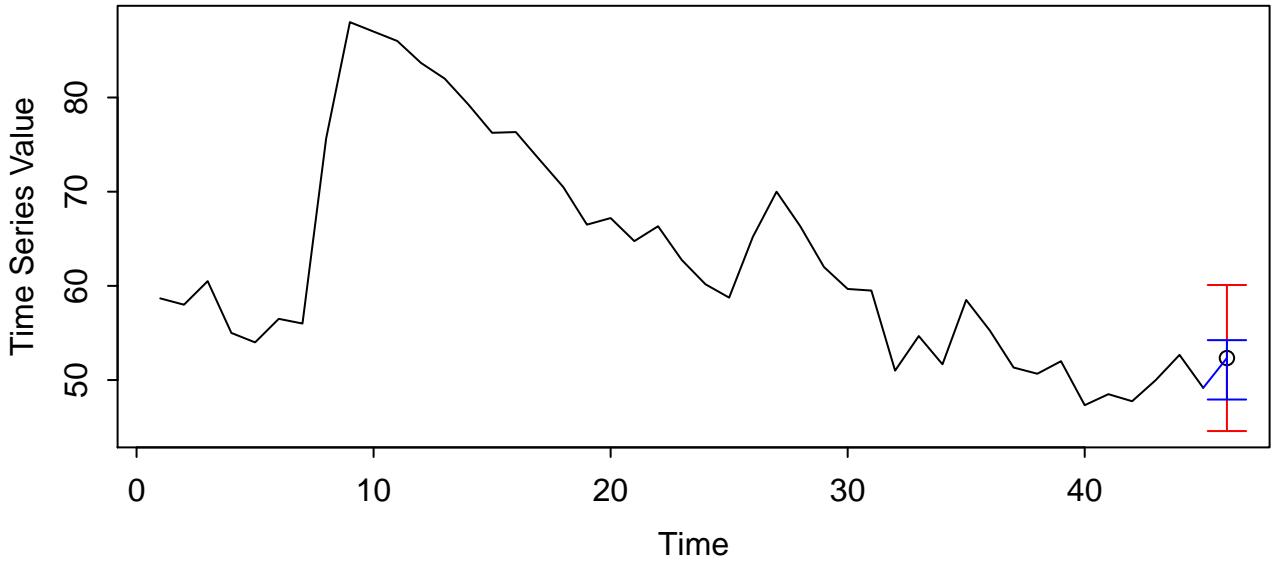
**Expected Values:  $E(Y|X)$**



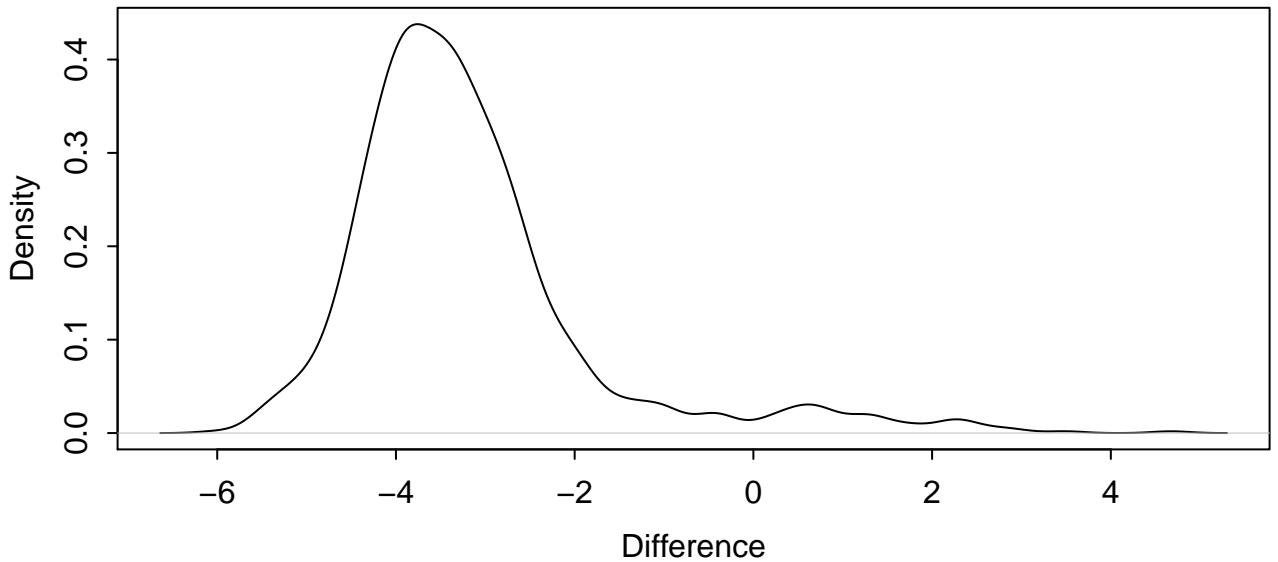
**First Differences in Expected Values:  $E(Y|X1)$  - first Differences in Expected Values:  $E(Y|X1)$**

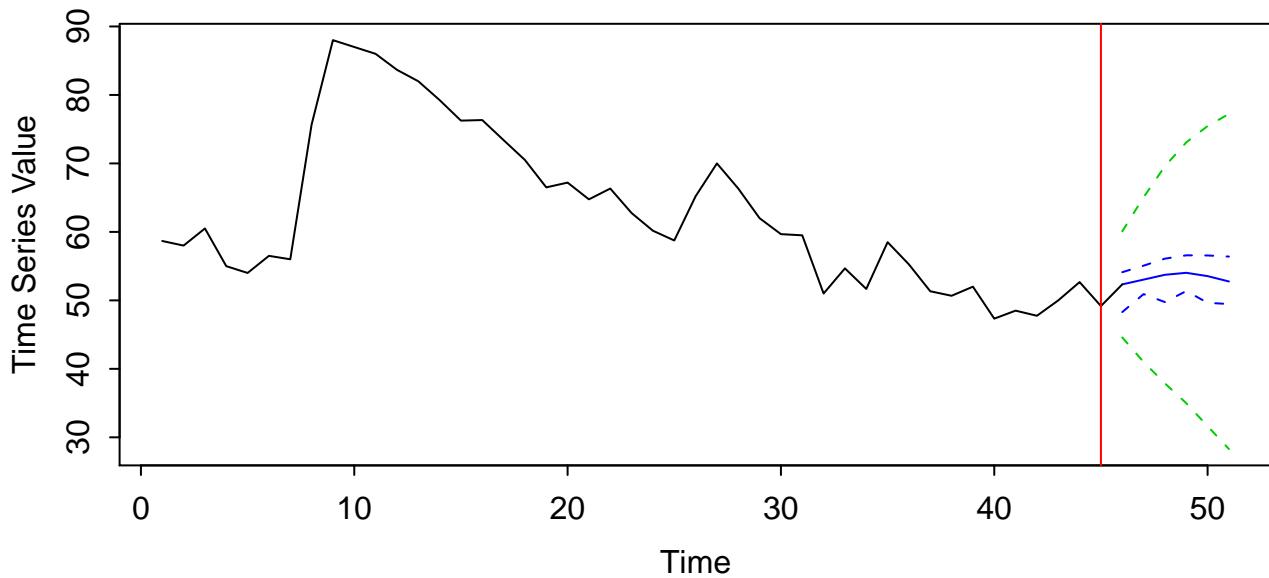




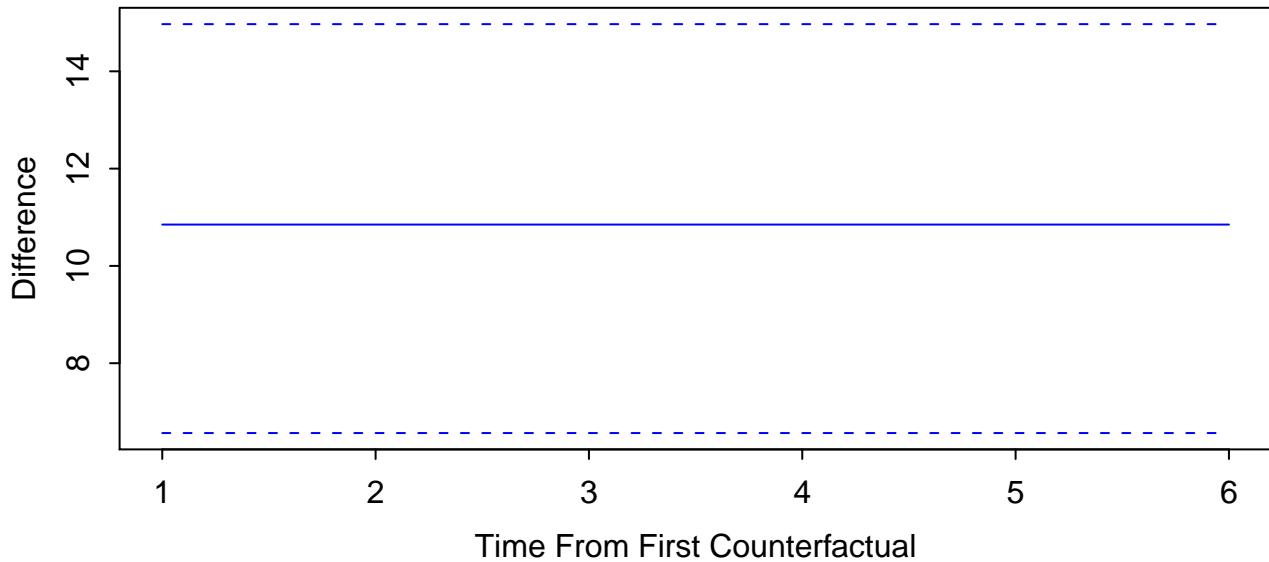


**$Y - E[Y|X]$**

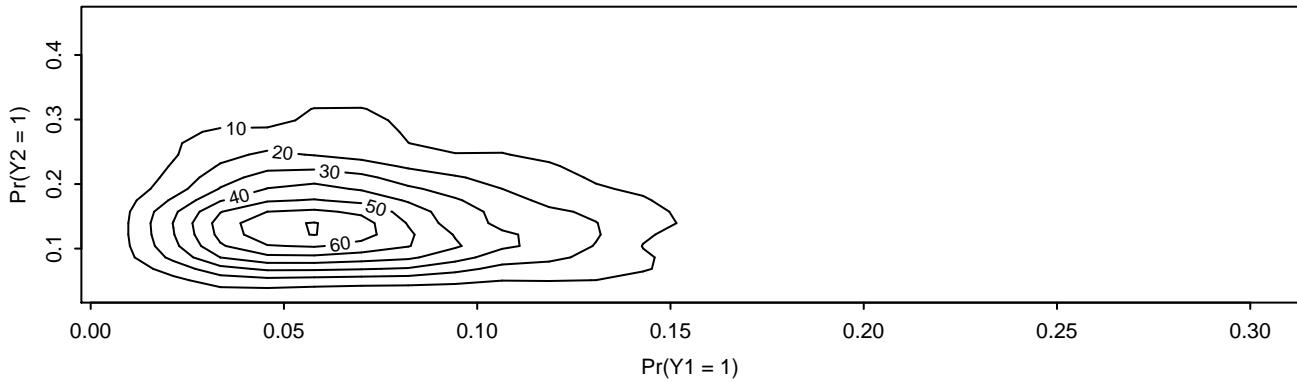




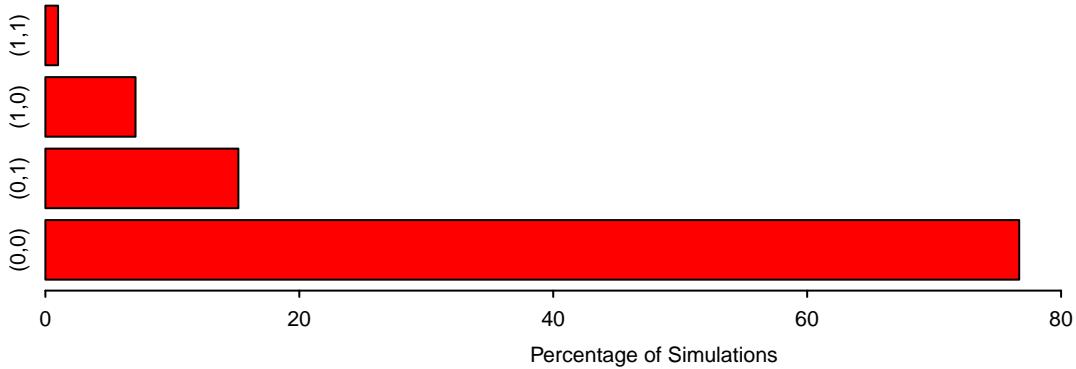
$$E[Y|X1] - E[Y|X]$$



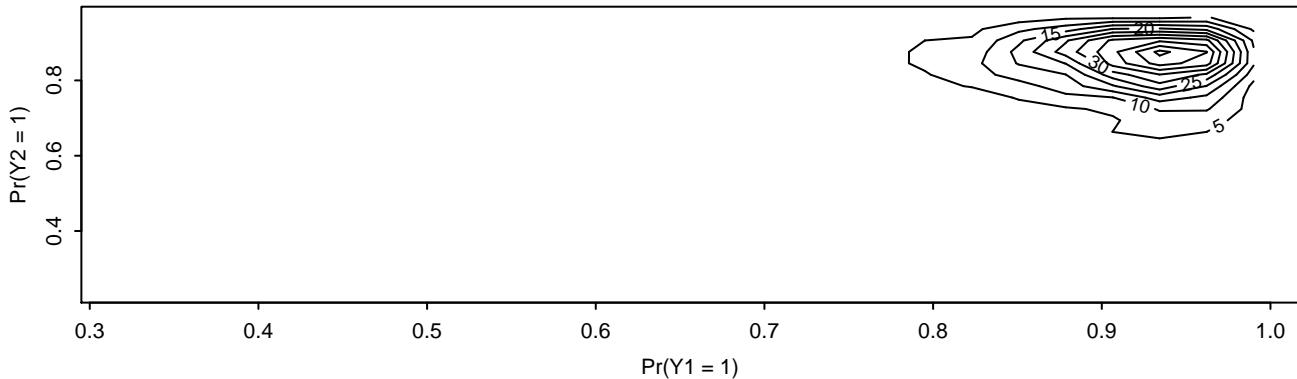
**Predicted Probabilities:  $\Pr(Y1=k, Y2=l|X)$**



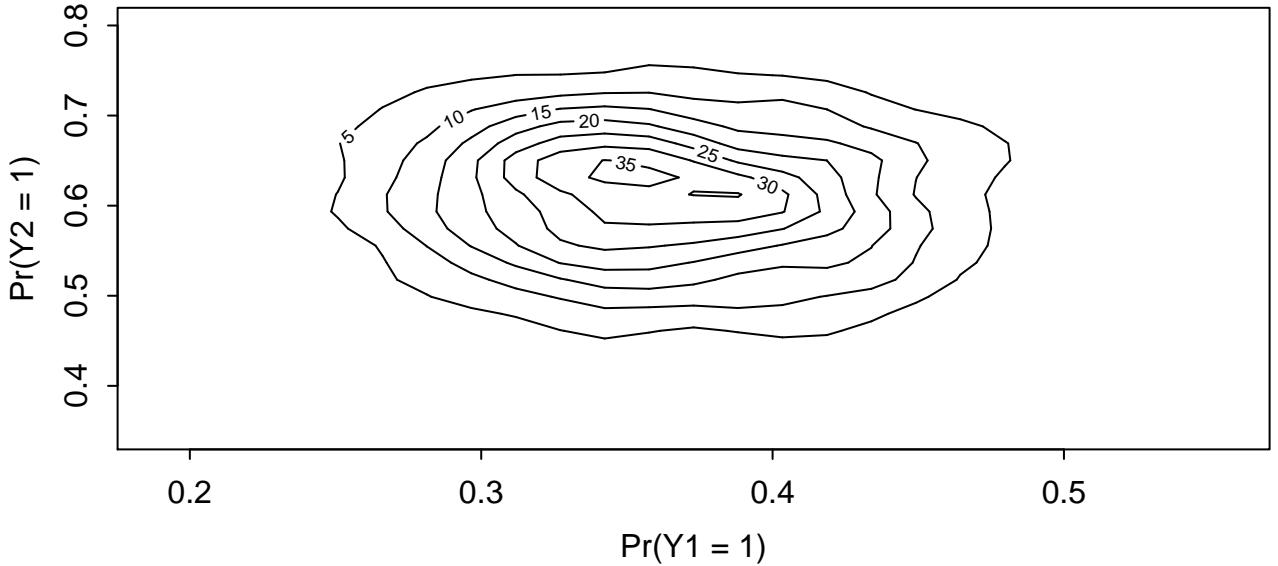
**Predicted Values:  $(Y1, Y2)|X$**



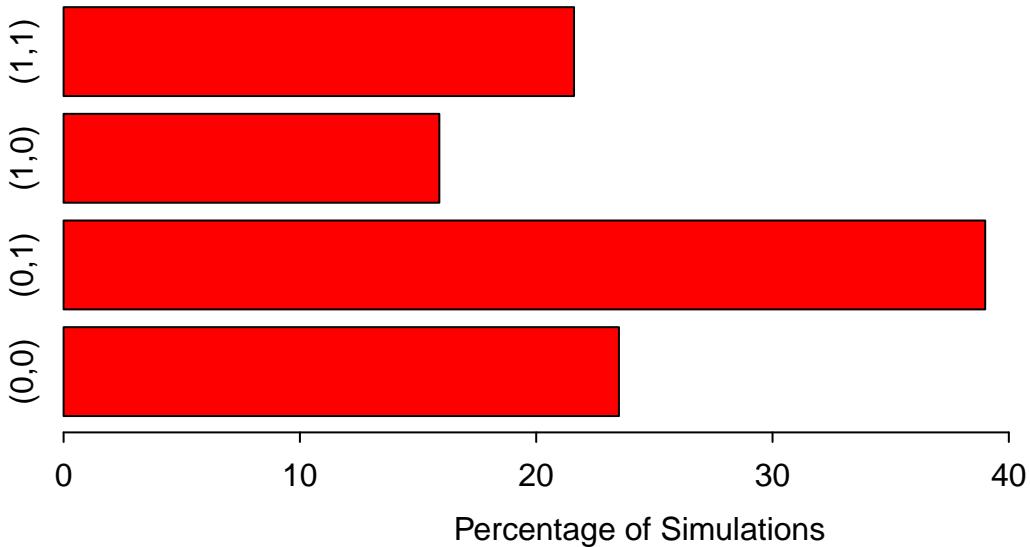
**First Differences:  $\Pr(Y1=k, Y2=l|X1) - \Pr(Y1=k, Y2=l|X)$**



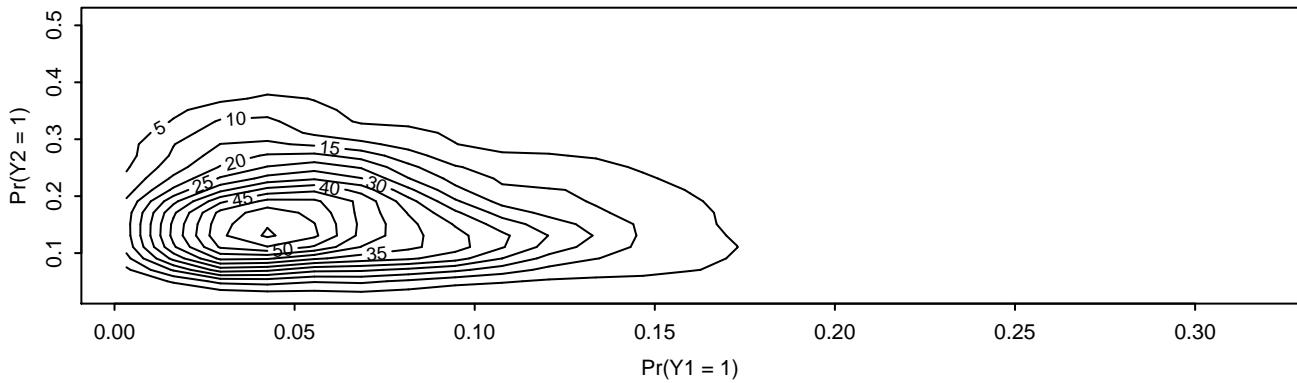
**Predicted Probabilities:  $\Pr(Y1=k, Y2=l|X)$**



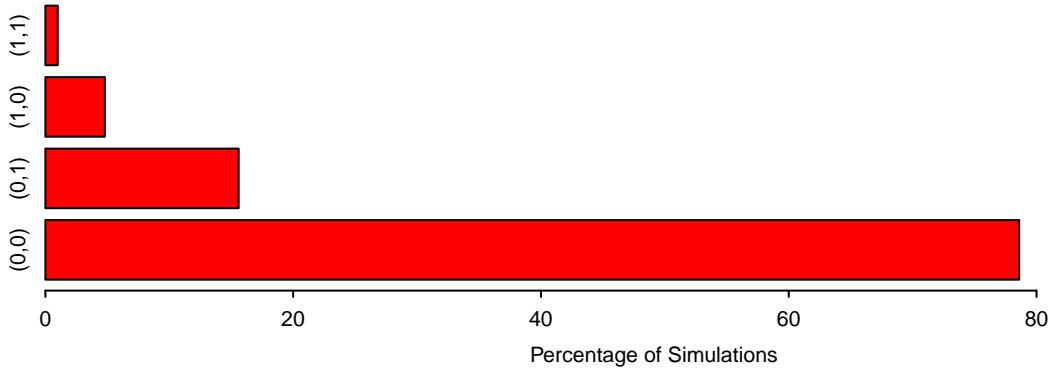
**Predicted Values:  $(Y1, Y2)|X$**



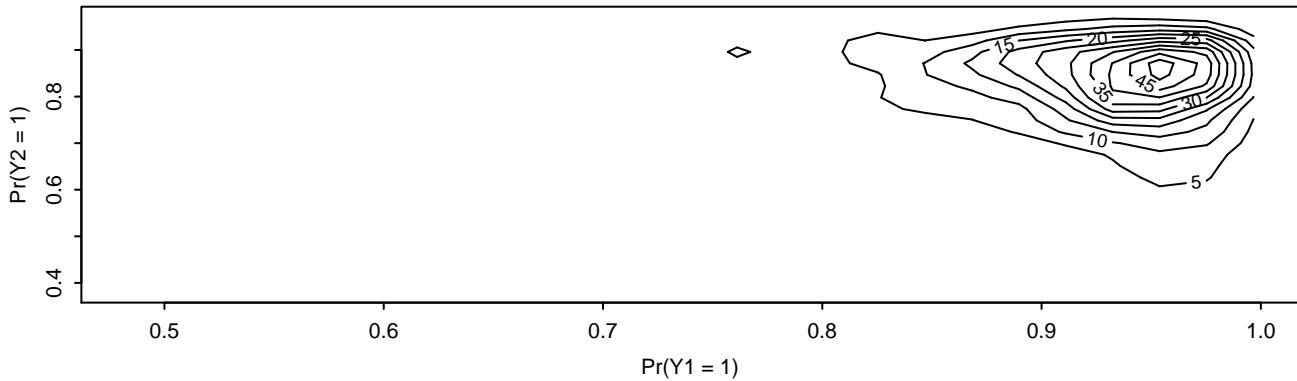
**Predicted Probabilities:  $\Pr(Y1=k, Y2=l|X)$**



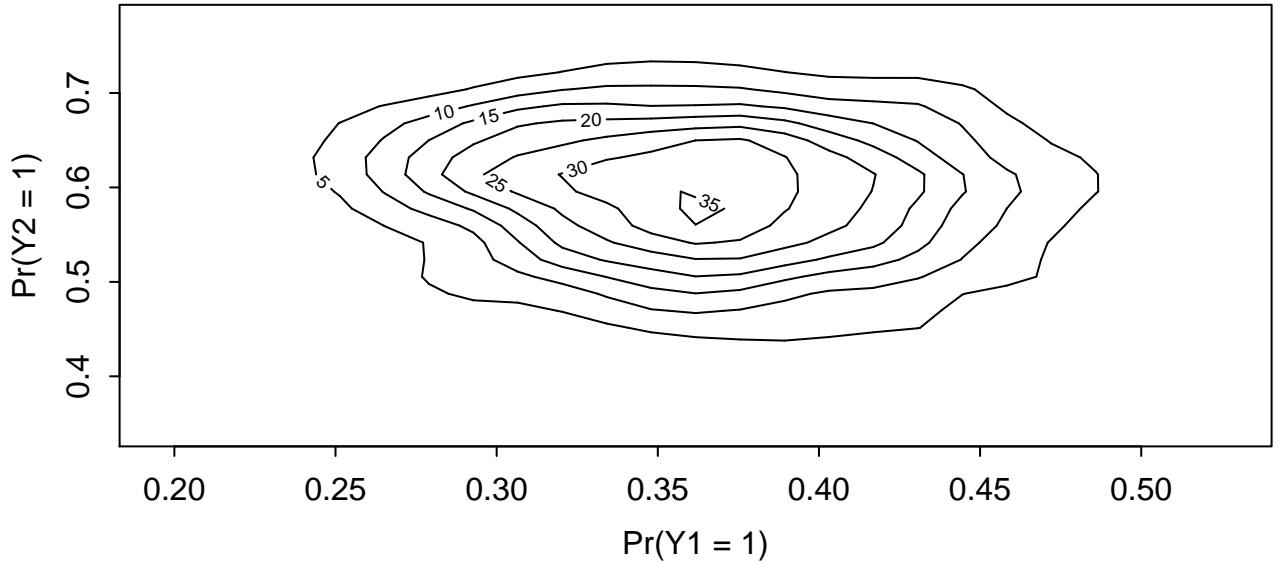
**Predicted Values:  $(Y1, Y2)|X$**



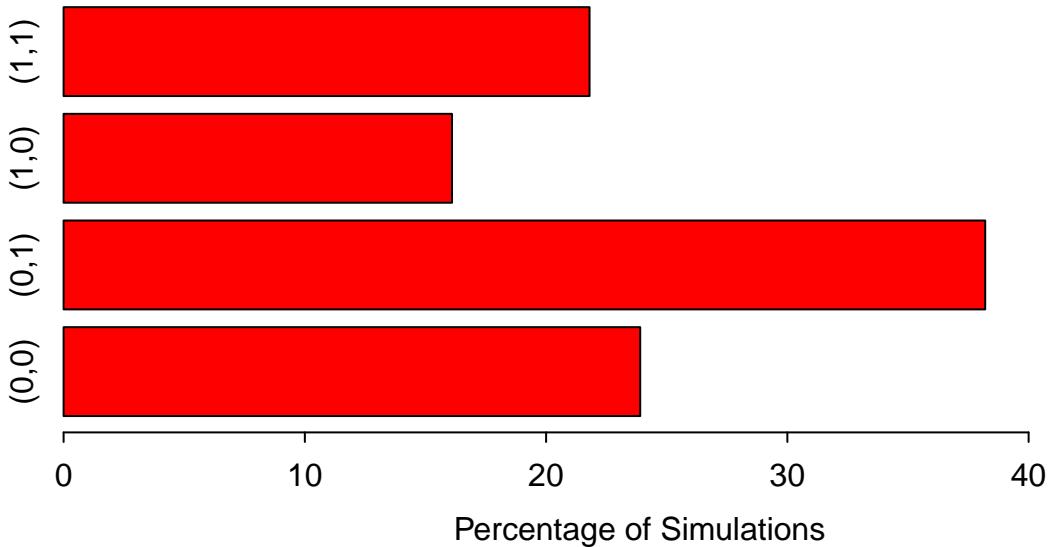
**First Differences:  $\Pr(Y1=k, Y2=l|X1) - \Pr(Y1=k, Y2=l|X)$**



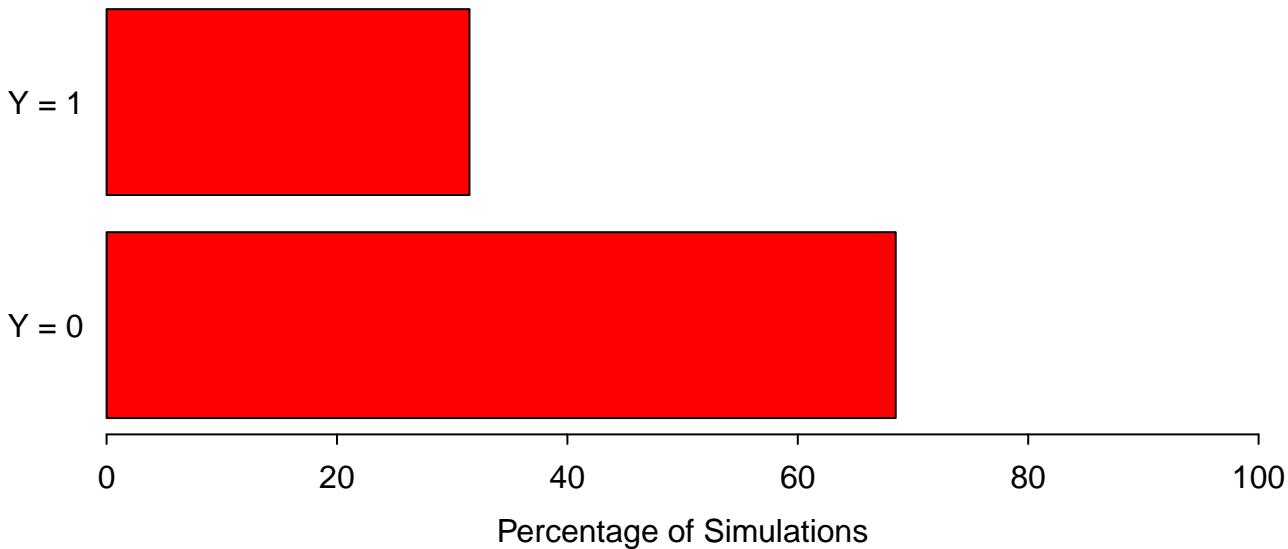
**Predicted Probabilities:  $\Pr(Y1=k, Y2=l|X)$**



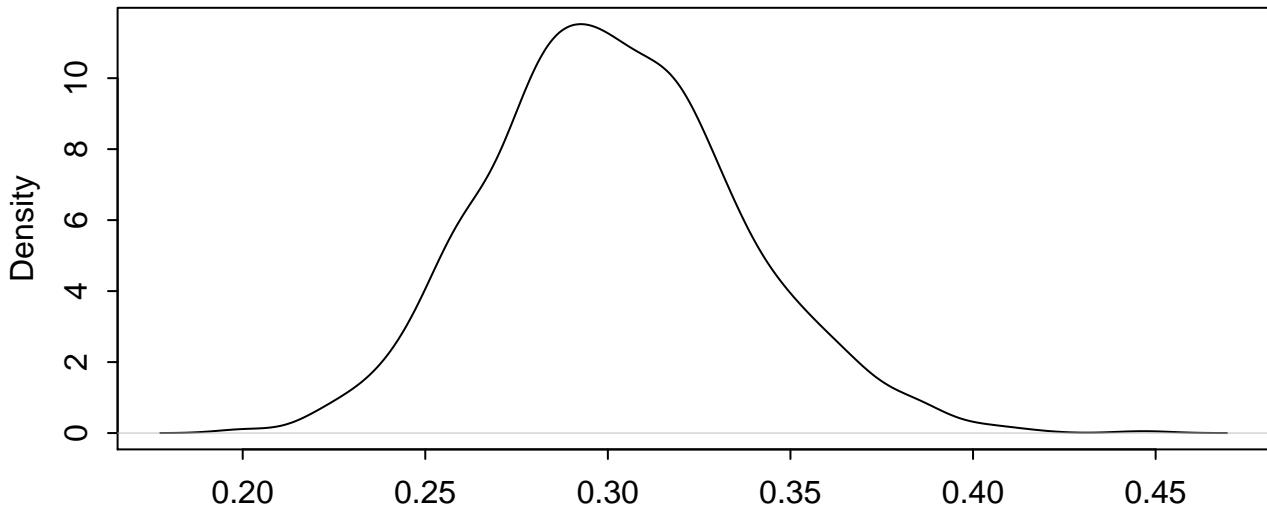
**Predicted Values:  $(Y1, Y2)|X$**



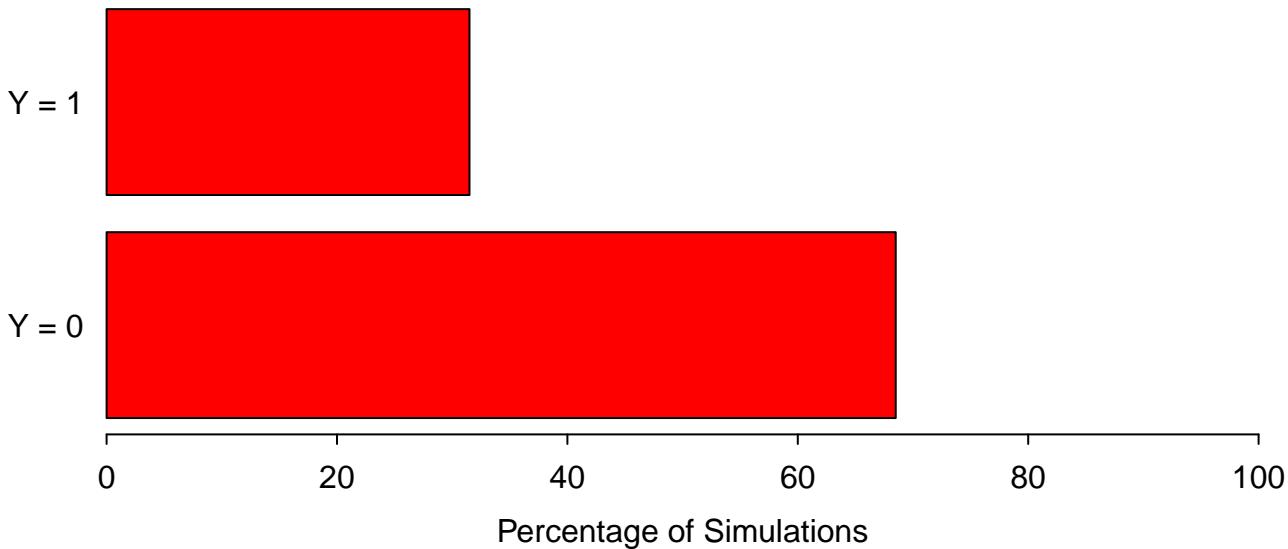
### Predicted Values: $Y|X$



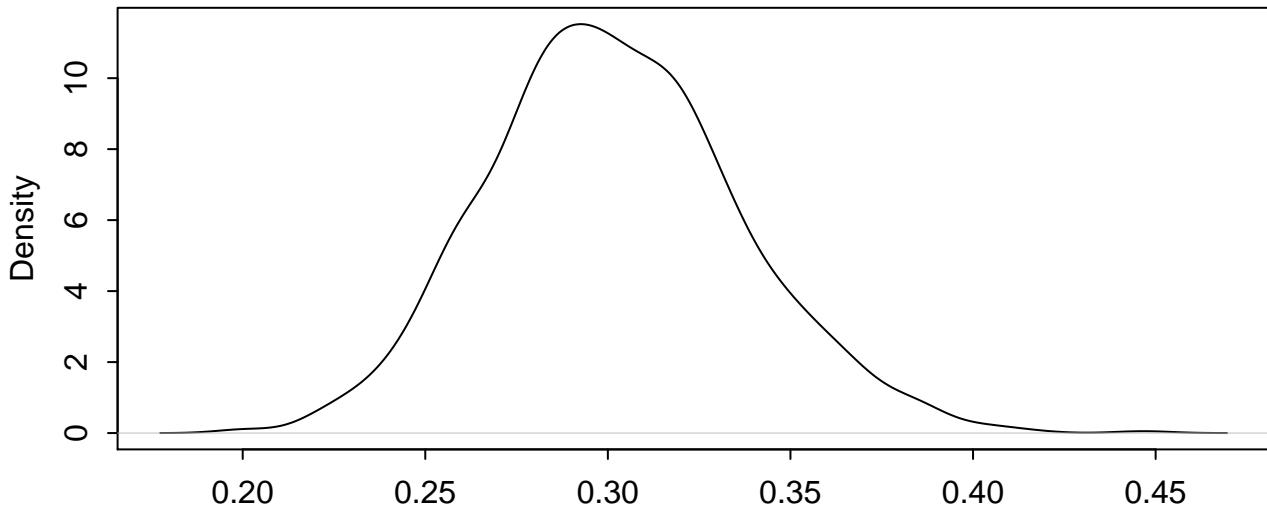
### Expected Values: $E(Y|X)$



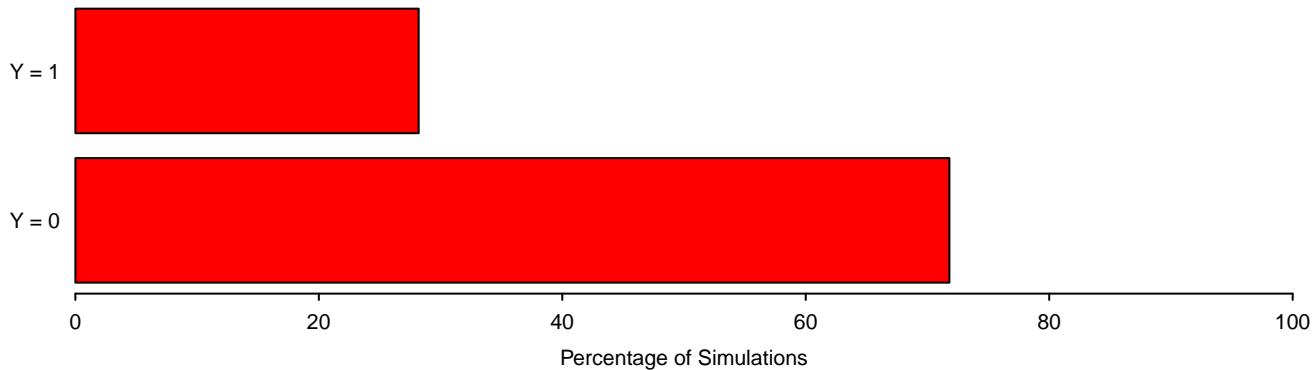
### Predicted Values: $Y|X$



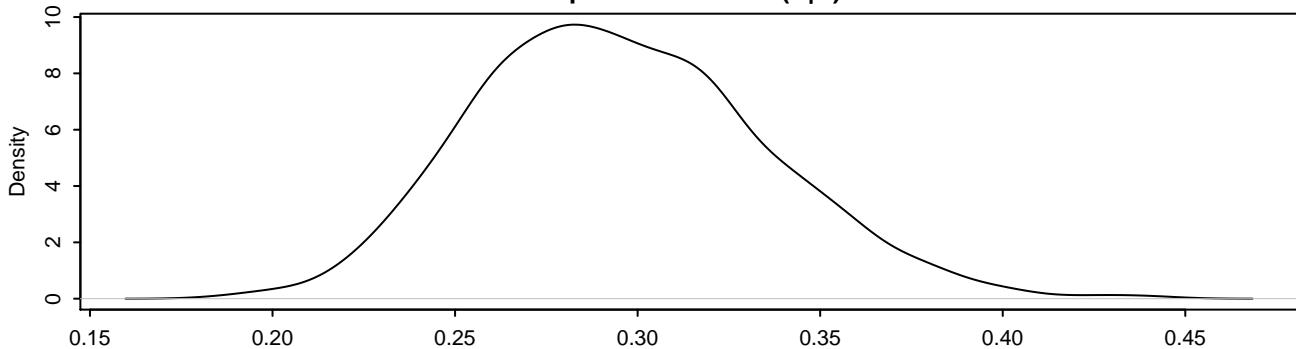
### Expected Values: $E(Y|X)$



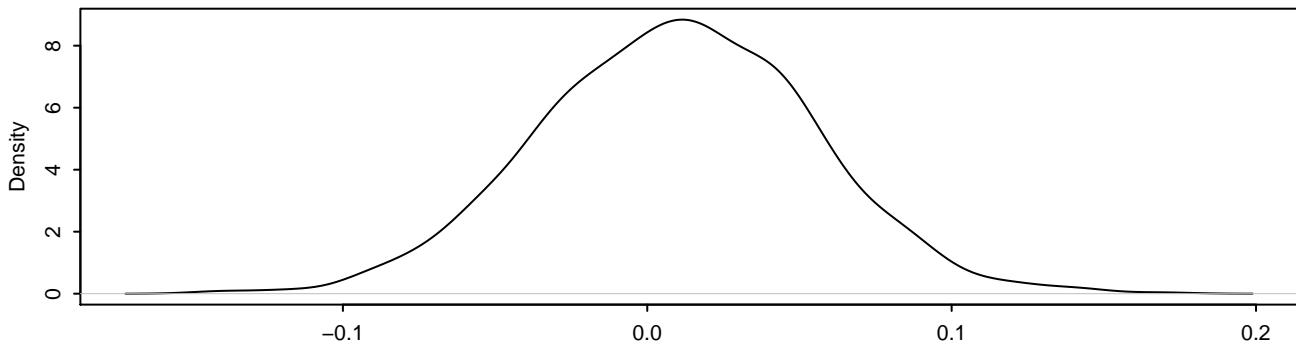
### Predicted Values: $Y|X$



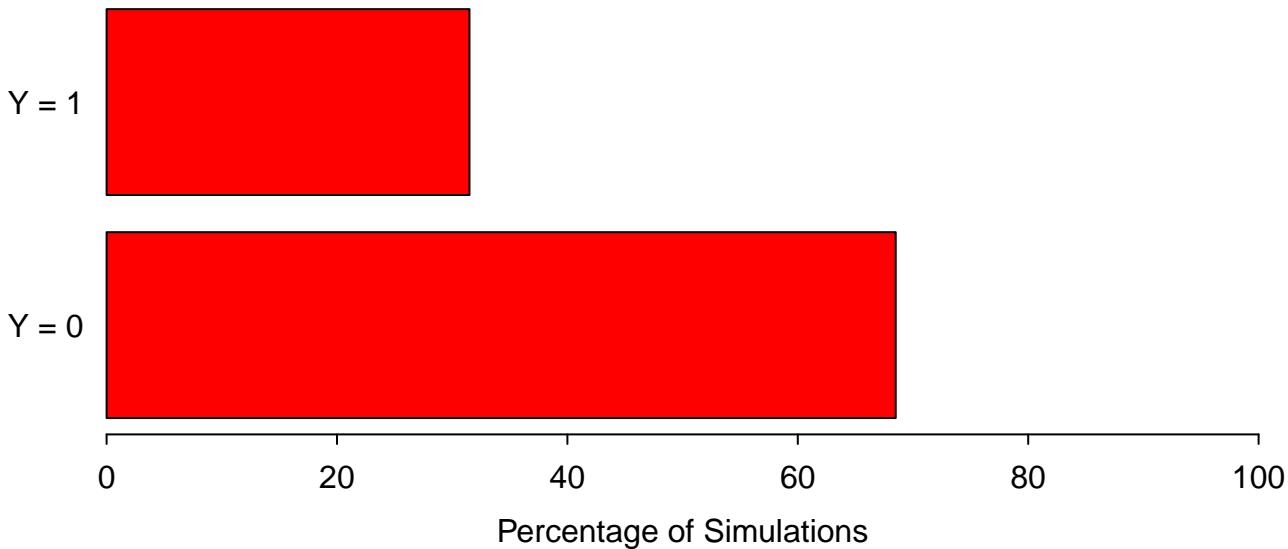
### Expected Values: $E(Y|X)$



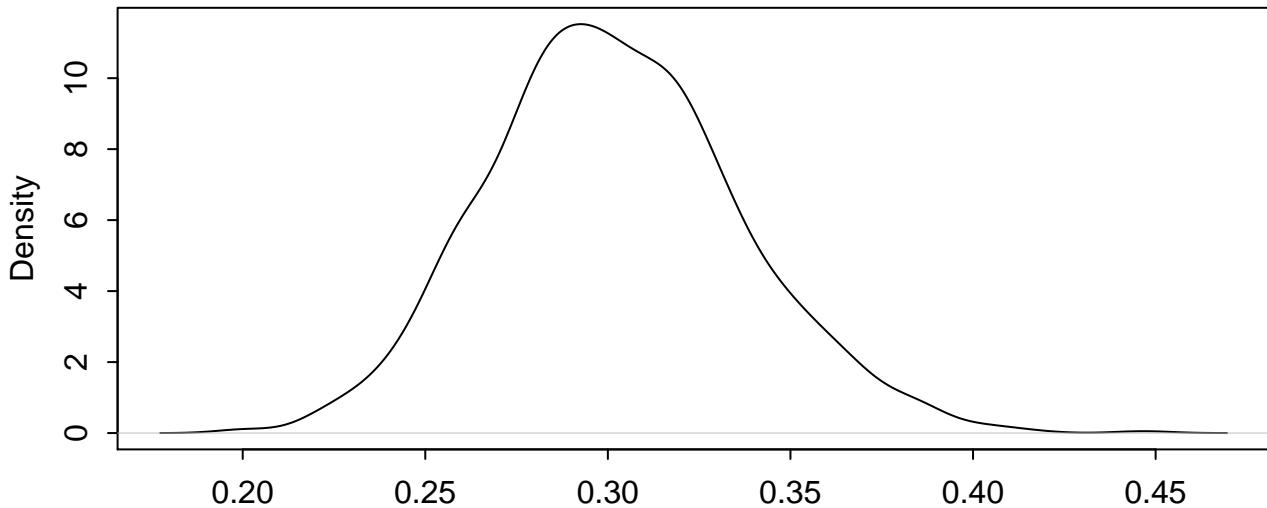
### First Differences in Expected Values: $E(Y|X1) - E(Y|X)$



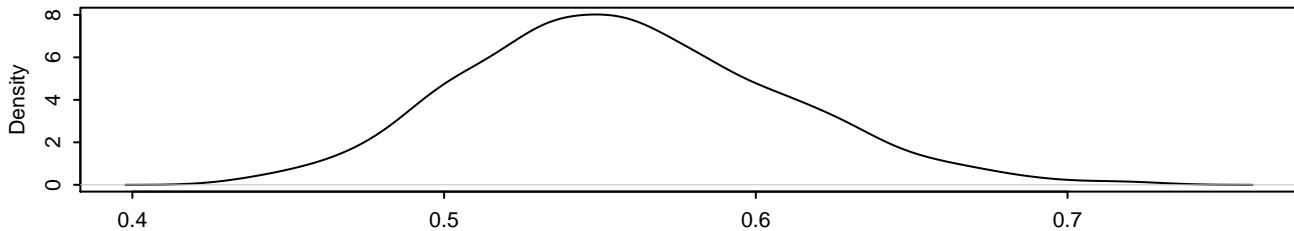
### Predicted Values: $Y|X$



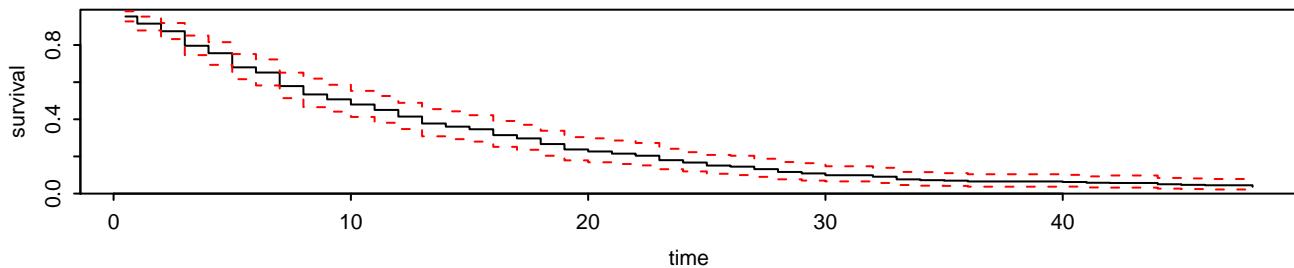
### Expected Values: $E(Y|X)$



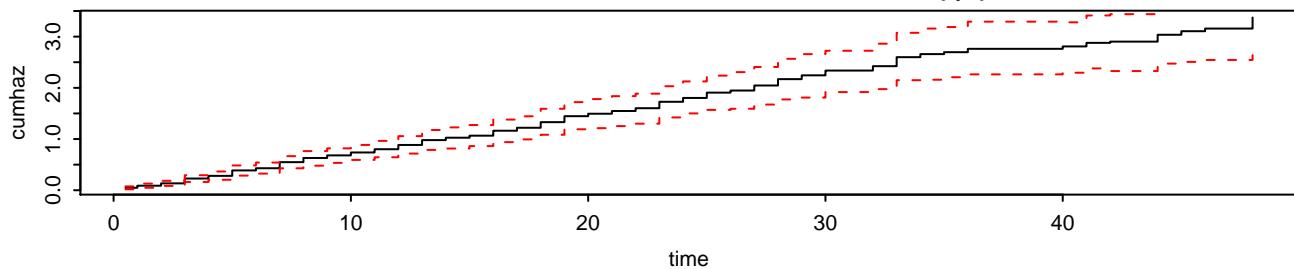
**Hazard Ratios:  $h(t|X1)/h(t|X)$**



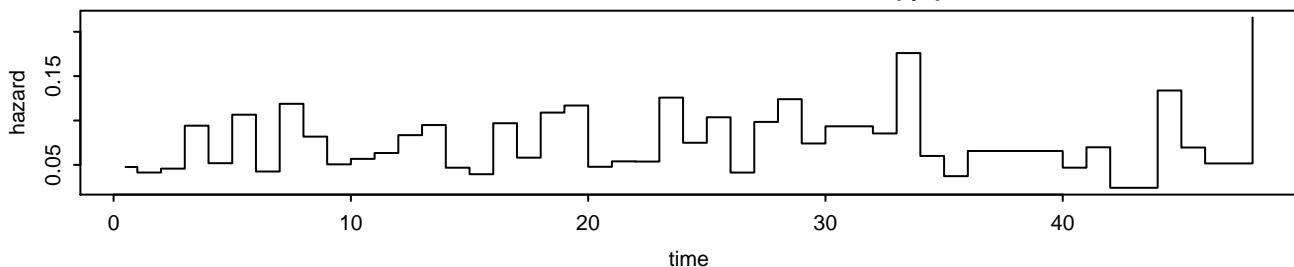
**Estimated Survival Function Over Time:  $S(t|X)$**



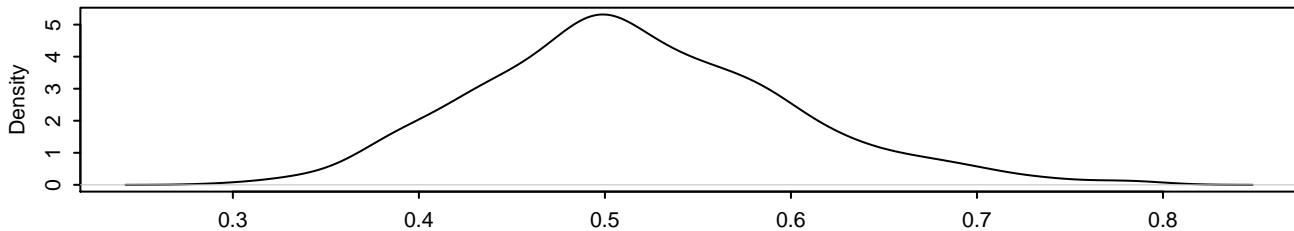
**Estimated Cumulative Hazard Over Time:  $H(t|X)$**



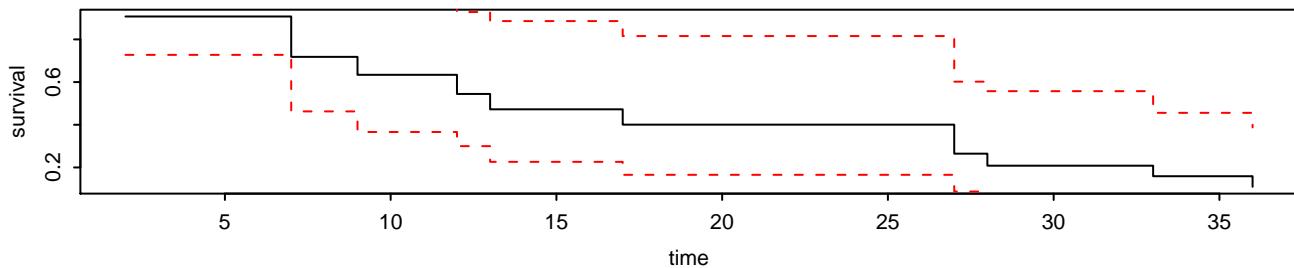
**Estimated Hazard Rate Over Time:  $h(t|X)$**



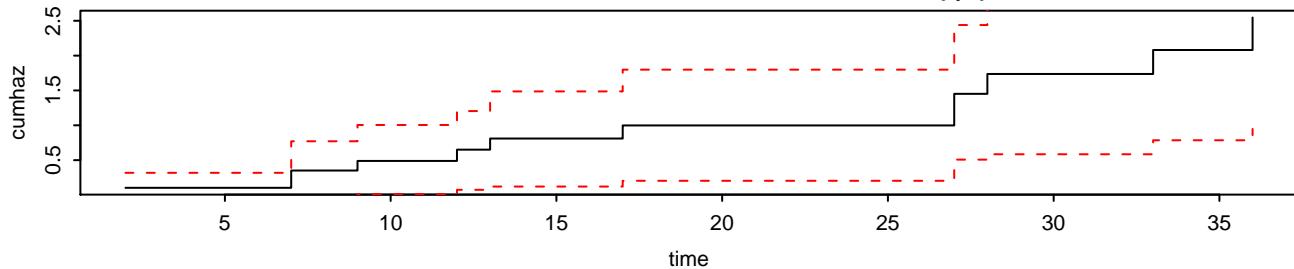
**Hazard Ratios:  $h(t|X1)/h(t|X)$**



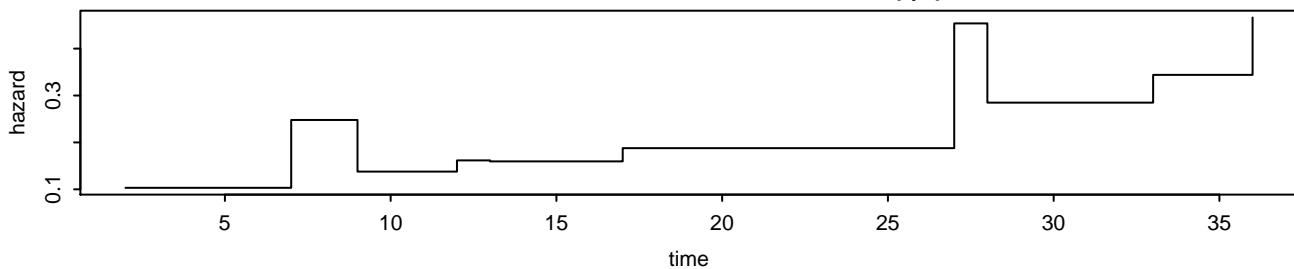
**Estimated Survival Function Over Time:  $S(t|X)$**



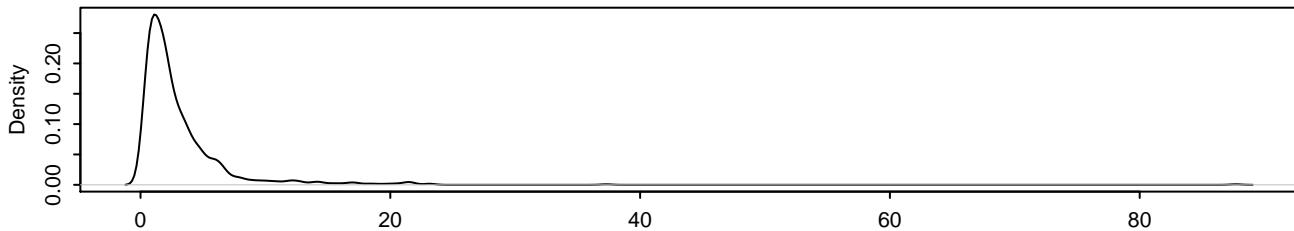
**Estimated Cumulative Hazard Over Time:  $H(t|X)$**



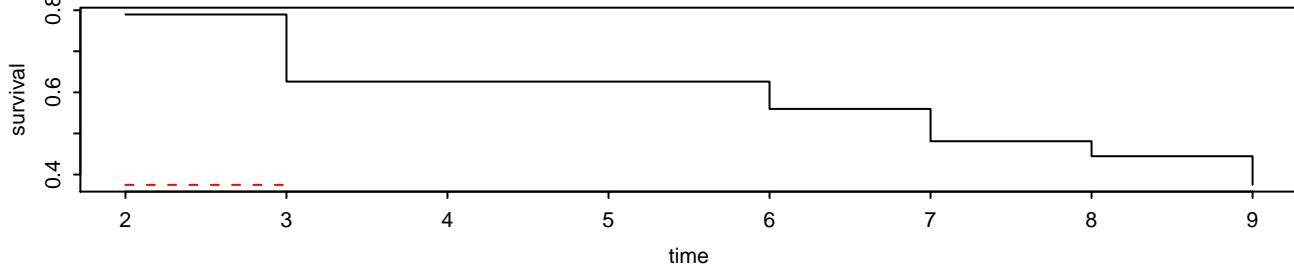
**Estimated Hazard Rate Over Time:  $h(t|X)$**



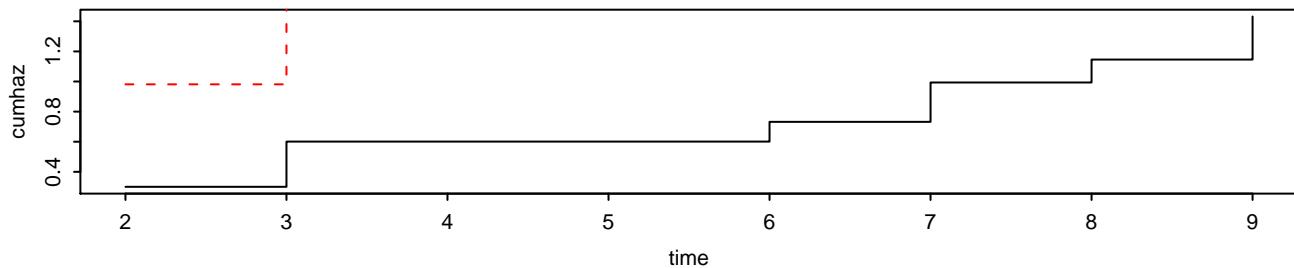
**Hazard Ratios:  $h(t|X_1)/h(t|X)$**



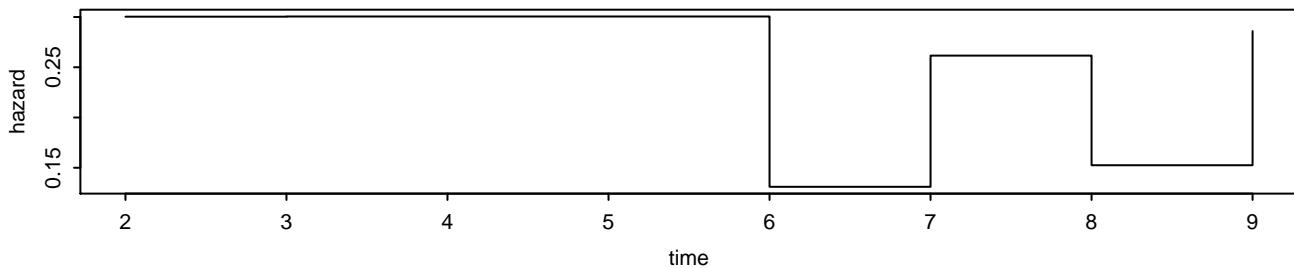
**Estimated Survival Function Over Time:  $S(t|X)$**



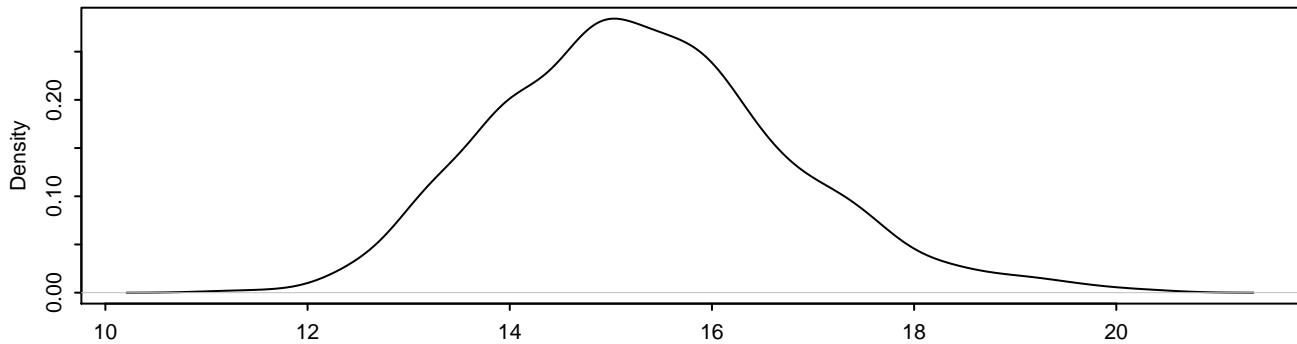
**Estimated Cumulative Hazard Over Time:  $H(t|X)$**



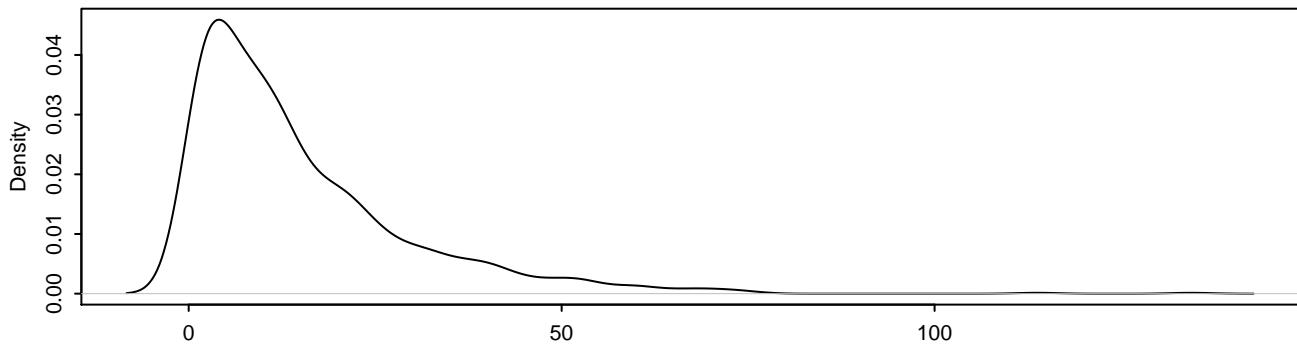
**Estimated Hazard Rate Over Time:  $h(t|X)$**



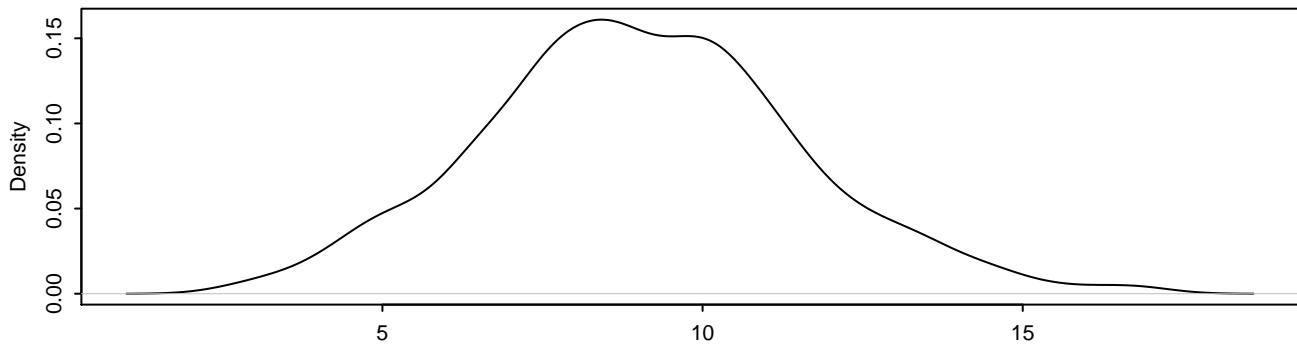
**Expected Values:  $E(Y|X)$**



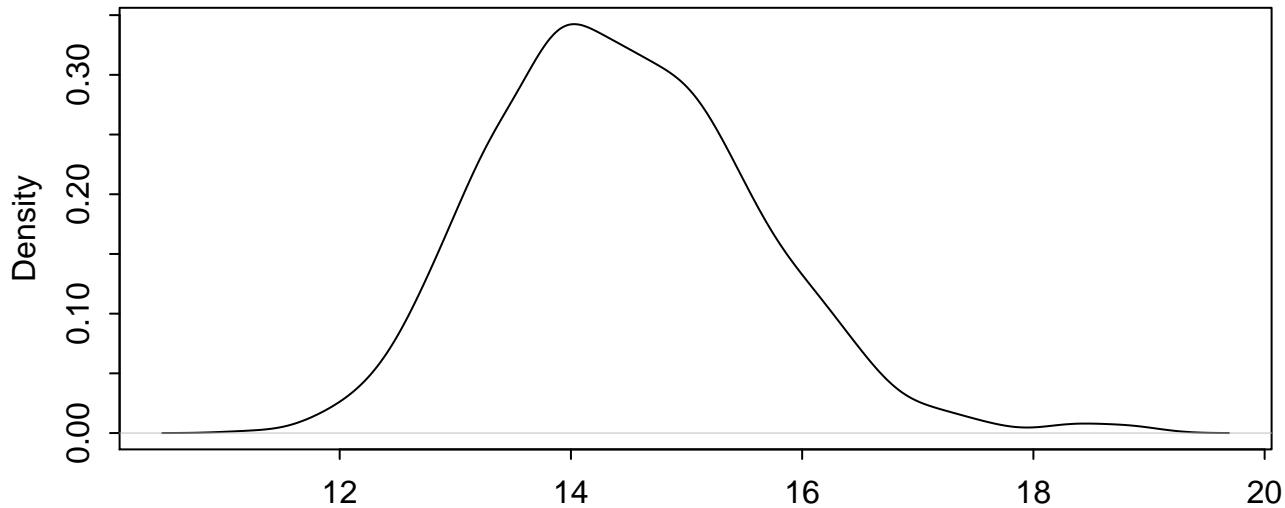
**Predicted Values:  $Y|X$**



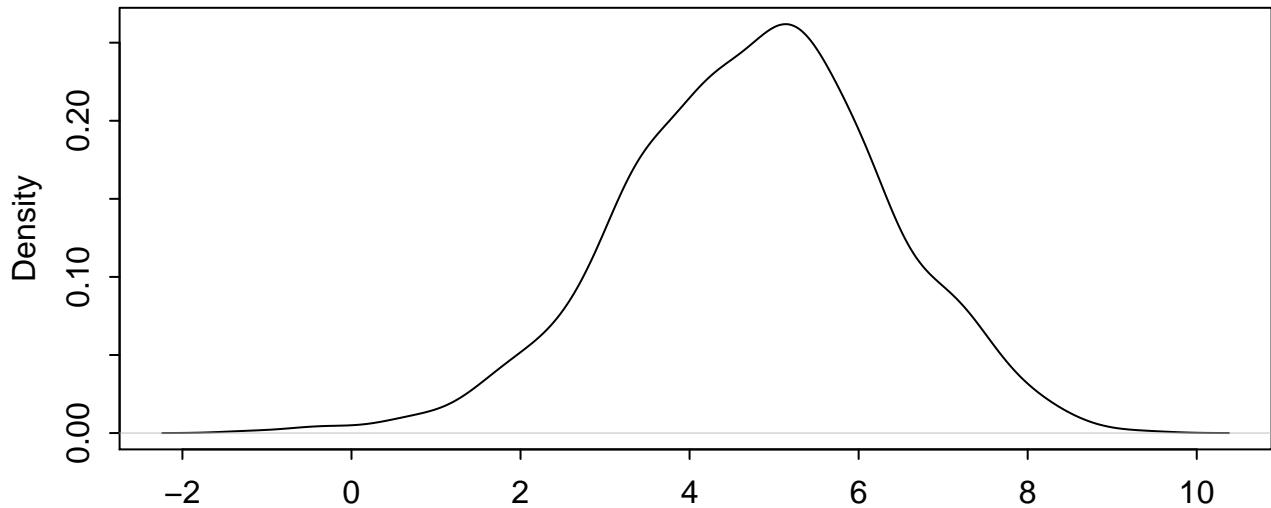
**First Differences:  $E(Y|X_1) - E(Y|X)$**



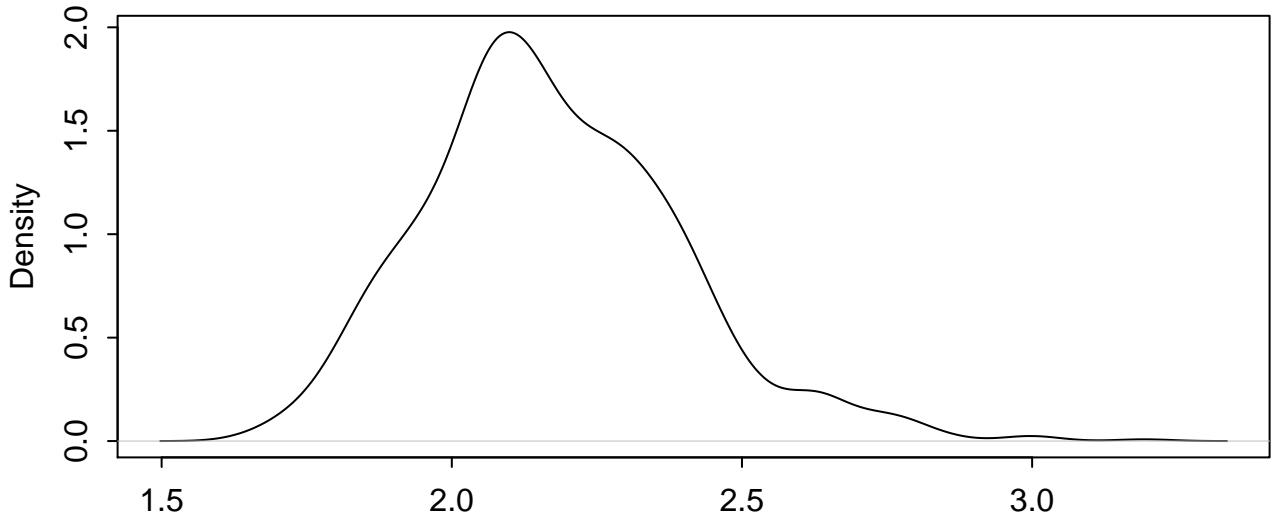
**Expected Values:  $E(Y|X)$**



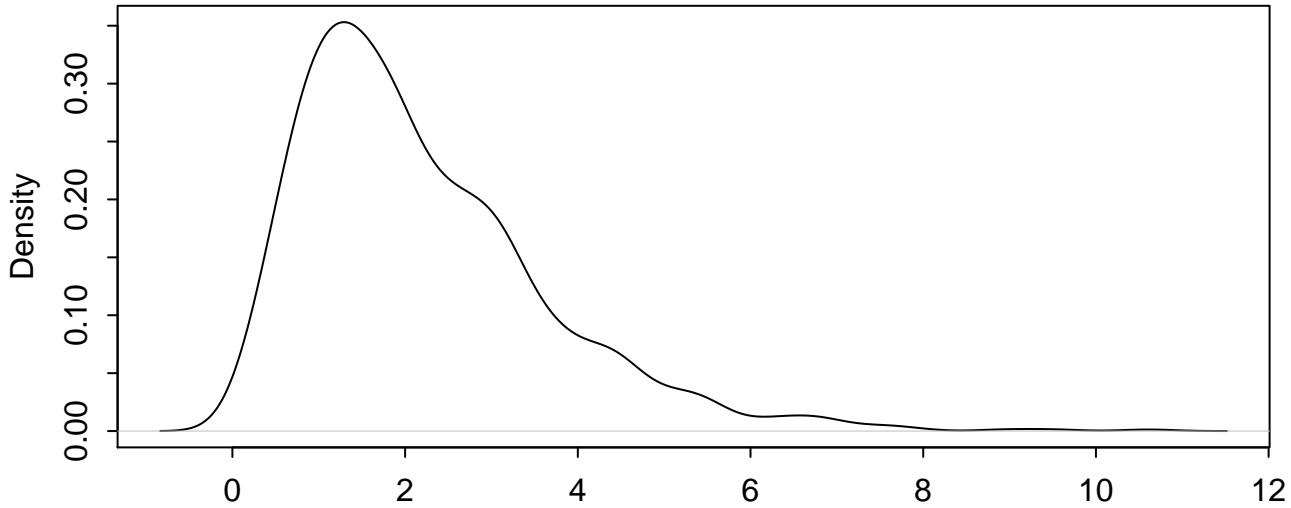
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



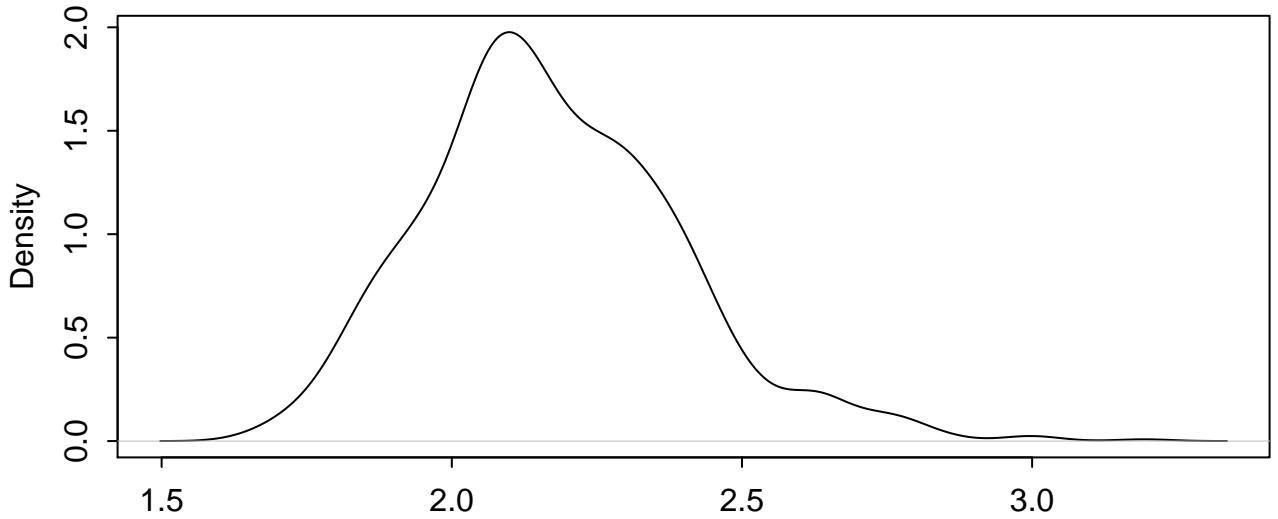
**Expected Values:  $E(Y|X)$**



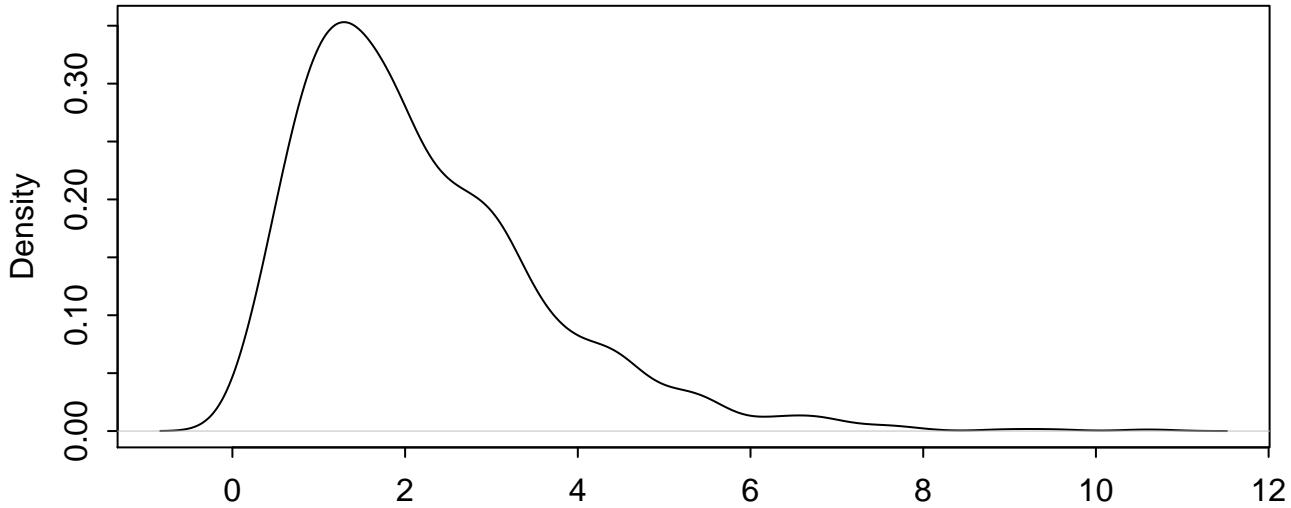
**Predicted Values:  $Y|X$**



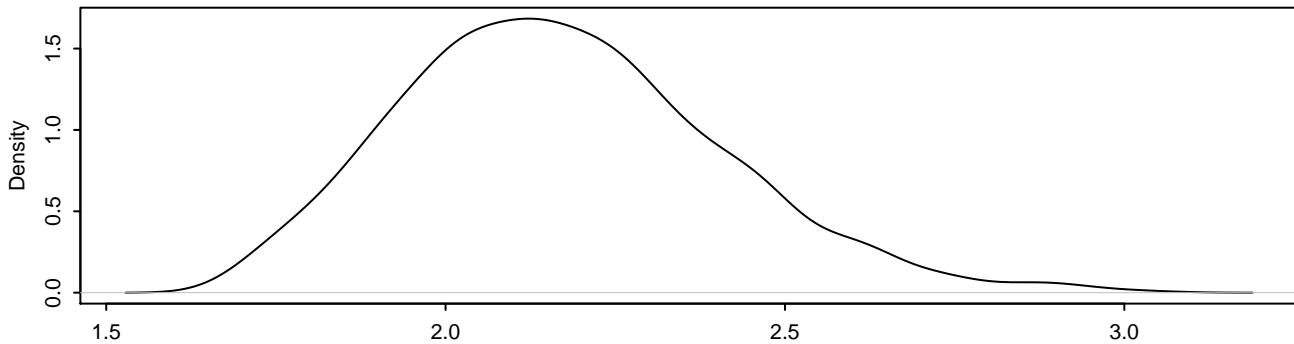
**Expected Values:  $E(Y|X)$**



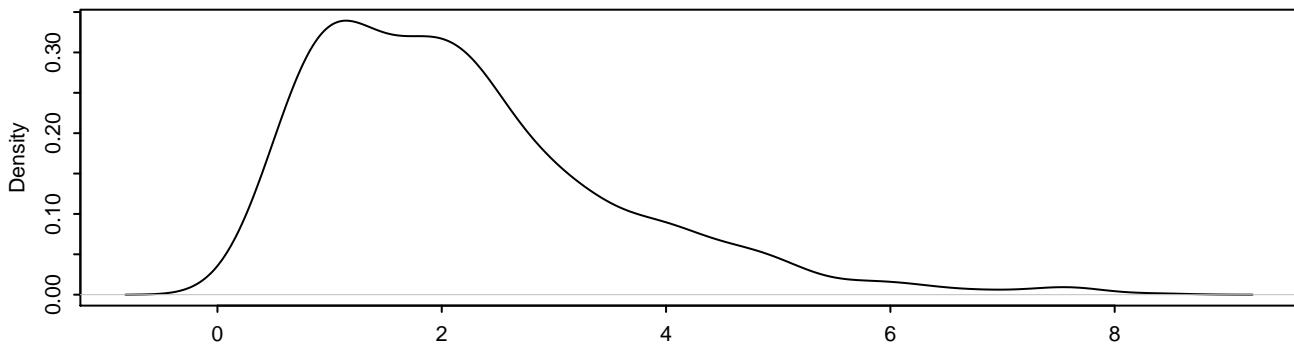
**Predicted Values:  $Y|X$**



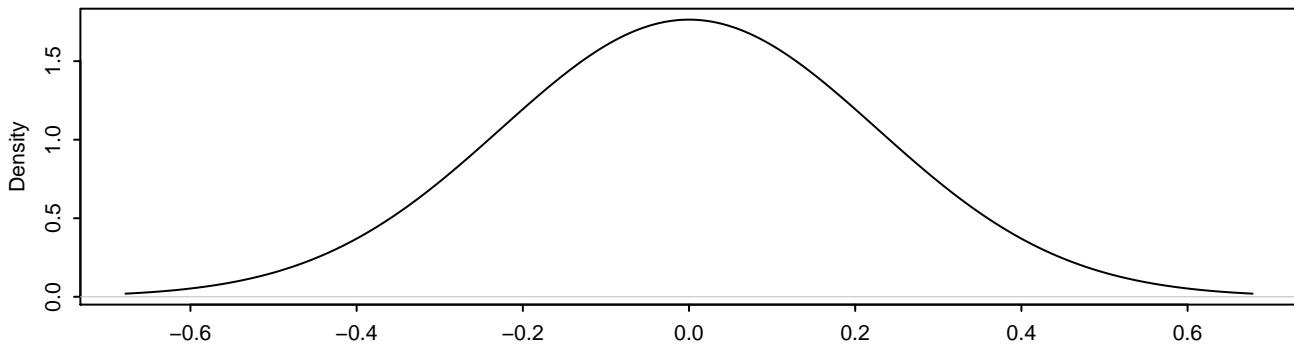
**Expected Values:  $E(Y|X)$**



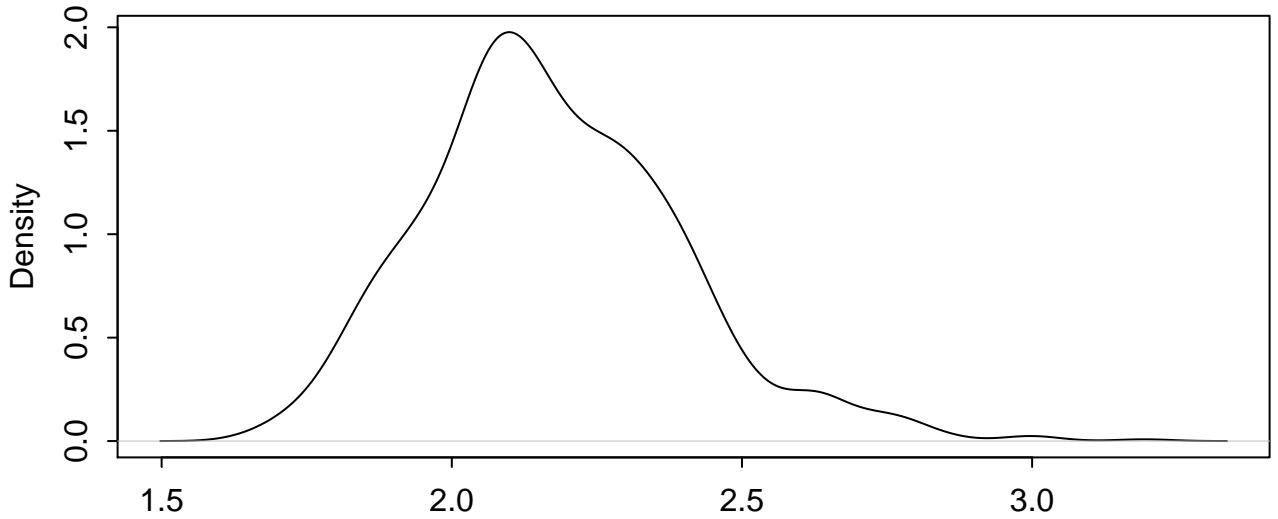
**Predicted Values:  $Y|X$**



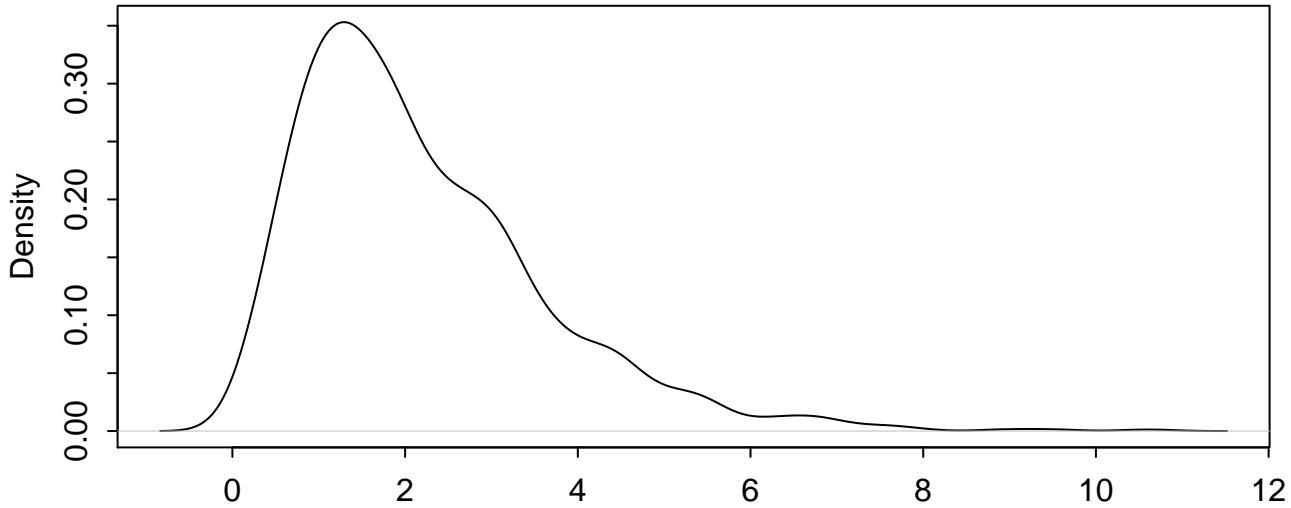
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



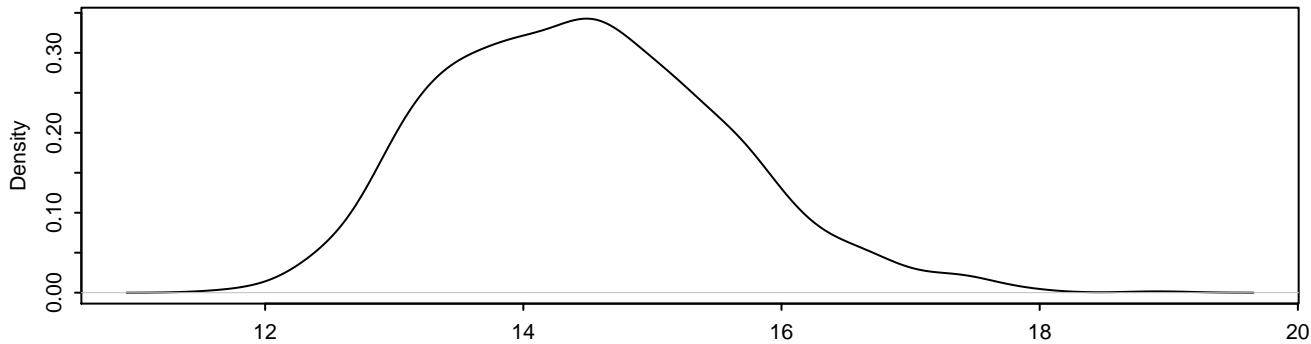
**Expected Values:  $E(Y|X)$**



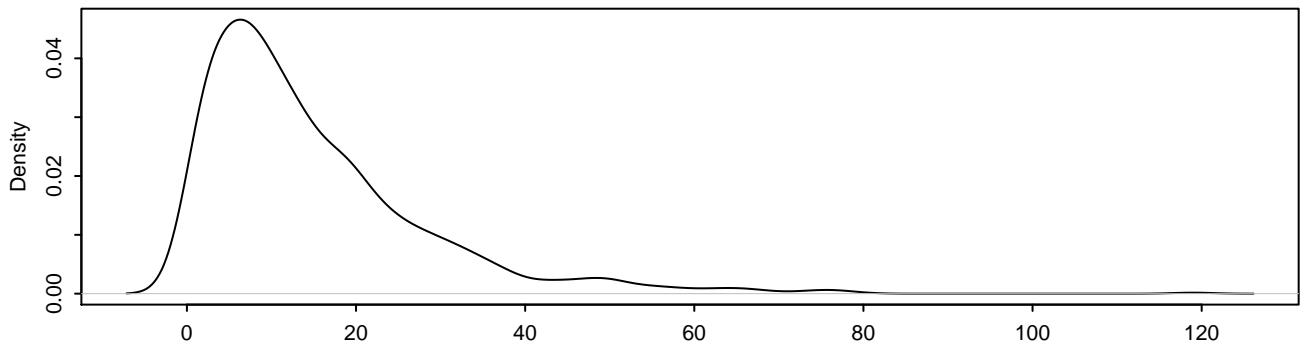
**Predicted Values:  $Y|X$**



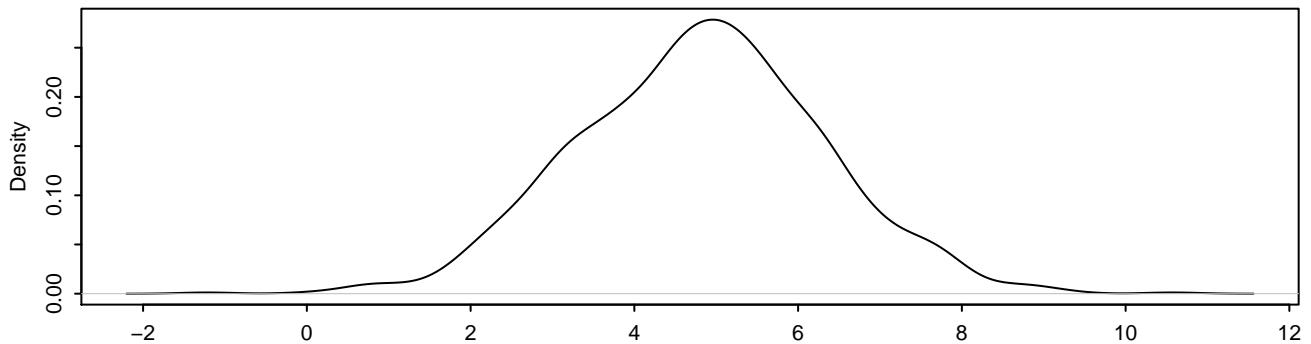
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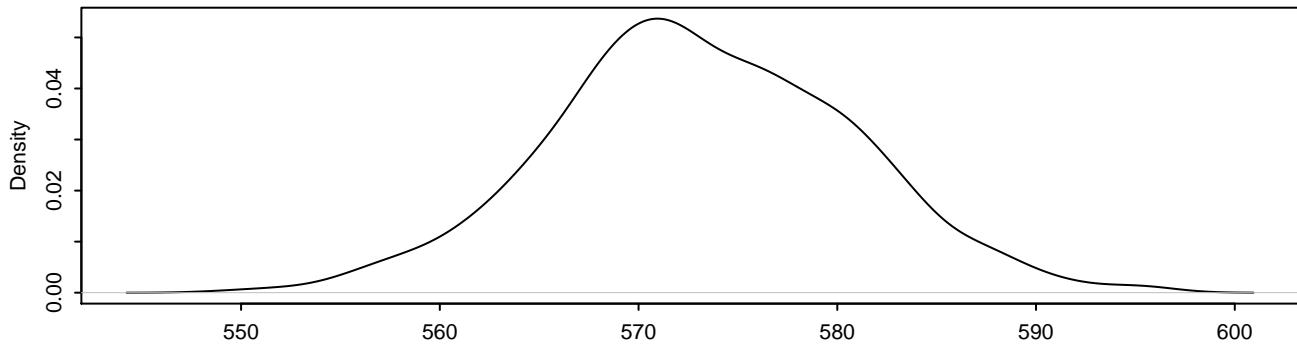
**Predicted Values:  $Y|X$**



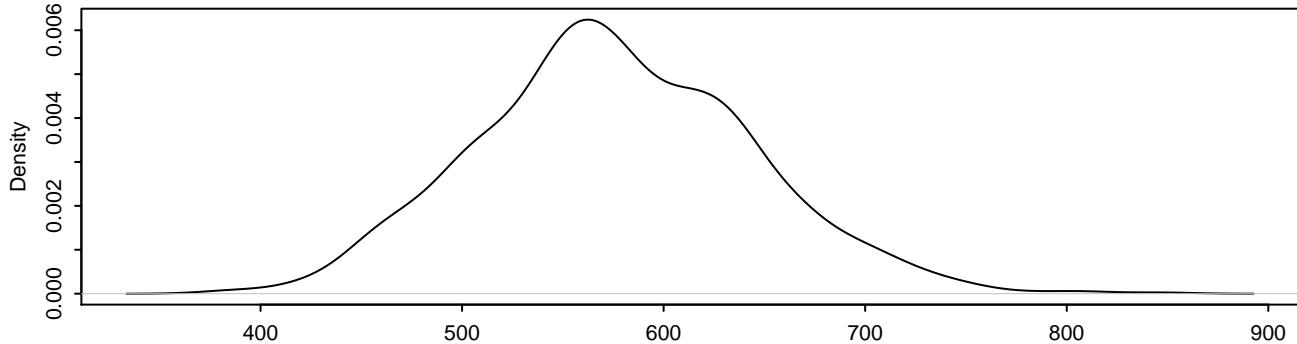
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



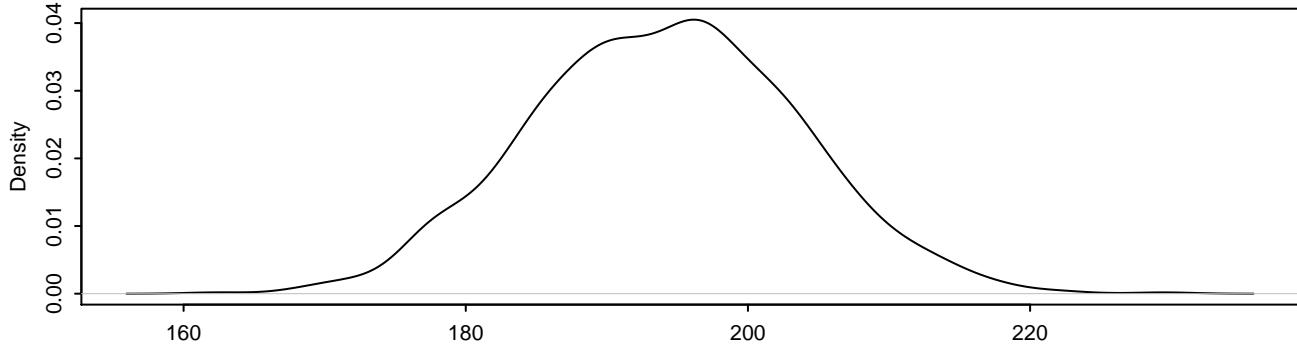
**Expected Values:  $E(Y|X)$**



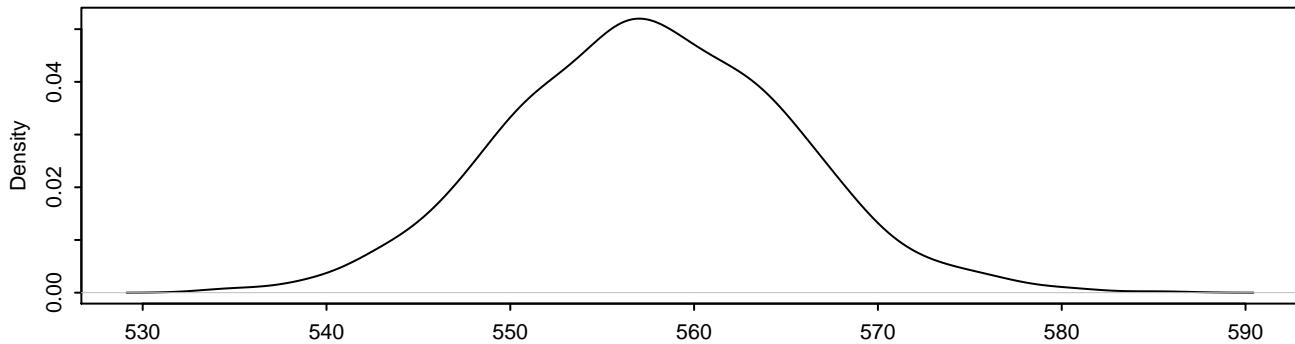
**Predicted Values:  $Y|X$**



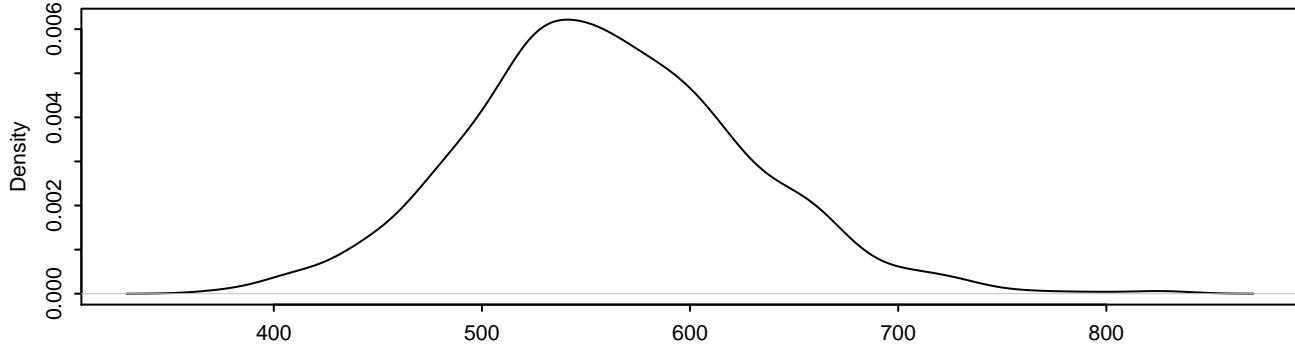
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



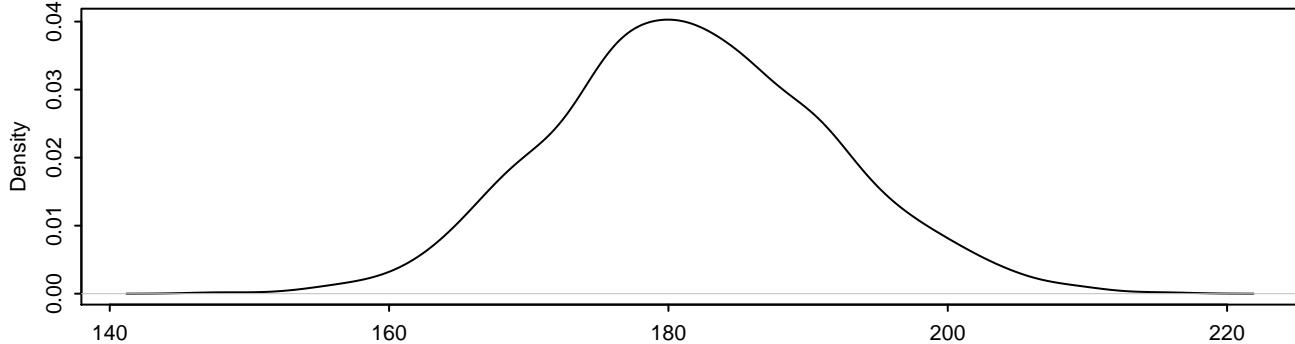
**Expected Values:  $E(Y|X)$**

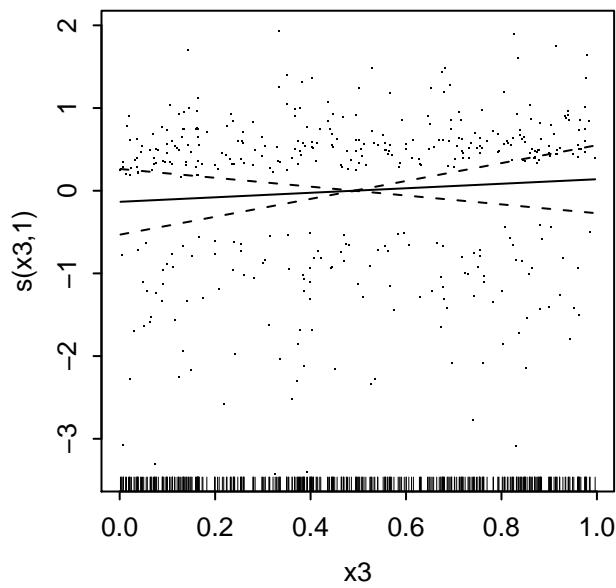
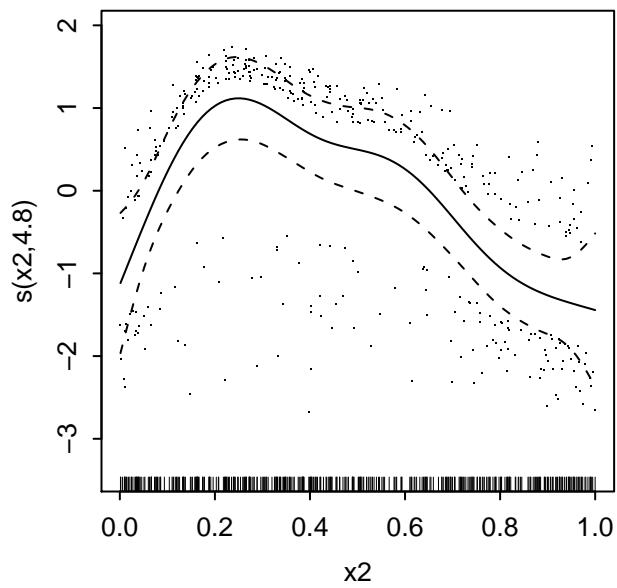
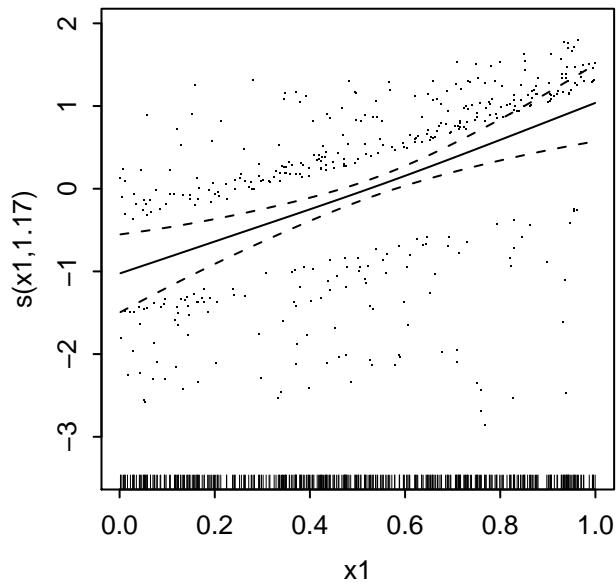
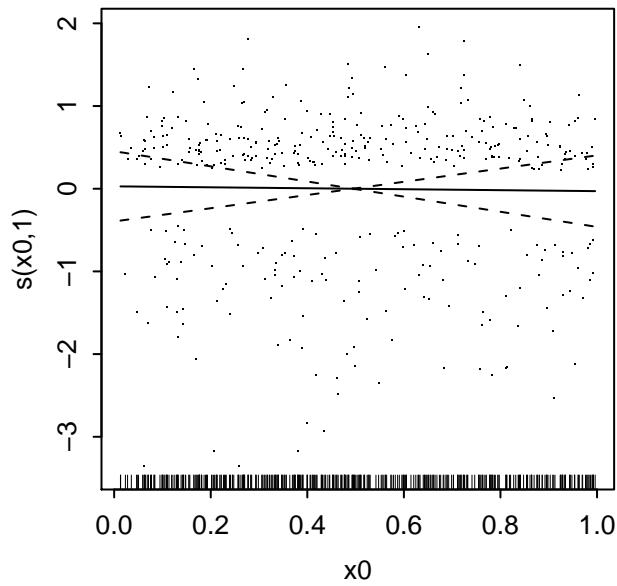


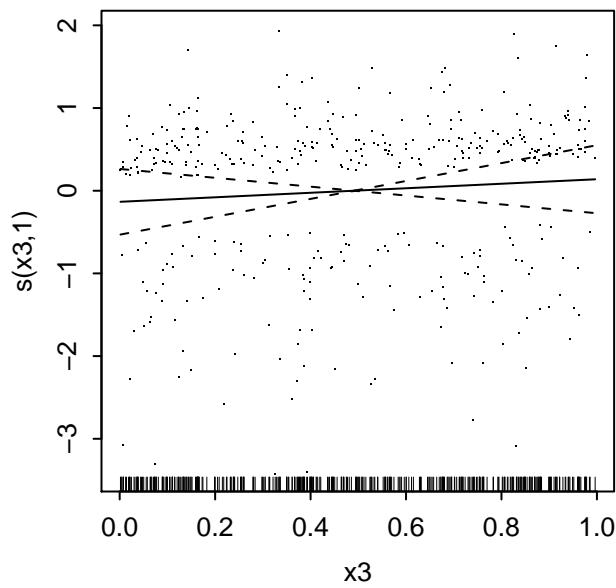
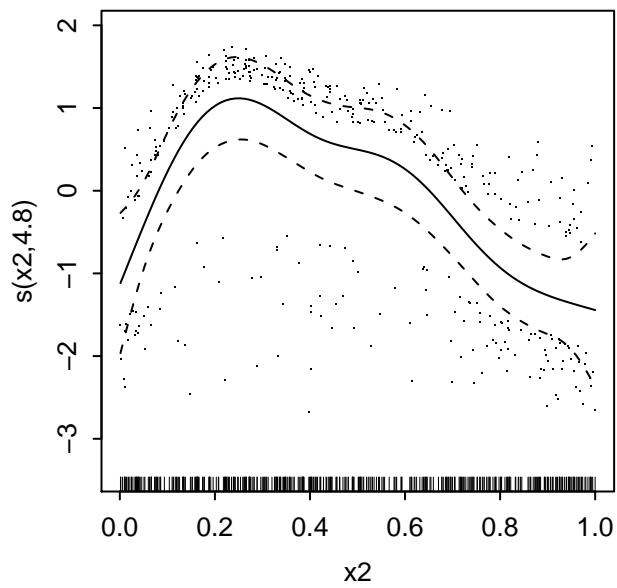
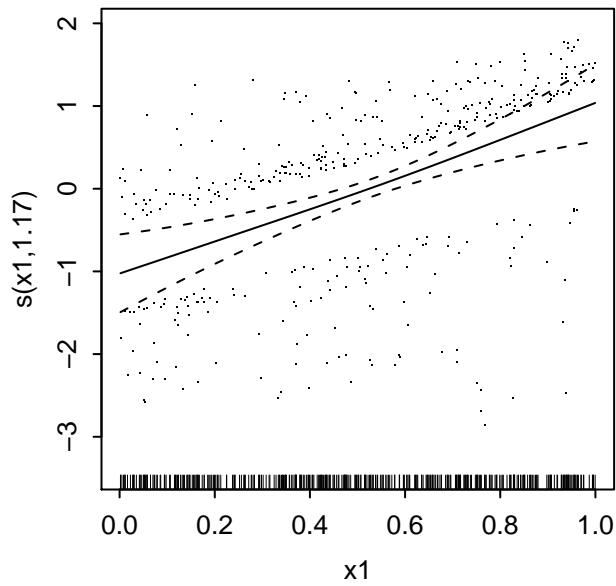
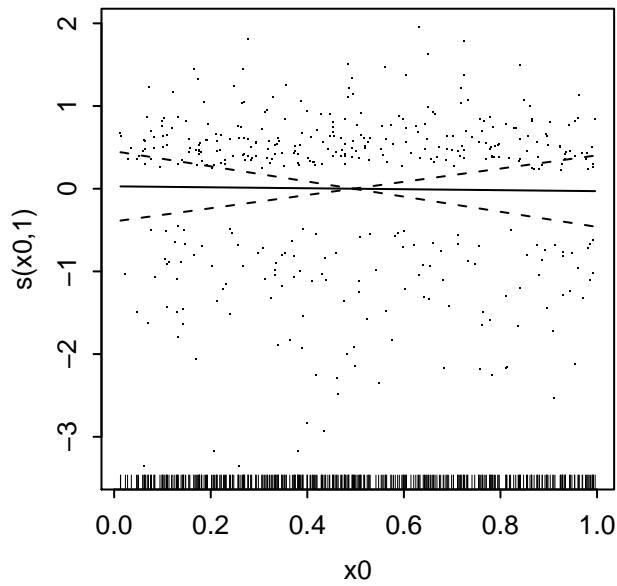
**Predicted Values:  $Y|X$**



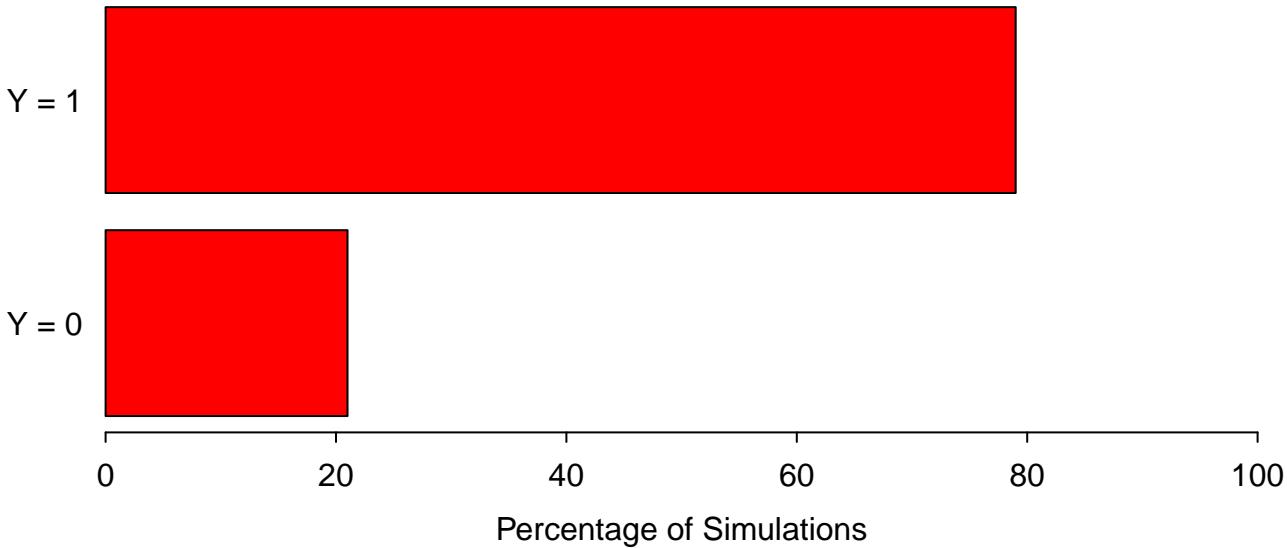
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



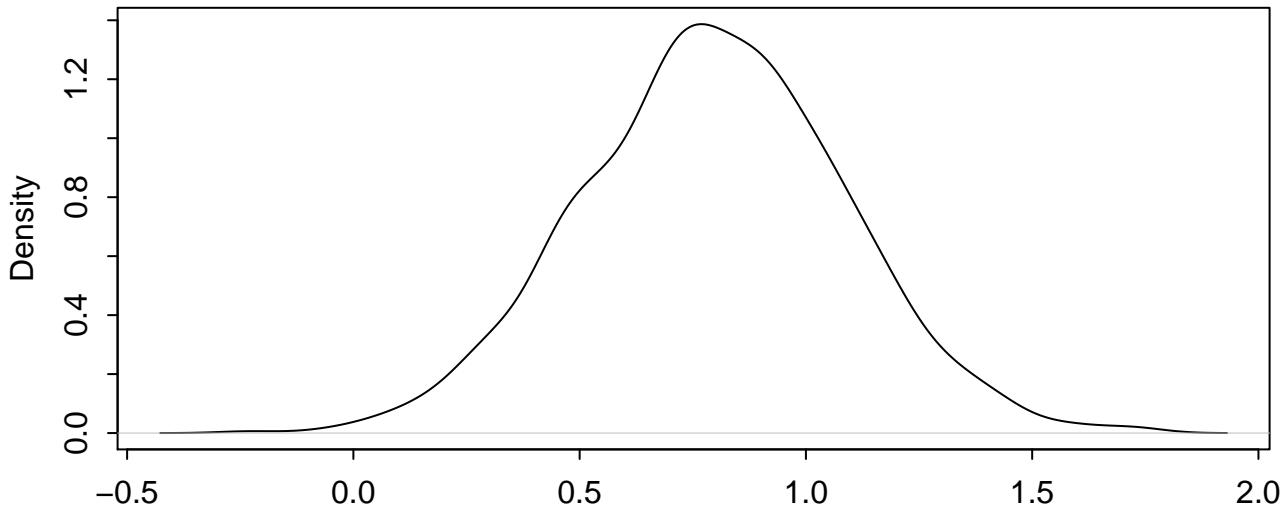




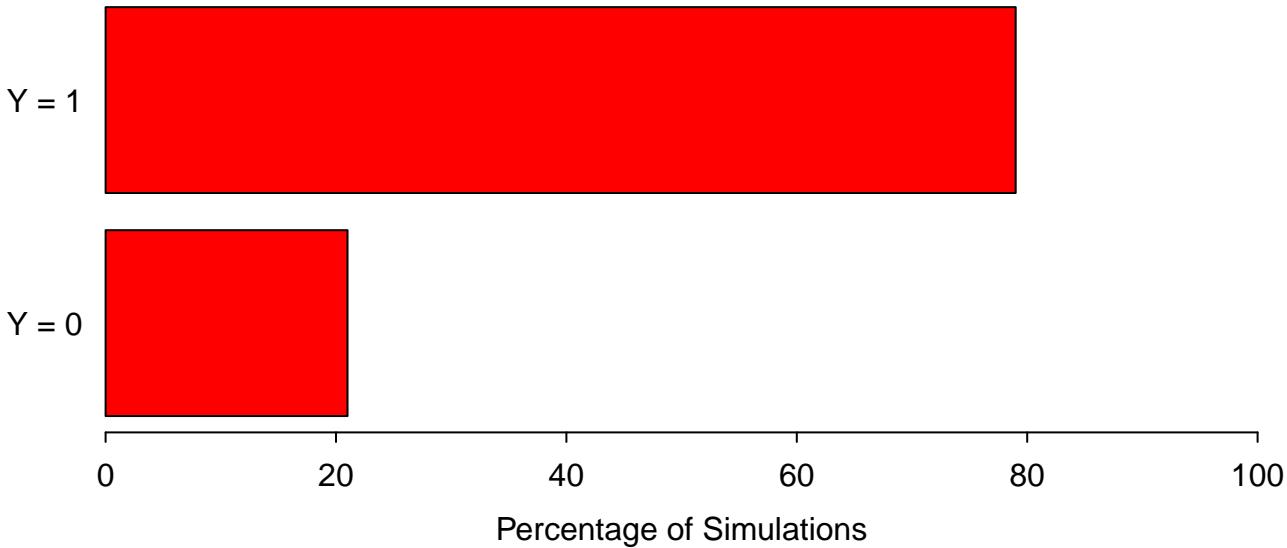
### Predicted Values: $Y|X$



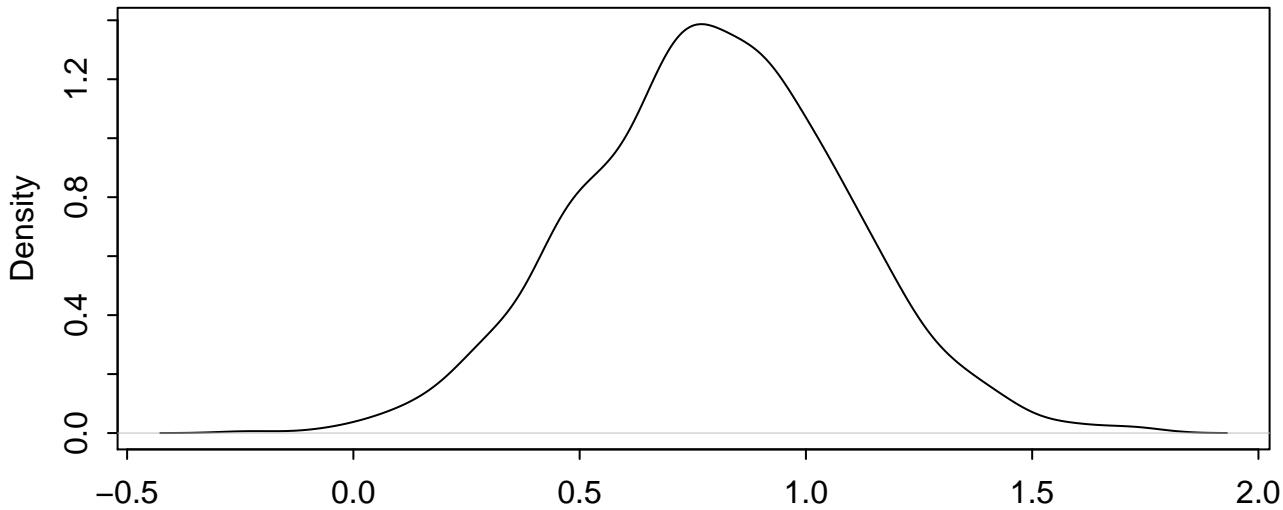
### Expected Values: $E(Y|X)$



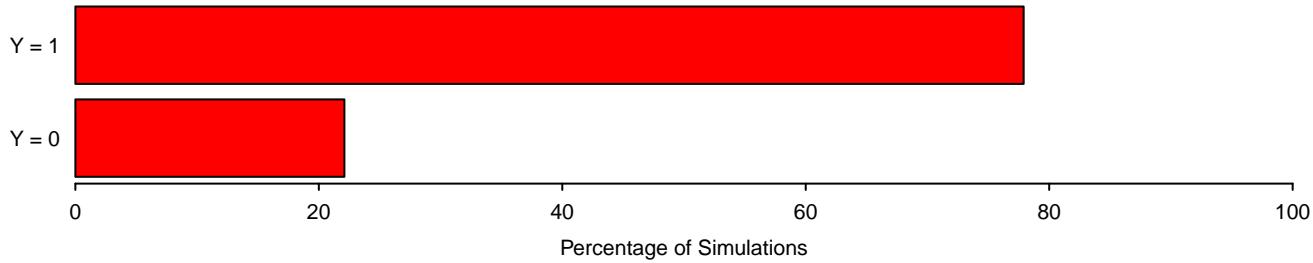
### Predicted Values: $Y|X$



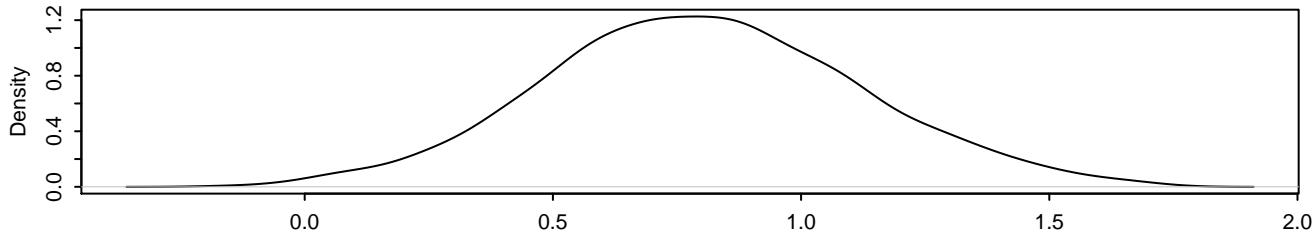
### Expected Values: $E(Y|X)$



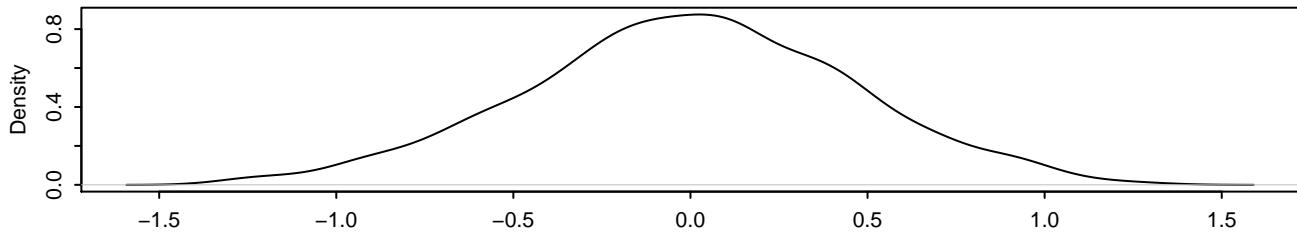
### Predicted Values: $Y|X$



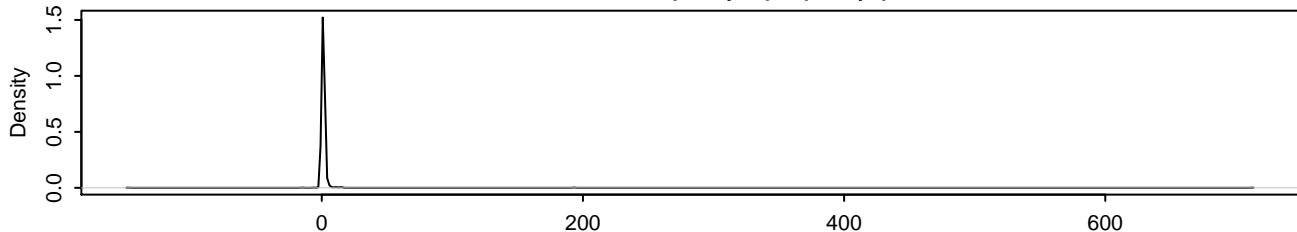
### Expected Values: $E(Y|X)$



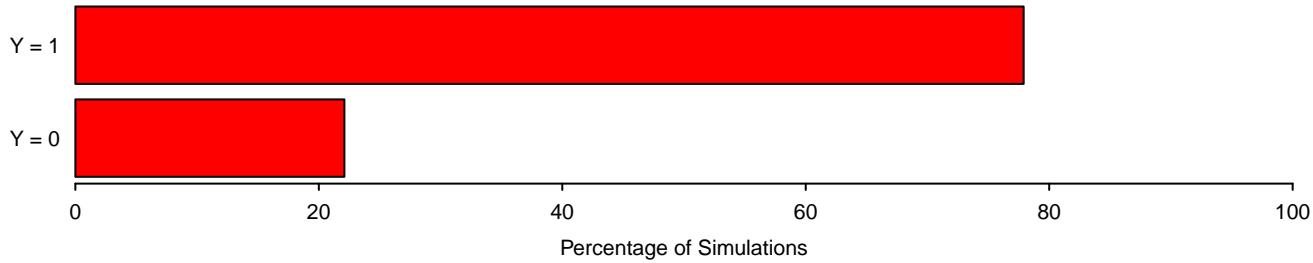
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



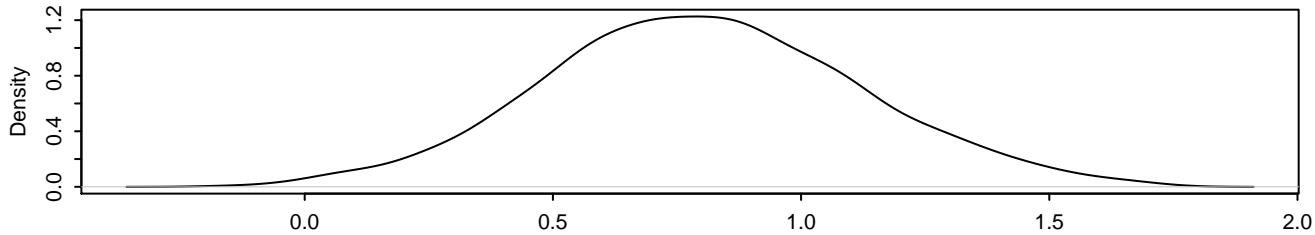
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



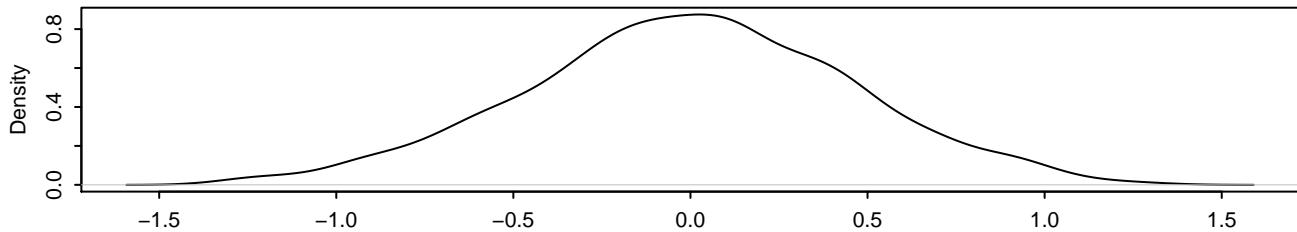
### Predicted Values: $Y|X$



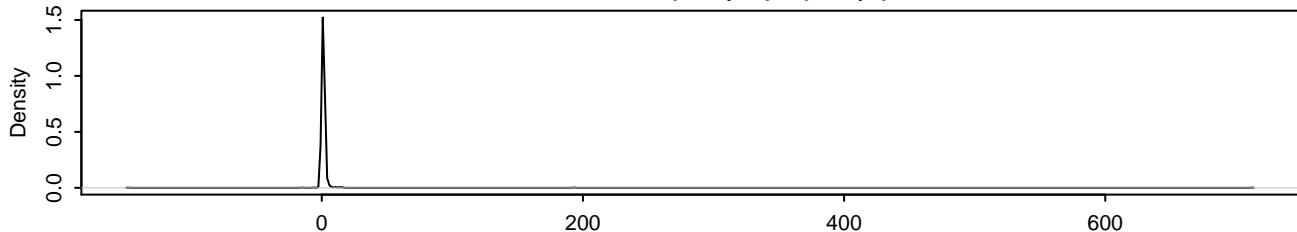
### Expected Values: $E(Y|X)$

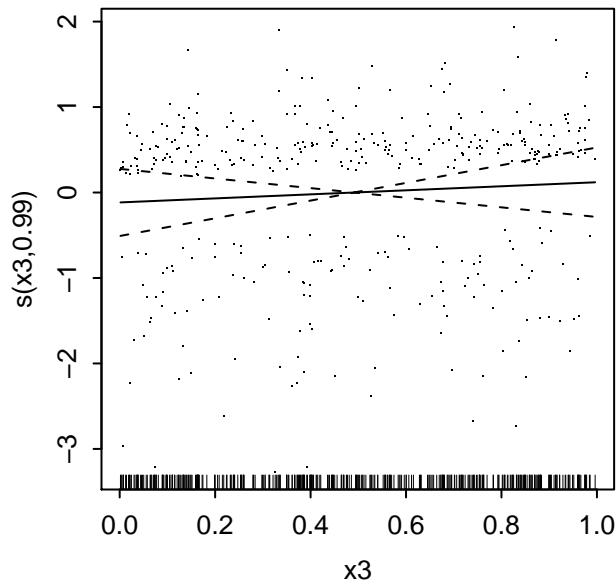
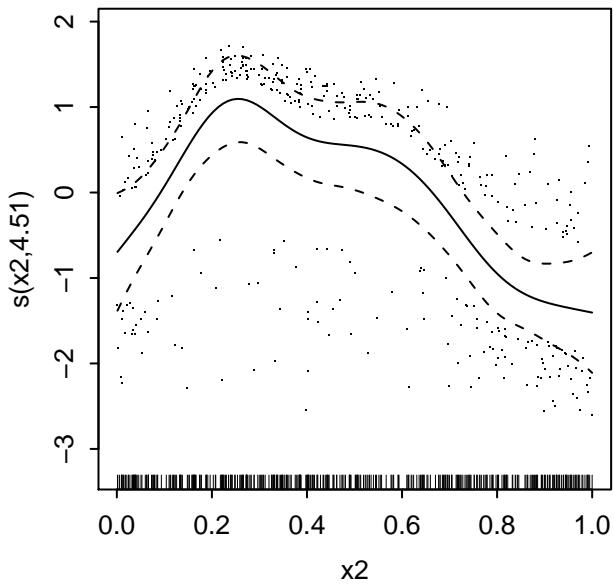
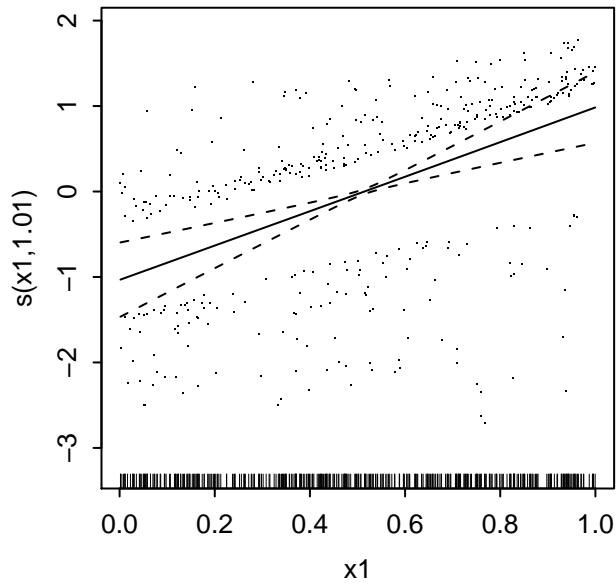
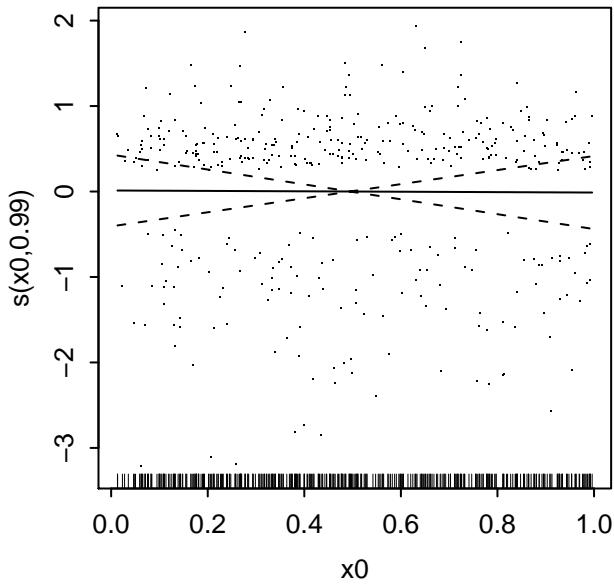


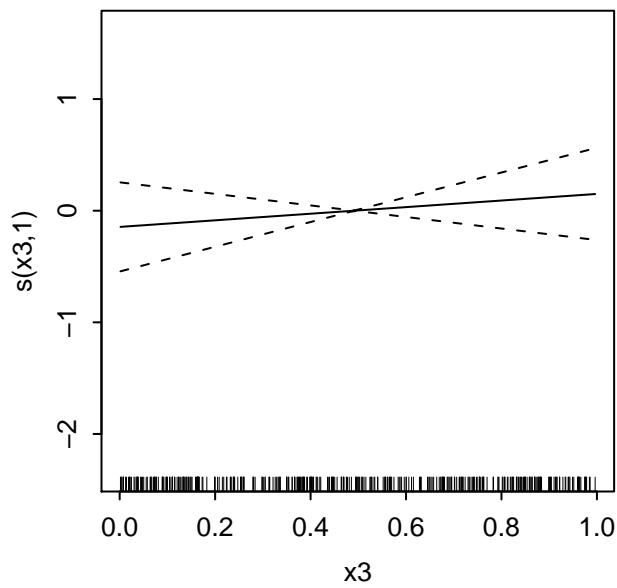
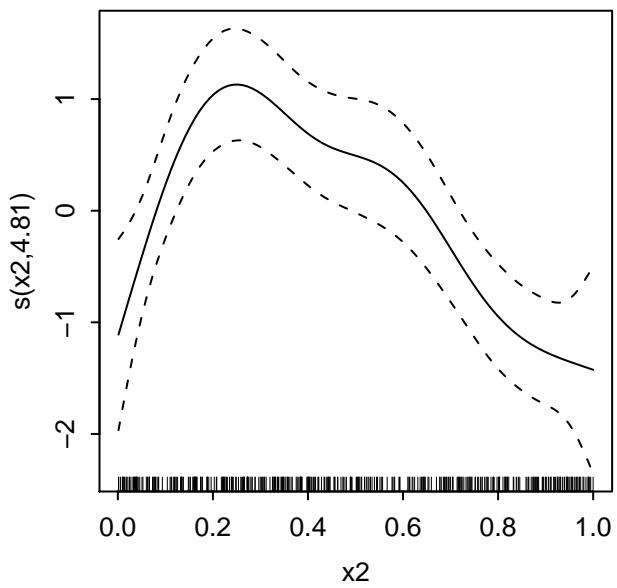
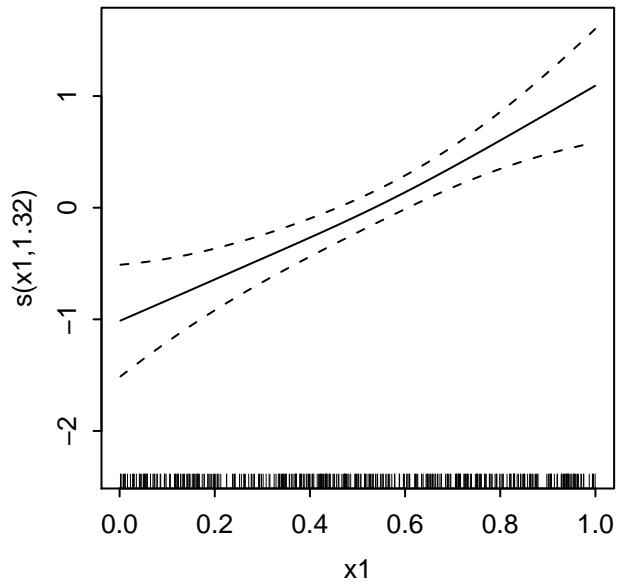
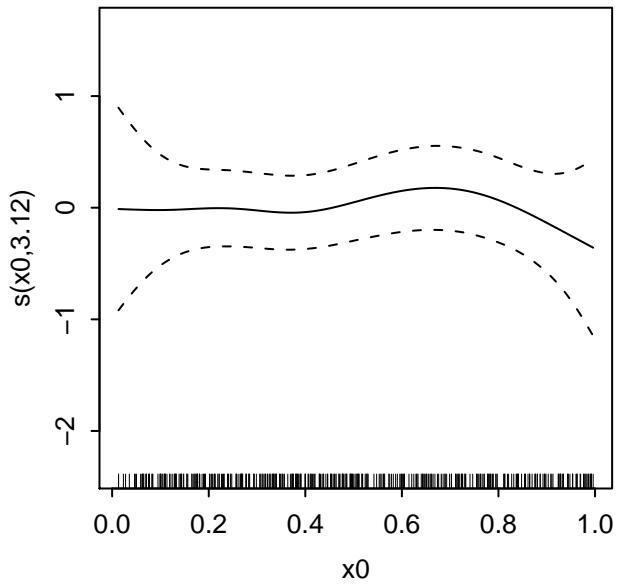
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$

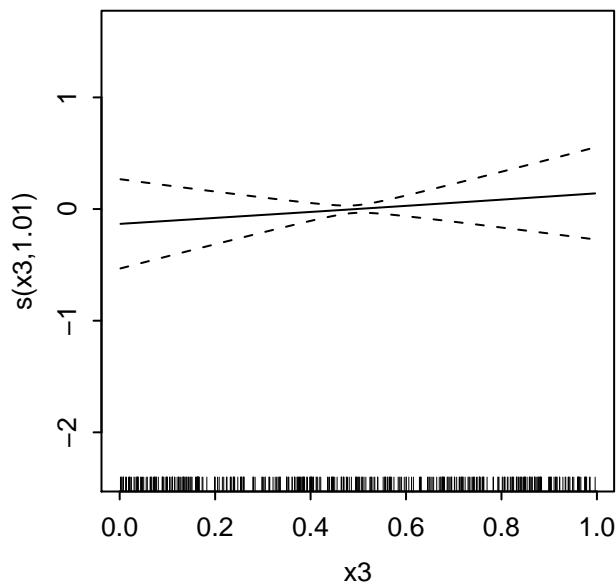
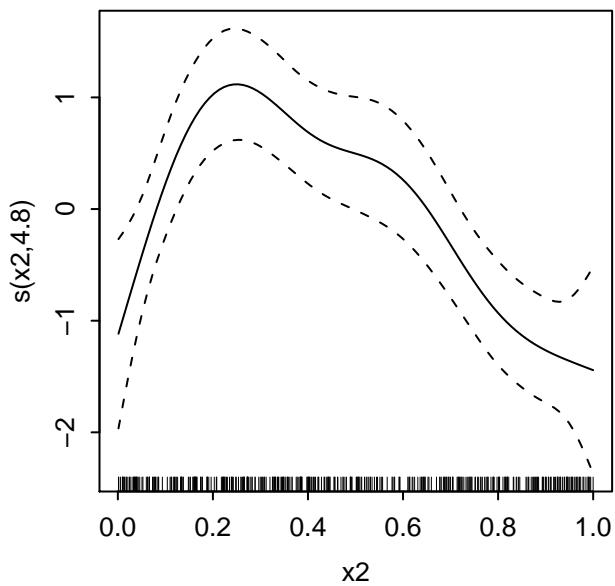
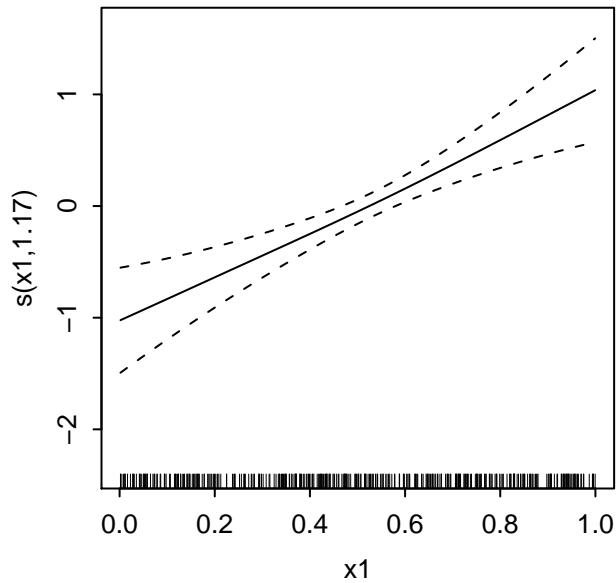
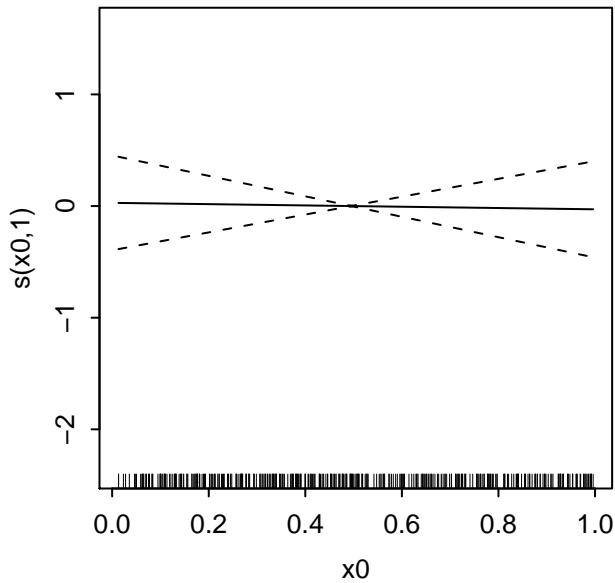


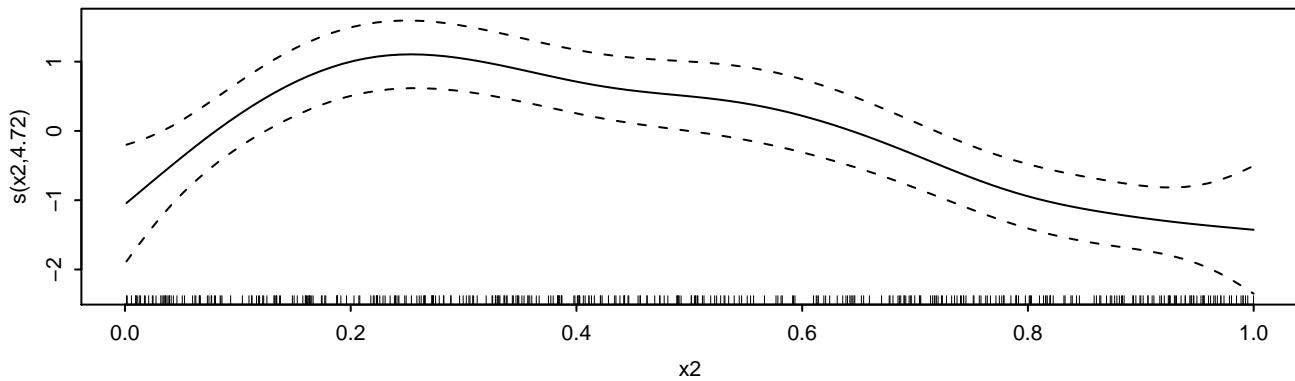
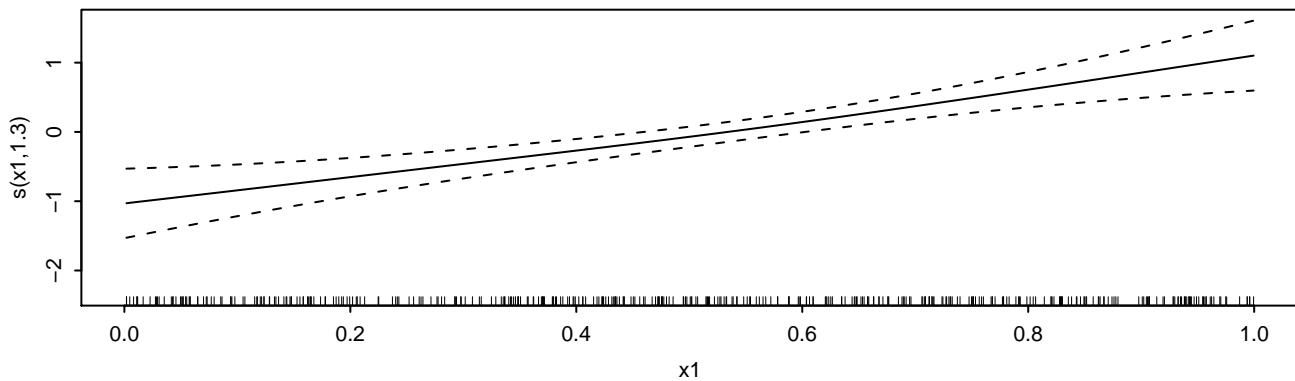
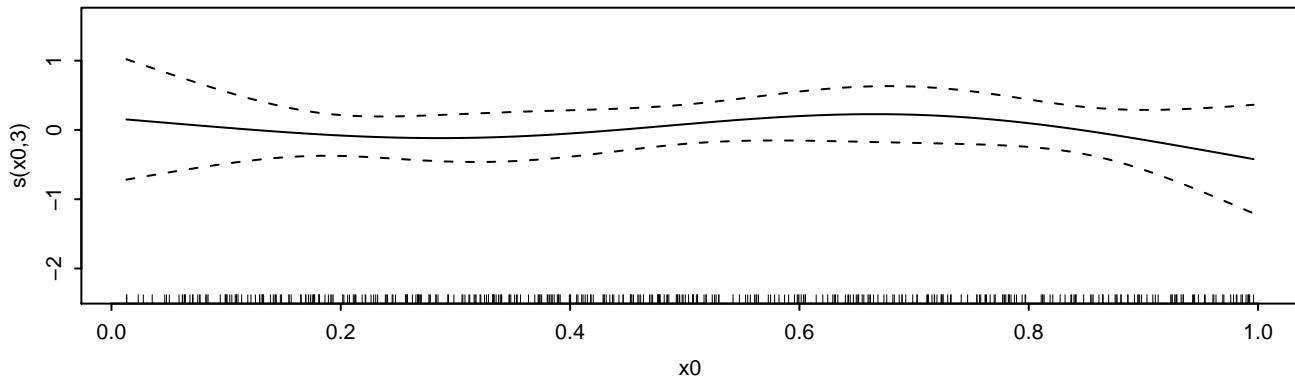
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



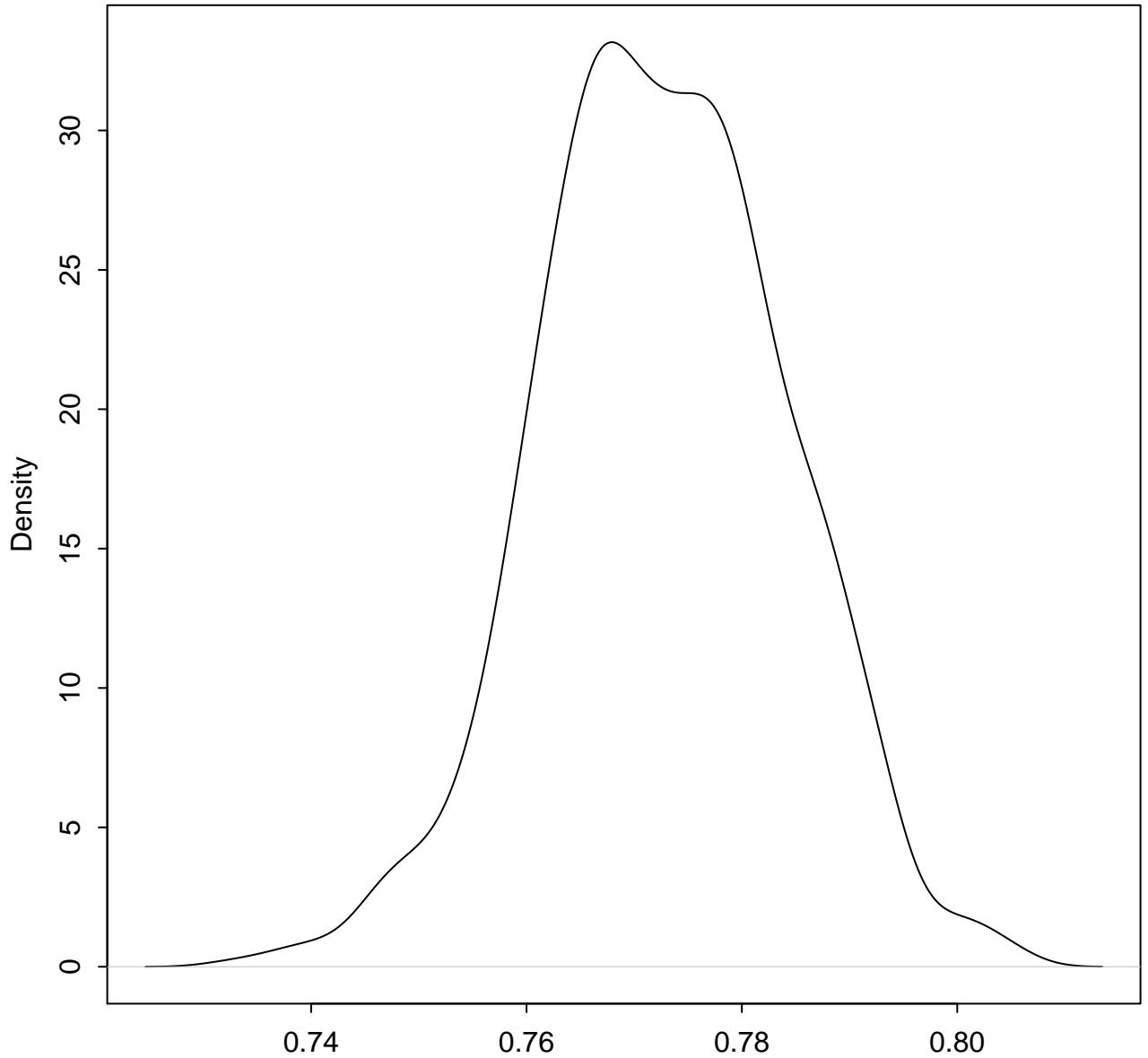




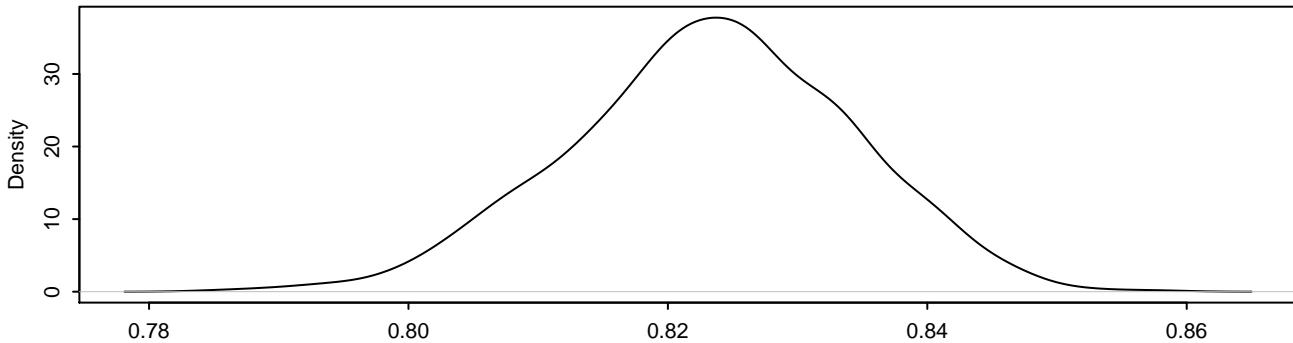




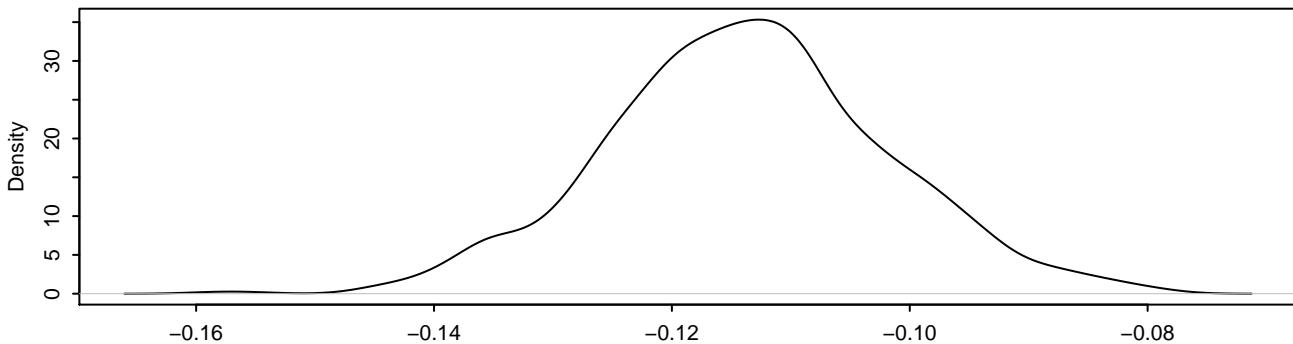
# Expected Values: $E(Y|X)$



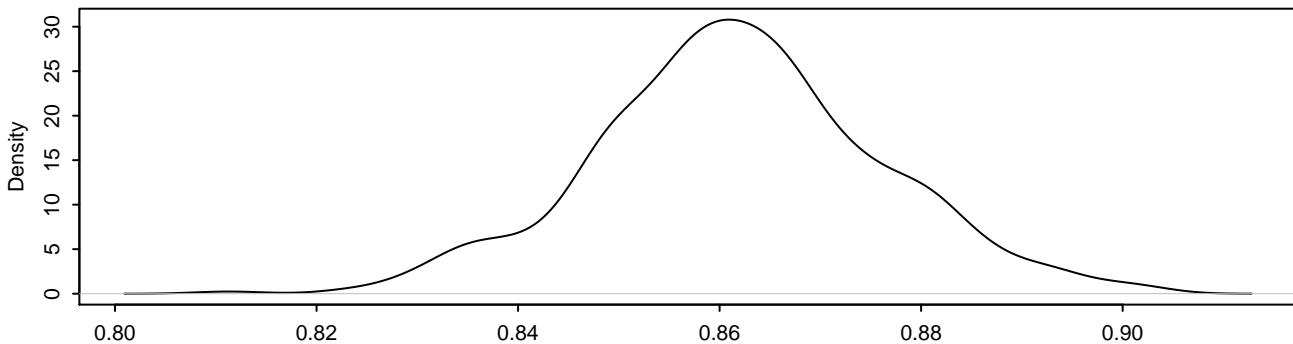
**Expected Values:  $E(Y|X)$**



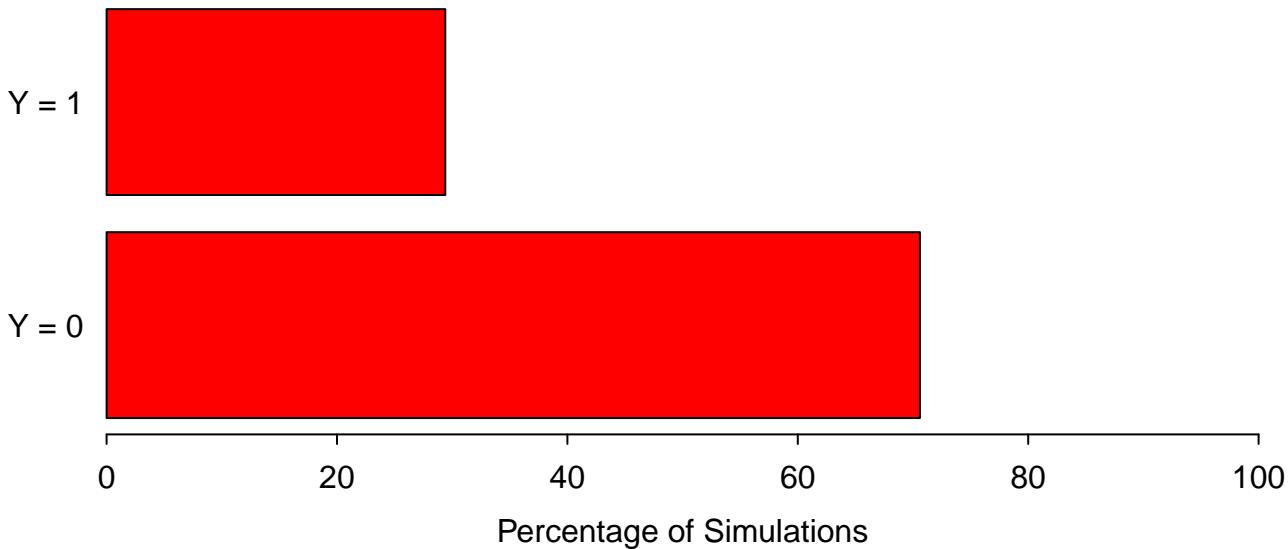
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



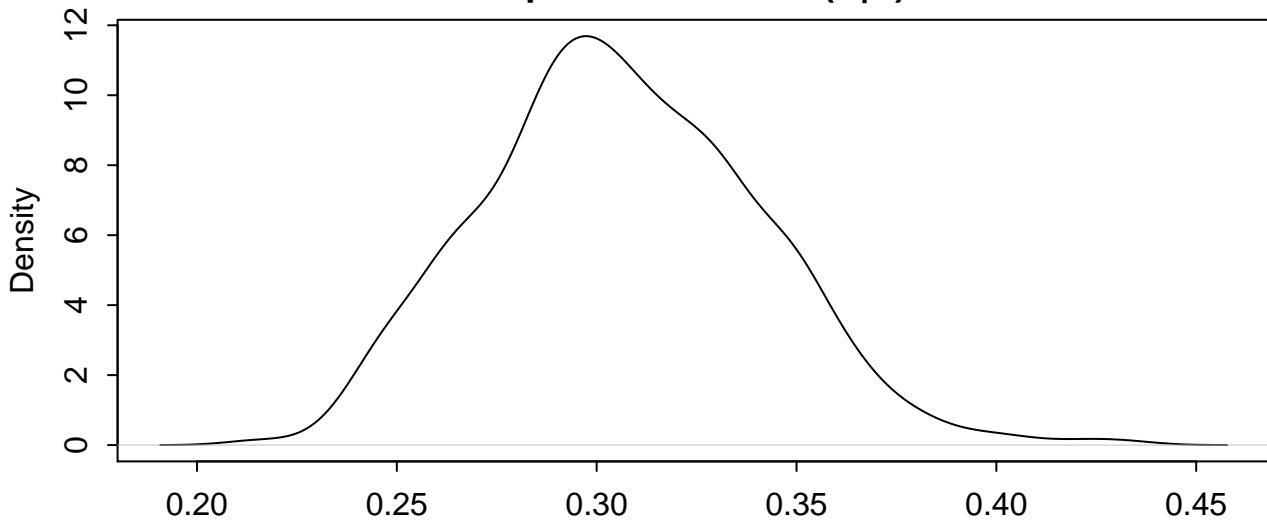
**Risk Ratios:  $P(Y=1|X_1)/P(Y=1|X)$**



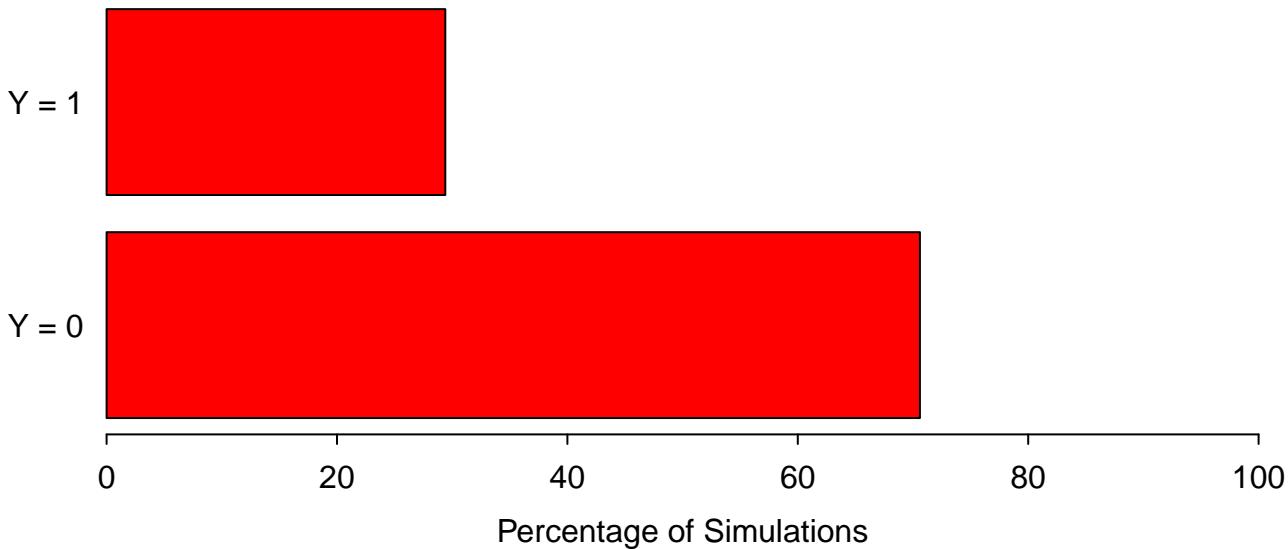
### Predicted Values: $Y|X$



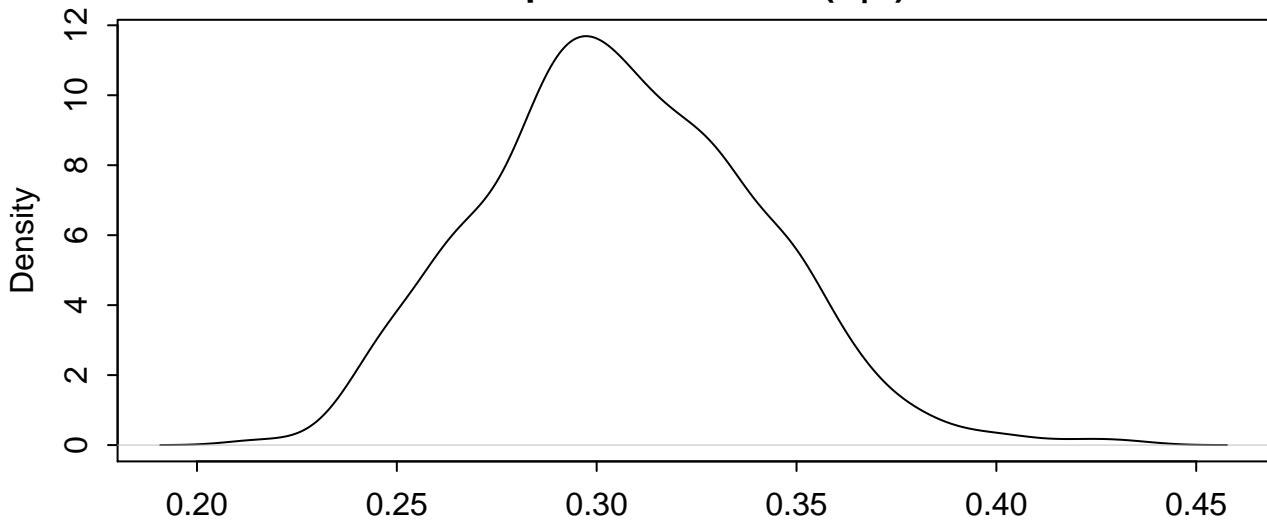
### Expected Values: $E(Y|X)$



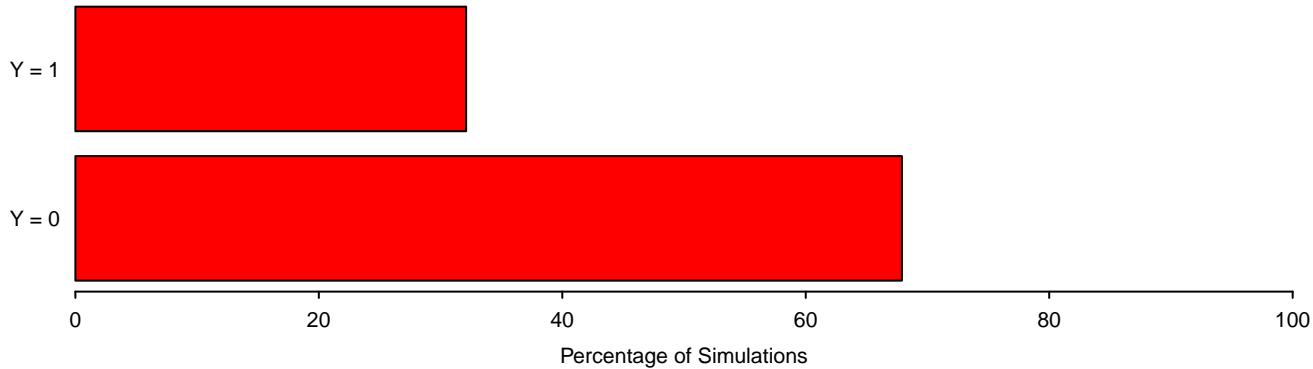
### Predicted Values: $Y|X$



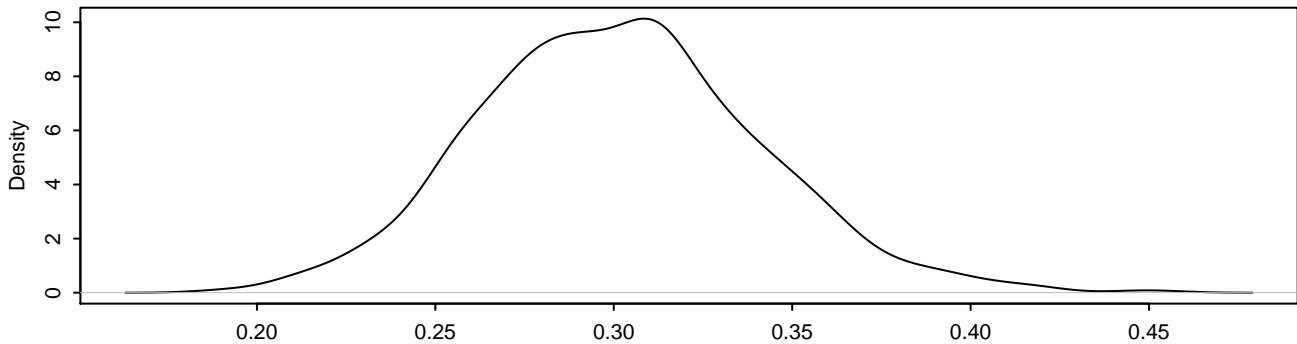
### Expected Values: $E(Y|X)$



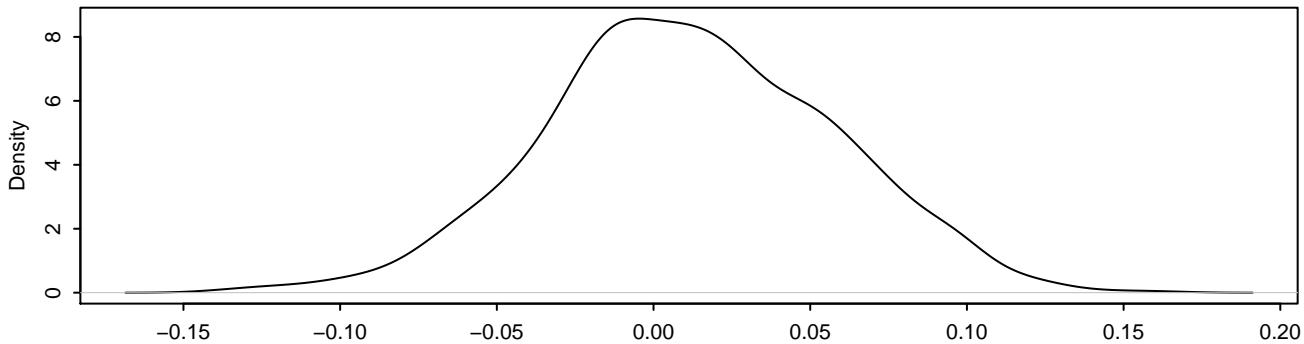
### Predicted Values: $Y|X$



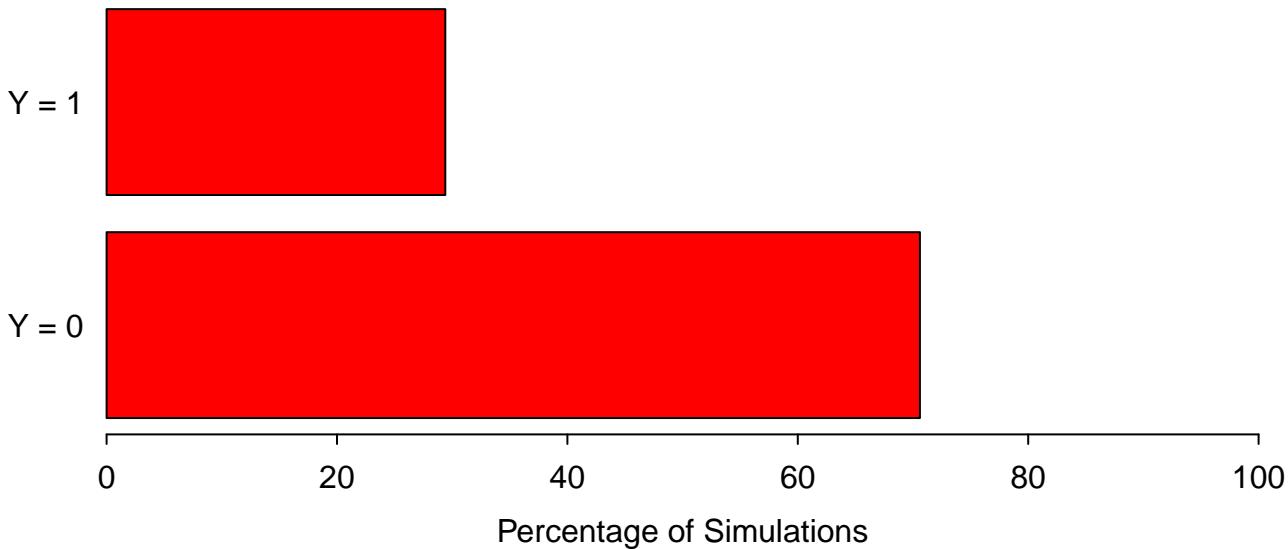
### Expected Values: $E(Y|X)$



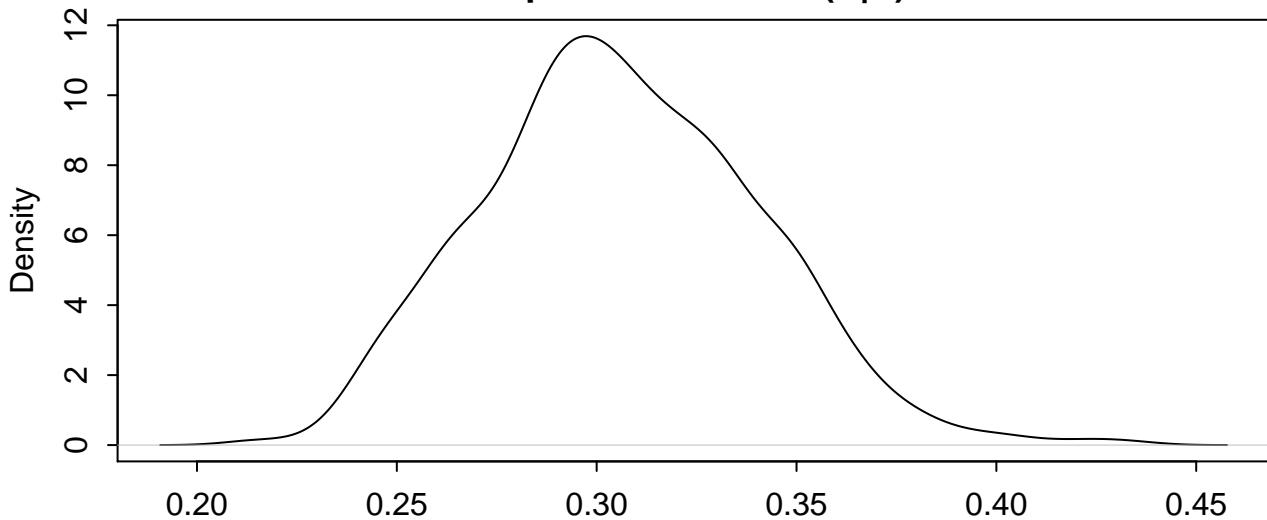
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



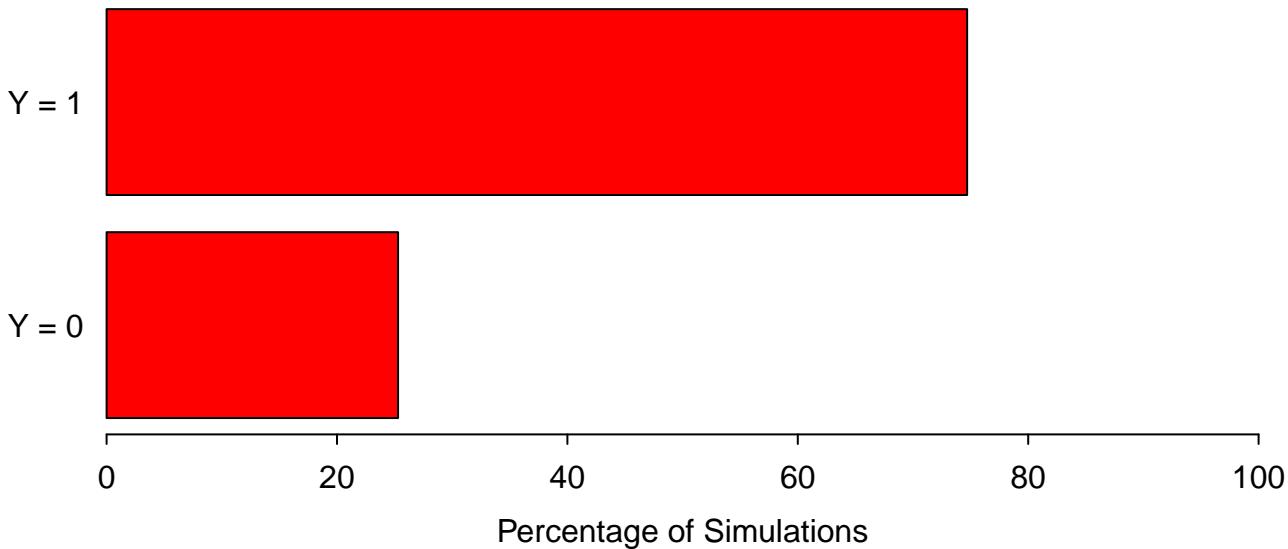
### Predicted Values: $Y|X$



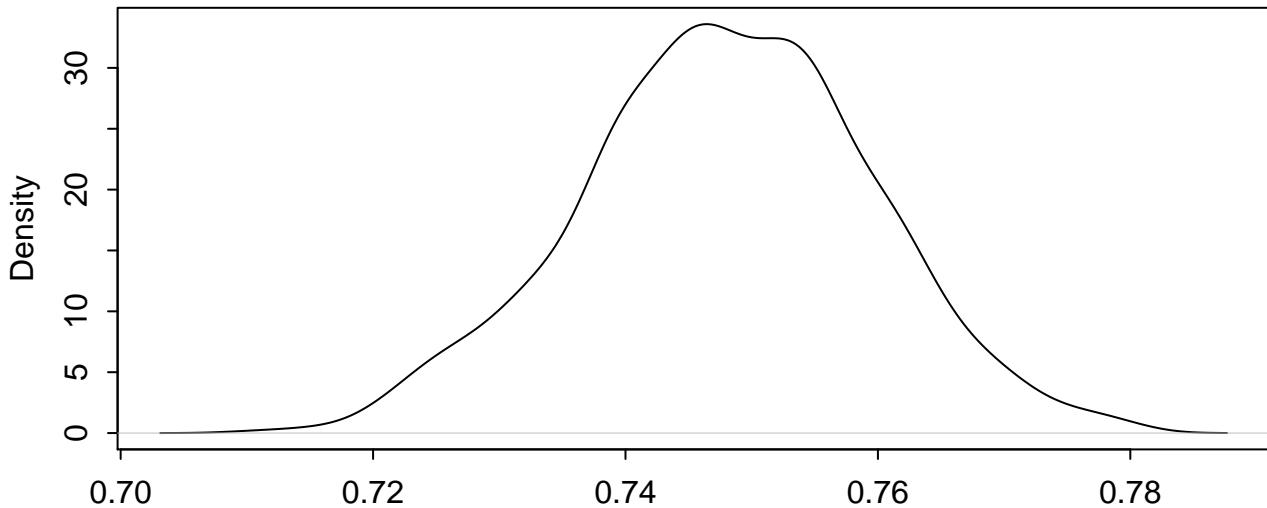
### Expected Values: $E(Y|X)$



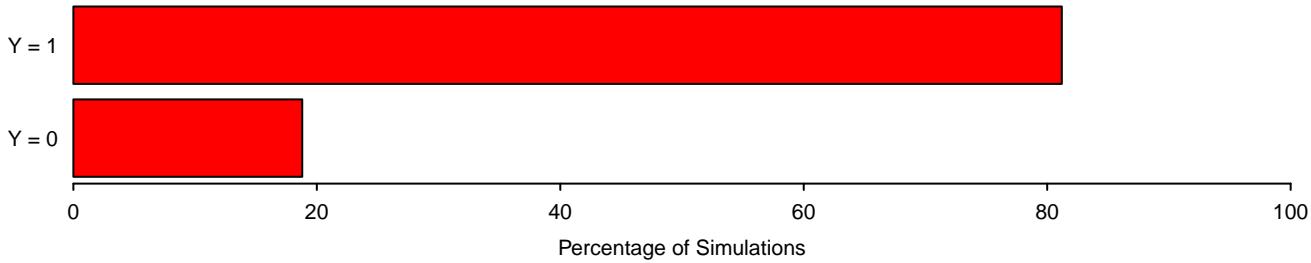
### Predicted Values: $Y|X$



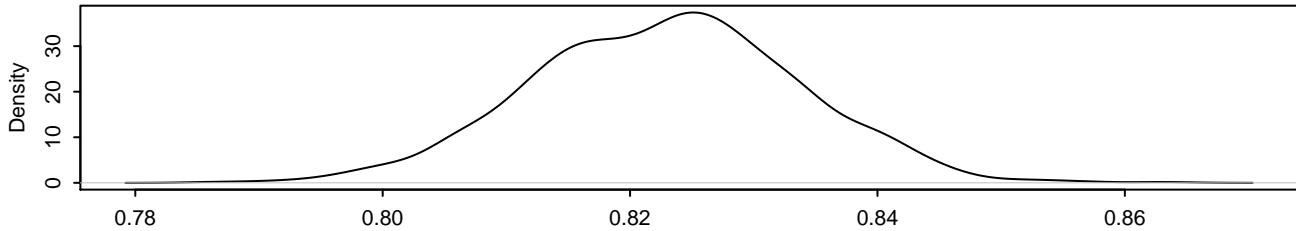
### Expected Values: $E(Y|X)$



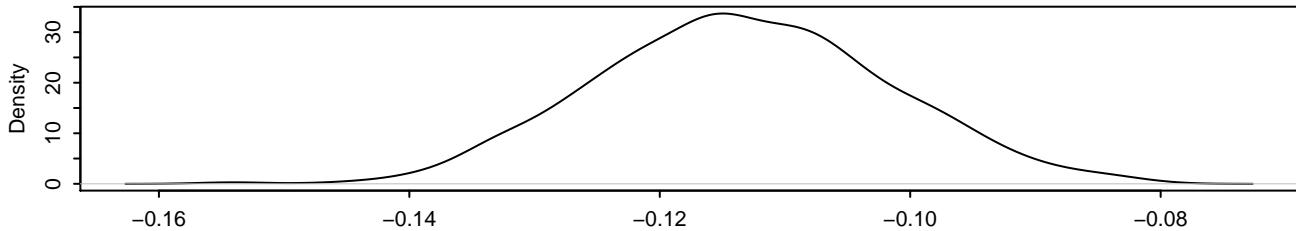
### Predicted Values: $Y|X$



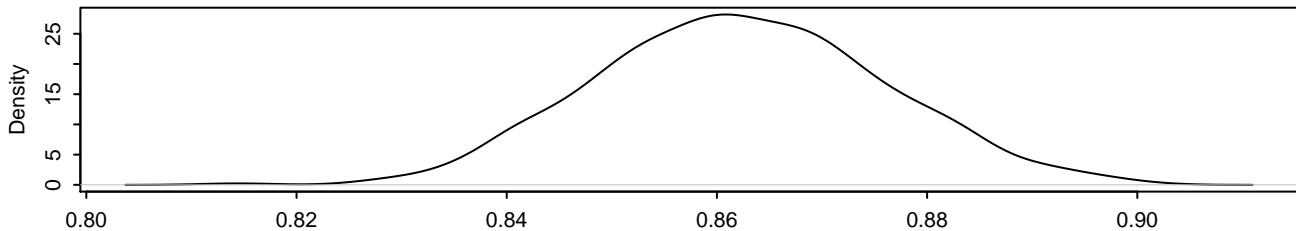
### Expected Values: $E(Y|X)$



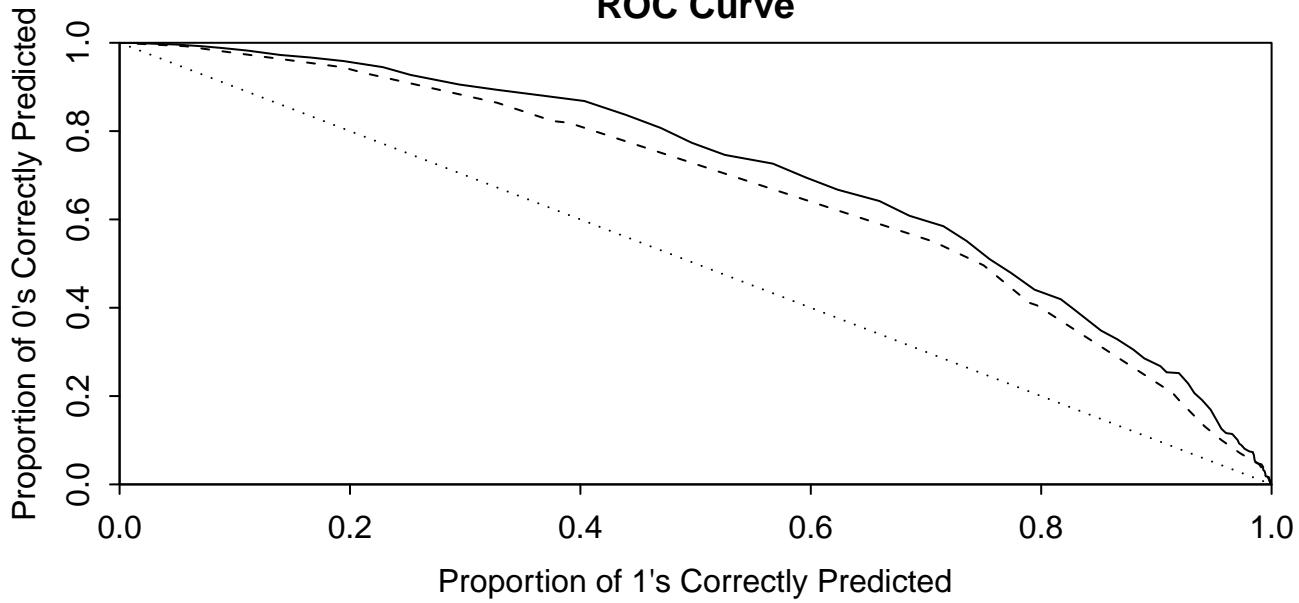
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



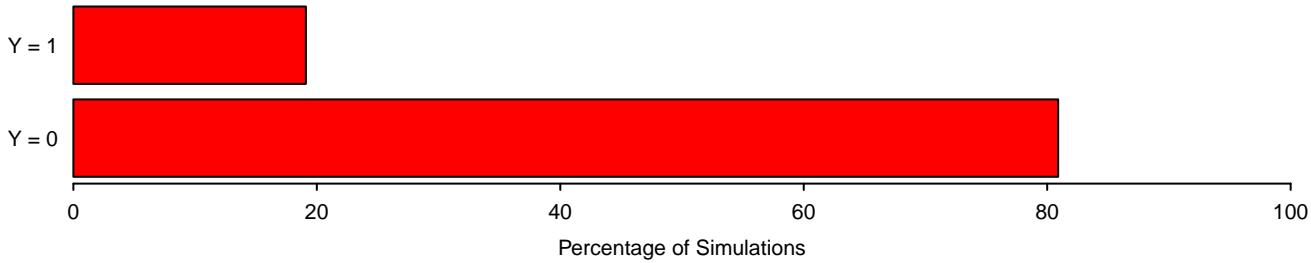
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



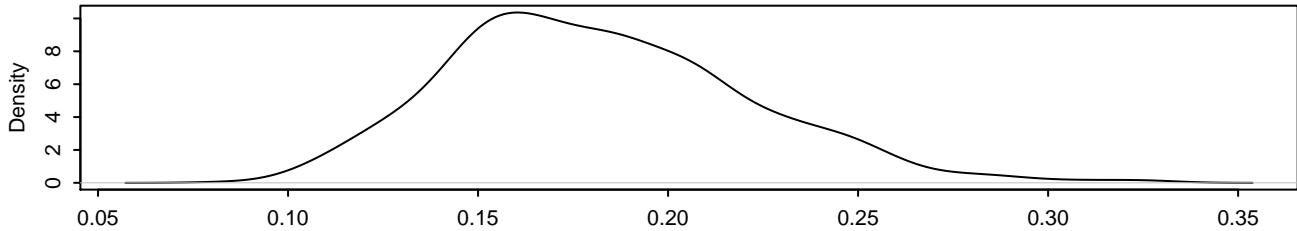
# ROC Curve



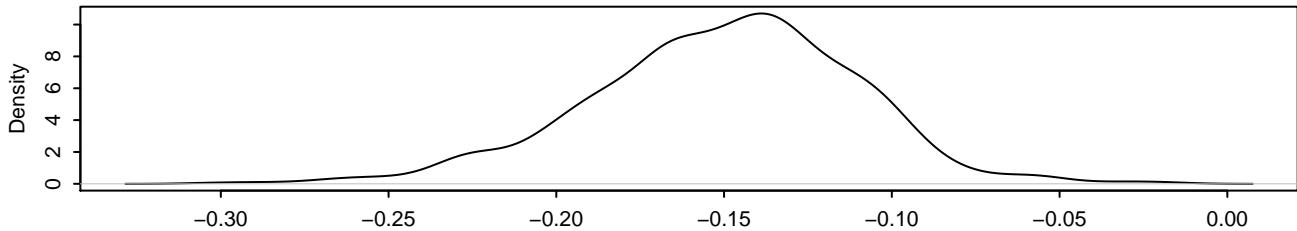
### Predicted Values: $Y|X$



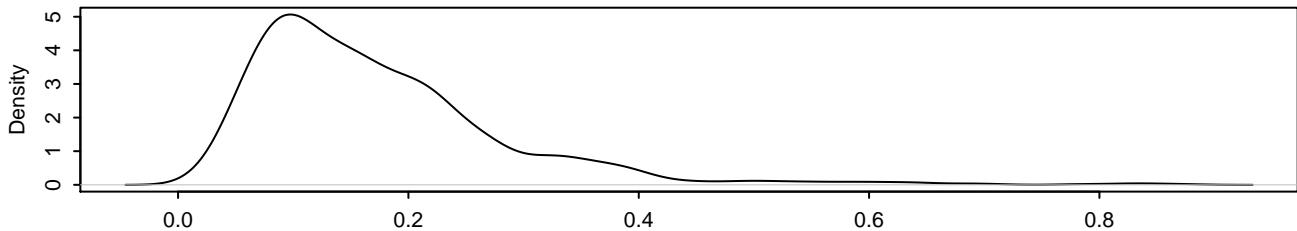
### Expected Values: $E(Y|X)$



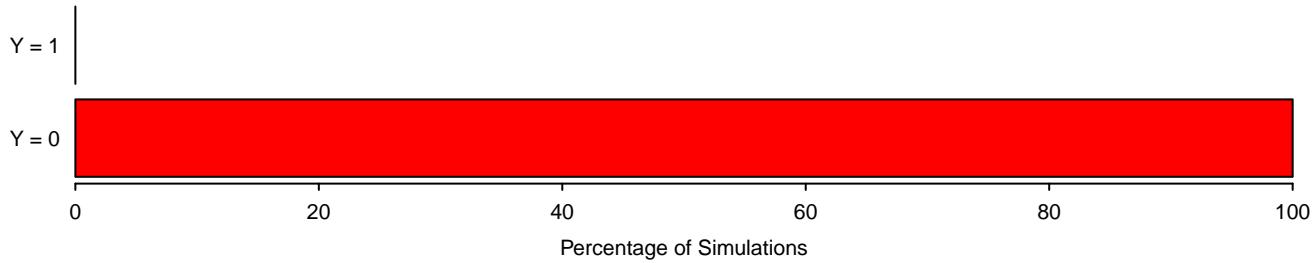
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



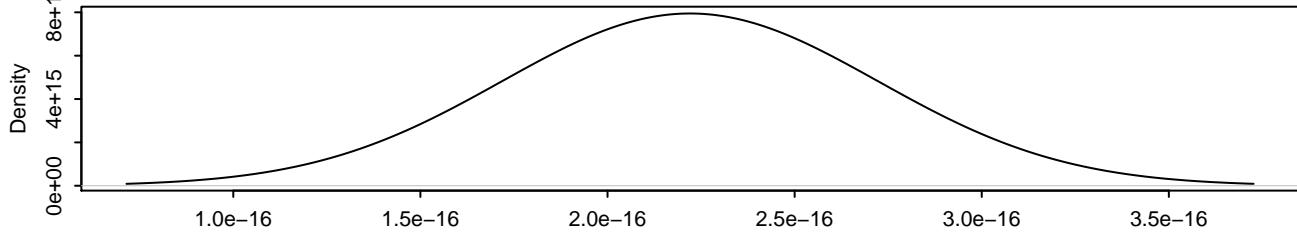
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



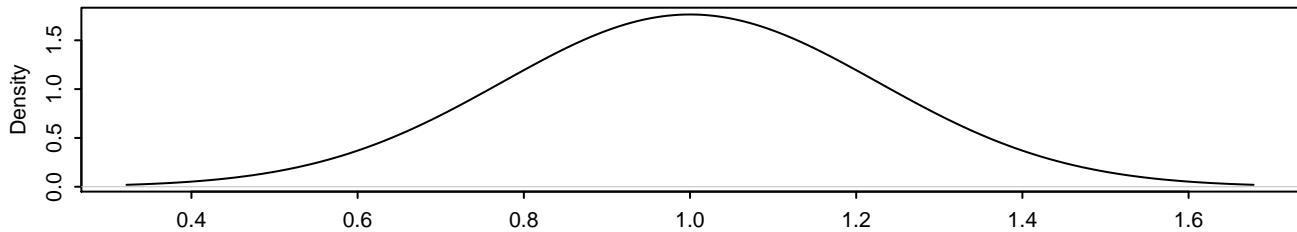
### Predicted Values: $Y|X$



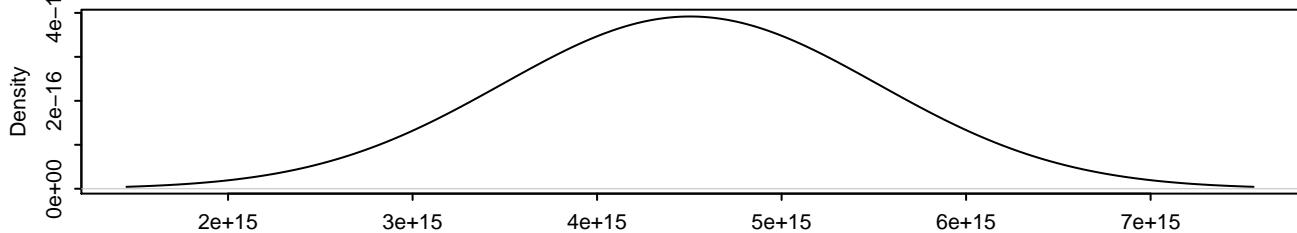
### Expected Values: $E(Y|X)$



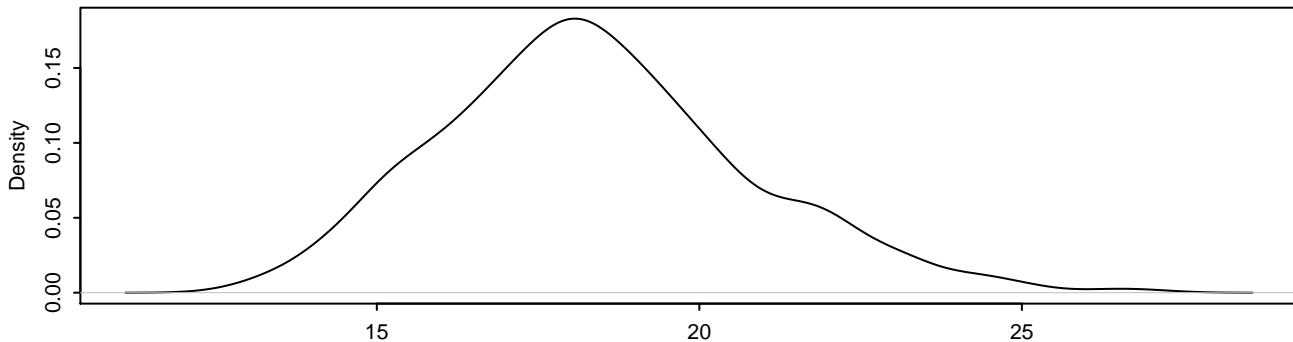
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



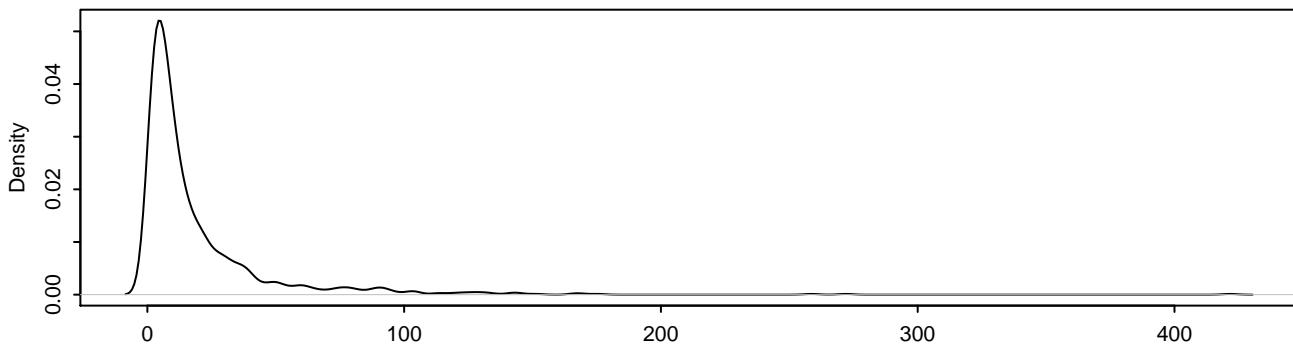
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



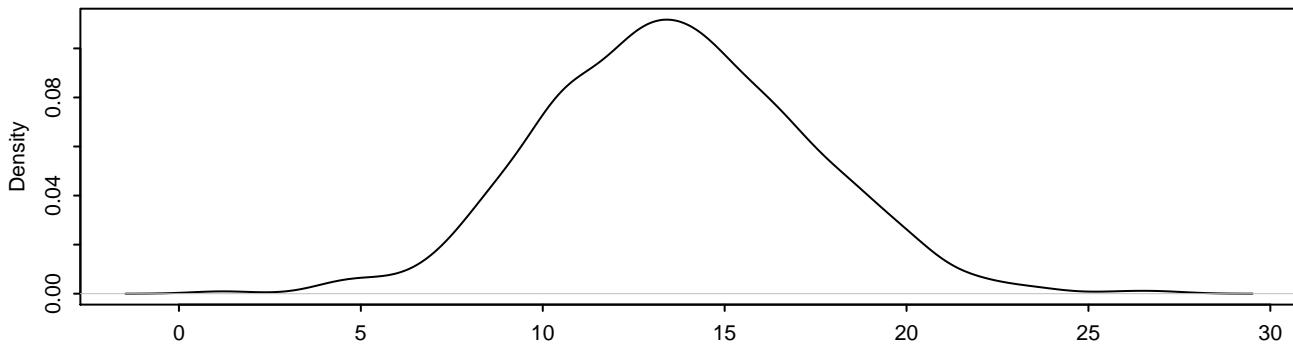
**Expected Values:  $E(Y|X)$**



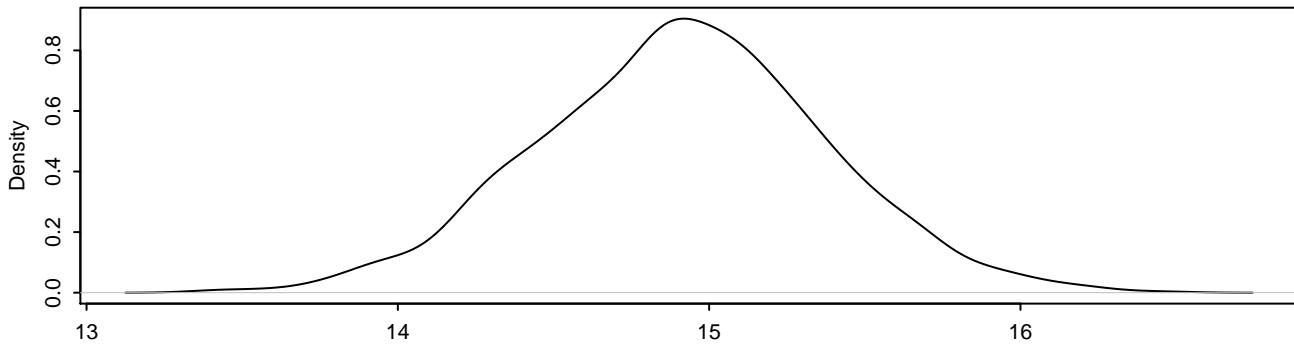
**Predicted Values:  $Y|X$**



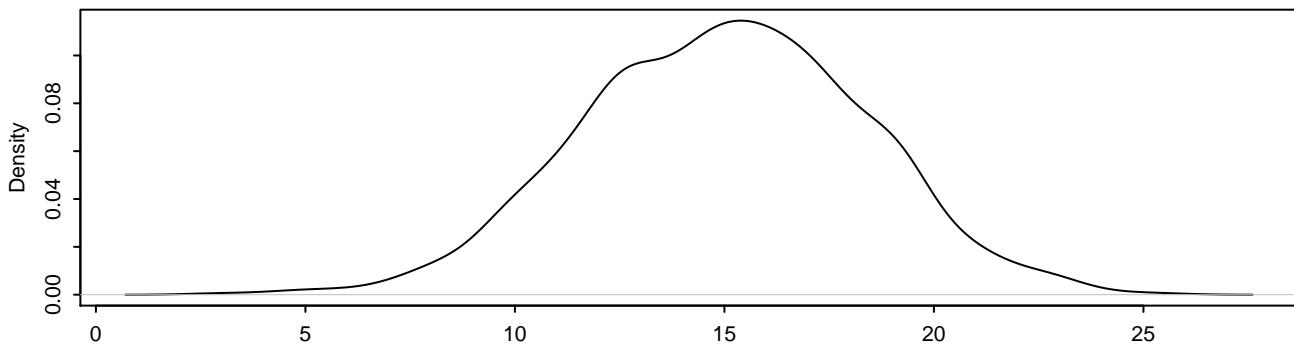
**First Differences:  $E(Y|X_1) - E(Y|X)$**



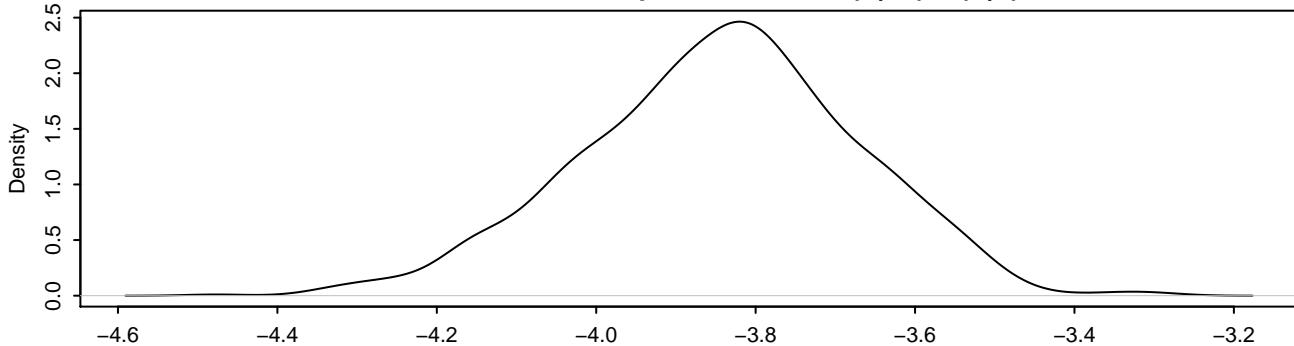
**Expected Values:  $E(Y|X)$**



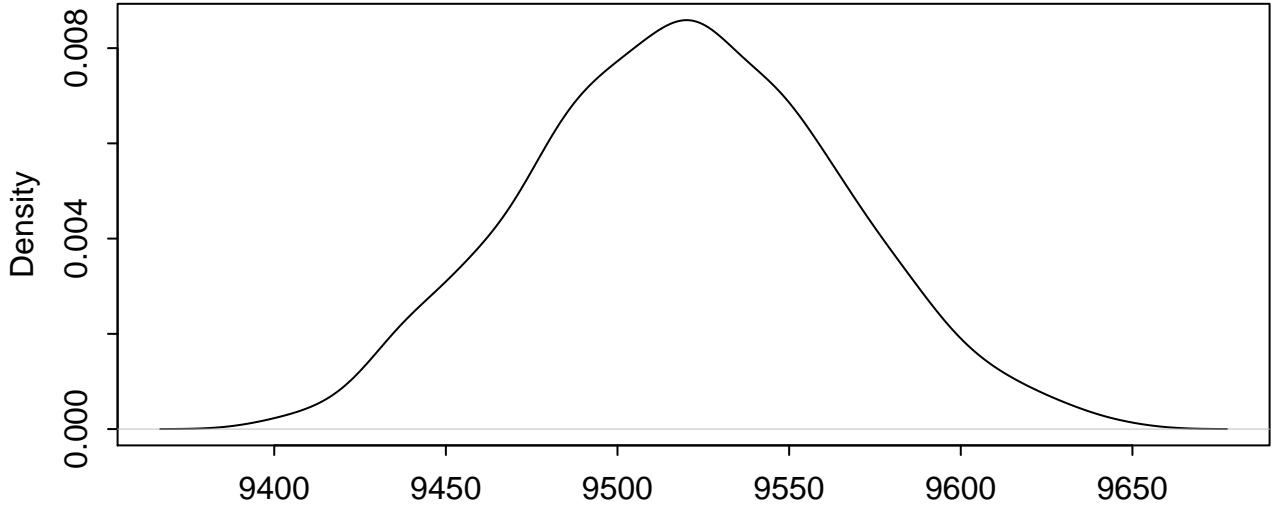
**Predicted Values:  $Y|X$**



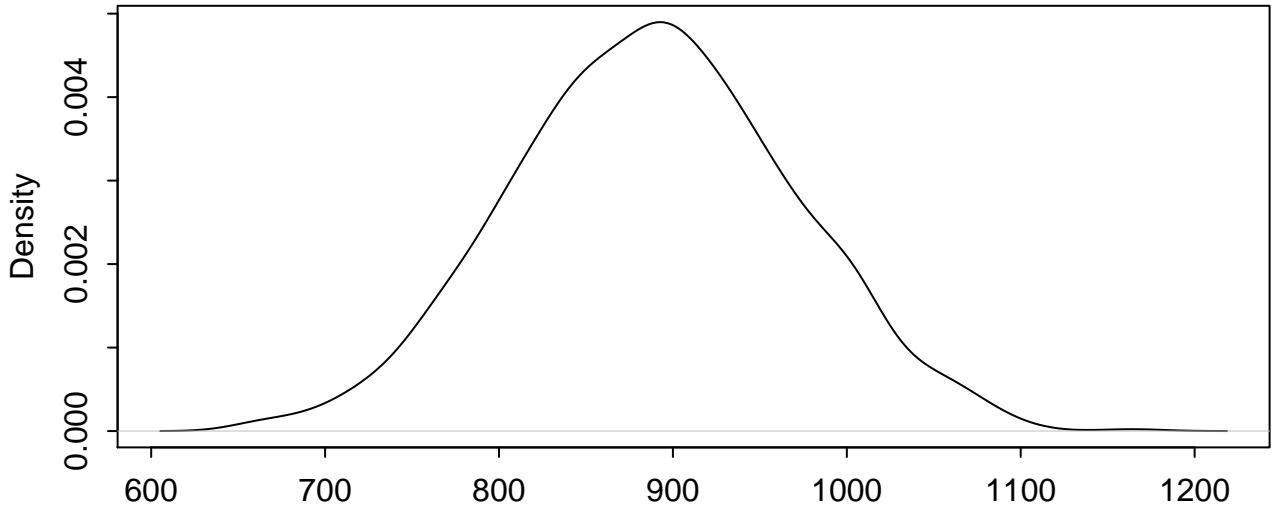
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



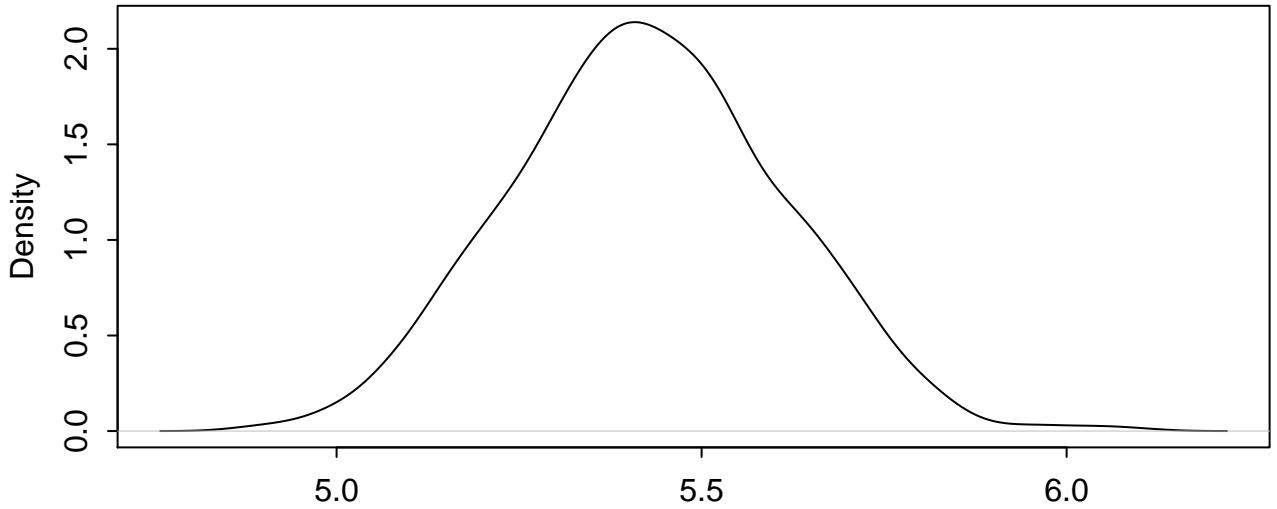
**Expected Values:  $E(Y|X)$**



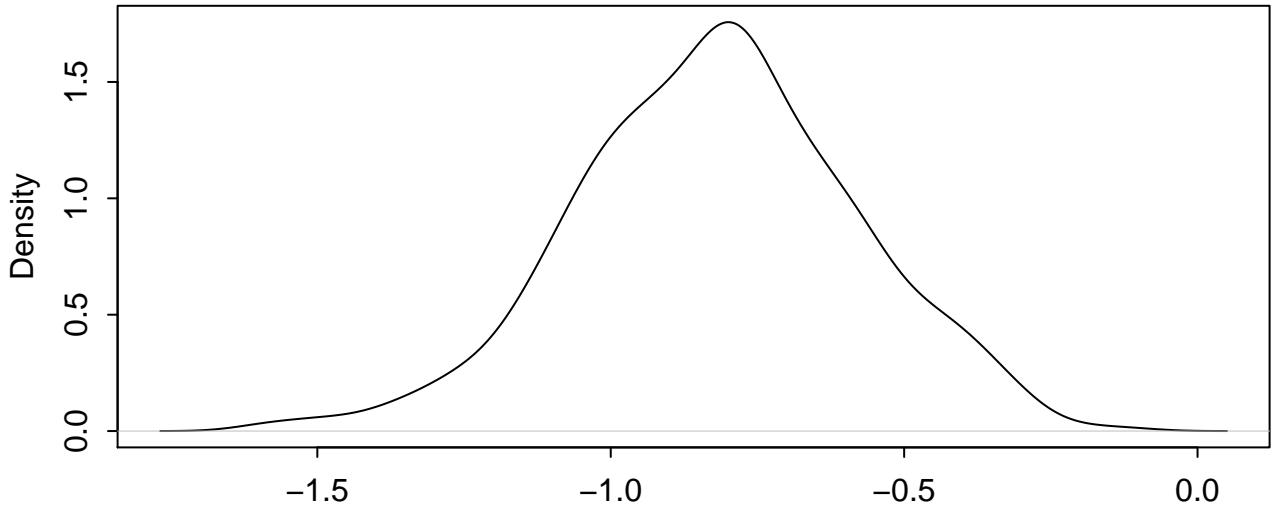
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



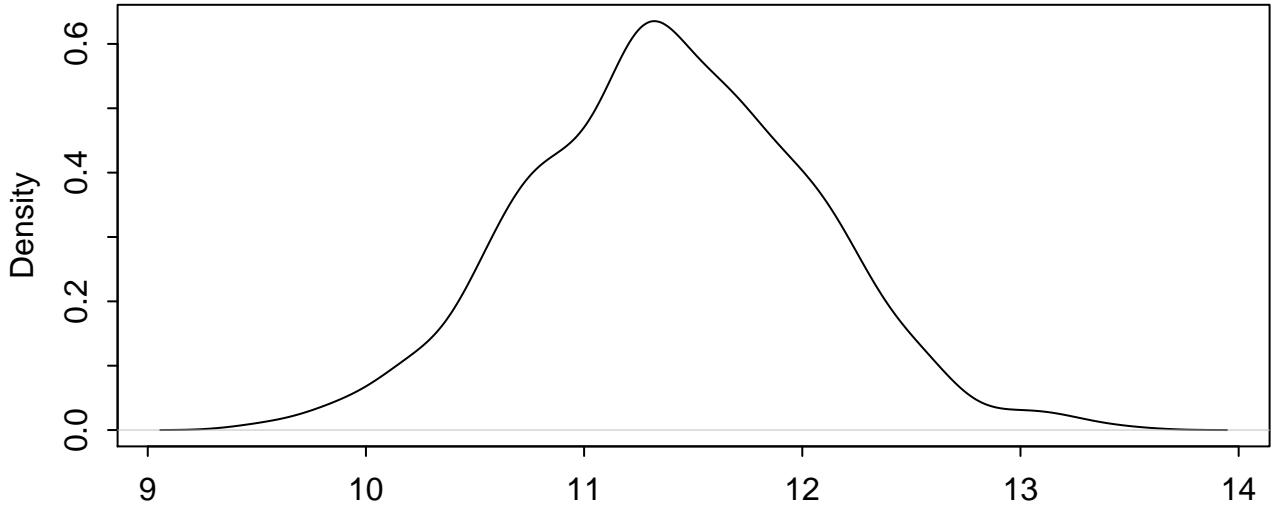
**Expected Values:  $E(Y|X)$**



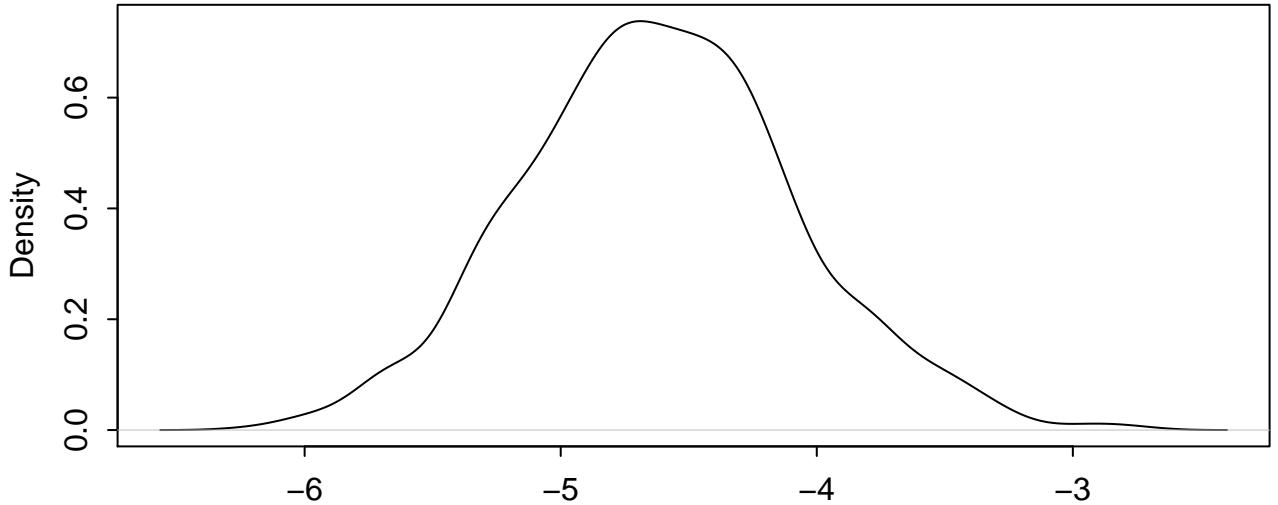
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



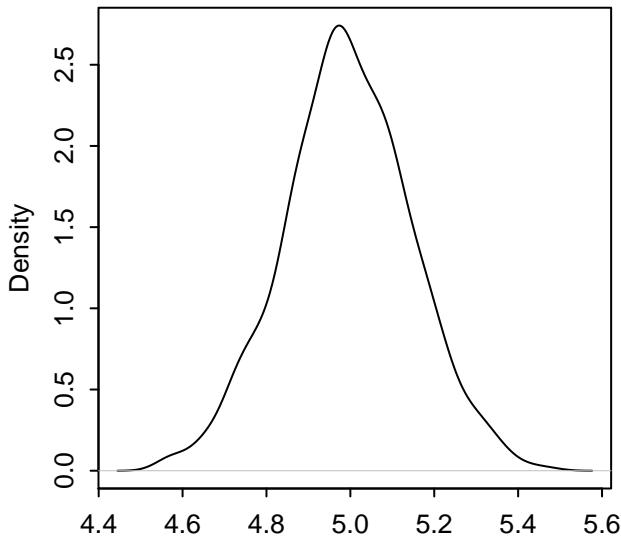
**Expected Values:  $E(Y|X)$**



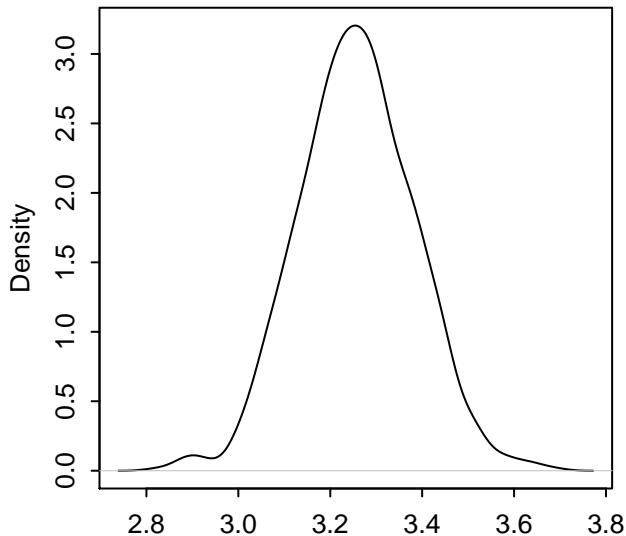
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



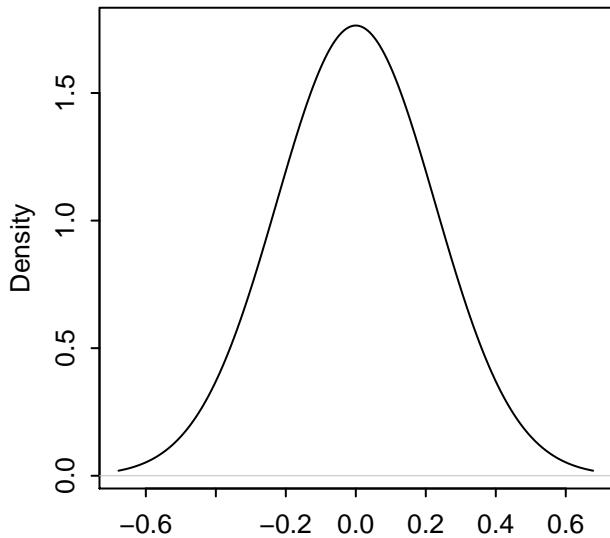
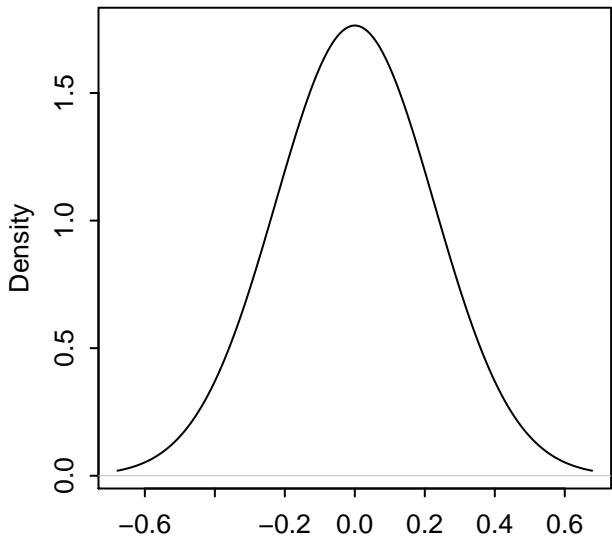
**Expected Values:  $E(Y|X)$**



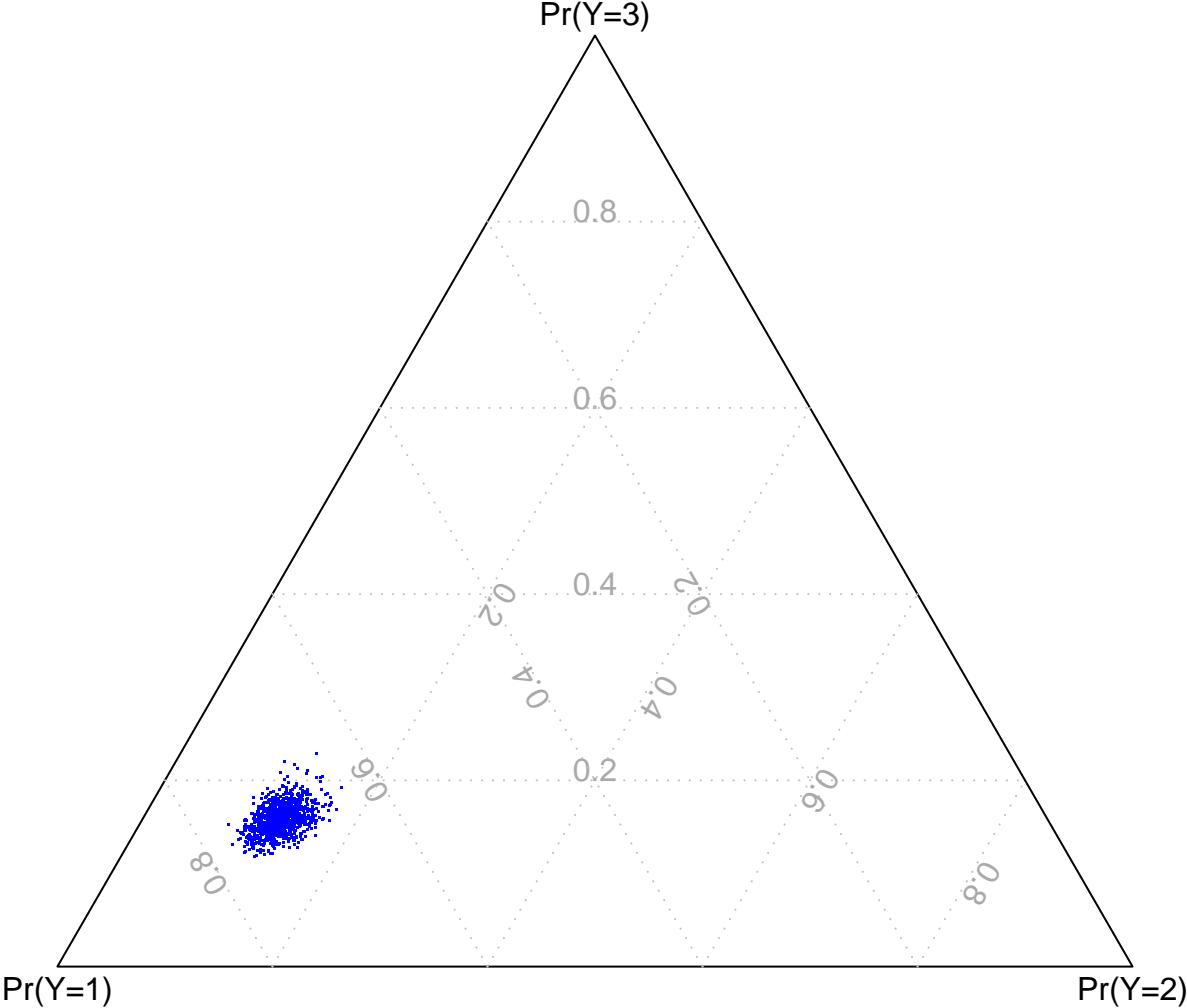
**Expected Values:  $E(Y|X)$**



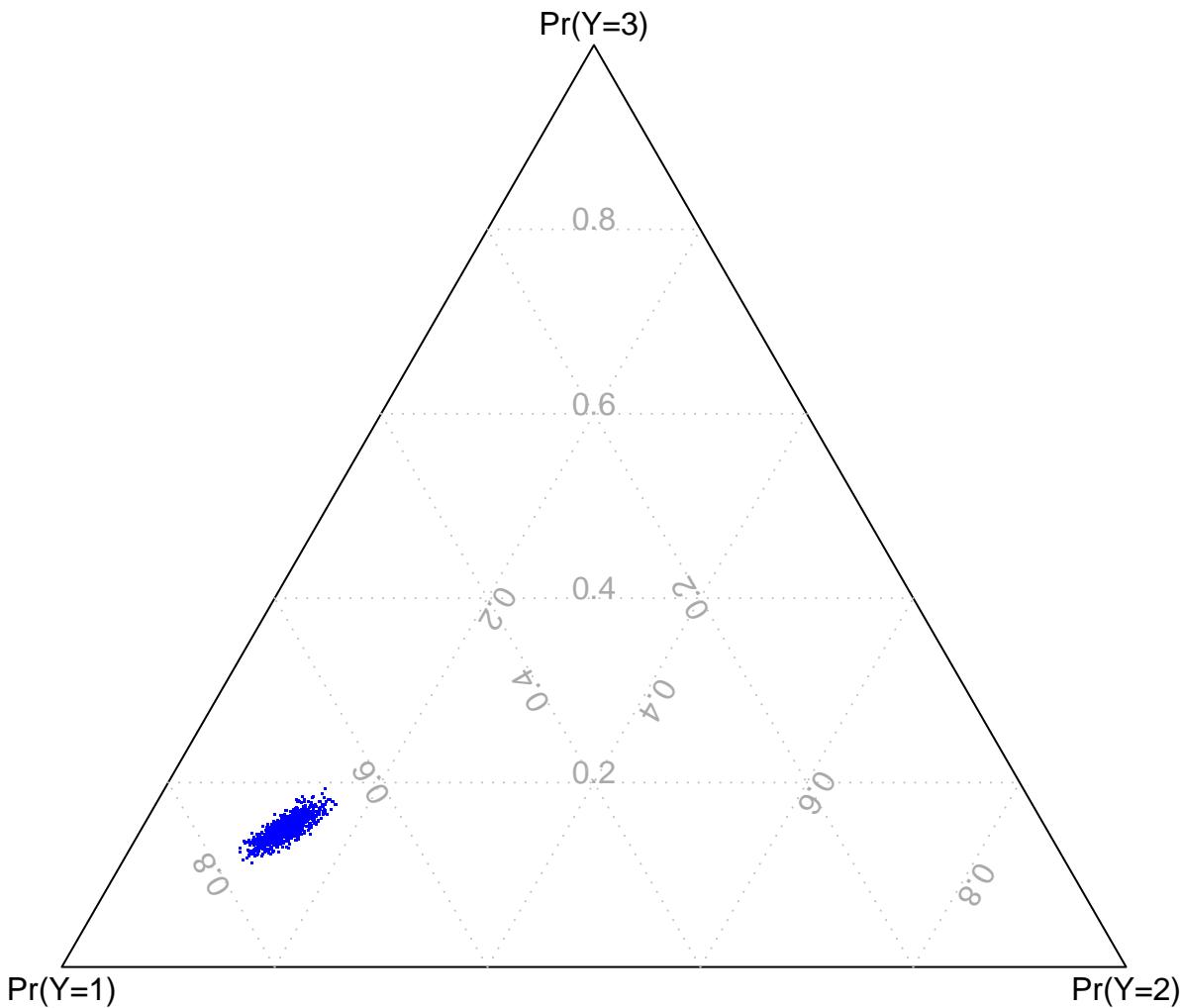
**First Differences in Expected Values:  $E(Y|X1)$  - first Differences in Expected Values:  $E(Y|X1)$**



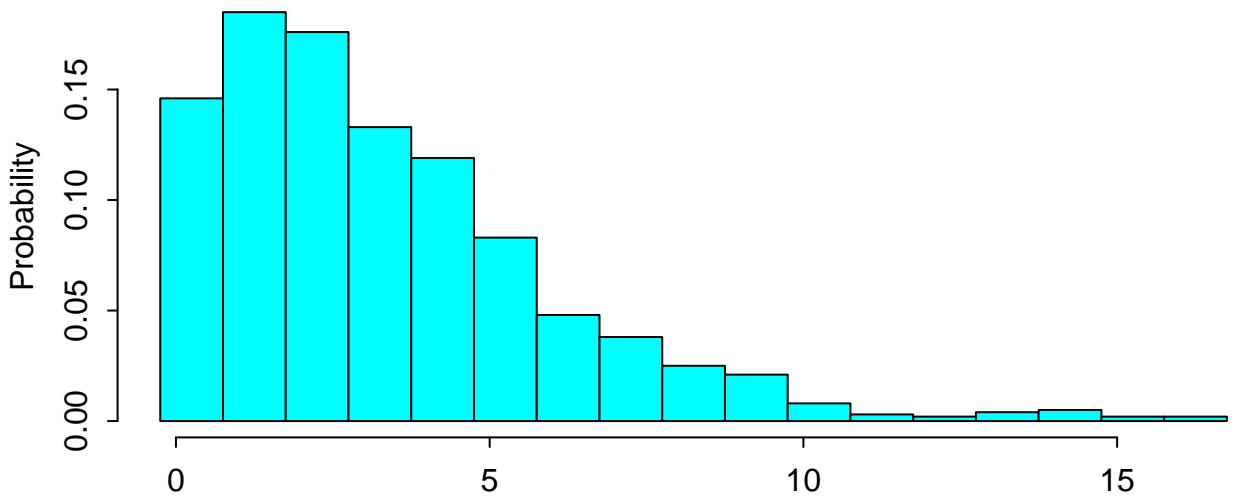
# 1988 Mexican Presidential Election



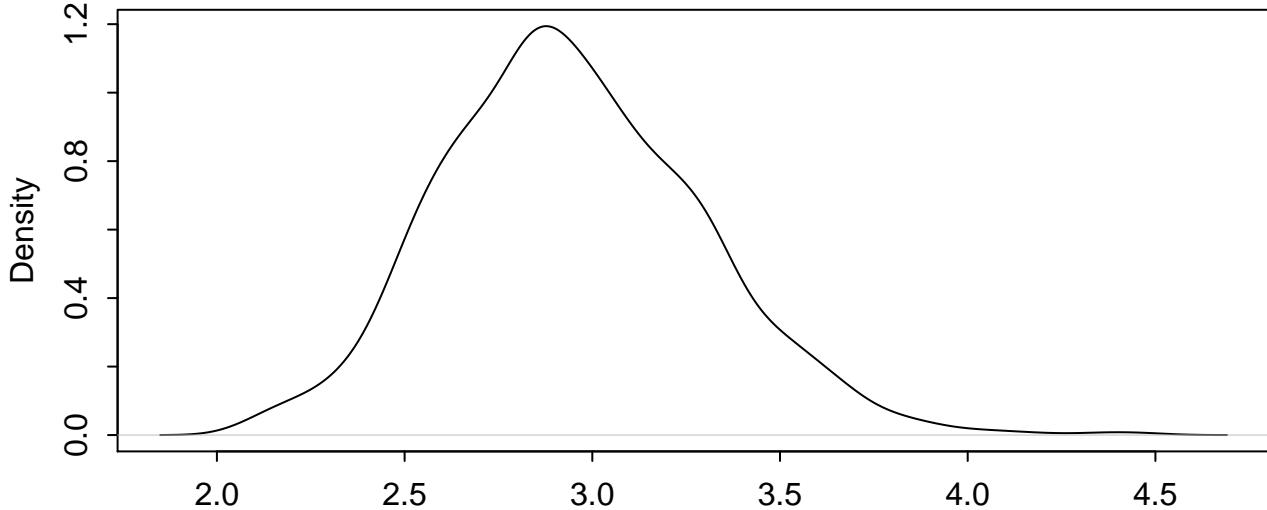
# 1988 Mexican Presidential Election

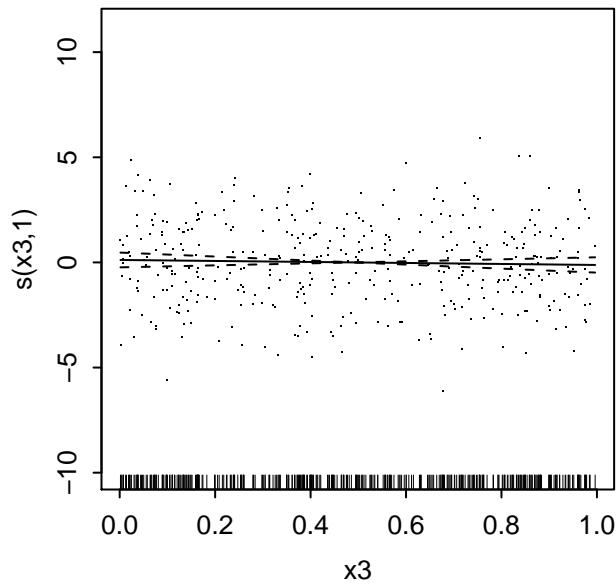
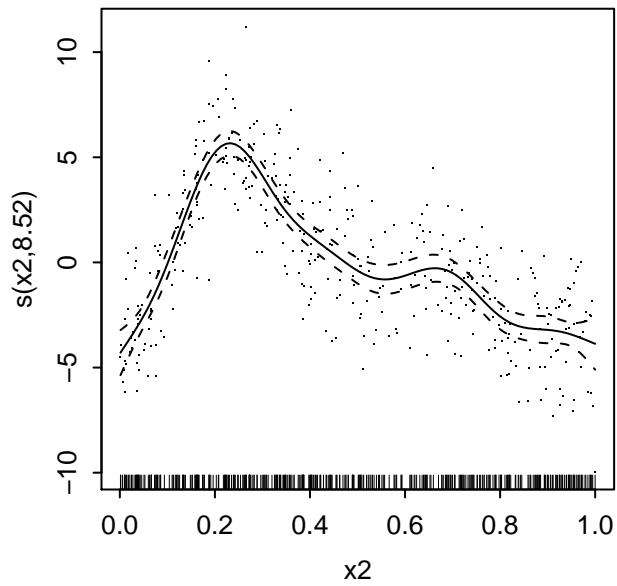
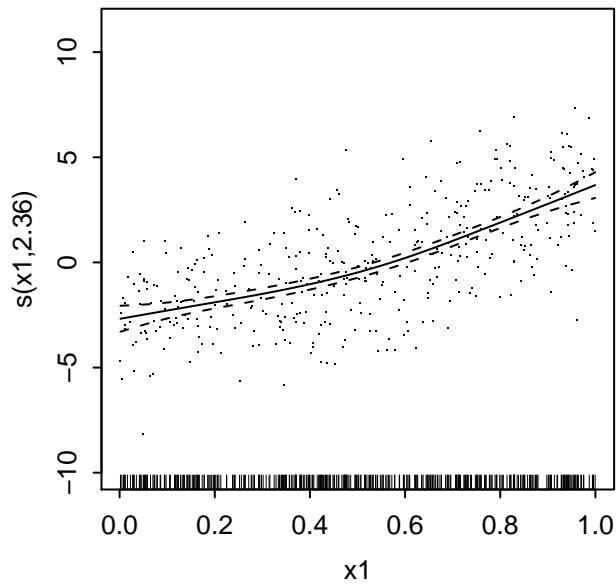
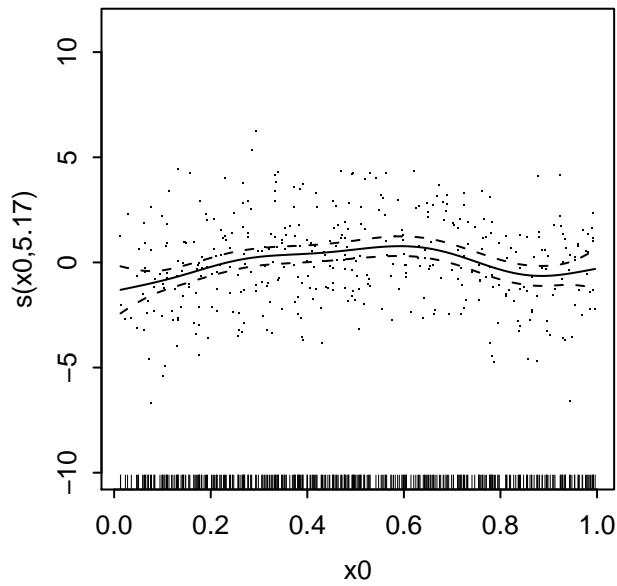


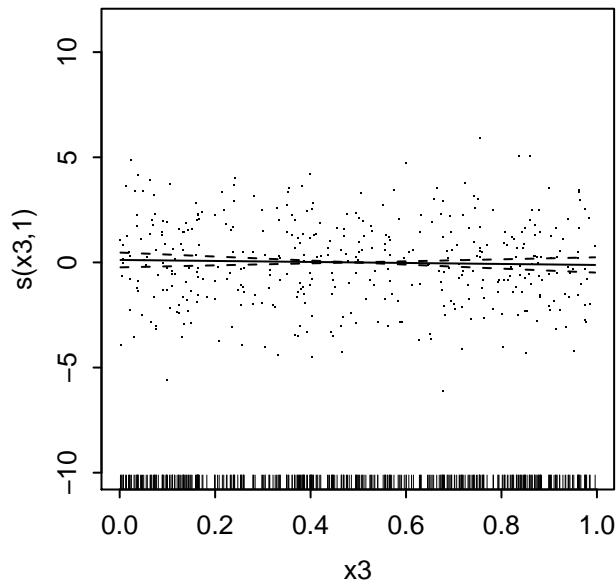
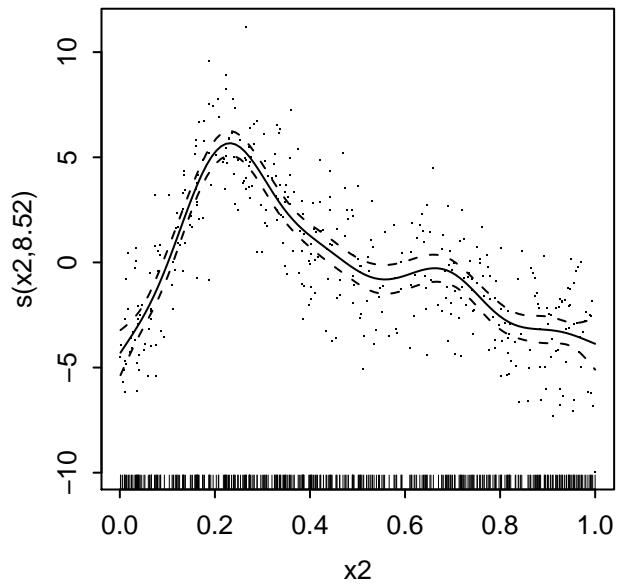
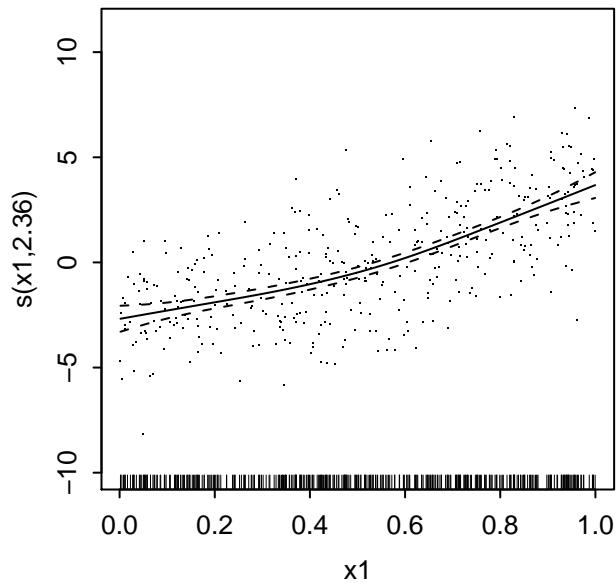
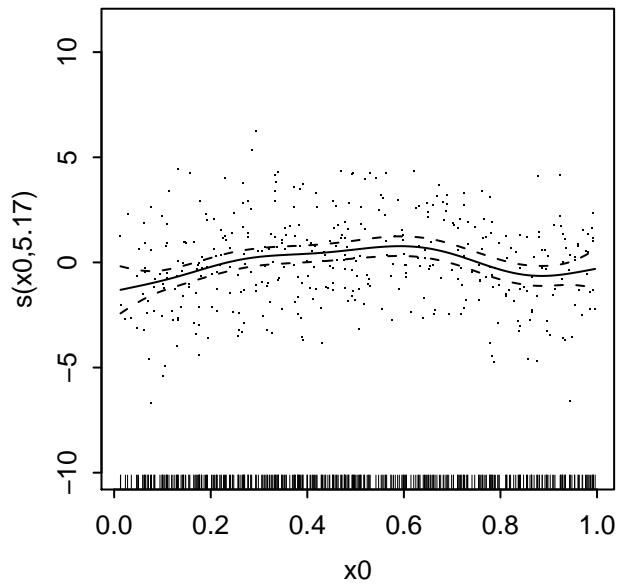
**Predicted Values:  $Y|X$**

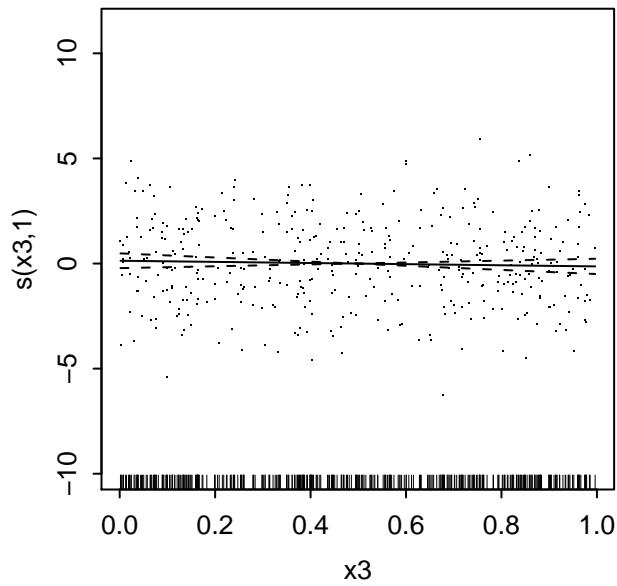
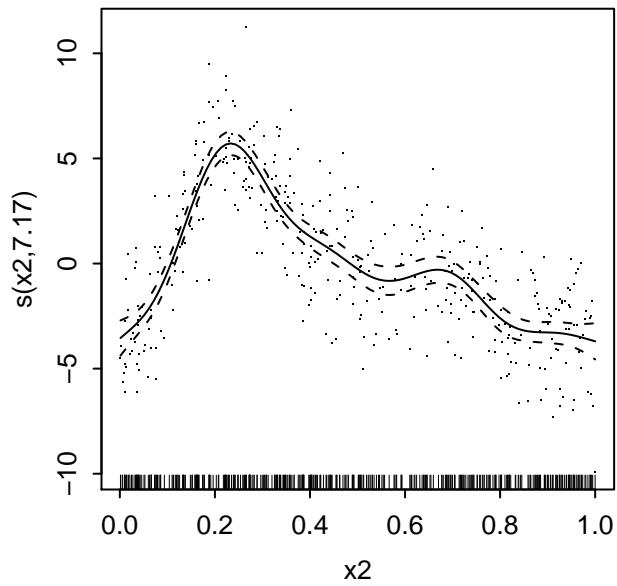
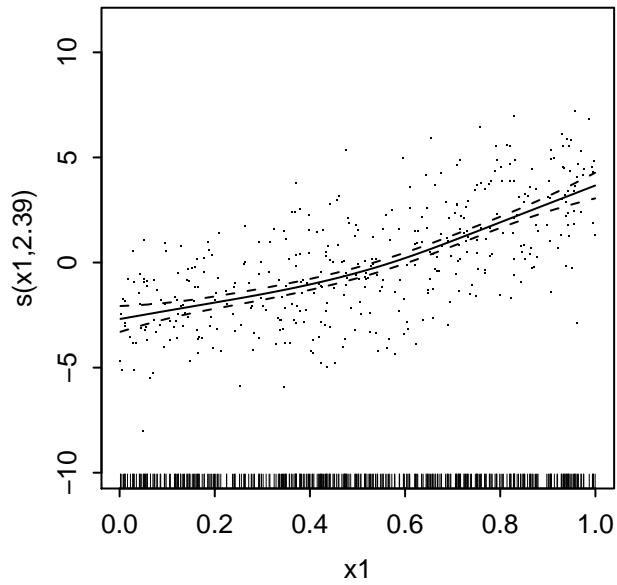
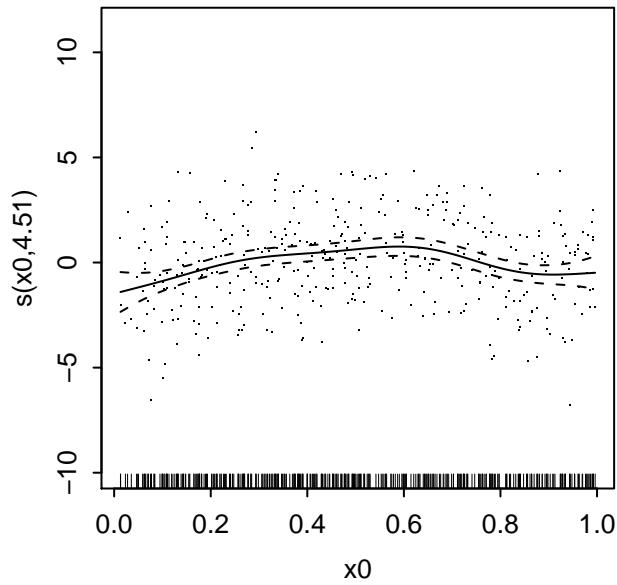


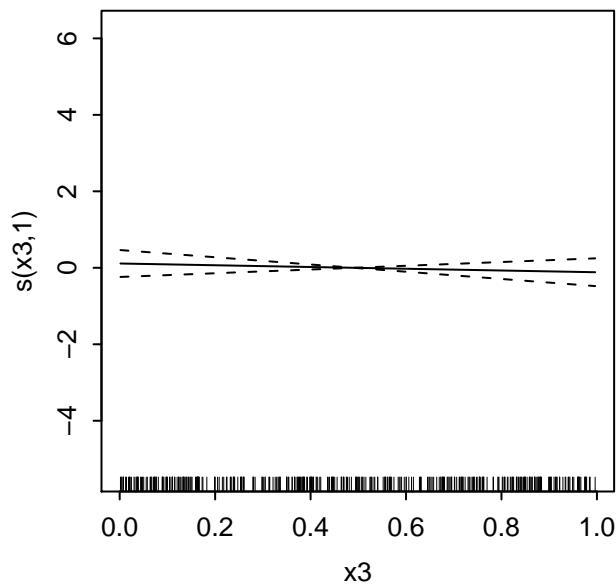
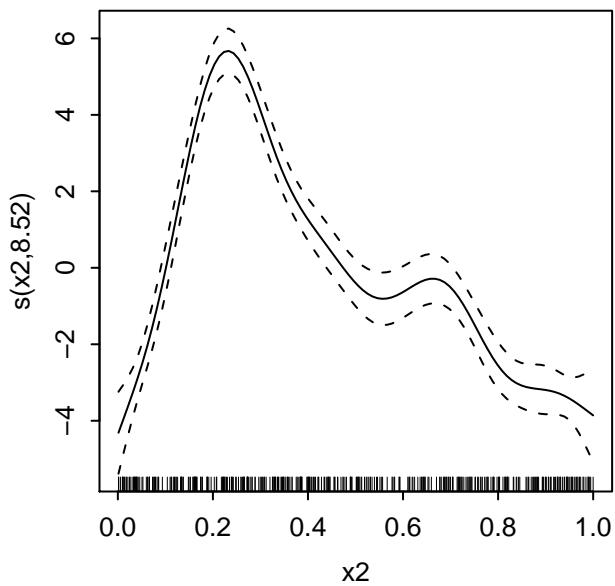
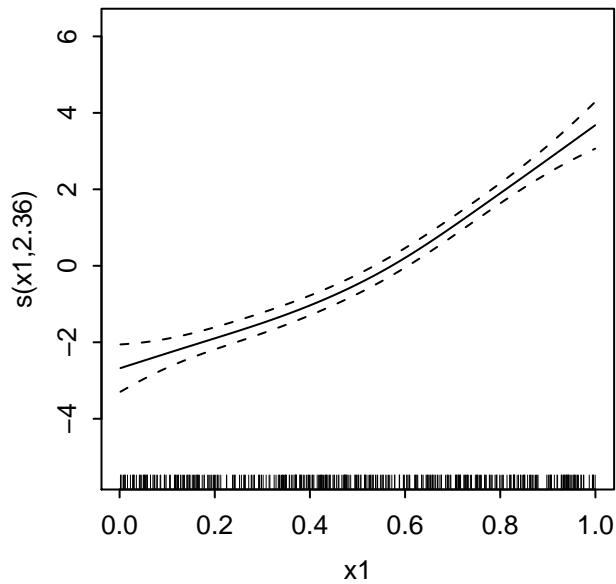
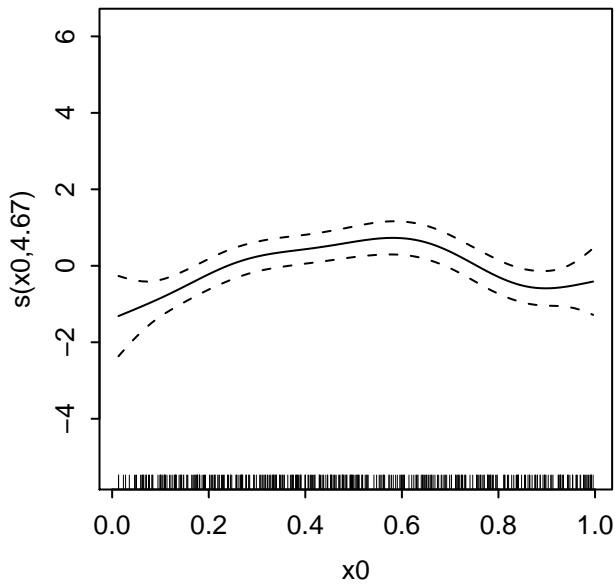
**Expected Values:  $E(Y|X)$**

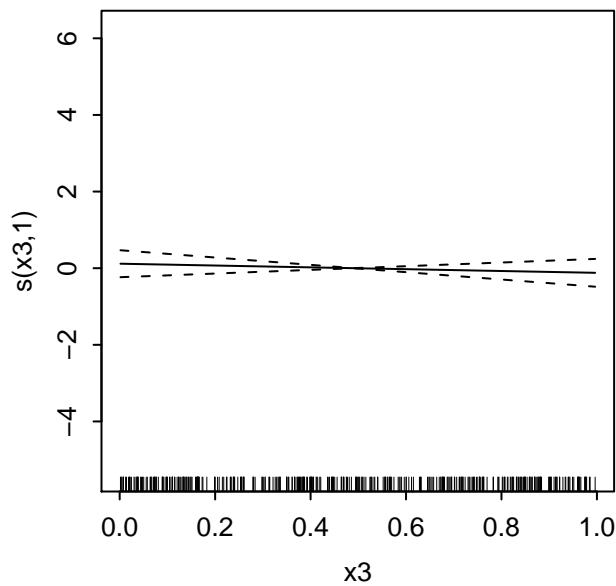
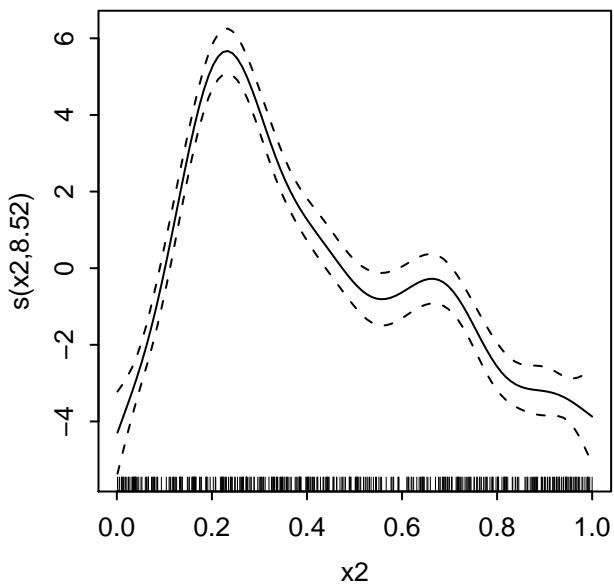
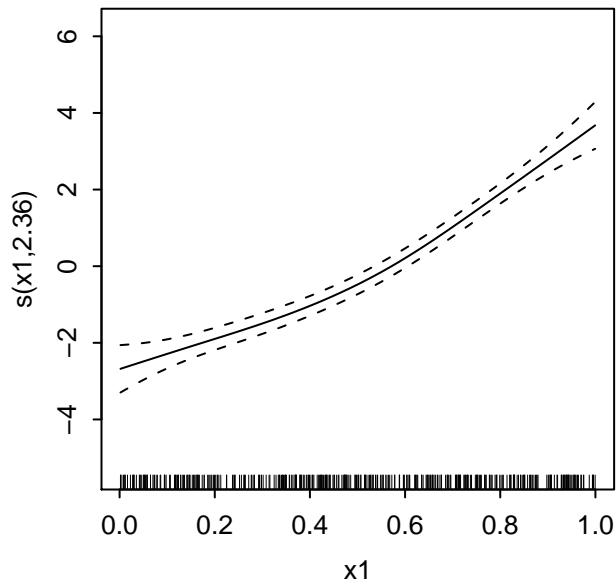
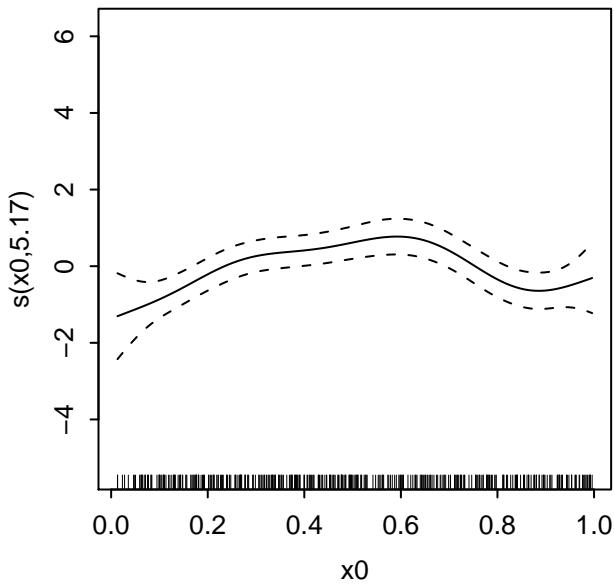


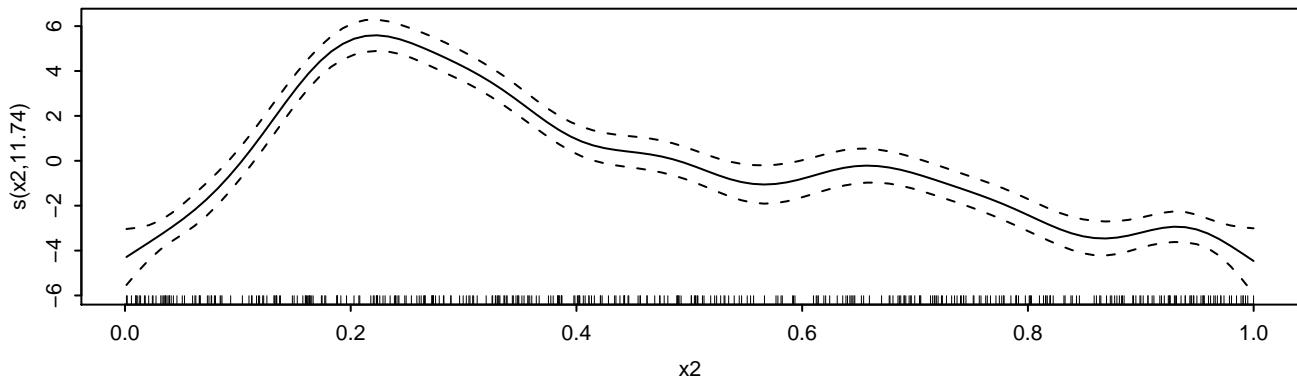
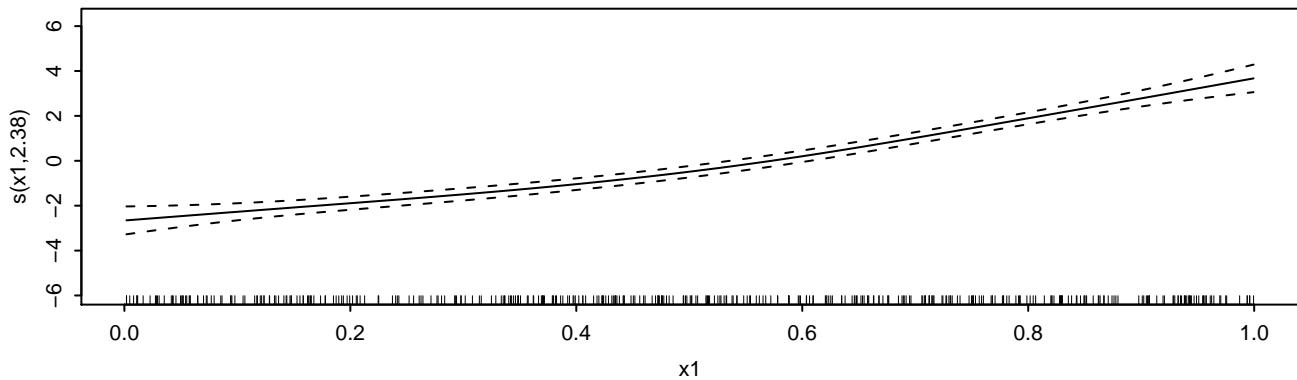
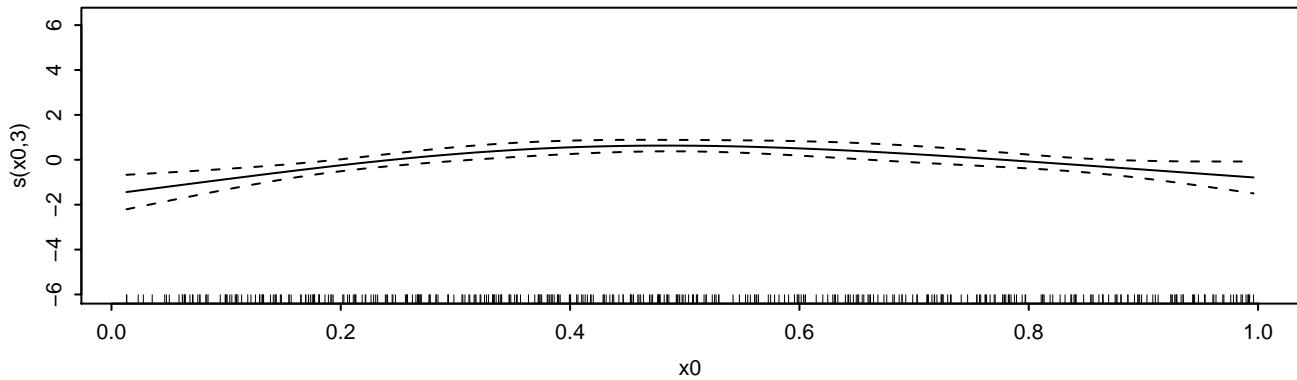




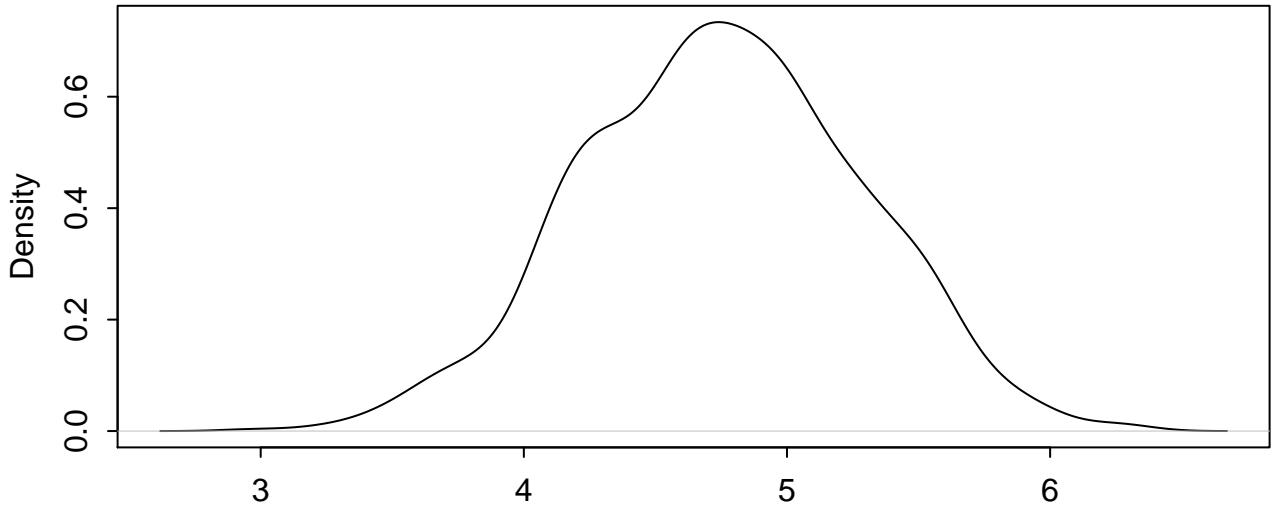




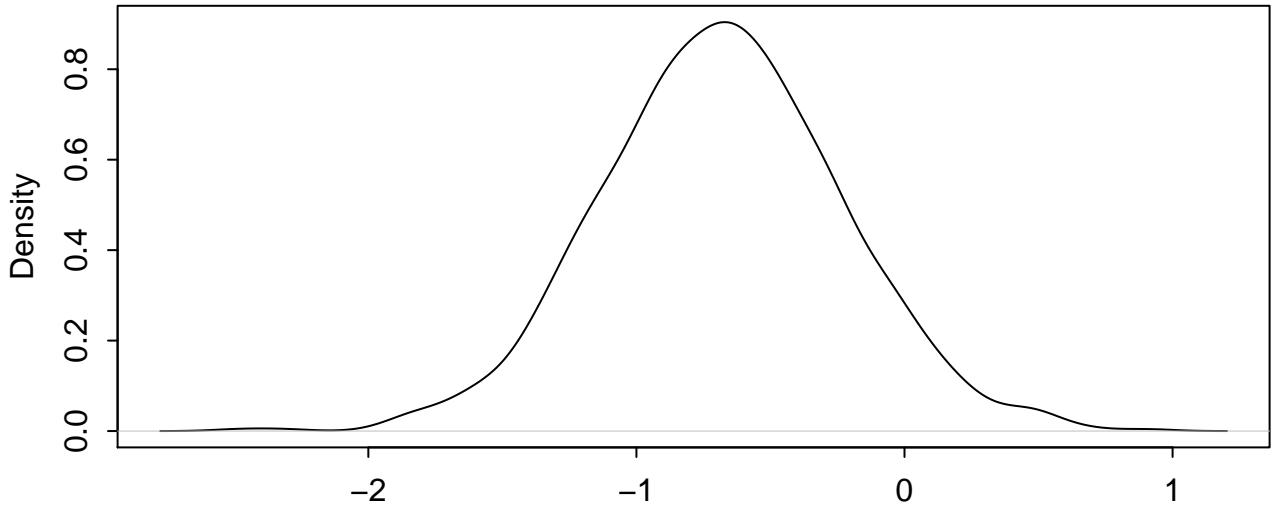




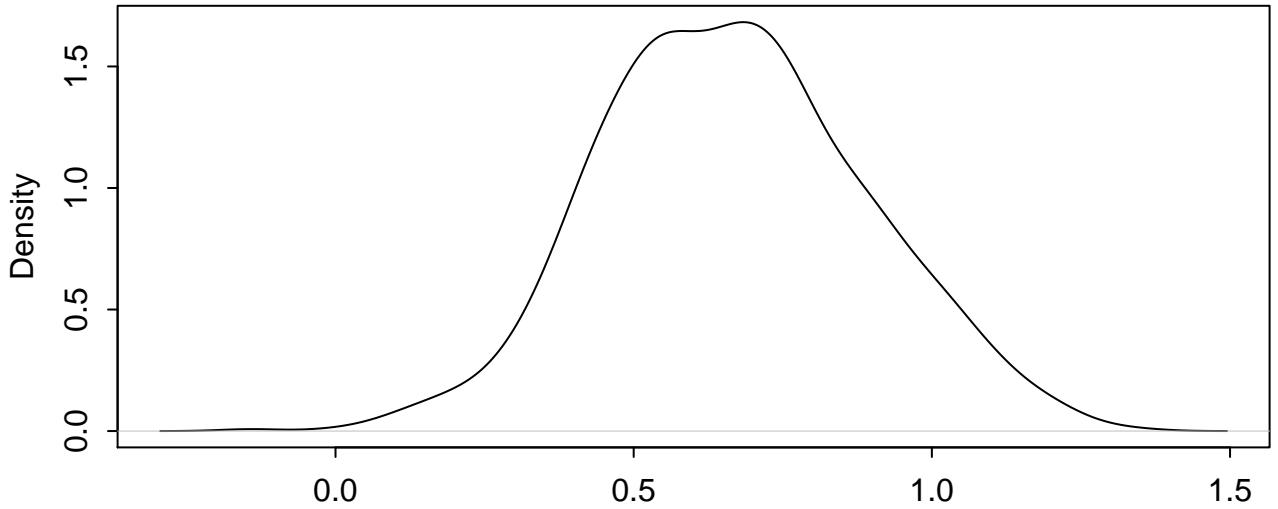
**Expected Values:  $E(Y|X)$**



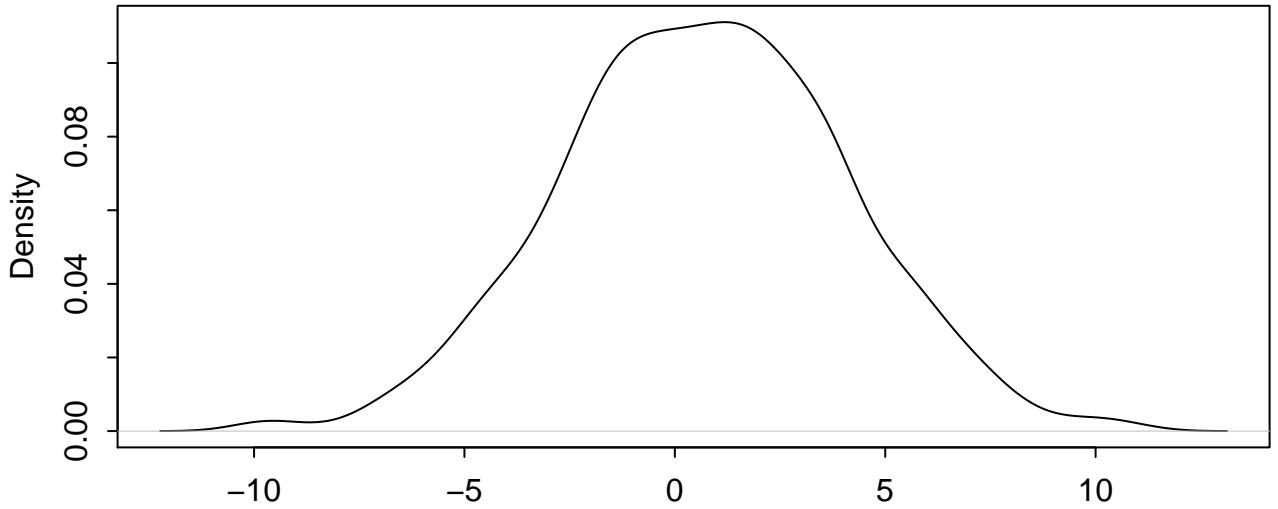
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



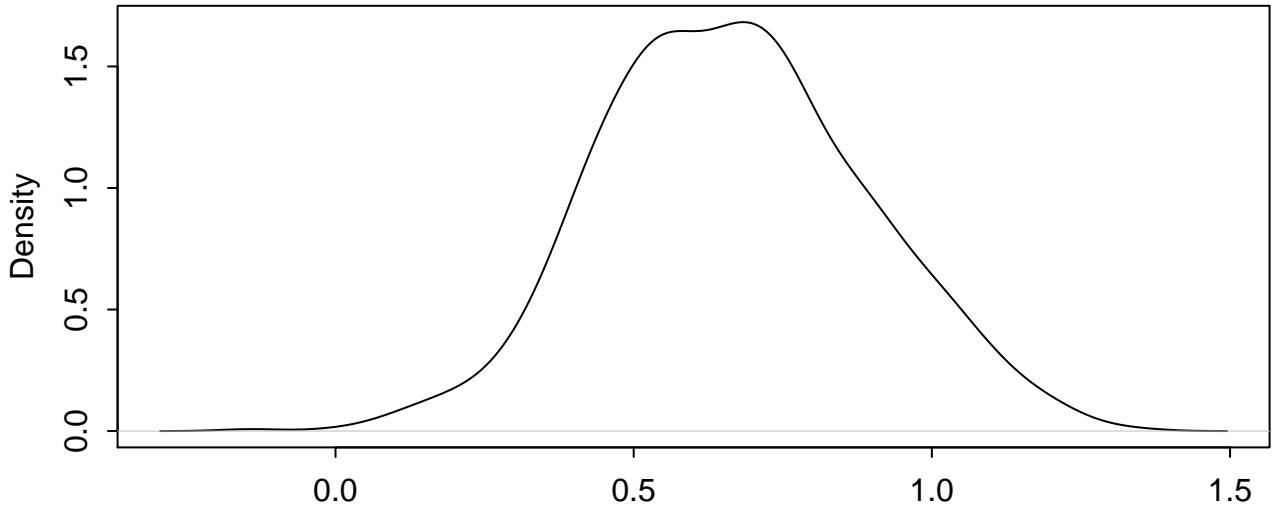
**Expected Values:  $E(Y|X)$**



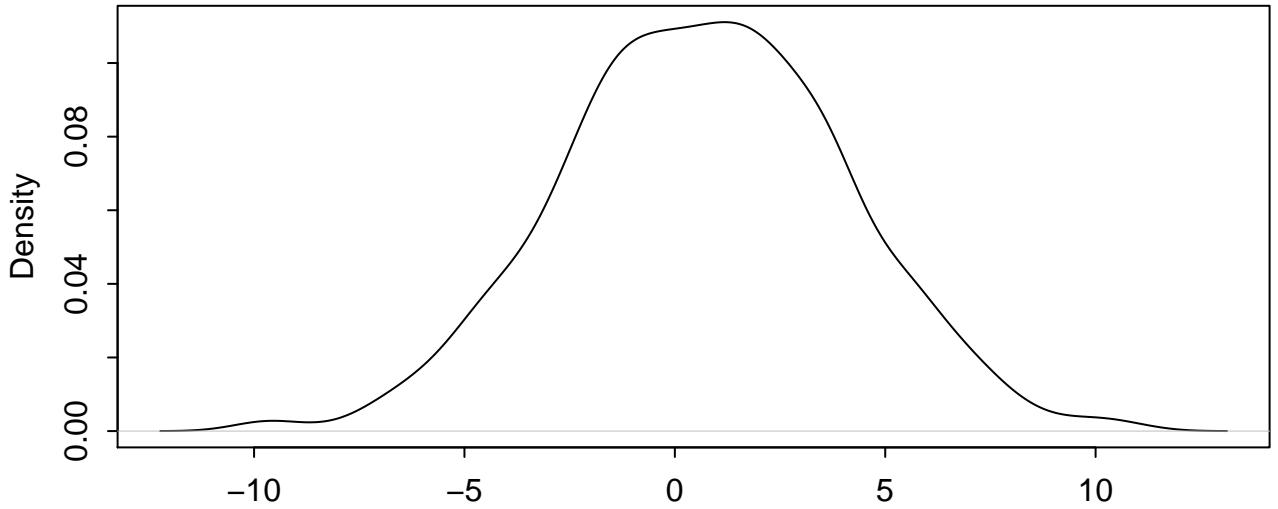
**Predicted Values:  $Y|X$**



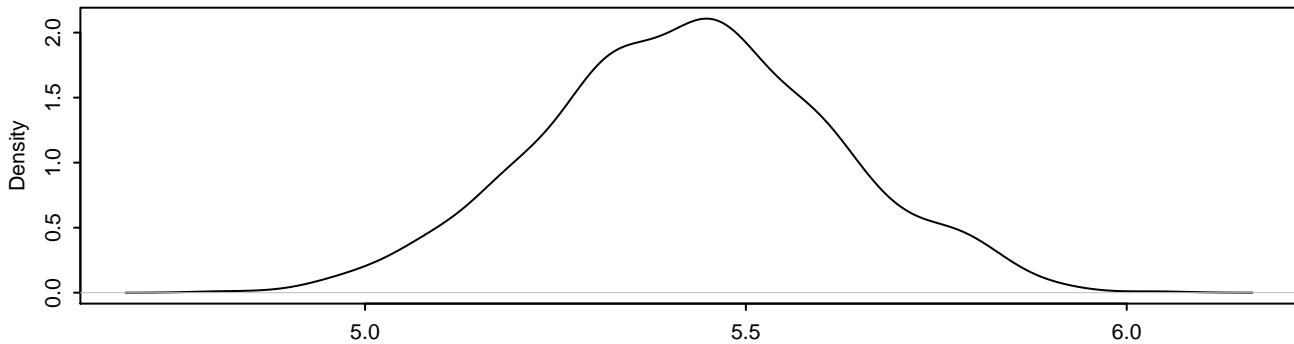
**Expected Values:  $E(Y|X)$**



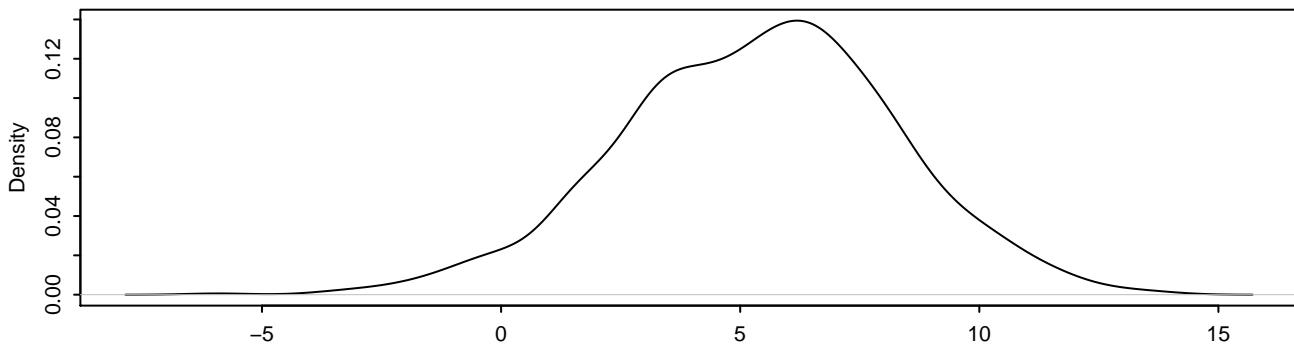
**Predicted Values:  $Y|X$**



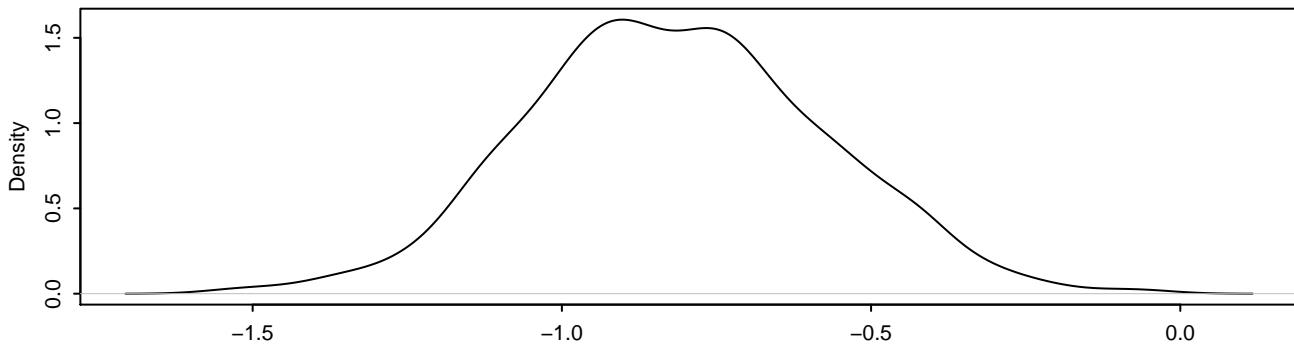
**Expected Values:  $E(Y|X)$**



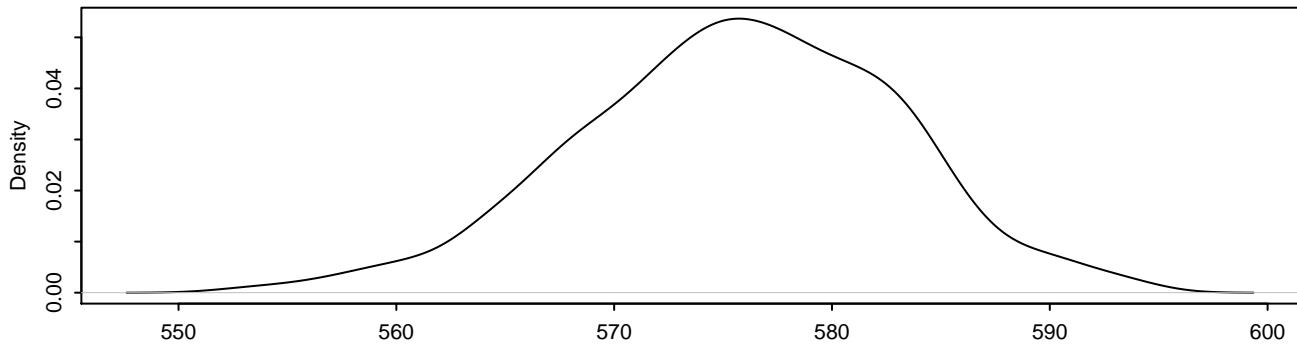
**Predicted Values:  $Y|X$**



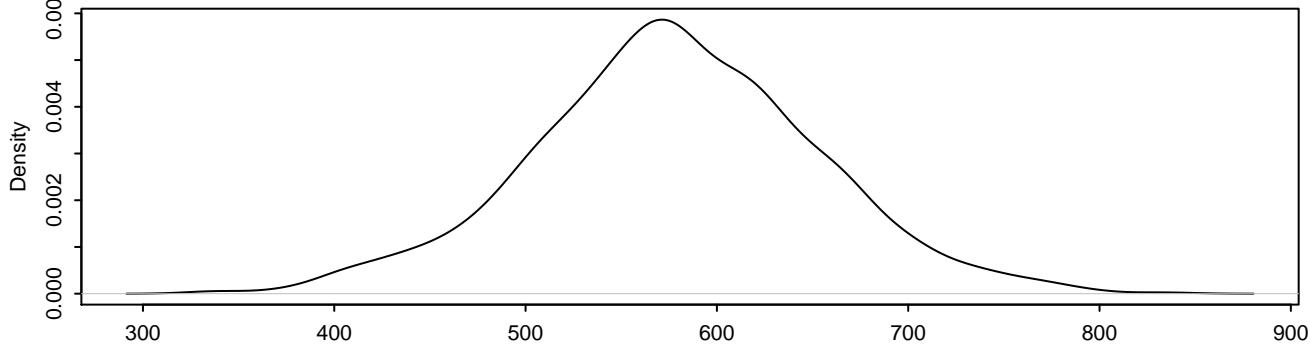
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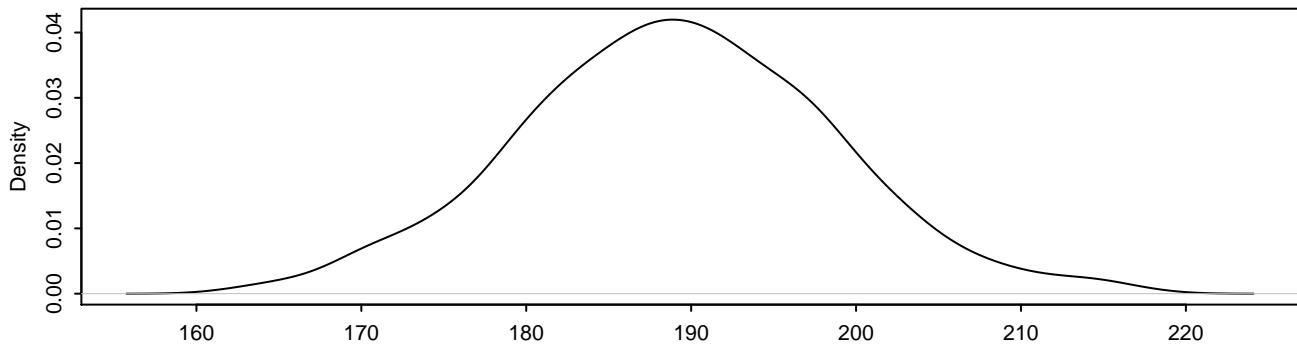
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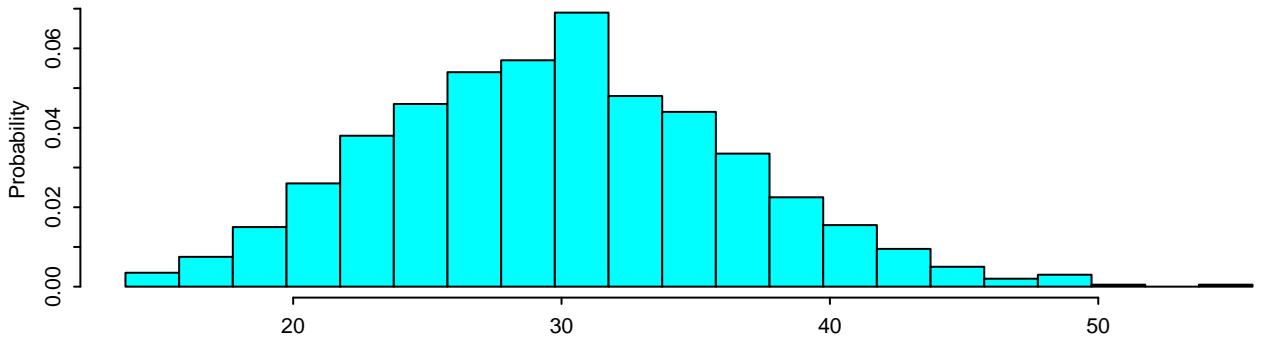
**Predicted Values:  $Y|X$**



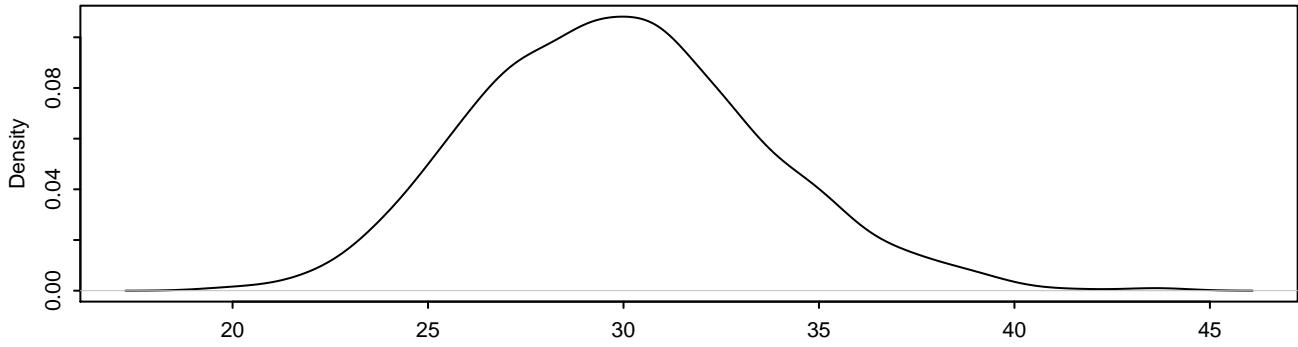
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



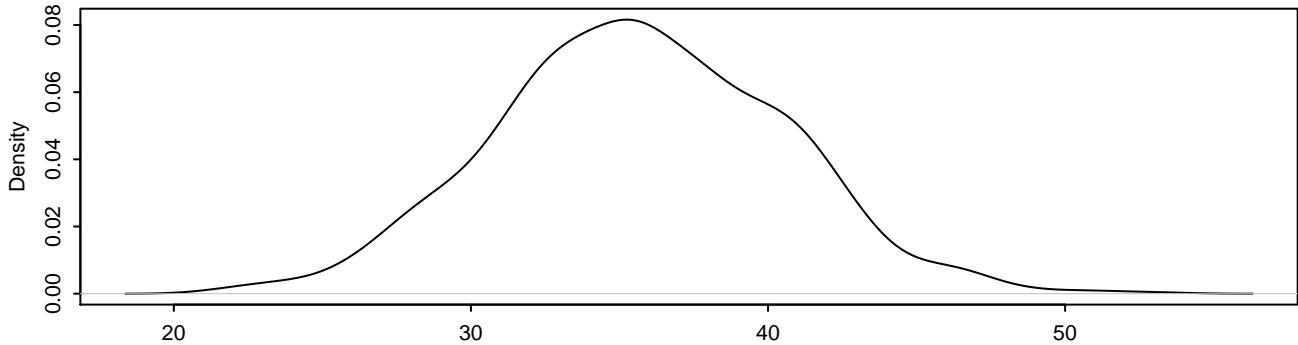
**Predicted Values:  $Y|X$**



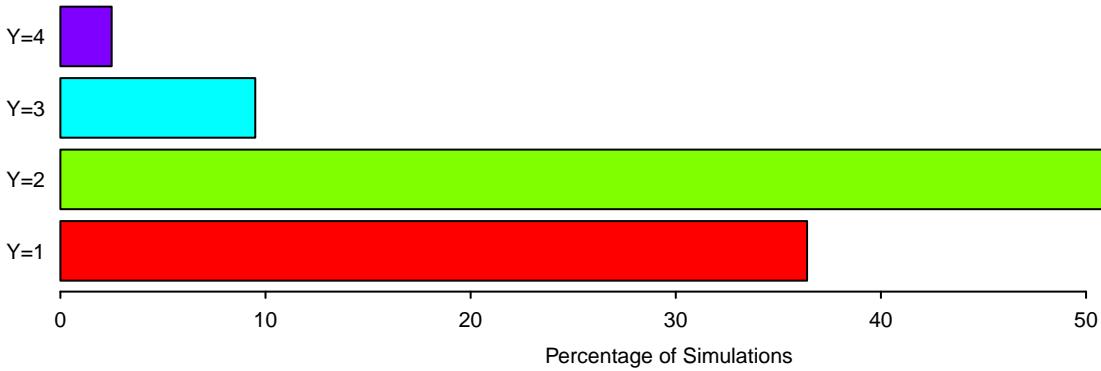
**Expected Values:  $E(Y|X)$**



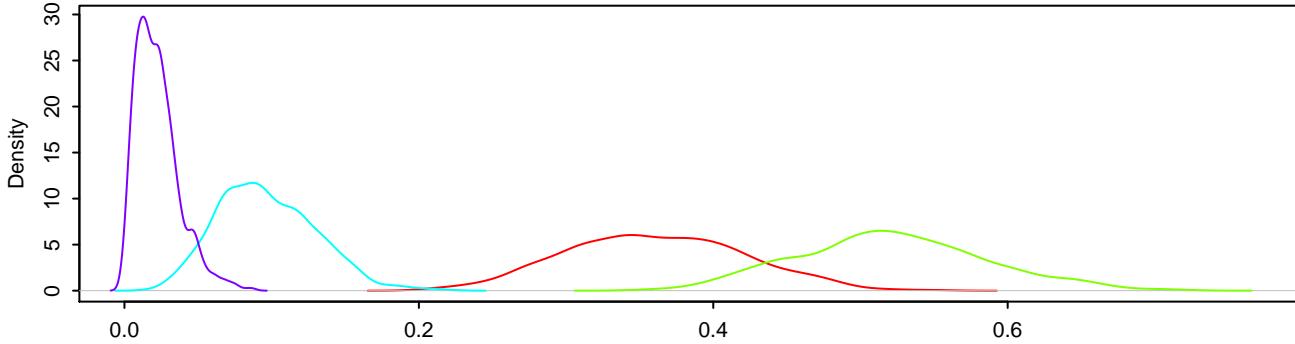
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



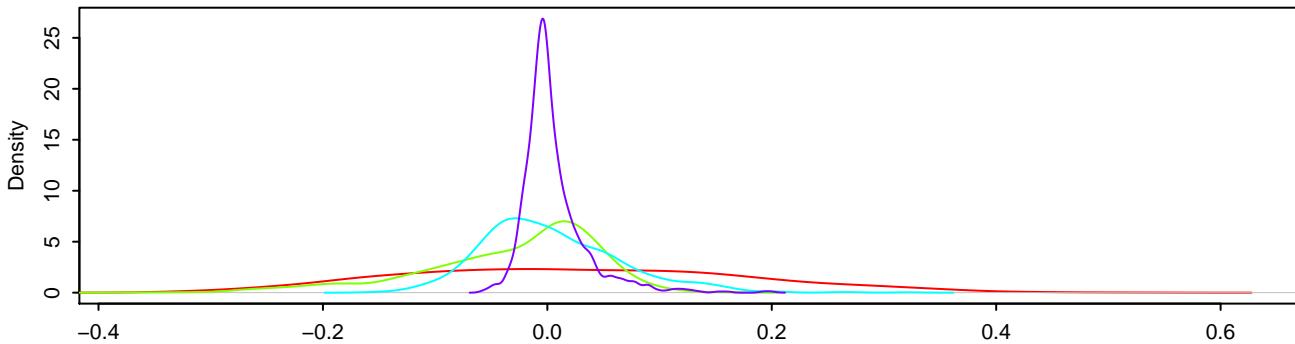
### Predicted Values: $Y|X$

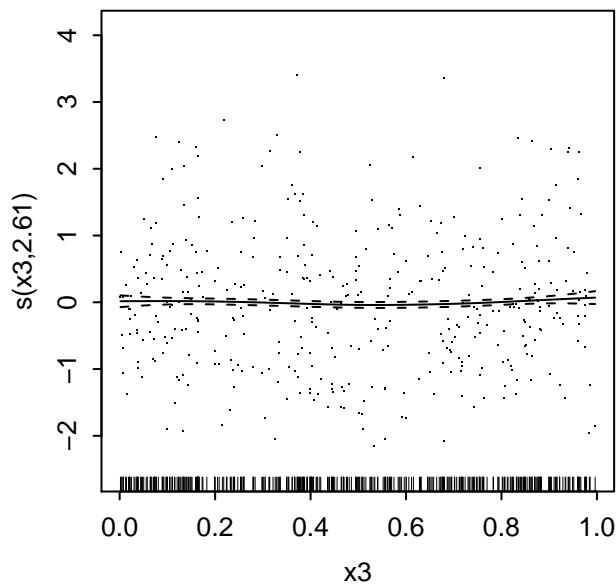
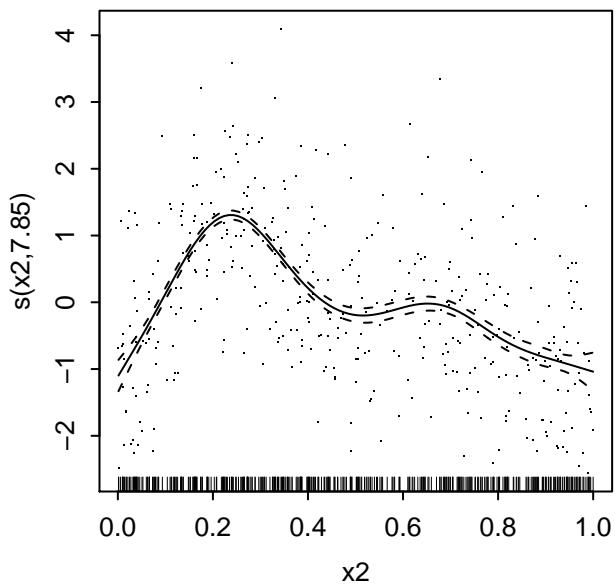
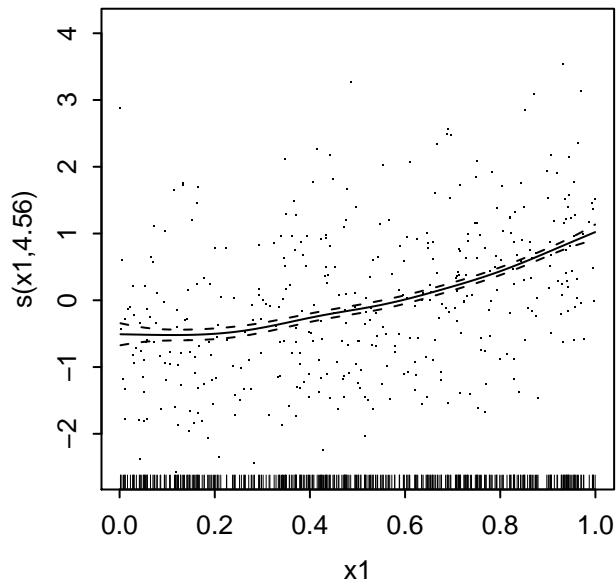
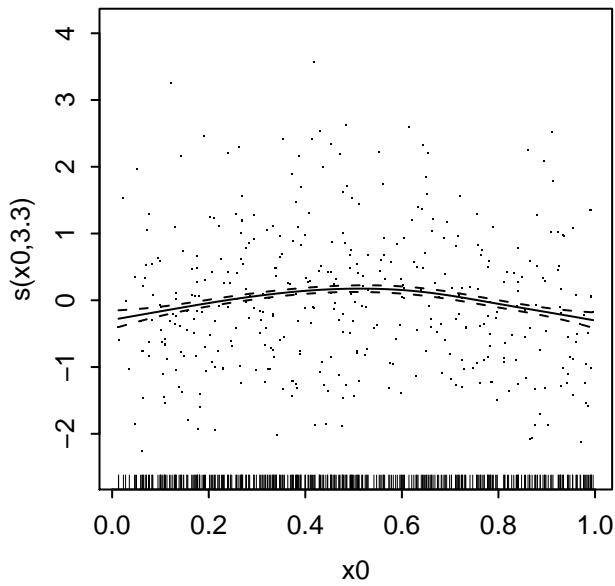


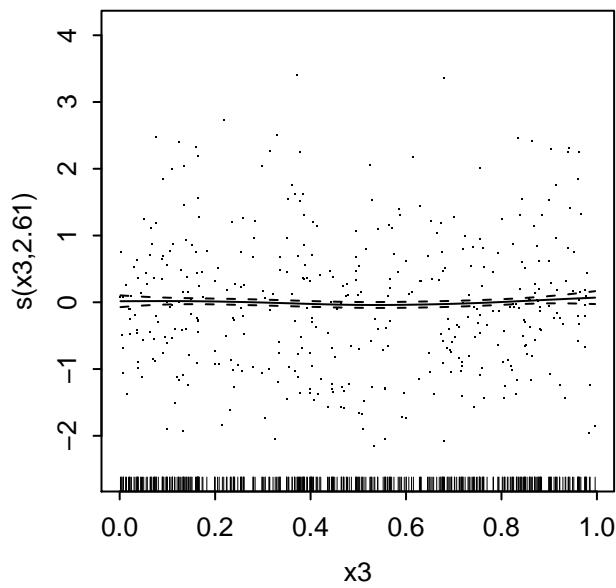
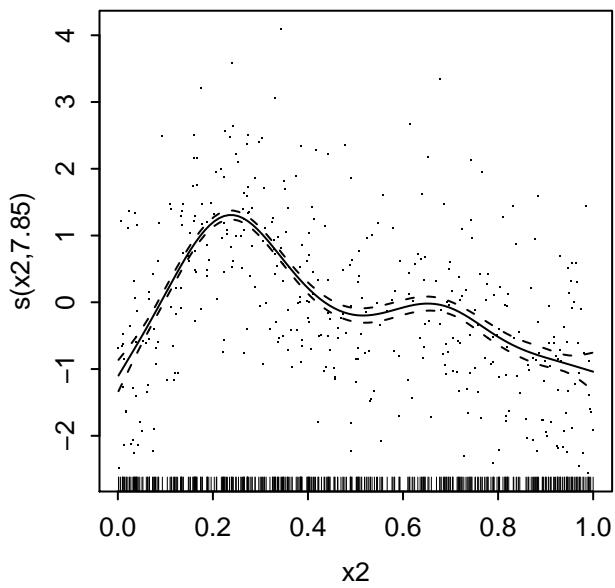
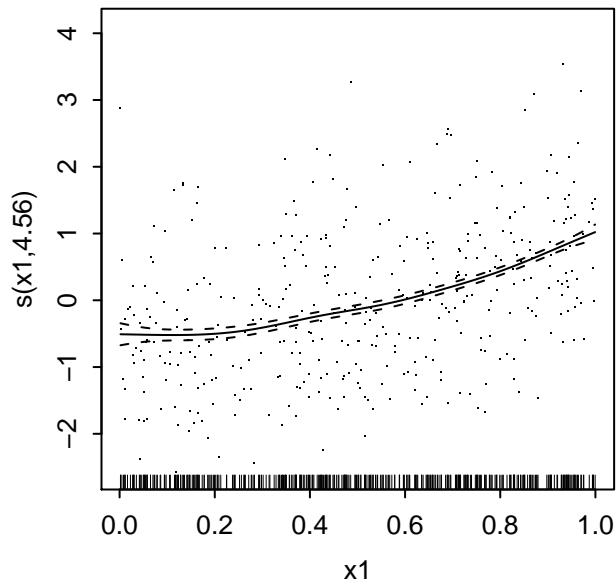
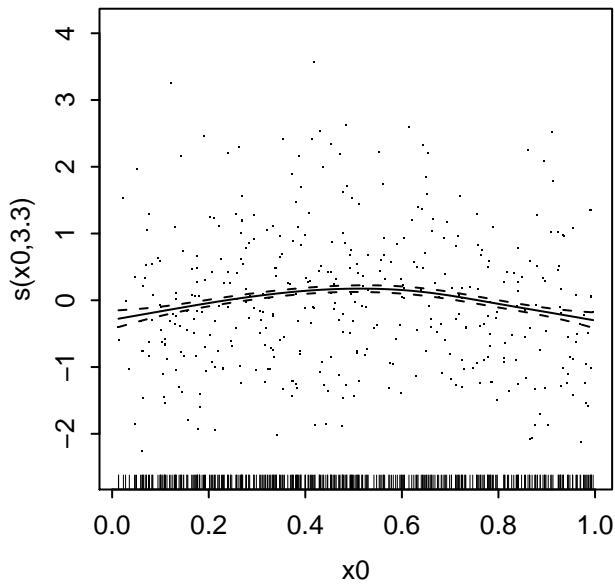
### Expected Values: $P(Y=j|X)$



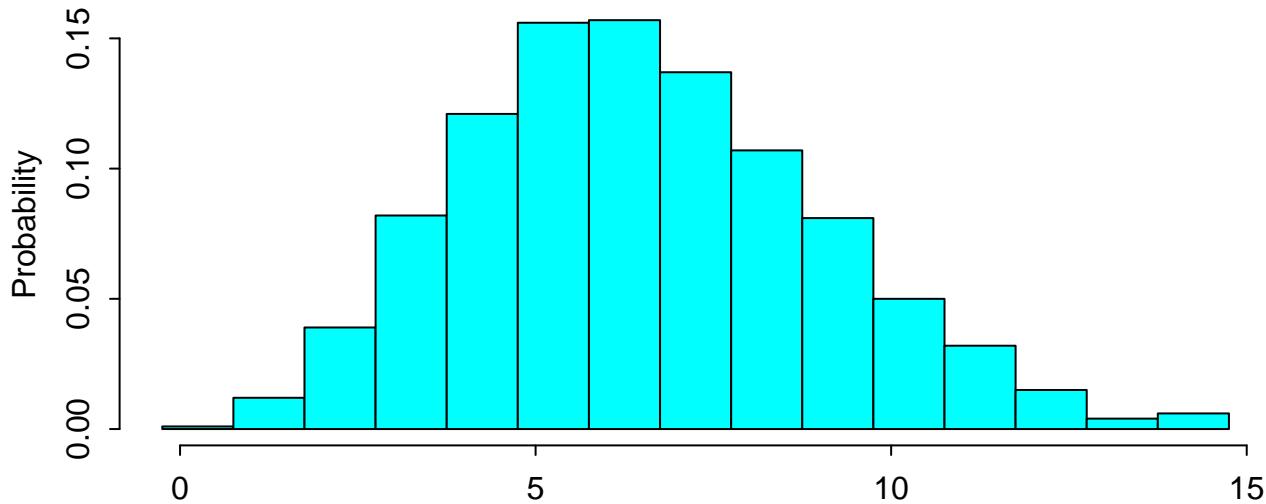
### First Differences: $P(Y=j|X1) - P(Y=j|X)$



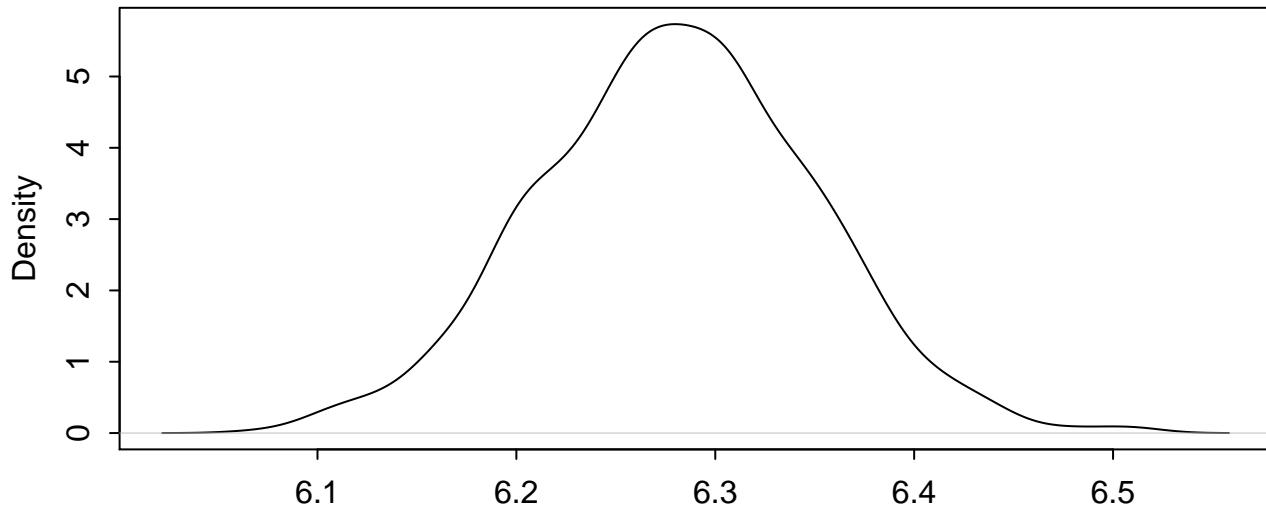




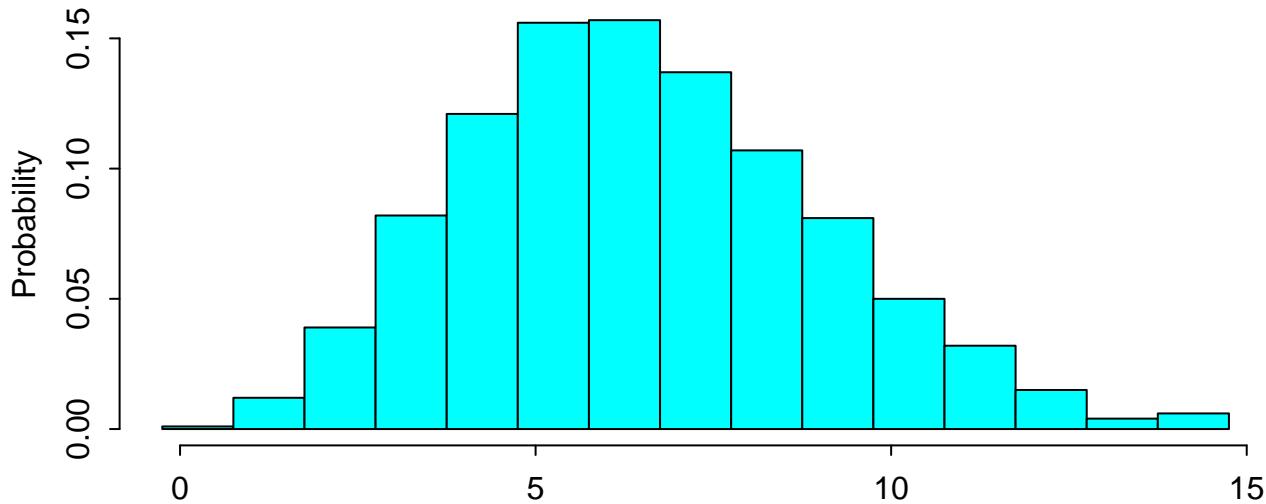
**Predicted Values:  $Y|X$**



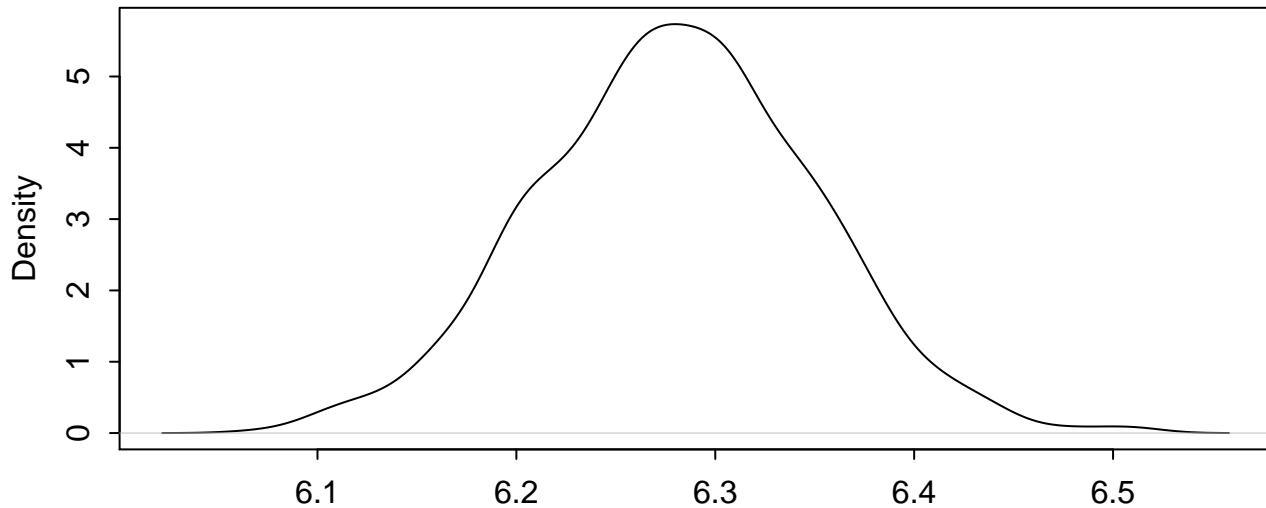
**Expected Values:  $E(Y|X)$**



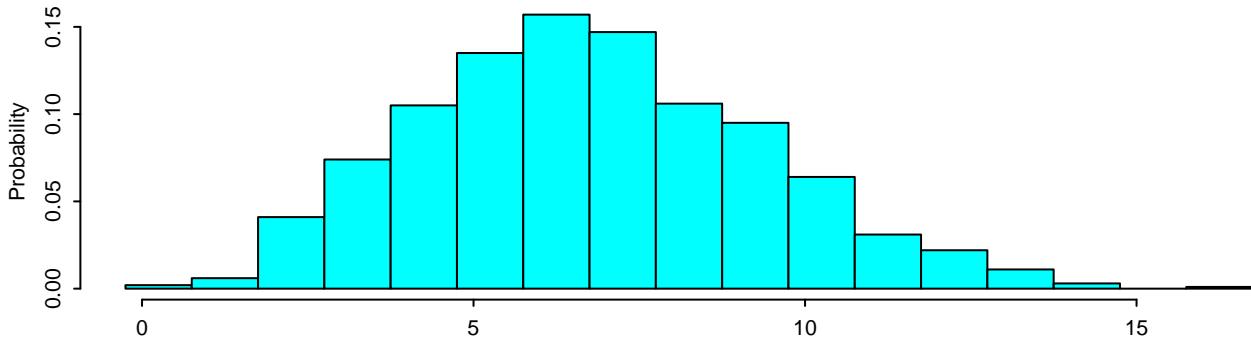
**Predicted Values:  $Y|X$**



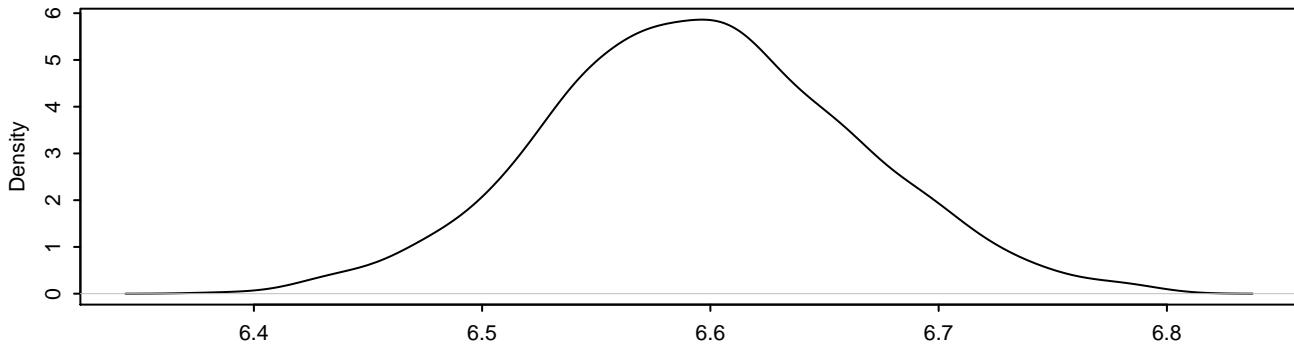
**Expected Values:  $E(Y|X)$**



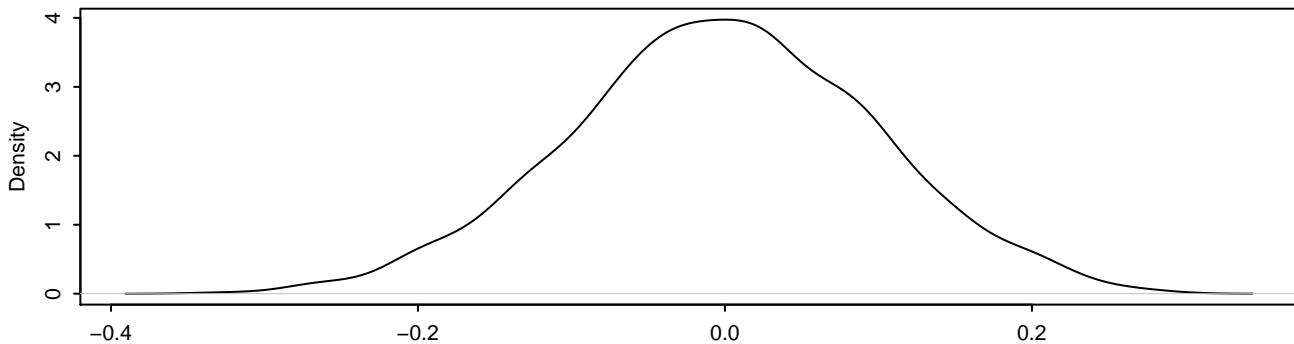
**Predicted Values:  $Y|X$**



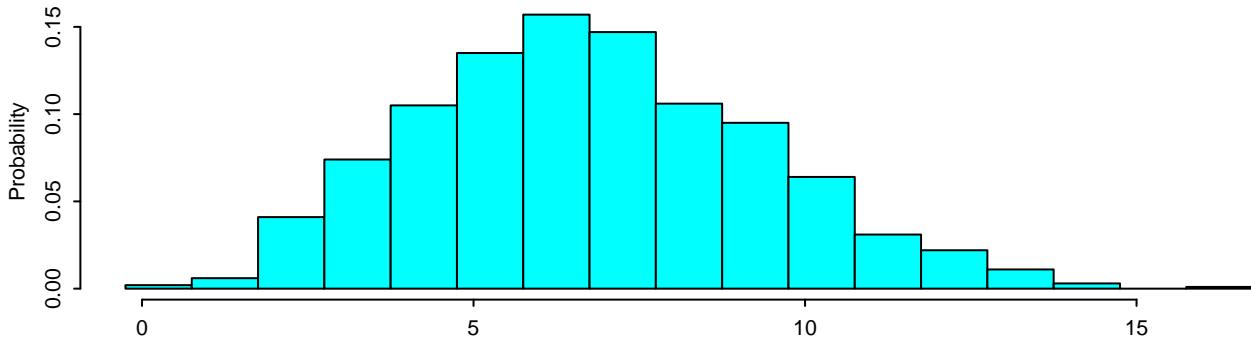
**Expected Values:  $E(Y|X)$**



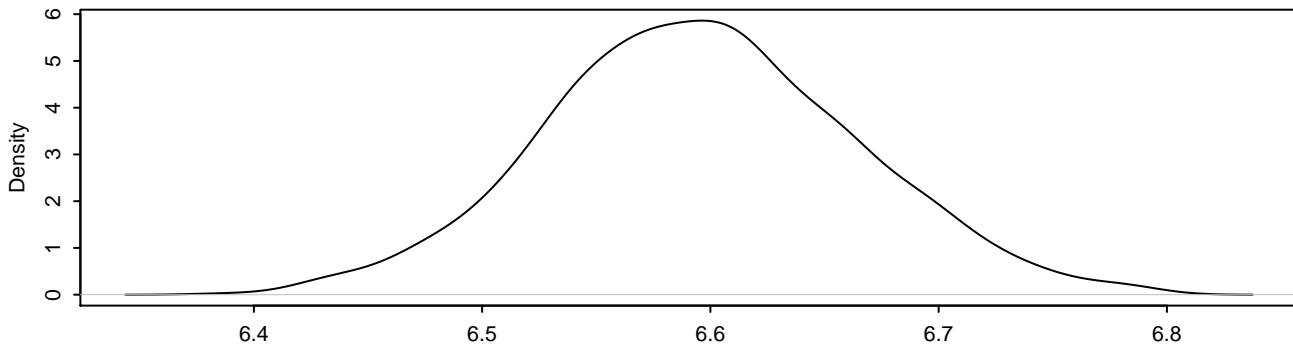
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



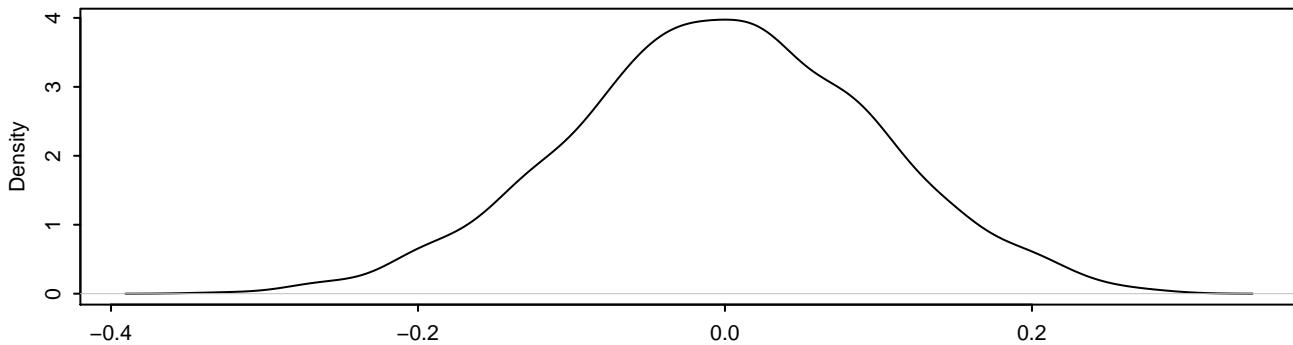
**Predicted Values:  $Y|X$**

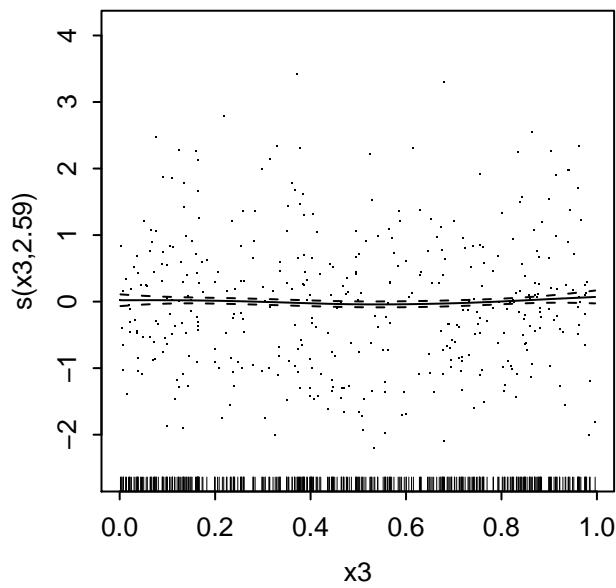
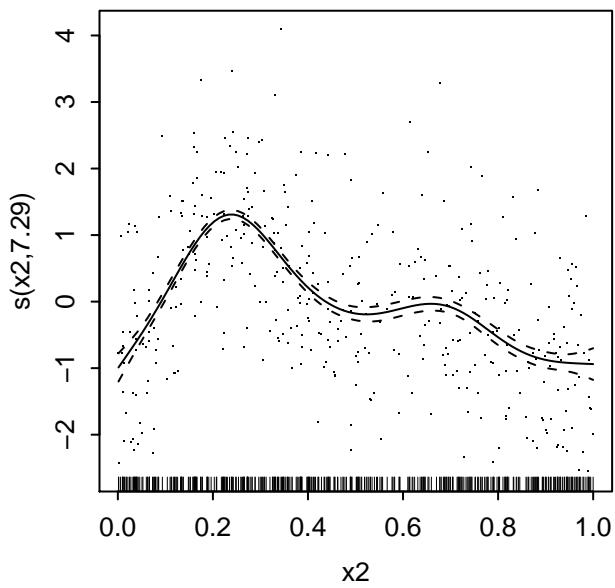
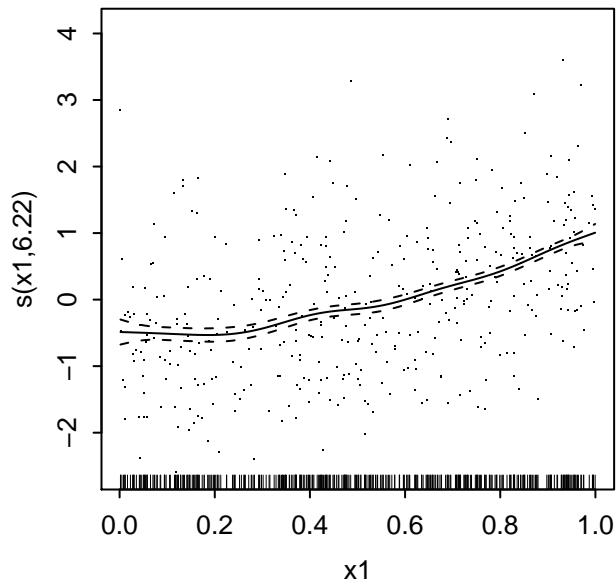
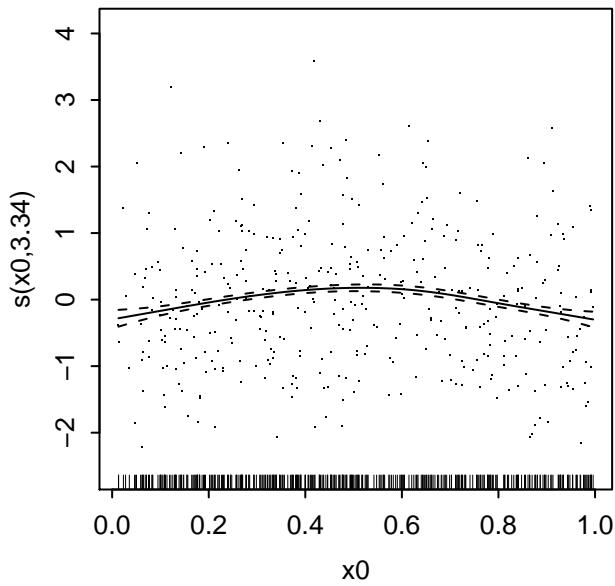


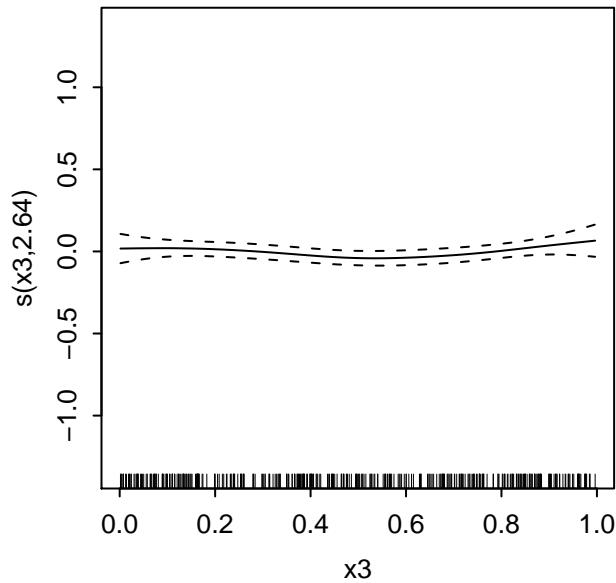
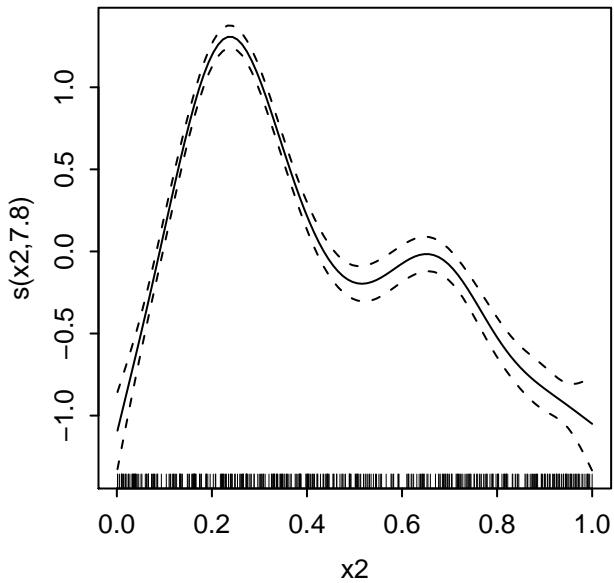
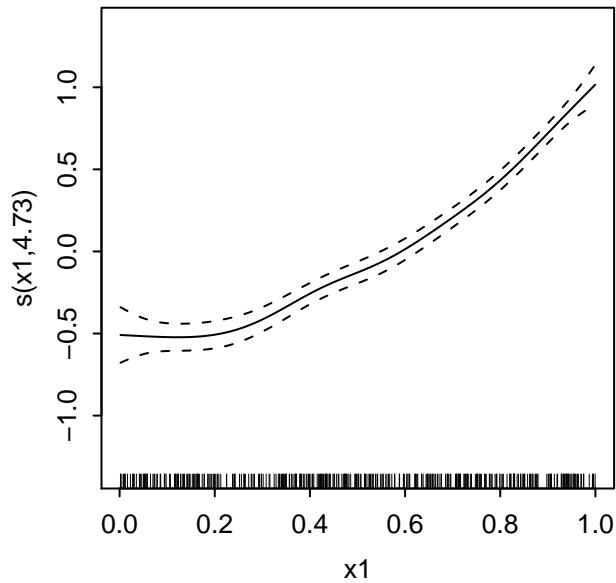
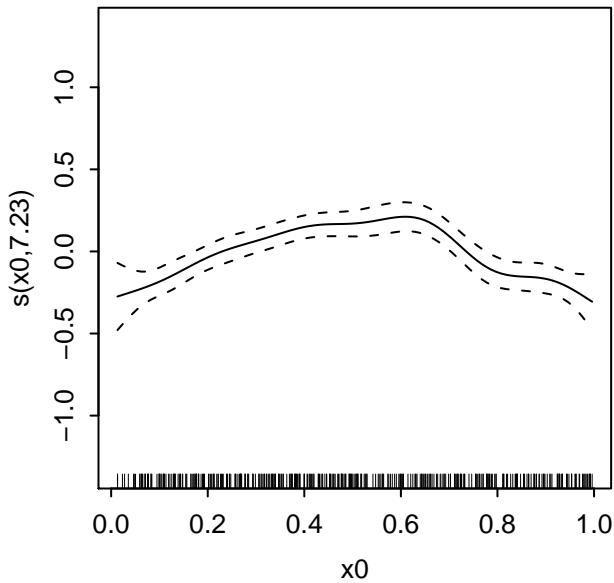
**Expected Values:  $E(Y|X)$**

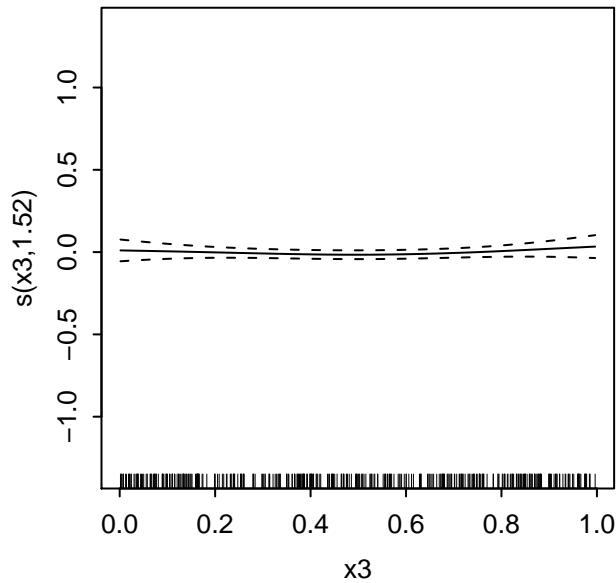
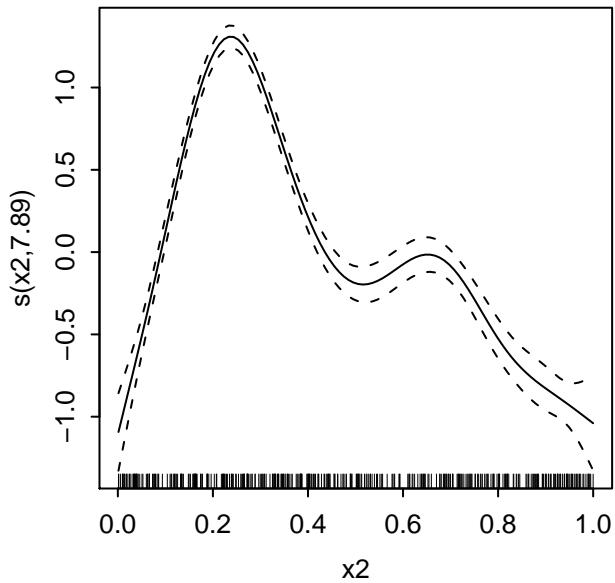
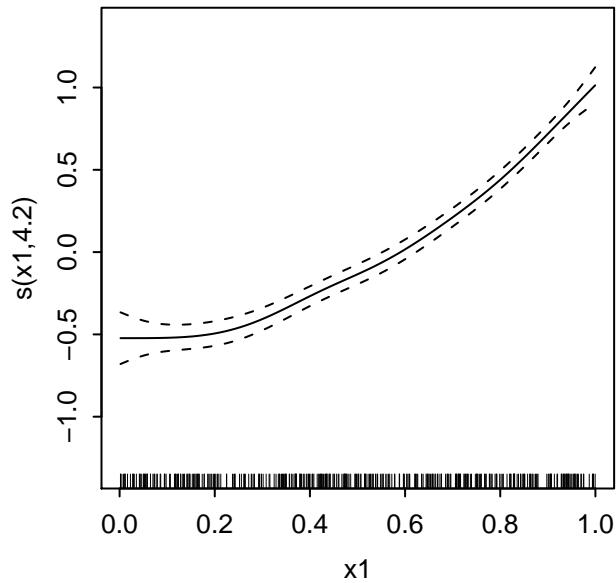
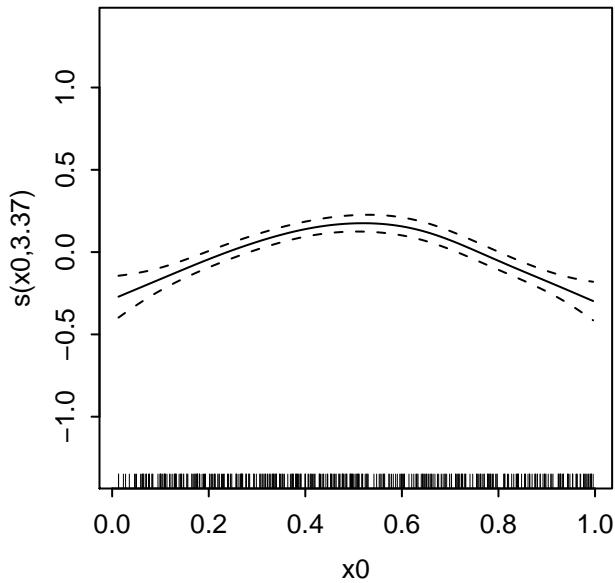


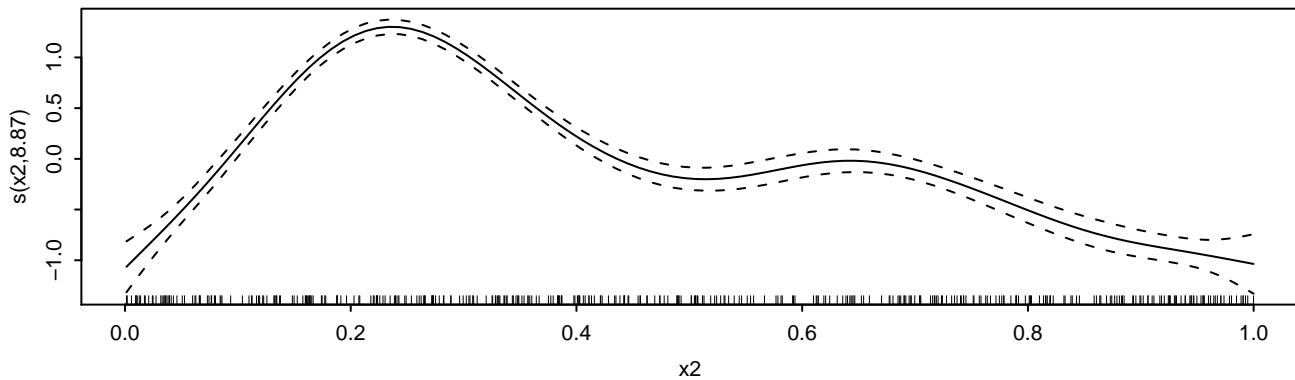
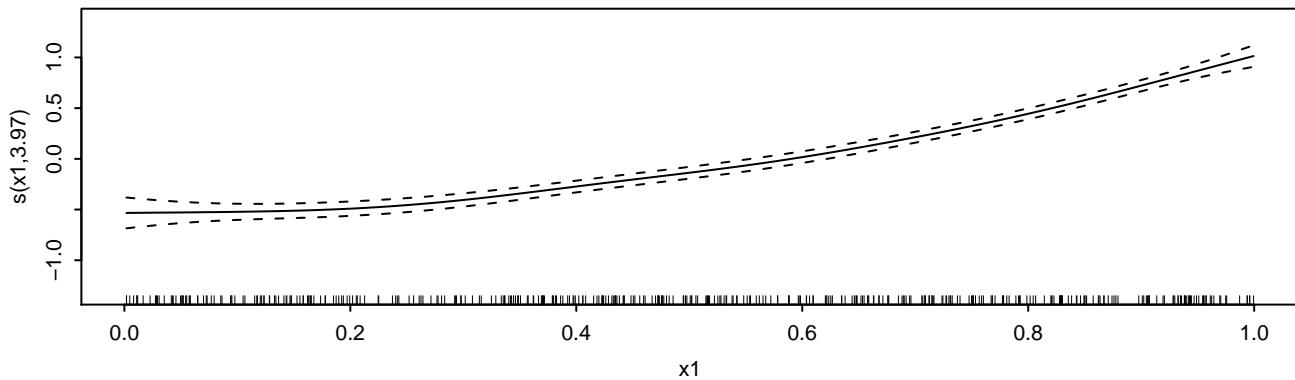
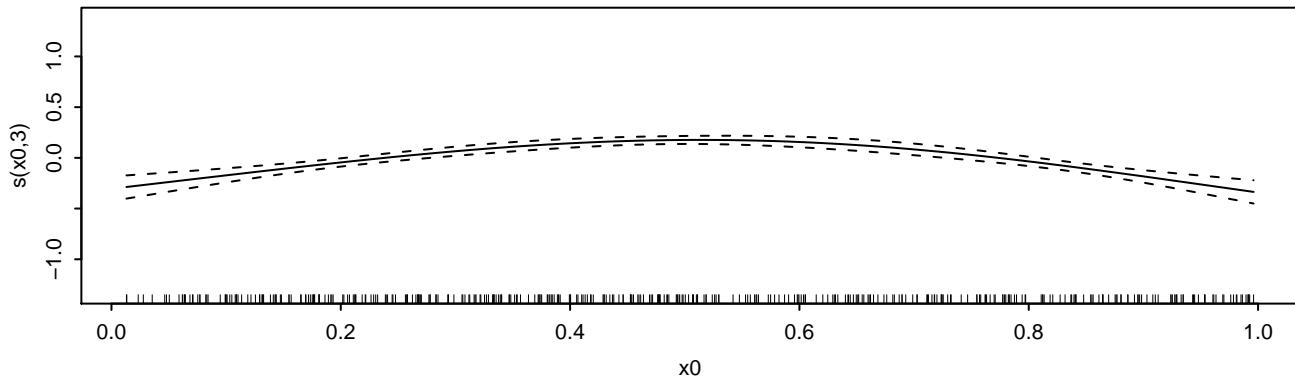
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



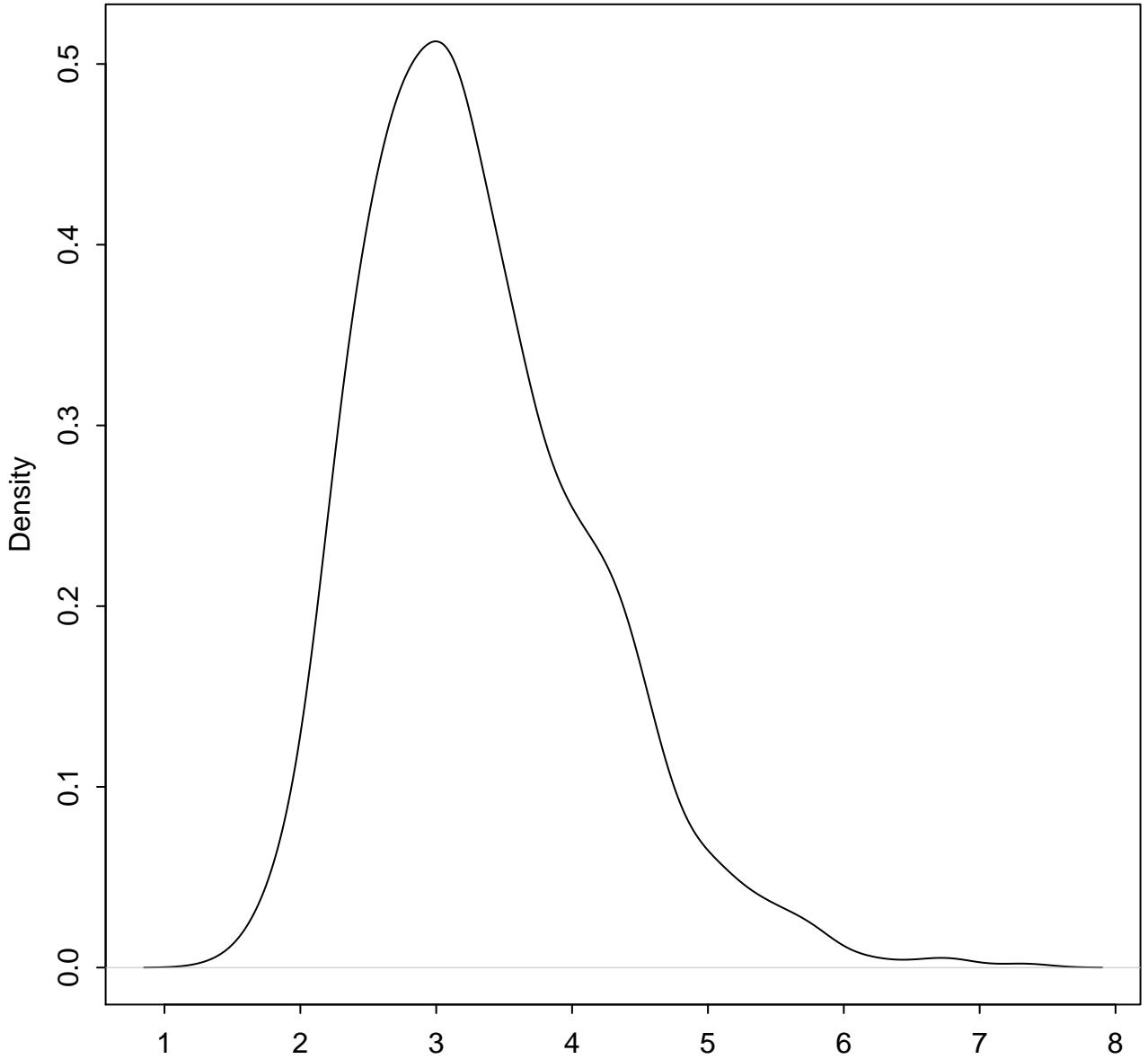




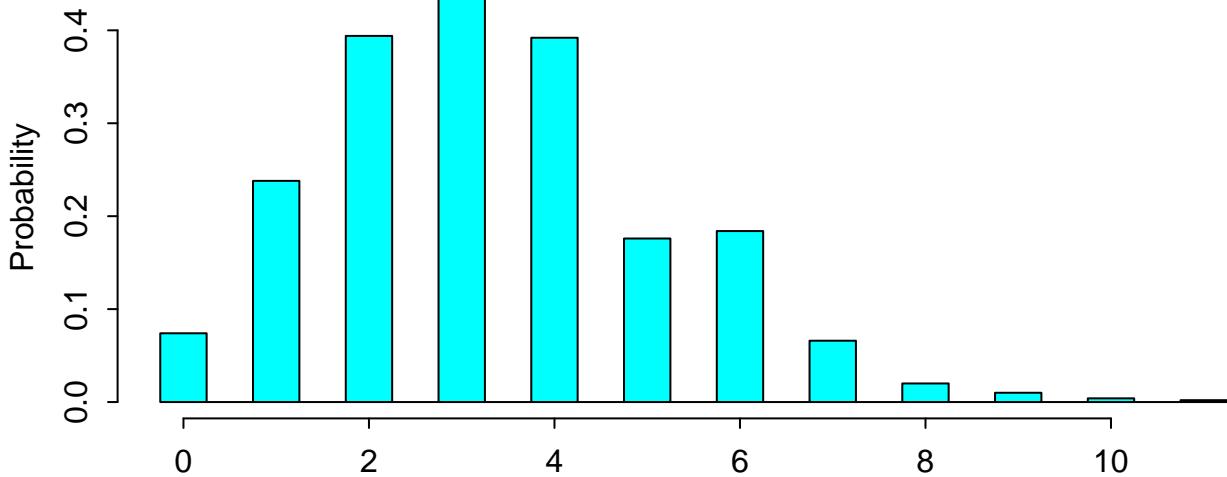




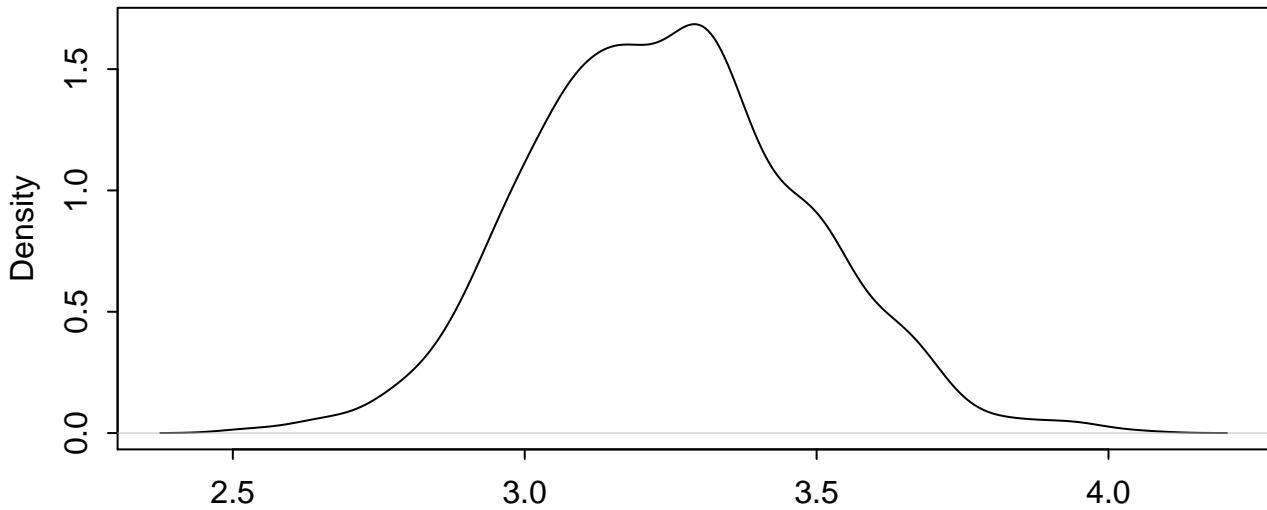
# Expected Values: $E(Y|X)$



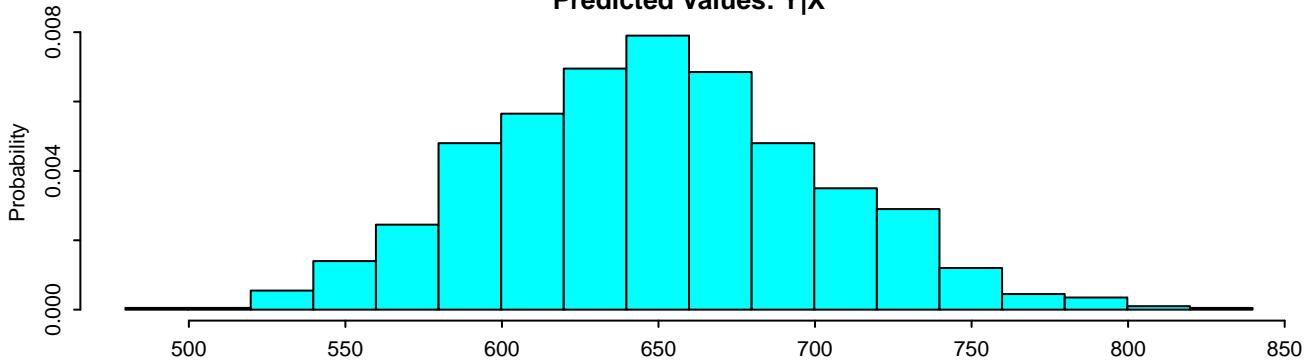
**Predicted Values:  $Y|X$**



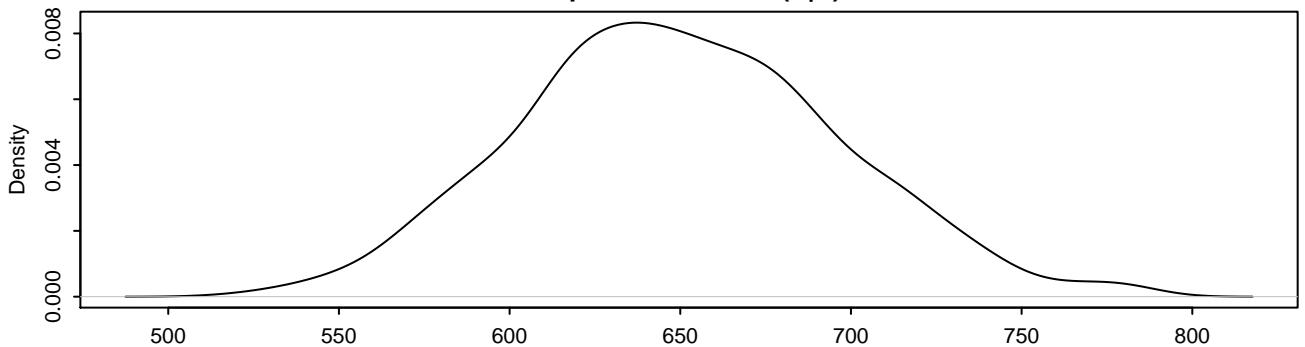
**Expected Values:  $E(Y|X)$**



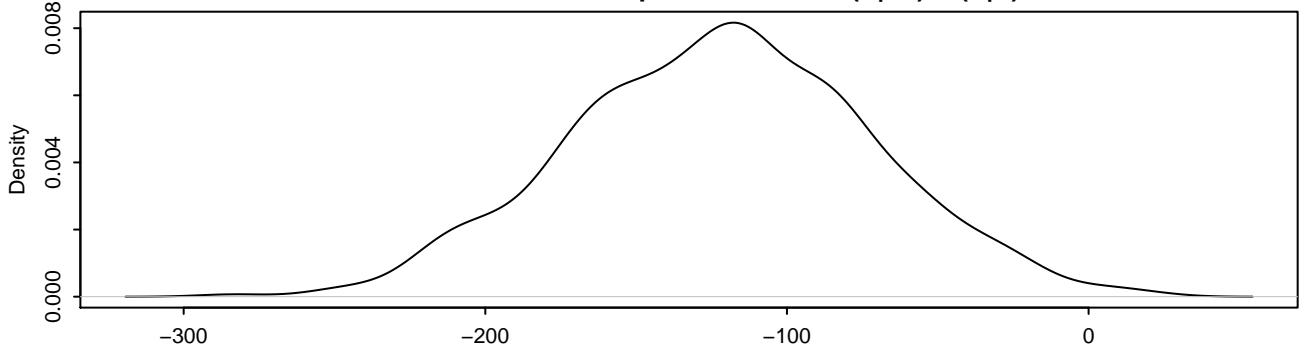
**Predicted Values:  $Y|X$**



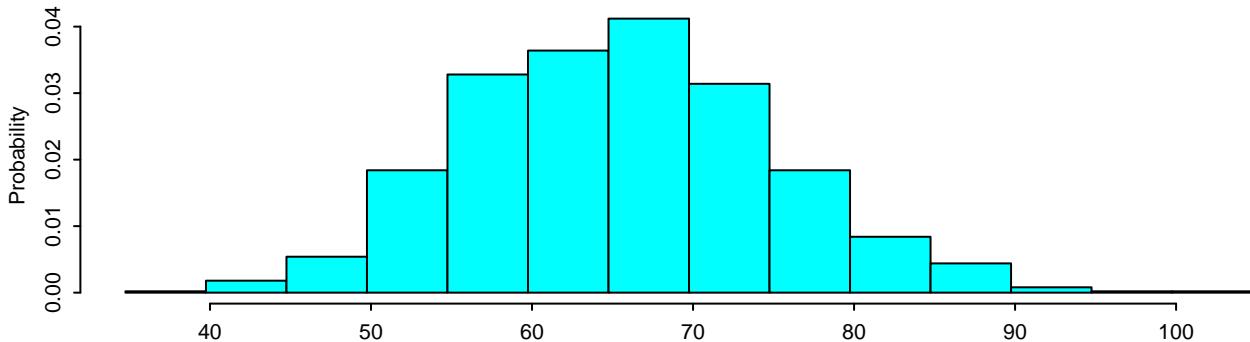
**Expected Values:  $E(Y|X)$**



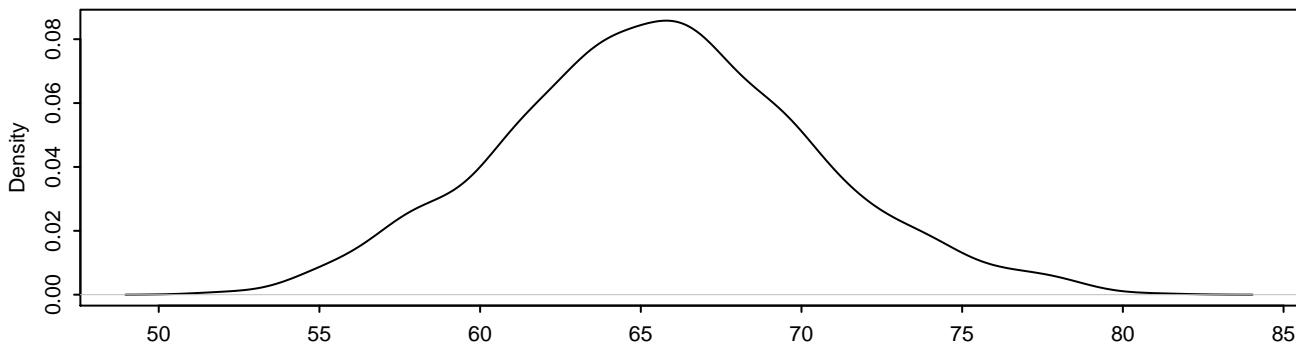
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



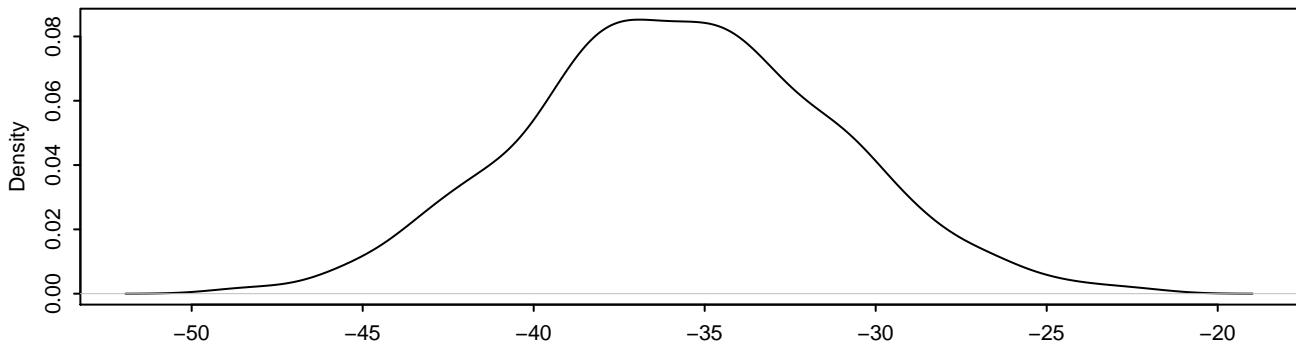
**Predicted Values:  $Y|X$**

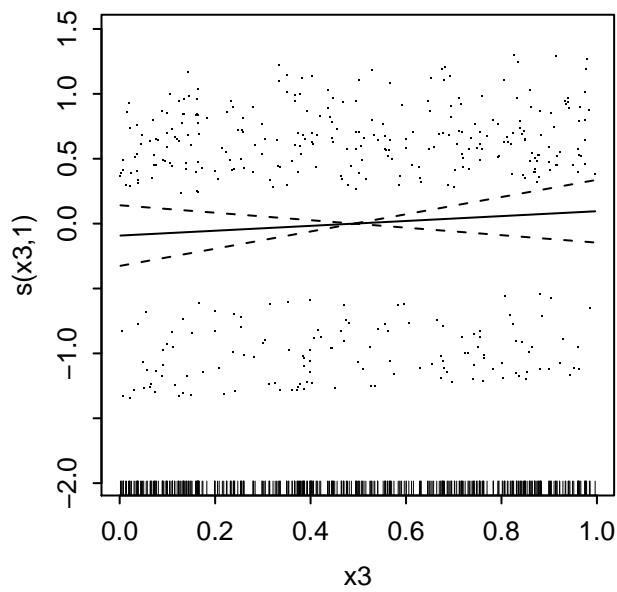
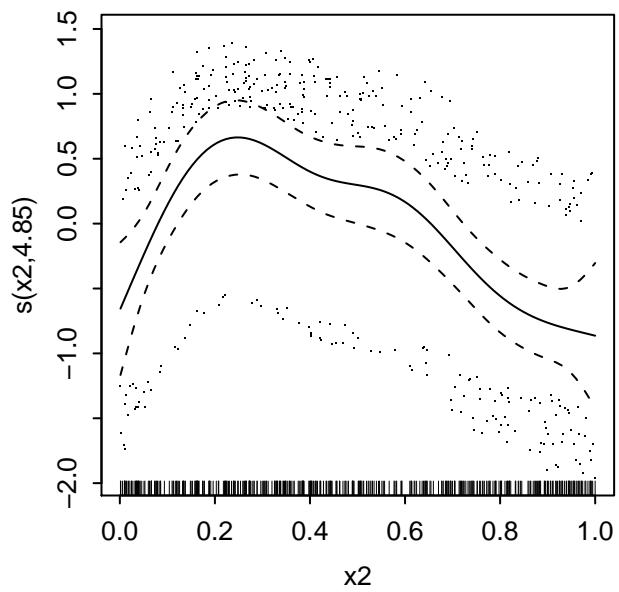
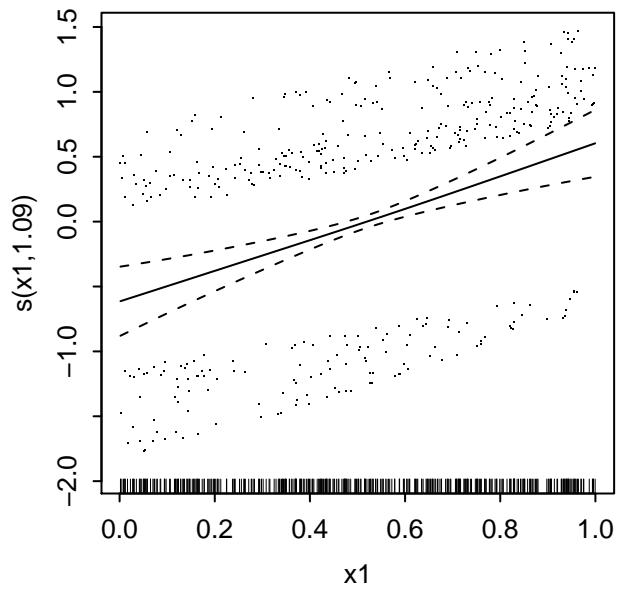
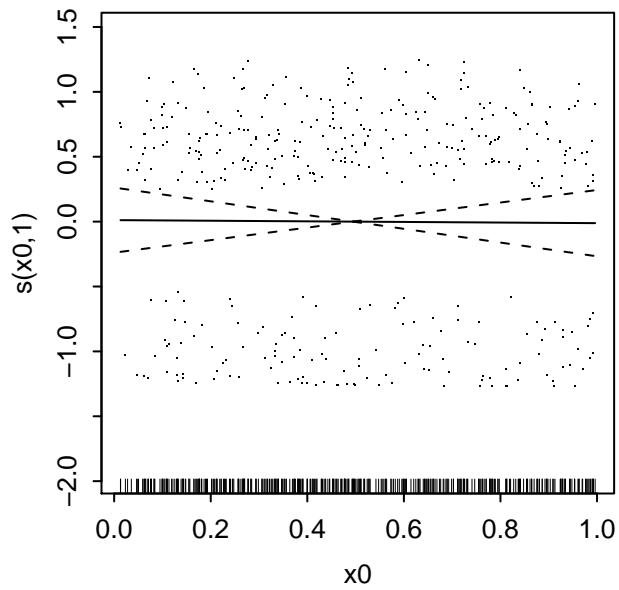


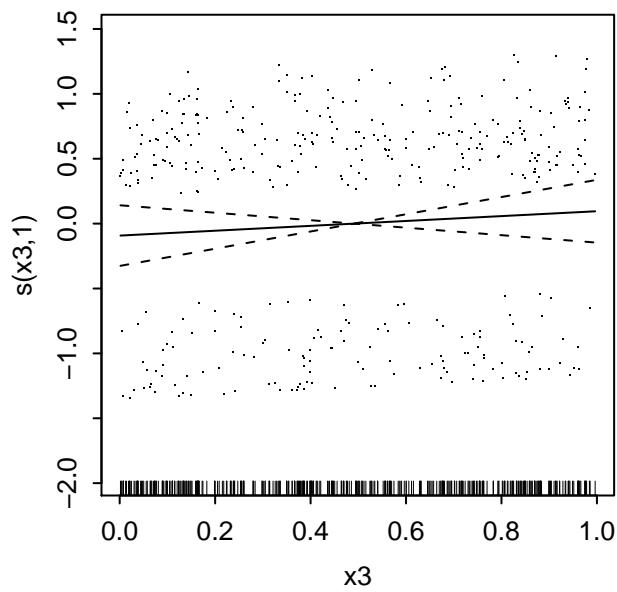
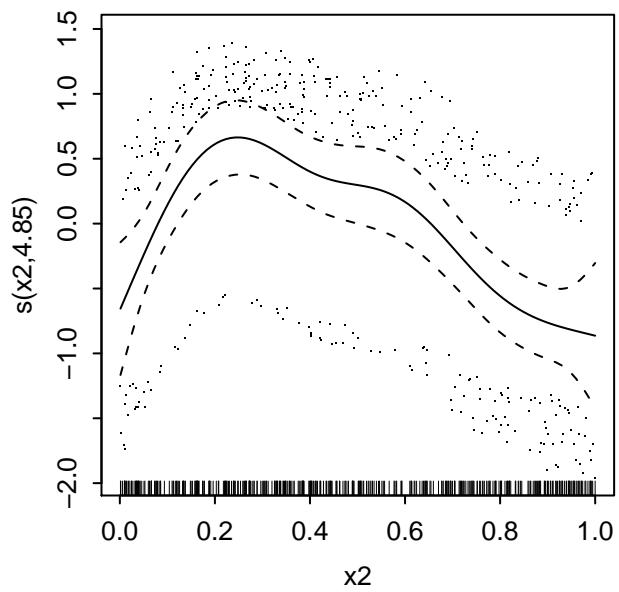
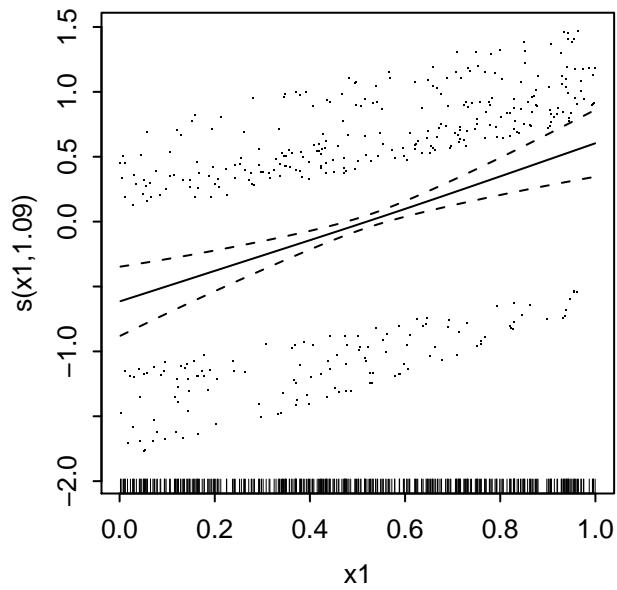
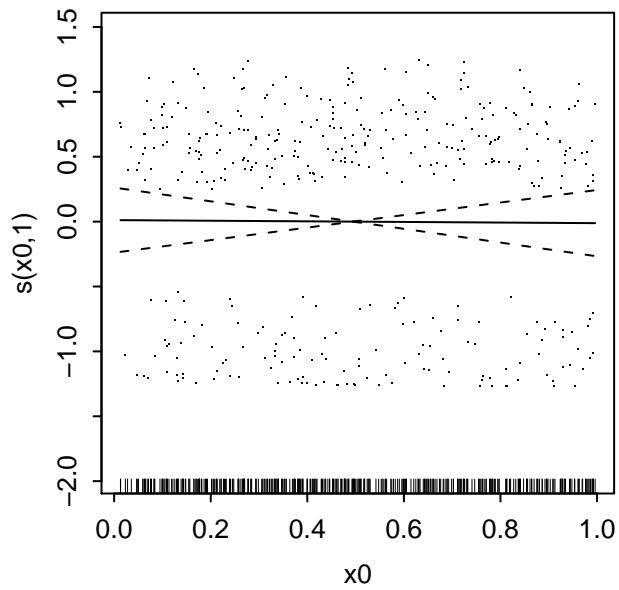
**Expected Values:  $E(Y|X)$**



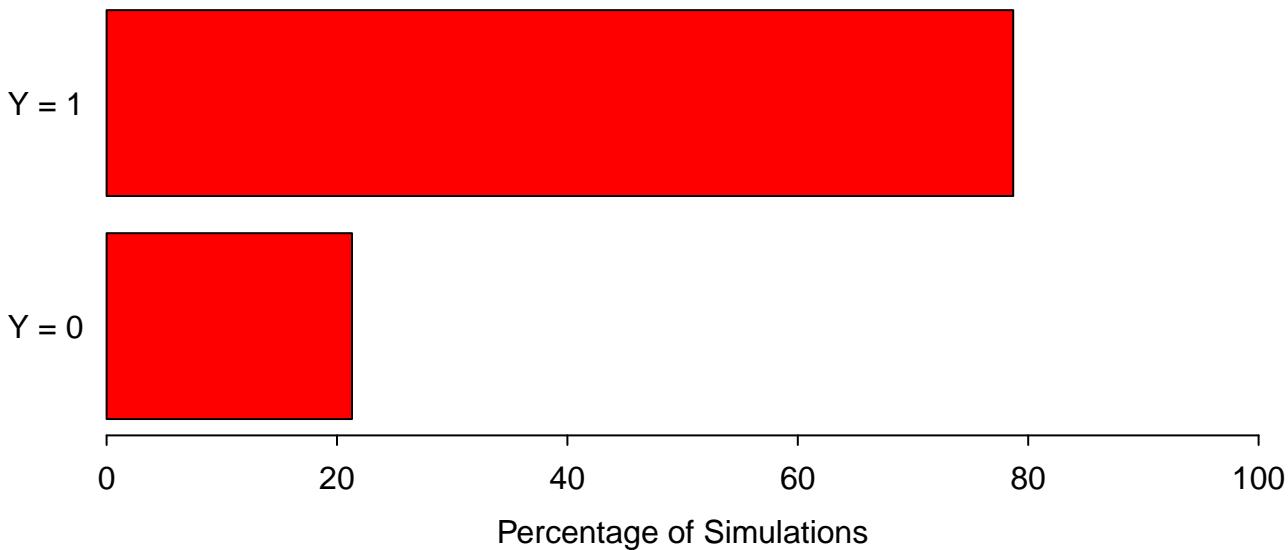
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



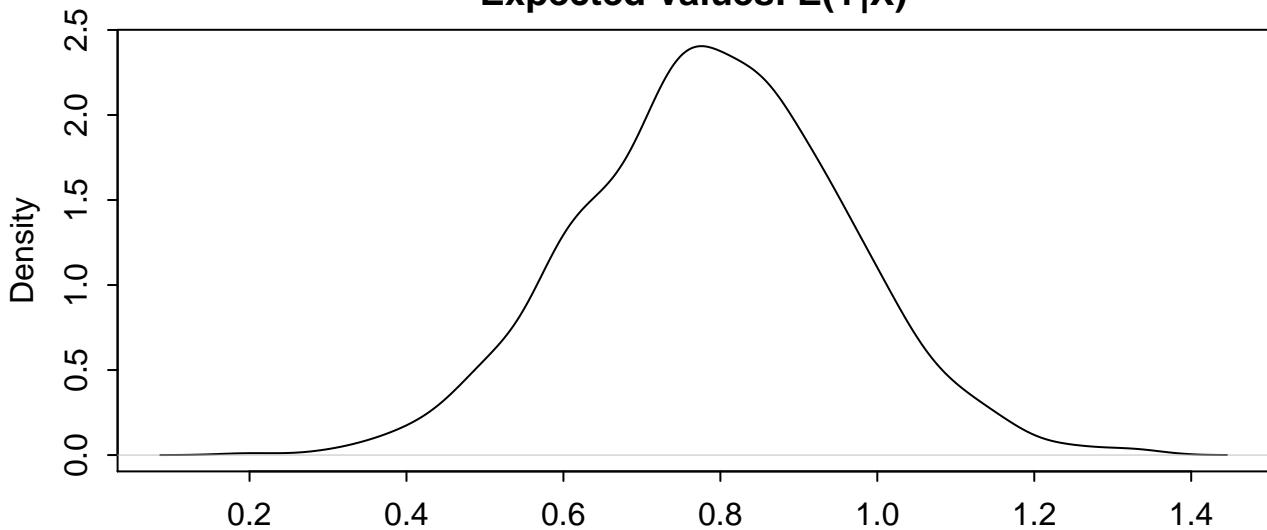




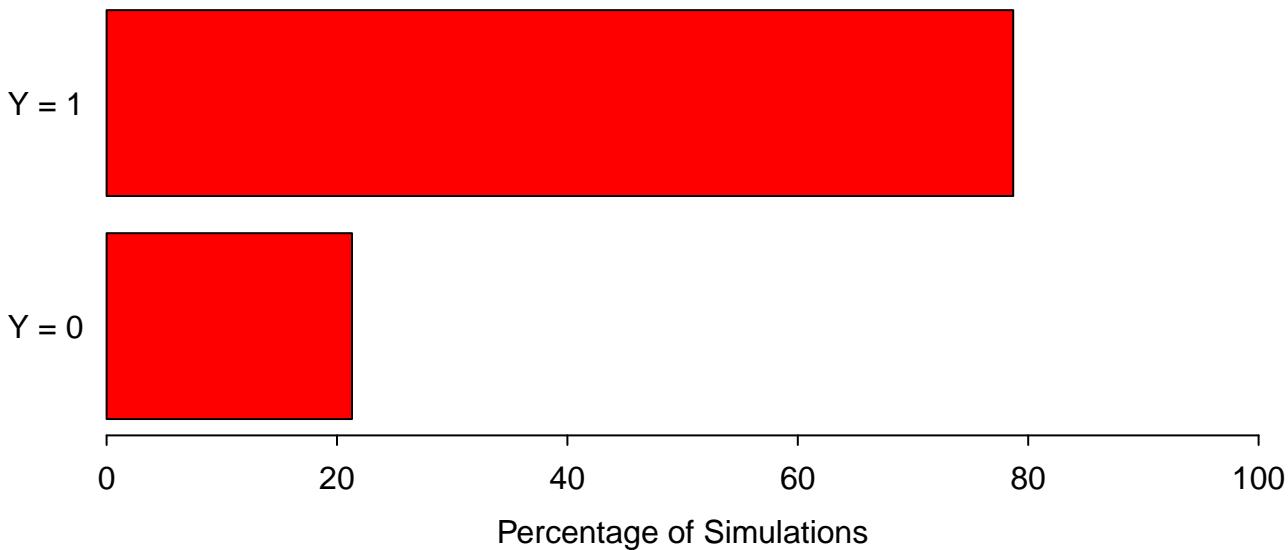
### Predicted Values: $Y|X$



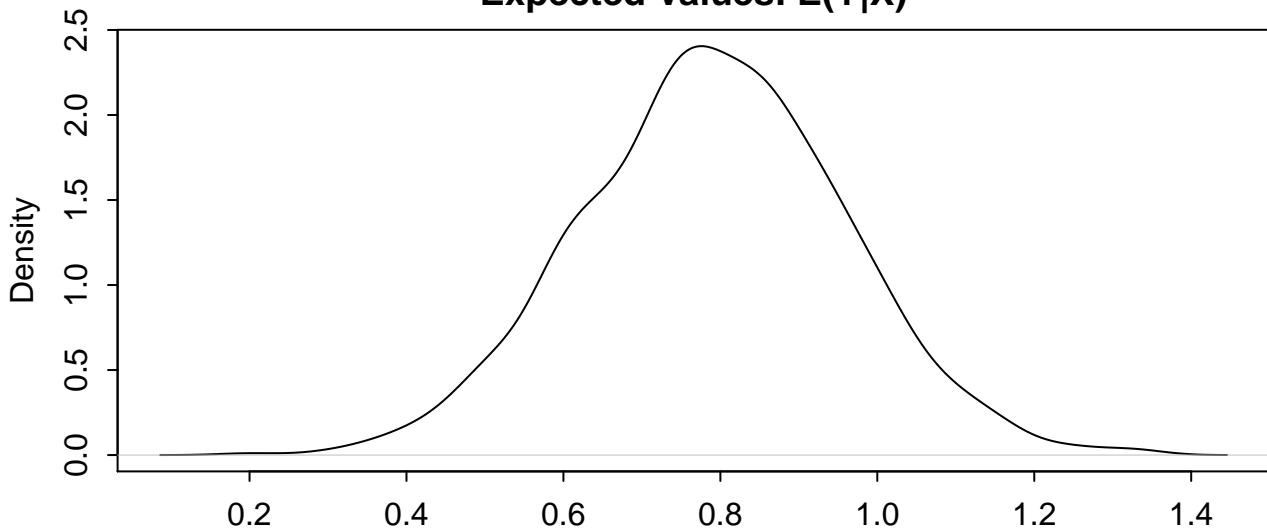
### Expected Values: $E(Y|X)$



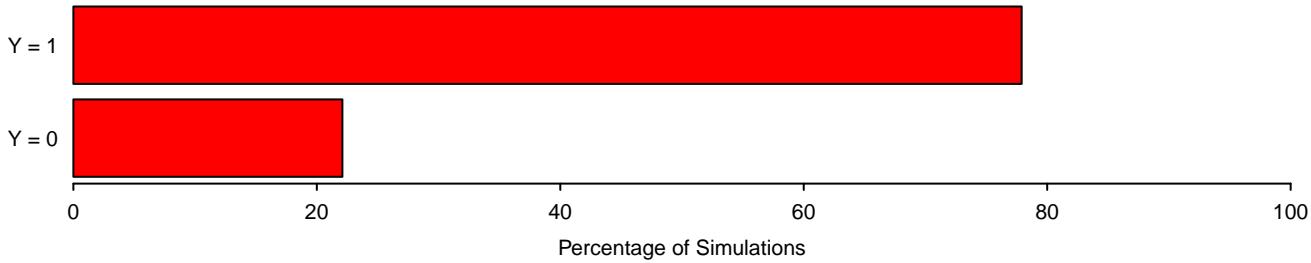
### Predicted Values: $Y|X$



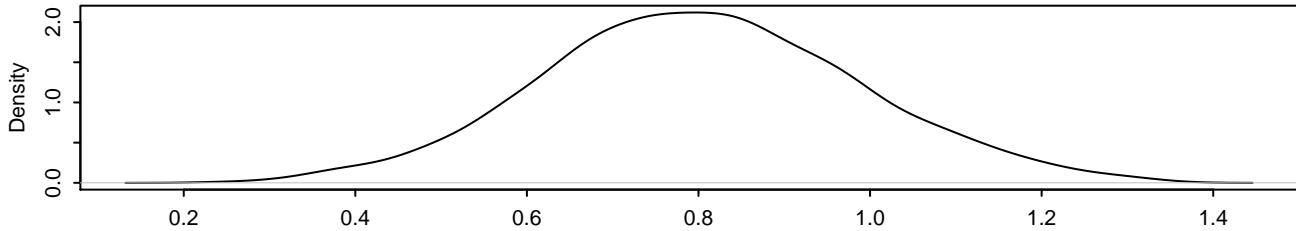
### Expected Values: $E(Y|X)$



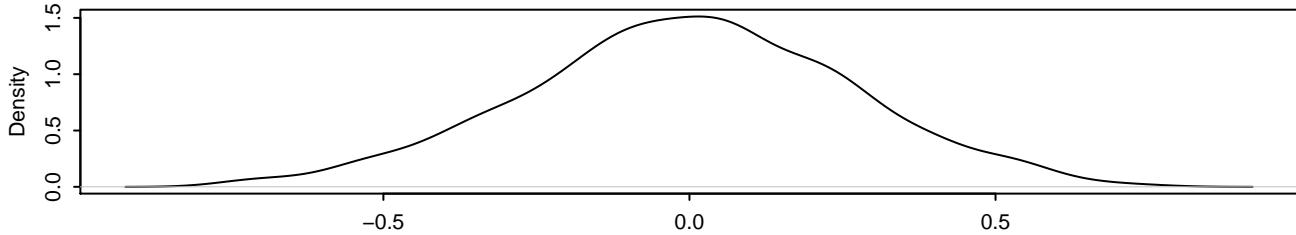
**Predicted Values:  $Y|X$**



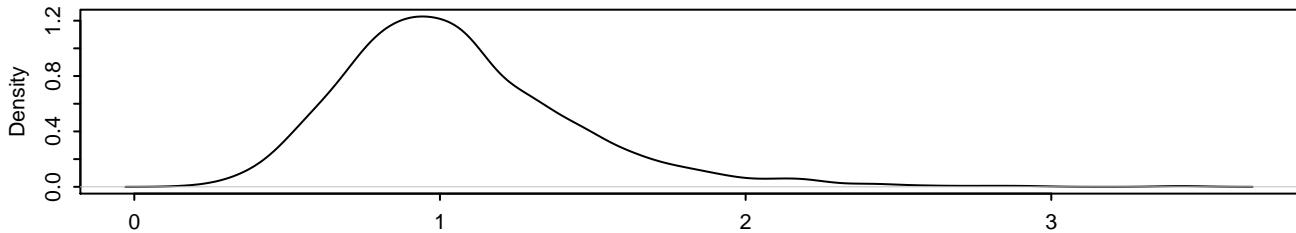
**Expected Values:  $E(Y|X)$**



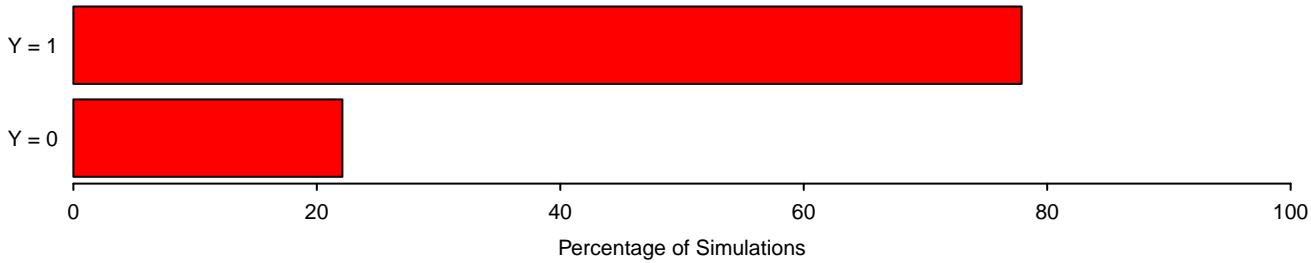
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



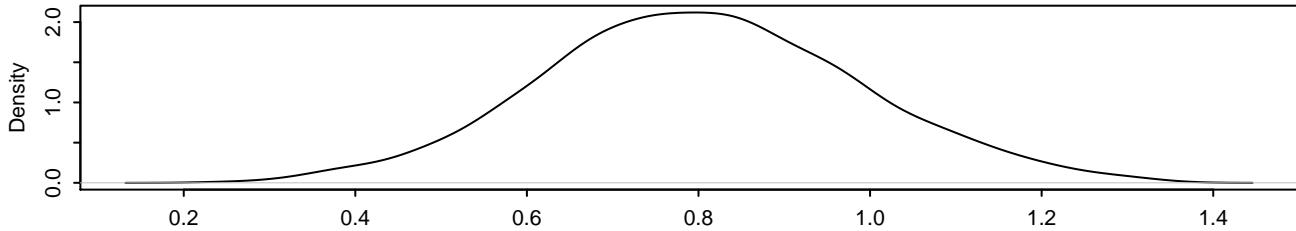
**Risk Ratios:  $P(Y=1|X_1)/P(Y=1|X)$**



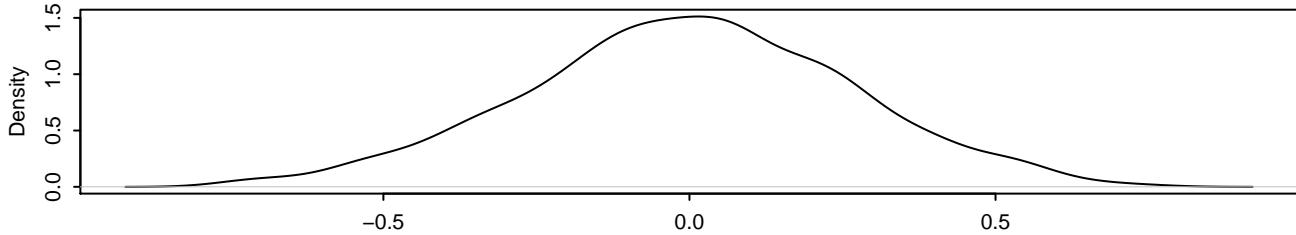
**Predicted Values:  $Y|X$**



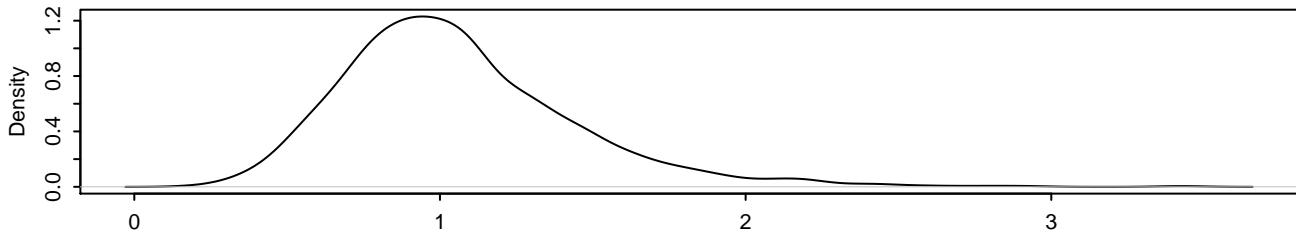
**Expected Values:  $E(Y|X)$**

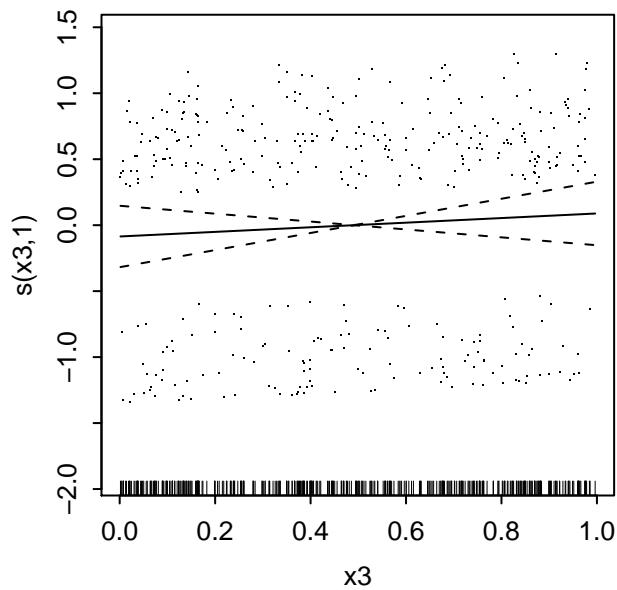
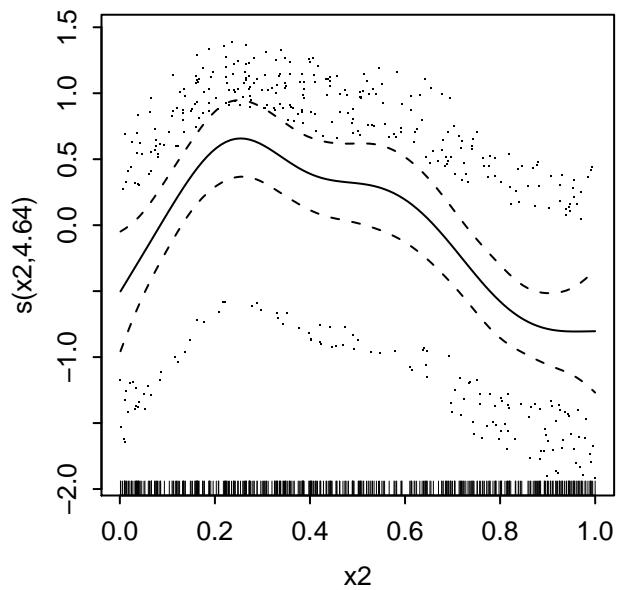
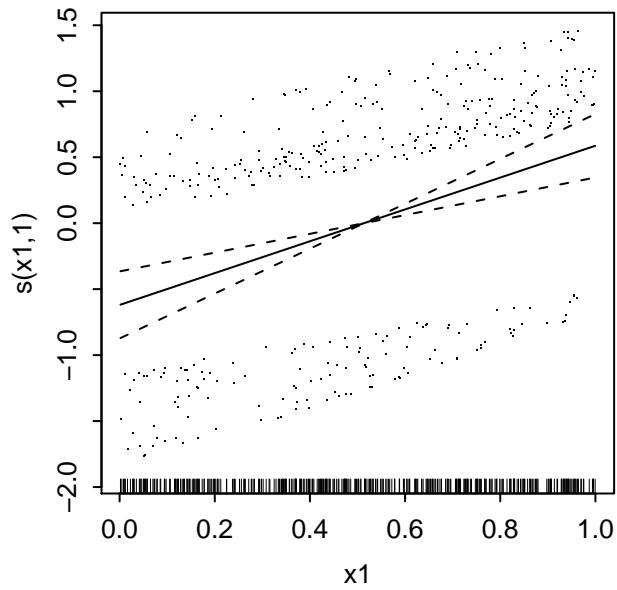
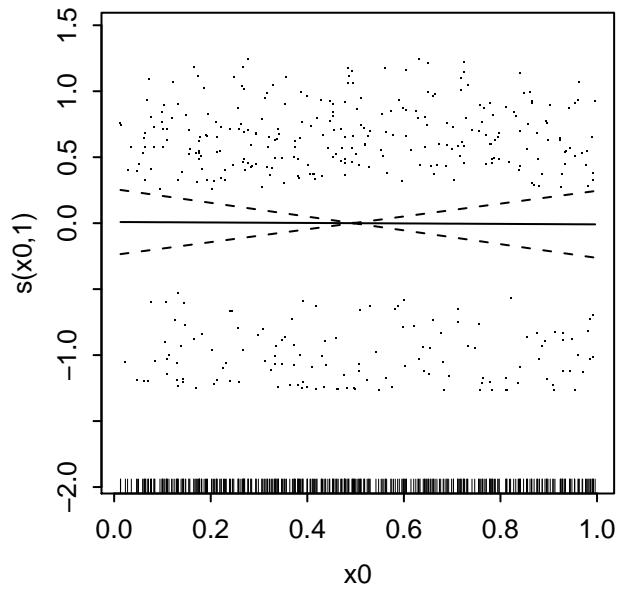


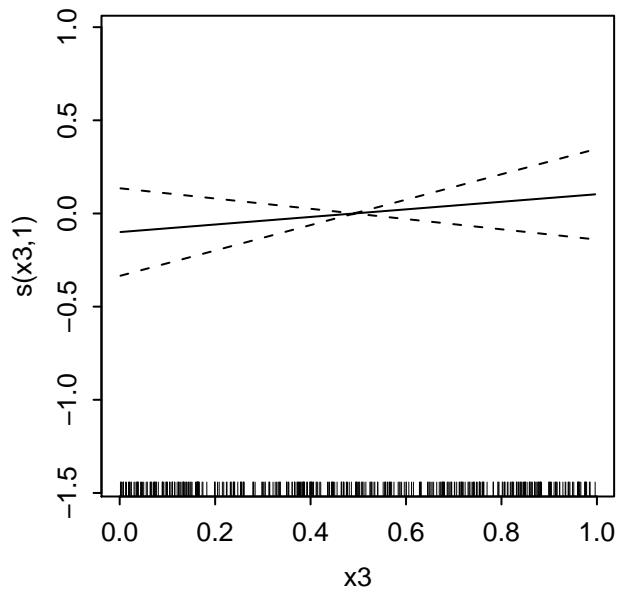
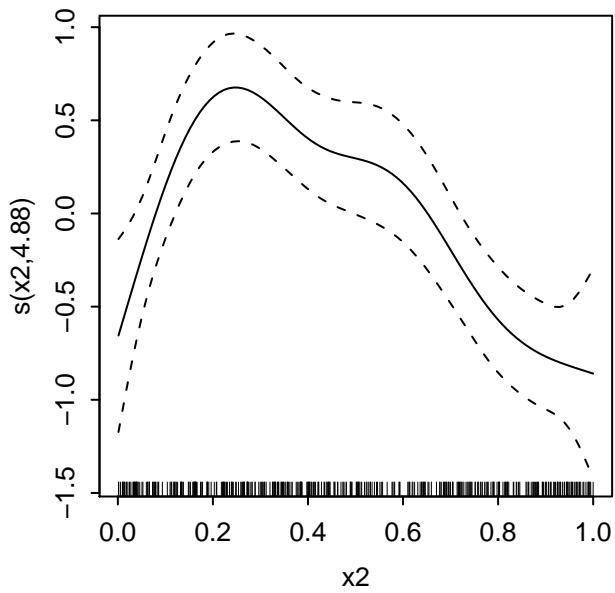
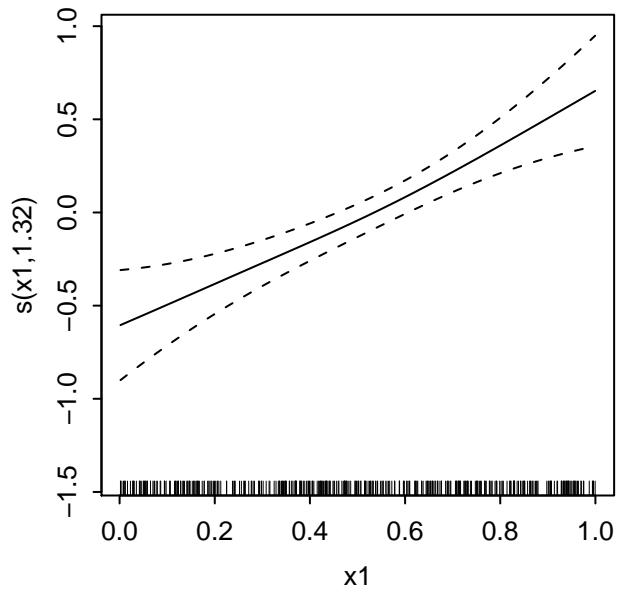
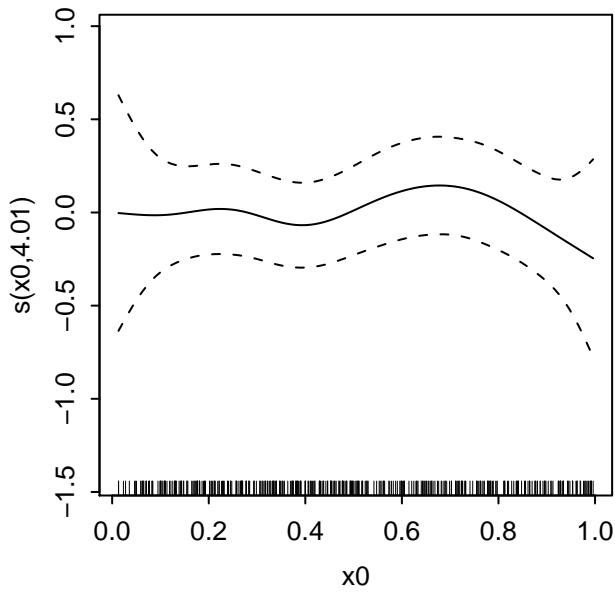
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**

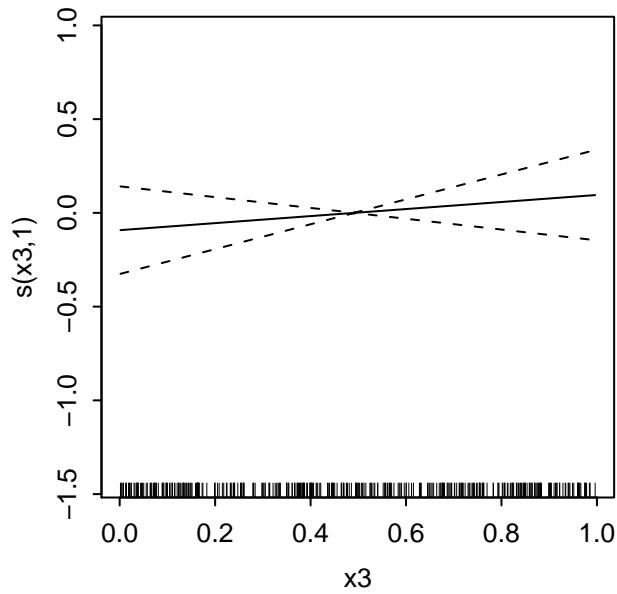
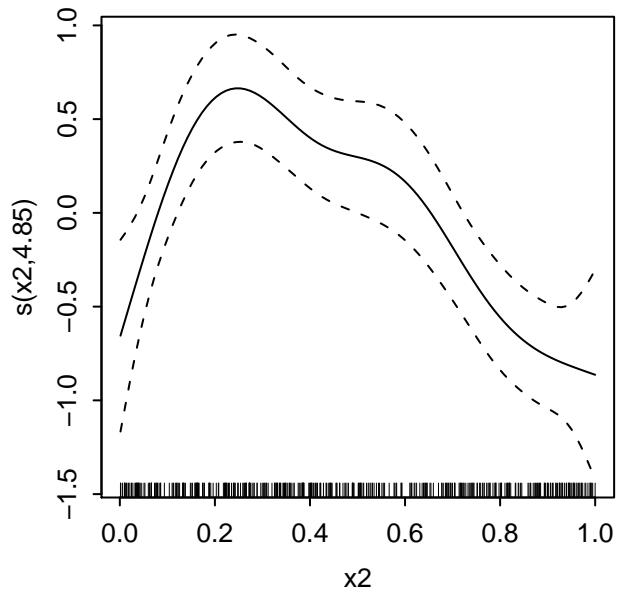
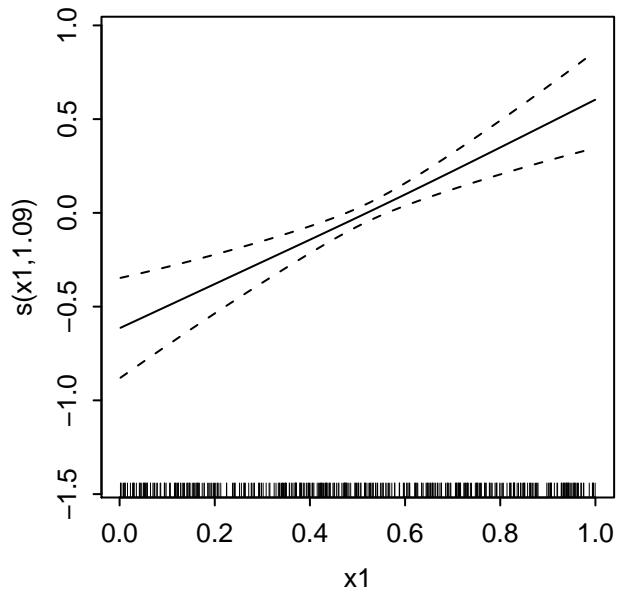
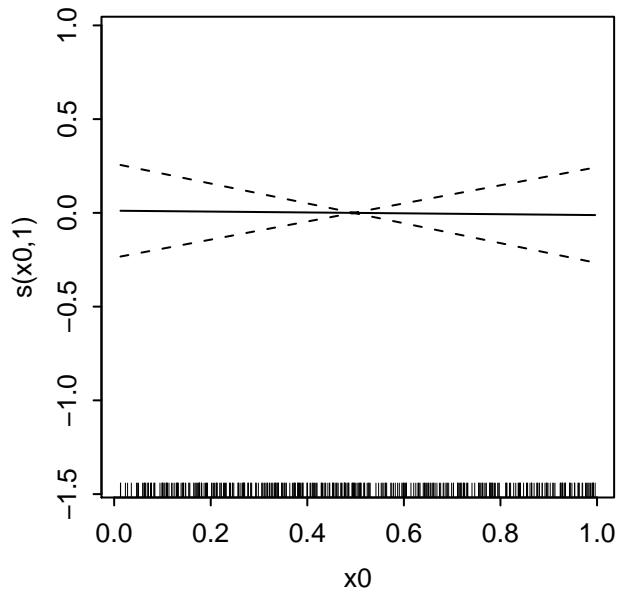


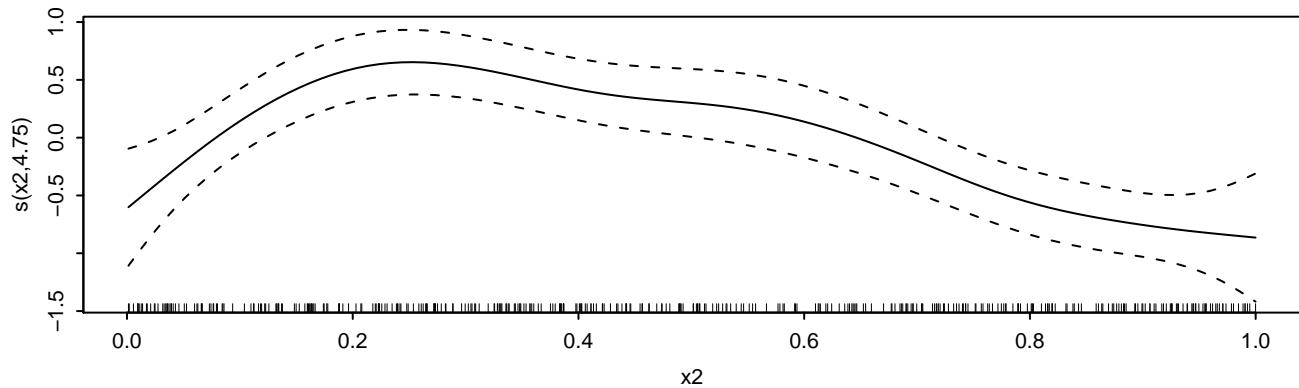
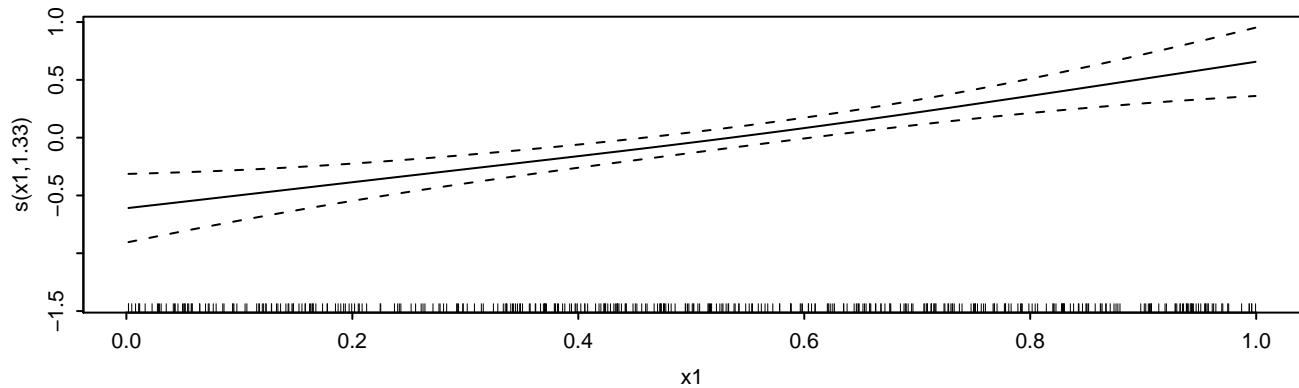
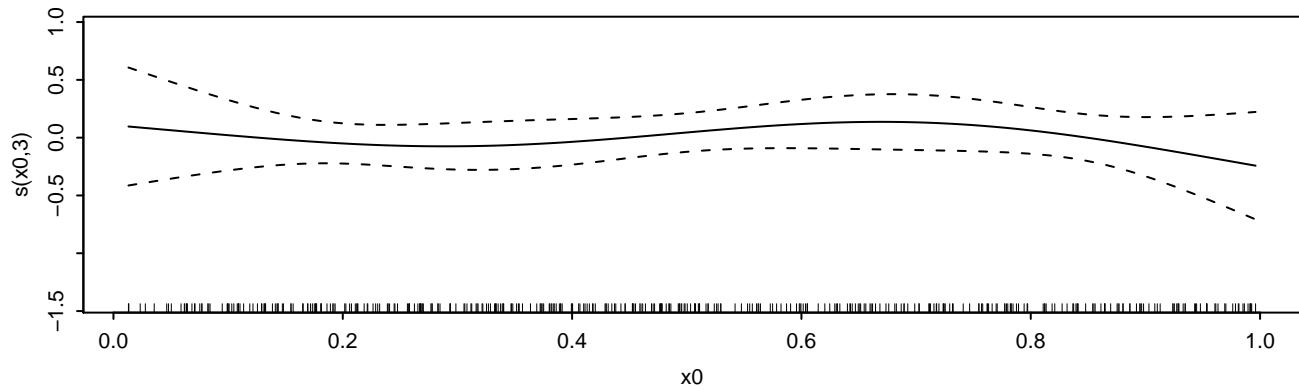
**Risk Ratios:  $P(Y=1|X_1)/P(Y=1|X)$**



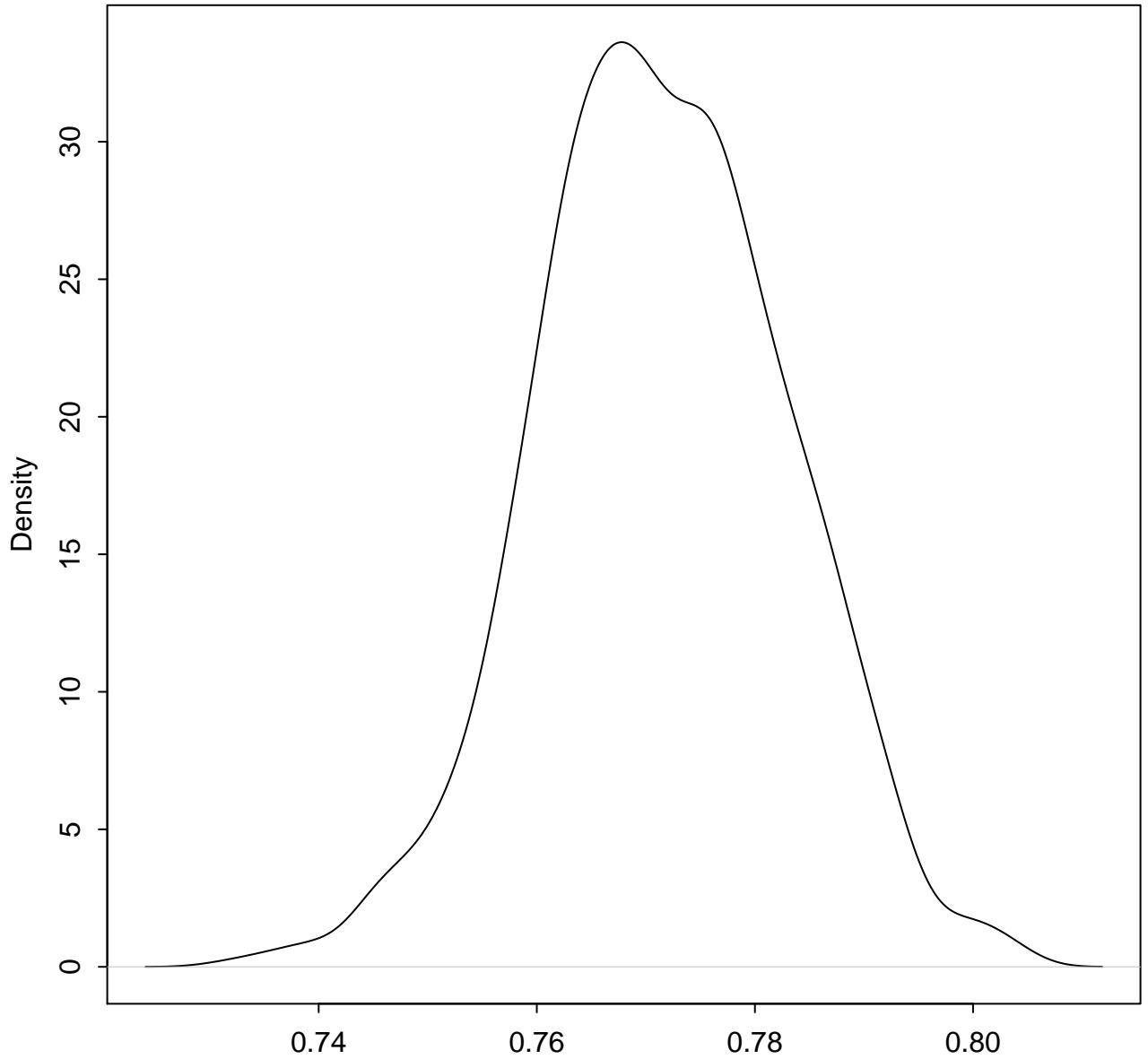




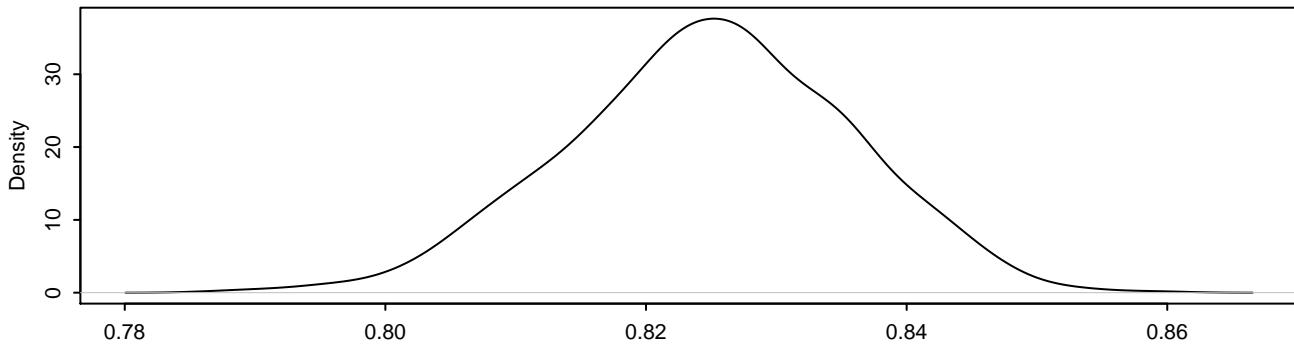




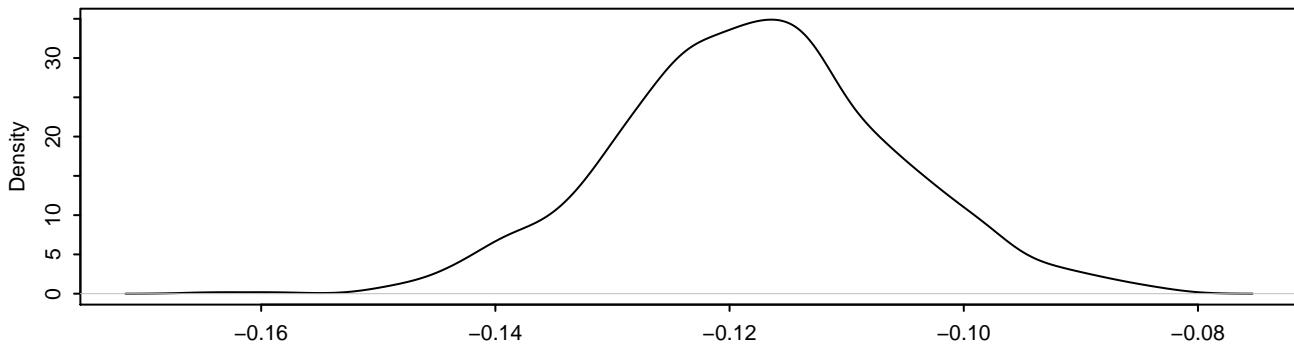
# Expected Values: $E(Y|X)$



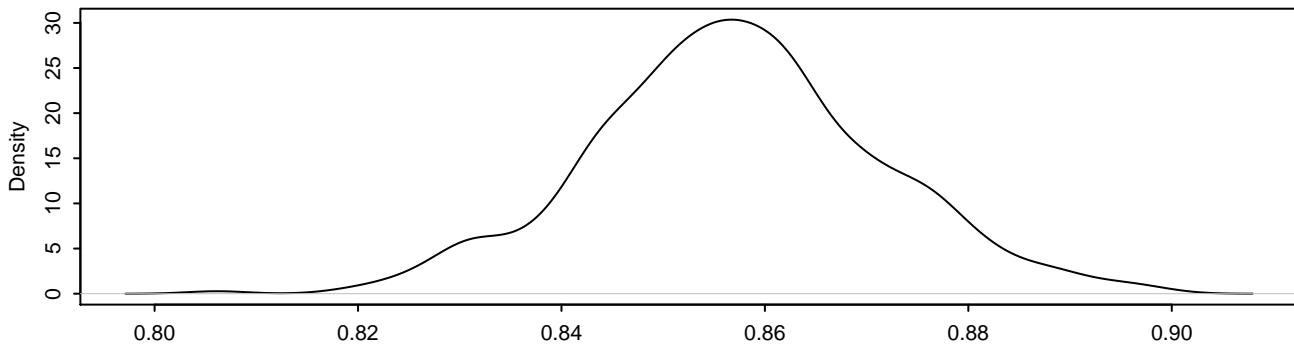
**Expected Values:  $E(Y|X)$**



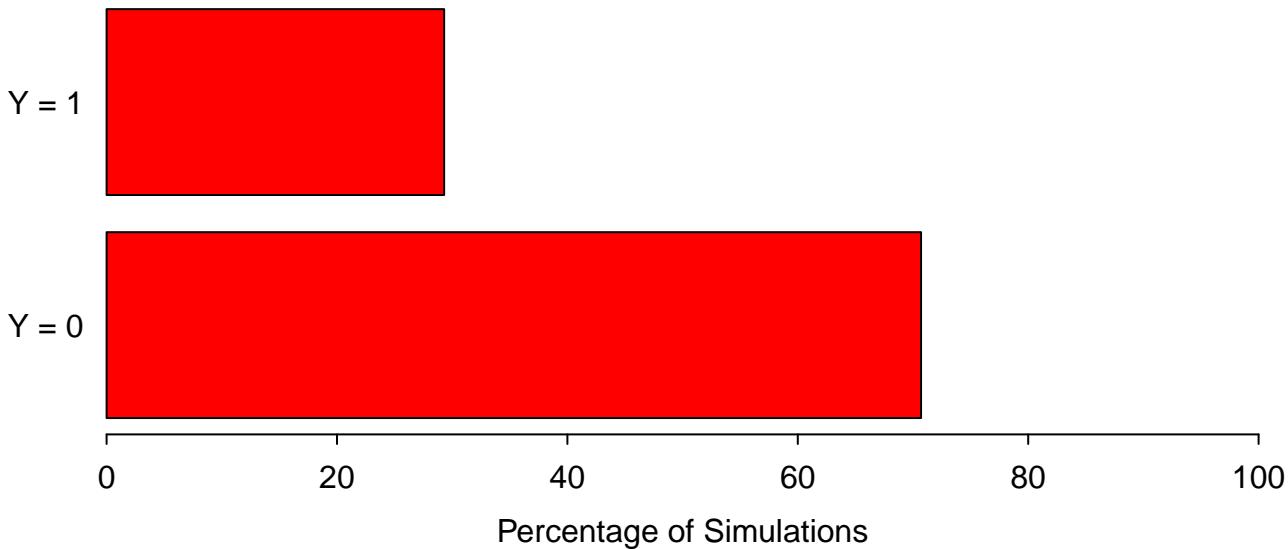
**First Differences in Expected Values:  $E(Y|X1) - E(Y|X)$**



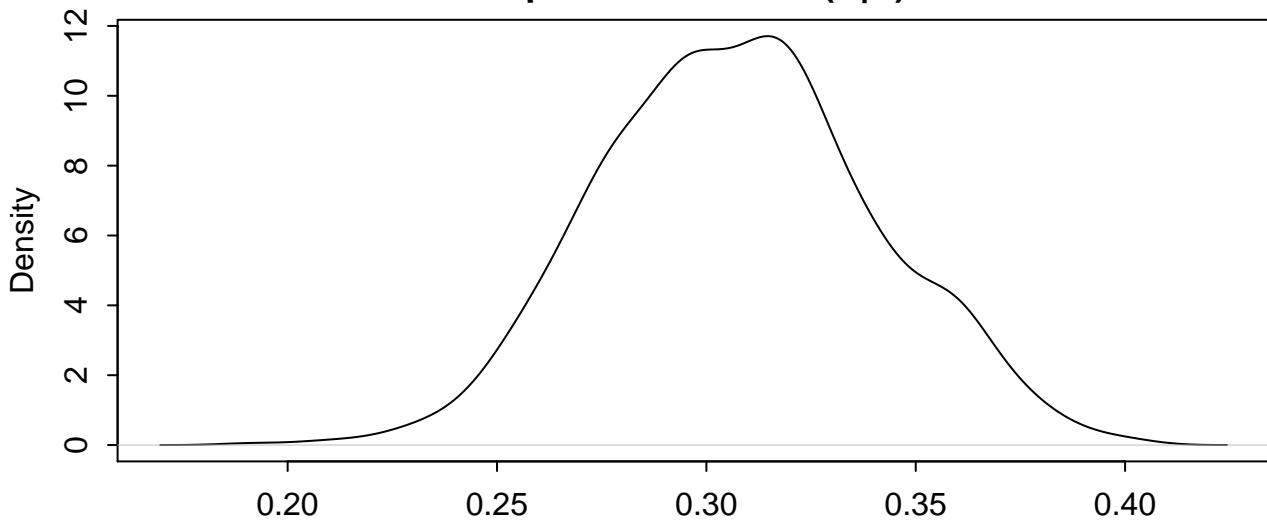
**Risk Ratios:  $P(Y=1|X1)/P(Y=1|X)$**



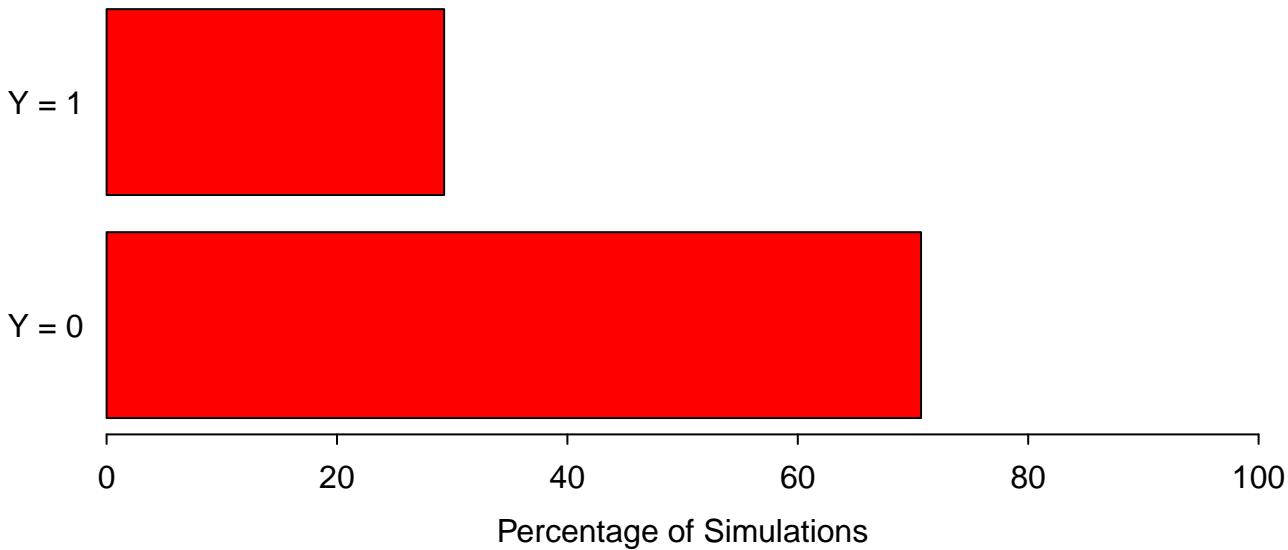
### Predicted Values: $Y|X$



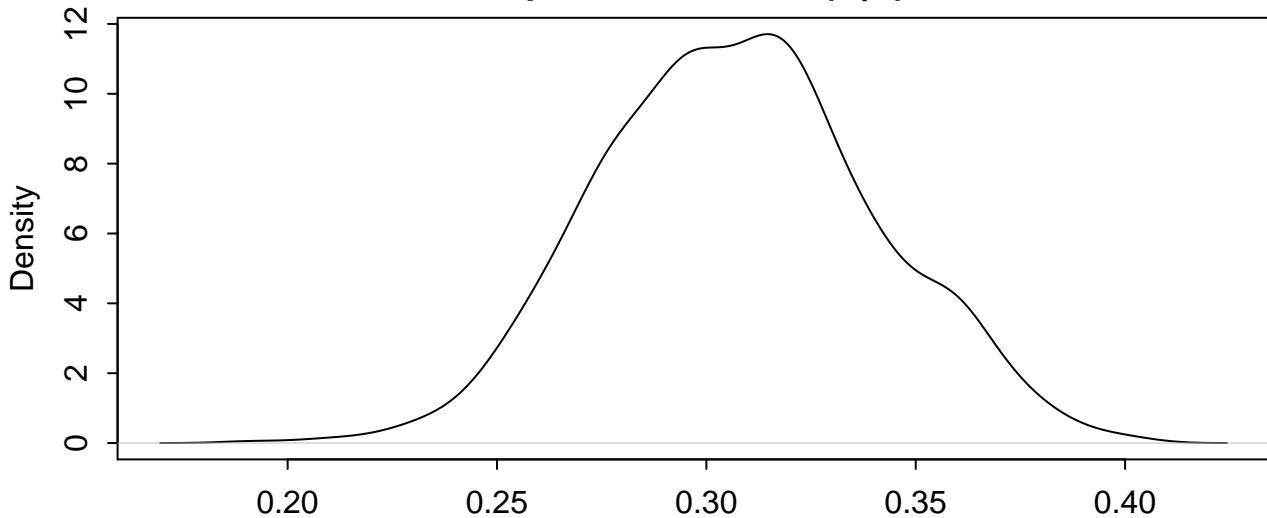
### Expected Values: $E(Y|X)$



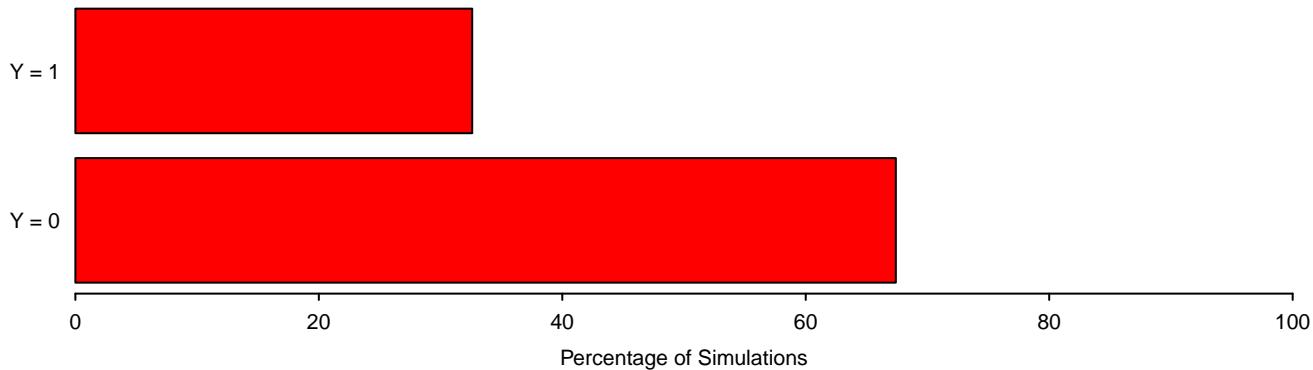
### Predicted Values: $Y|X$



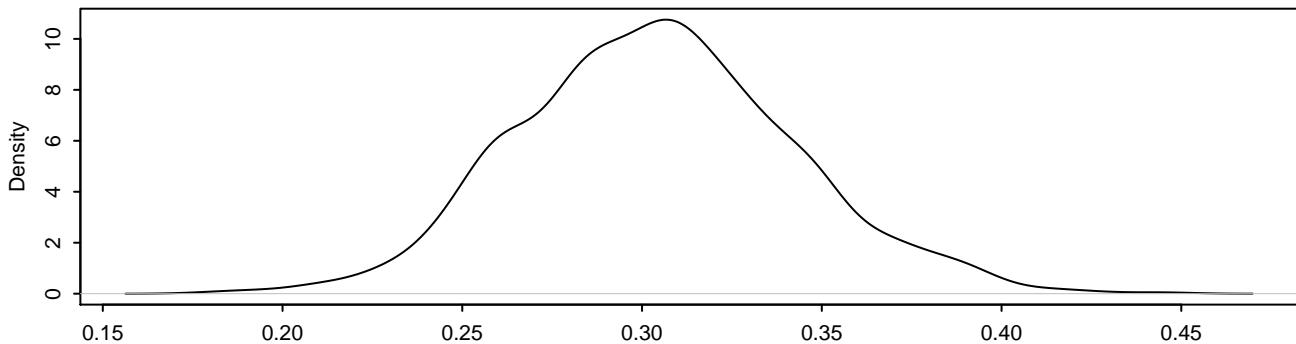
### Expected Values: $E(Y|X)$



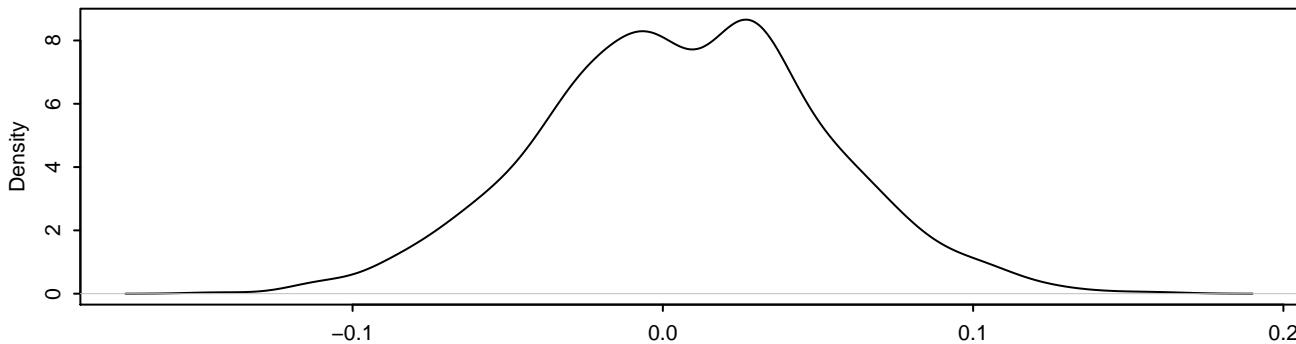
### Predicted Values: $Y|X$



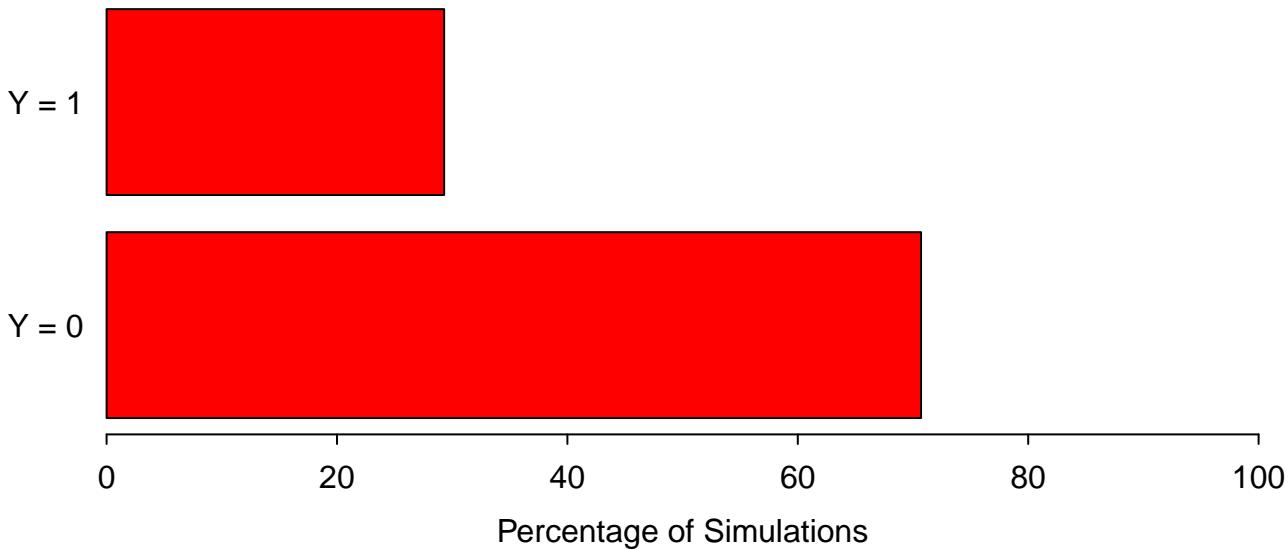
### Expected Values: $E(Y|X)$



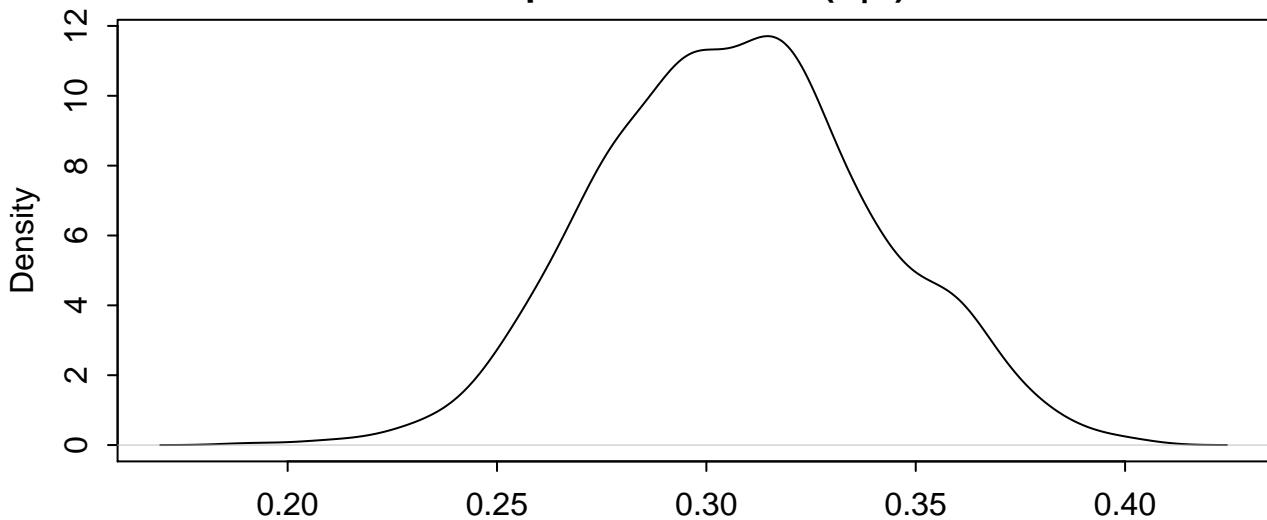
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



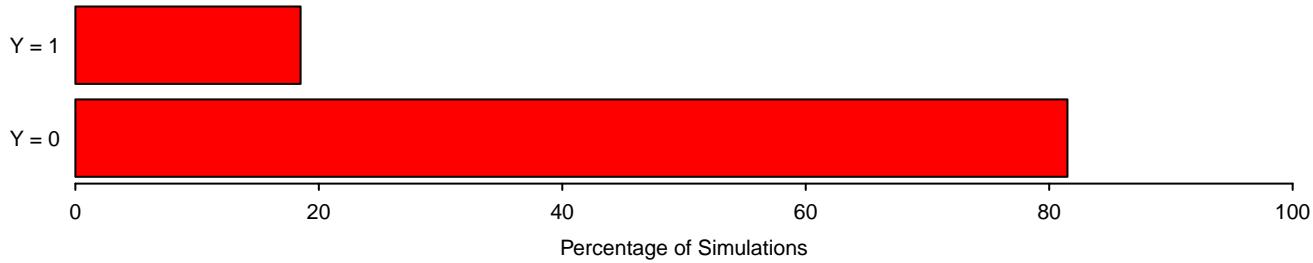
### Predicted Values: $Y|X$



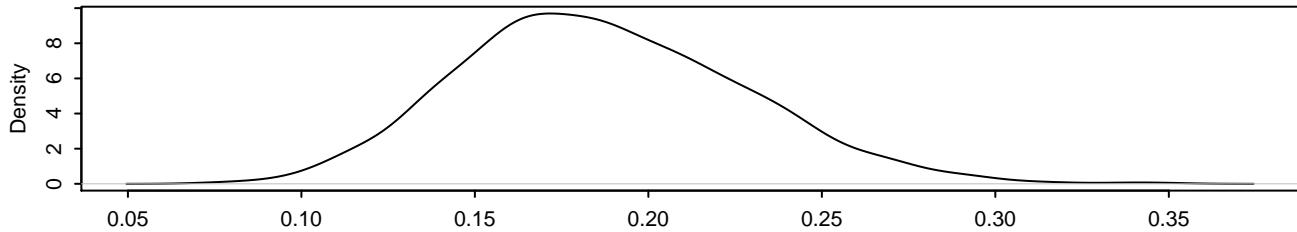
### Expected Values: $E(Y|X)$



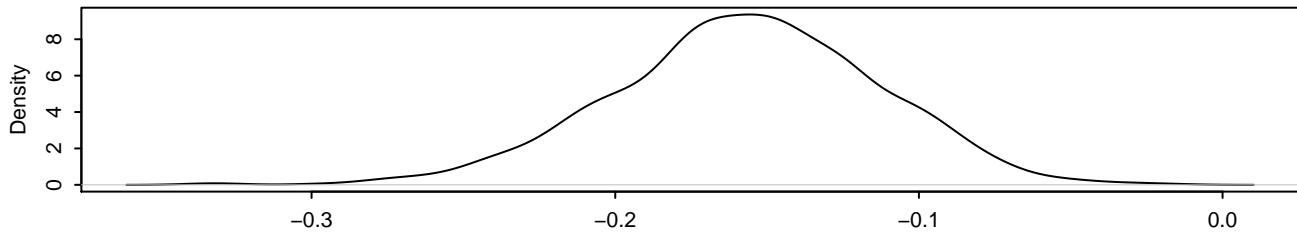
### Predicted Values: $Y|X$



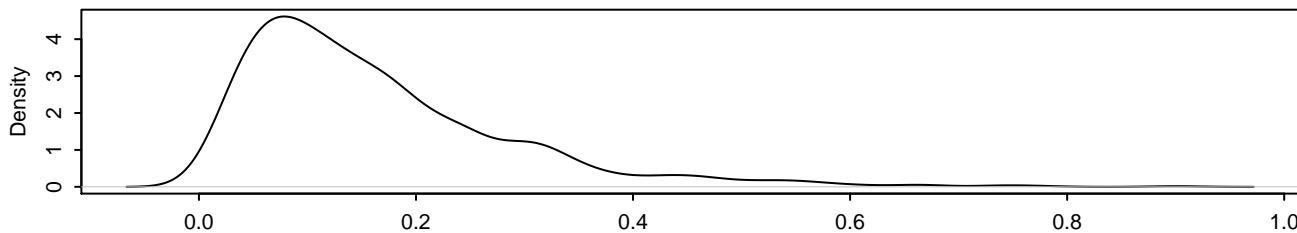
### Expected Values: $E(Y|X)$



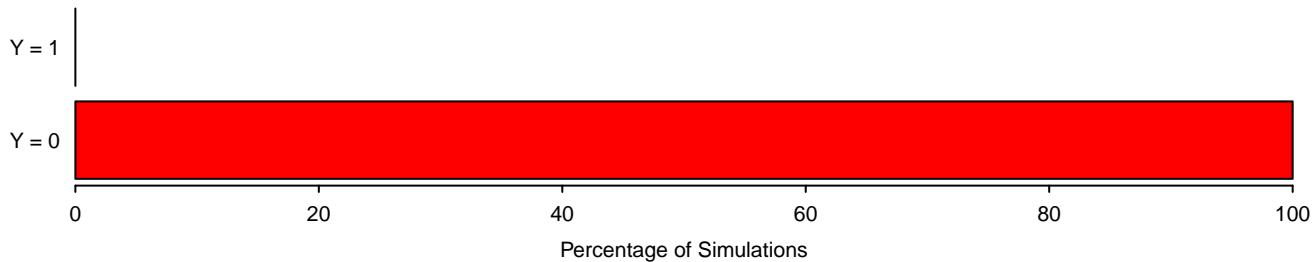
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



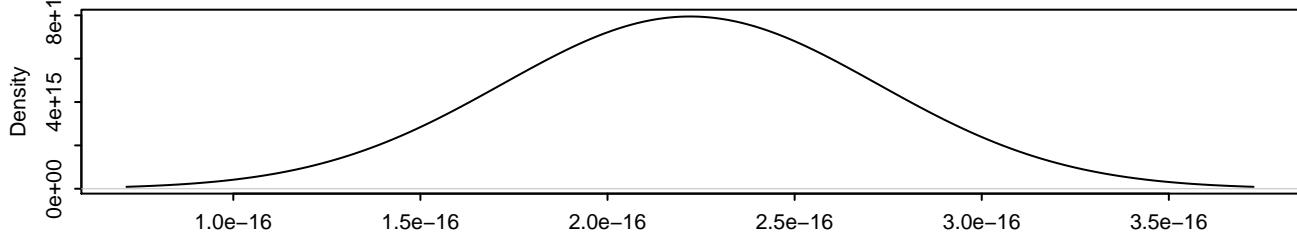
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



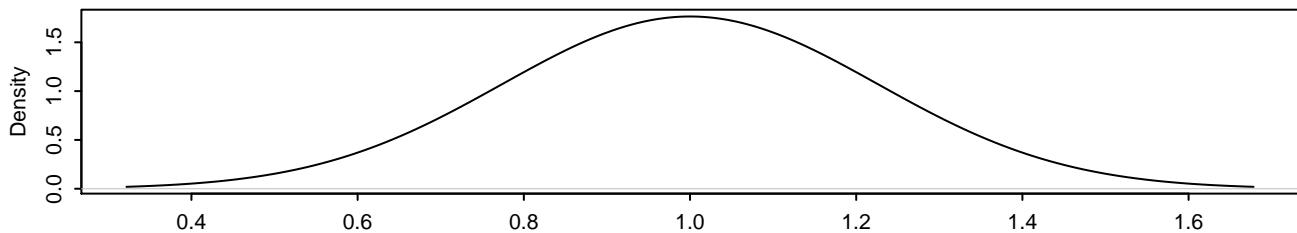
### Predicted Values: $Y|X$



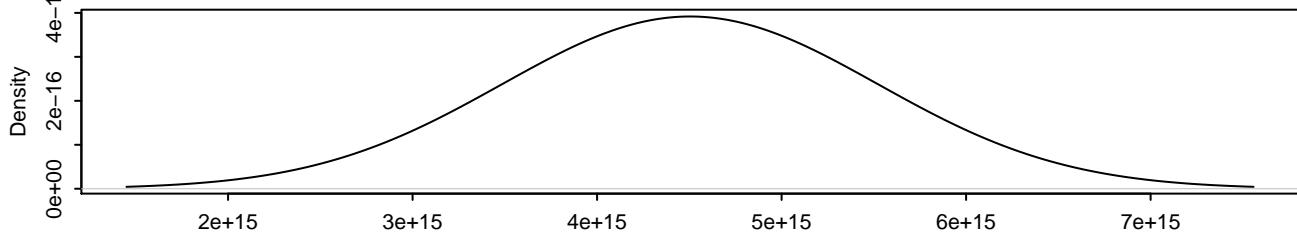
### Expected Values: $E(Y|X)$



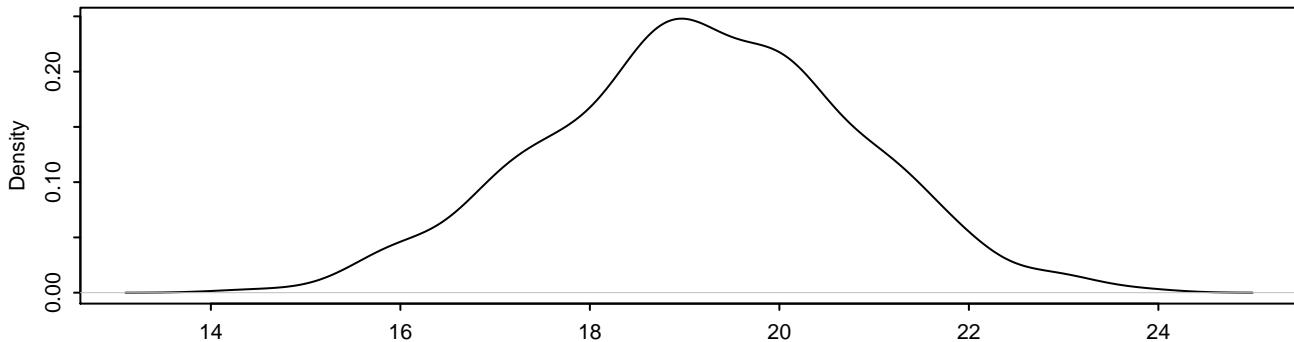
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



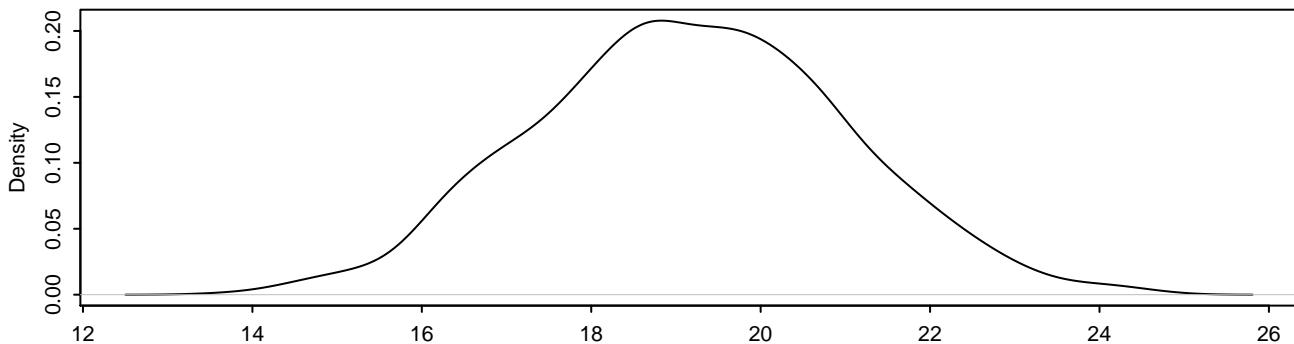
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



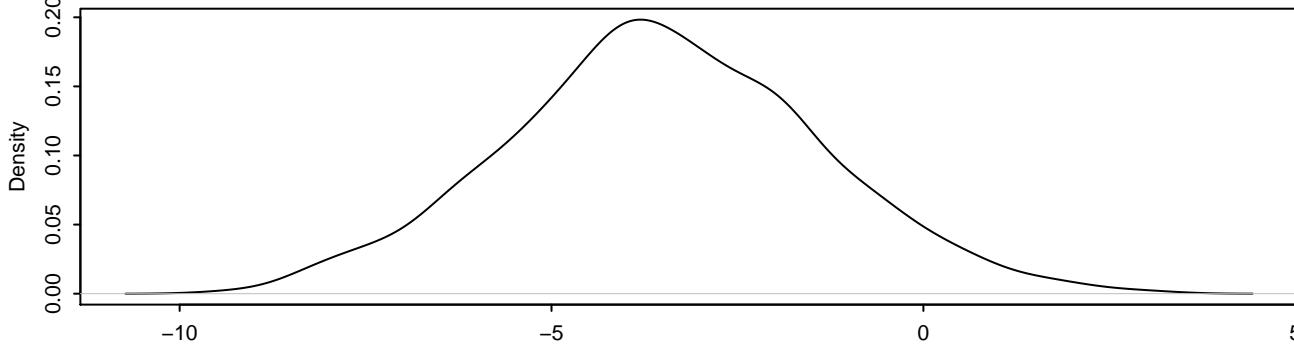
**Expected Quantile Values:  $Q(\tau=0.5 | X)$**



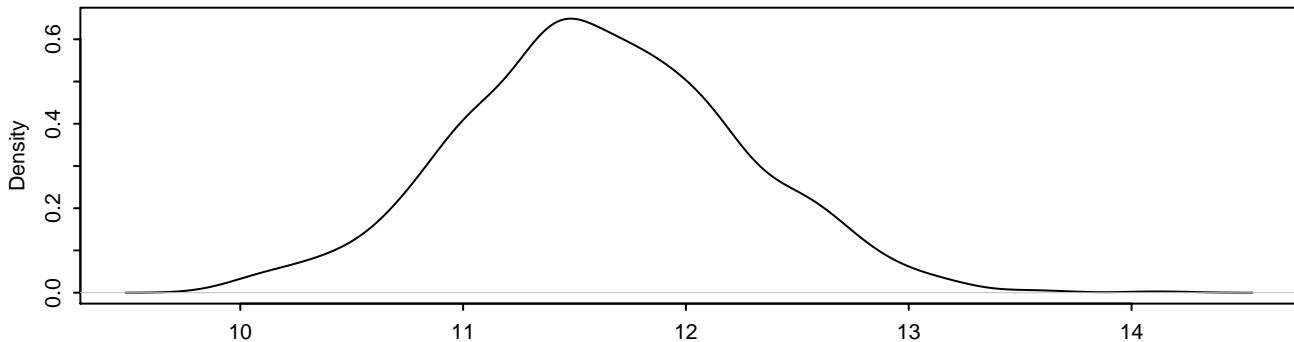
**Predicted Quantile Values:  $Q(\tau=0.5 | X)$**



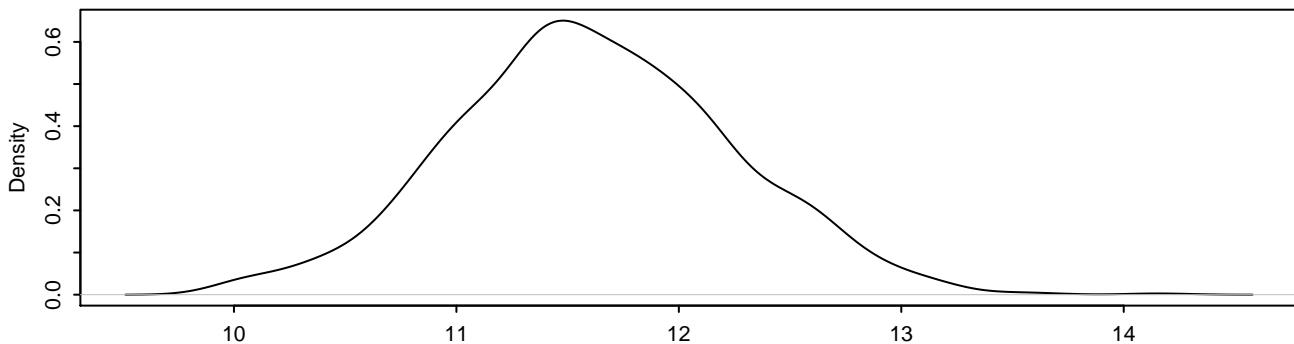
**First Differences in Expected Quantile Values:  $Q(\tau=0.5 | X_1) - Q(\tau=0.5 | X)$**



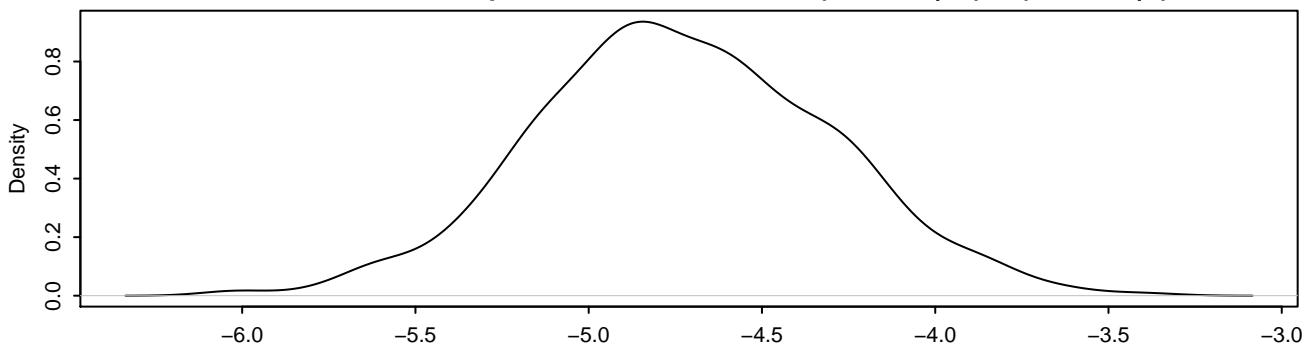
**Expected Quantile Values:  $Q(\tau=0.5 | X)$**



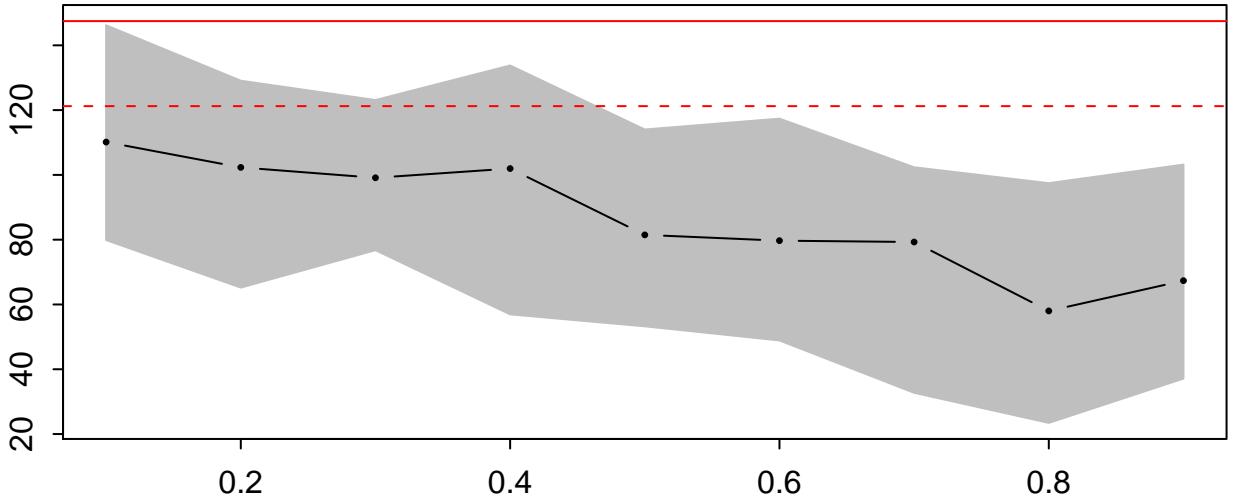
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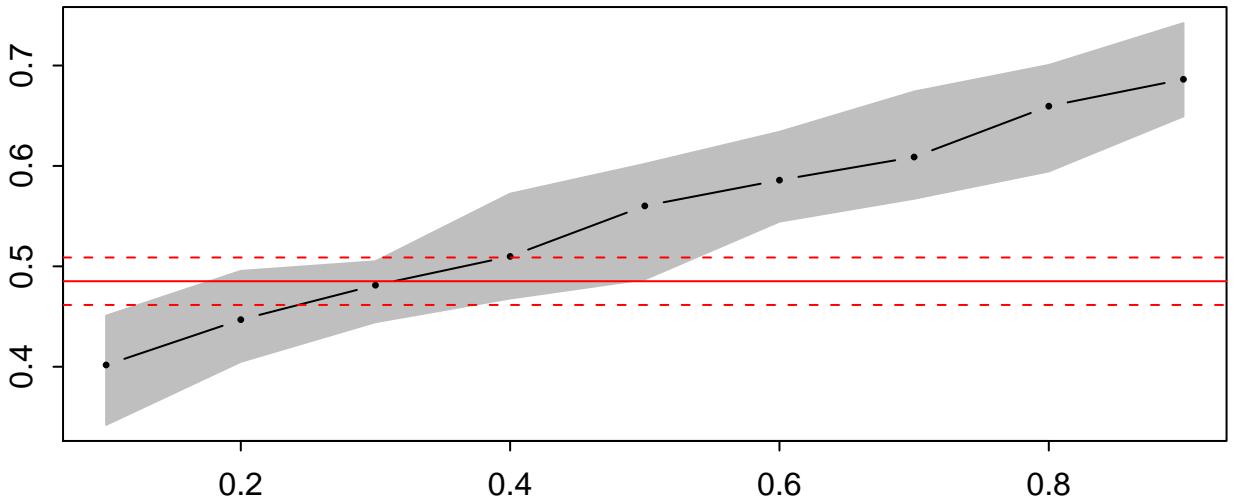
**First Differences in Expected Quantile Values:  $Q(\tau=0.5 | X_1) - Q(\tau=0.5 | X)$**



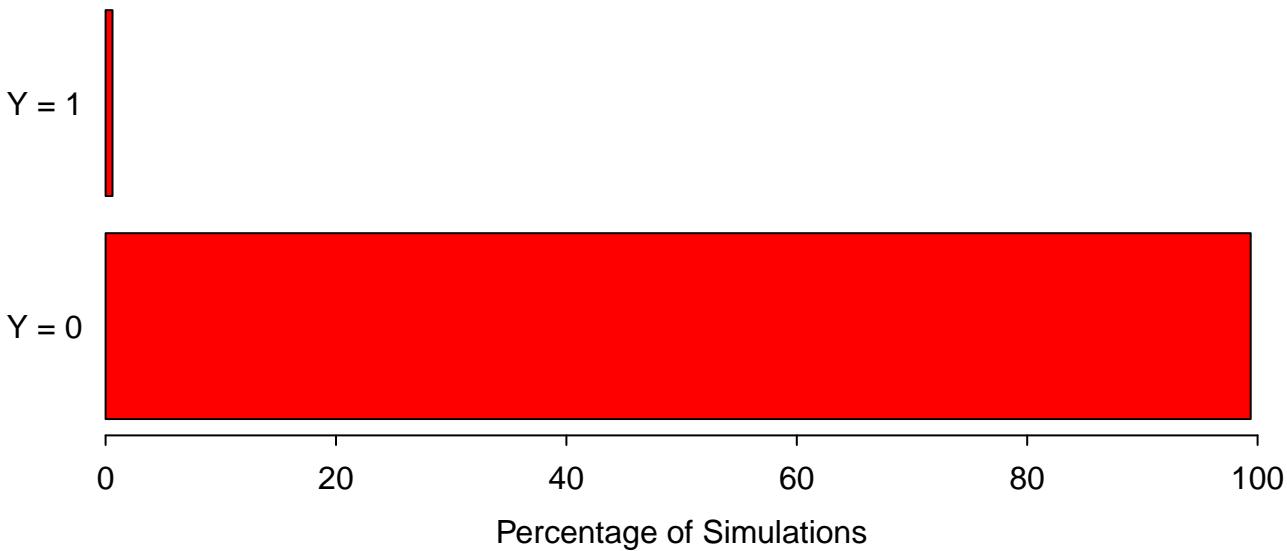
### (Intercept)



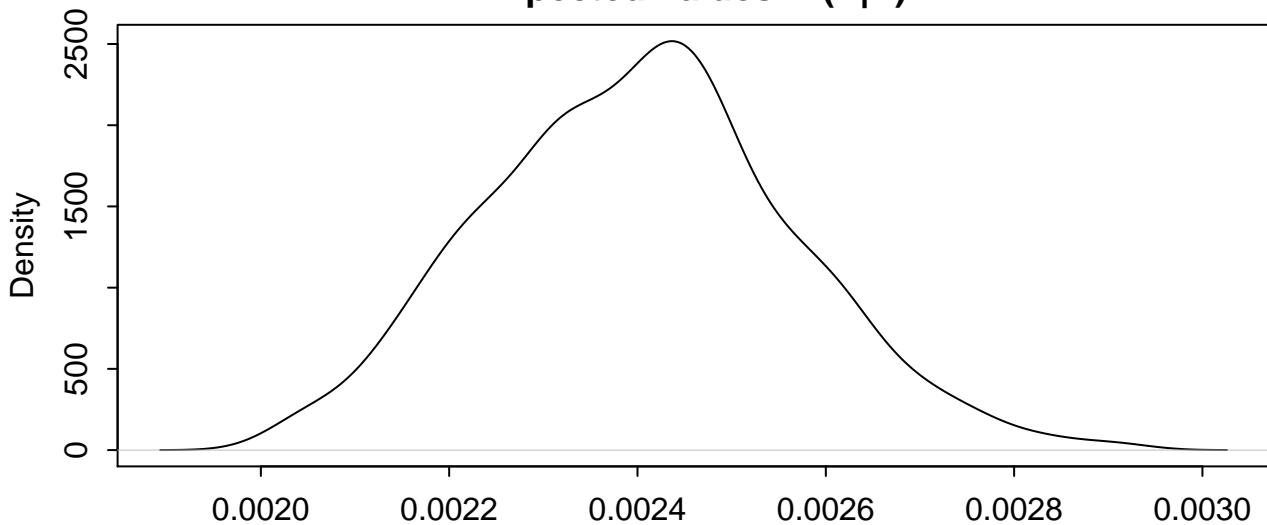
### income



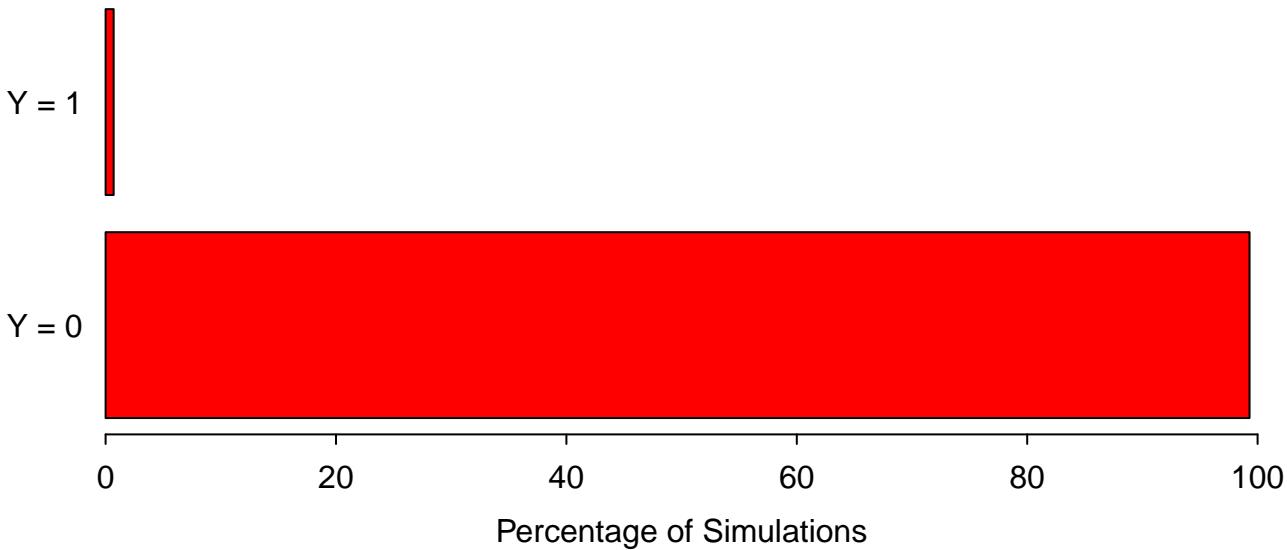
### Predicted Values: $Y|X$



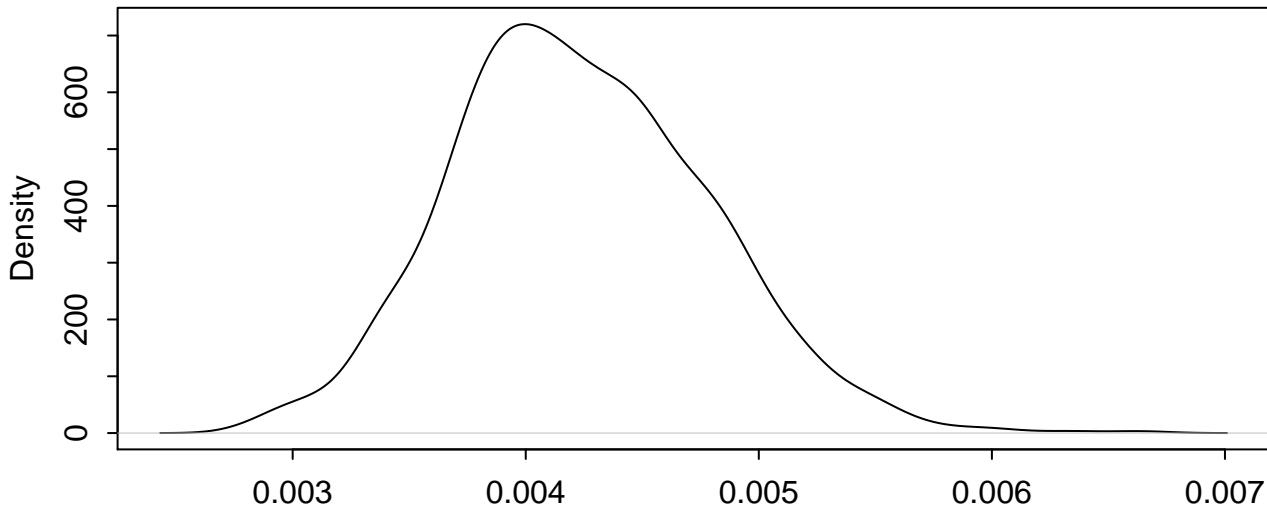
### Expected Values: $E(Y|X)$



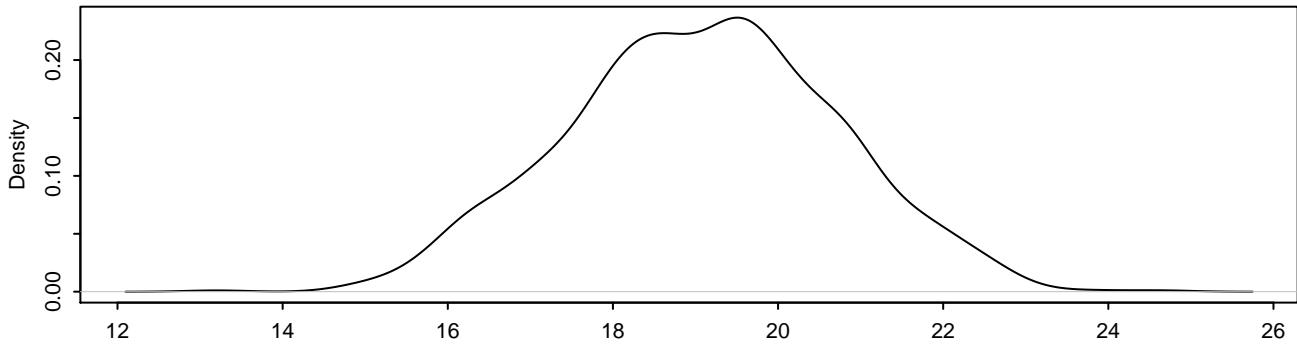
### Predicted Values: $Y|X$



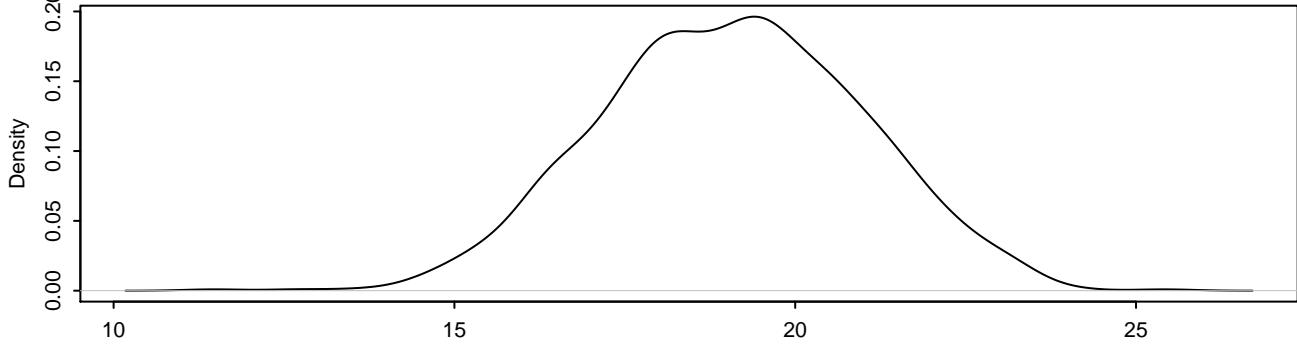
### Expected Values: $E(Y|X)$



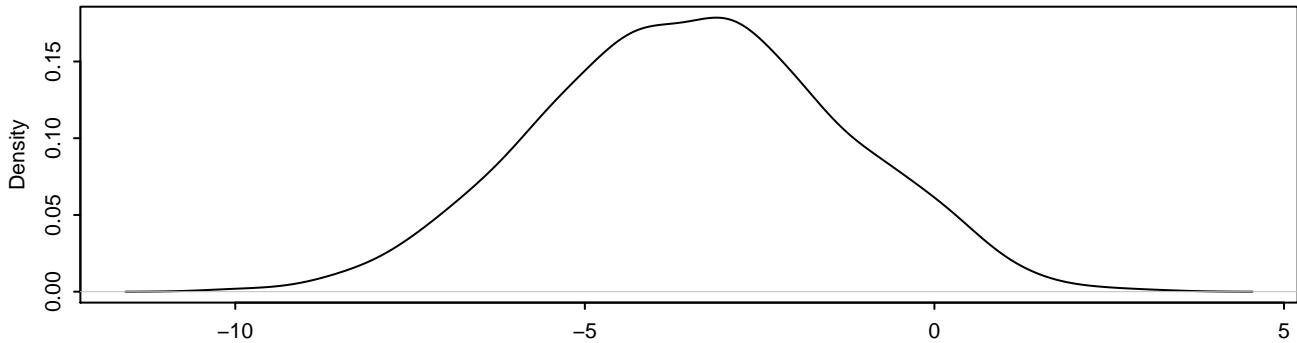
**Expected Quantile Values:  $Q(\tau=0.5 | X)$**



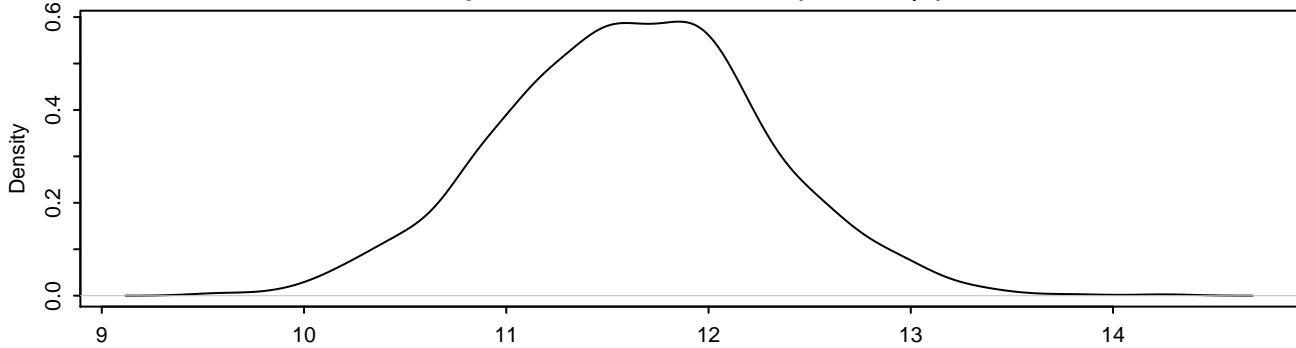
**Predicted Quantile Values:  $Q(\tau=0.5 | X)$**



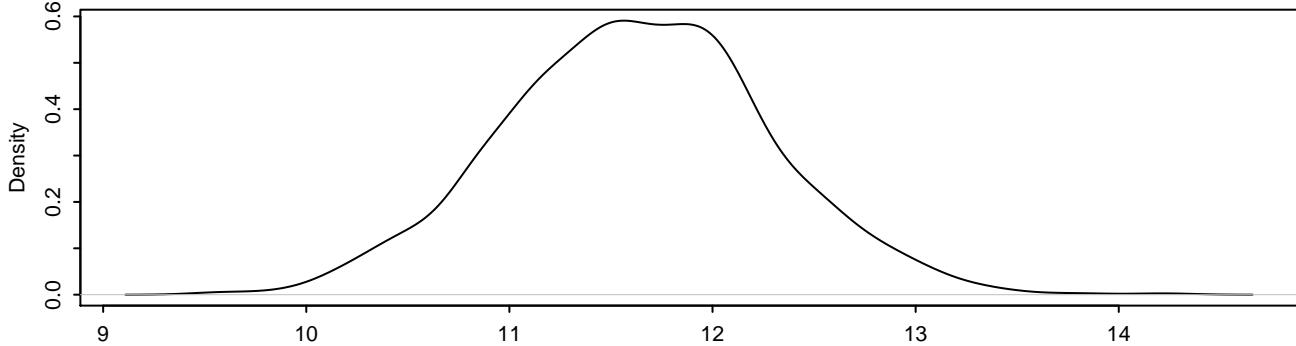
**First Differences in Expected Quantile Values:  $Q(\tau=0.5 | X_1) - Q(\tau=0.5 | X)$**



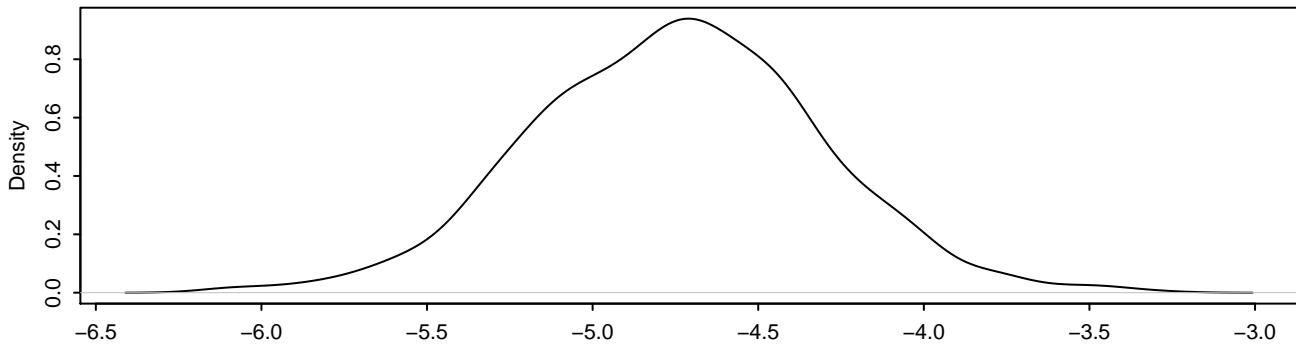
**Expected Quantile Values:  $Q(\tau=0.5 | X)$**



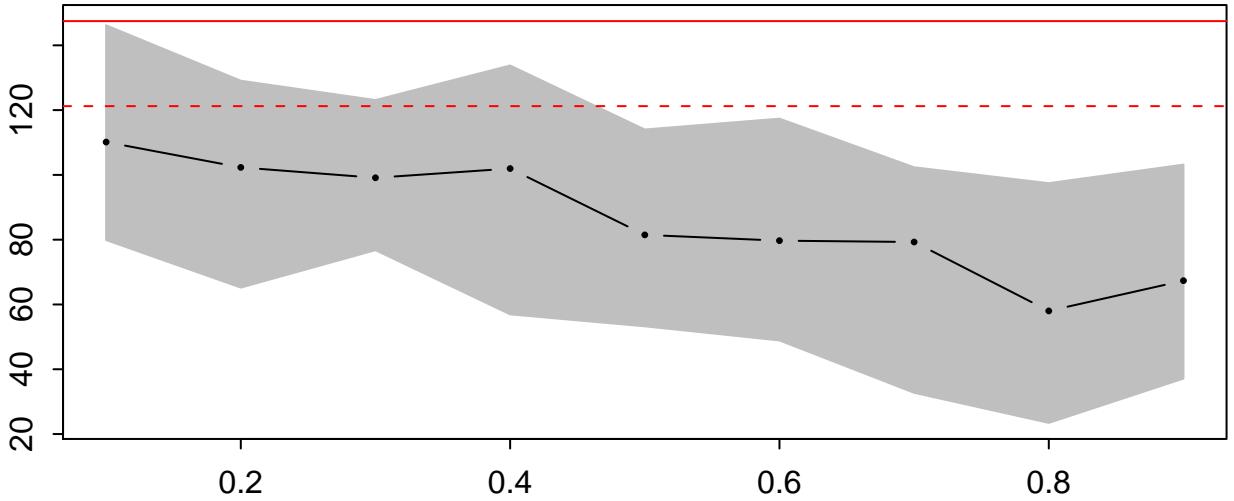
**Predicted Quantile Values:  $Q(\tau=0.5 | X)$**



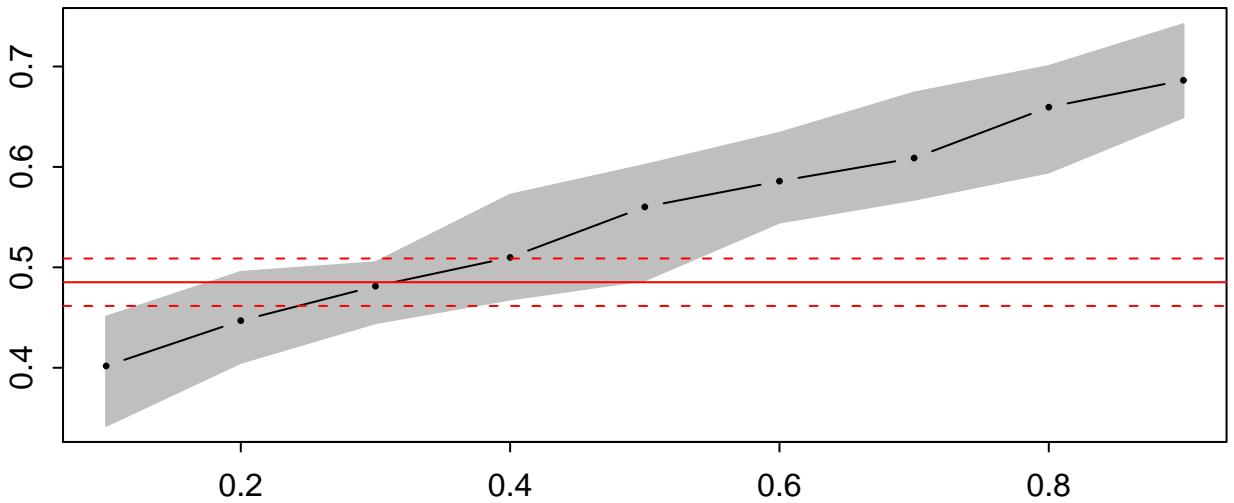
**First Differences in Expected Quantile Values:  $Q(\tau=0.5 | X_1) - Q(\tau=0.5 | X)$**



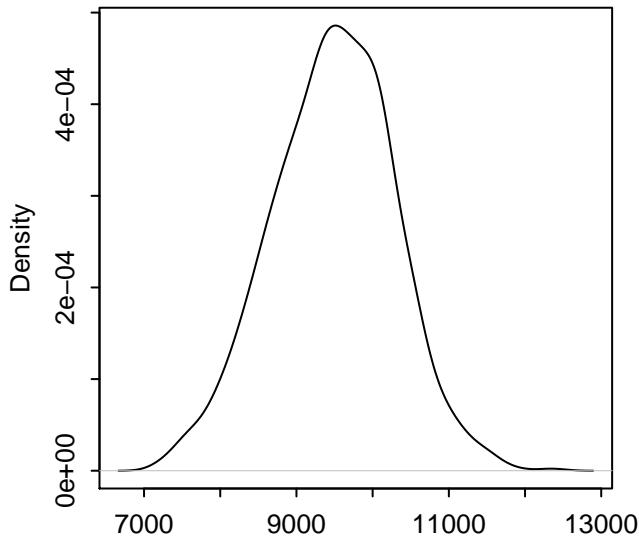
### (Intercept)



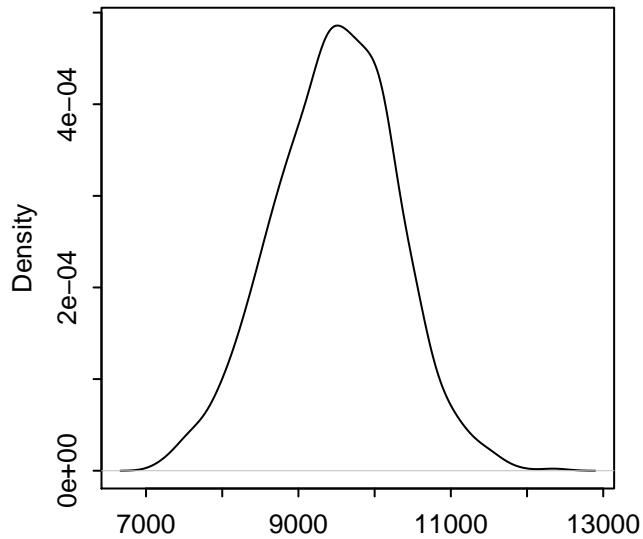
### income



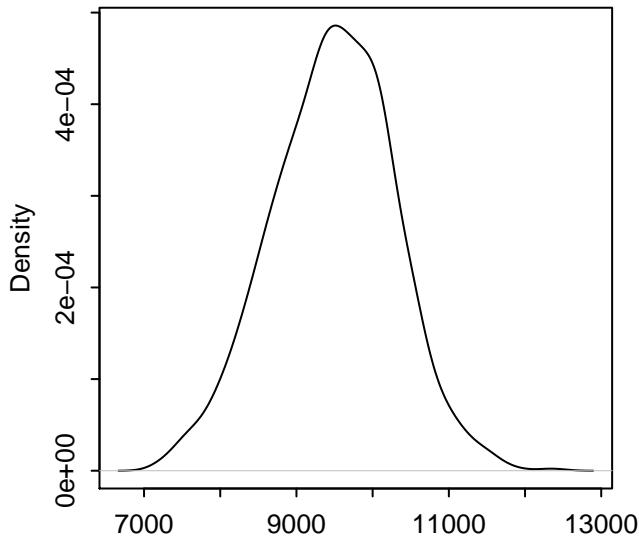
**Expected Values:  $E(Y|X)$**



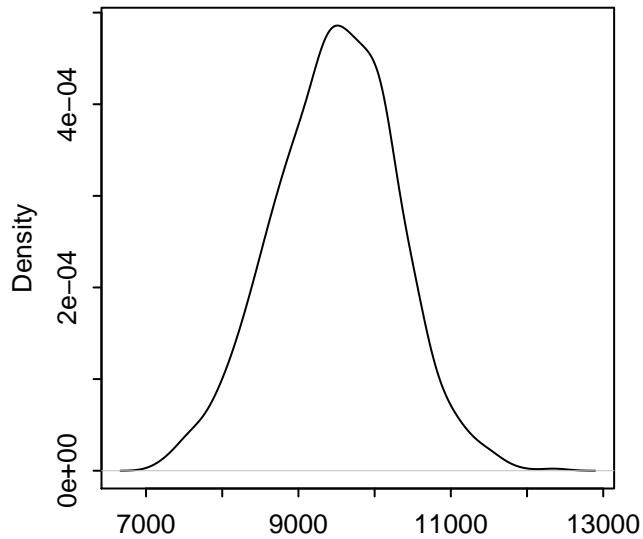
**Expected Values:  $E(Y|X)$**



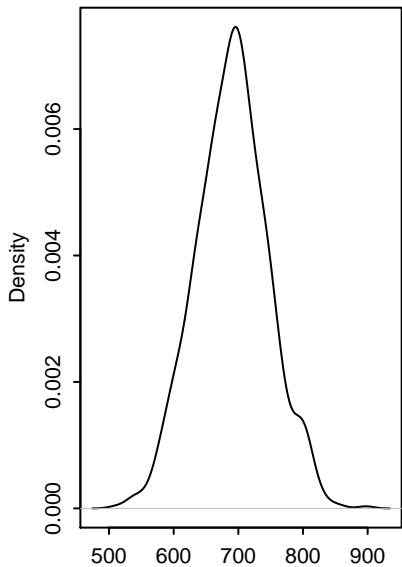
**Predicted Values:  $Y|X$**



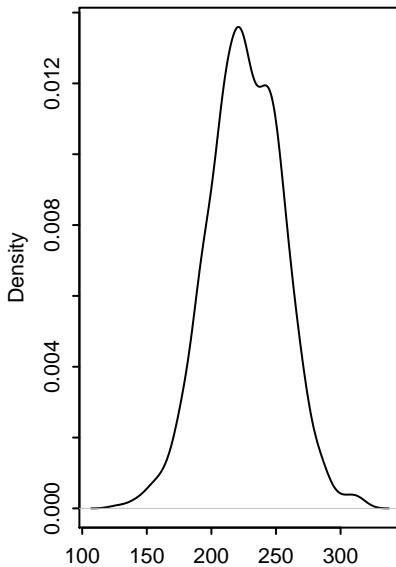
**Predicted Values:  $Y|X$**



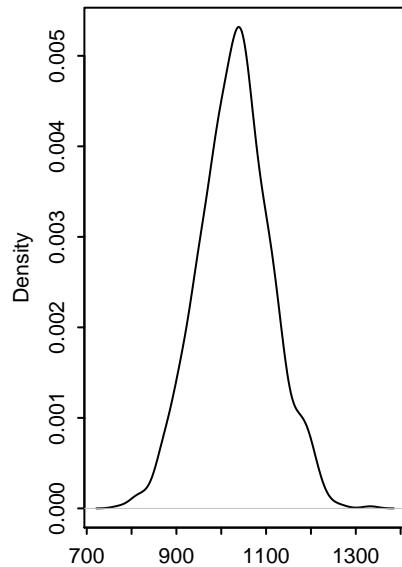
**Expected Values:  $E(Y|X)$**



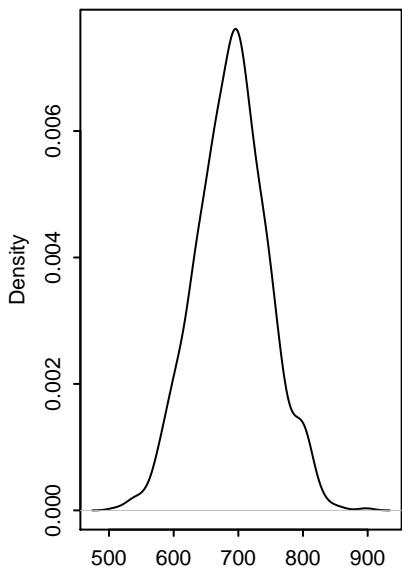
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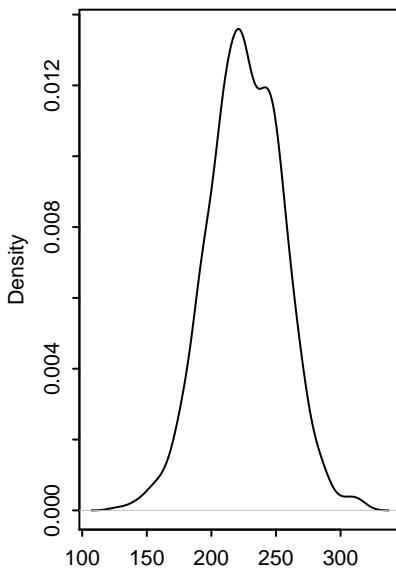
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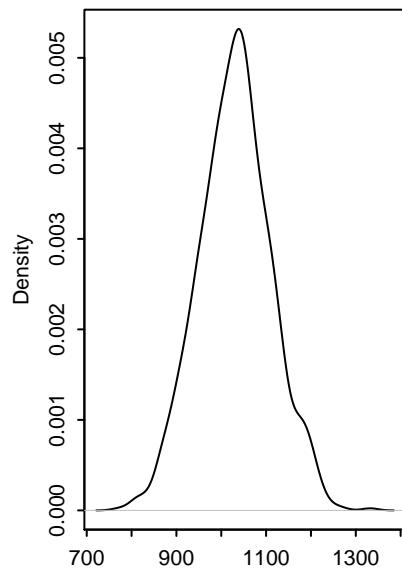
**Predicted Values:  $Y|X$**



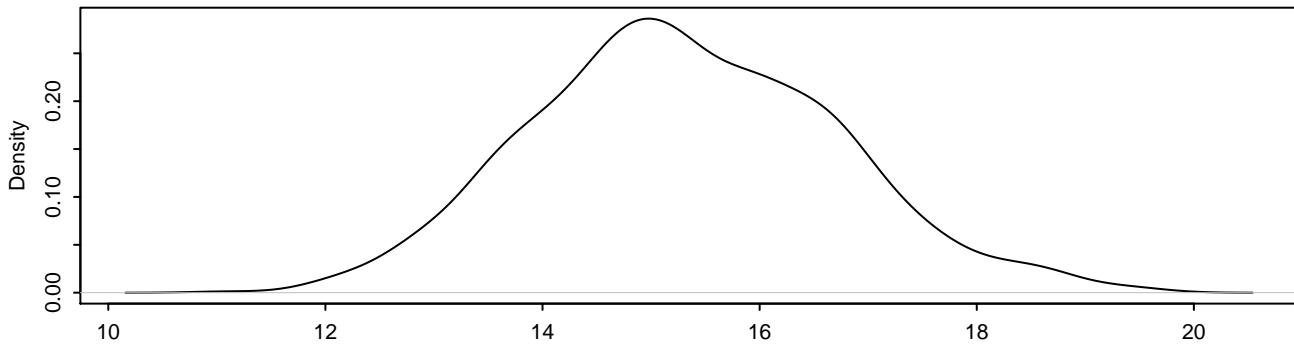
**Predicted Values:  $Y|X$**



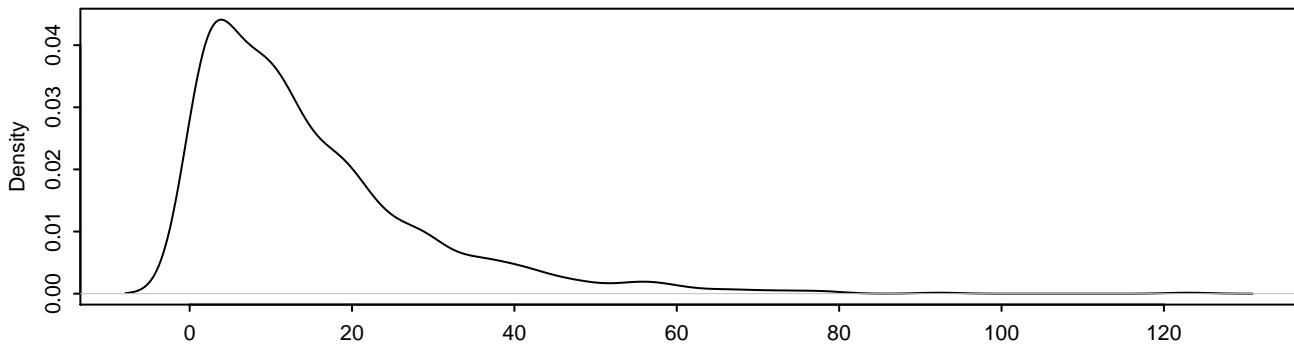
**Predicted Values:  $Y|X$**



**Expected Values:  $E(Y|X)$**



**Predicted Values:  $Y|X$**



**First Differences:  $E(Y|X_1) - E(Y|X)$**

