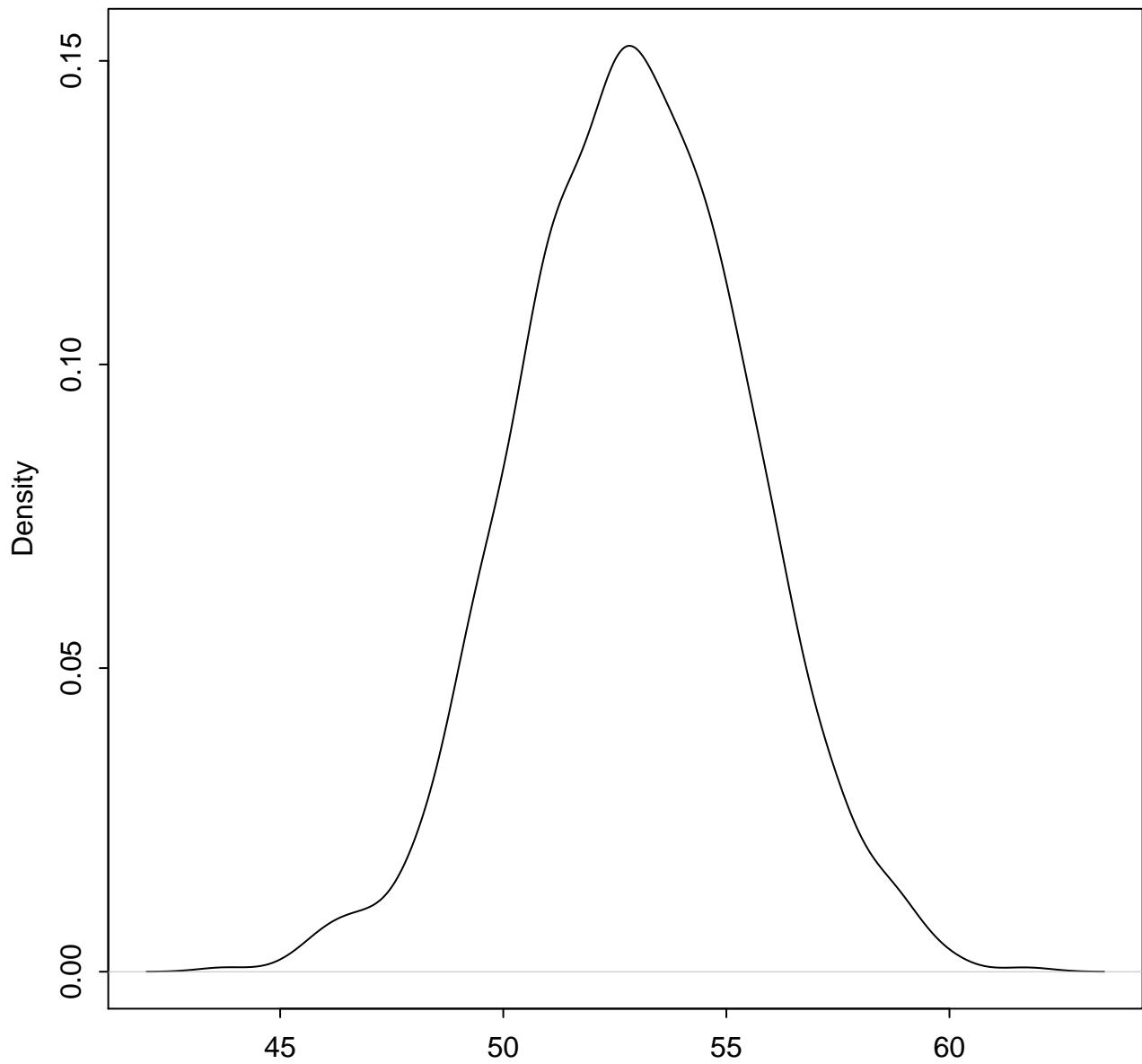
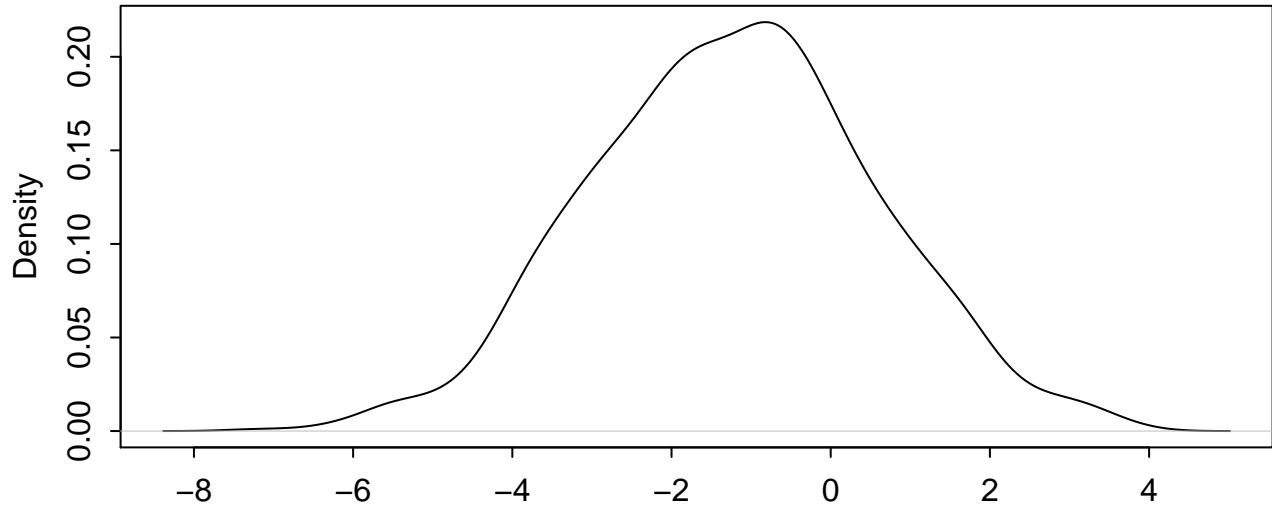


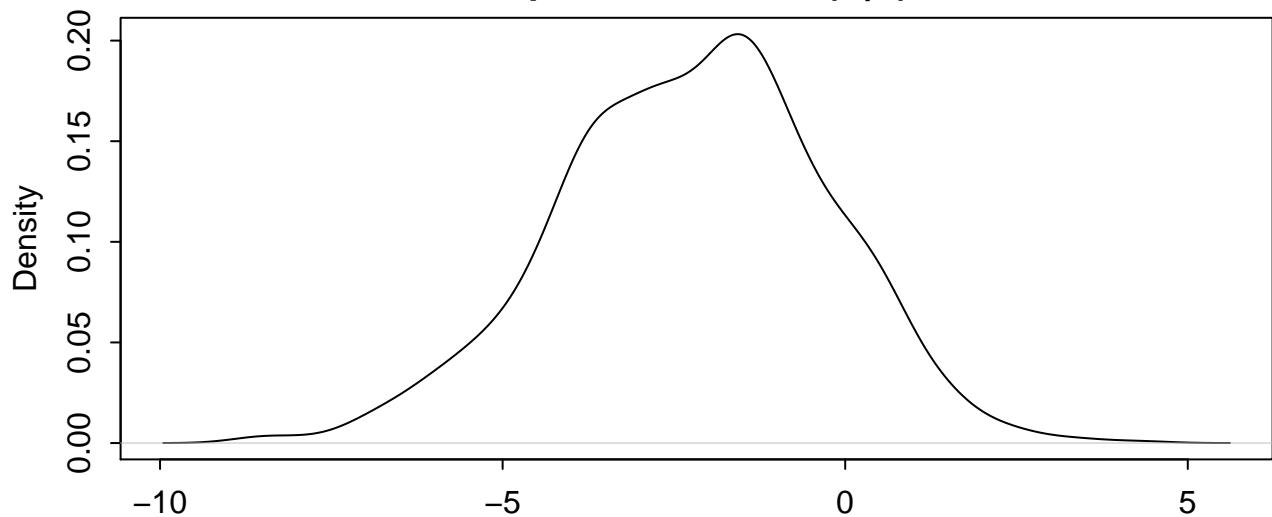
## Expected Values: $E(Y|X)$



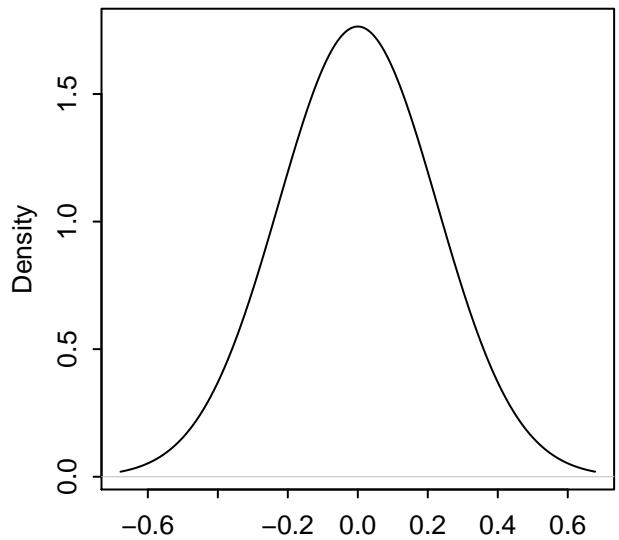
**Expected Values:  $E(Y|X)$**



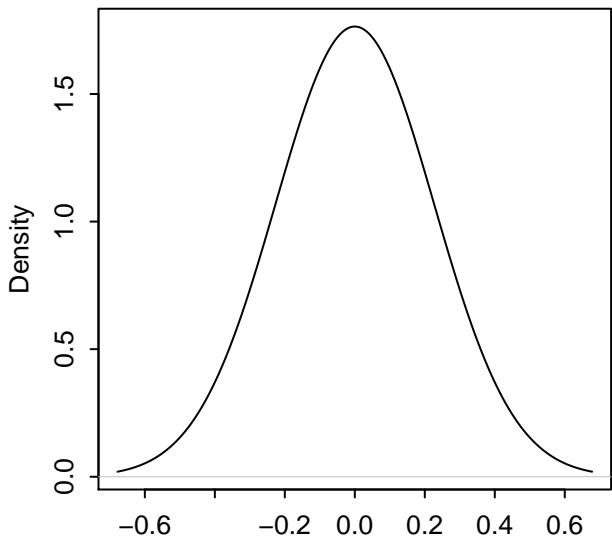
**Expected Values:  $E(Y|X)$**



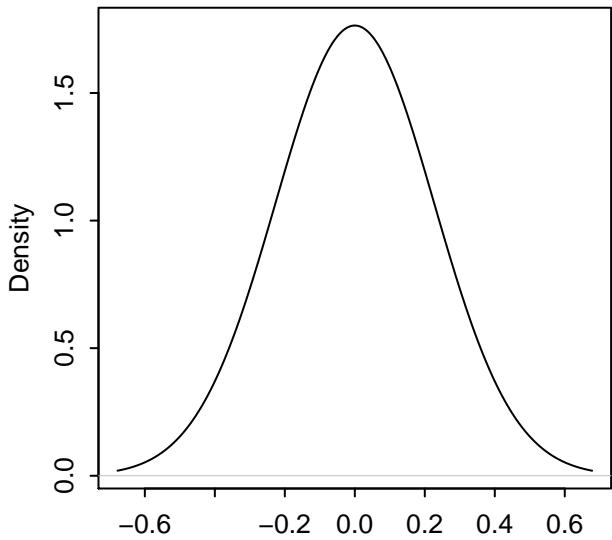
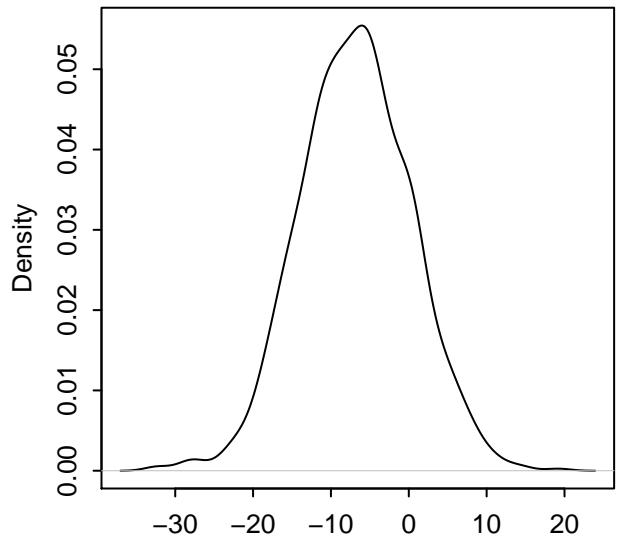
**Expected Values:  $E(Y|X)$**

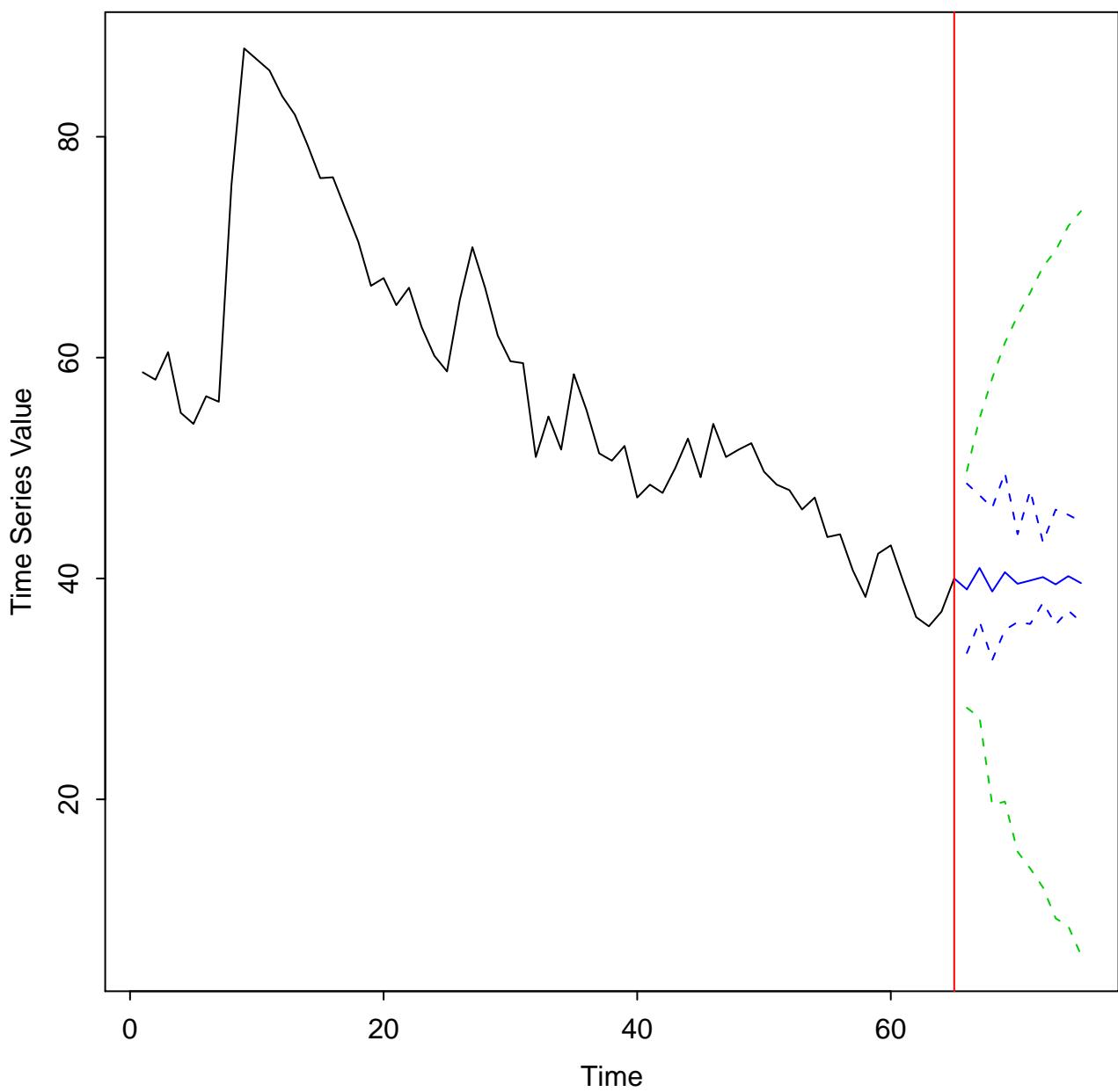


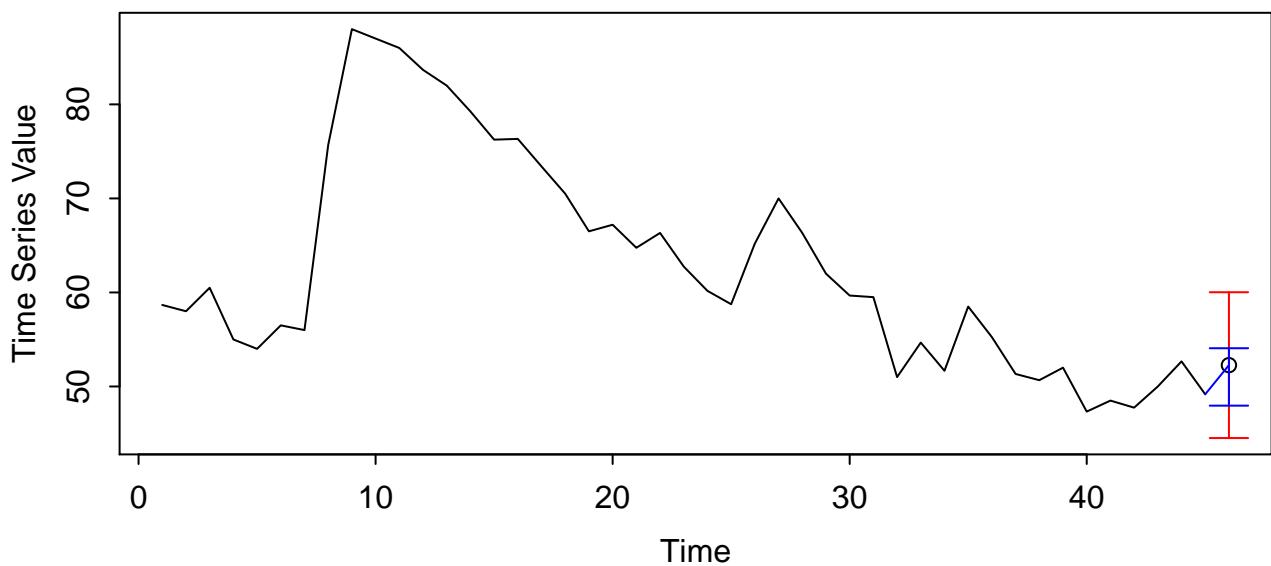
**Expected Values:  $E(Y|X)$**



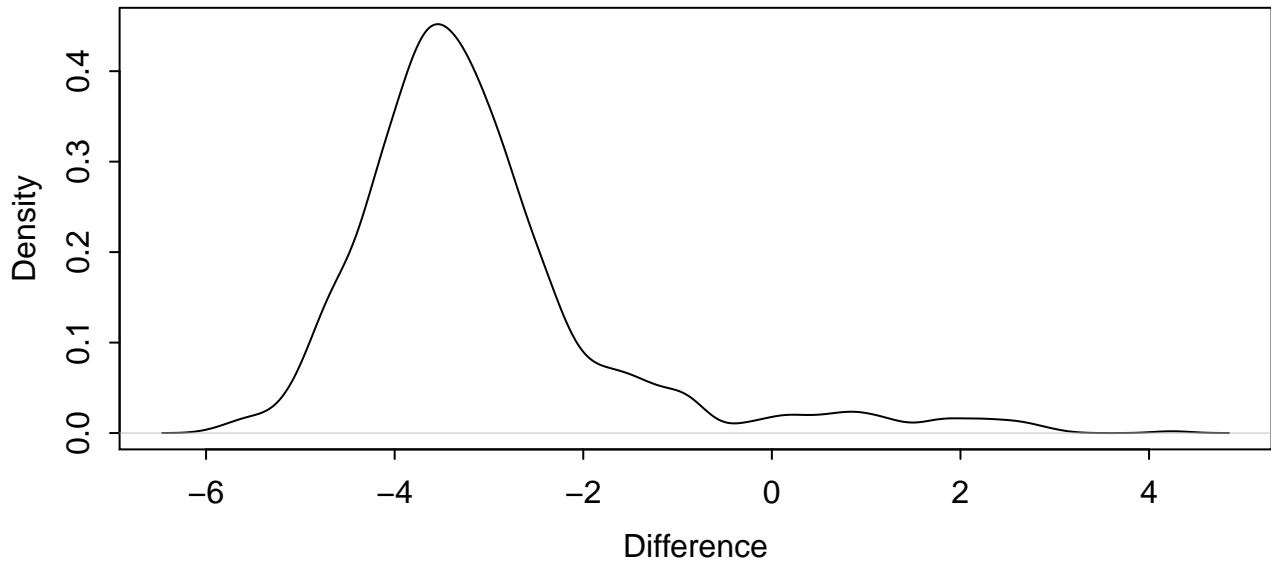
**First Differences in Expected Values:  $E(Y|X_1)$ -first Differences in Expected Values:  $E(Y|X_1)$**

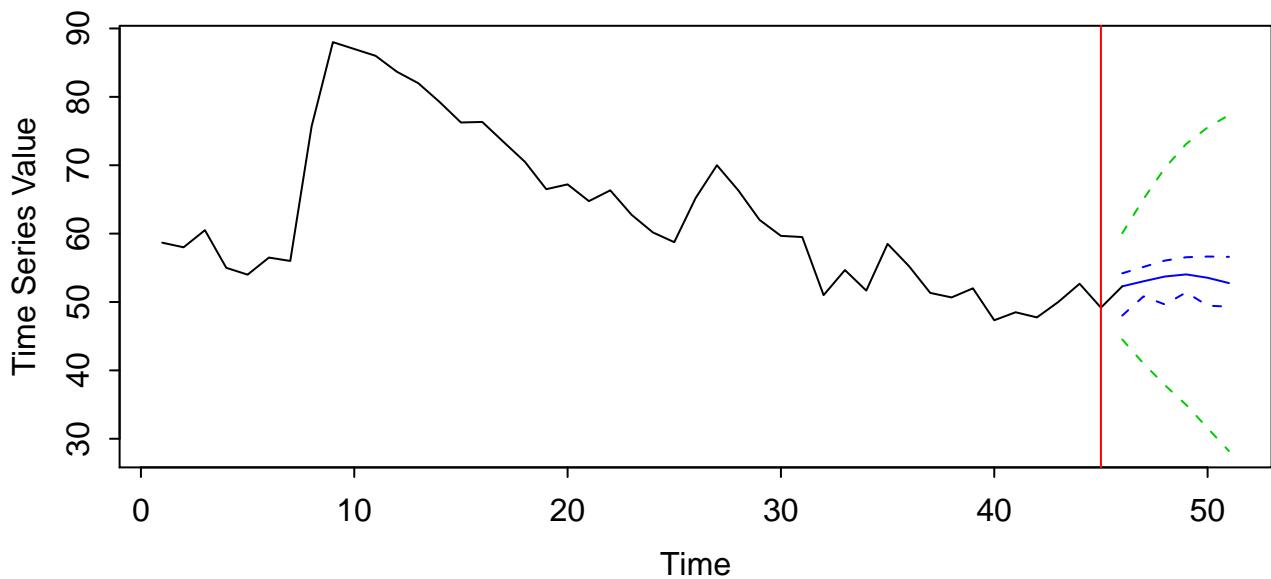




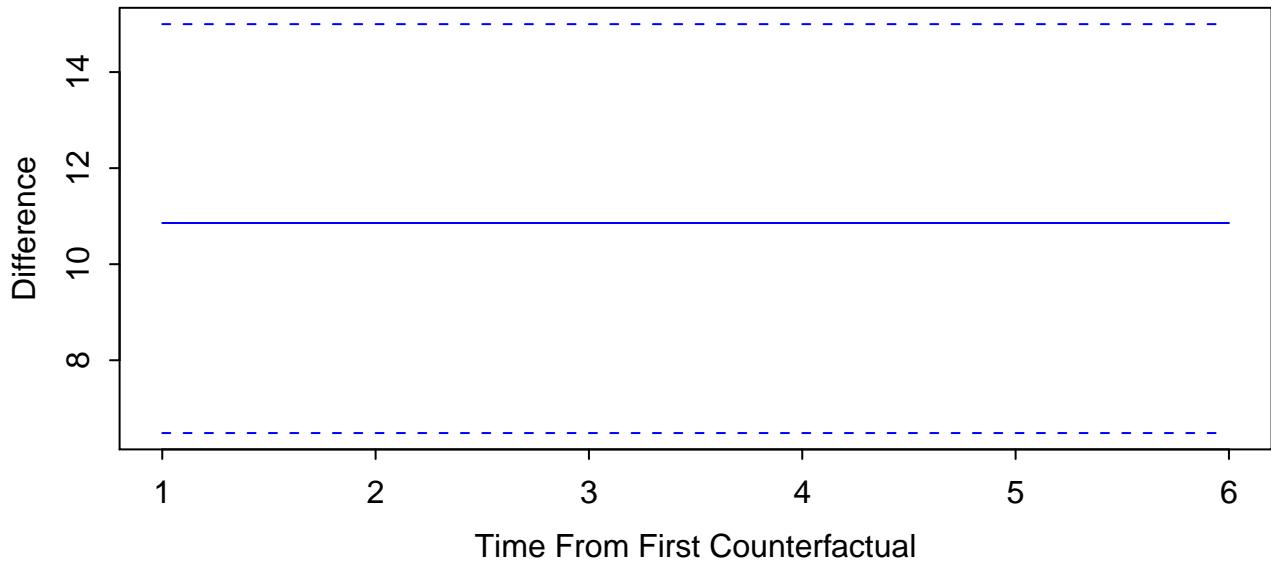


$Y - E[Y|X]$

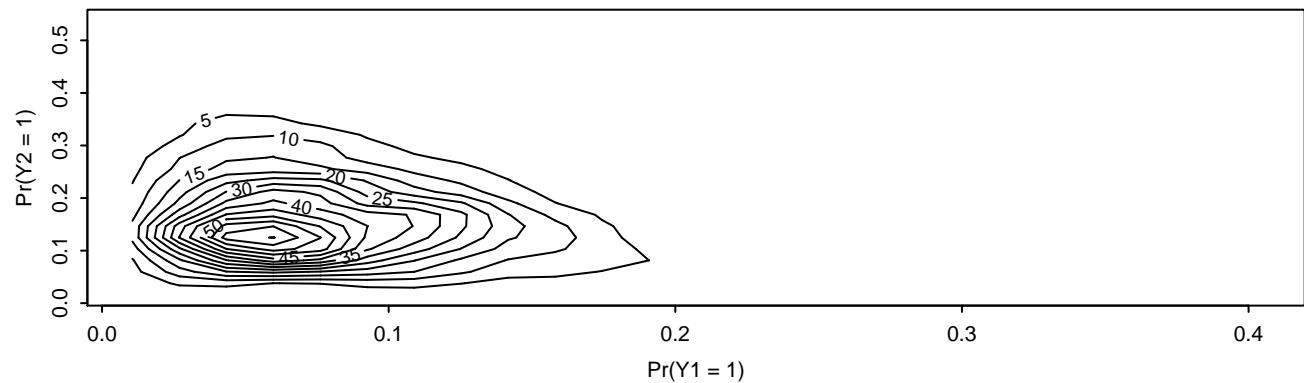




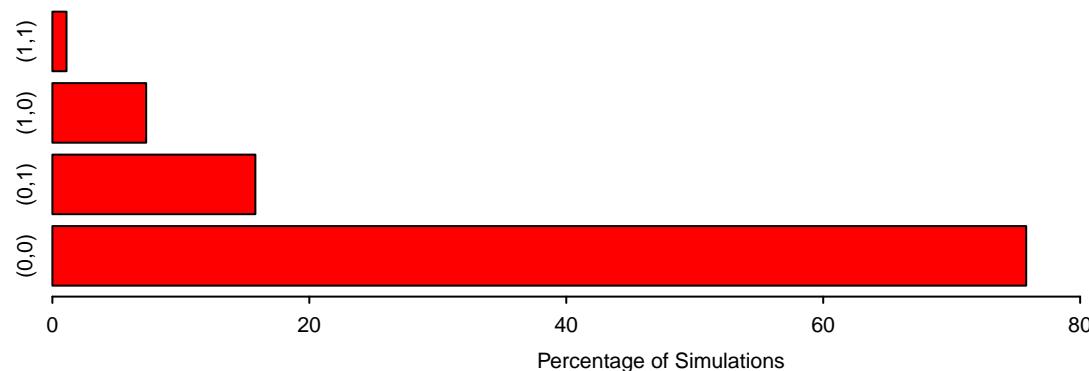
$$E[Y|X_1] - E[Y|X]$$



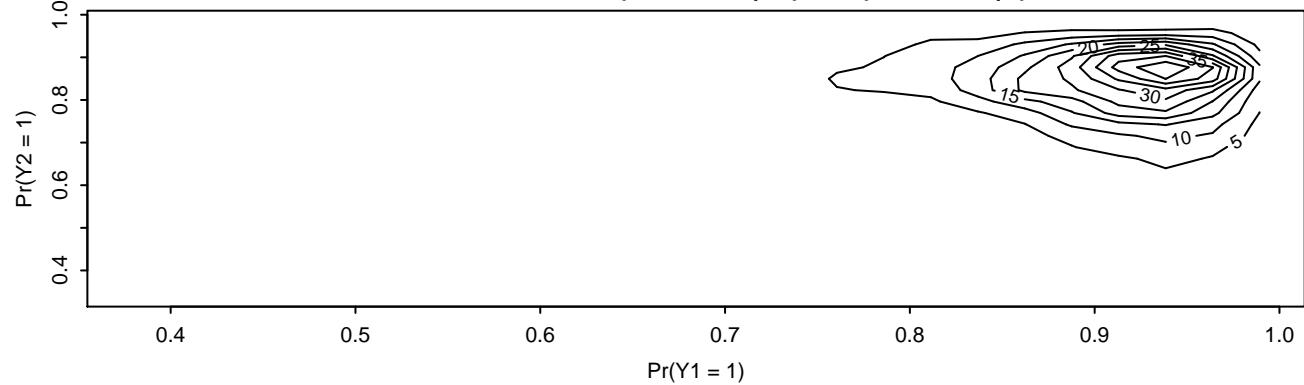
### Predicted Probabilities: $\Pr(Y_1=k, Y_2=l|X)$



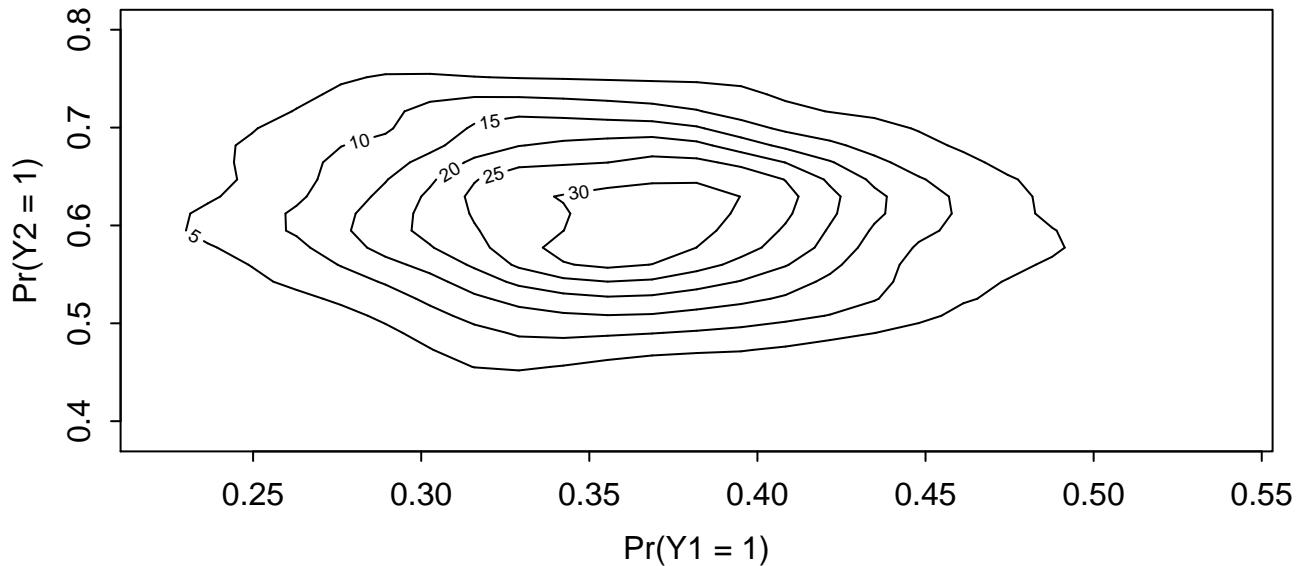
### Predicted Values: $(Y_1, Y_2)|X$



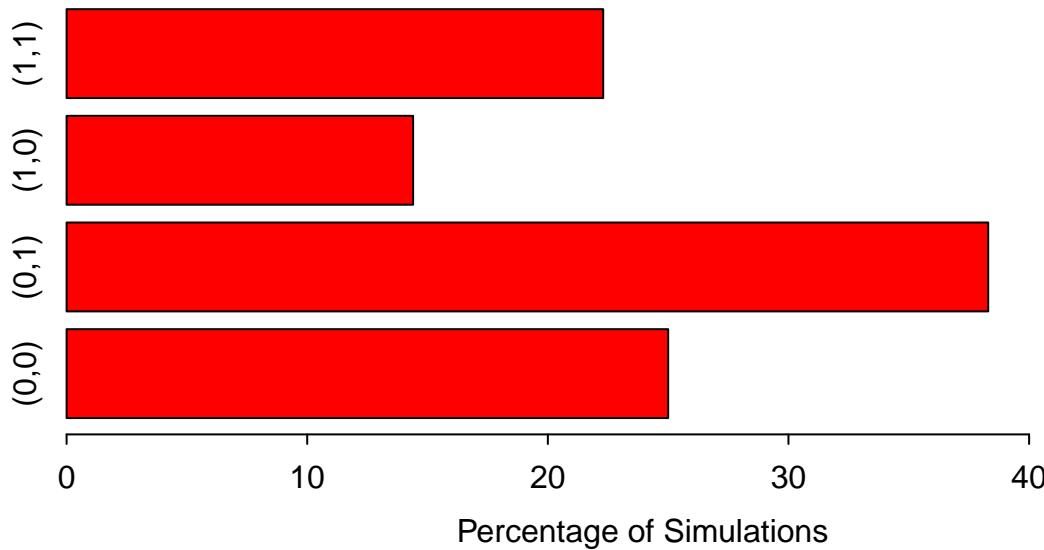
### First Differences: $\Pr(Y_1=k, Y_2=l|X_1) - \Pr(Y_1=k, Y_2=l|X)$



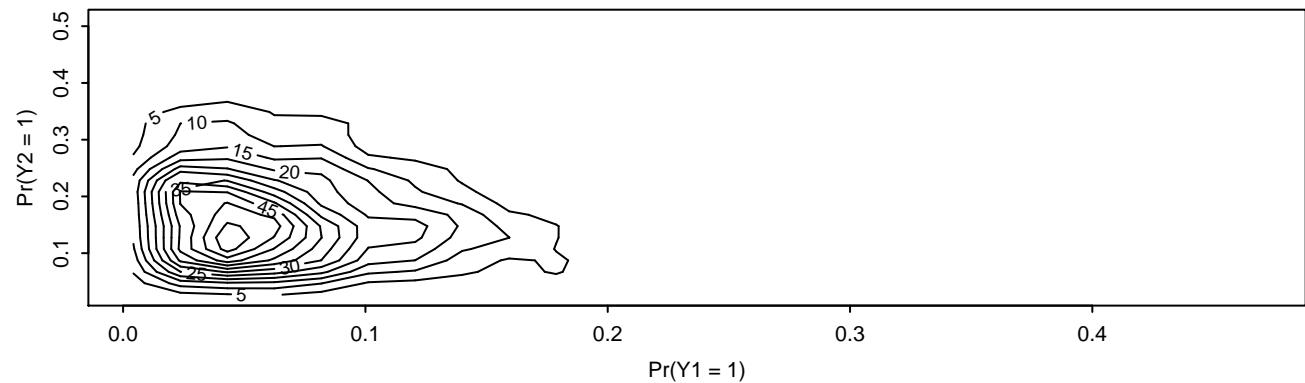
### Predicted Probabilities: $\Pr(Y_1=k, Y_2=l|X)$



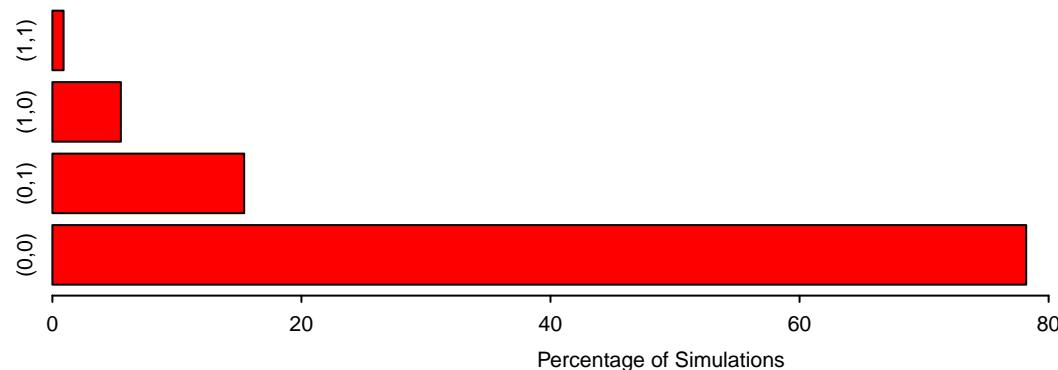
### Predicted Values: $(Y_1, Y_2)|X$



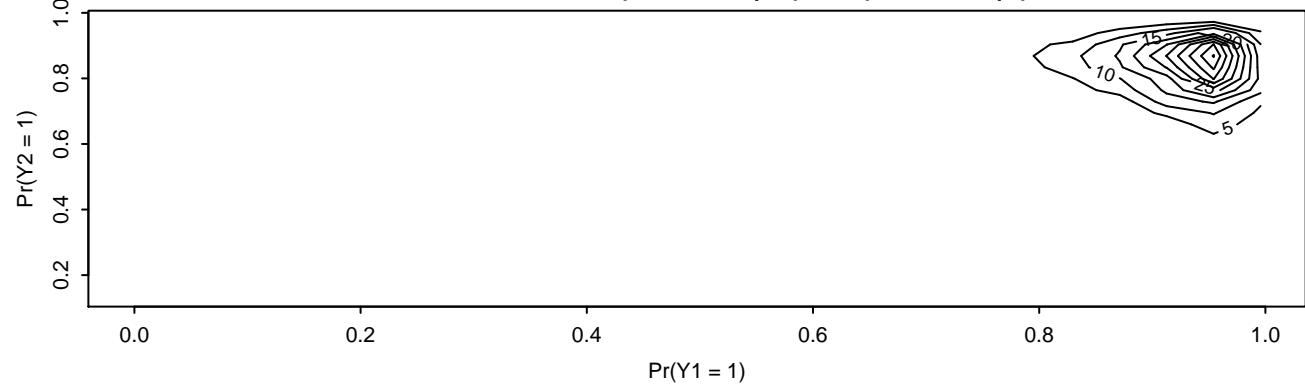
### Predicted Probabilities: $\Pr(Y_1=k, Y_2=l|X)$



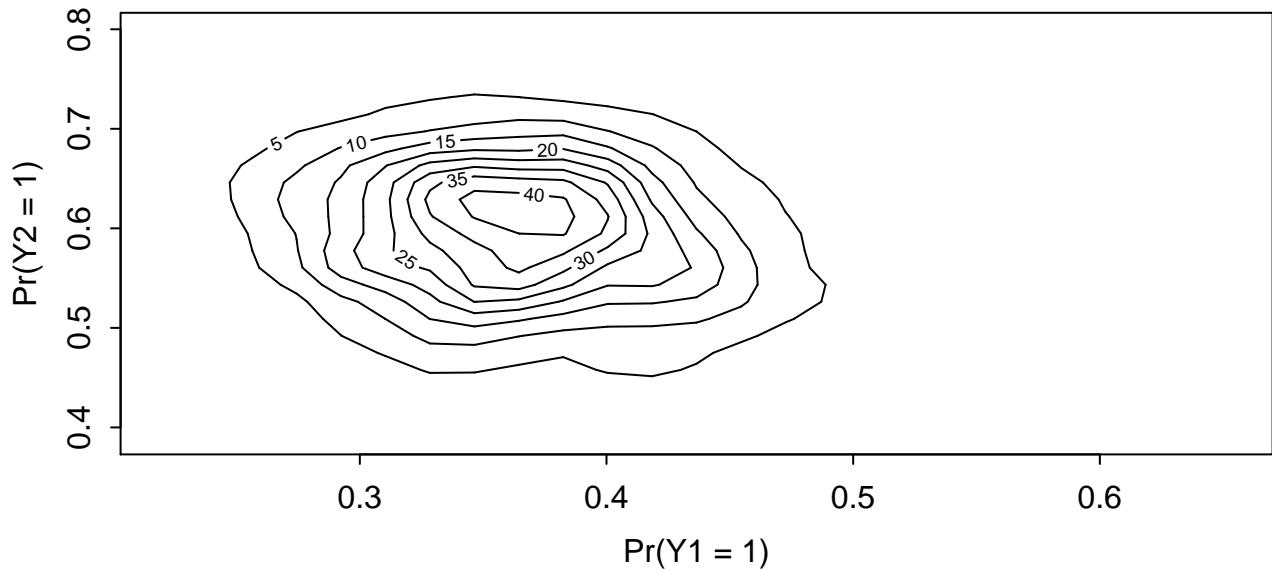
### Predicted Values: $(Y_1, Y_2)|X$



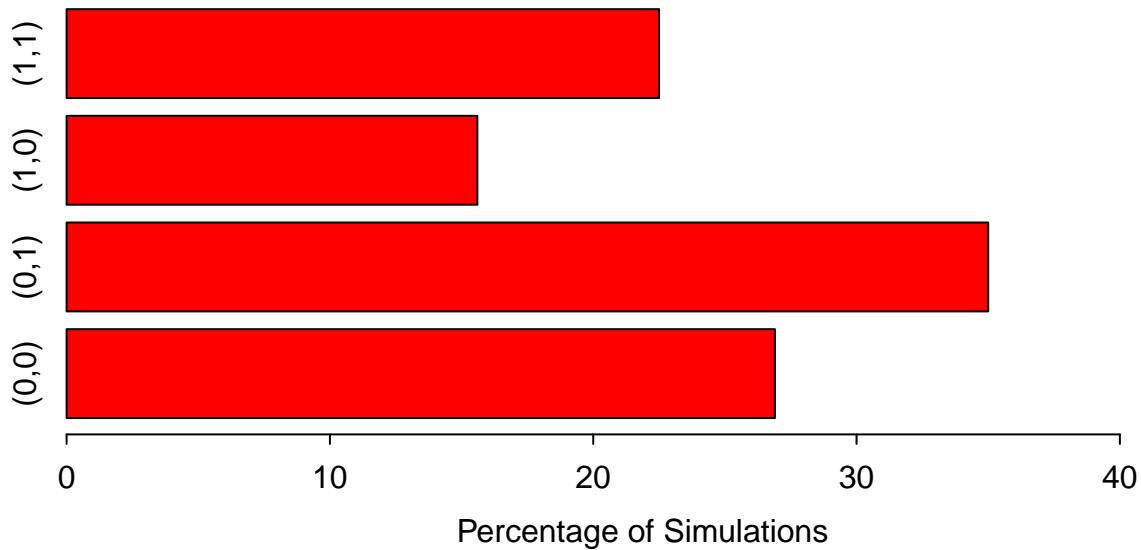
### First Differences: $\Pr(Y_1=k, Y_2=l|X_1) - \Pr(Y_1=k, Y_2=l|X)$



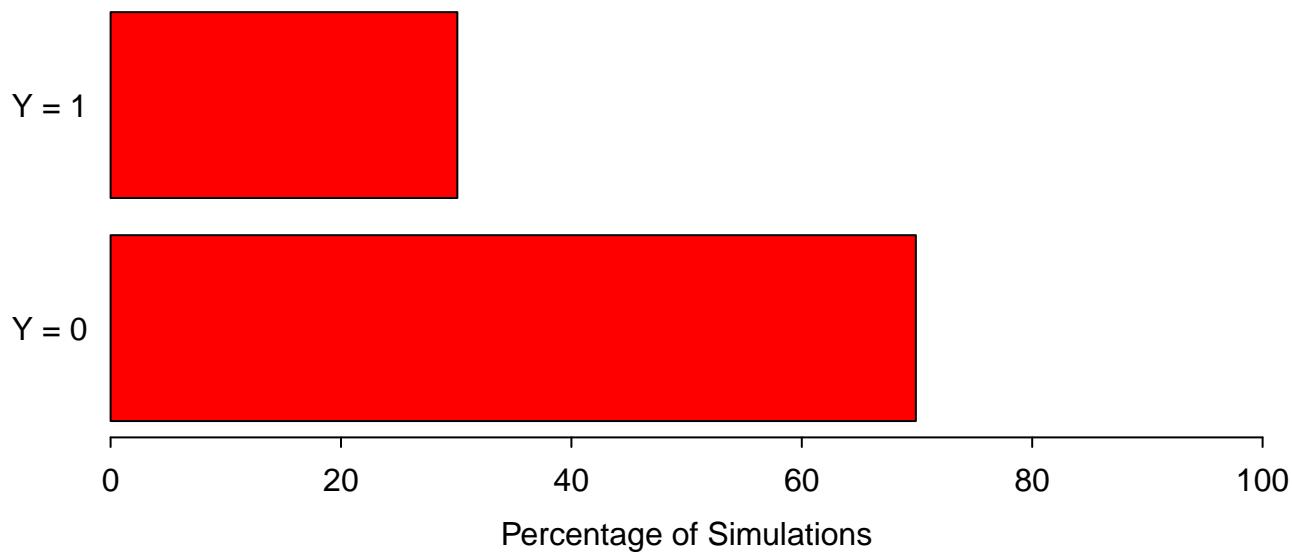
## Predicted Probabilities: $\Pr(Y_1=k, Y_2=l|X)$



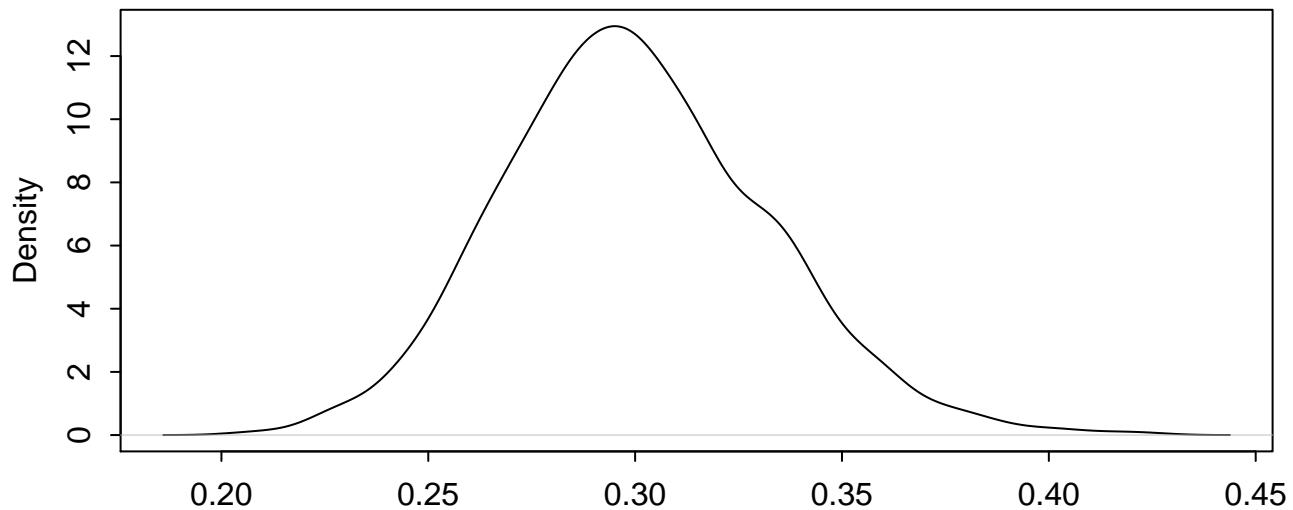
## Predicted Values: $(Y_1, Y_2)|X$



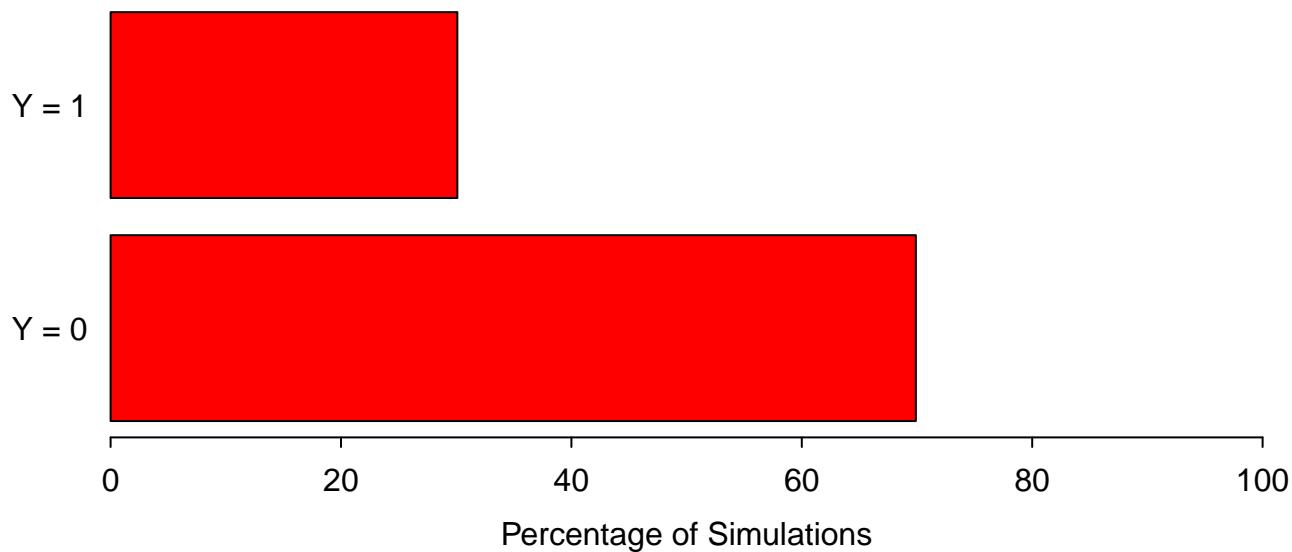
### Predicted Values: $Y|X$



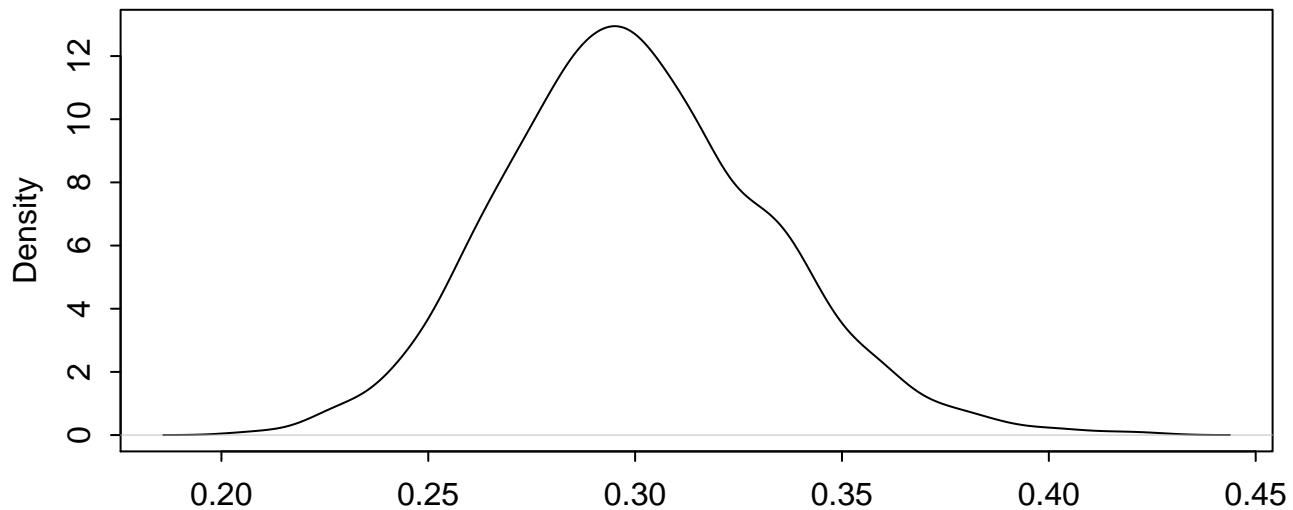
### Expected Values: $E(Y|X)$



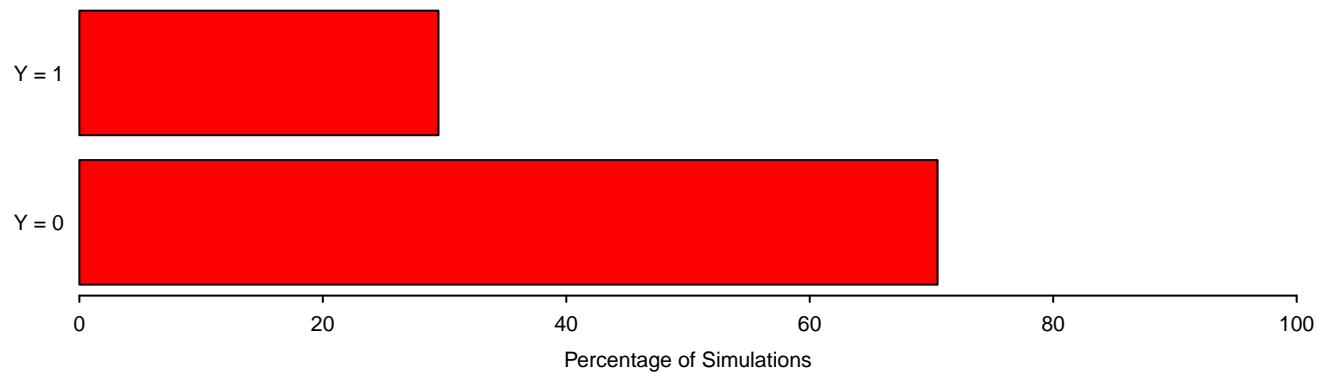
### Predicted Values: $Y|X$



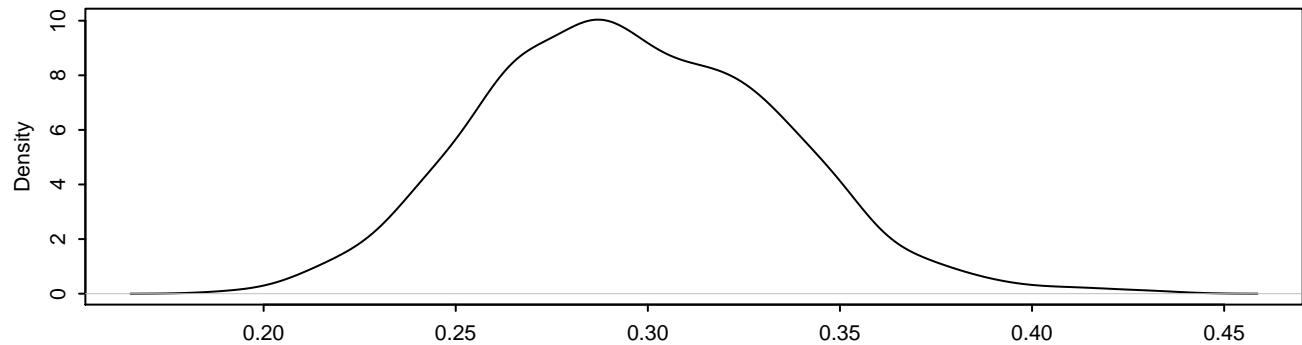
### Expected Values: $E(Y|X)$



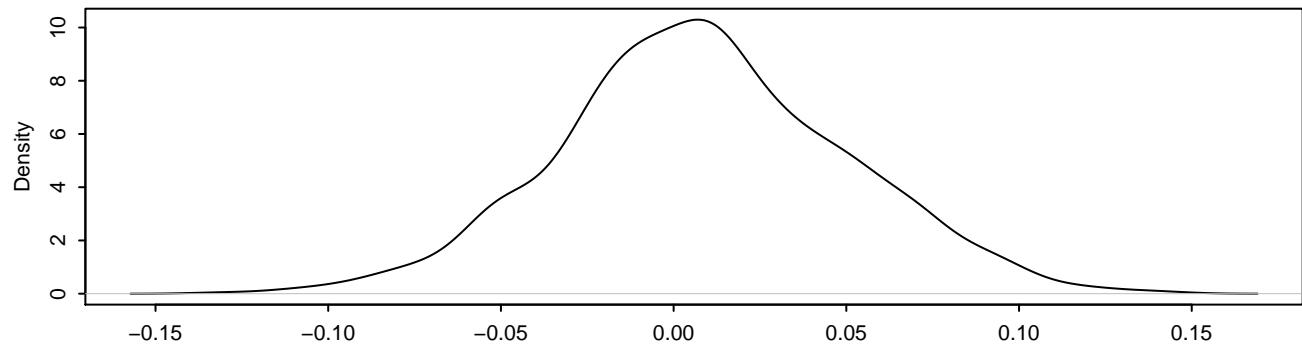
### Predicted Values: $Y|X$



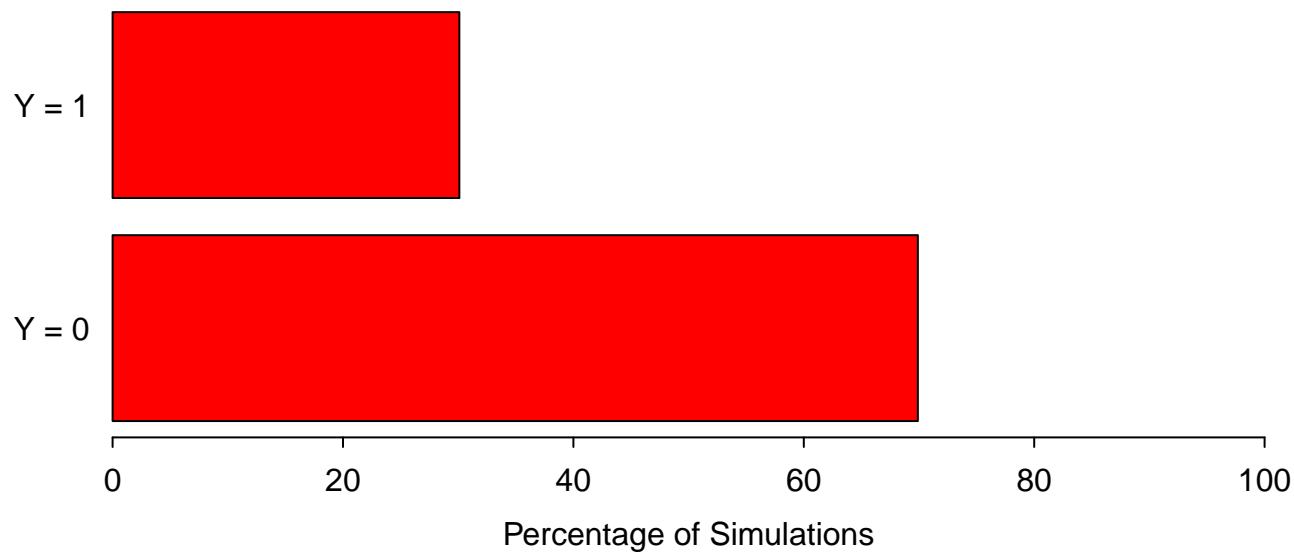
### Expected Values: $E(Y|X)$



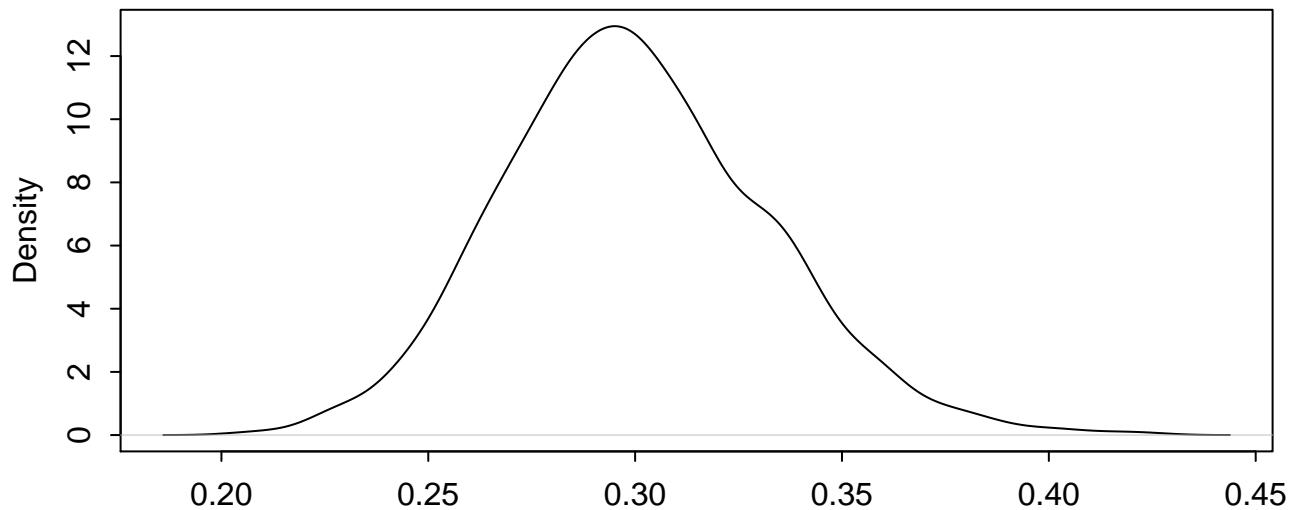
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



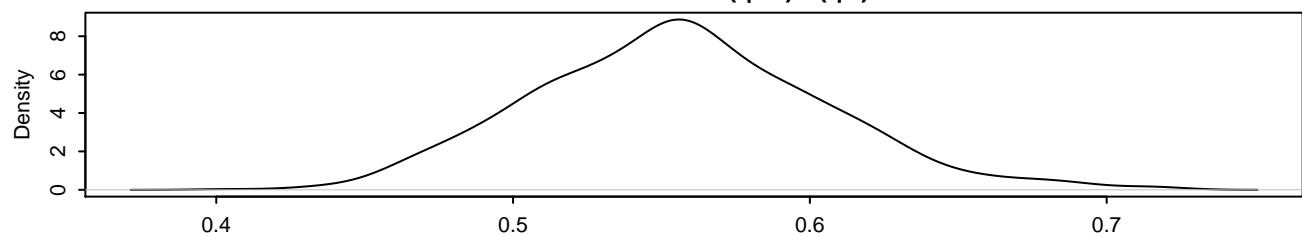
### Predicted Values: $Y|X$



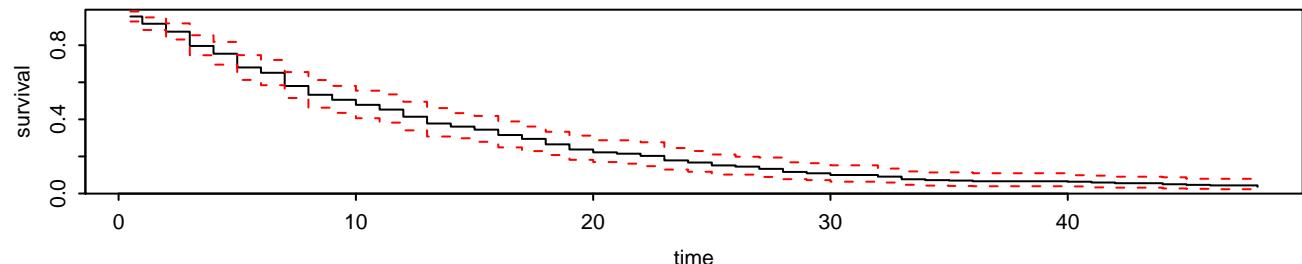
### Expected Values: $E(Y|X)$



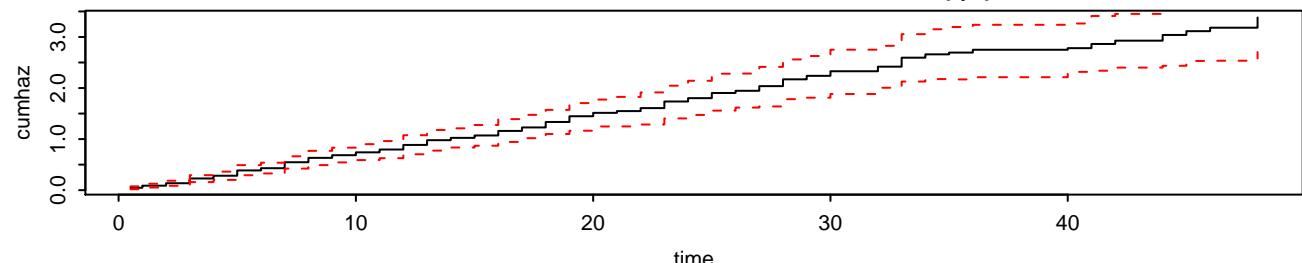
### Hazard Ratios: $h(t|X_1)/h(t|X)$



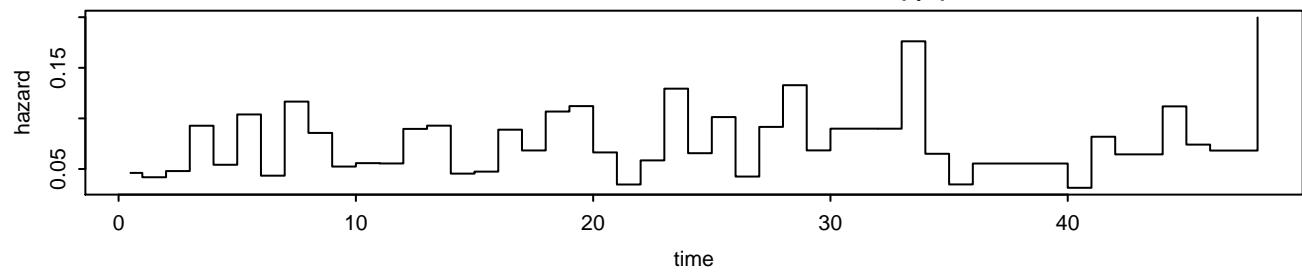
### Estimated Survival Function Over Time: $S(t|X)$



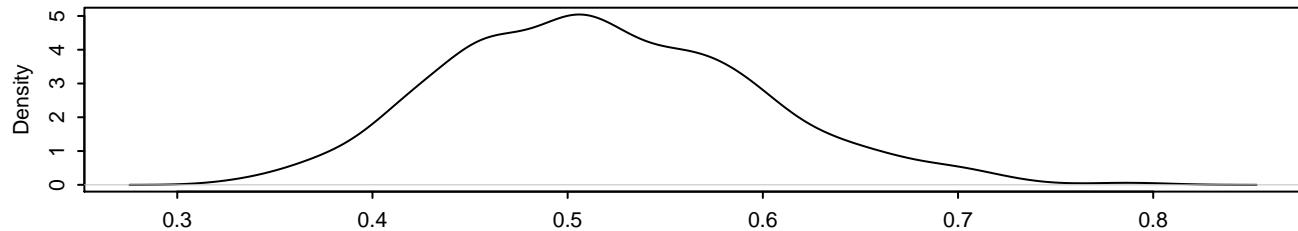
### Estimated Cumulative Hazard Over Time: $H(t|X)$



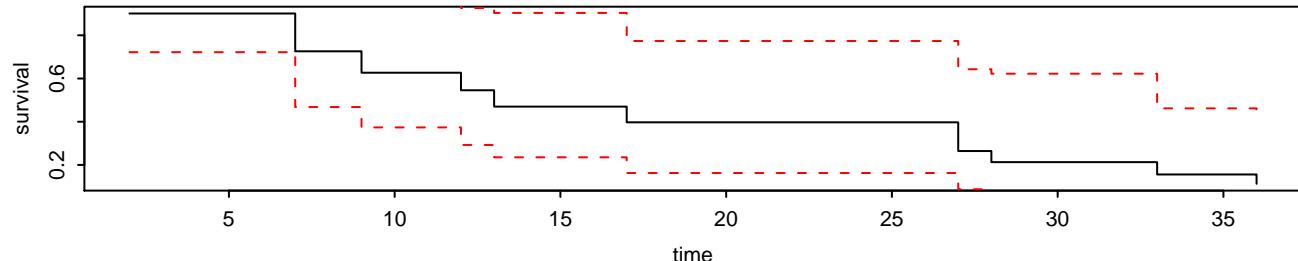
### Estimated Hazard Rate Over Time: $h(t|X)$



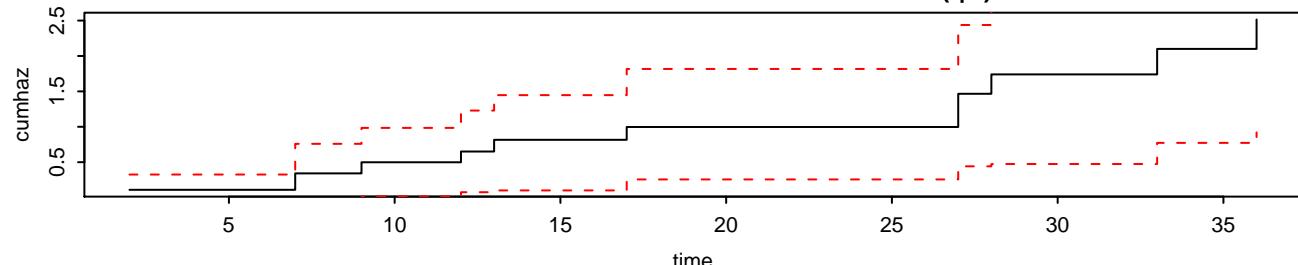
### Hazard Ratios: $h(t|X_1)/h(t|X)$



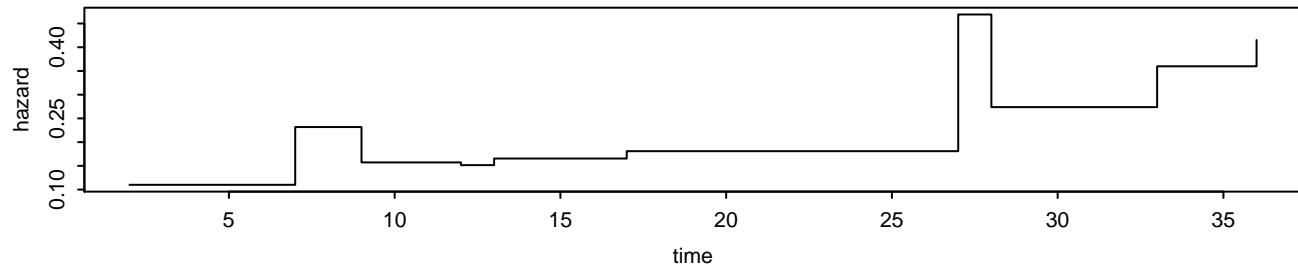
### Estimated Survival Function Over Time: $S(t|X)$



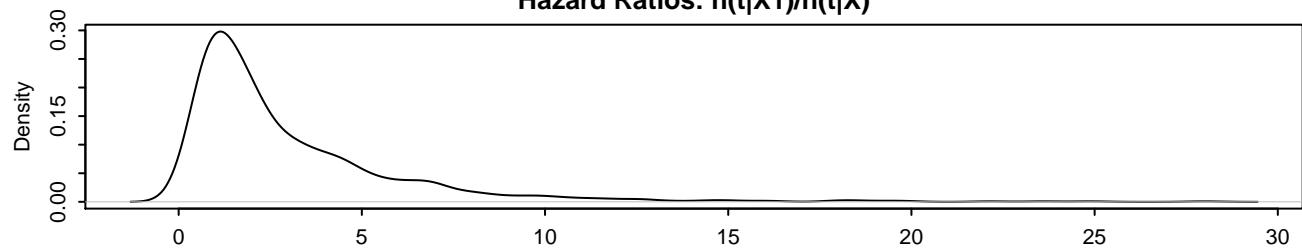
### Estimated Cumulative Hazard Over Time: $H(t|X)$



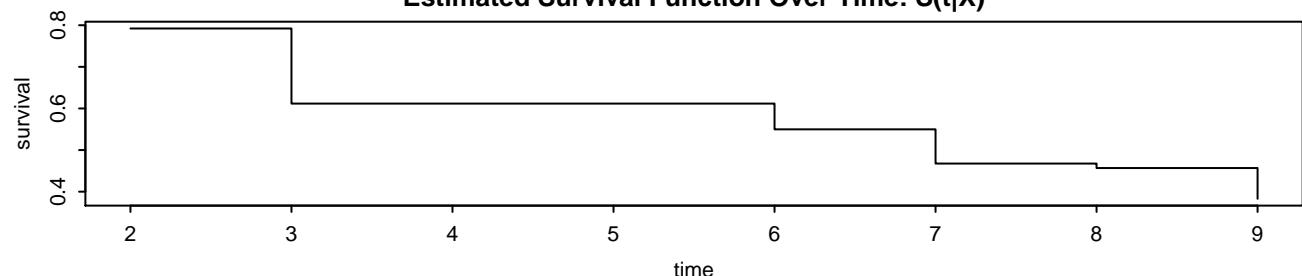
### Estimated Hazard Rate Over Time: $h(t|X)$



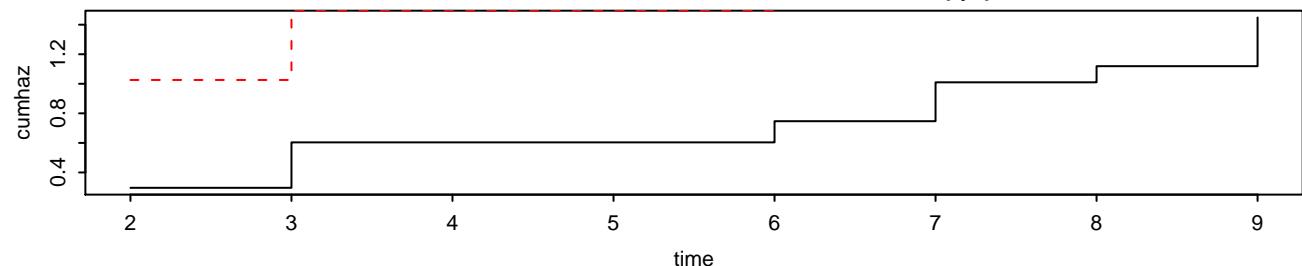
### Hazard Ratios: $h(t|X_1)/h(t|X)$



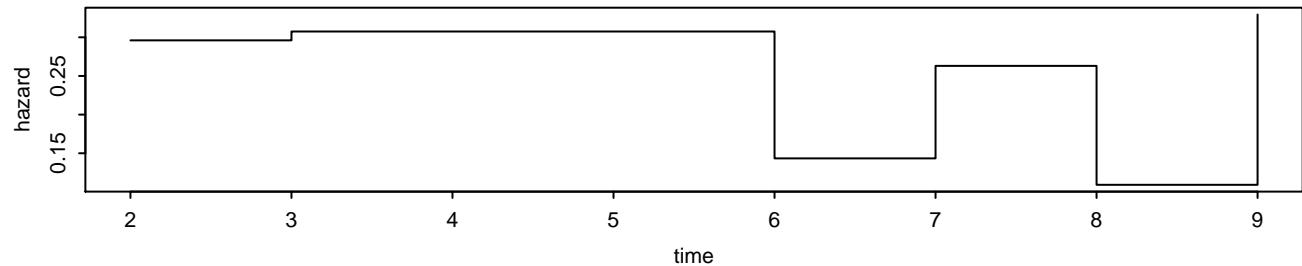
### Estimated Survival Function Over Time: $S(t|X)$



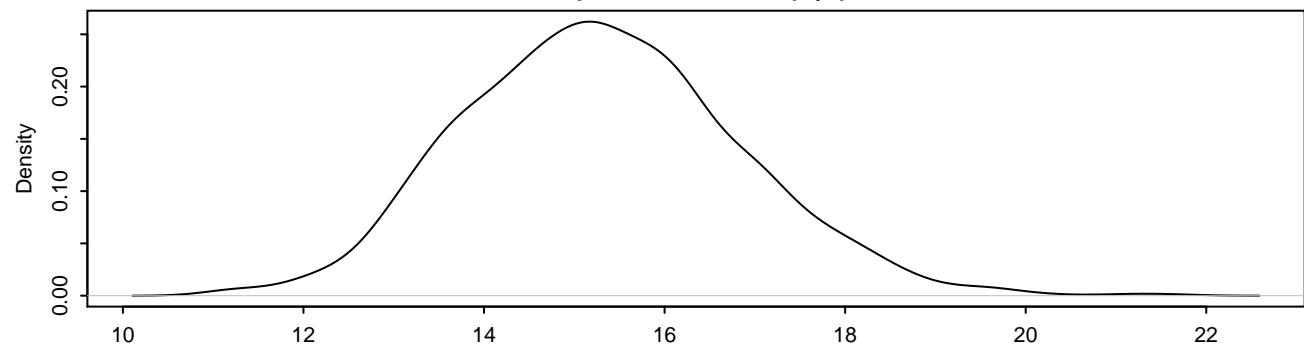
### Estimated Cumulative Hazard Over Time: $H(t|X)$



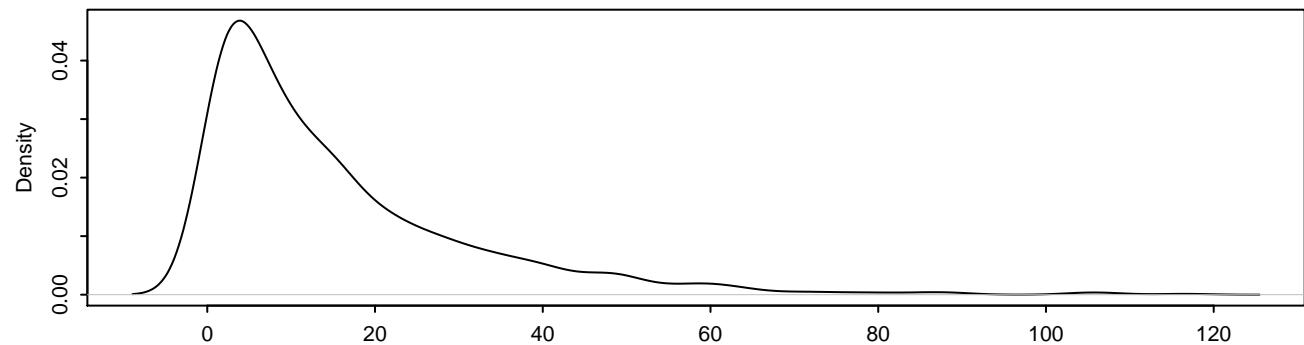
### Estimated Hazard Rate Over Time: $h(t|X)$



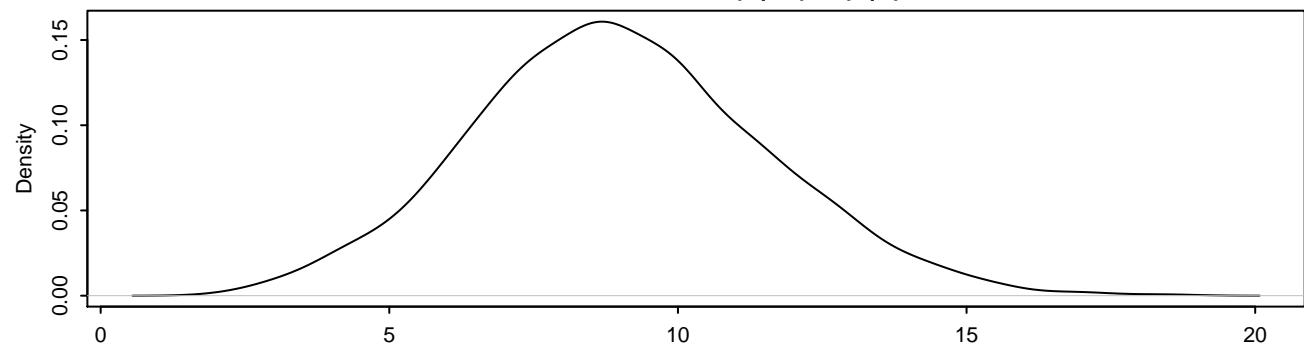
**Expected Values:  $E(Y|X)$**



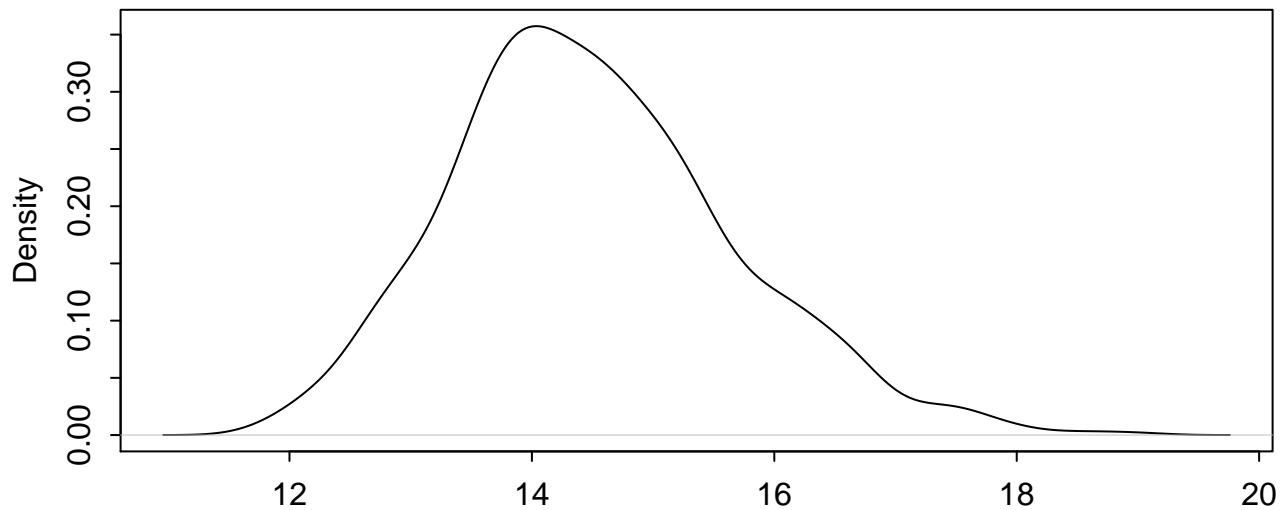
**Predicted Values:  $Y|X$**



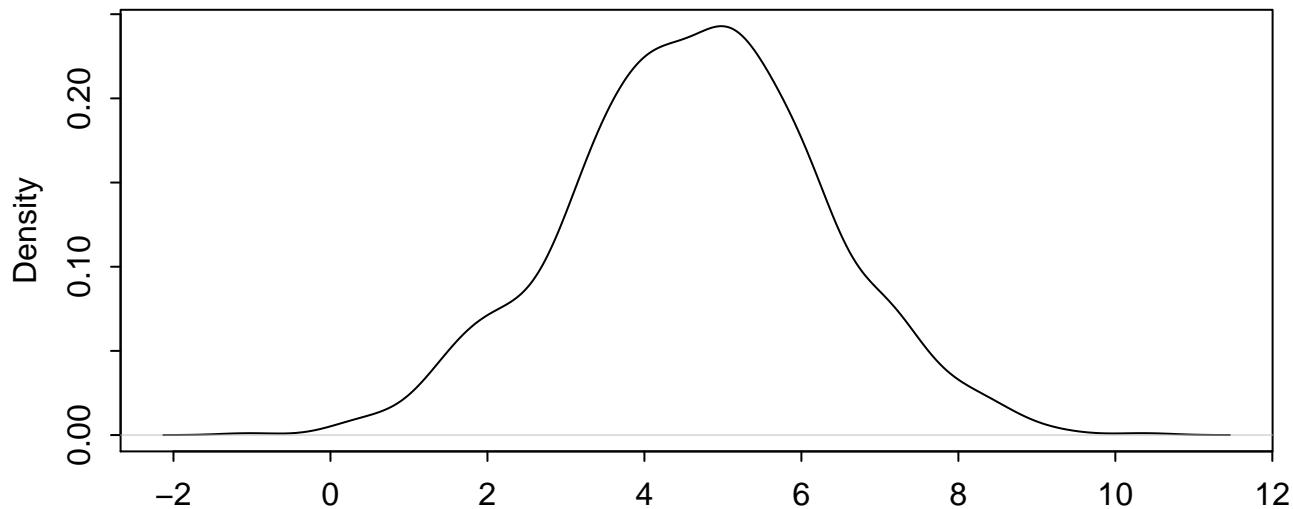
**First Differences:  $E(Y|X_1) - E(Y|X)$**



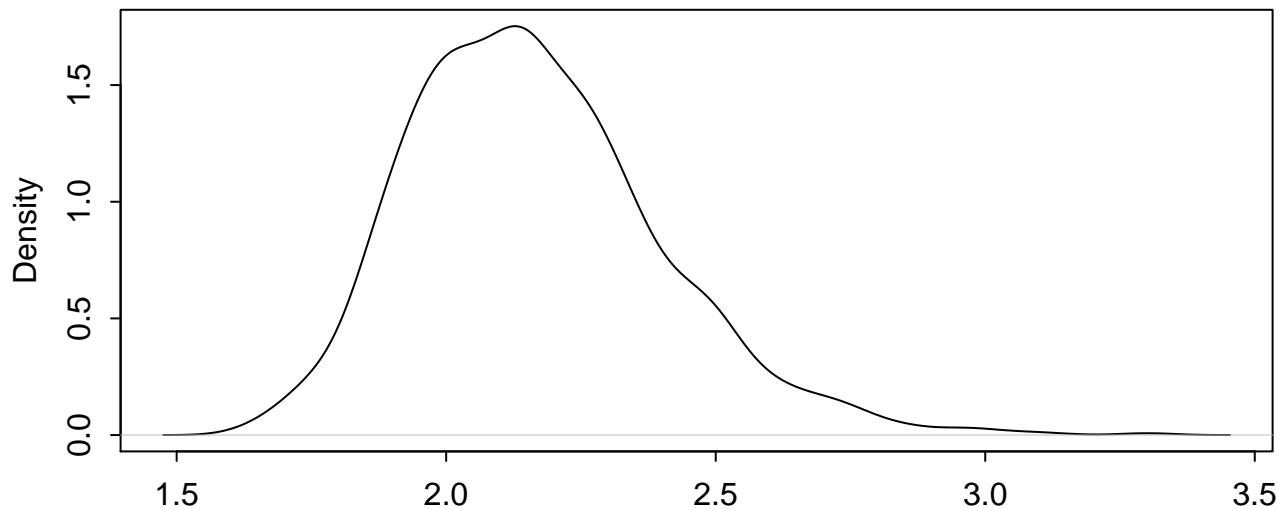
### Expected Values: $E(Y|X)$



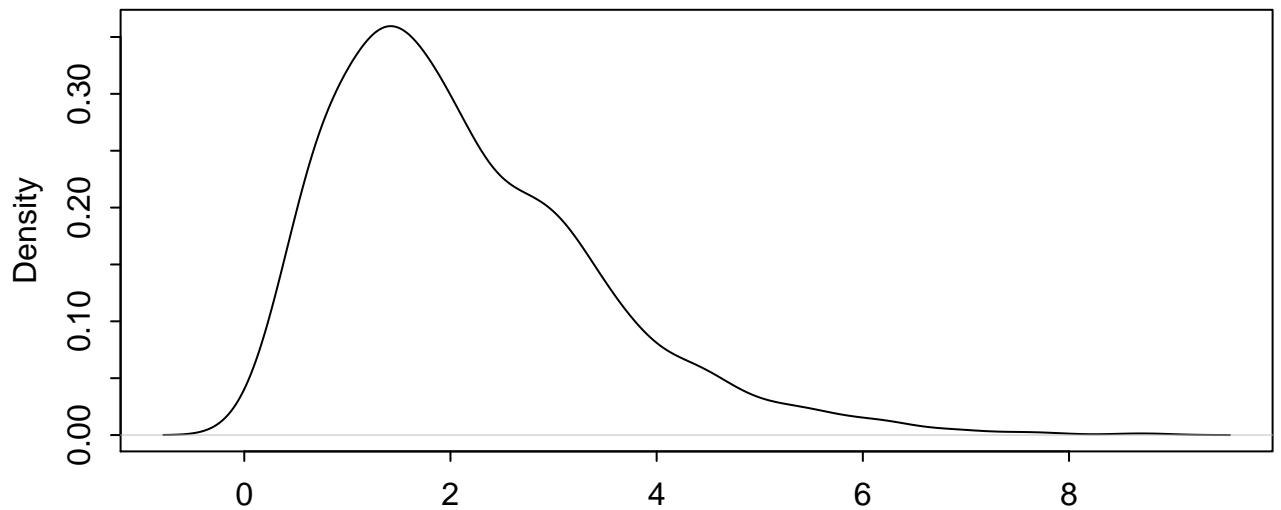
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



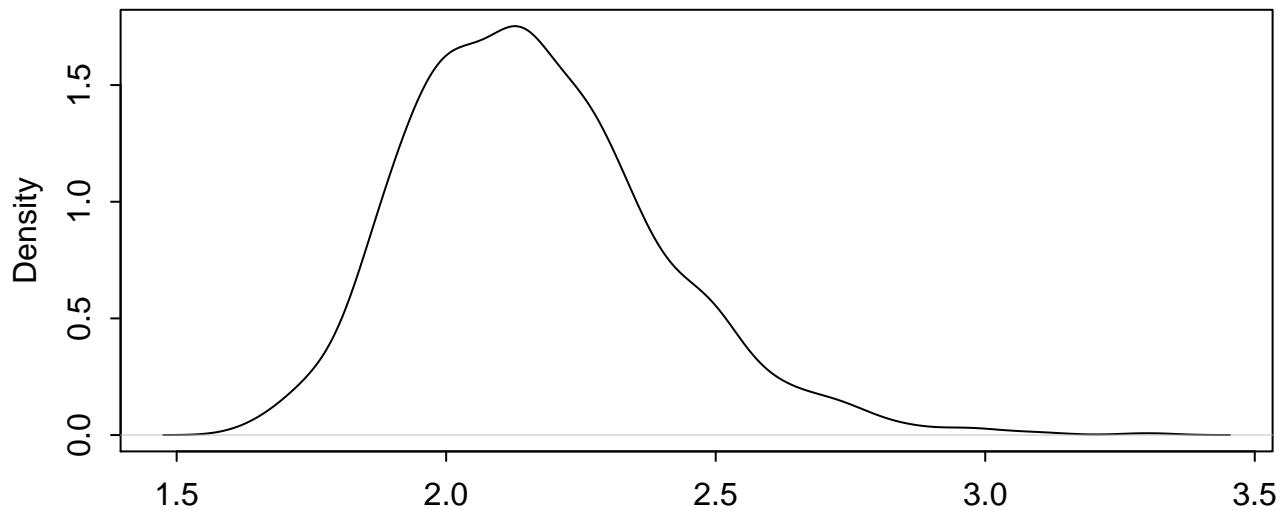
**Expected Values:  $E(Y|X)$**



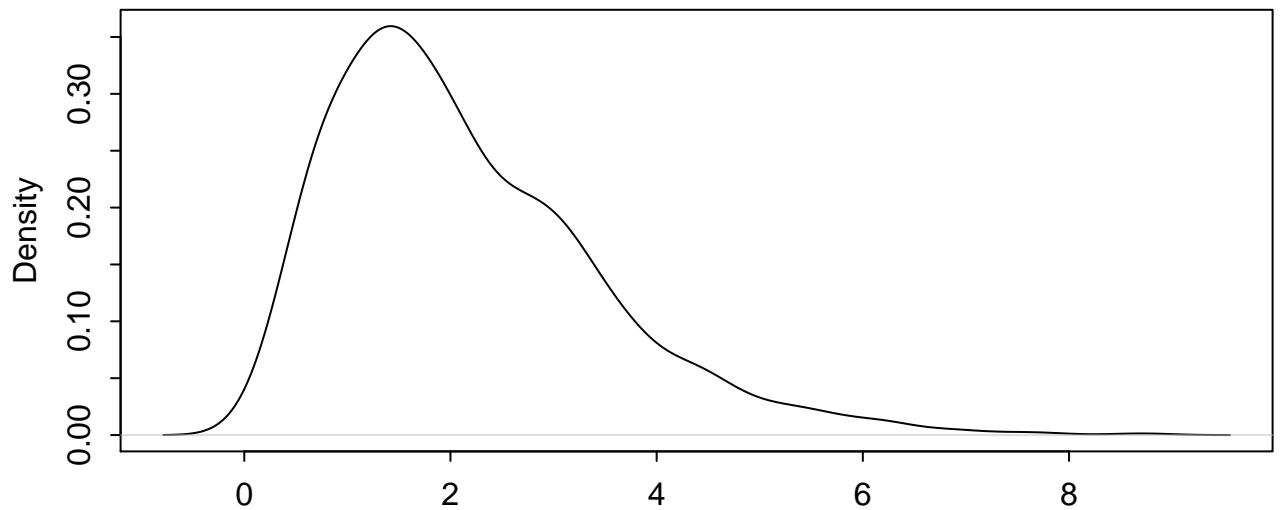
**Predicted Values:  $Y|X$**



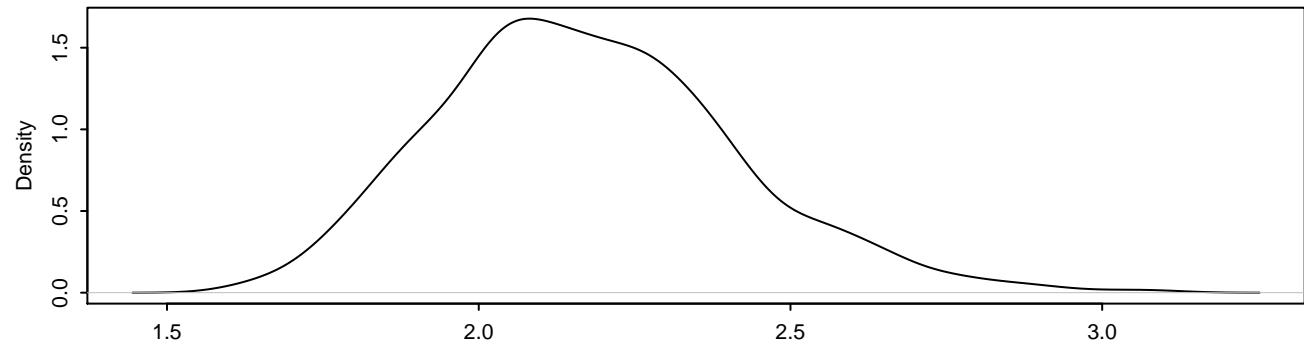
**Expected Values:  $E(Y|X)$**



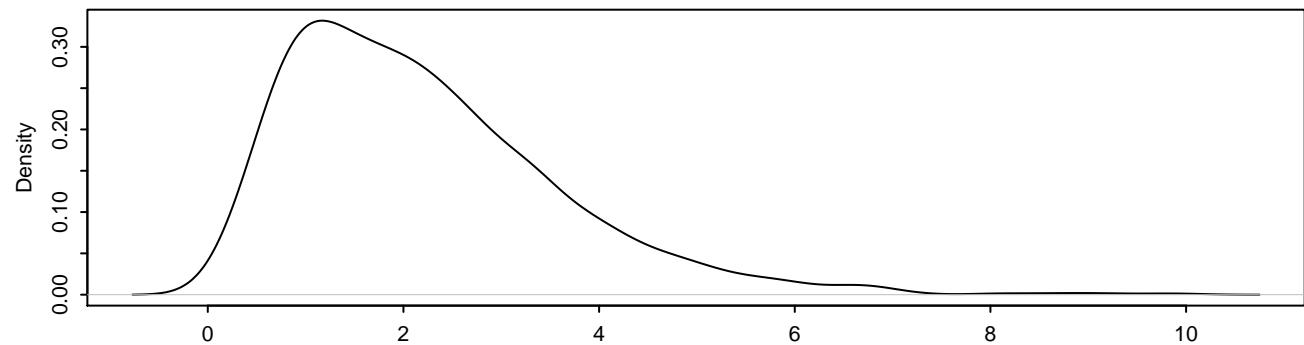
**Predicted Values:  $Y|X$**



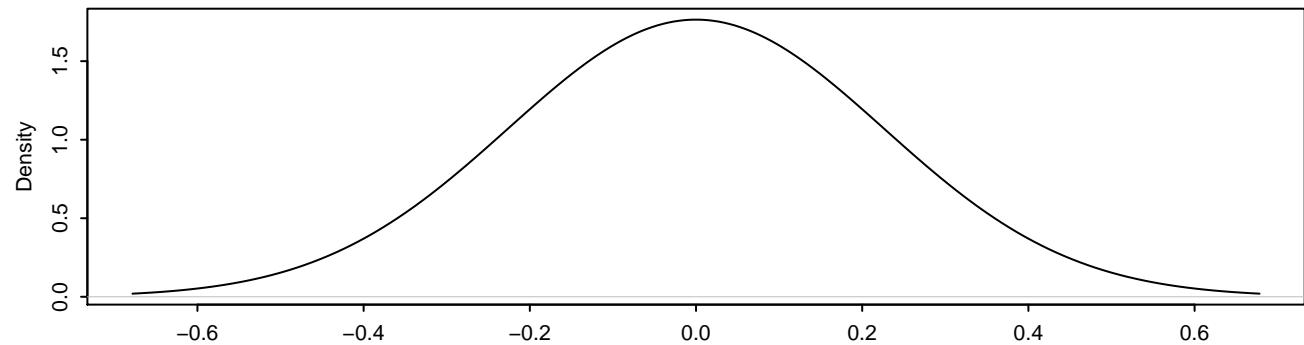
**Expected Values:  $E(Y|X)$**



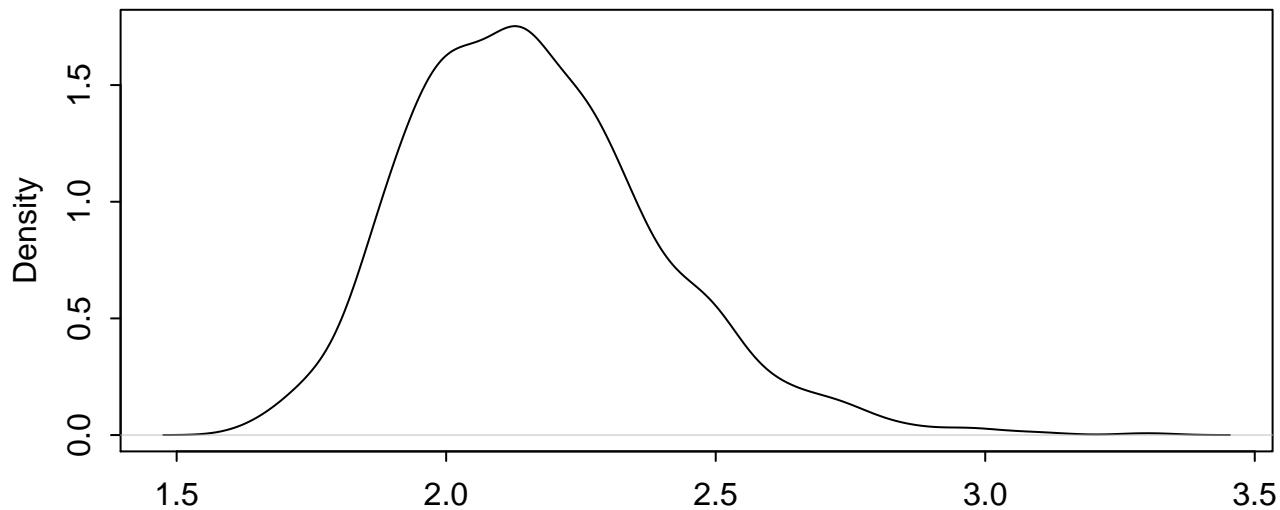
**Predicted Values:  $Y|X$**



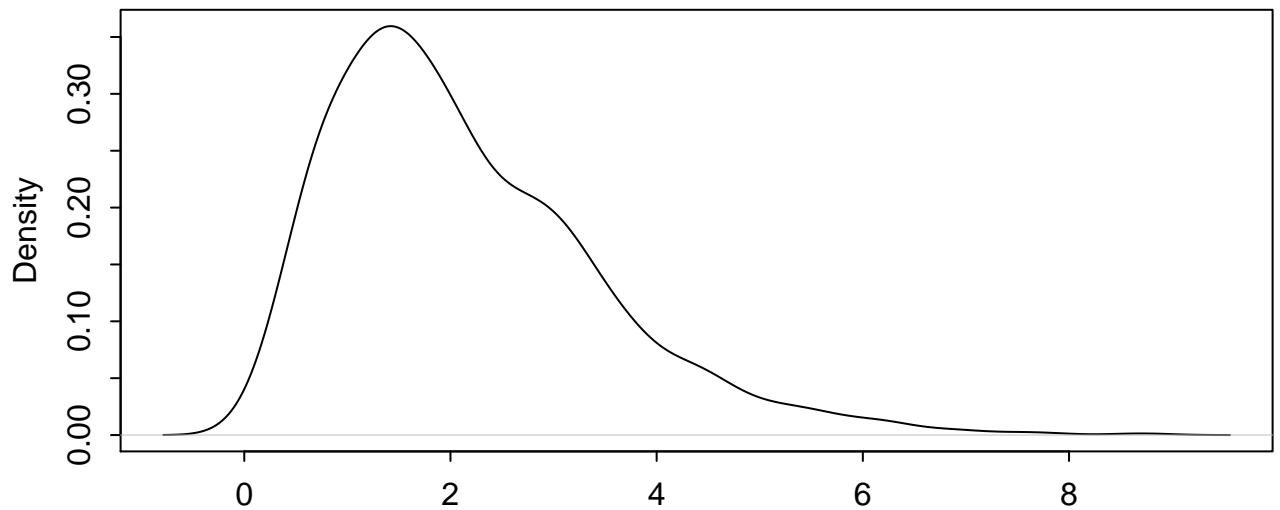
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



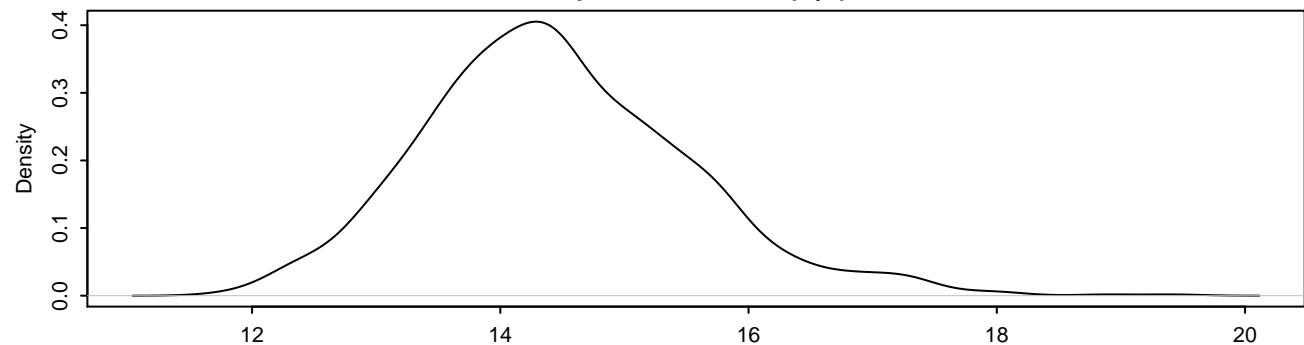
**Expected Values:  $E(Y|X)$**



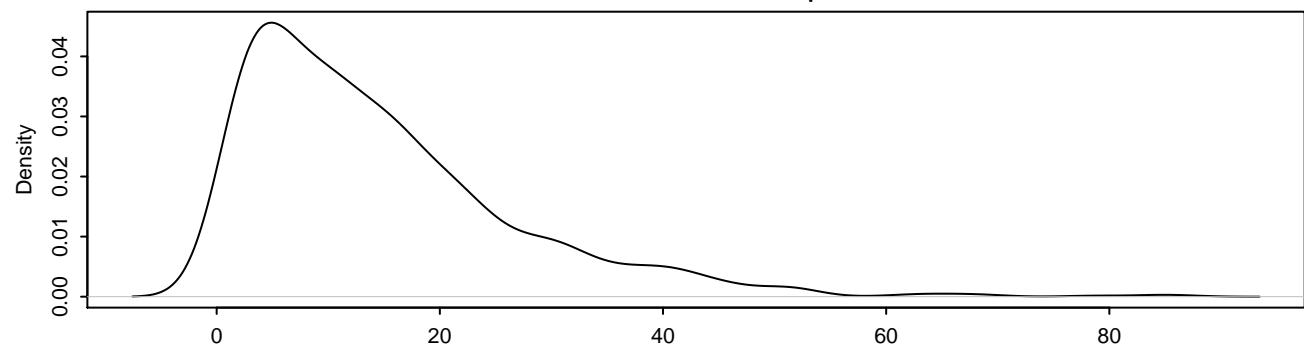
**Predicted Values:  $Y|X$**



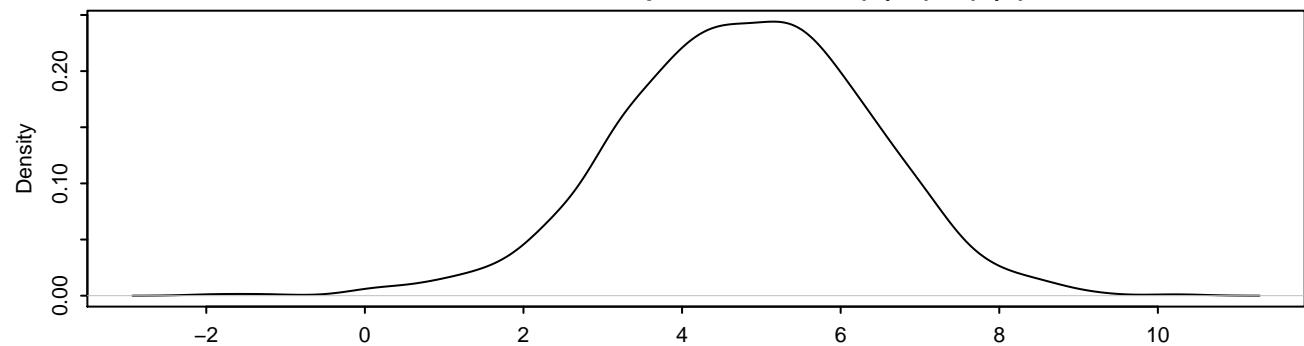
**Expected Values:  $E(Y|X)$**



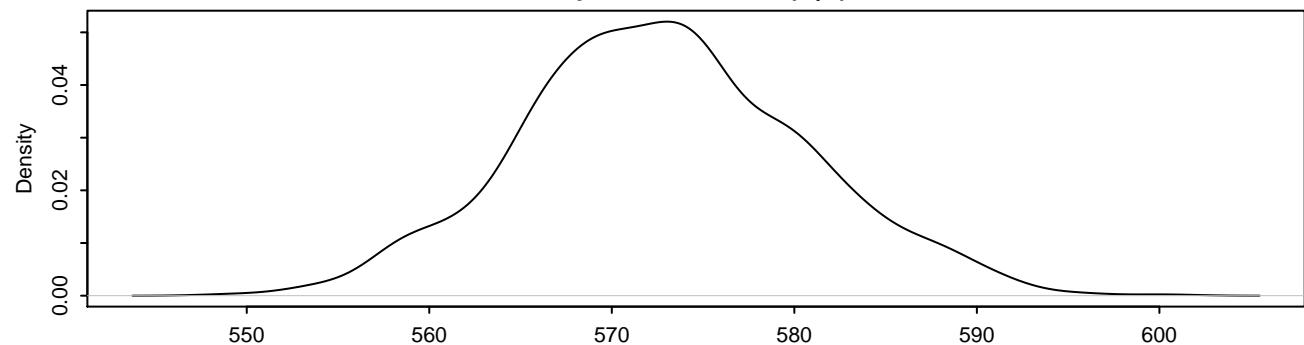
**Predicted Values:  $Y|X$**



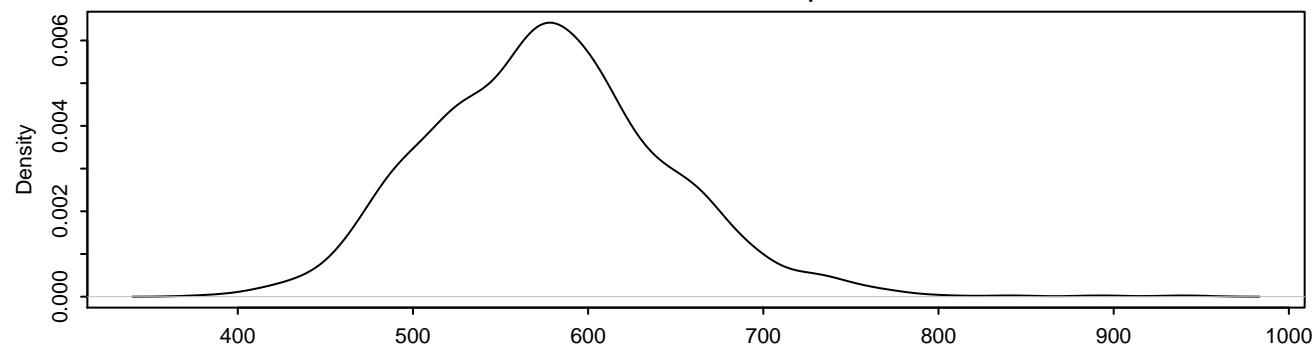
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



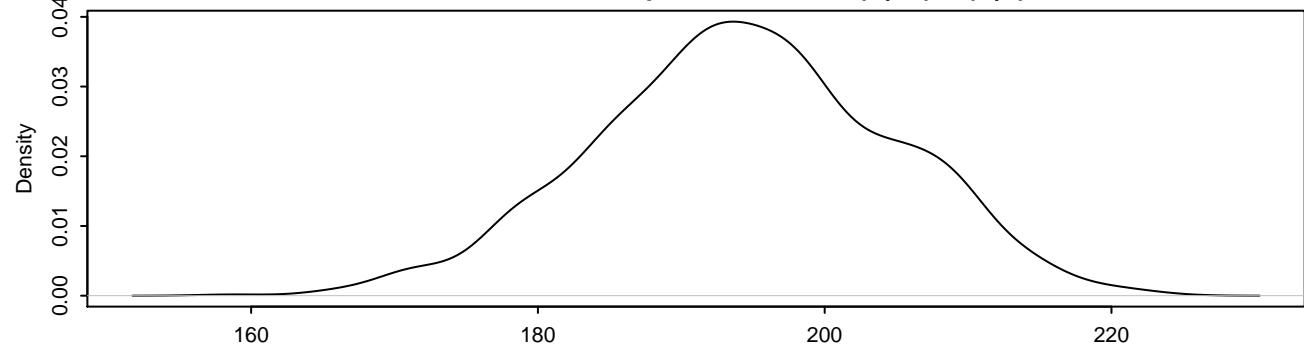
**Expected Values:  $E(Y|X)$**



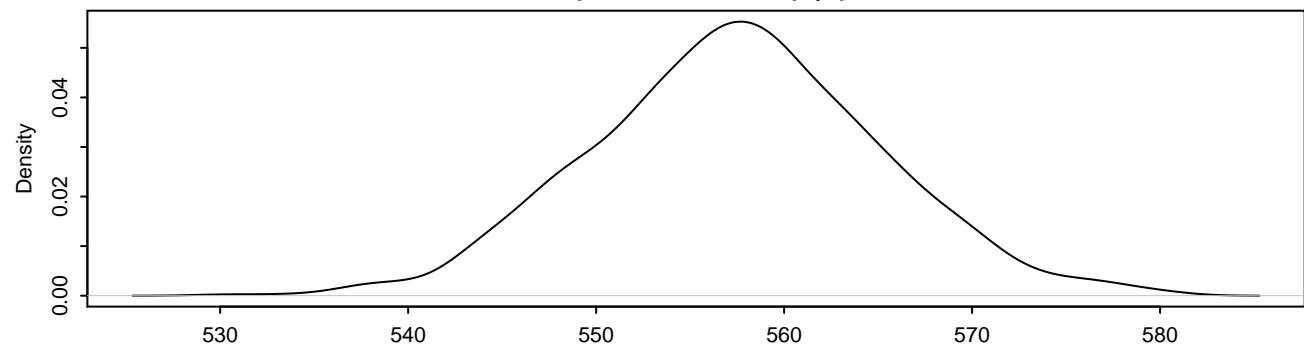
**Predicted Values:  $Y|X$**



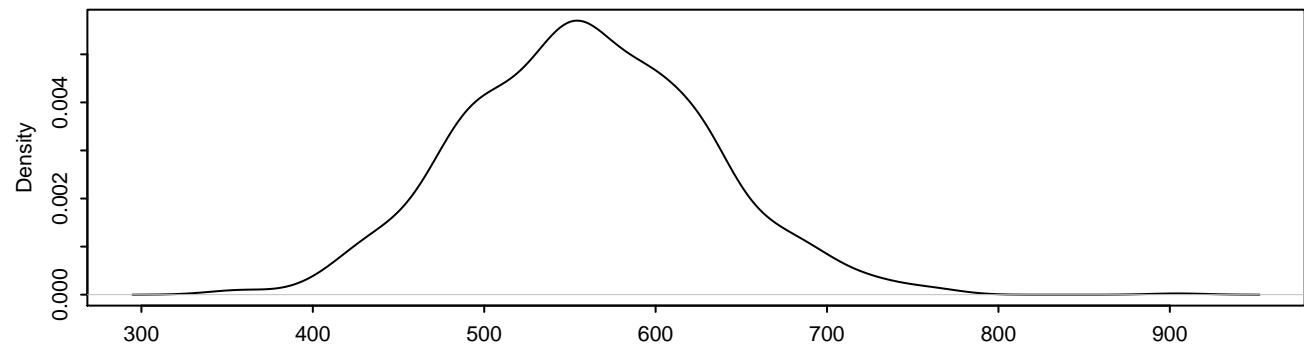
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



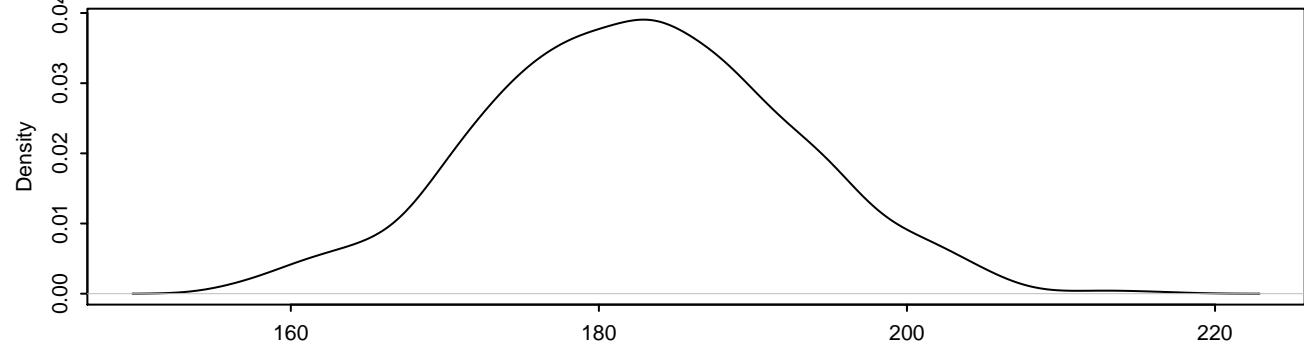
**Expected Values:  $E(Y|X)$**

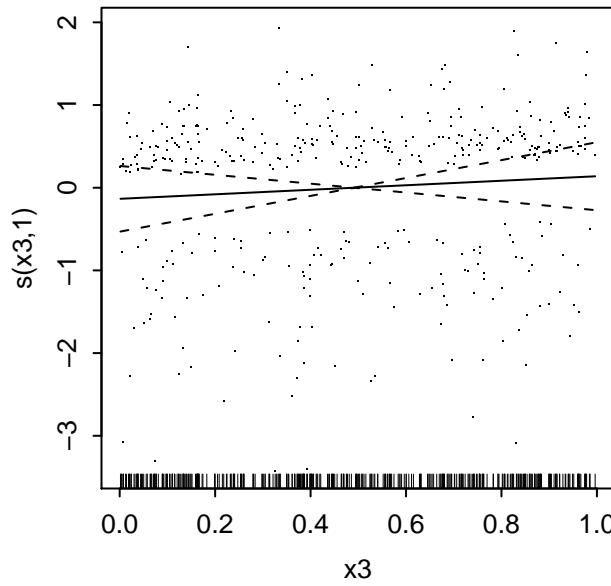
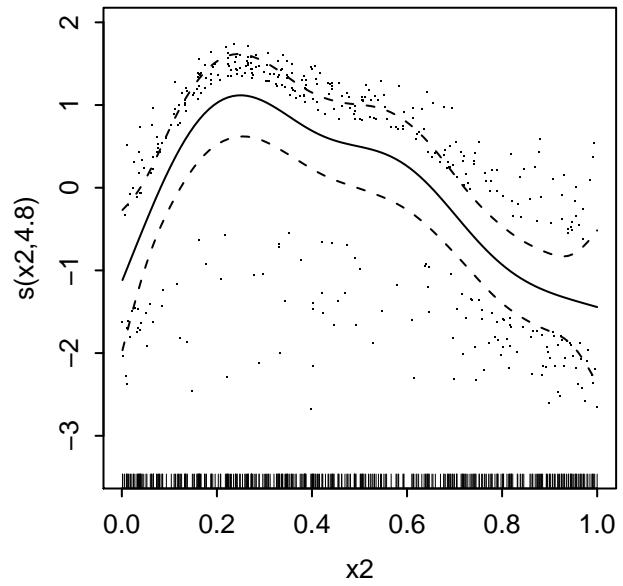
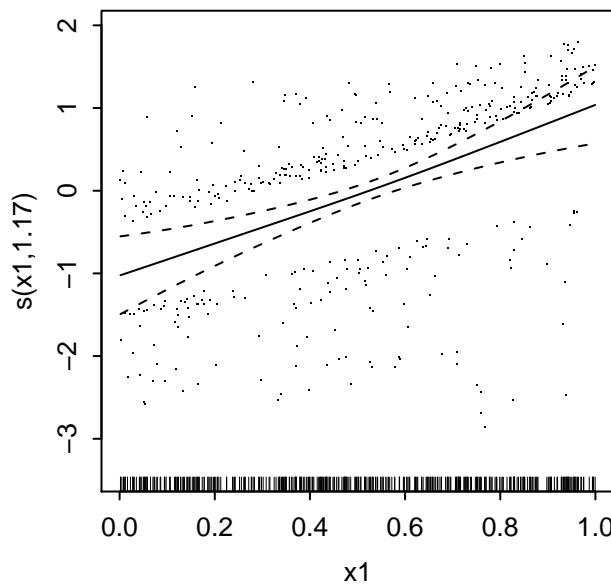
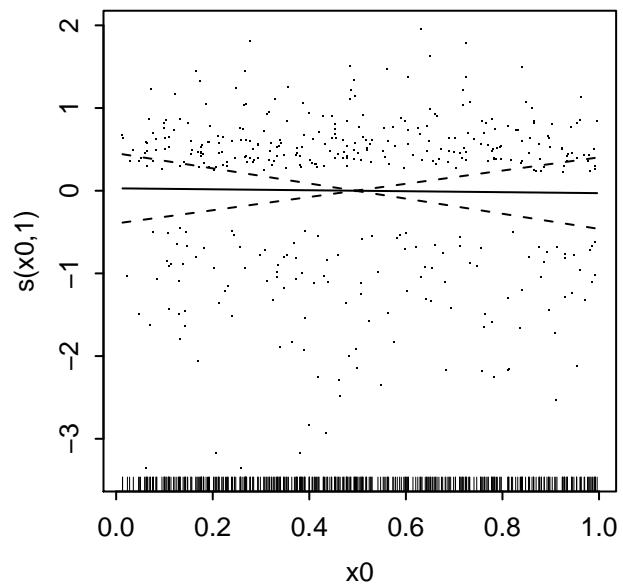


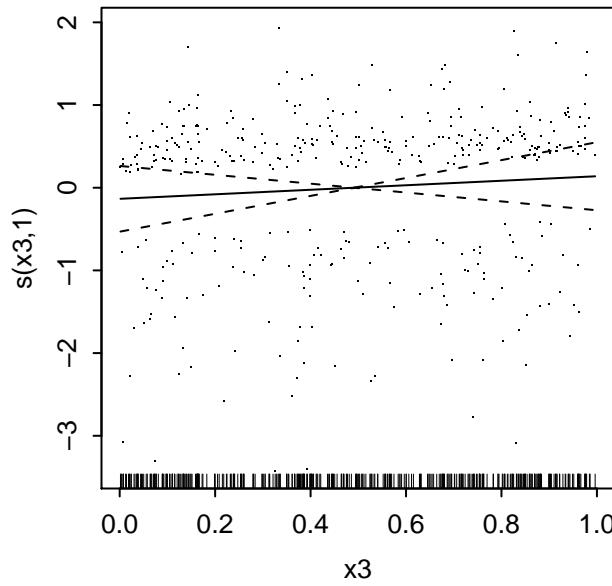
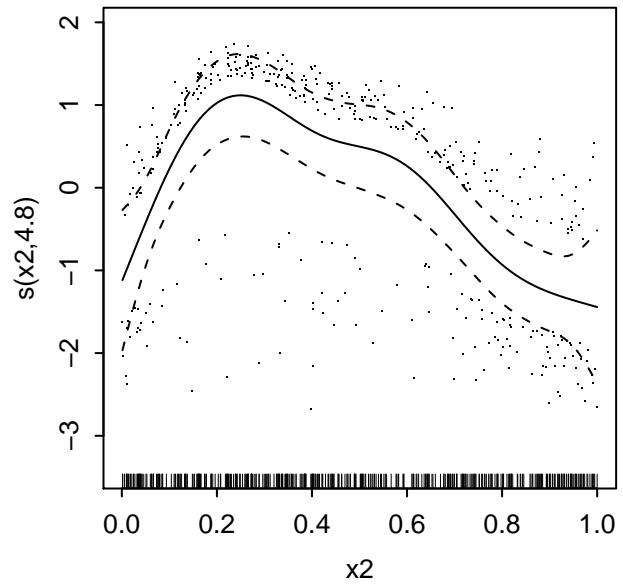
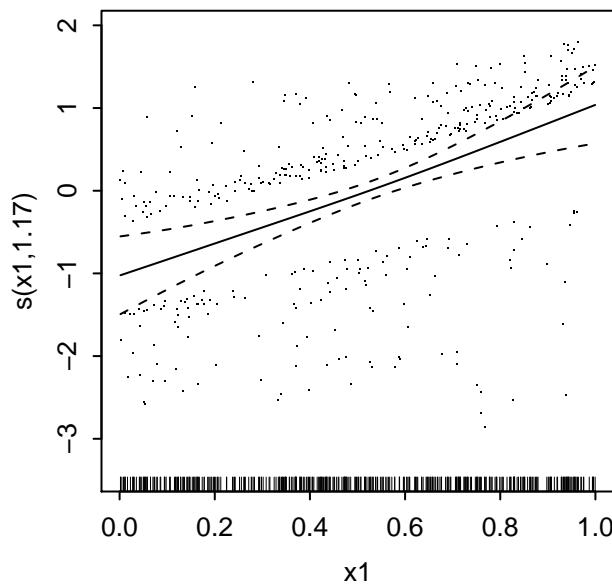
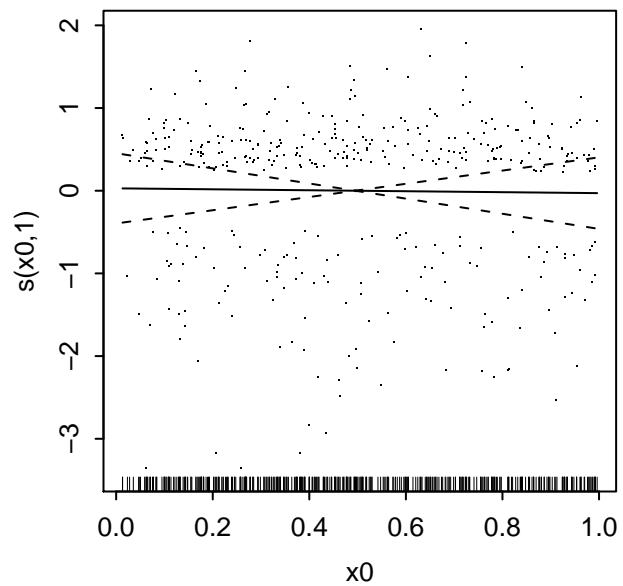
**Predicted Values:  $Y|X$**



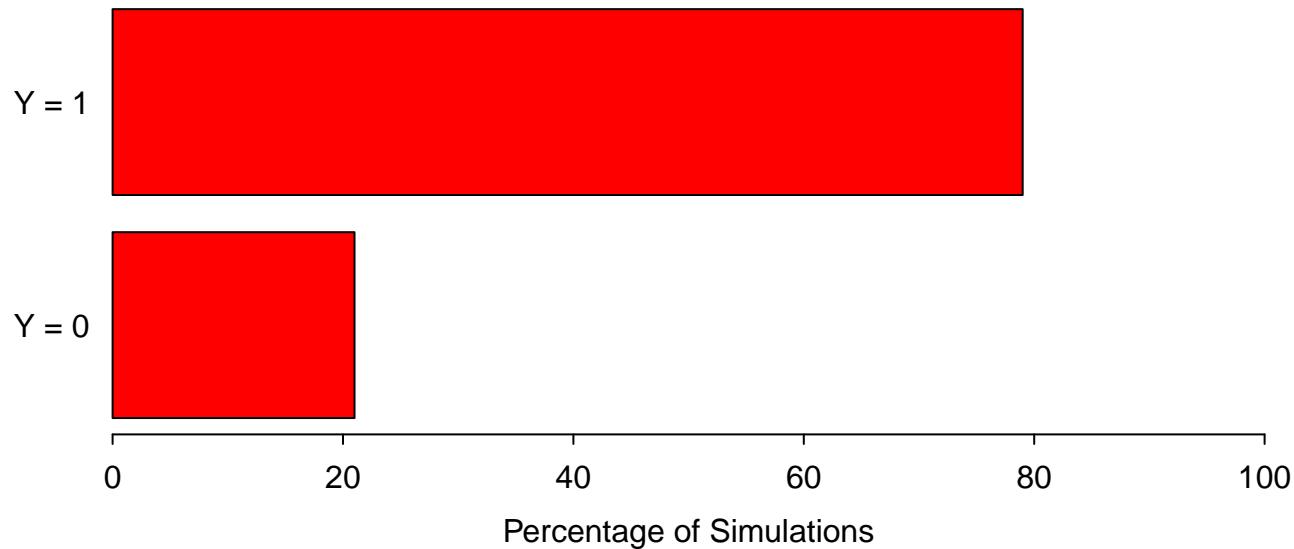
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



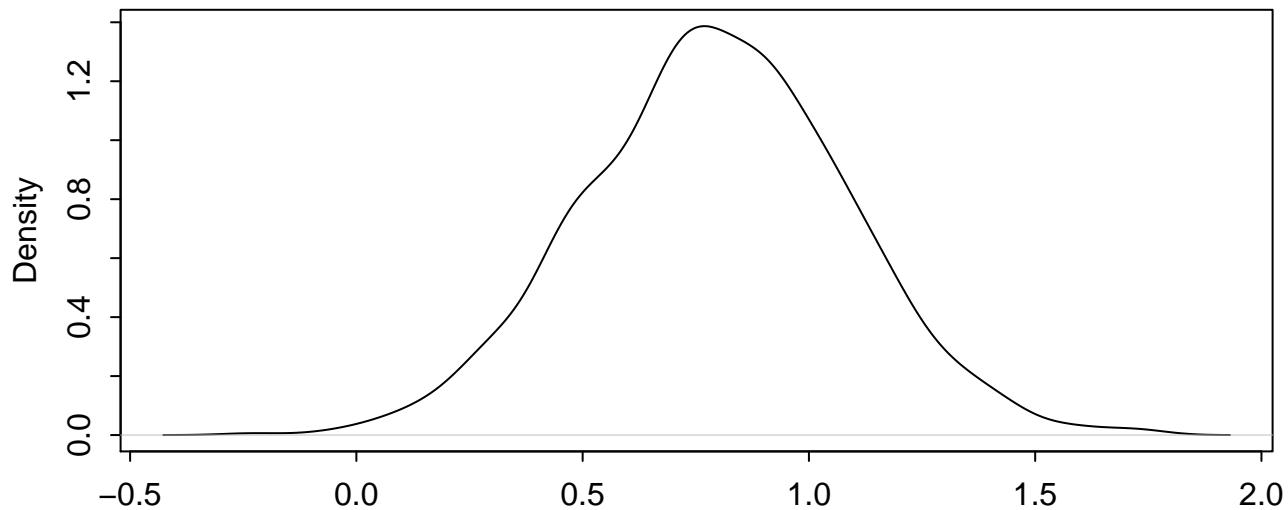




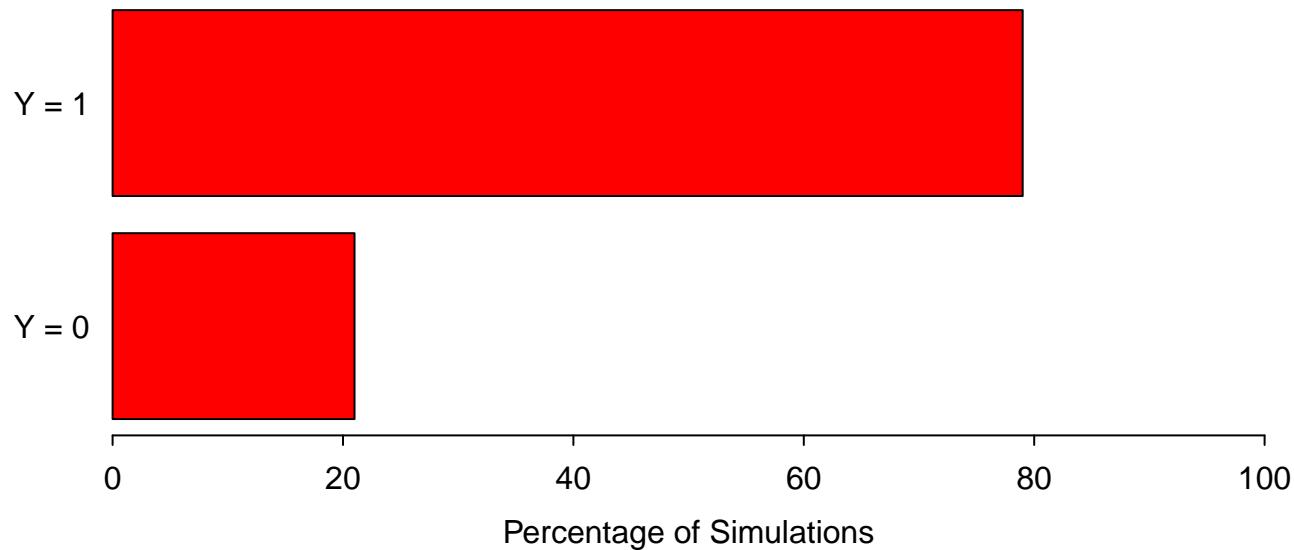
## Predicted Values: $Y|X$



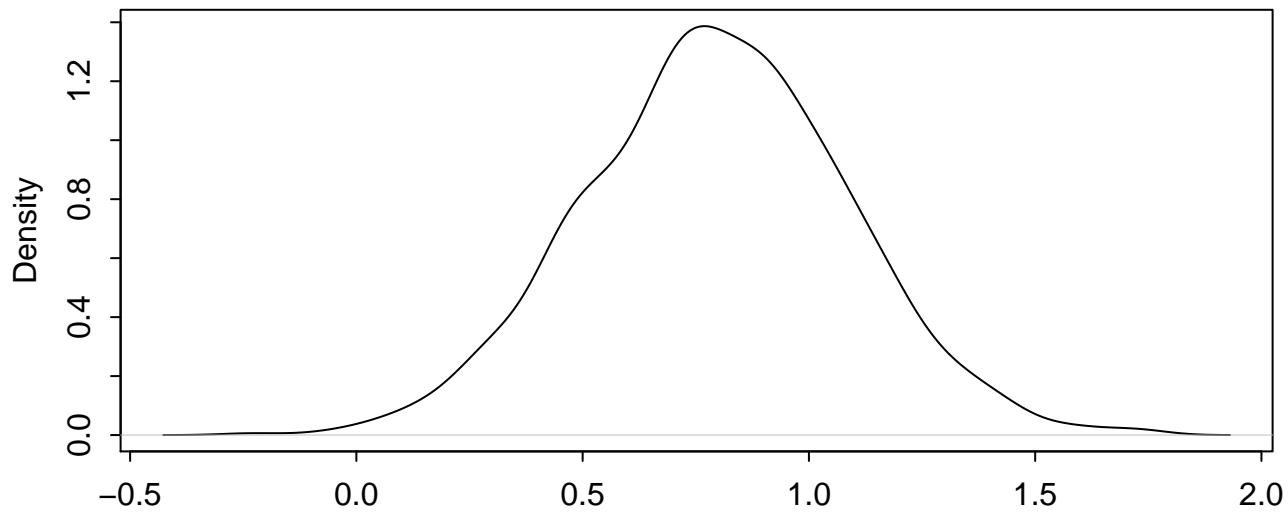
## Expected Values: $E(Y|X)$



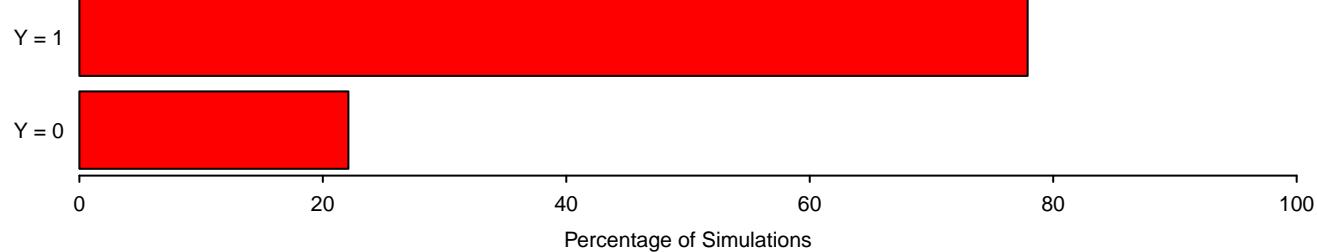
## Predicted Values: $Y|X$



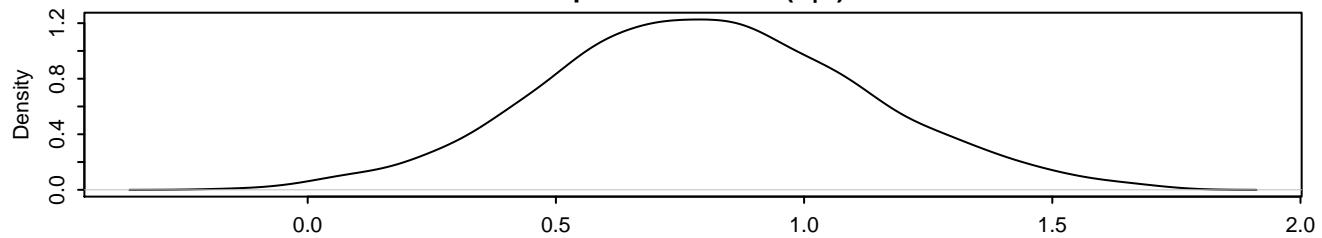
## Expected Values: $E(Y|X)$



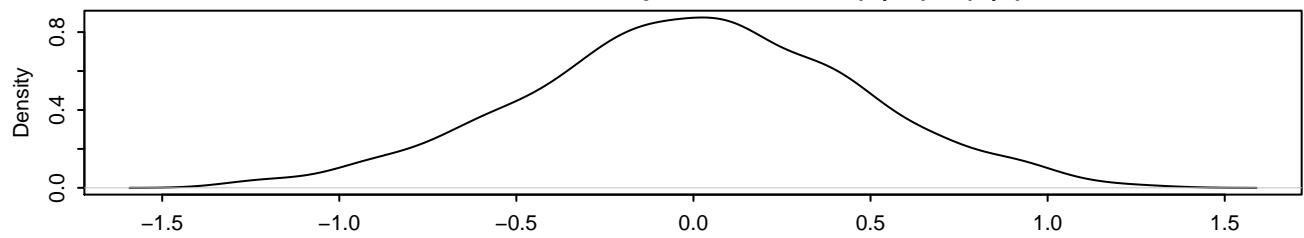
### Predicted Values: $Y|X$



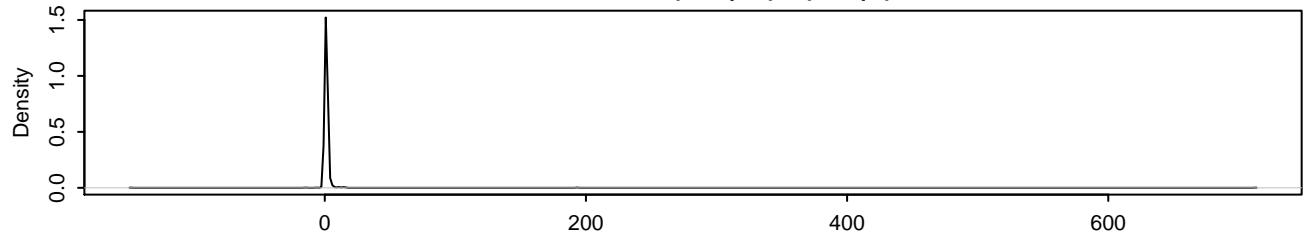
### Expected Values: $E(Y|X)$



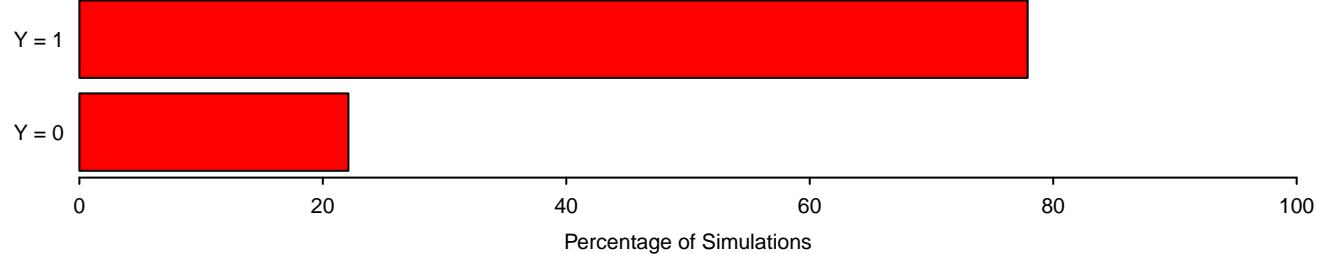
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



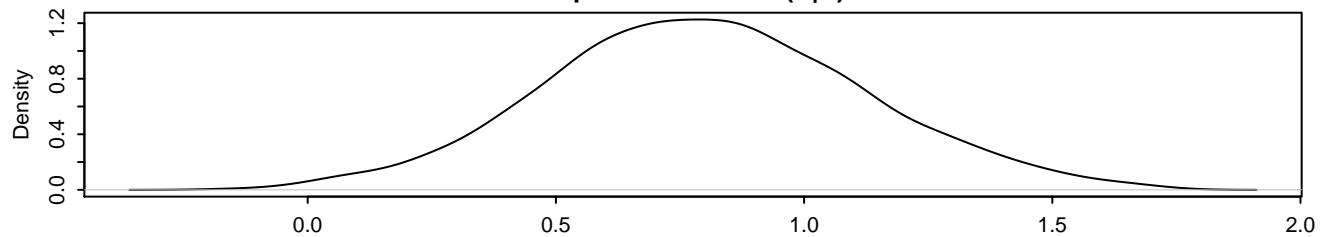
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



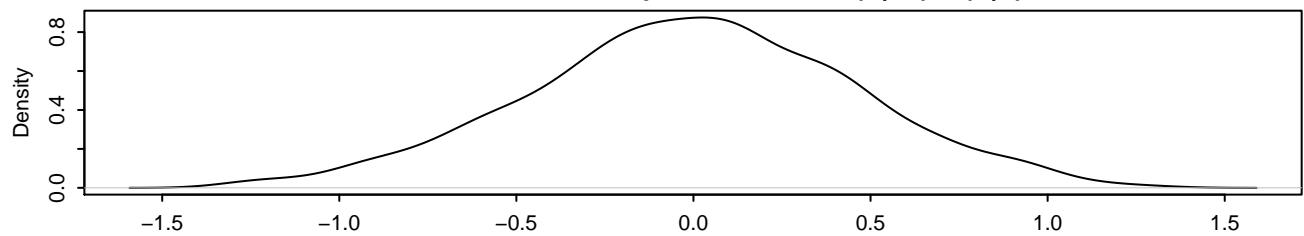
### Predicted Values: $Y|X$



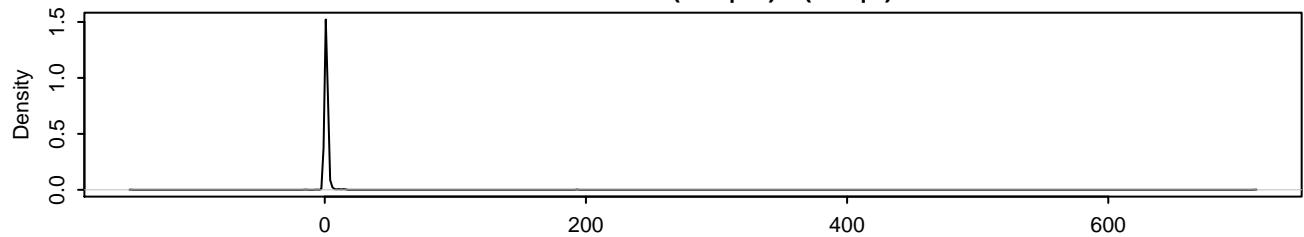
### Expected Values: $E(Y|X)$

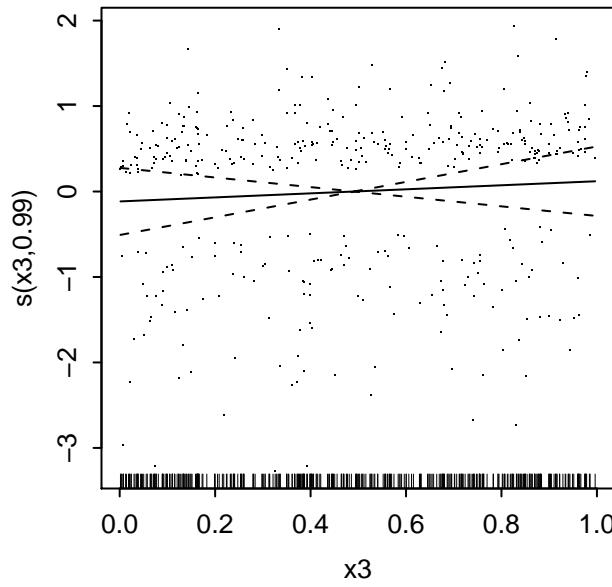
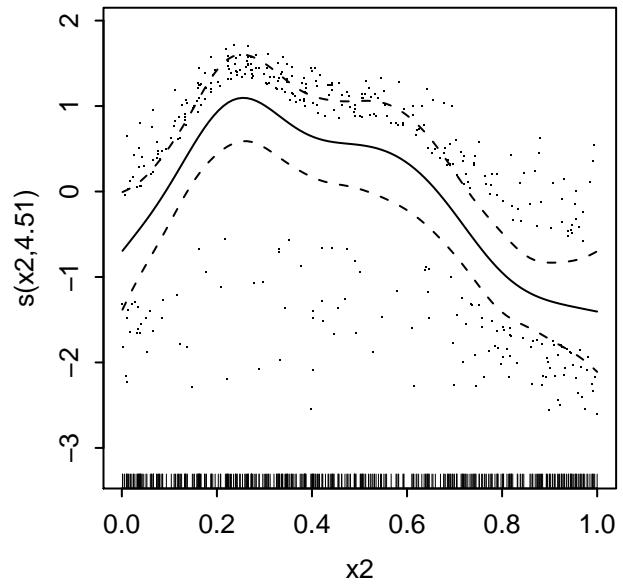
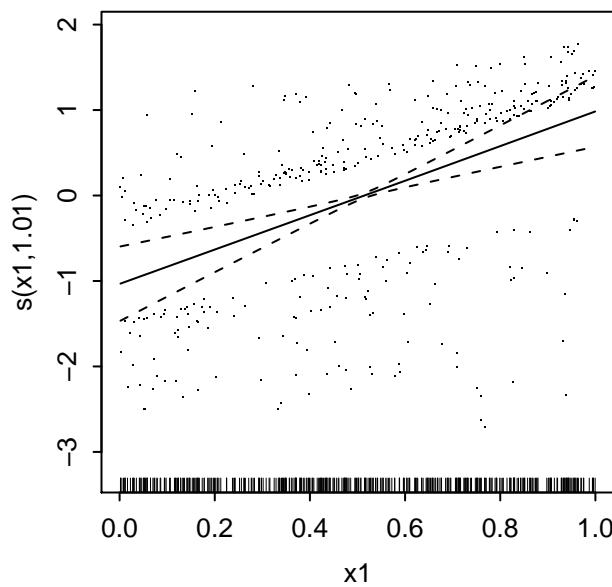
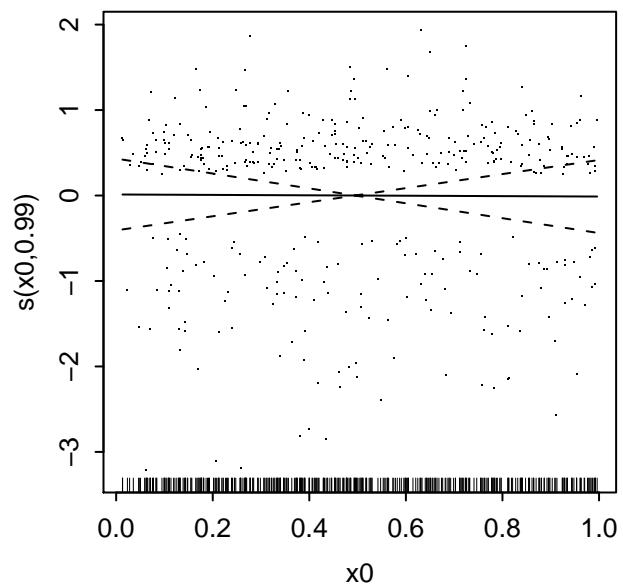


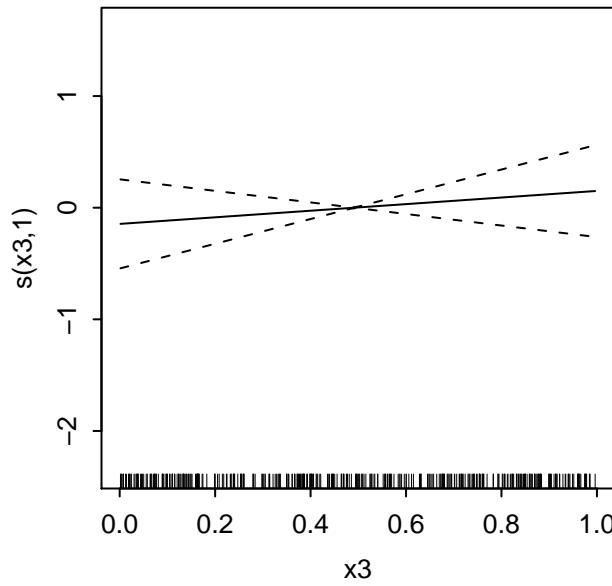
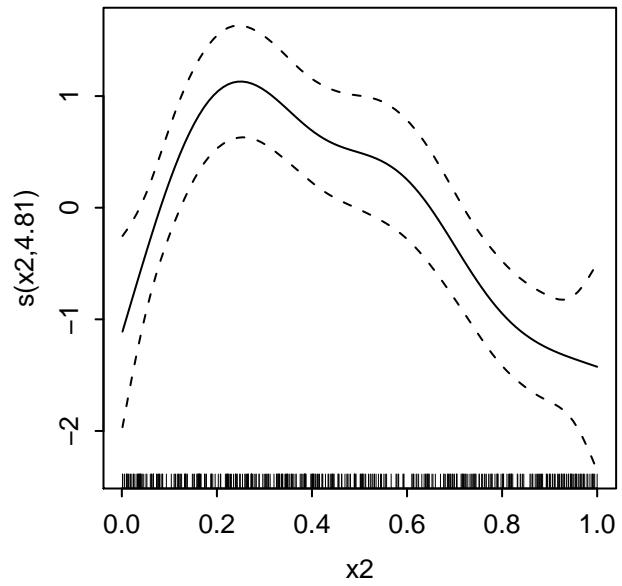
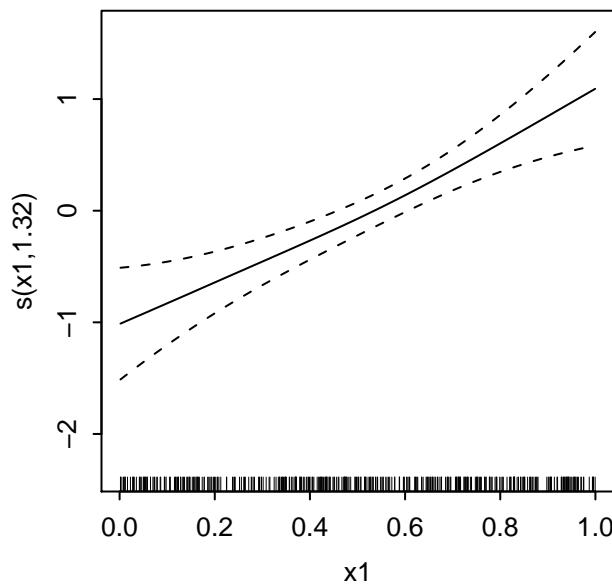
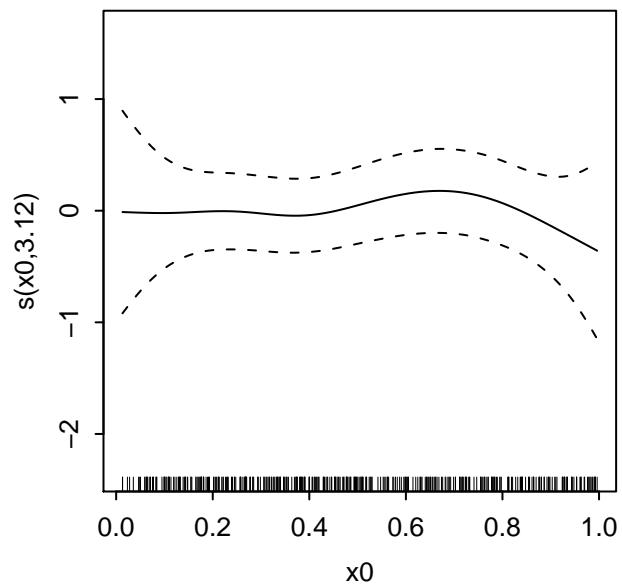
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$

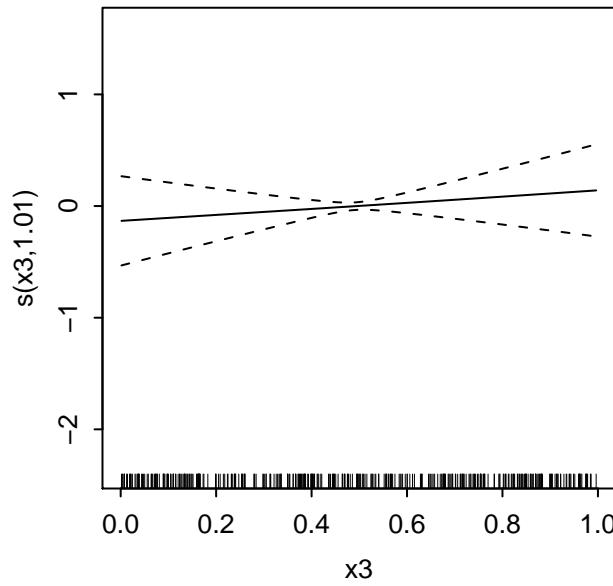
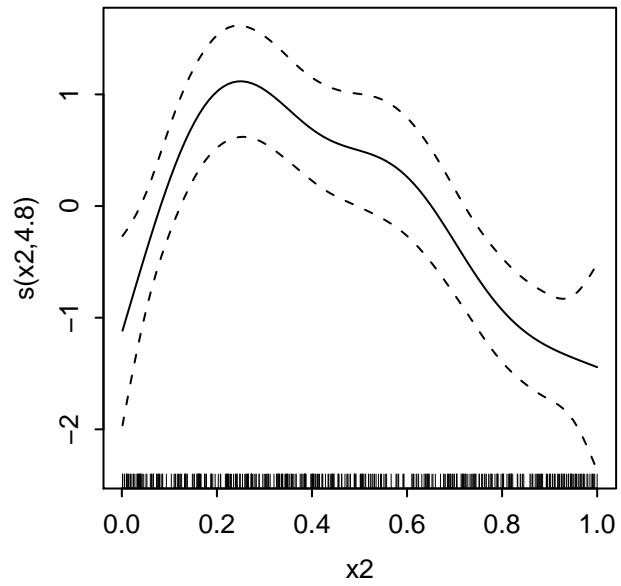
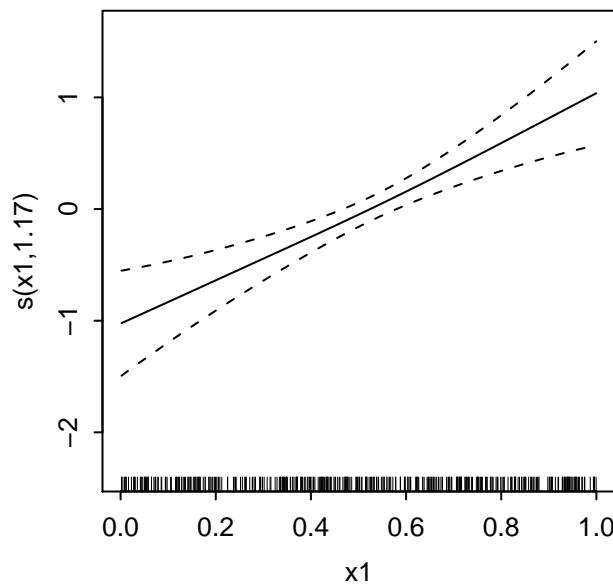
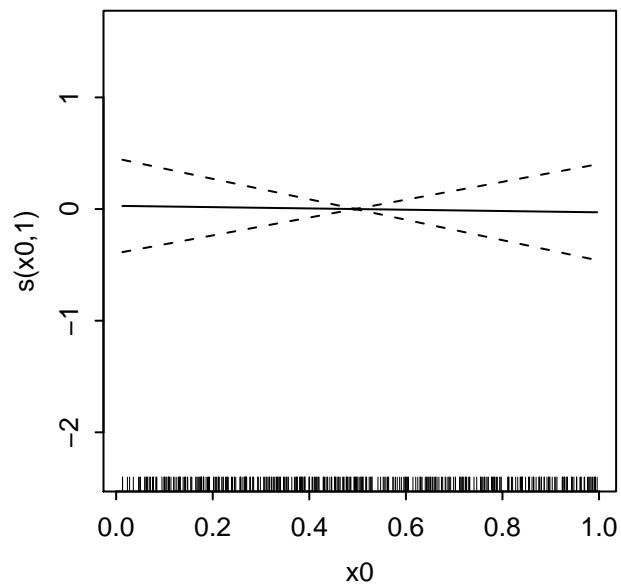


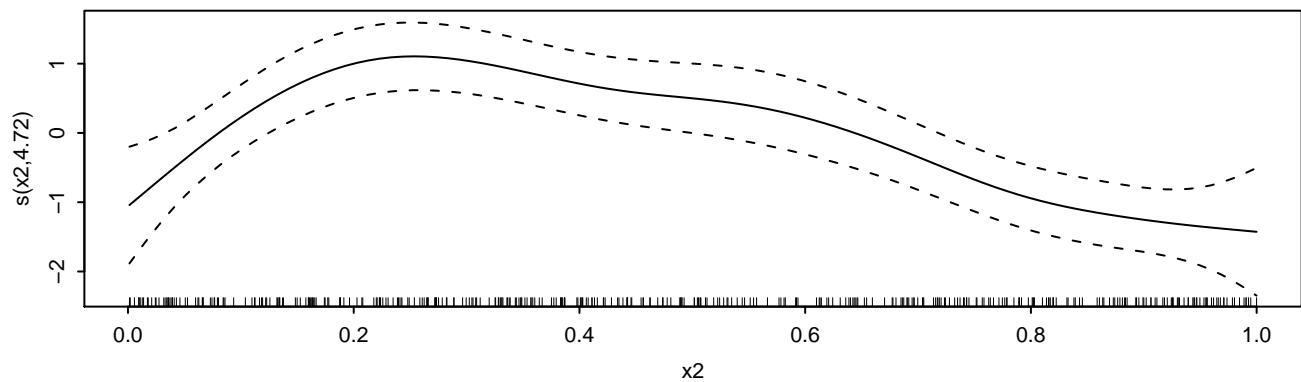
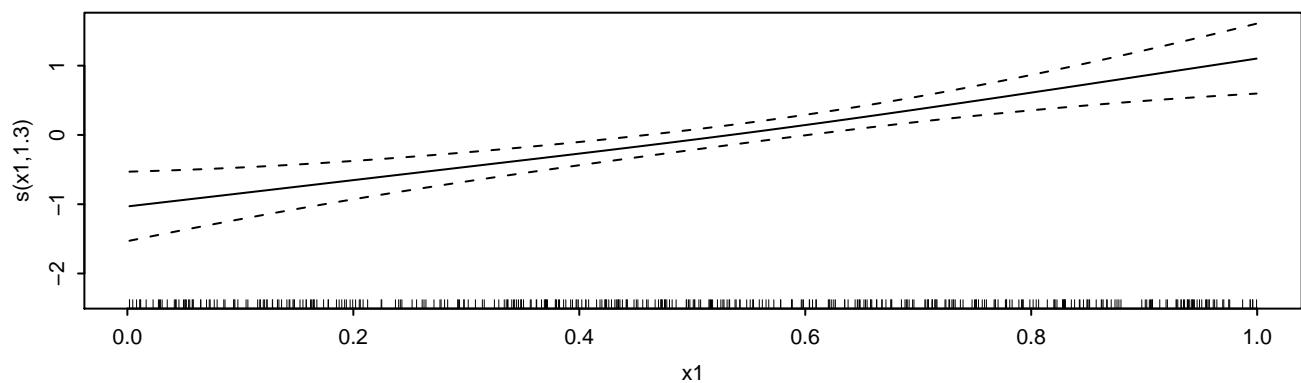
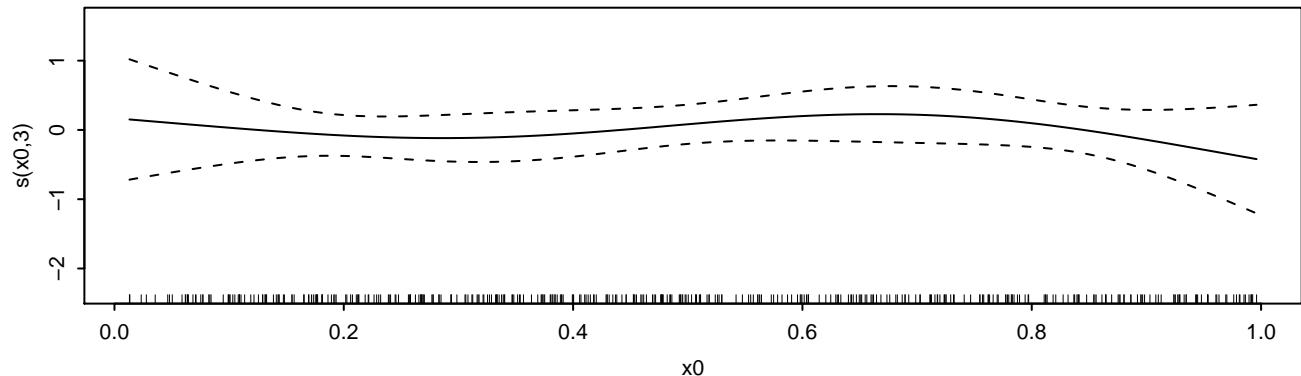
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



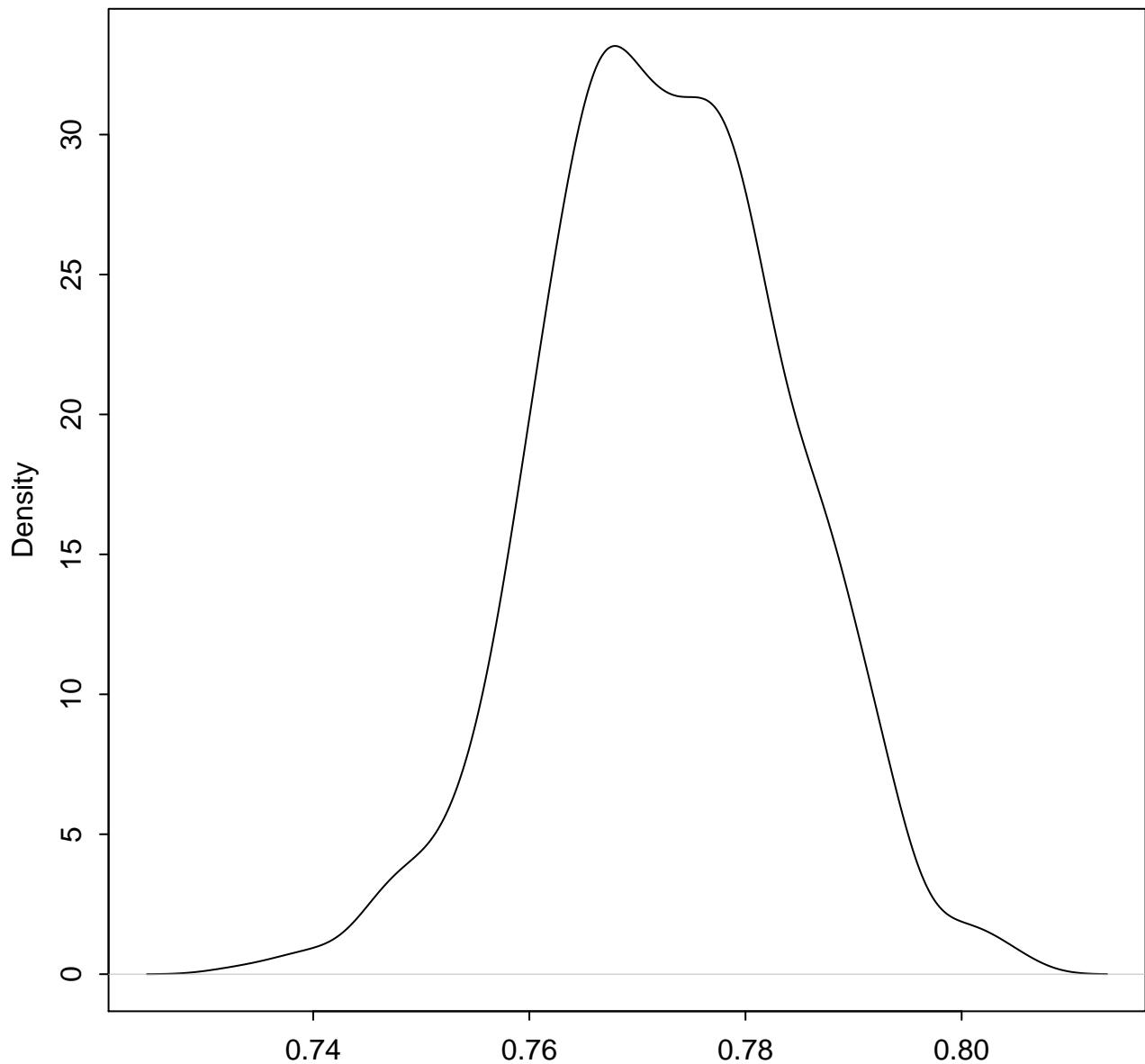




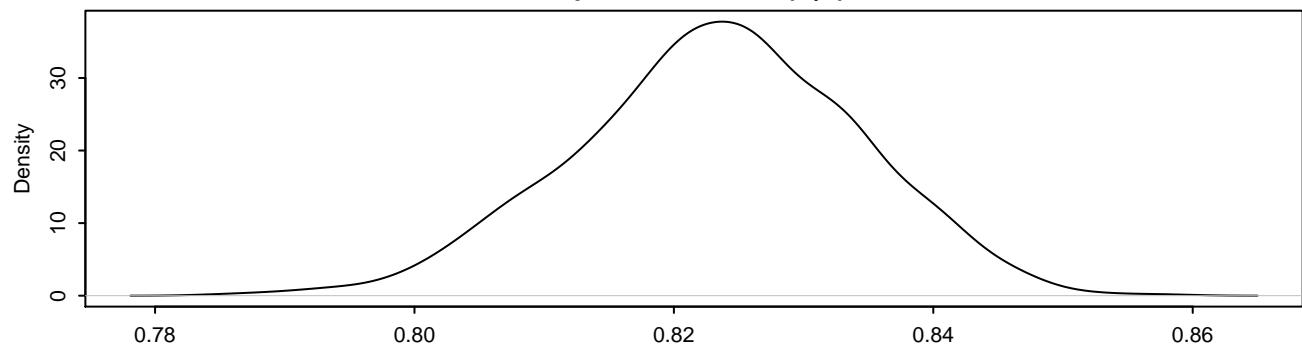




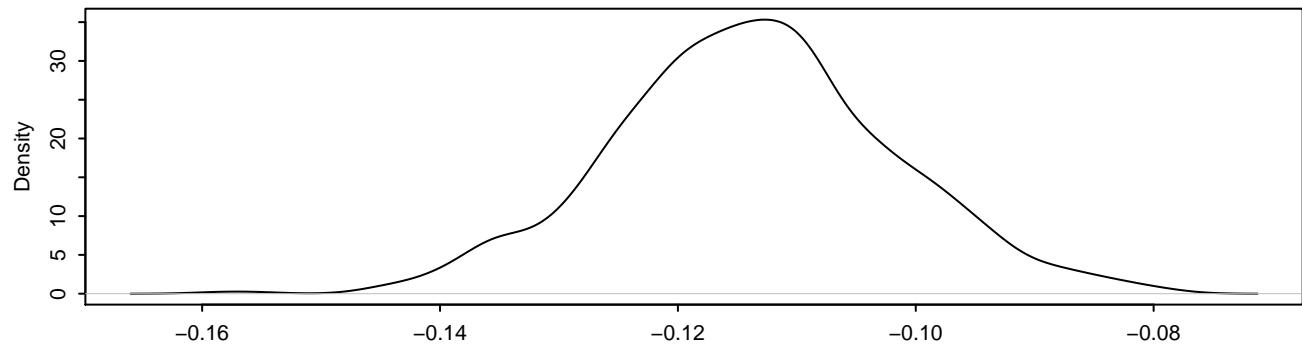
## Expected Values: $E(Y|X)$



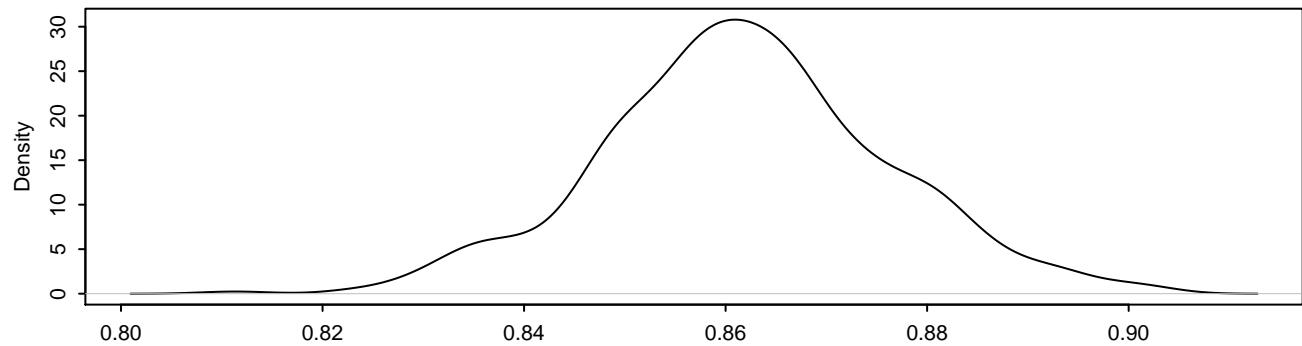
### Expected Values: $E(Y|X)$



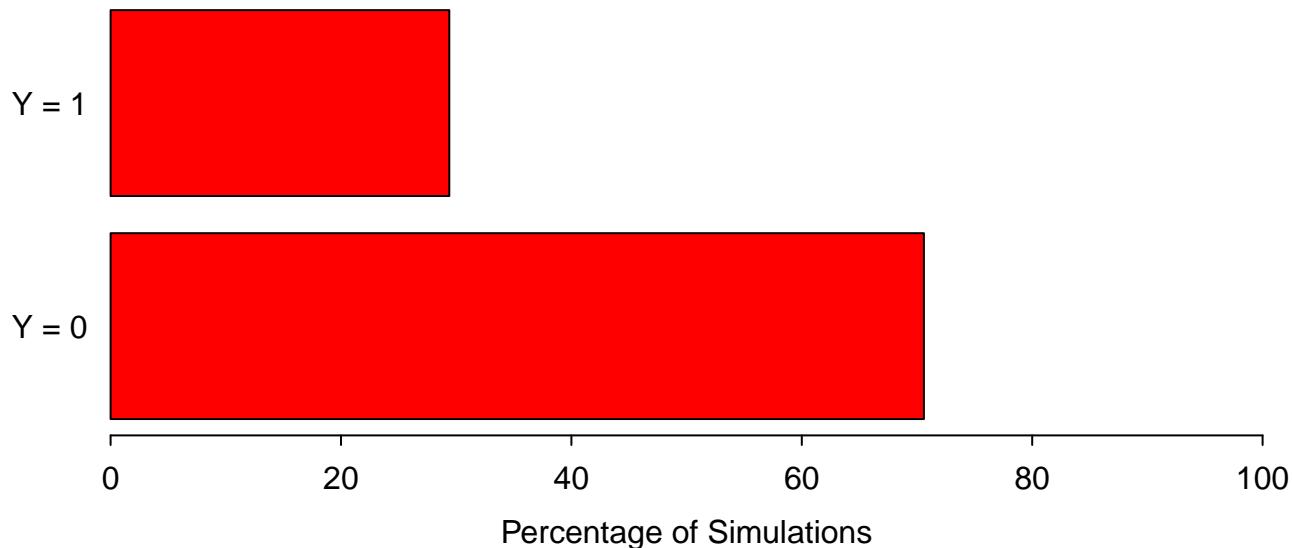
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



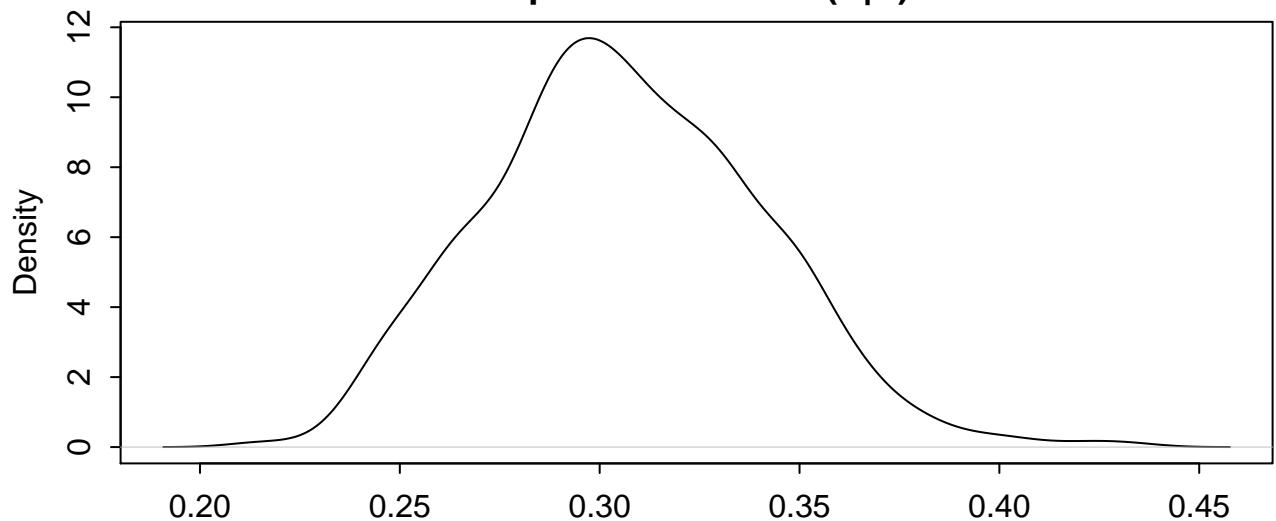
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



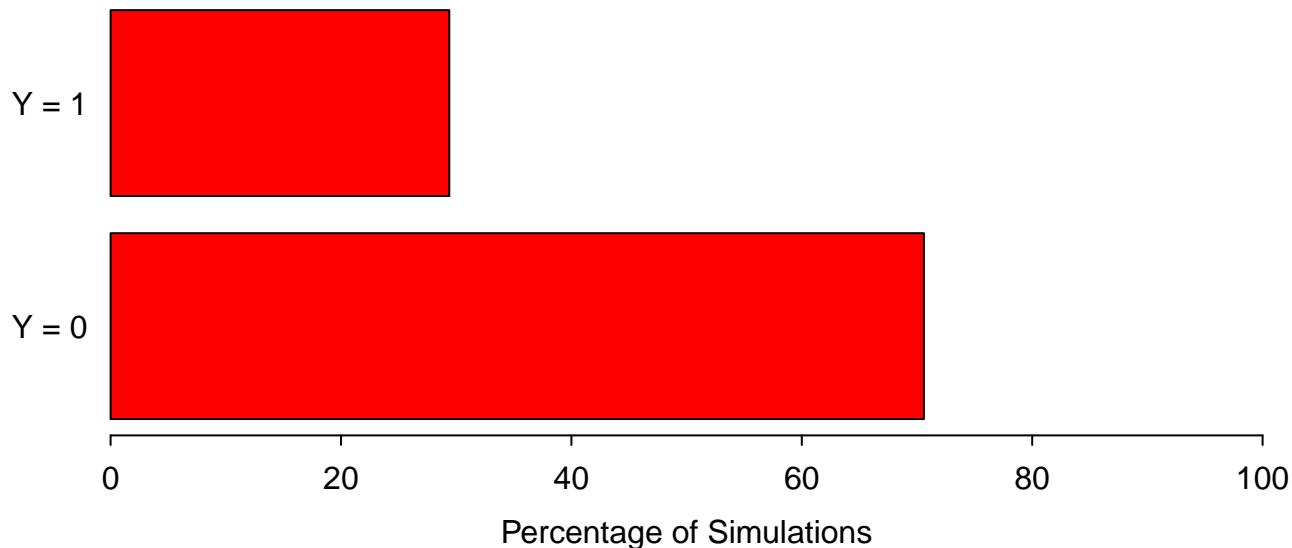
## Predicted Values: $Y|X$



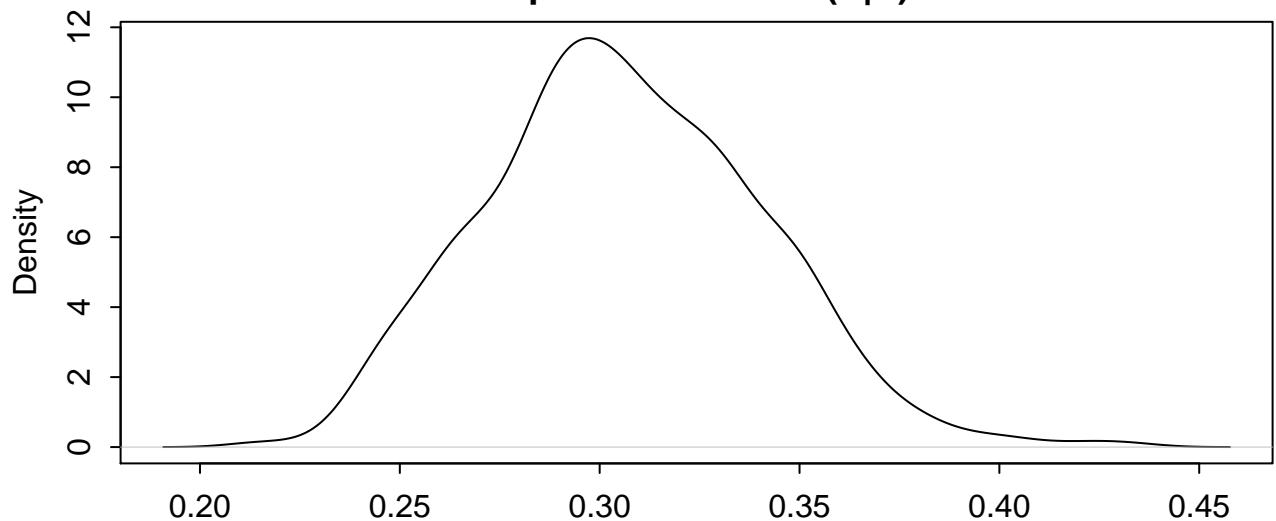
## Expected Values: $E(Y|X)$



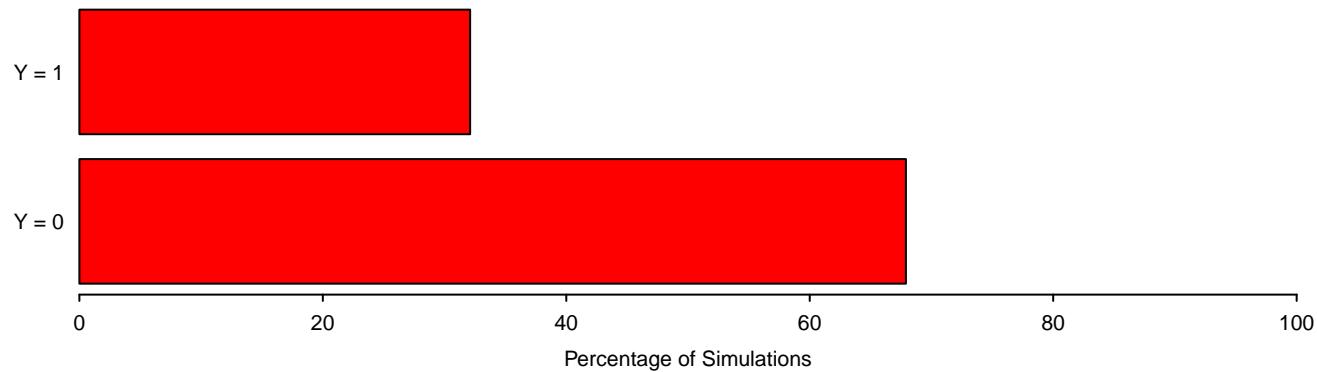
## Predicted Values: $Y|X$



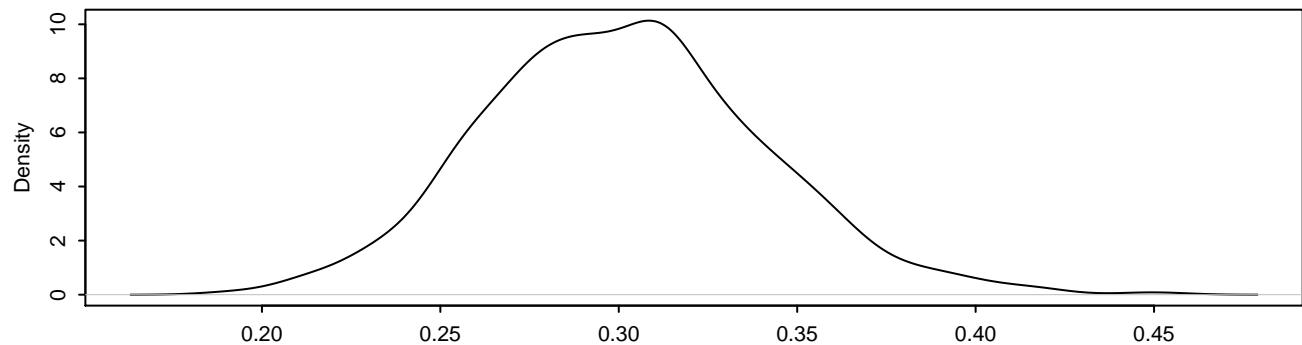
## Expected Values: $E(Y|X)$



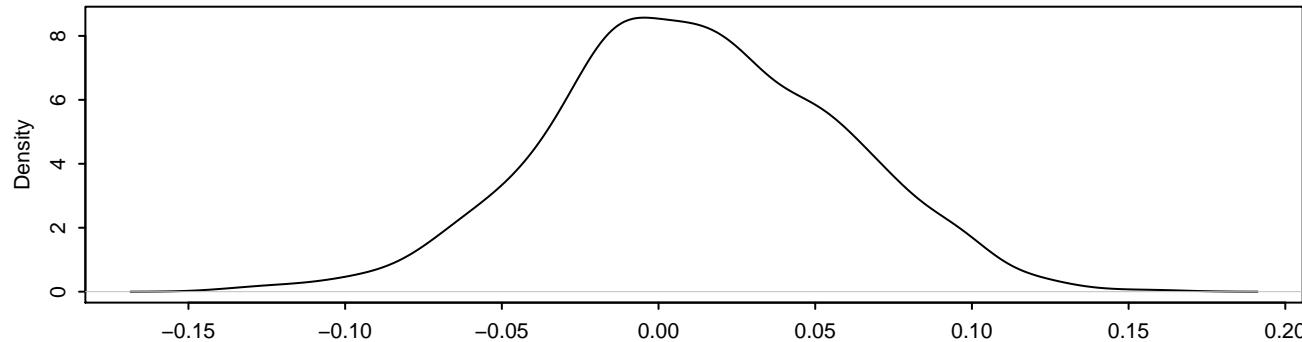
### Predicted Values: $Y|X$



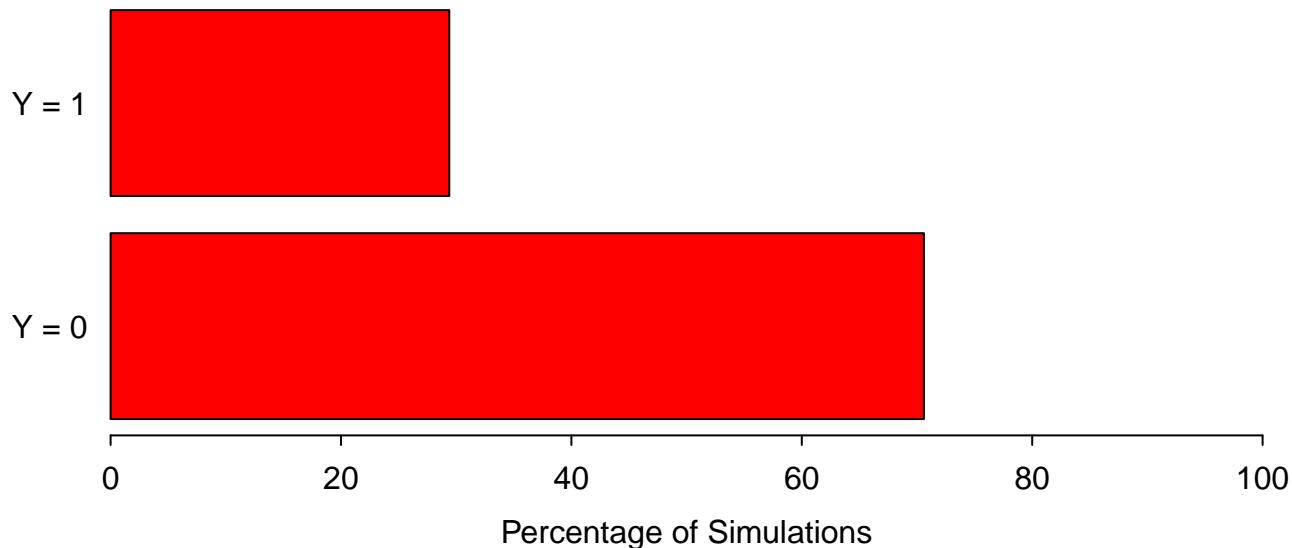
### Expected Values: $E(Y|X)$



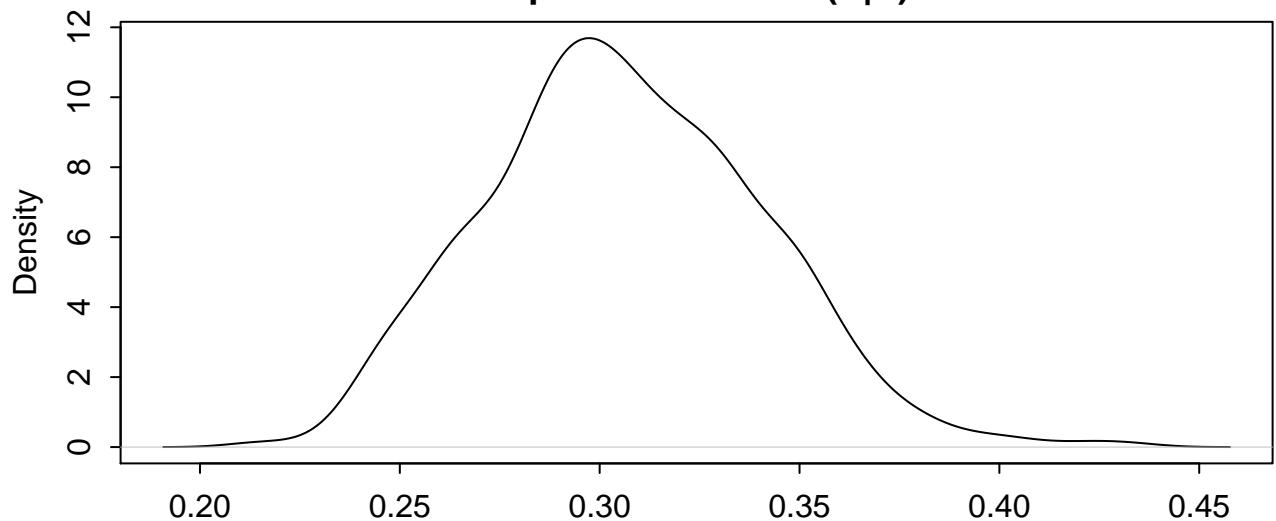
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



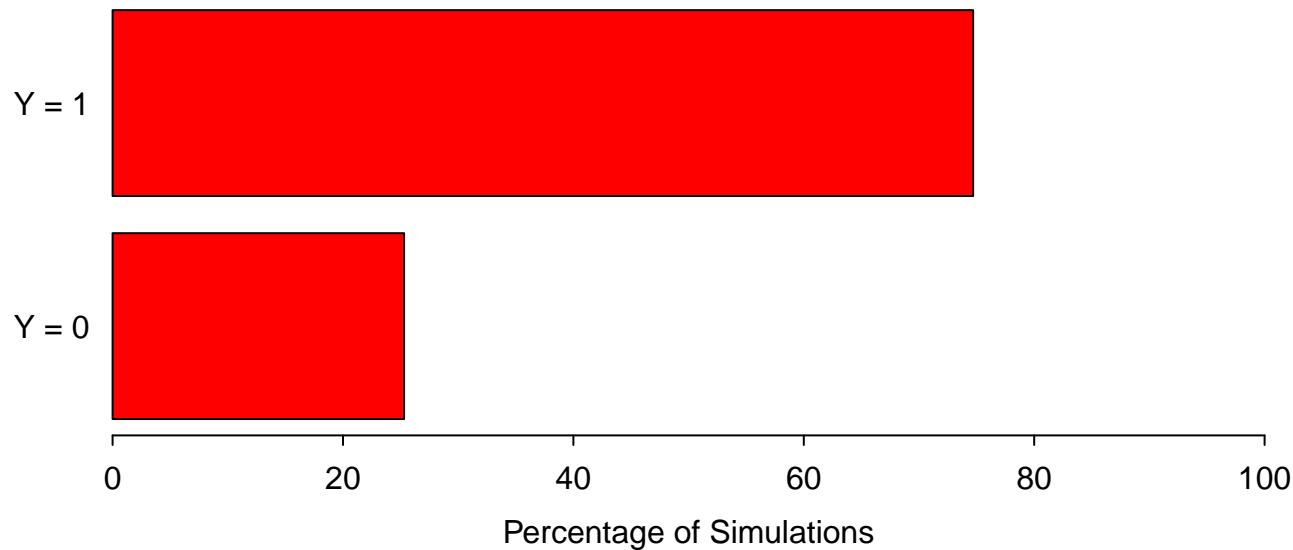
## Predicted Values: $Y|X$



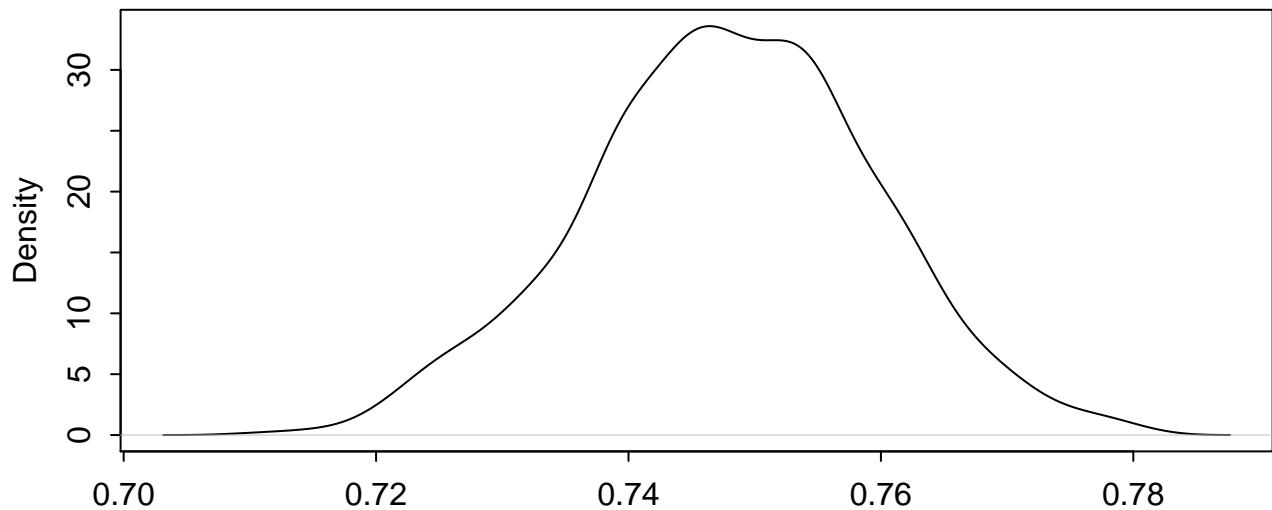
## Expected Values: $E(Y|X)$



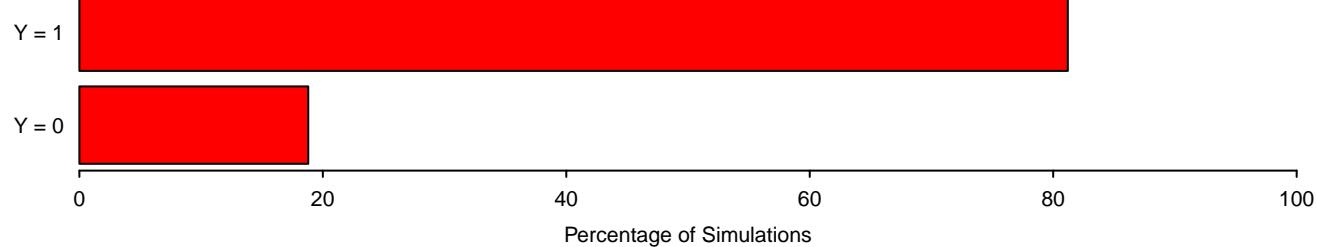
## Predicted Values: $Y|X$



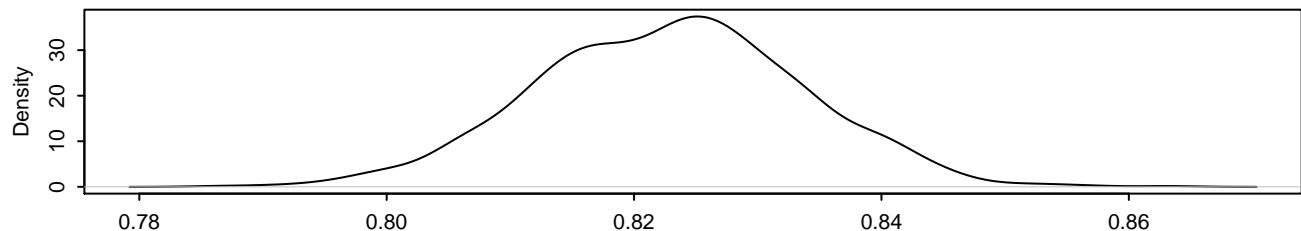
## Expected Values: $E(Y|X)$



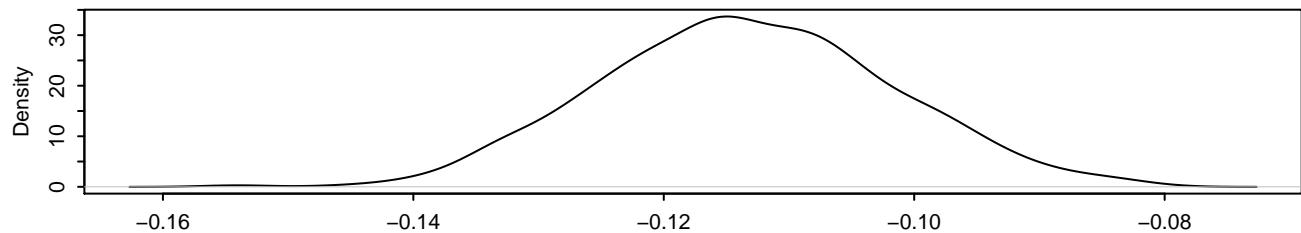
### Predicted Values: $Y|X$



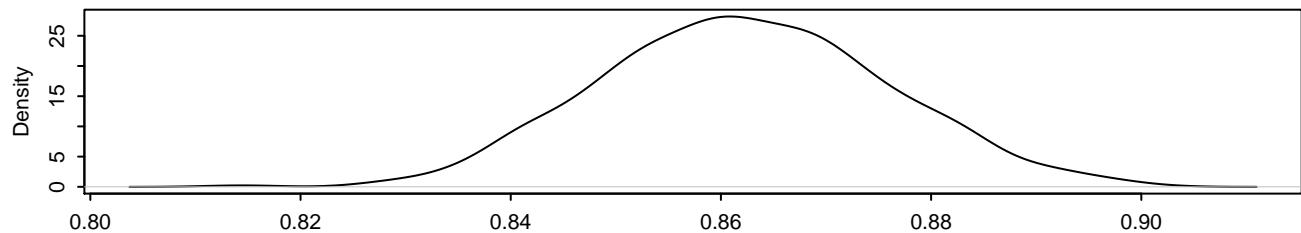
### Expected Values: $E(Y|X)$



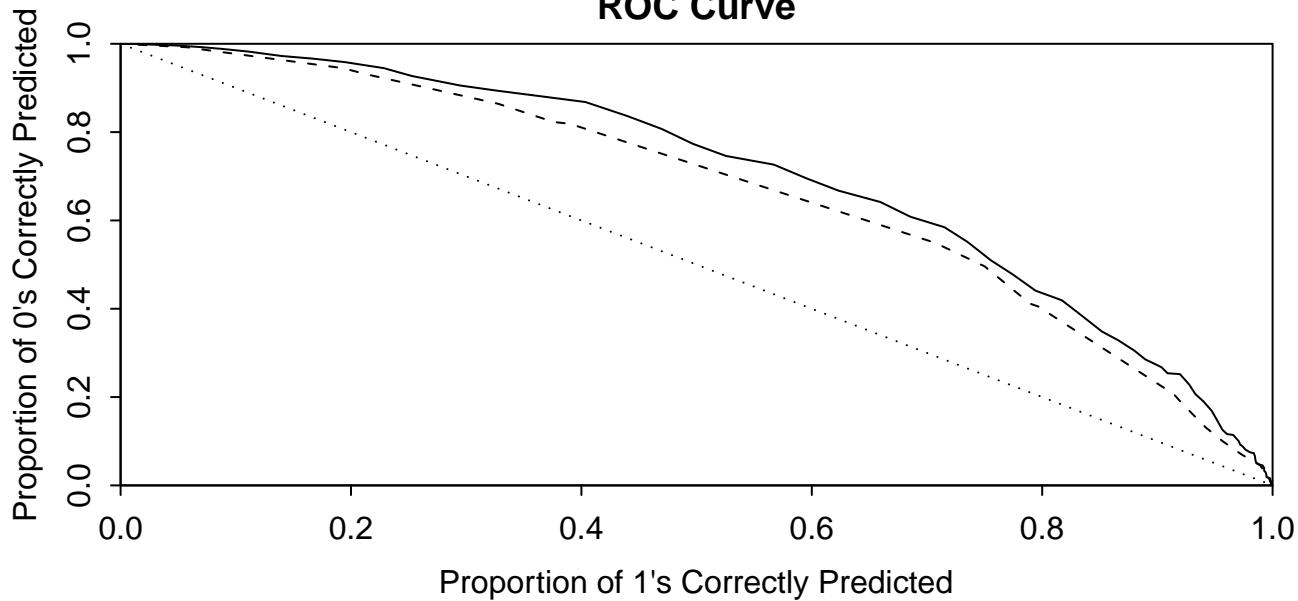
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



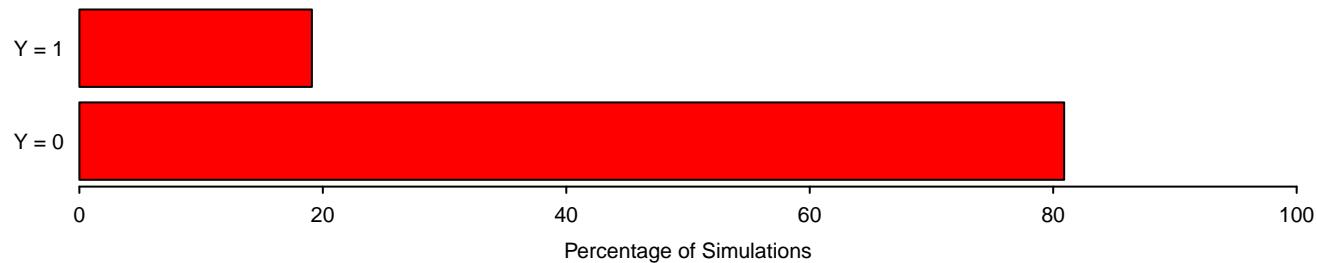
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



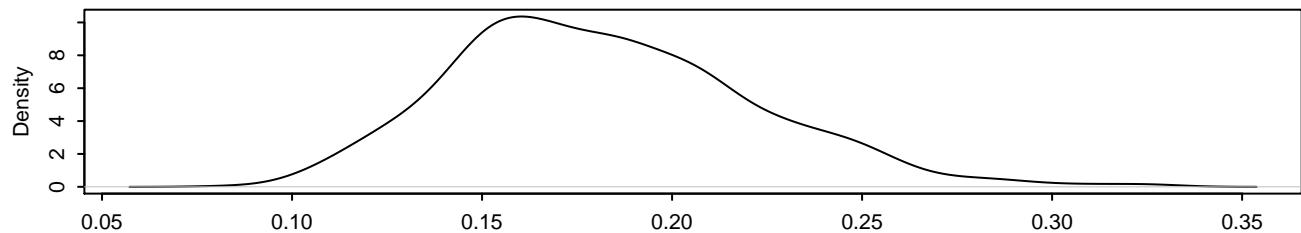
## ROC Curve



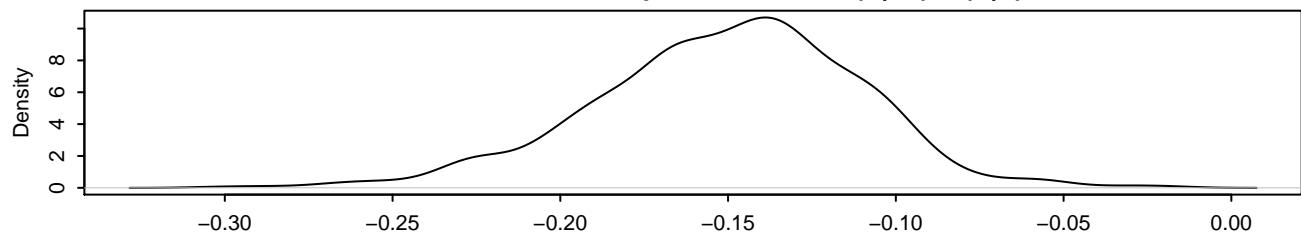
### Predicted Values: $Y|X$



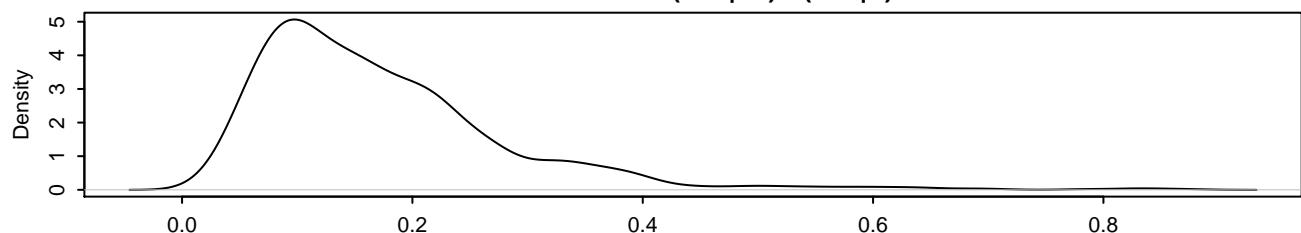
### Expected Values: $E(Y|X)$



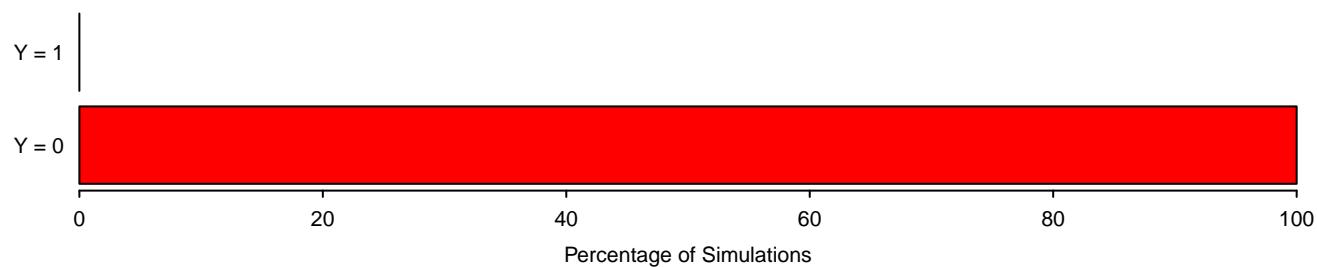
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



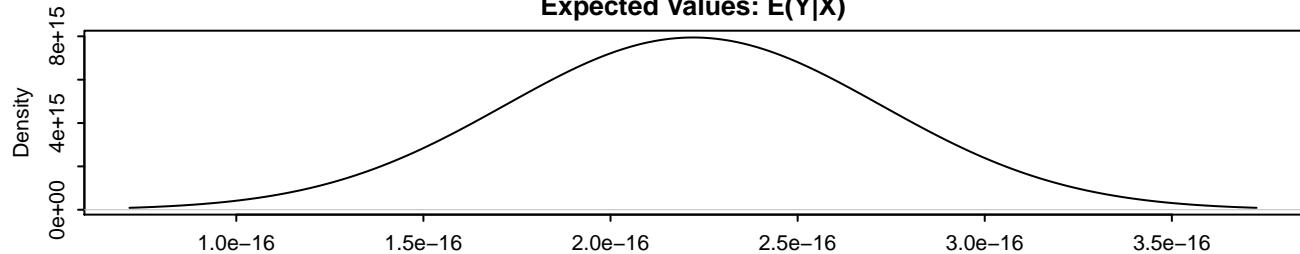
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



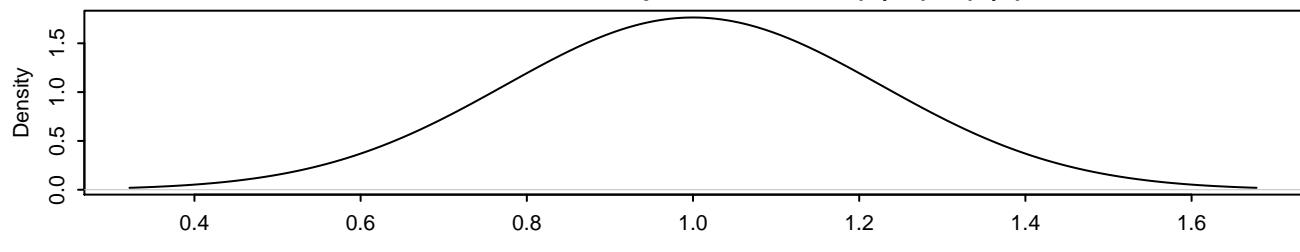
### Predicted Values: $Y|X$



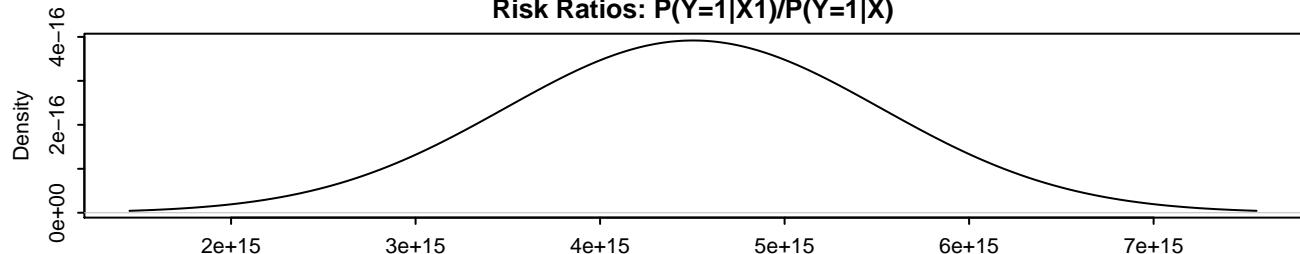
### Expected Values: $E(Y|X)$



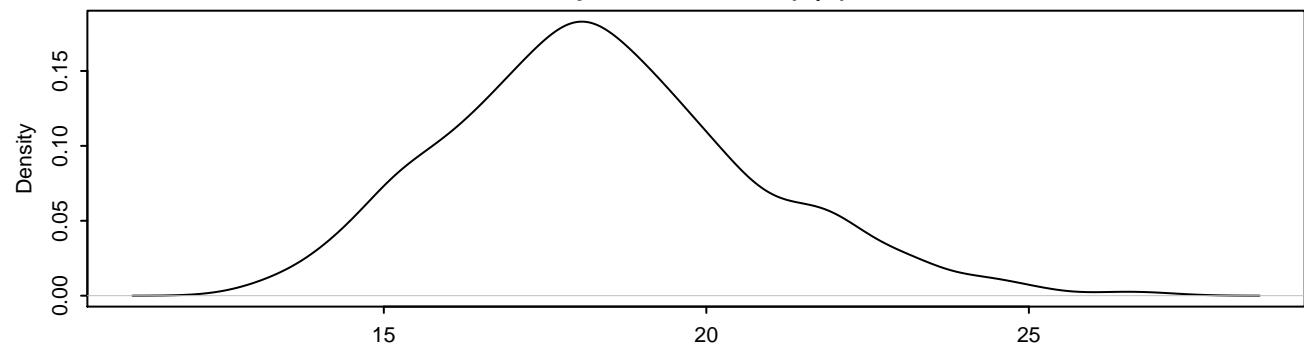
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



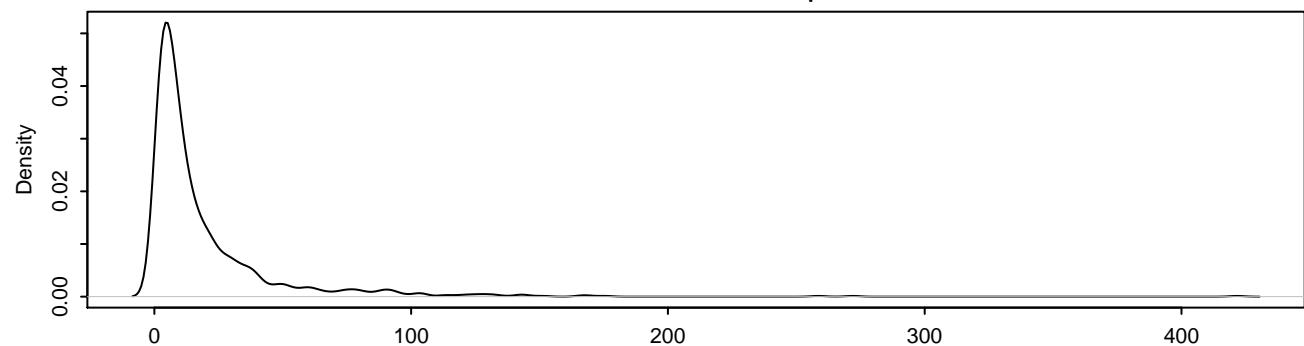
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



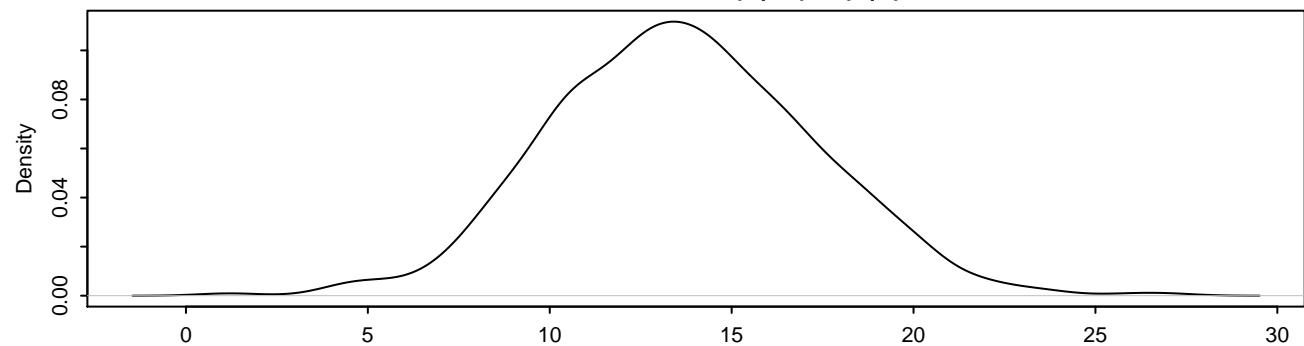
**Expected Values:  $E(Y|X)$**



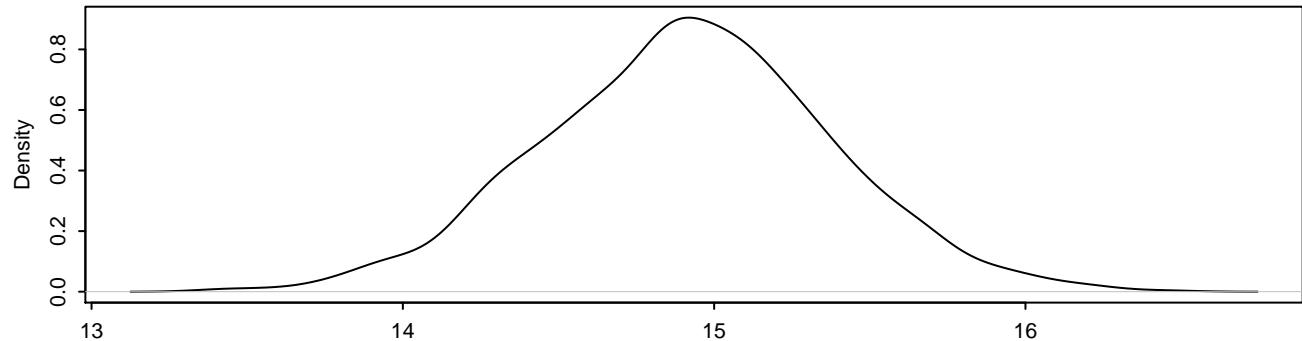
**Predicted Values:  $Y|X$**



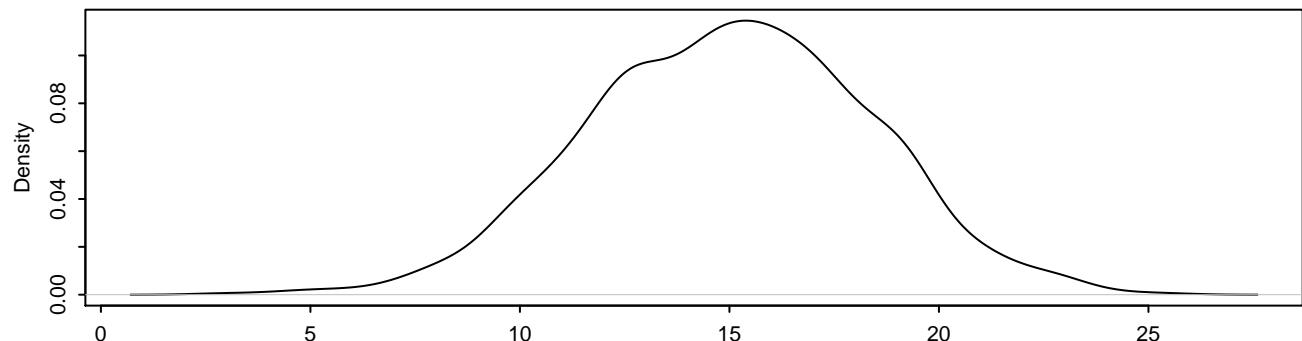
**First Differences:  $E(Y|X_1) - E(Y|X)$**



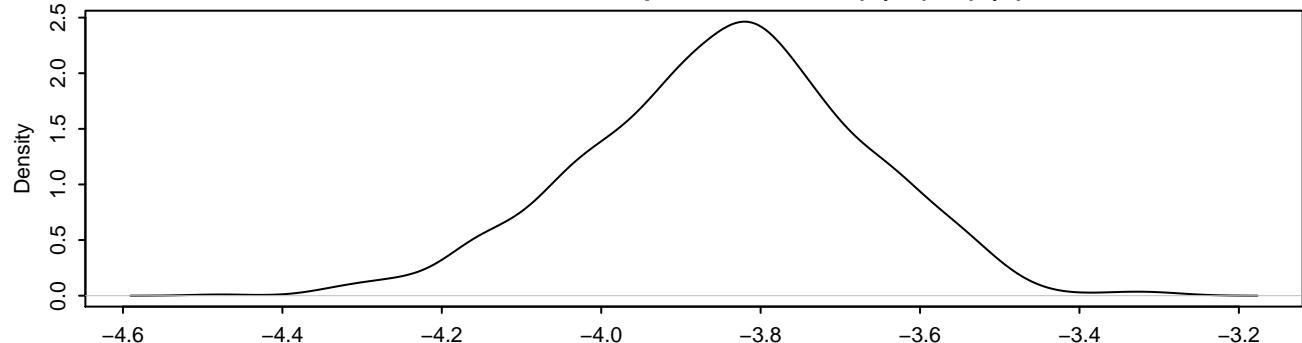
**Expected Values:  $E(Y|X)$**



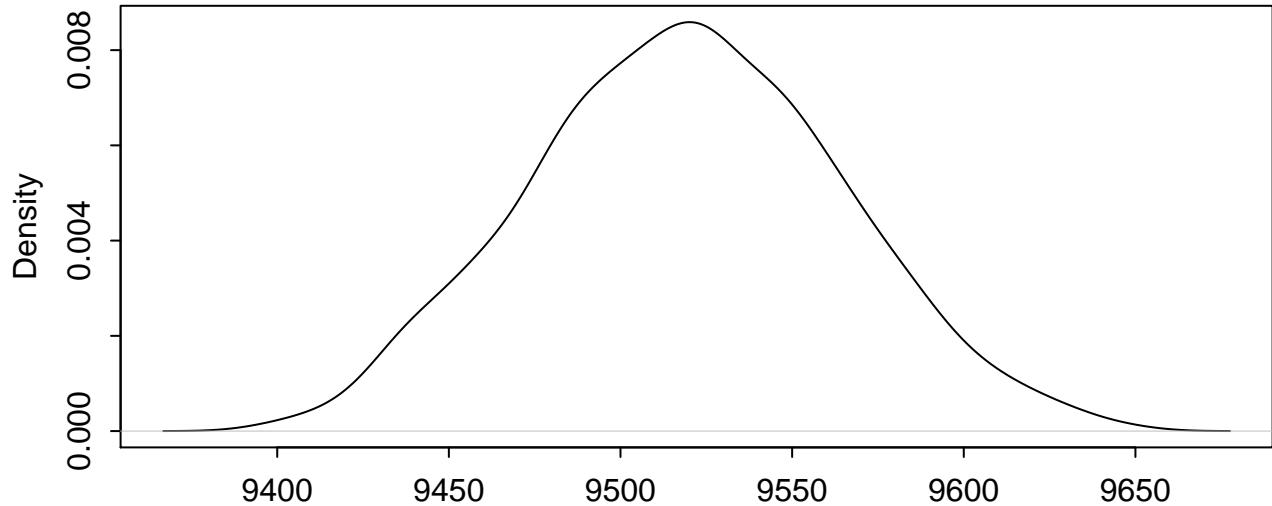
**Predicted Values:  $Y|X$**



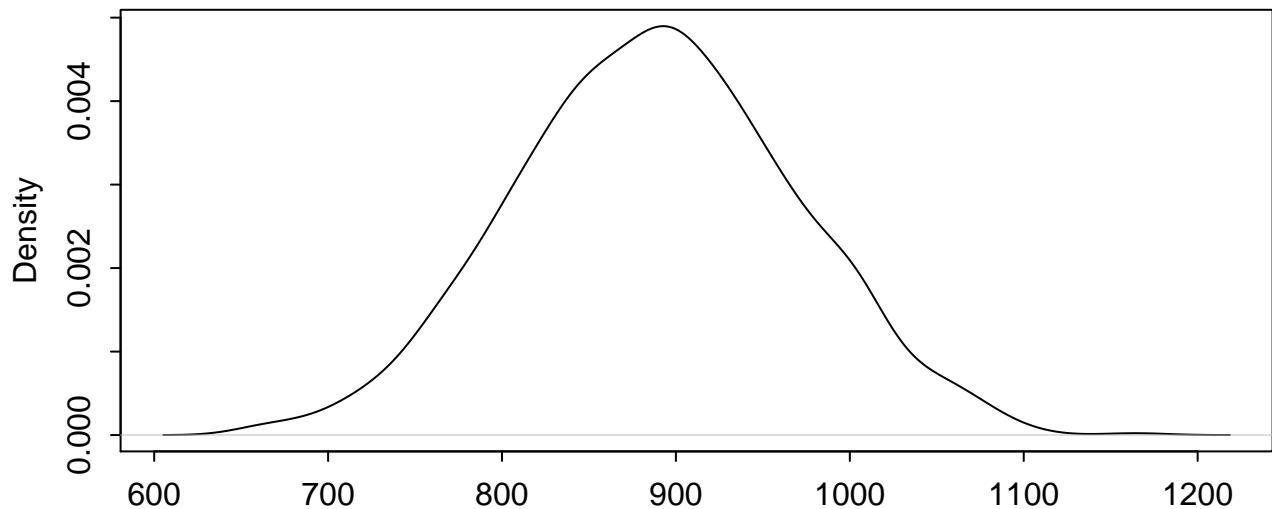
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



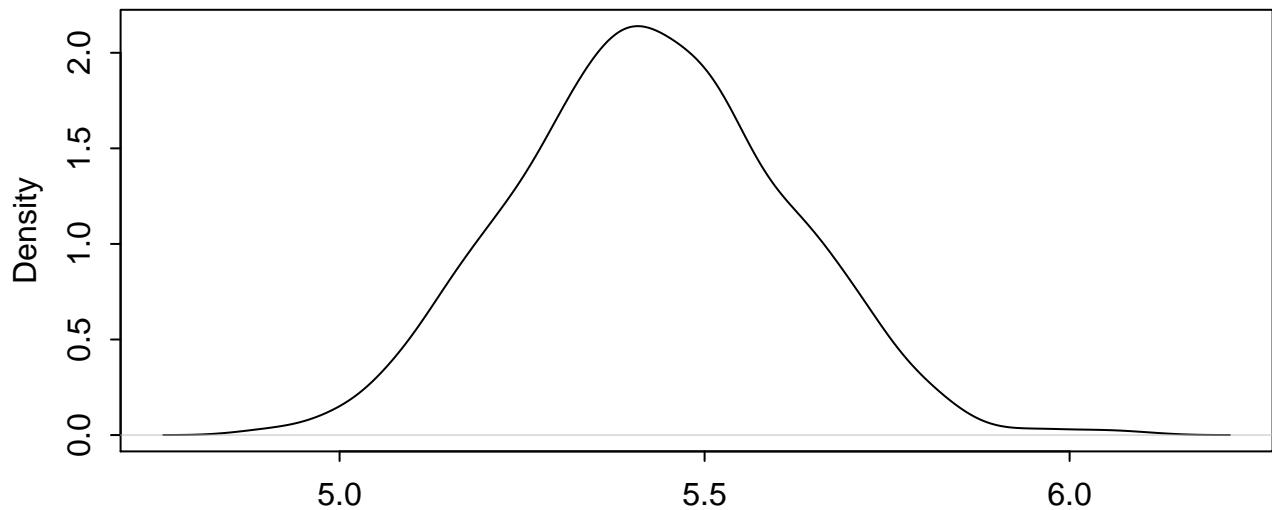
### **Expected Values: $E(Y|X)$**



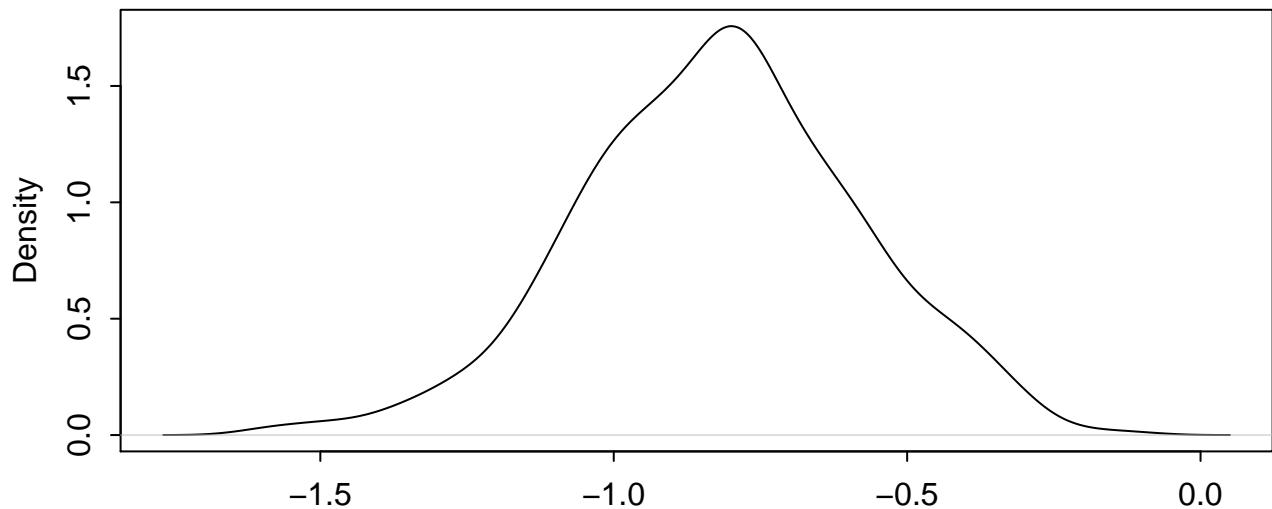
### **First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$**



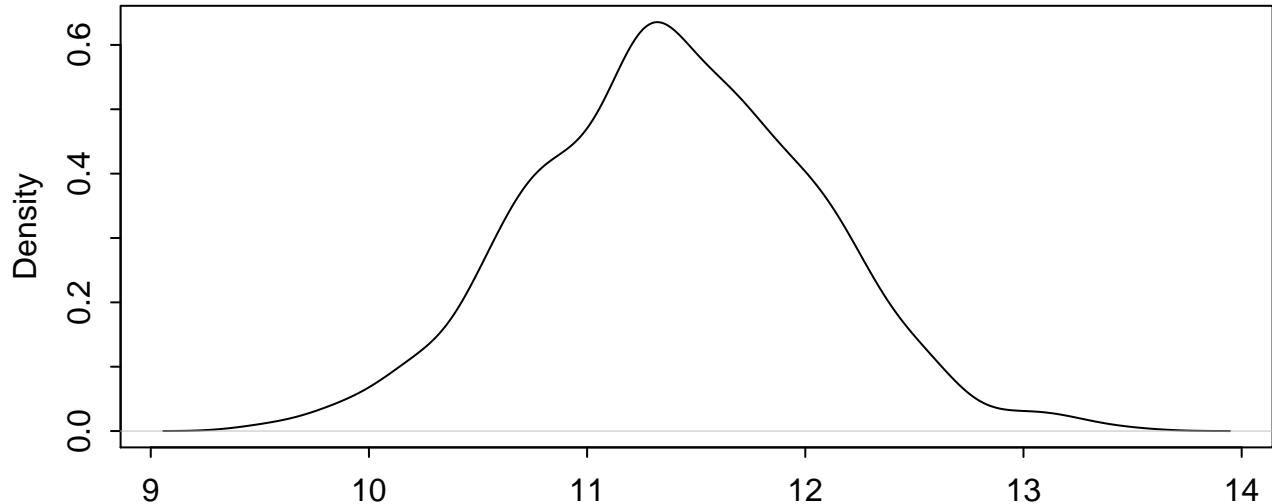
### **Expected Values: $E(Y|X)$**



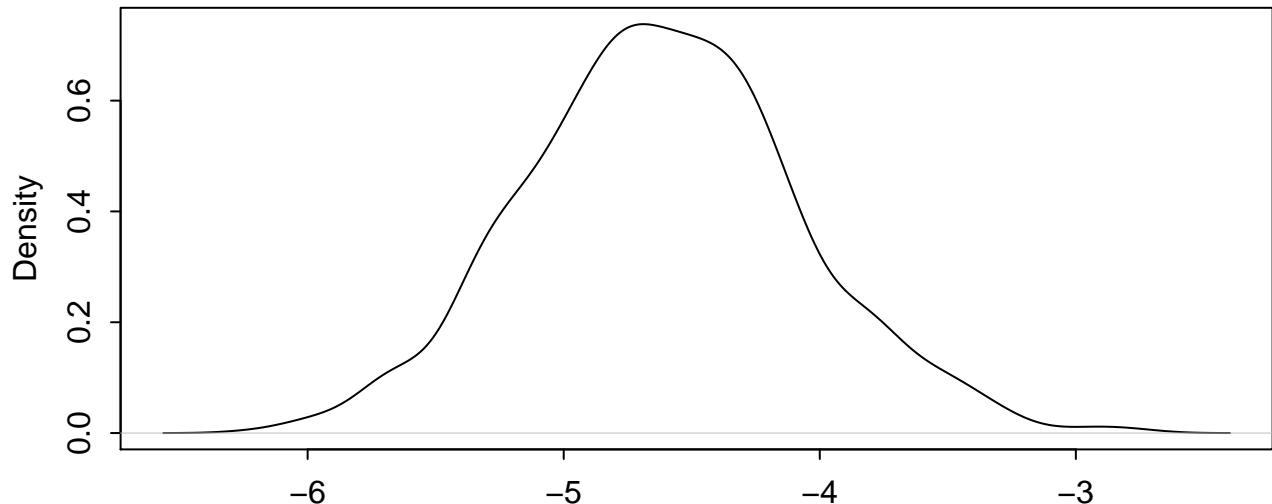
### **First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$**



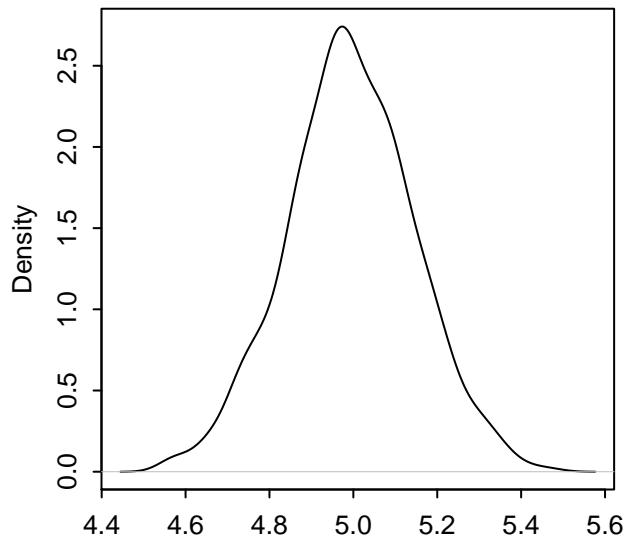
### Expected Values: $E(Y|X)$



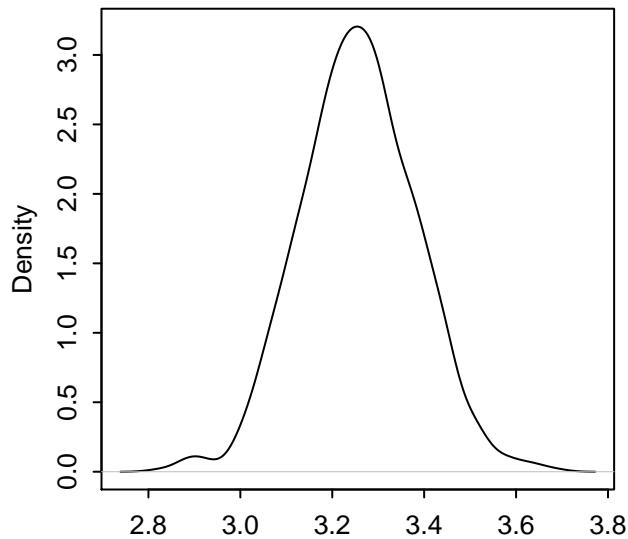
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



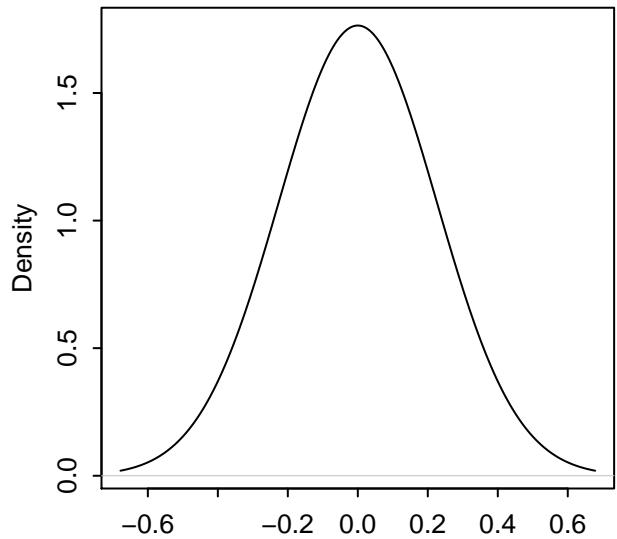
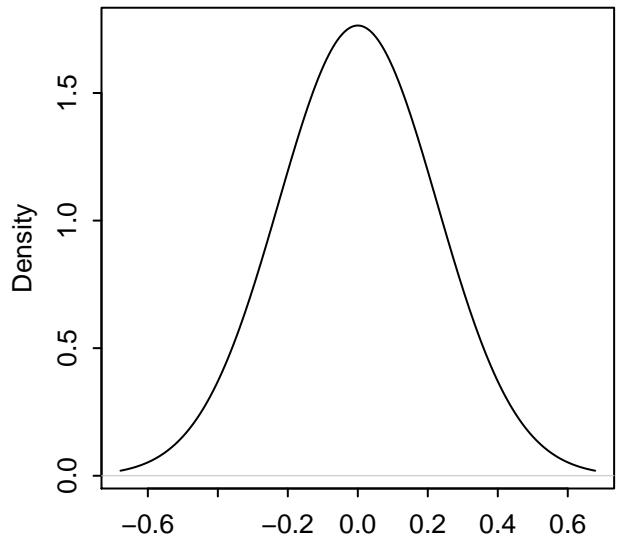
**Expected Values:  $E(Y|X)$**



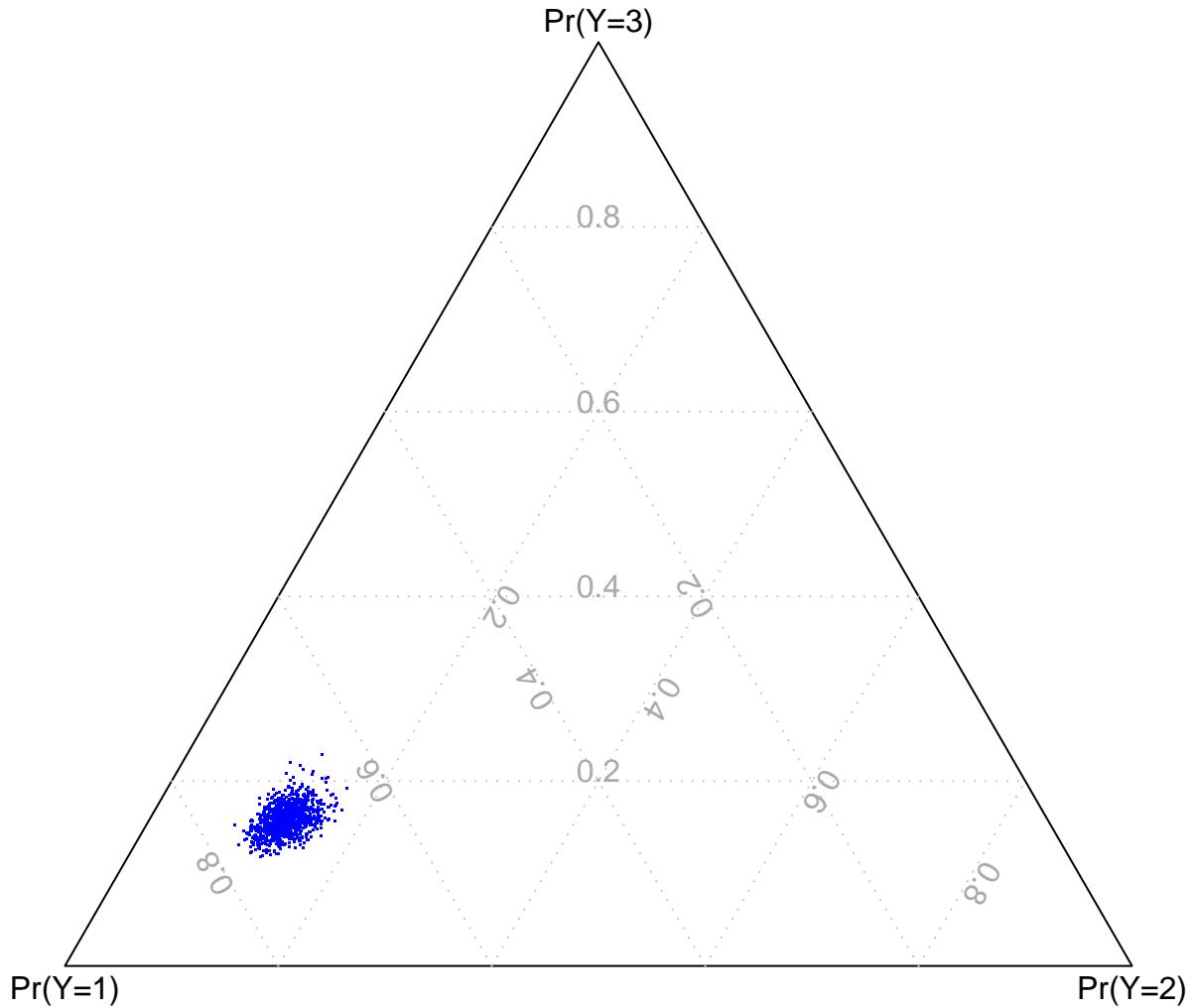
**Expected Values:  $E(Y|X)$**



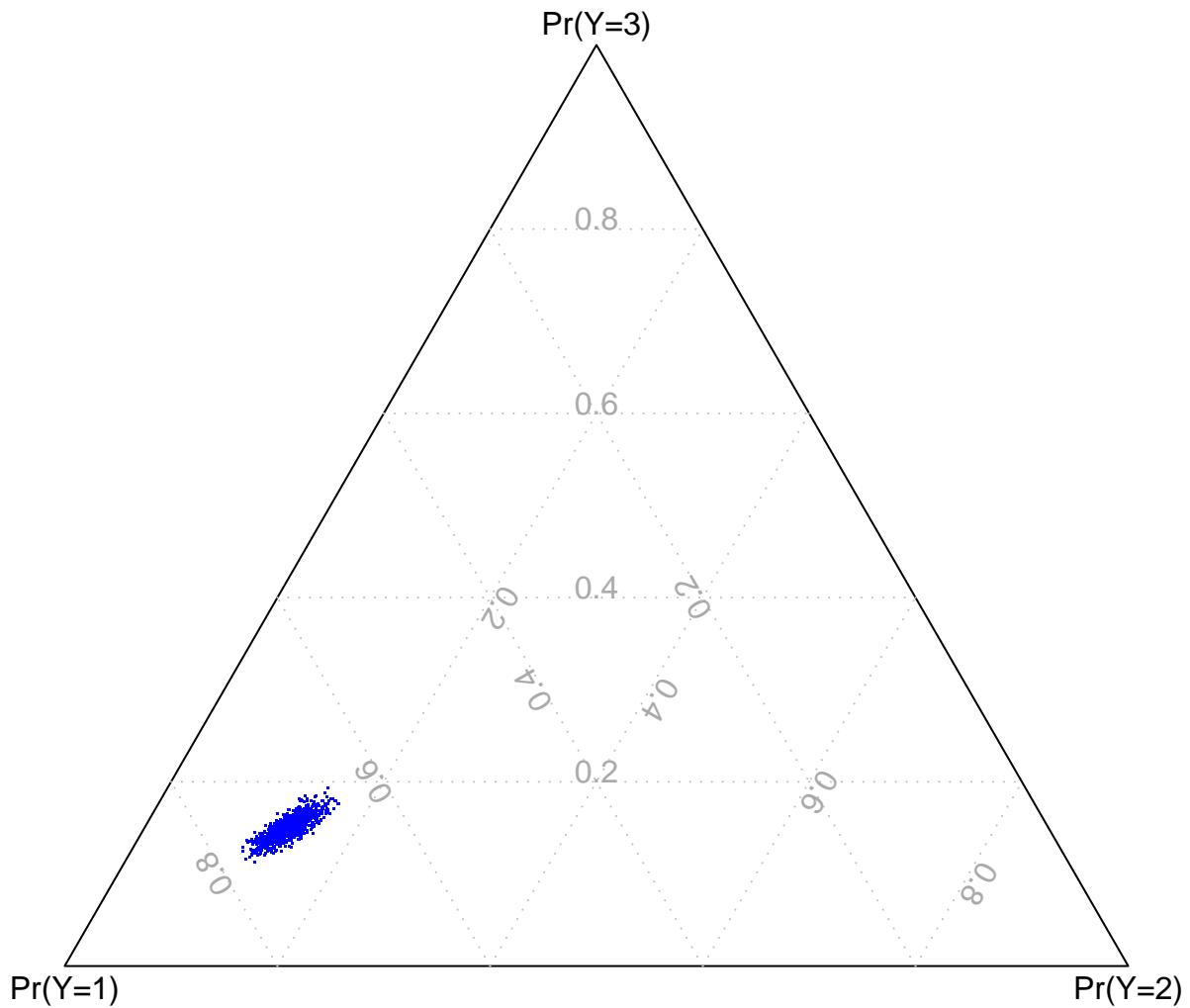
**First Differences in Expected Values:  $E(Y|X_1)$ -first Differences in Expected Values:  $E(Y|X_1)$**



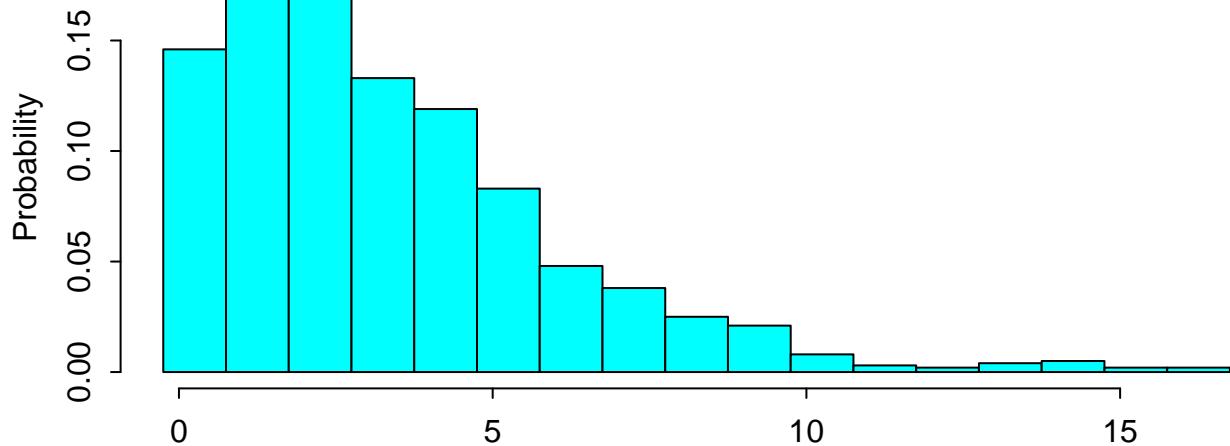
# 1988 Mexican Presidential Election



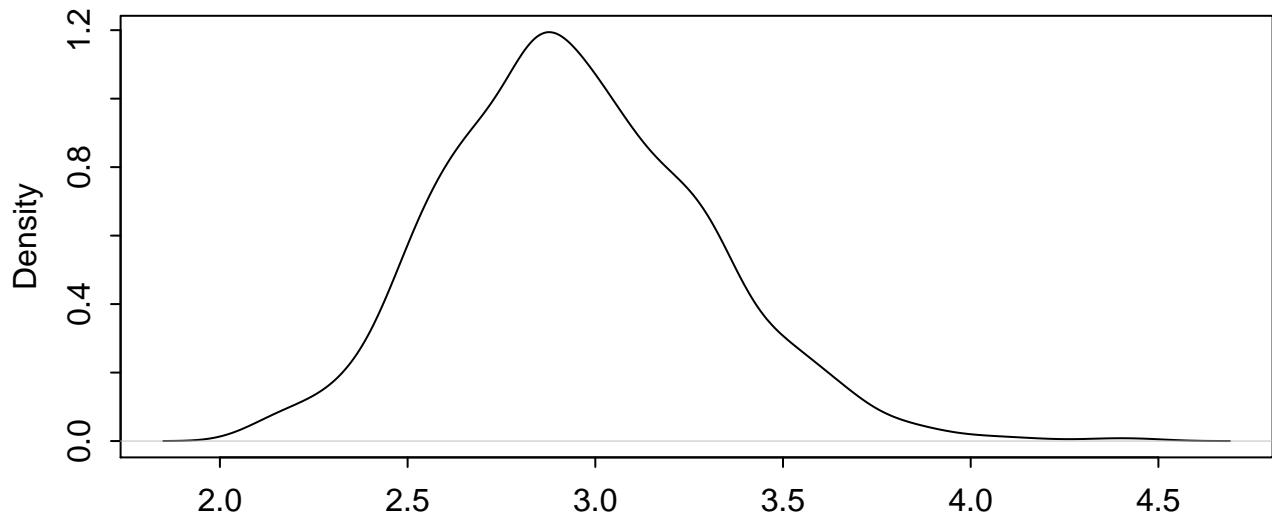
# 1988 Mexican Presidential Election

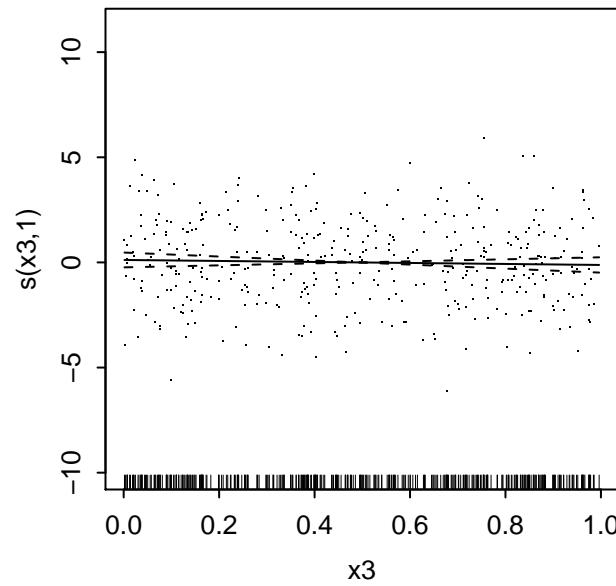
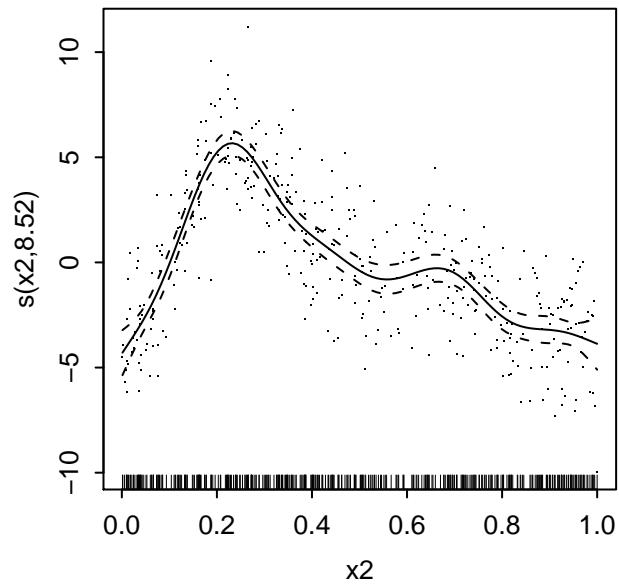
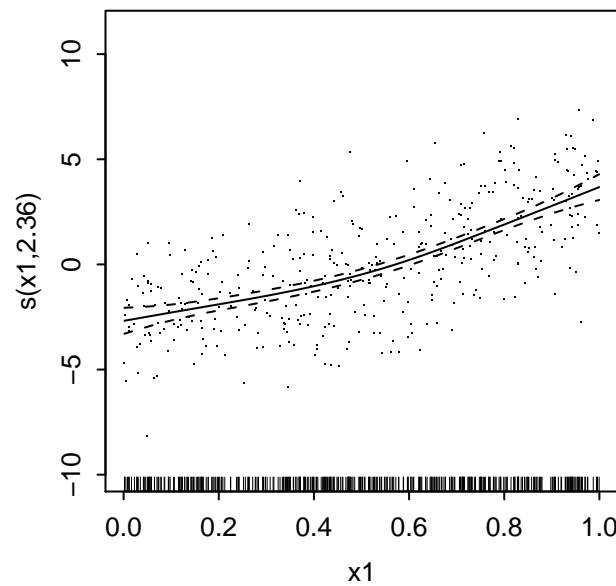
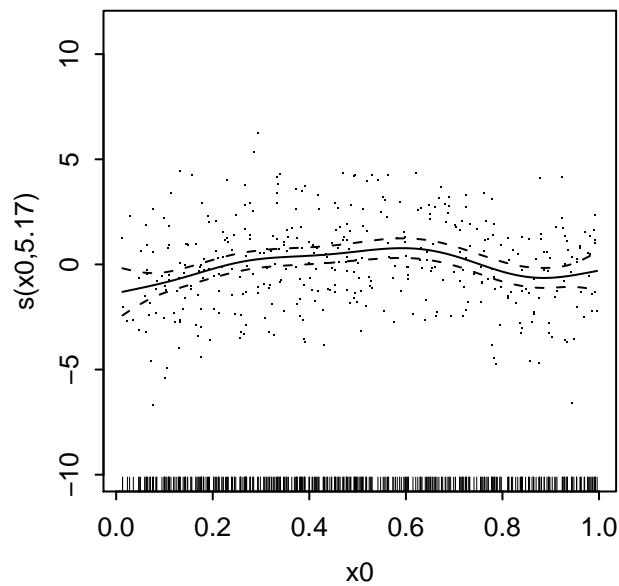


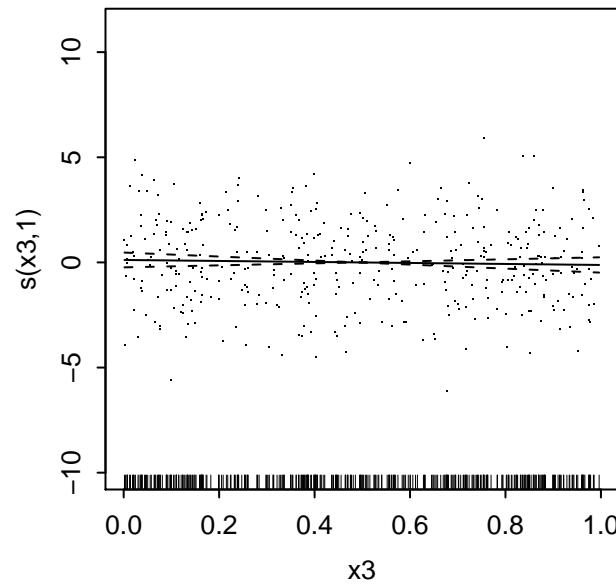
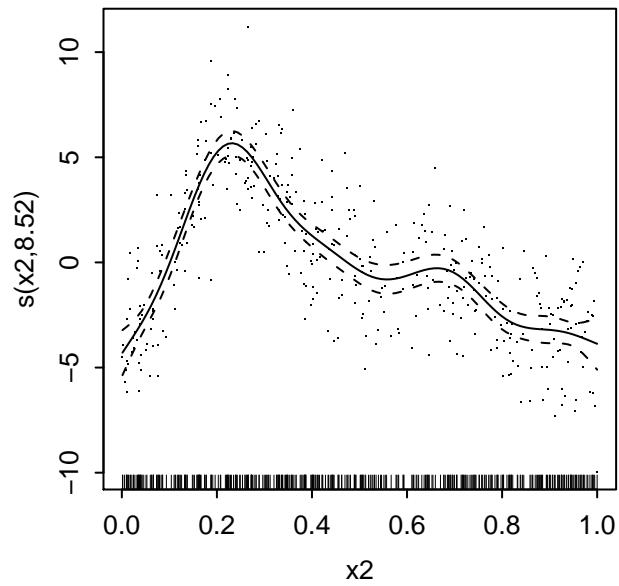
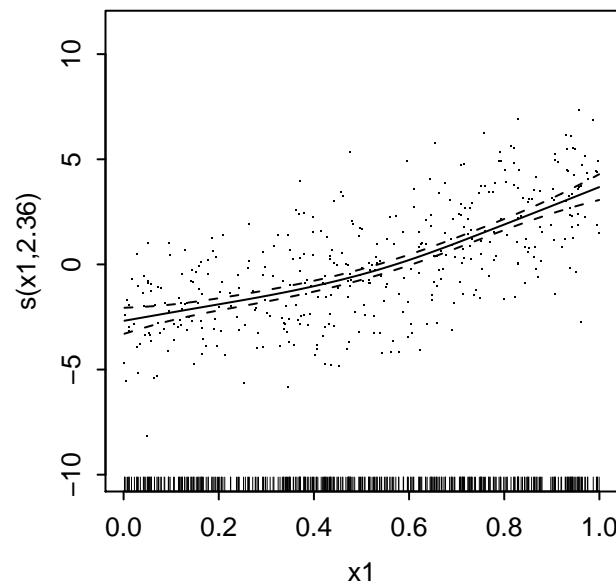
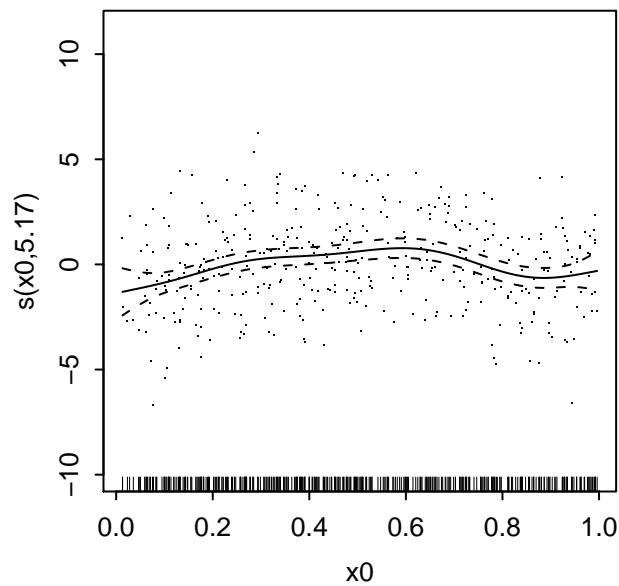
### Predicted Values: $Y|X$

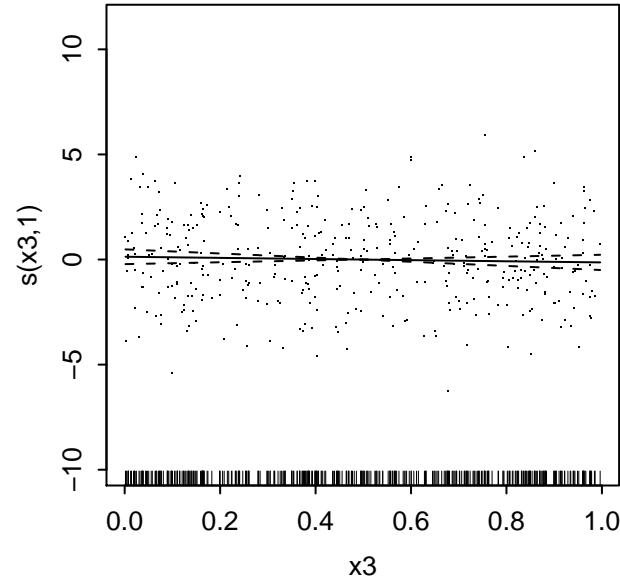
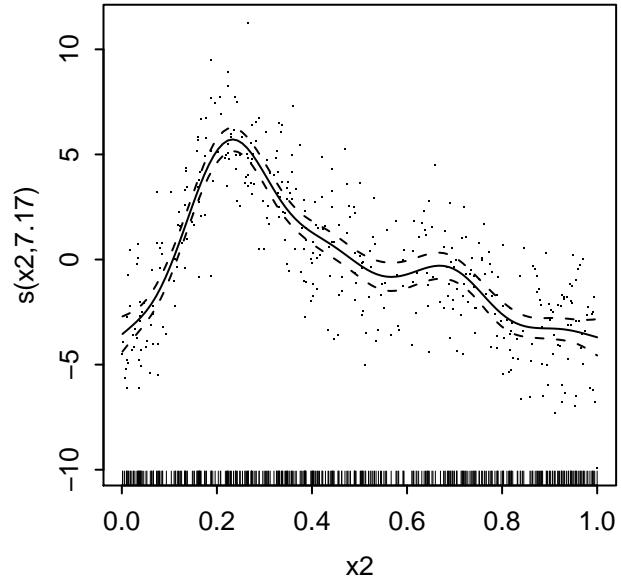
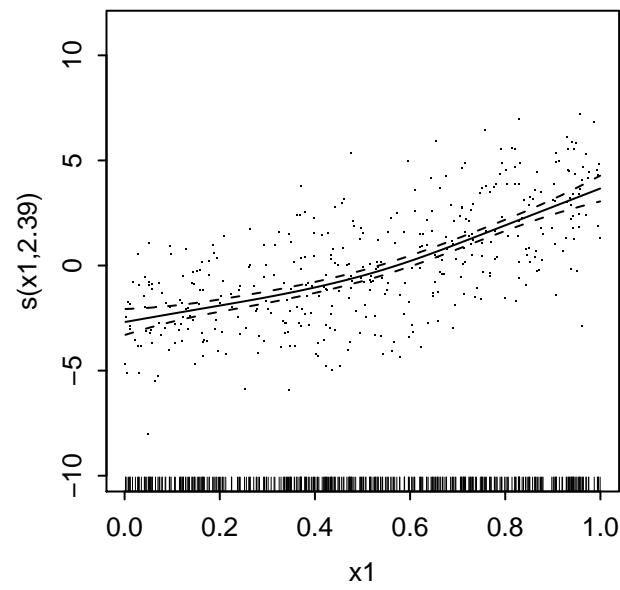
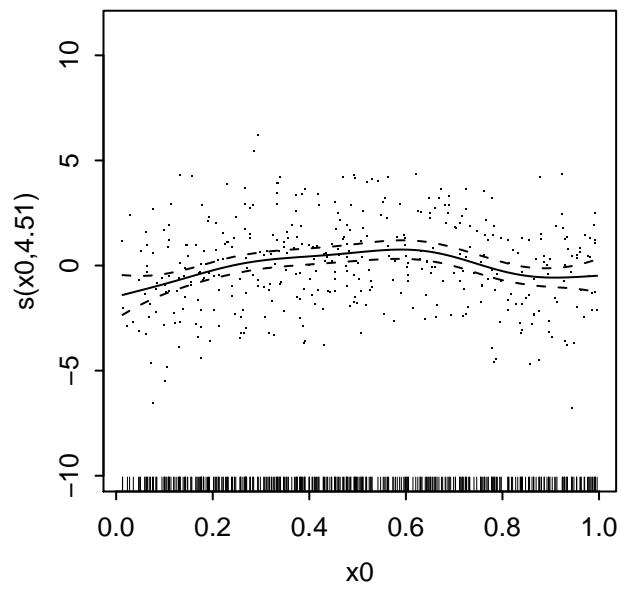


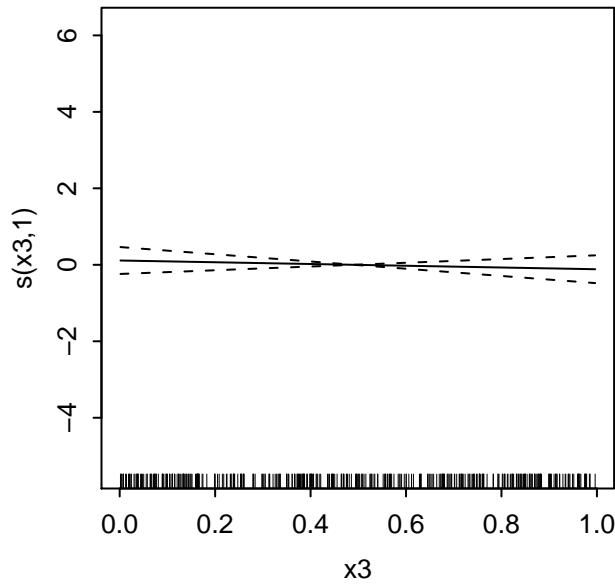
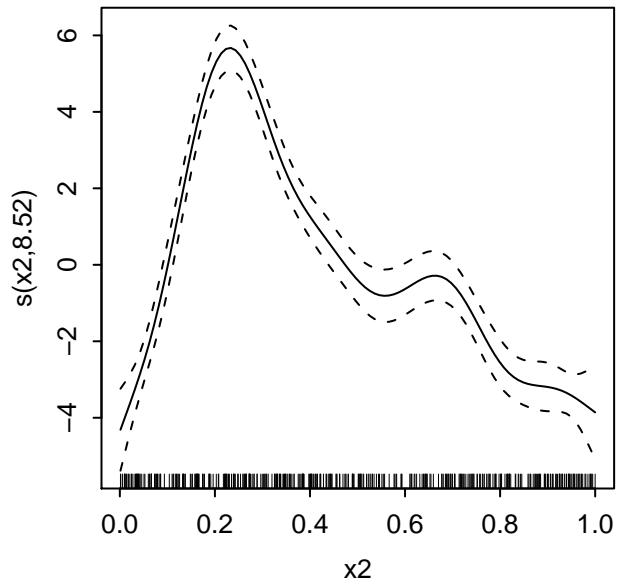
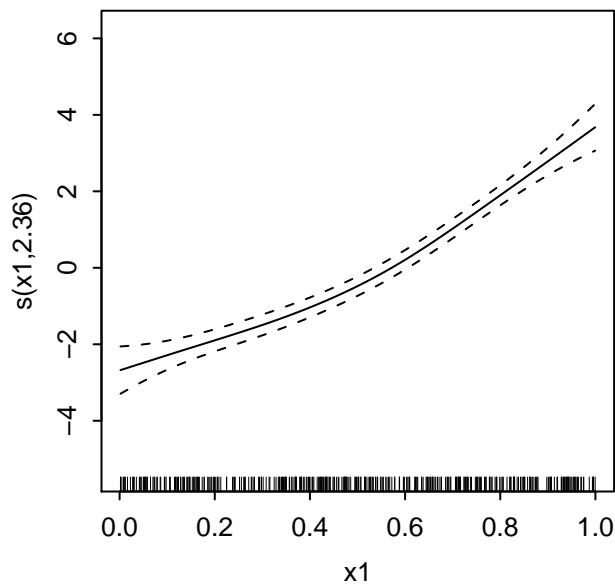
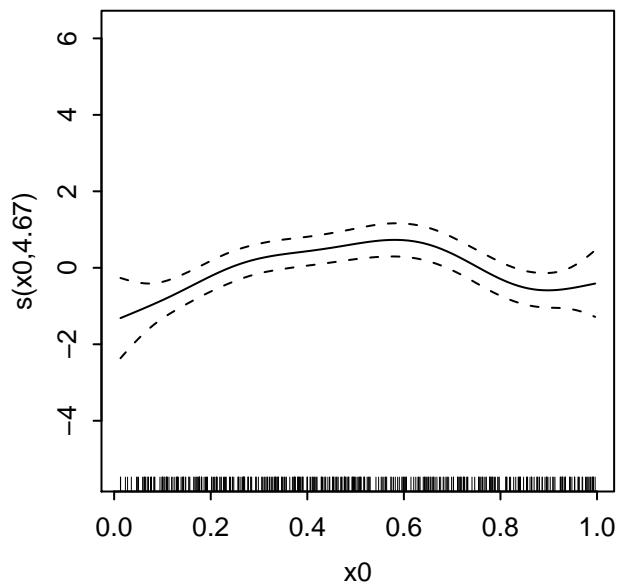
### Expected Values: $E(Y|X)$

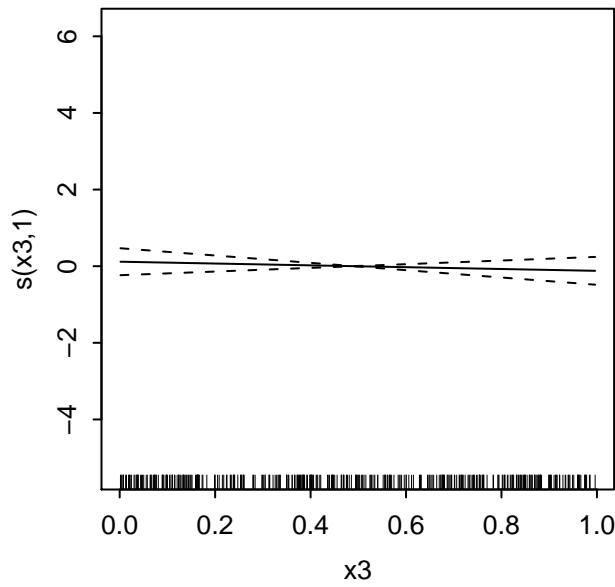
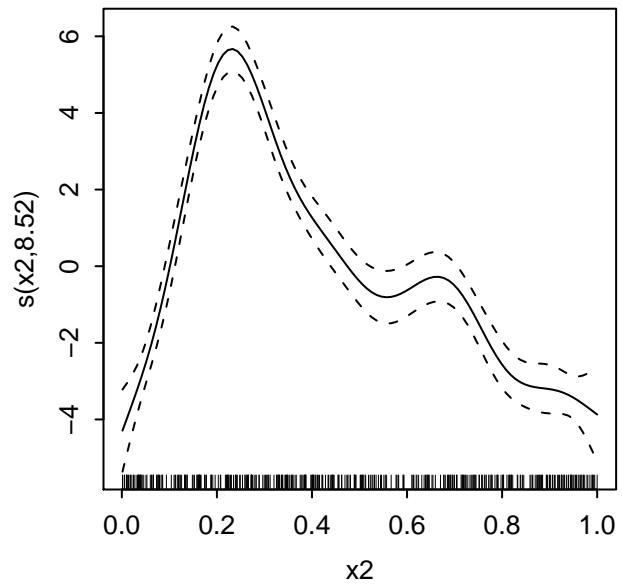
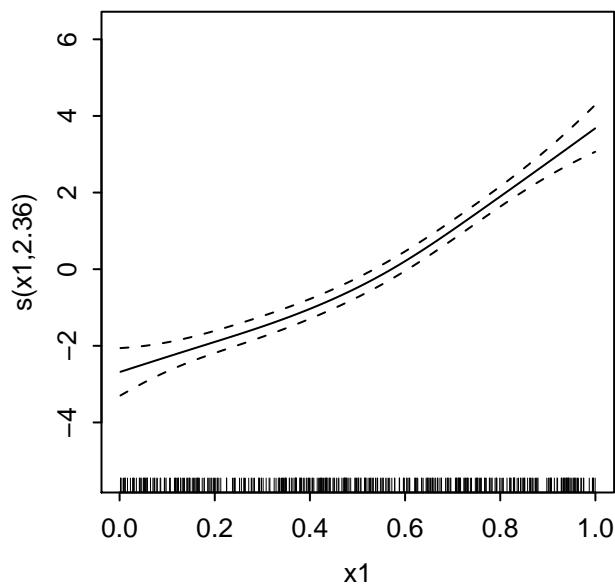
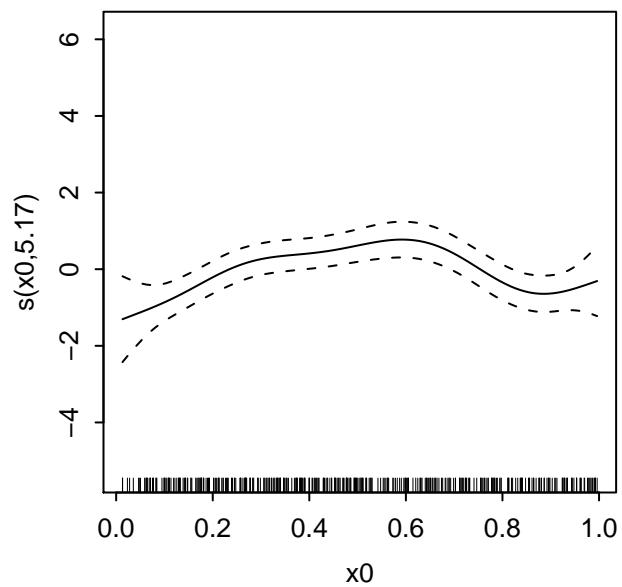


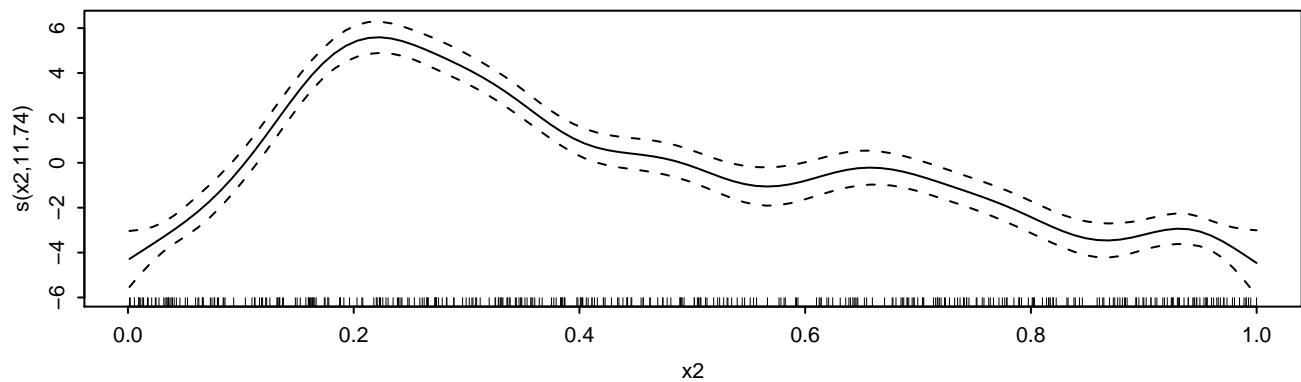
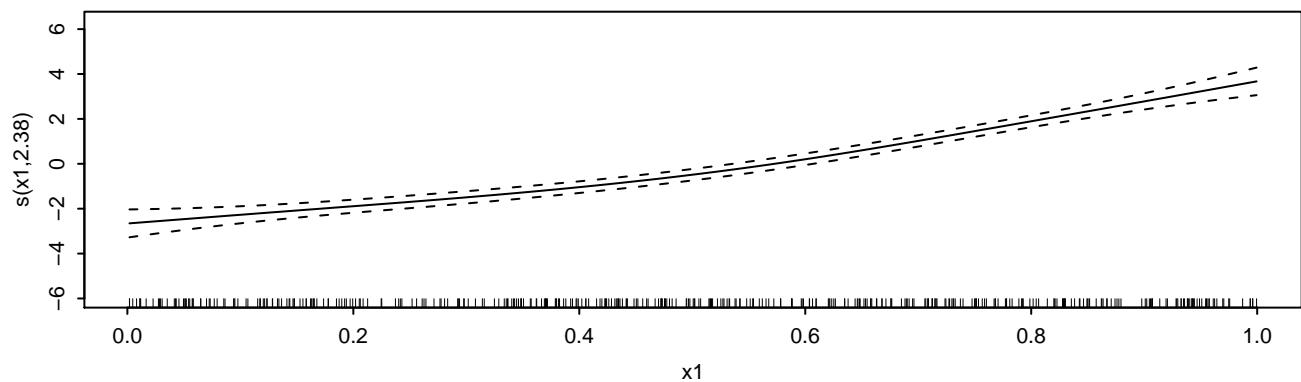
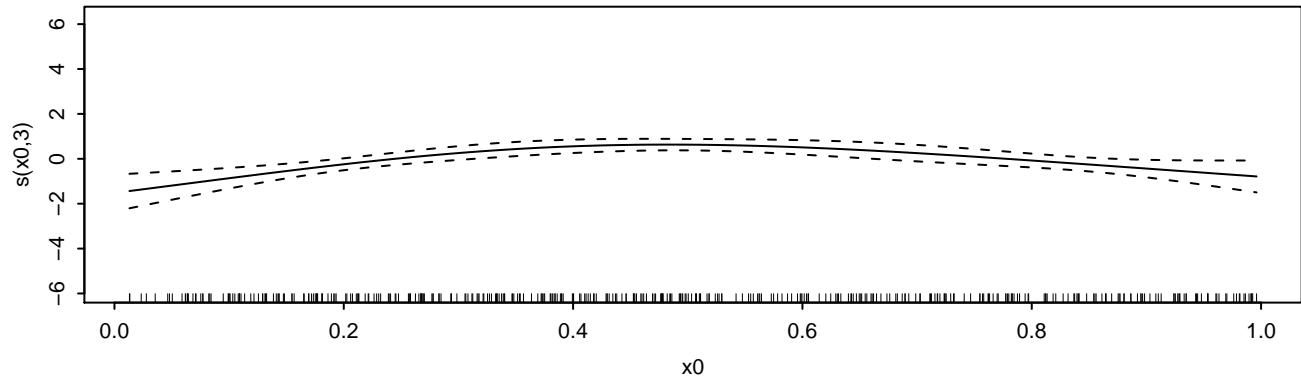




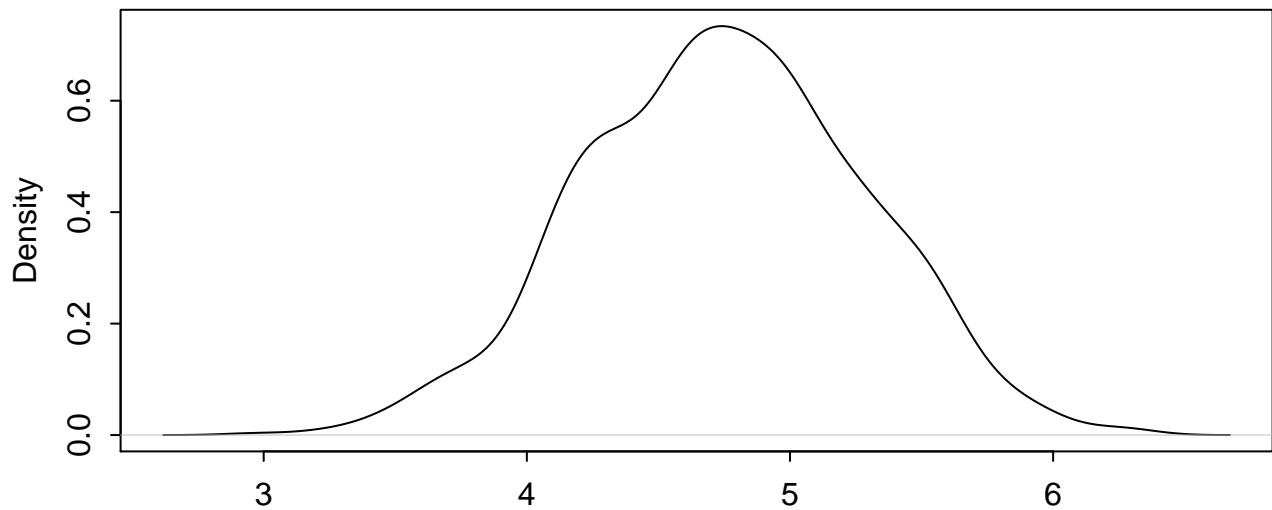




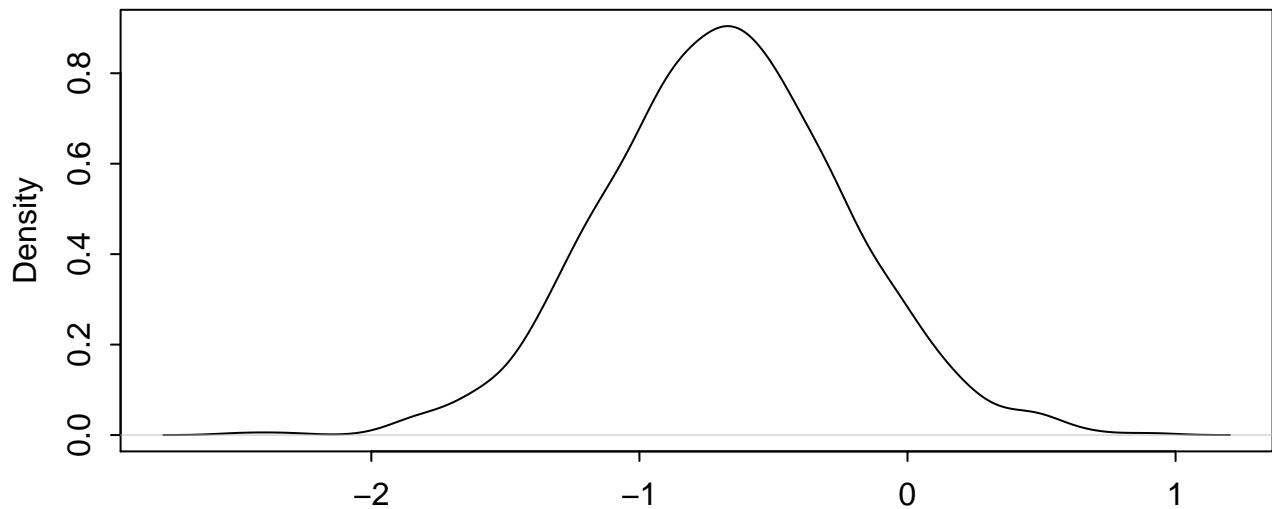




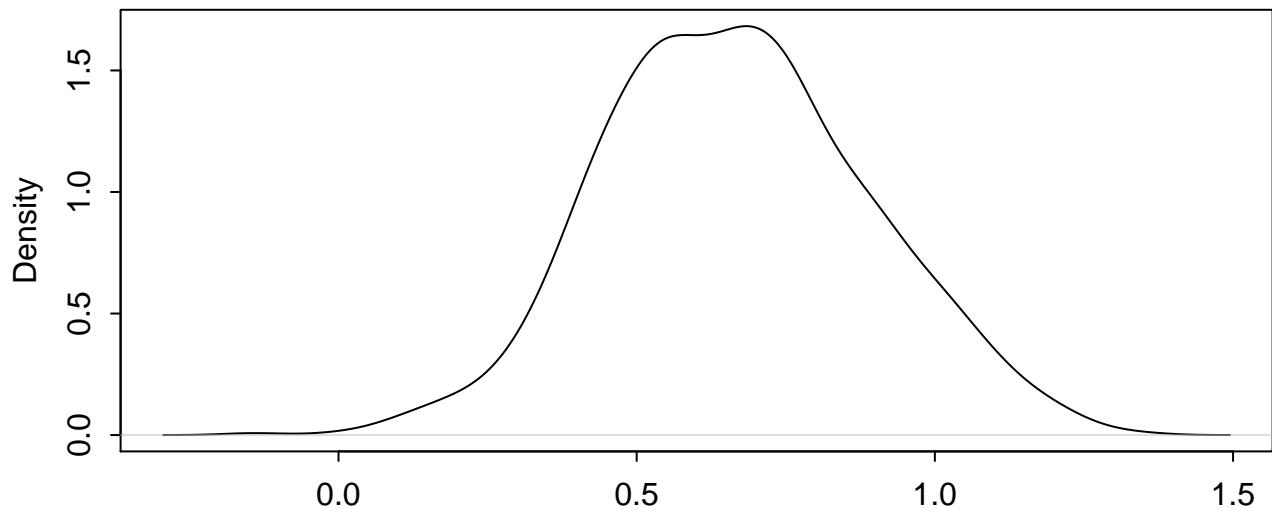
### Expected Values: $E(Y|X)$



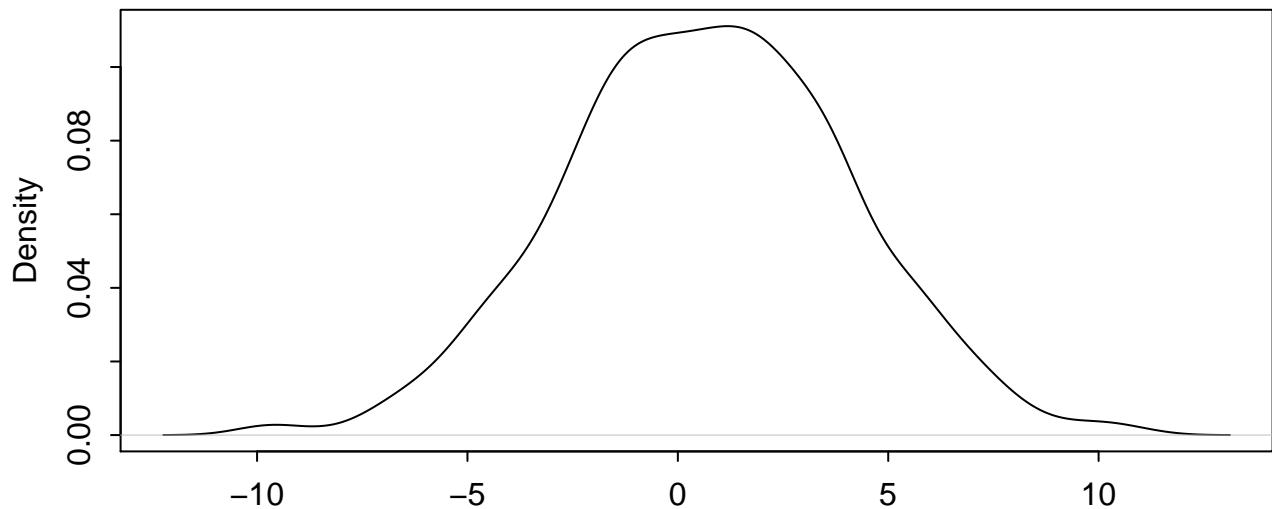
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



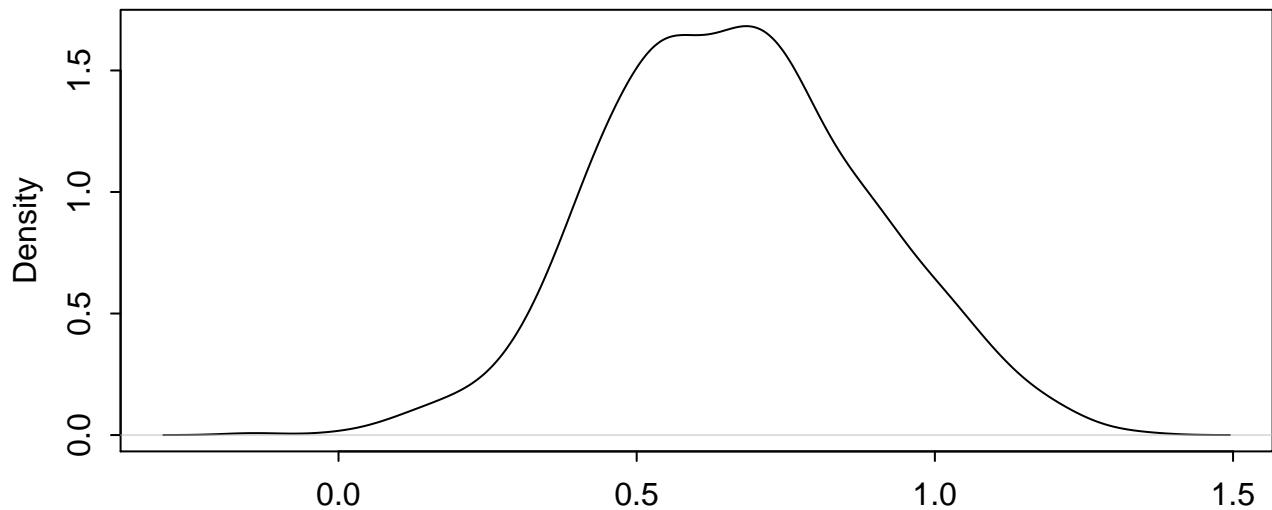
**Expected Values:  $E(Y|X)$**



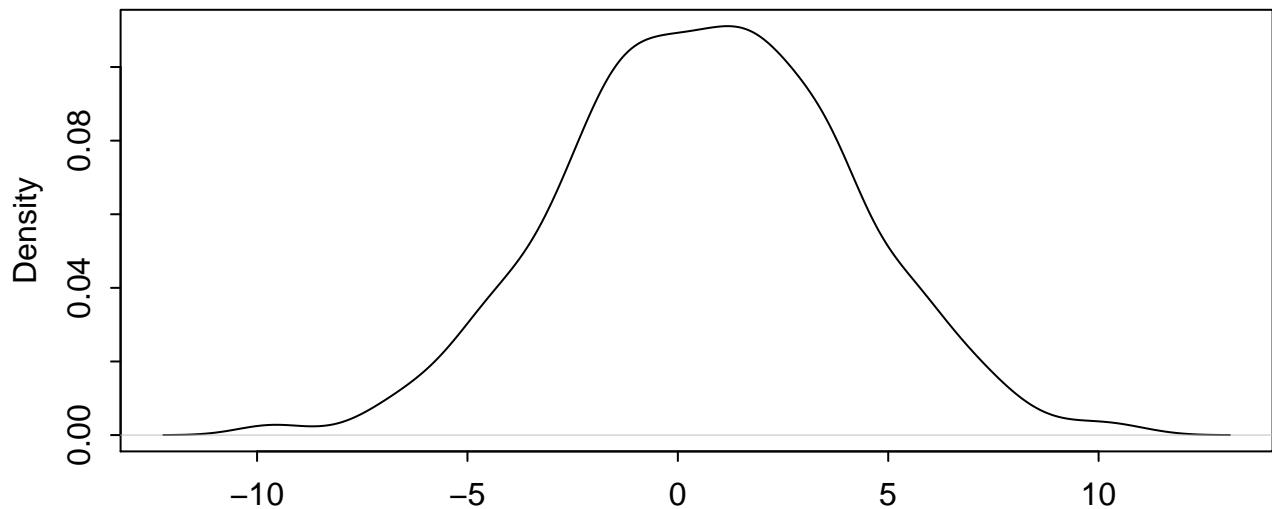
**Predicted Values:  $Y|X$**



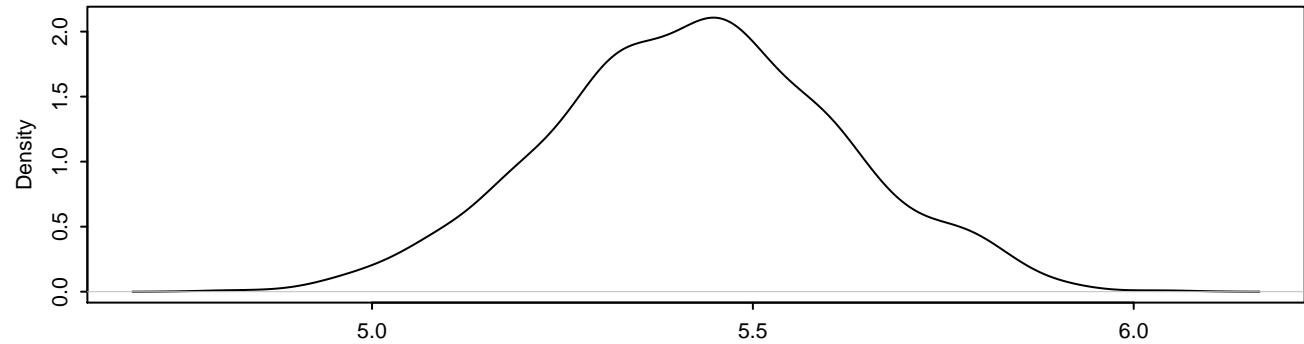
**Expected Values:  $E(Y|X)$**



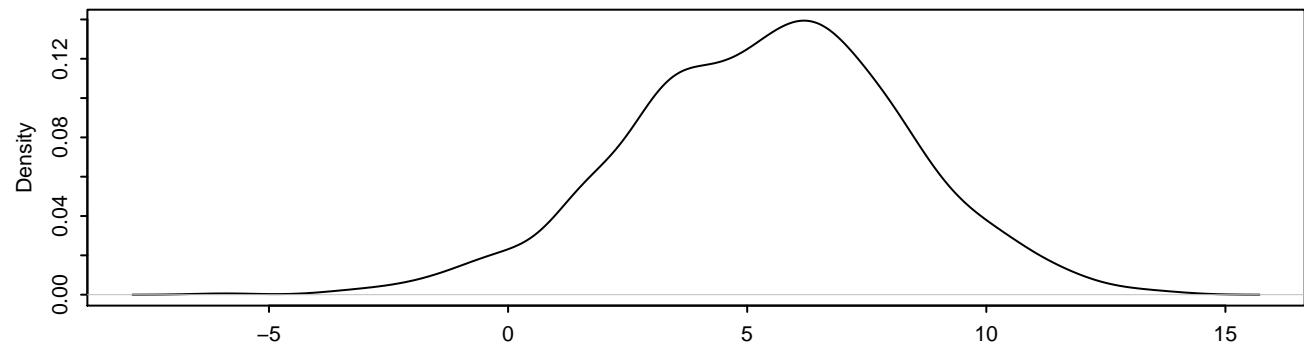
**Predicted Values:  $Y|X$**



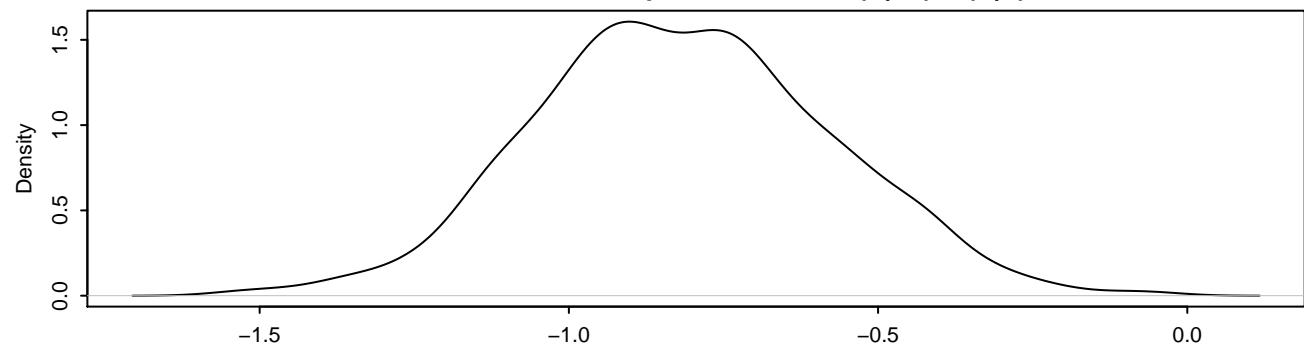
**Expected Values:  $E(Y|X)$**



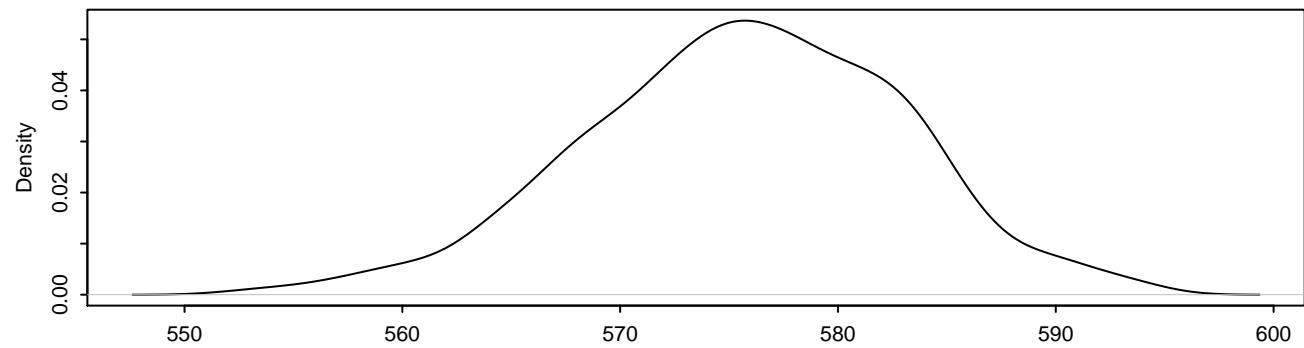
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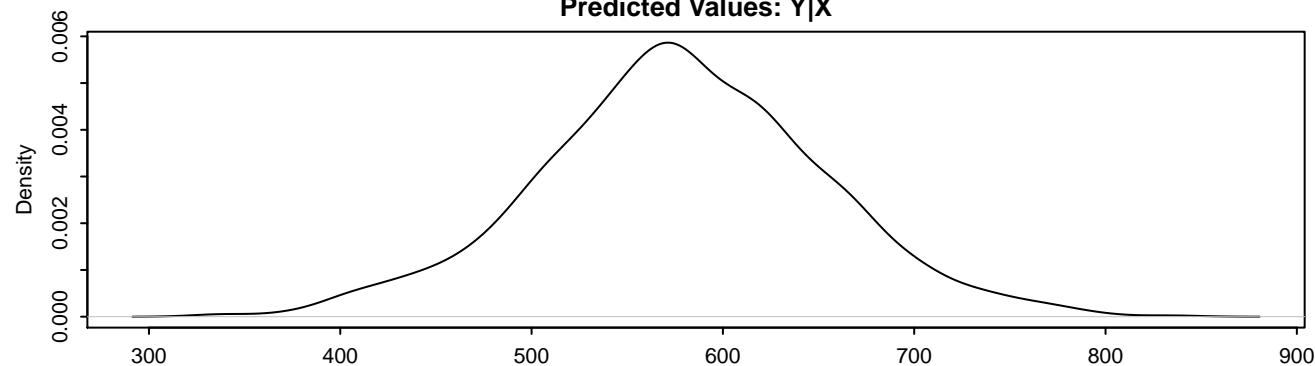
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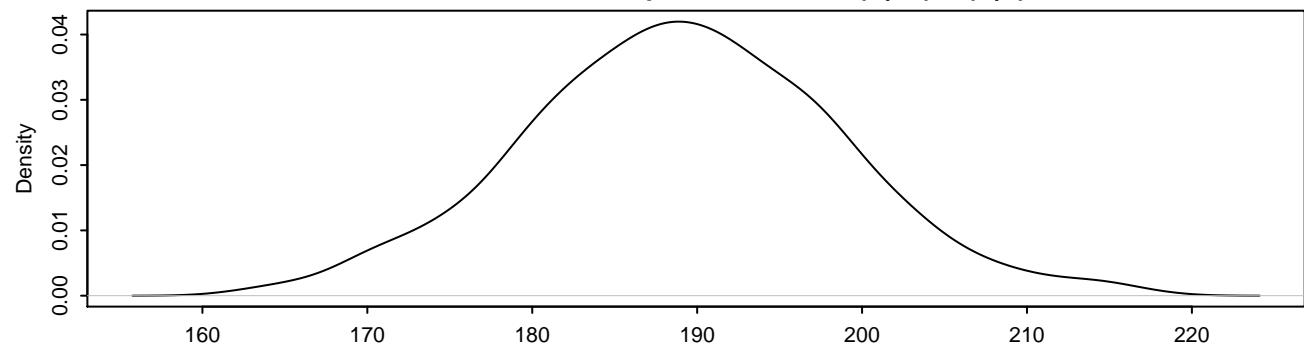
### Expected Values: $E(Y|X)$



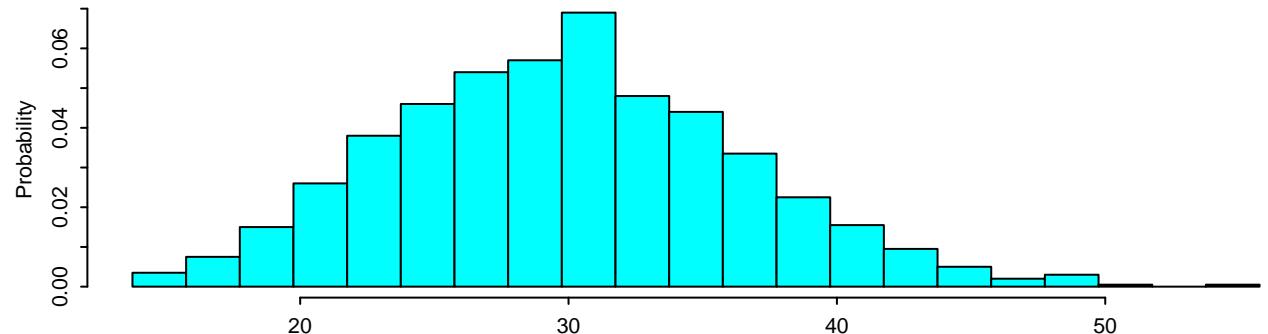
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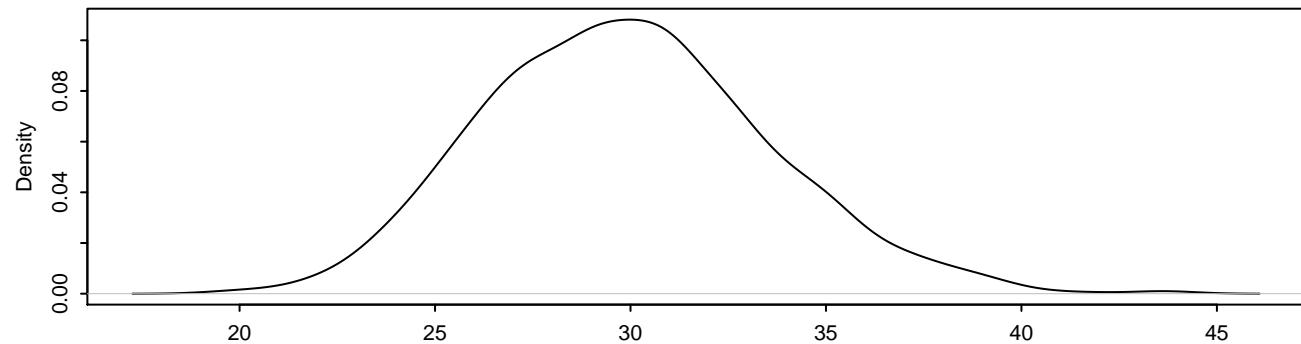
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



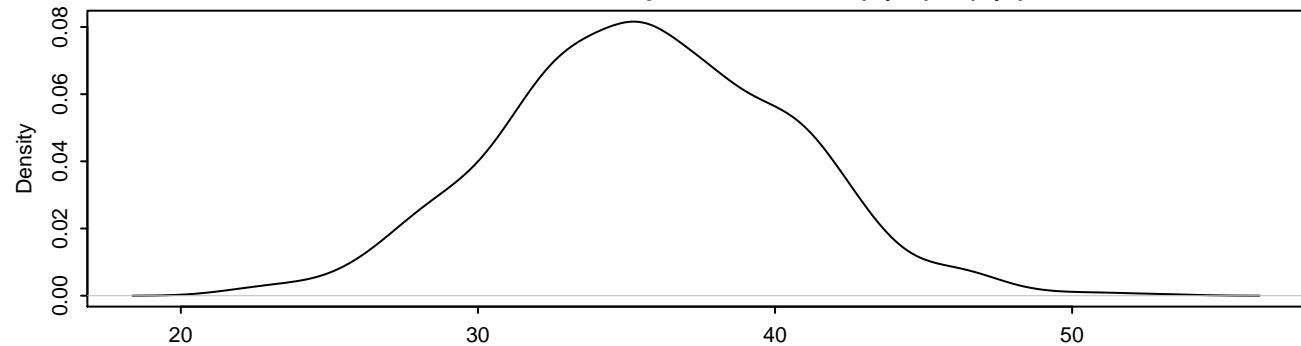
**Predicted Values:  $Y|X$**



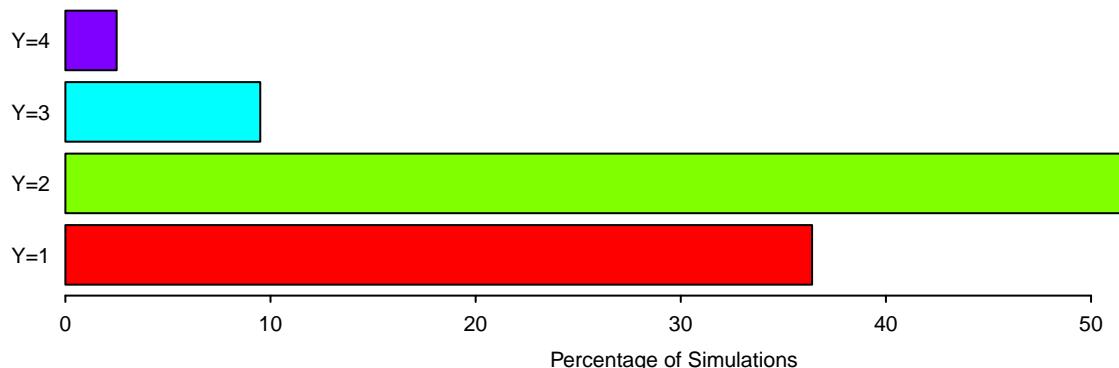
**Expected Values:  $E(Y|X)$**



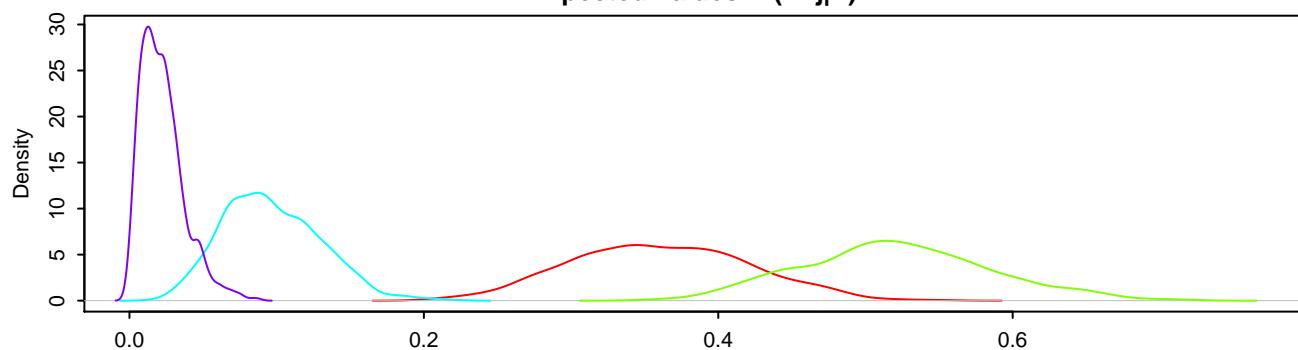
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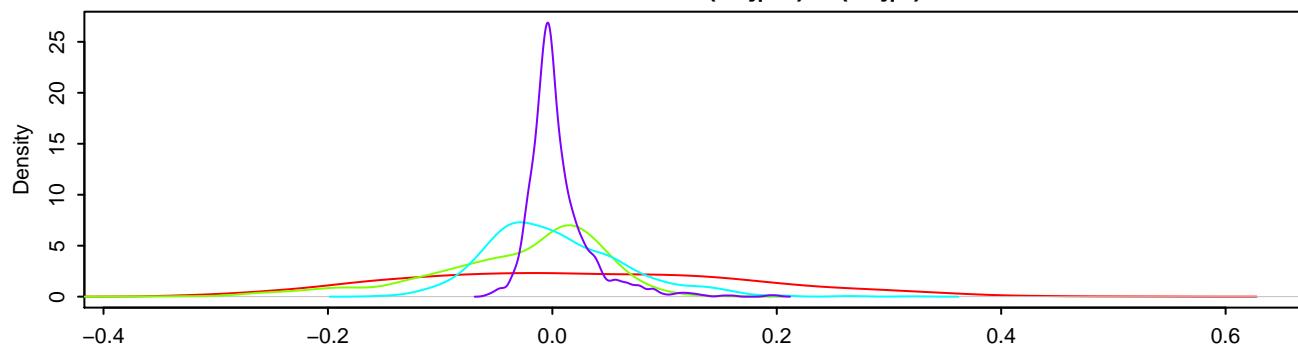
### Predicted Values: $Y|X$

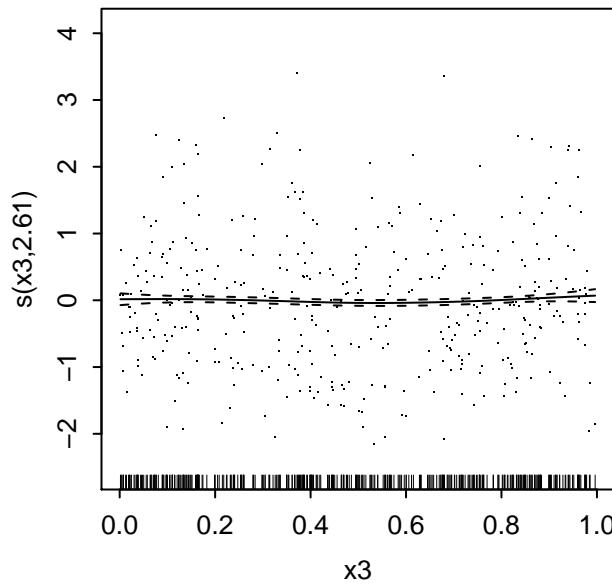
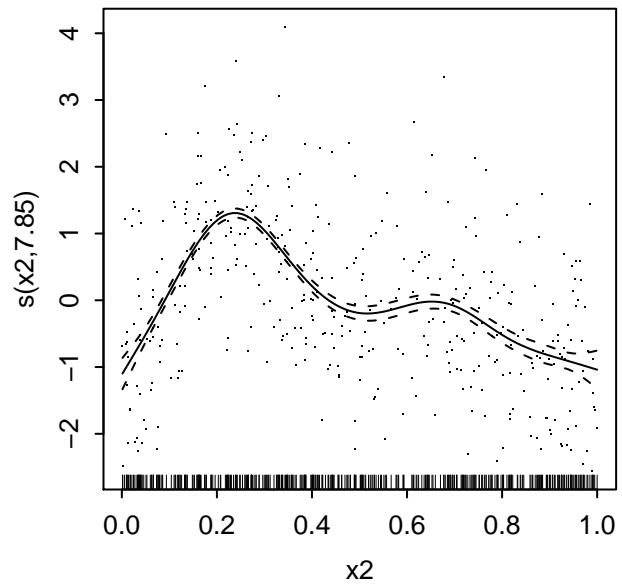
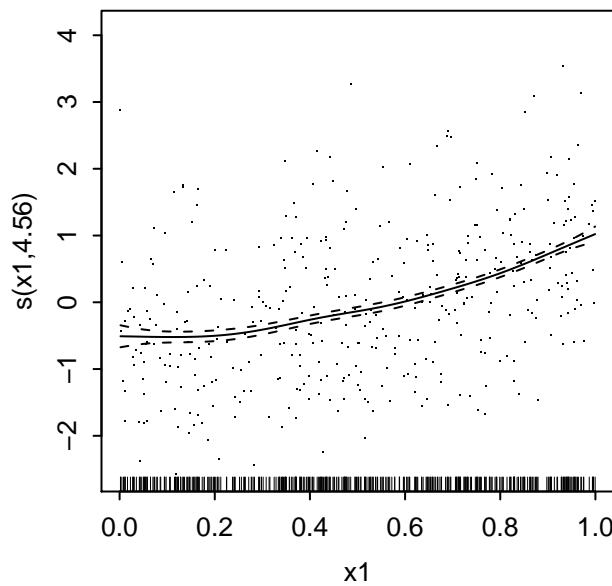
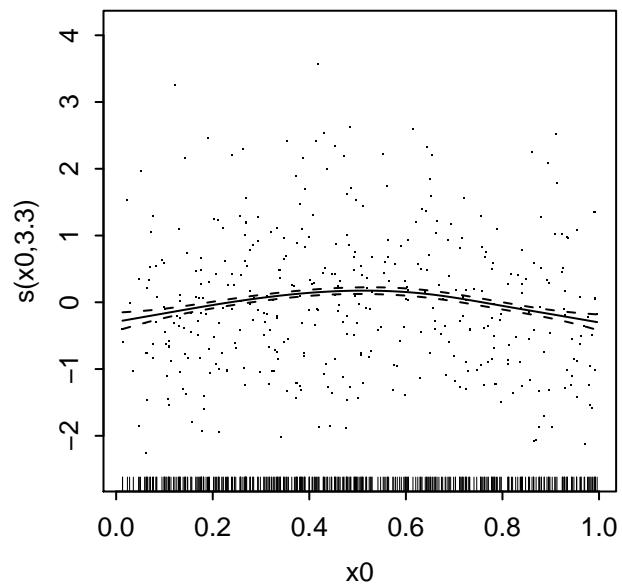


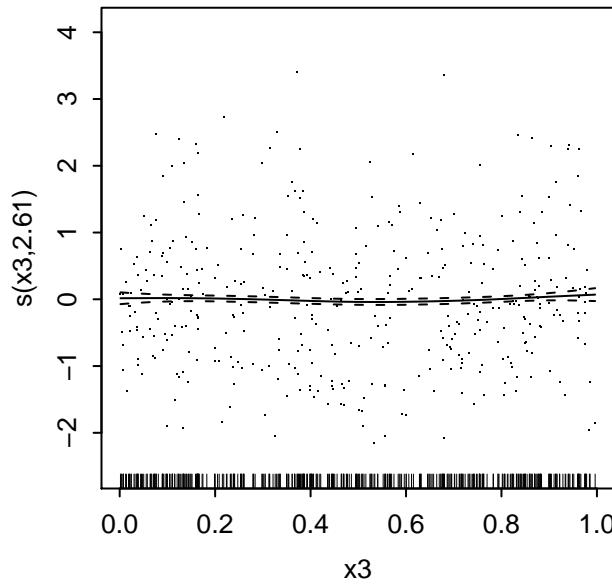
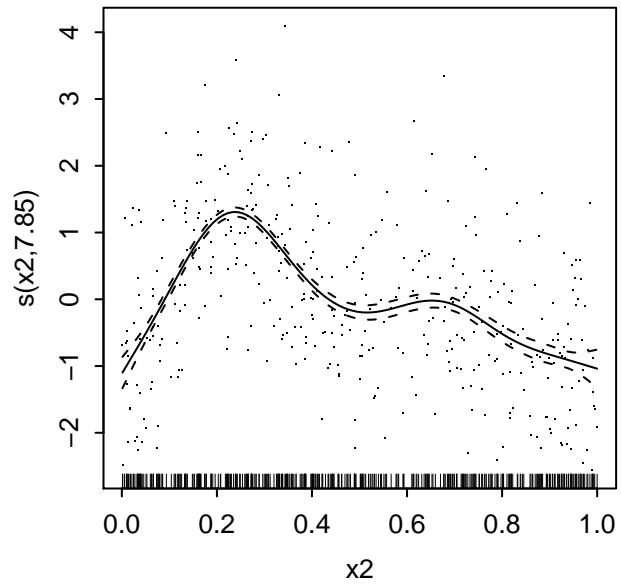
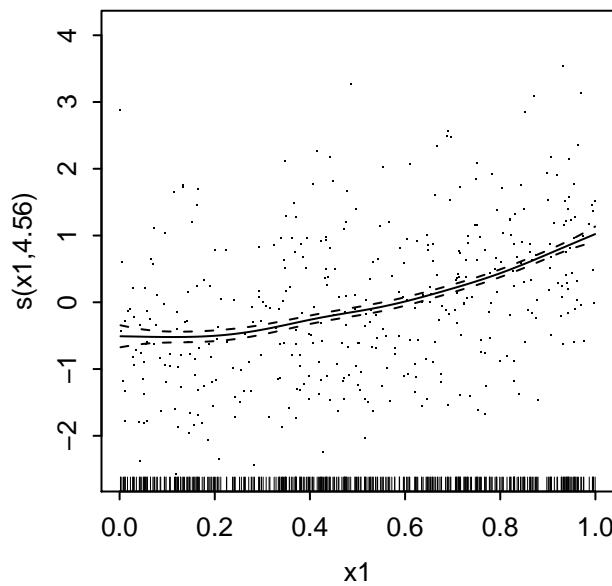
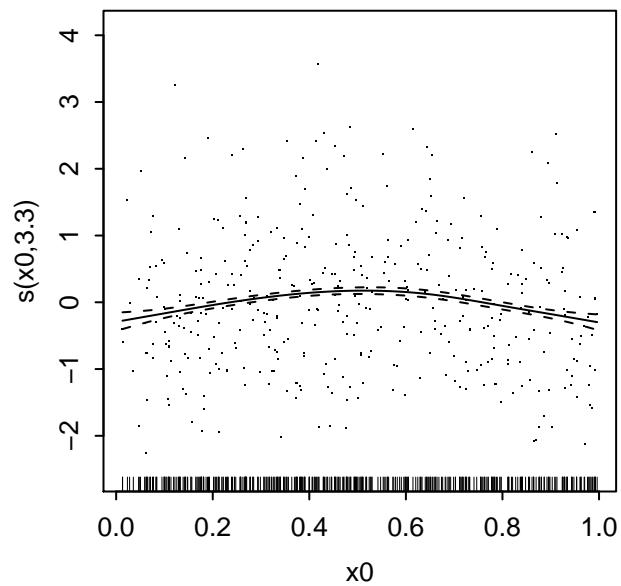
### Expected Values: $P(Y=j|X)$



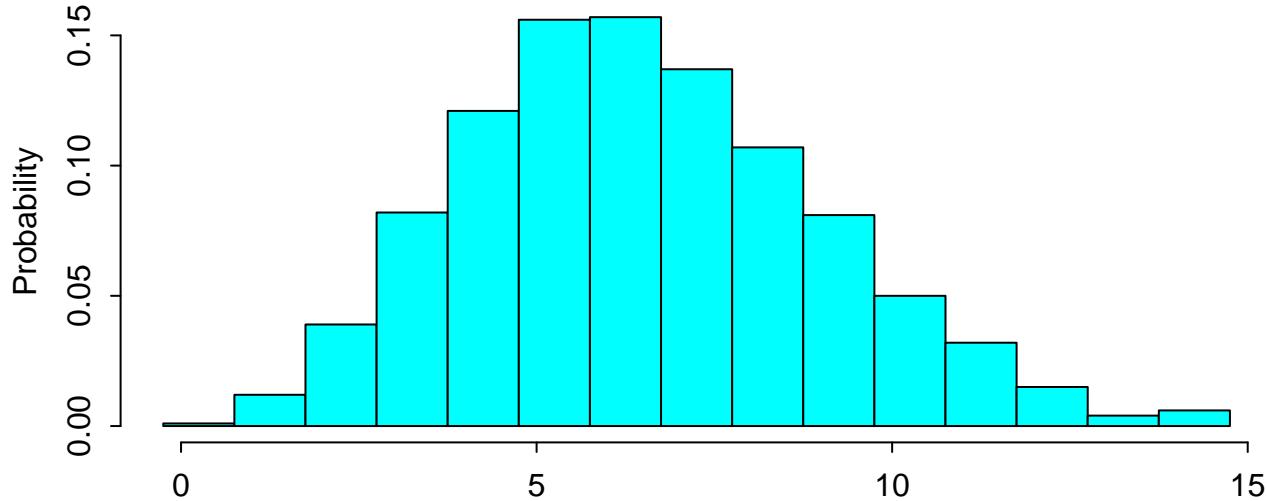
### First Differences: $P(Y=j|X_1) - P(Y=j|X)$



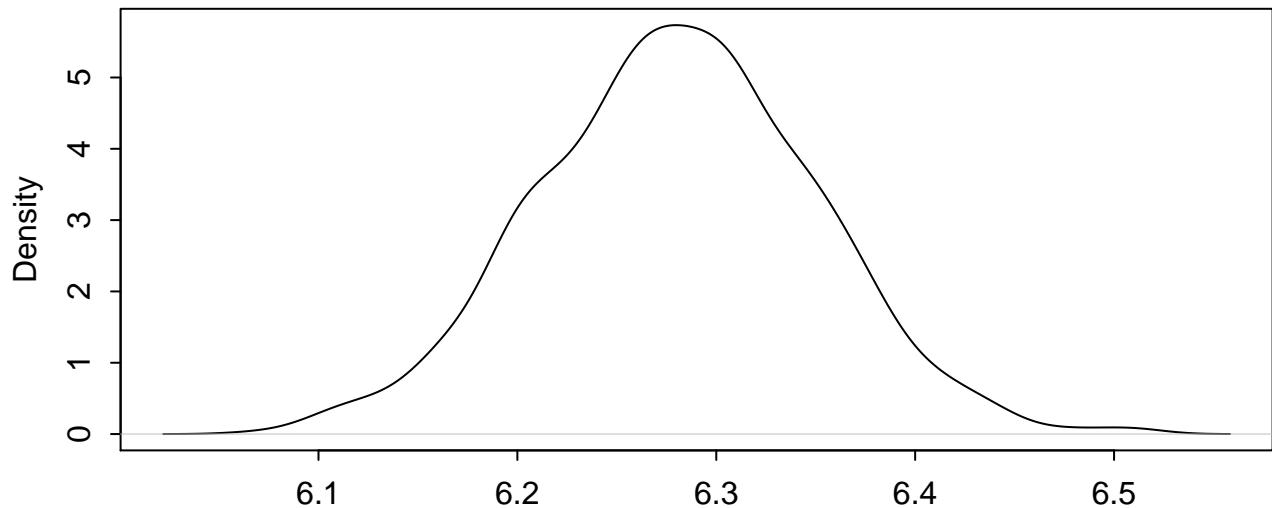




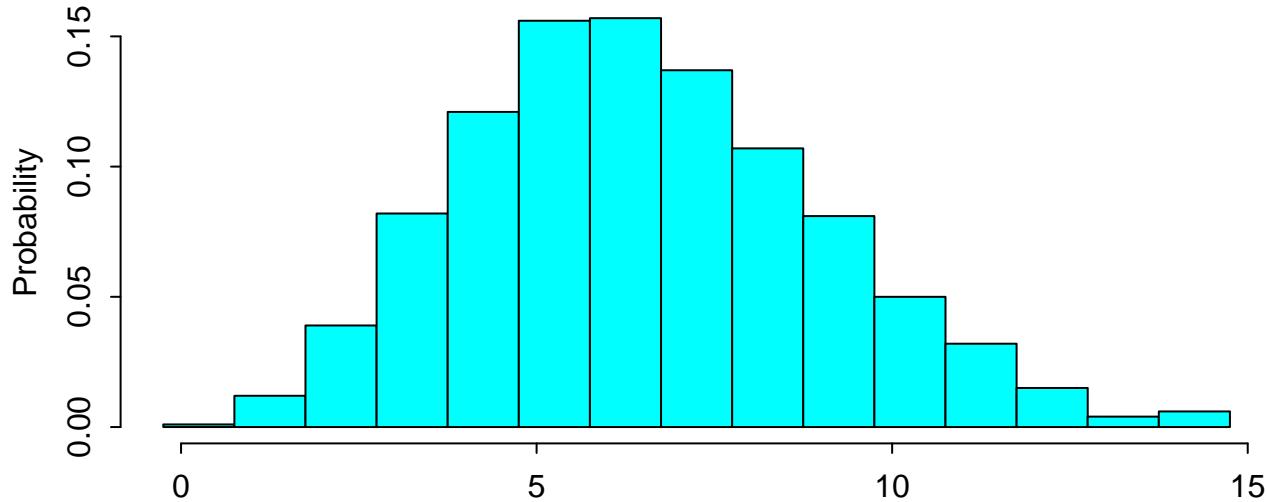
## Predicted Values: $Y|X$



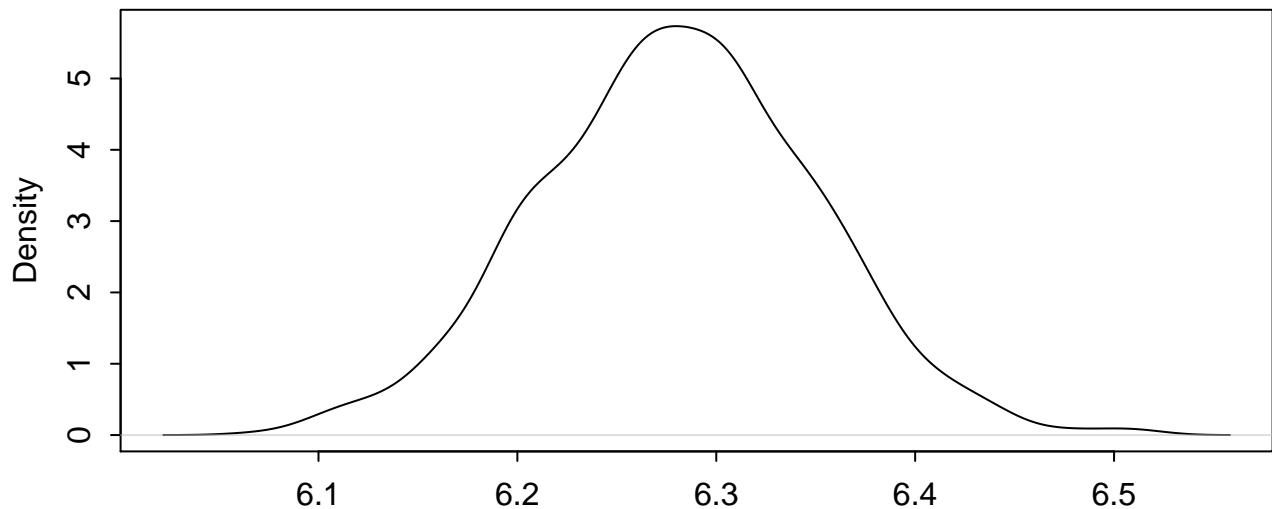
## Expected Values: $E(Y|X)$



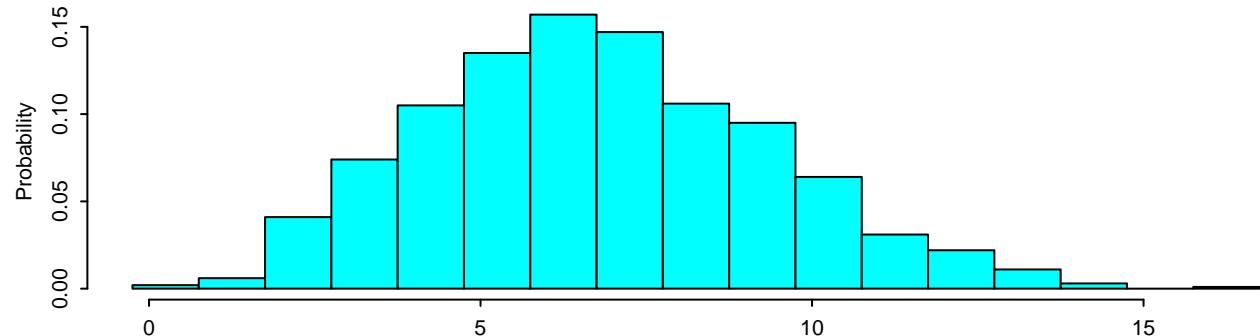
## Predicted Values: $Y|X$



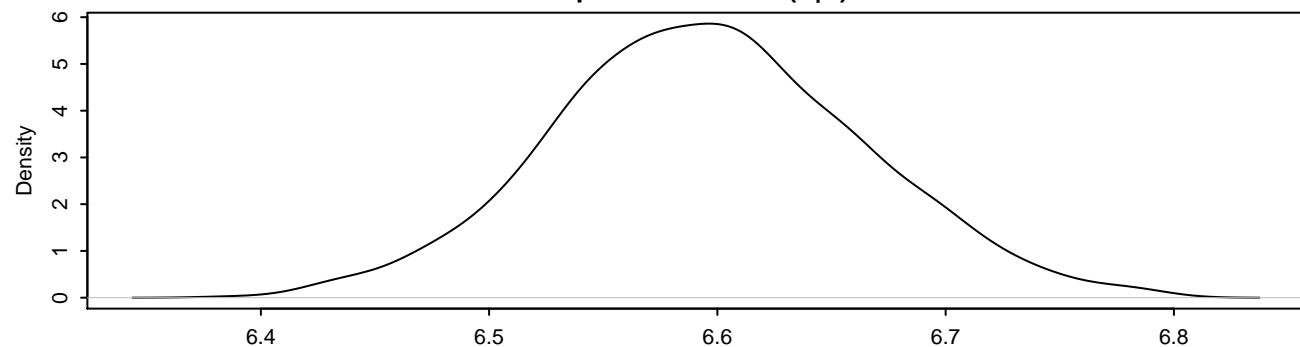
## Expected Values: $E(Y|X)$



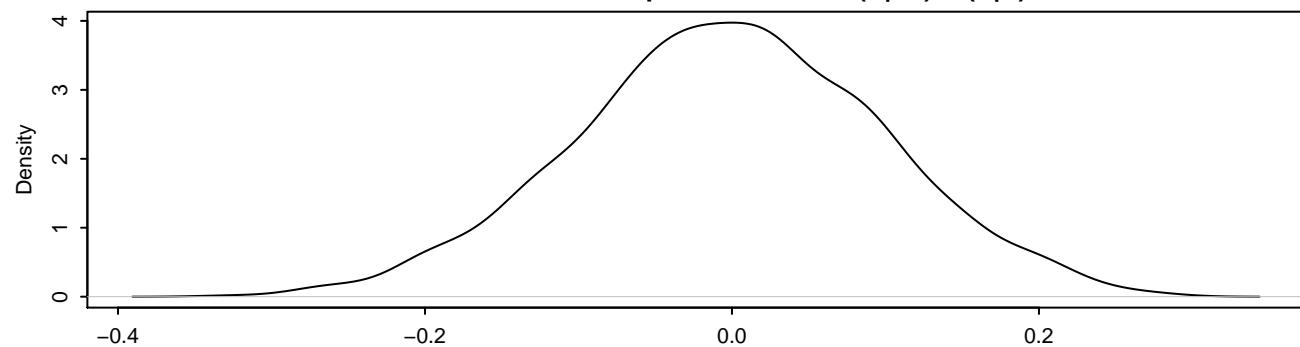
**Predicted Values:  $Y|X$**



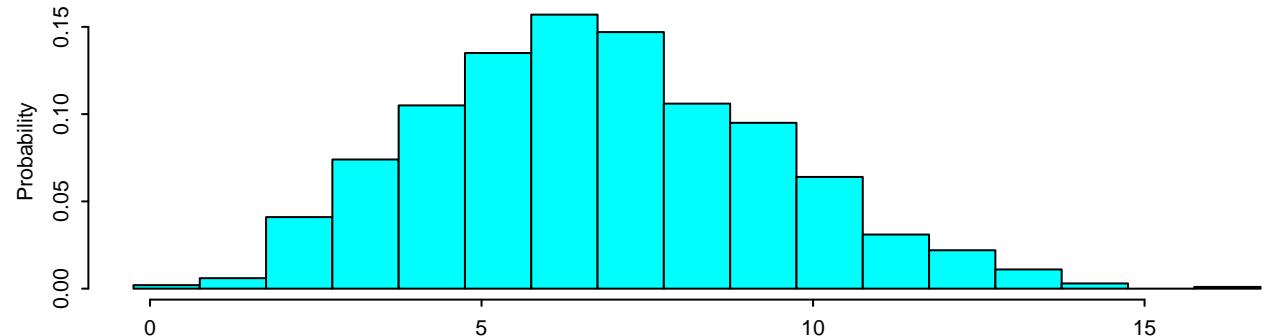
**Expected Values:  $E(Y|X)$**



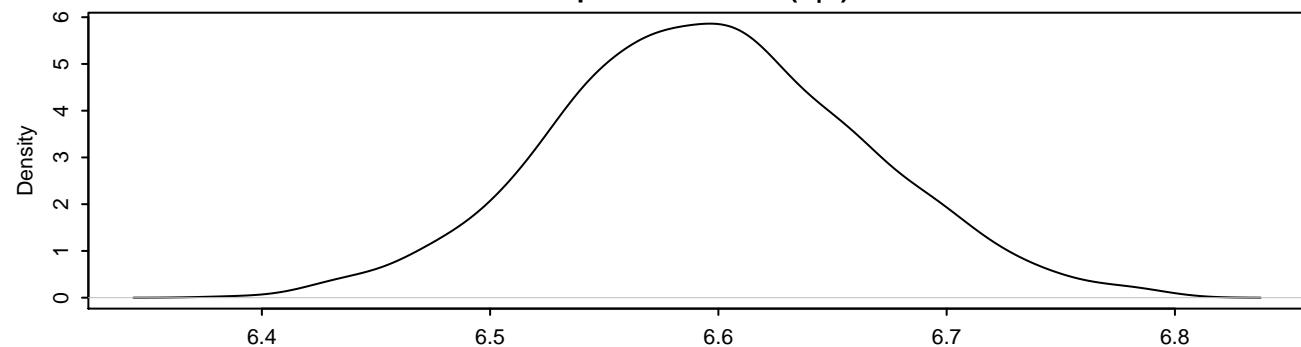
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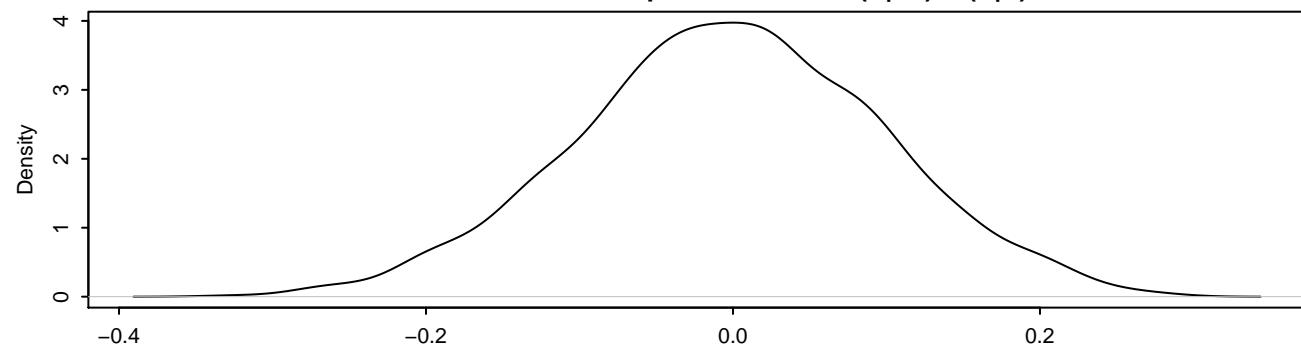
### Predicted Values: $Y|X$

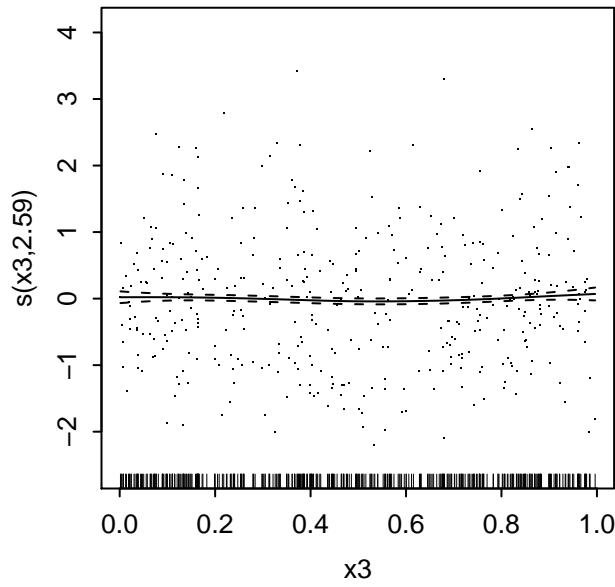
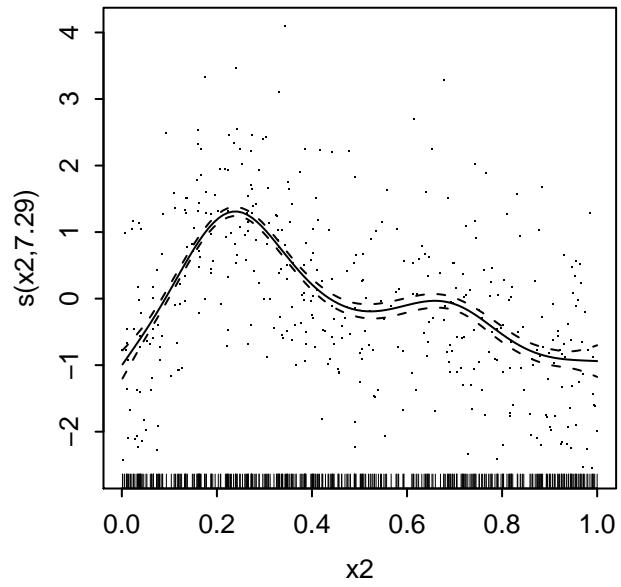
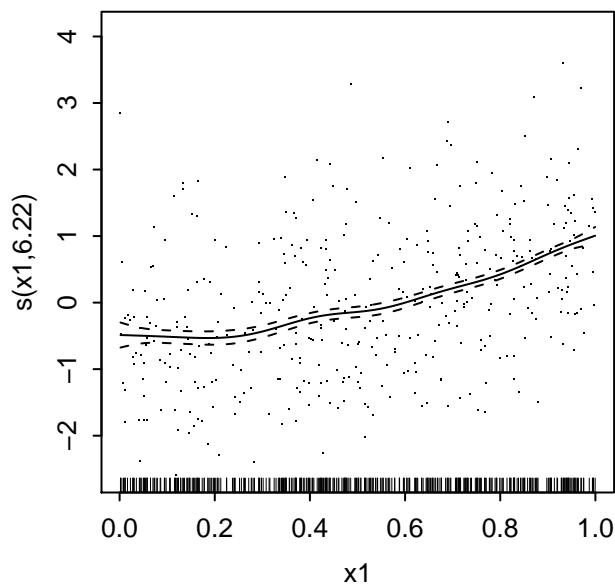
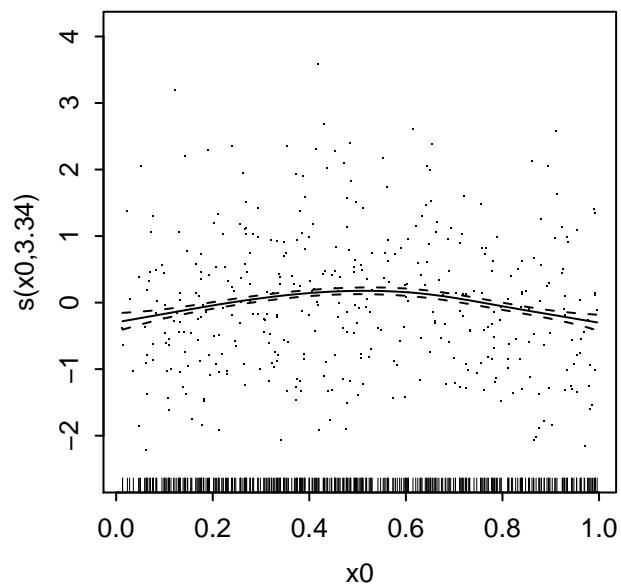


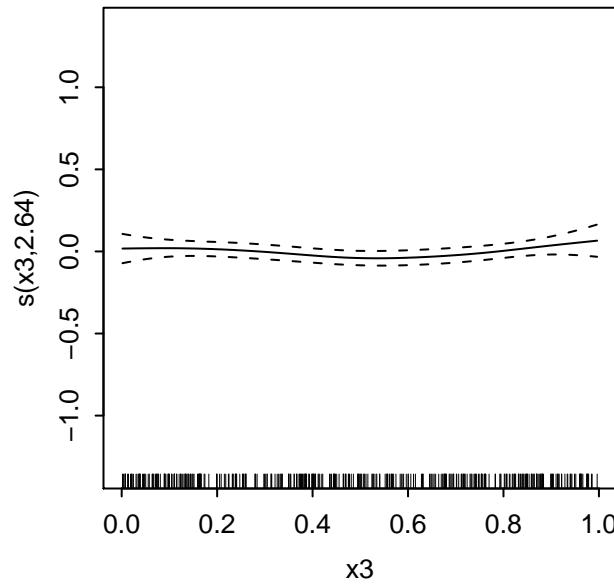
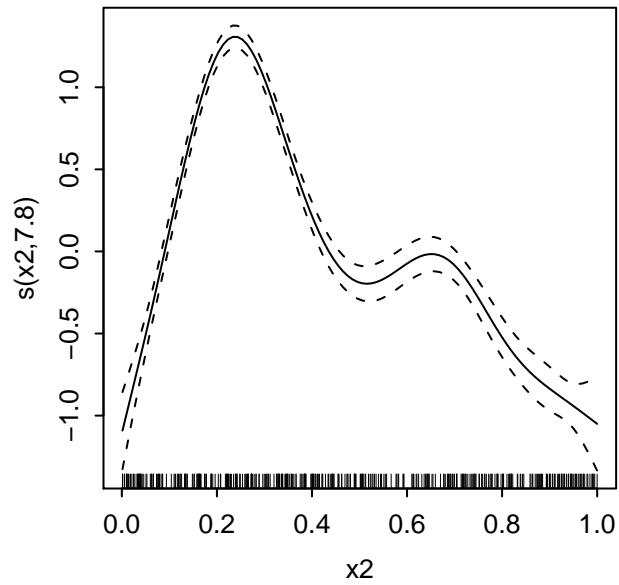
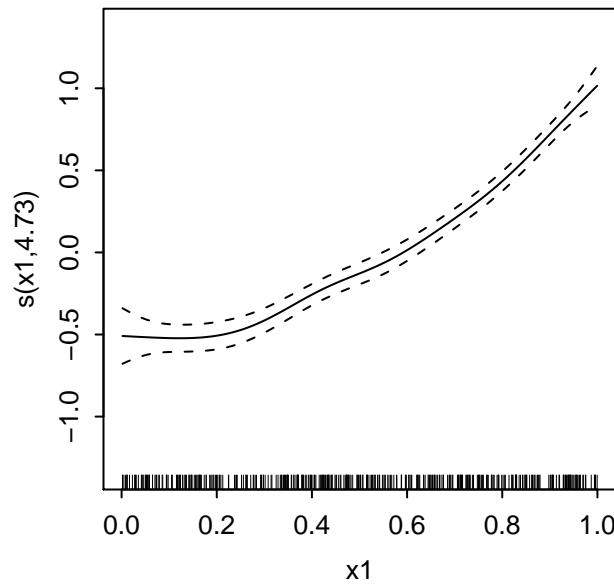
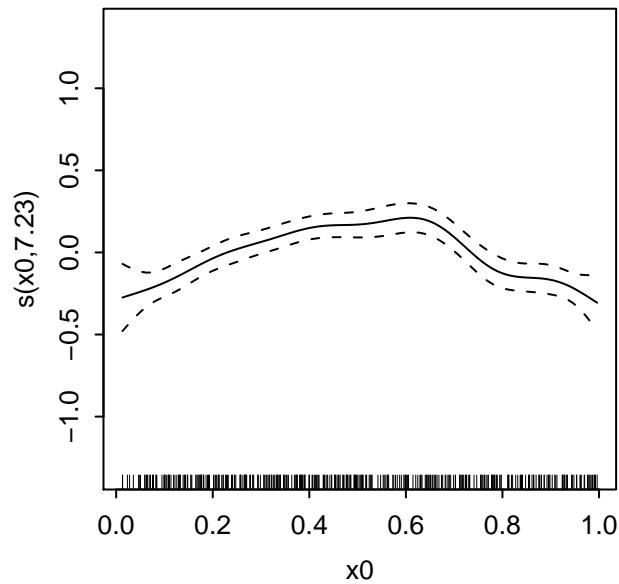
### Expected Values: $E(Y|X)$

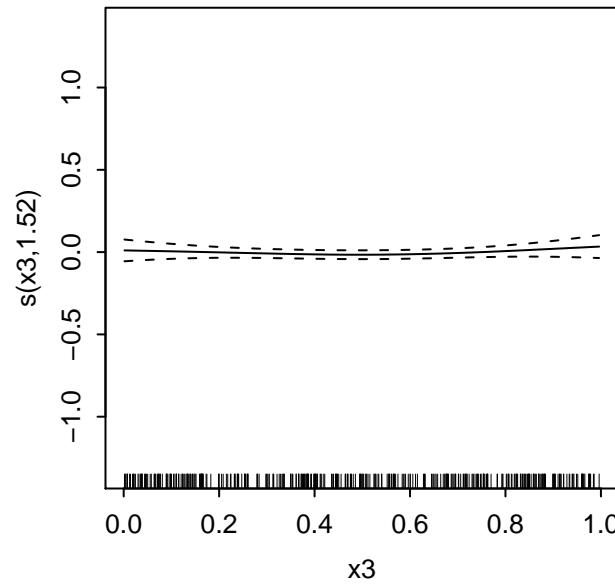
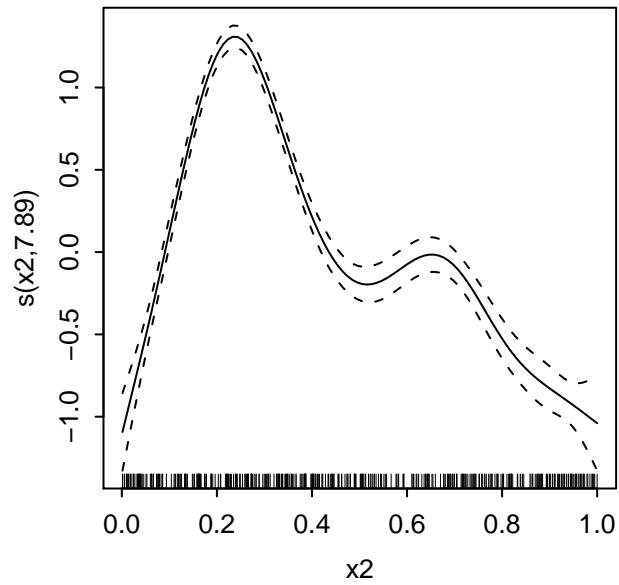
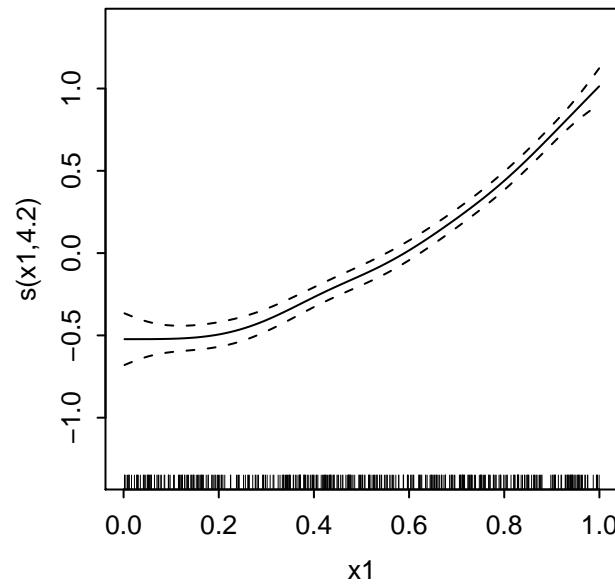
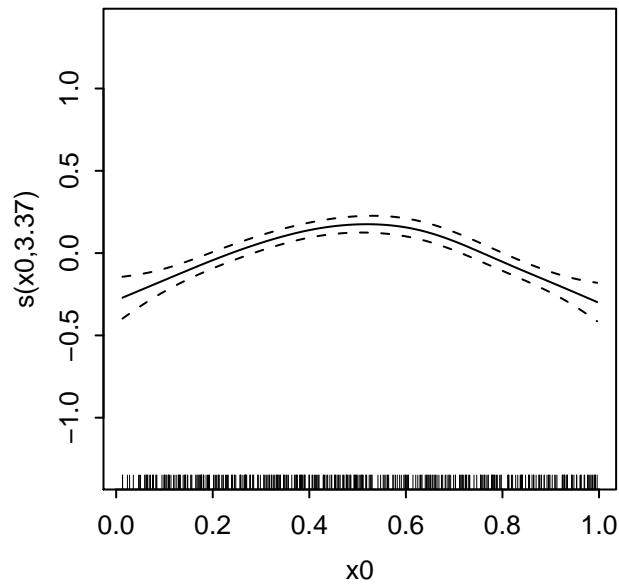


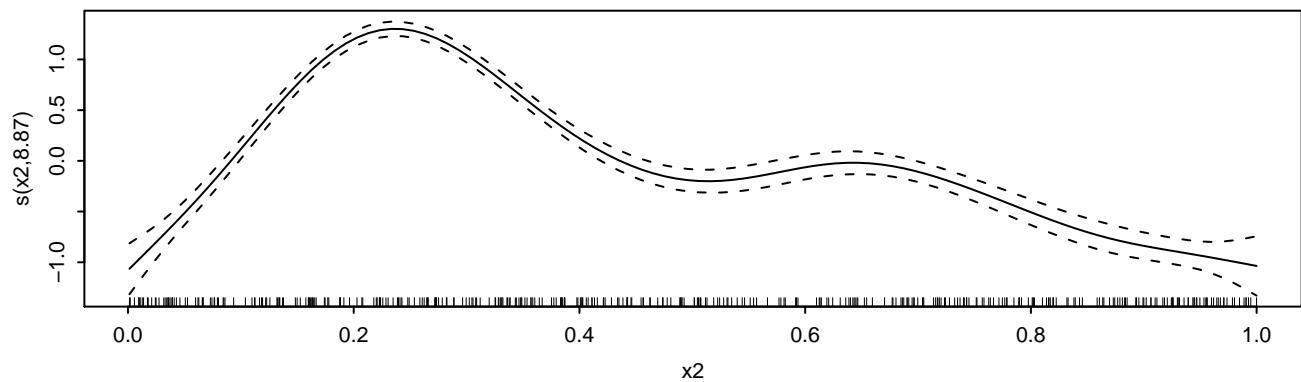
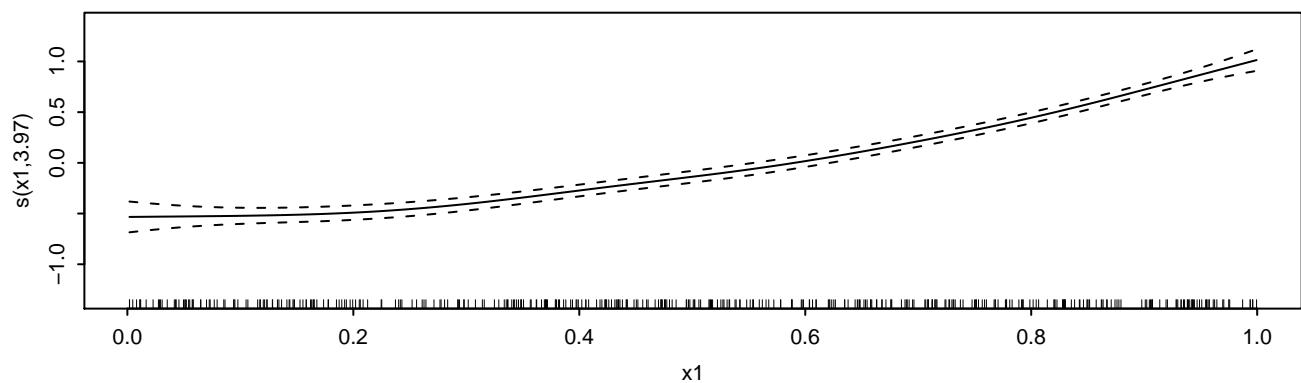
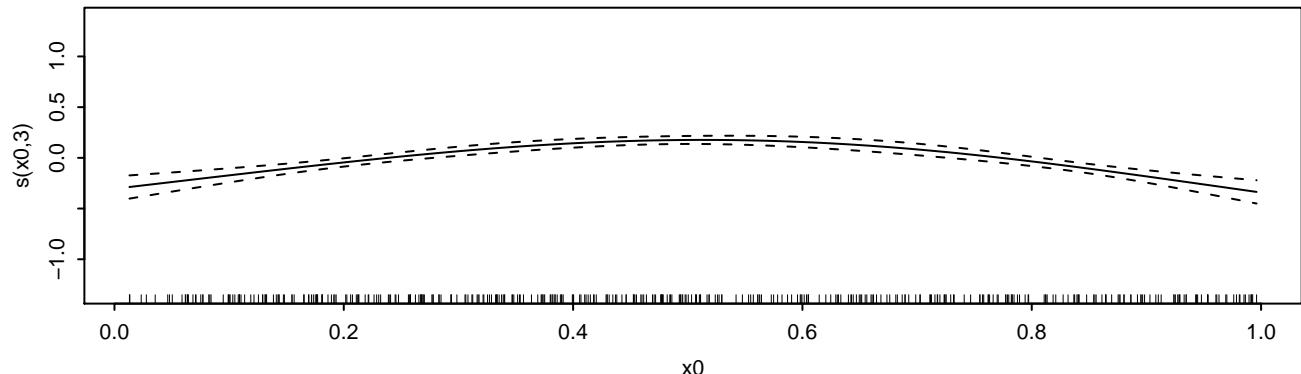
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



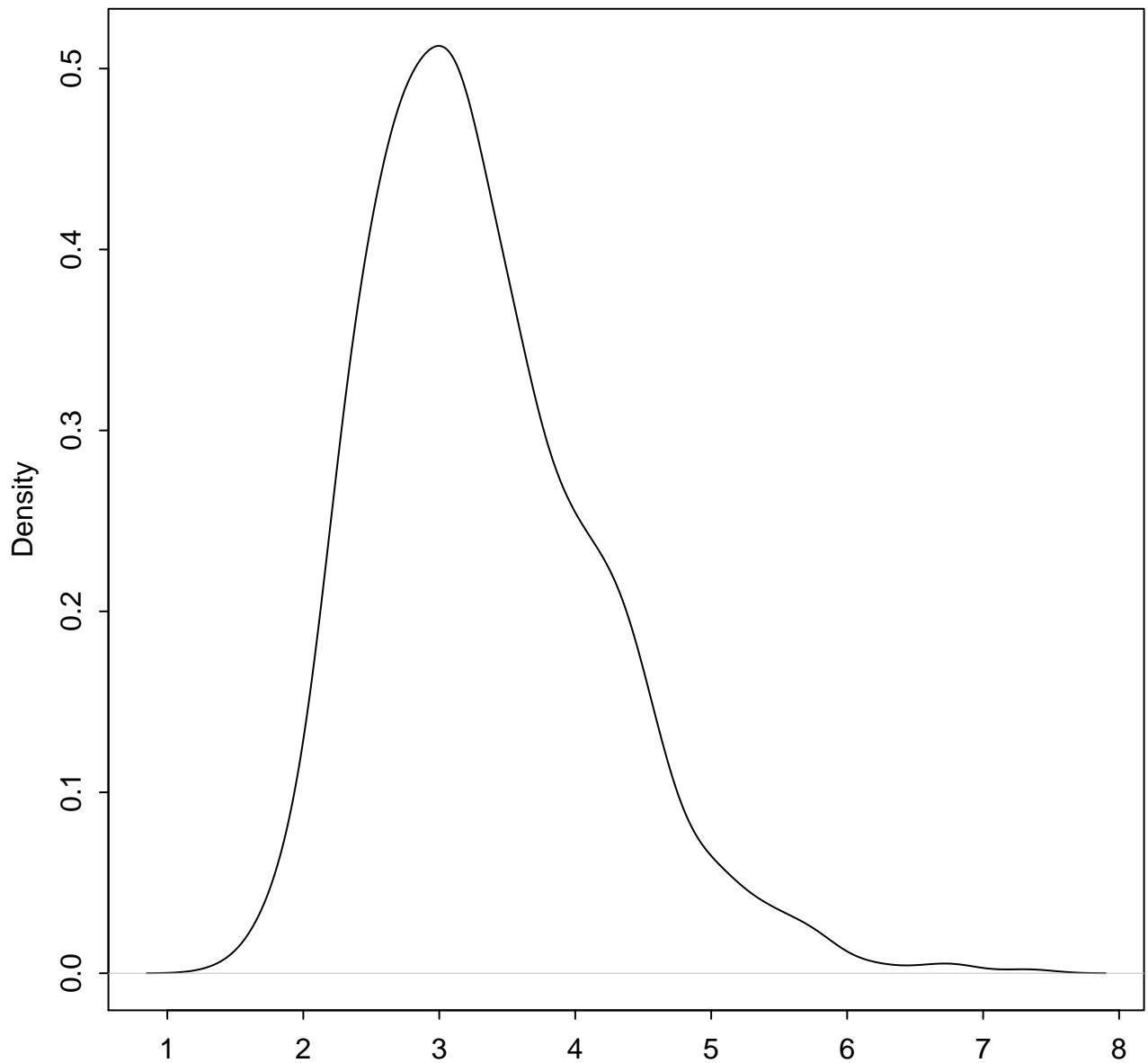




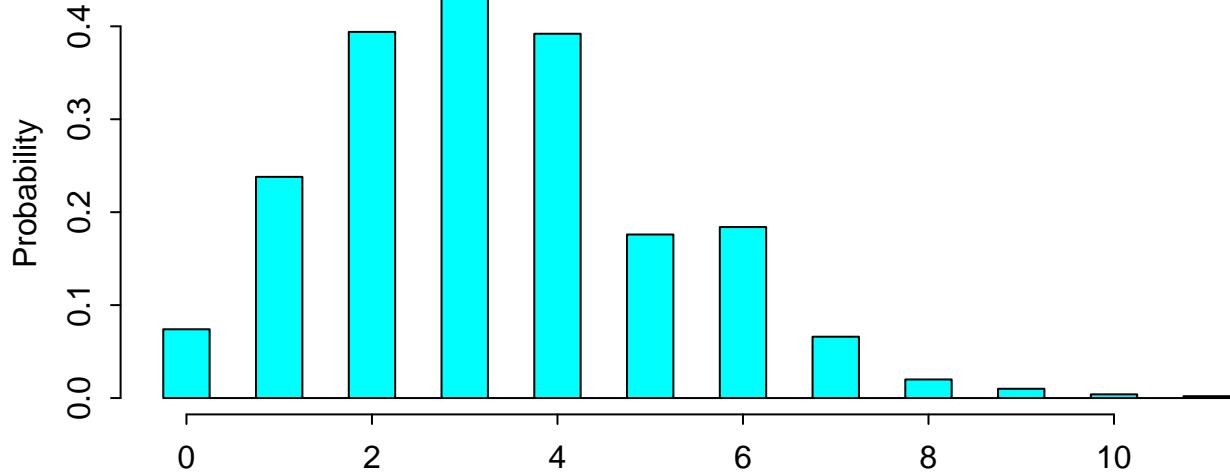




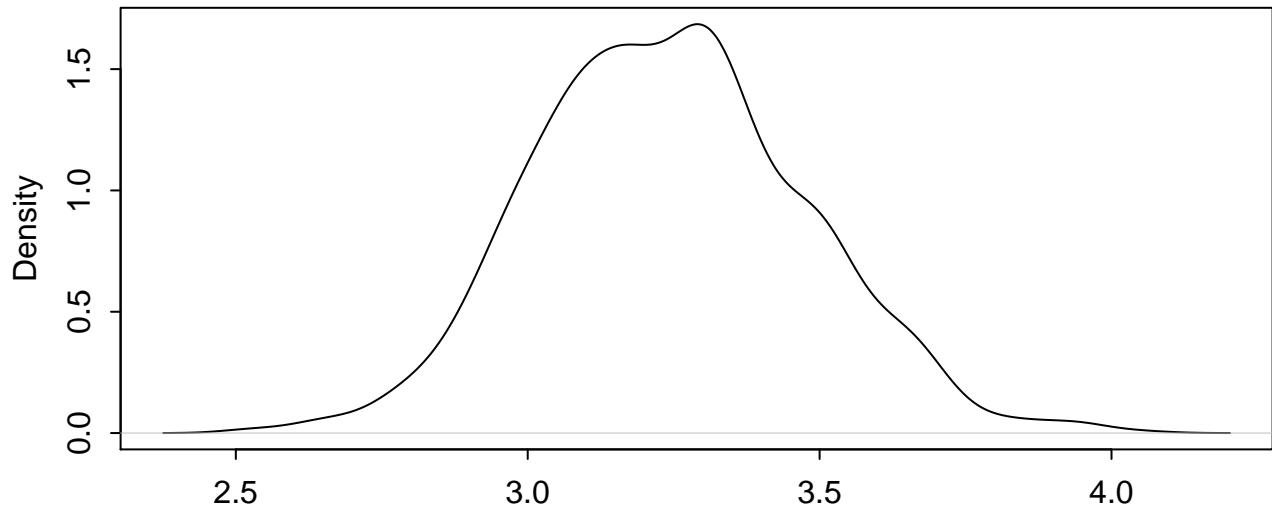
## Expected Values: $E(Y|X)$



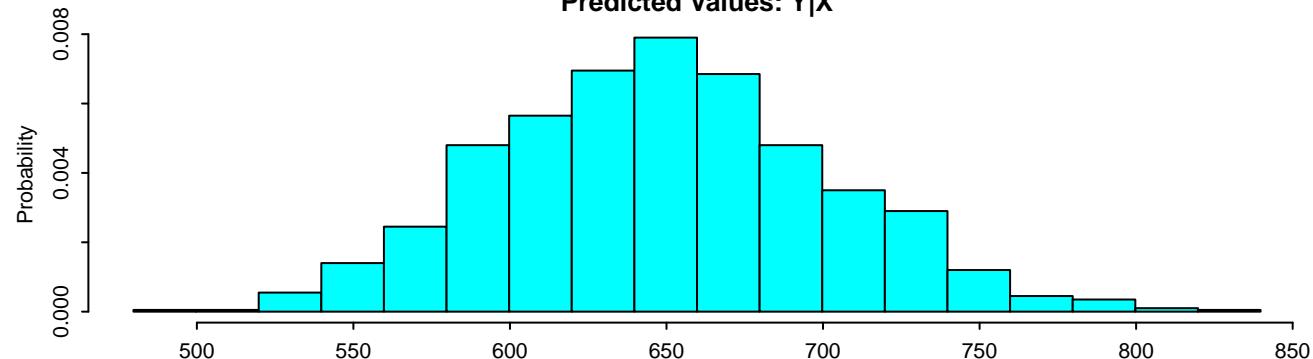
## Predicted Values: $Y|X$



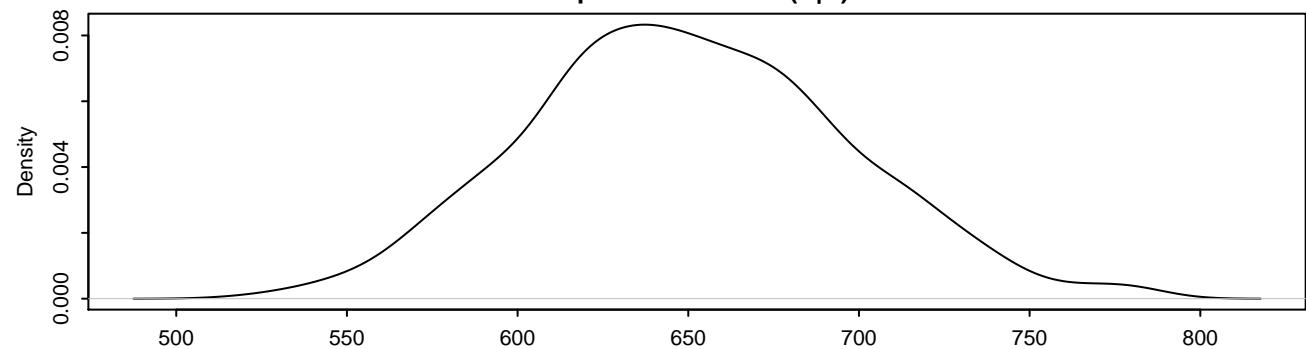
## Expected Values: $E(Y|X)$



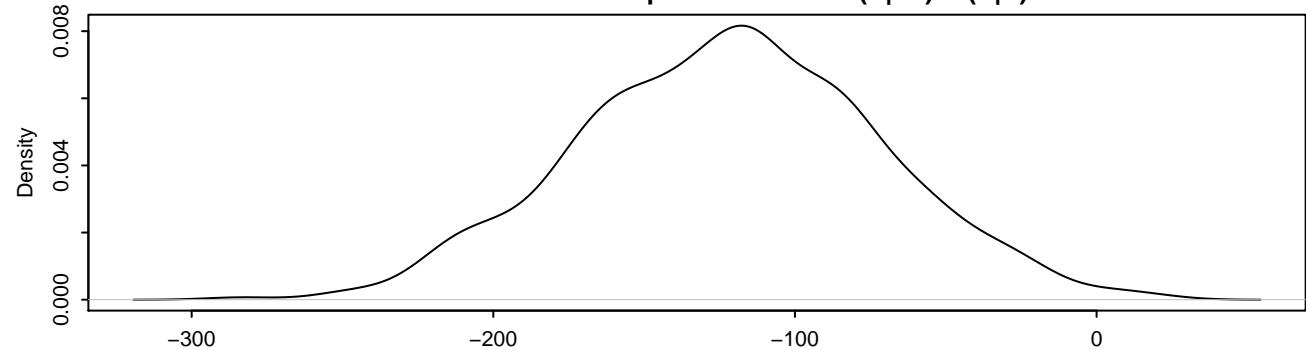
**Predicted Values:  $Y|X$**



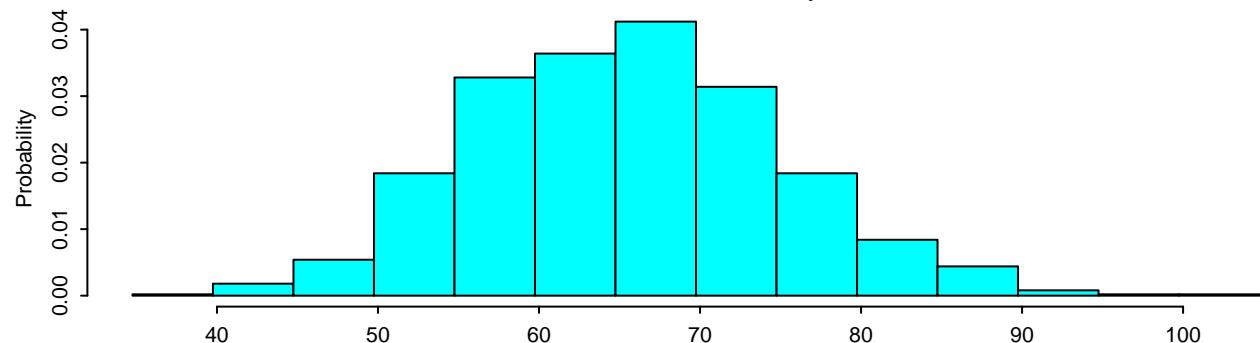
**Expected Values:  $E(Y|X)$**



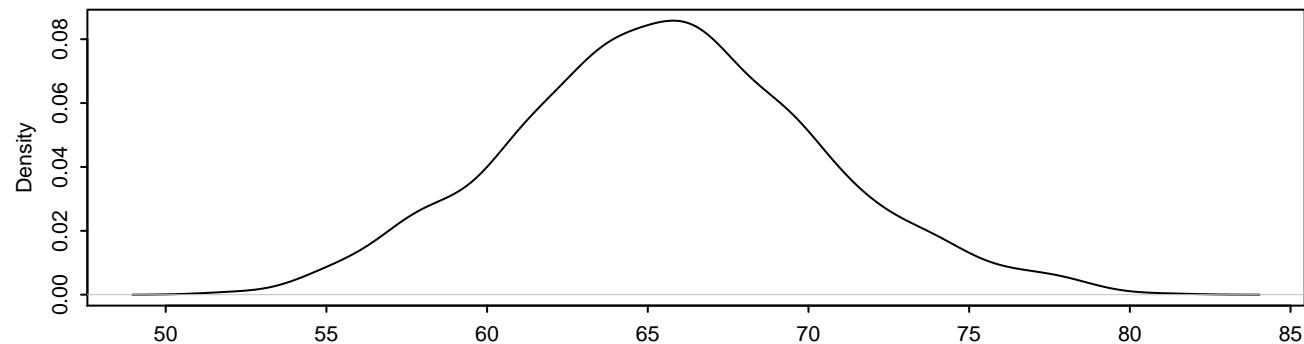
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



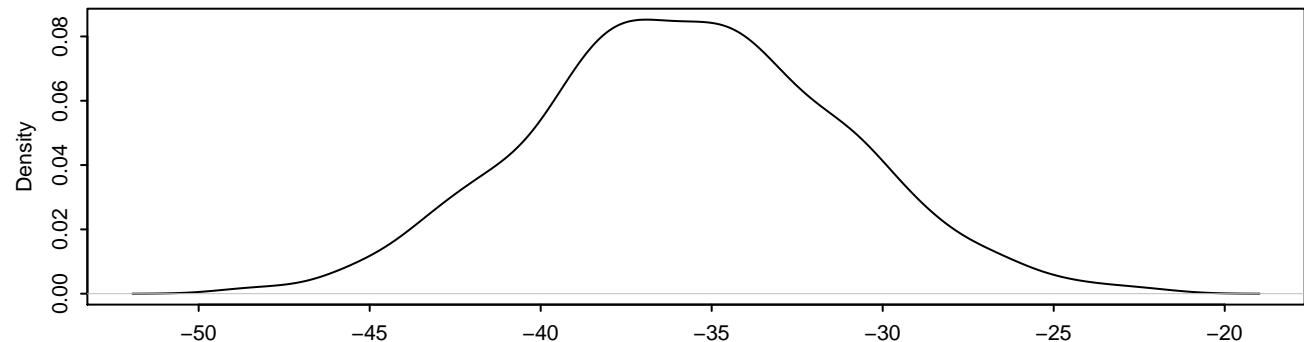
**Predicted Values:  $Y|X$**

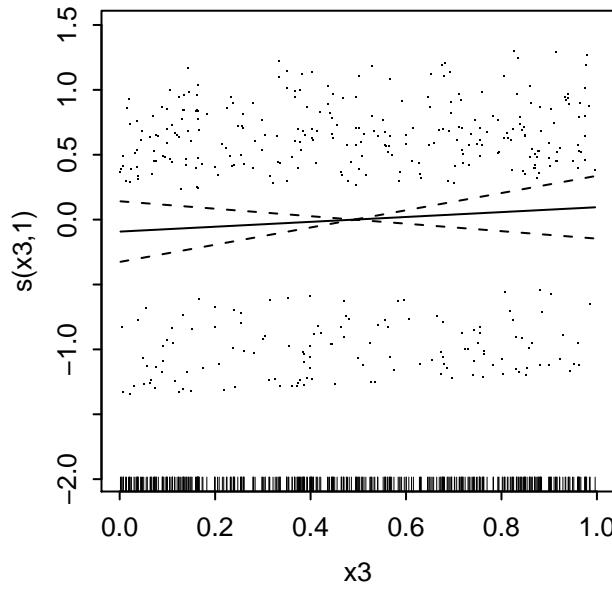
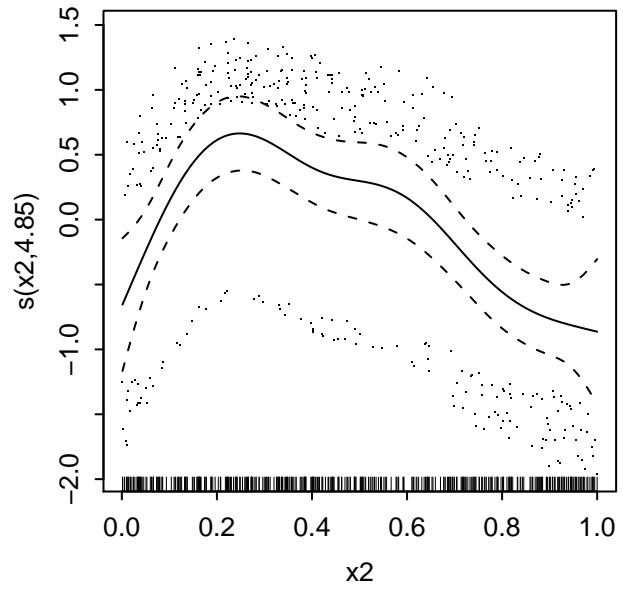
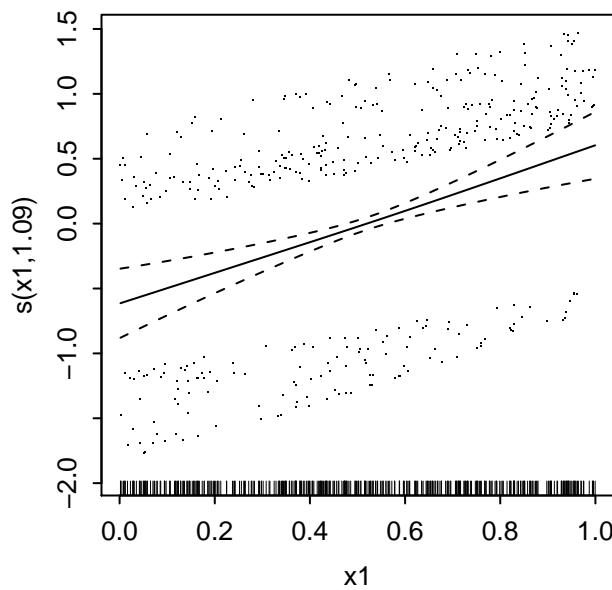
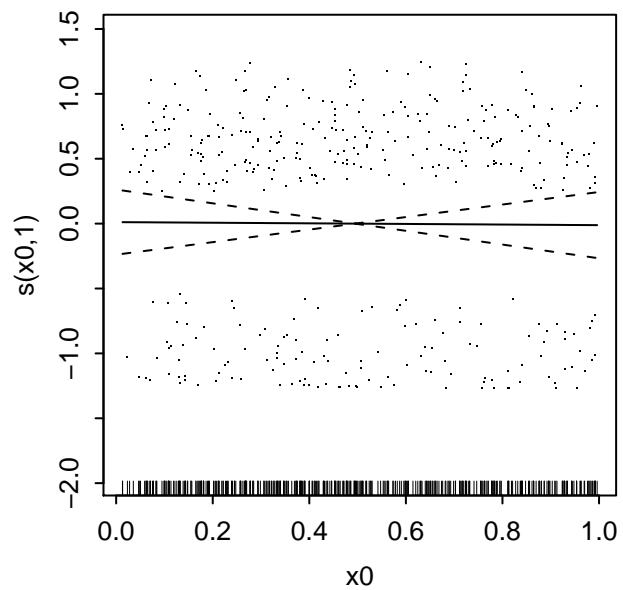


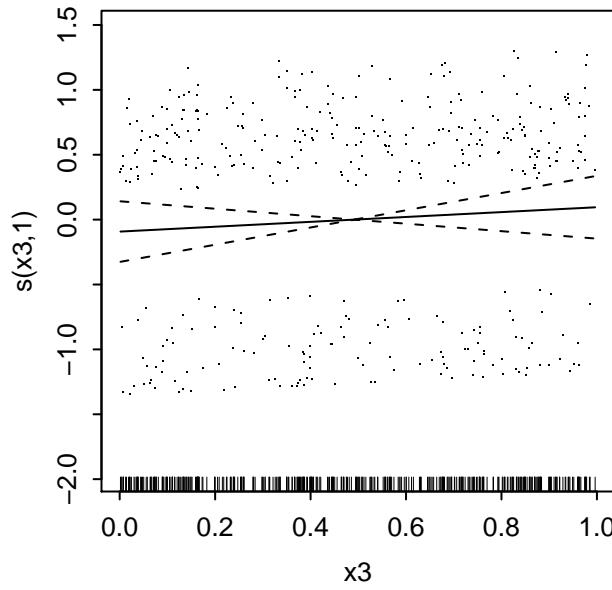
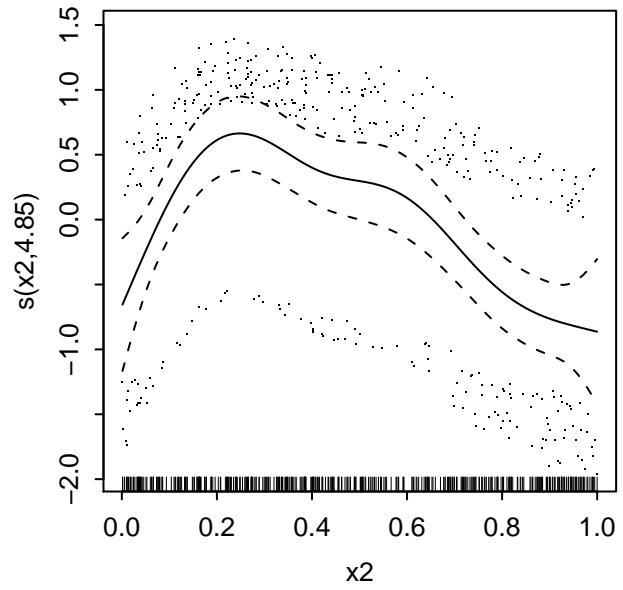
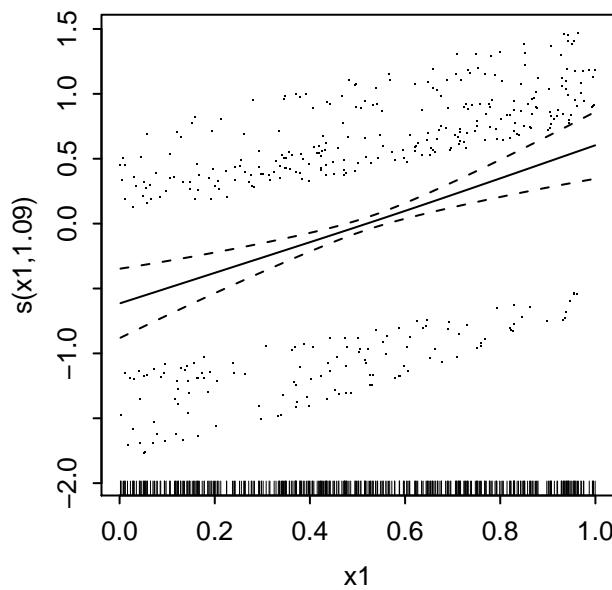
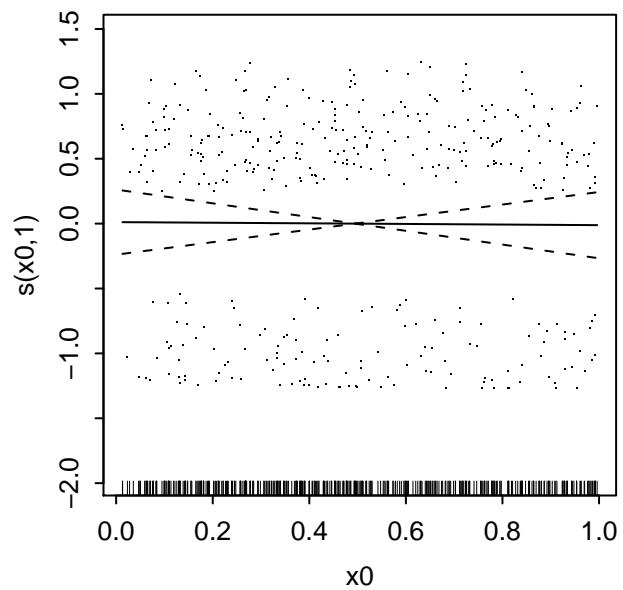
**Expected Values:  $E(Y|X)$**



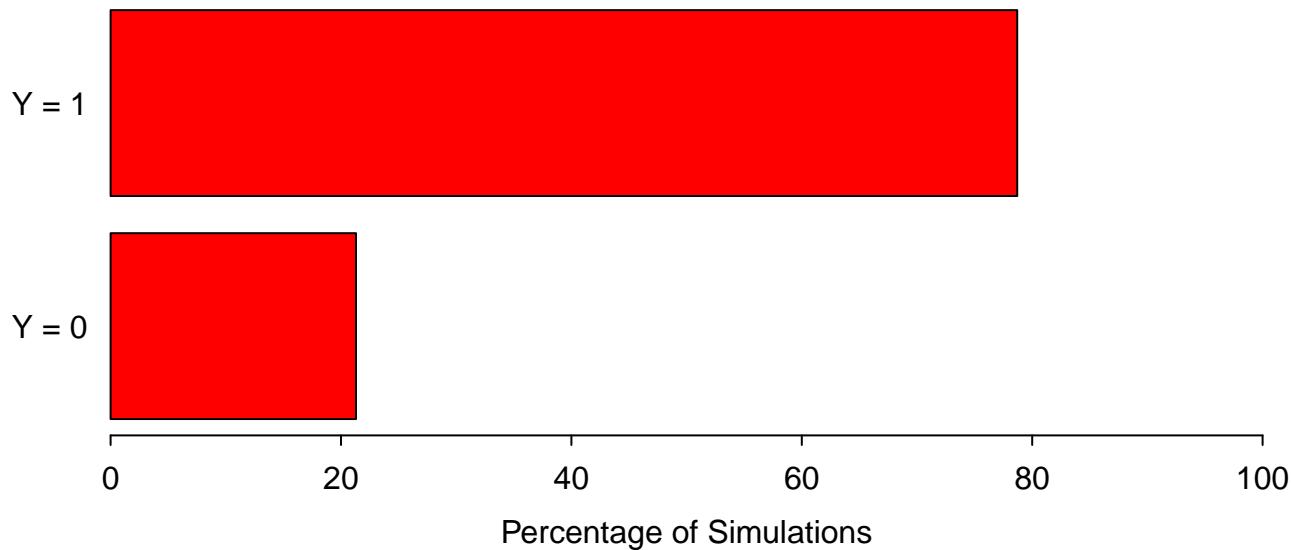
**First Differences in Expected Values:  $E(Y|X_1) - E(Y|X)$**



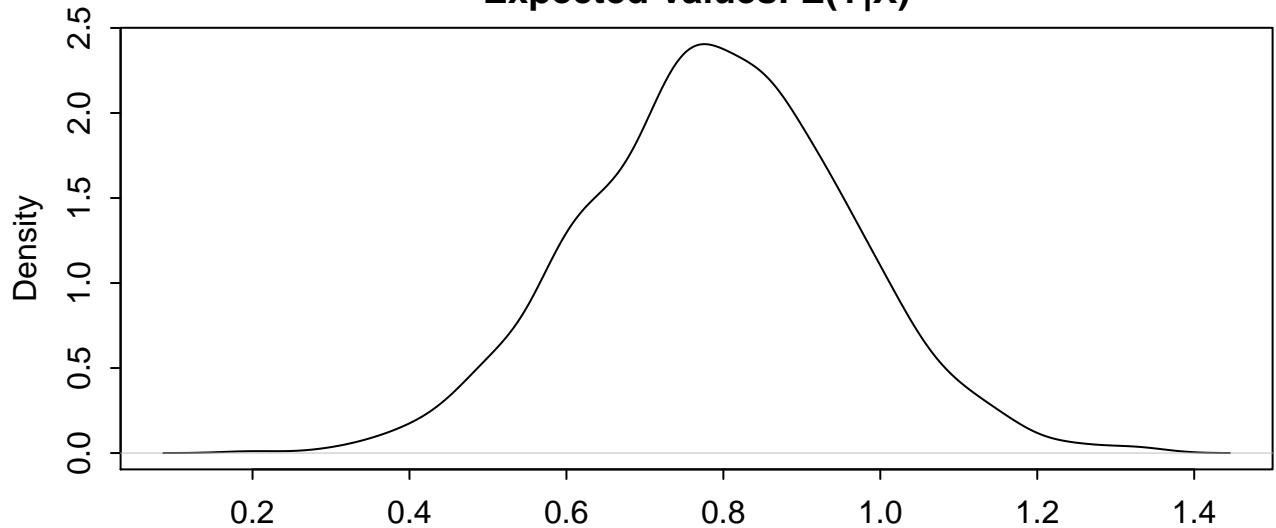




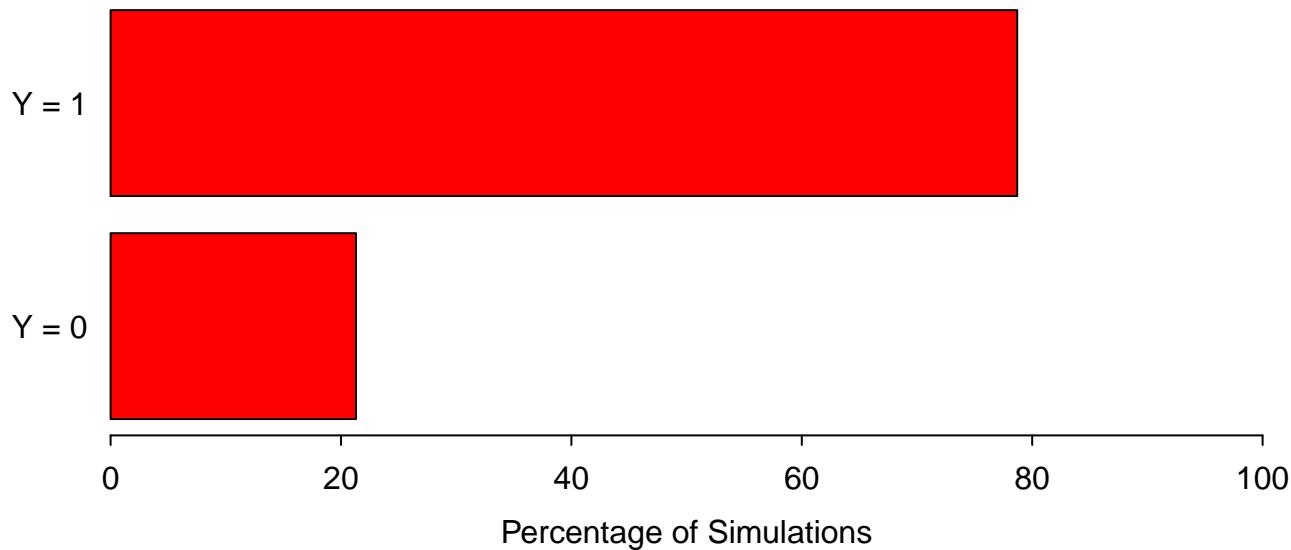
## Predicted Values: $Y|X$



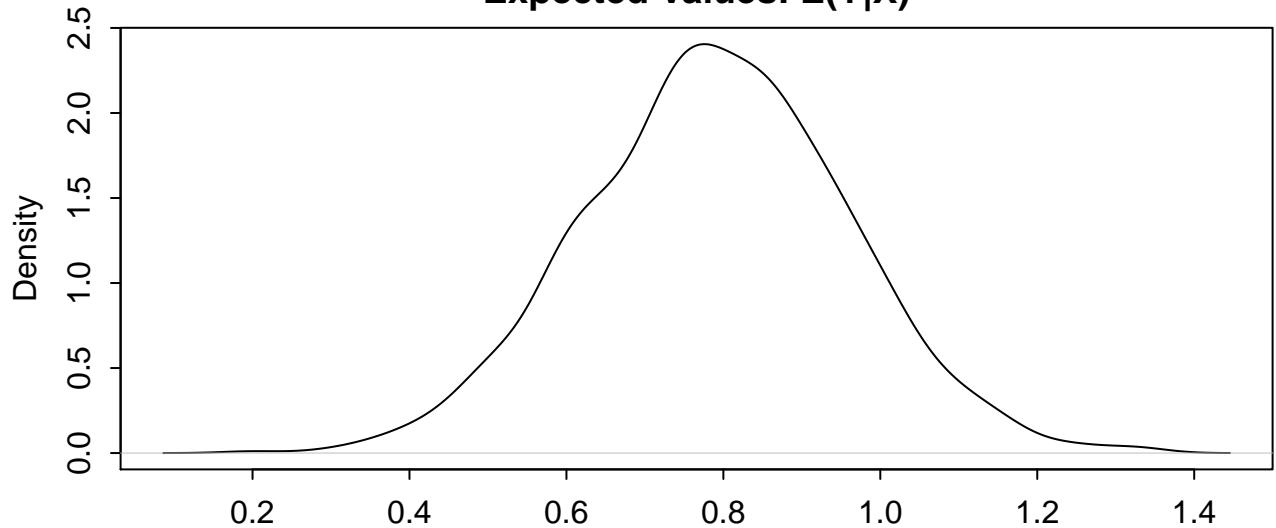
## Expected Values: $E(Y|X)$



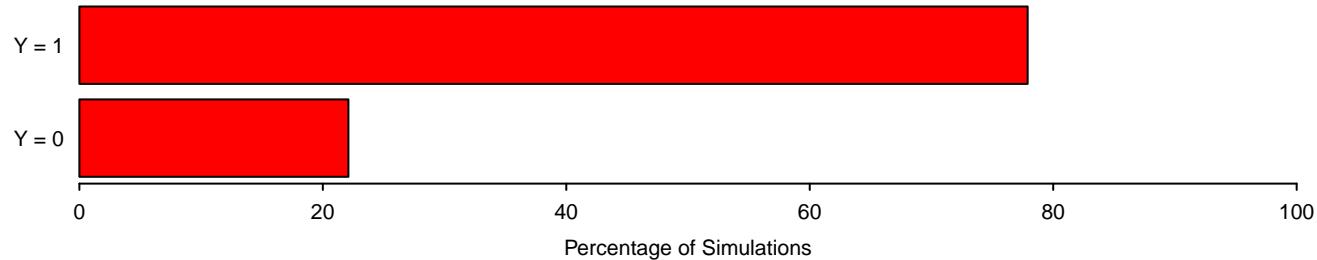
## Predicted Values: $Y|X$



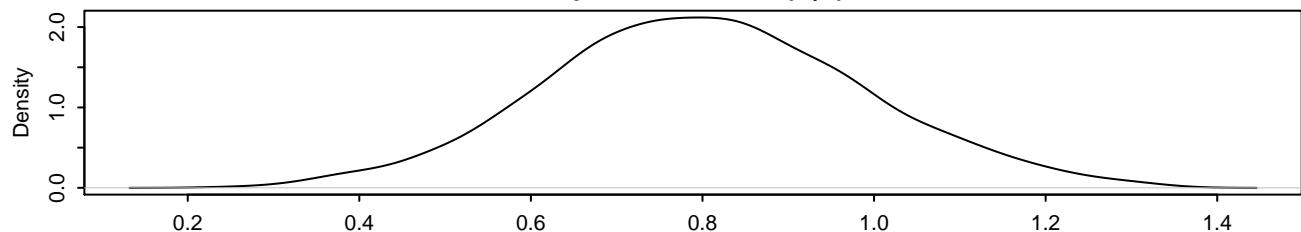
## Expected Values: $E(Y|X)$



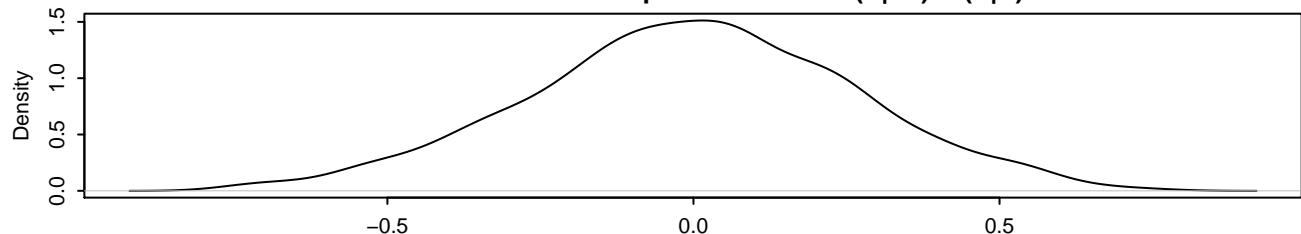
### Predicted Values: $Y|X$



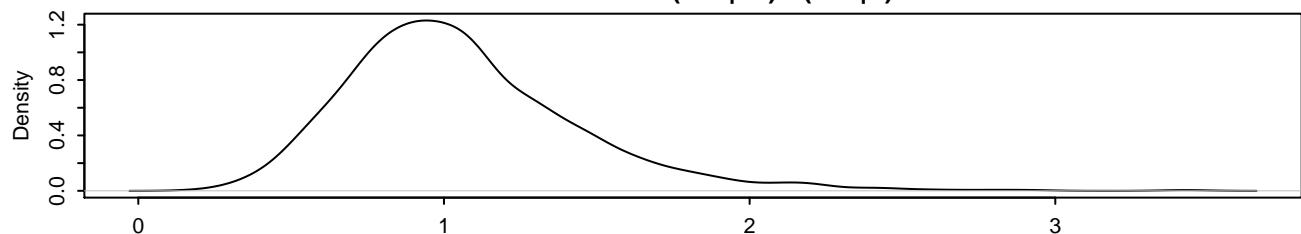
### Expected Values: $E(Y|X)$



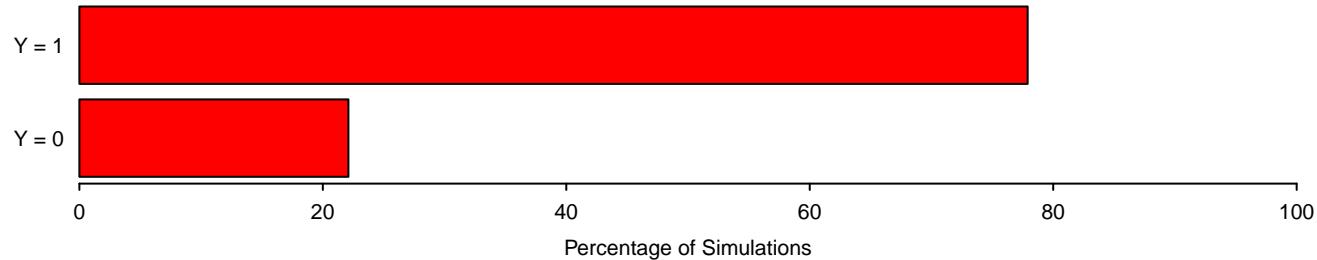
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



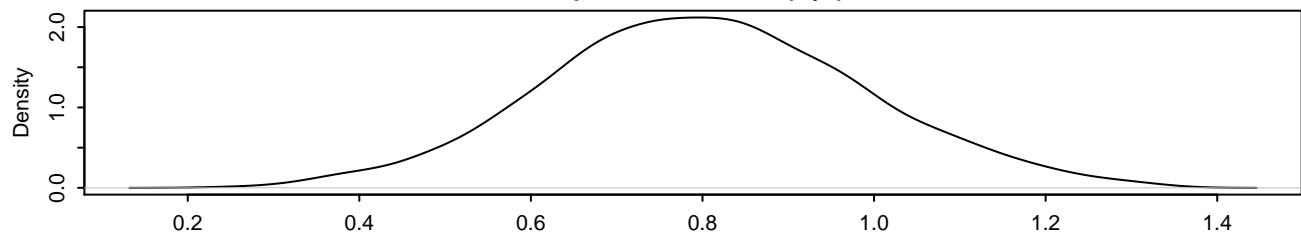
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



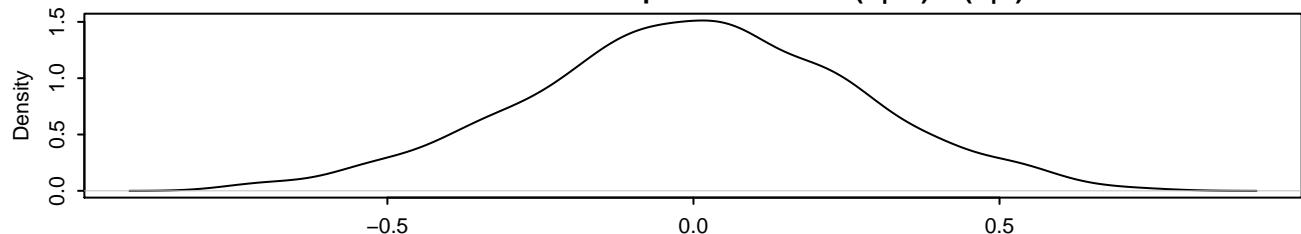
### Predicted Values: $Y|X$



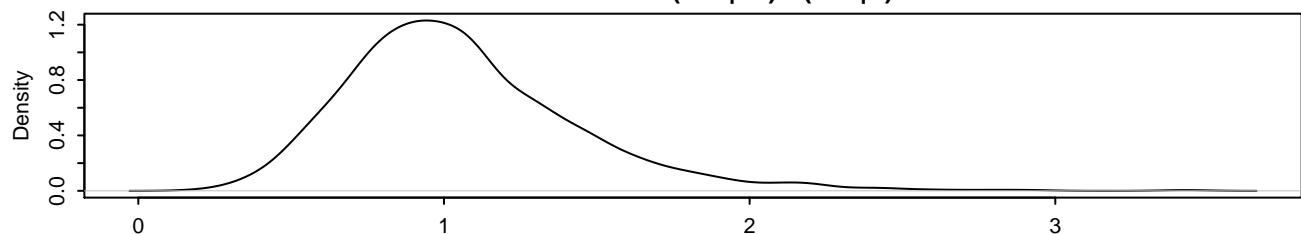
### Expected Values: $E(Y|X)$

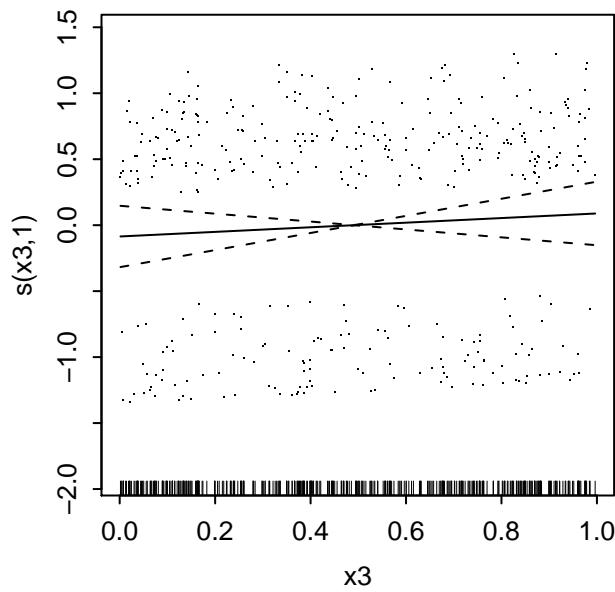
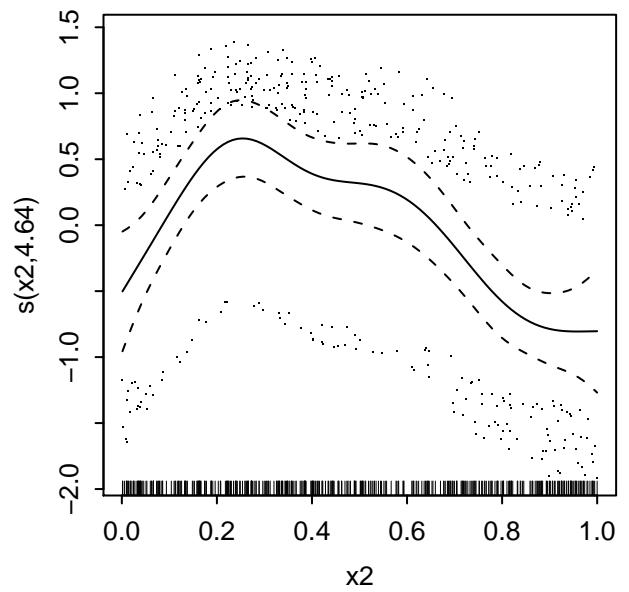
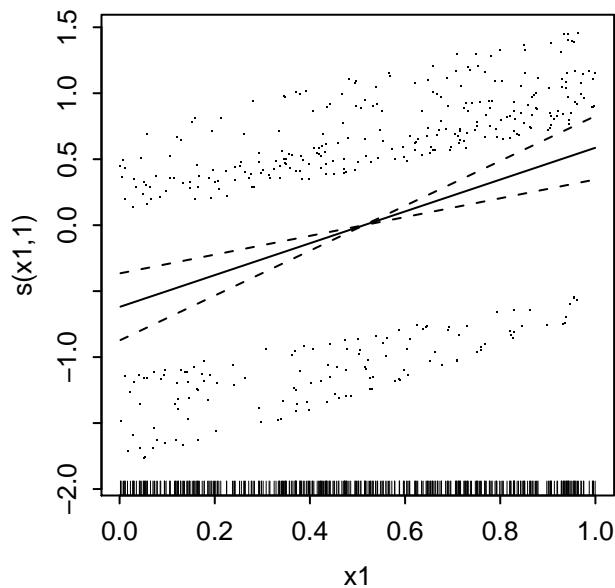
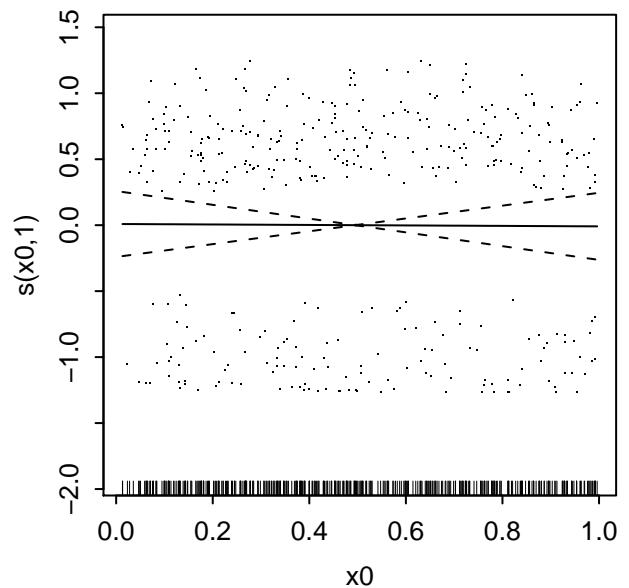


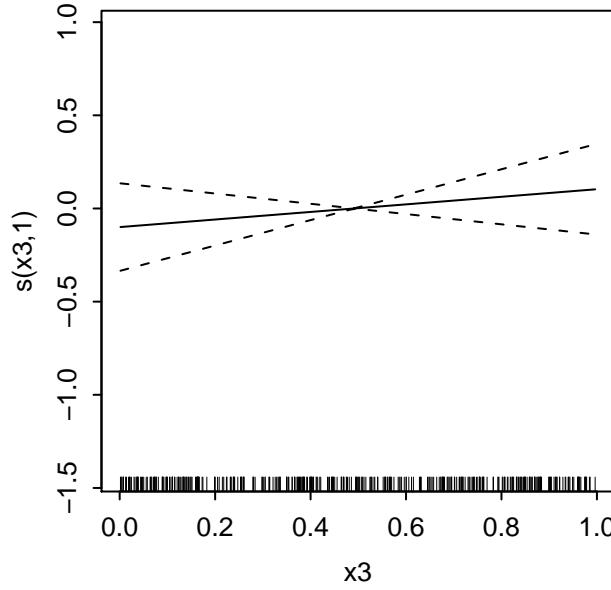
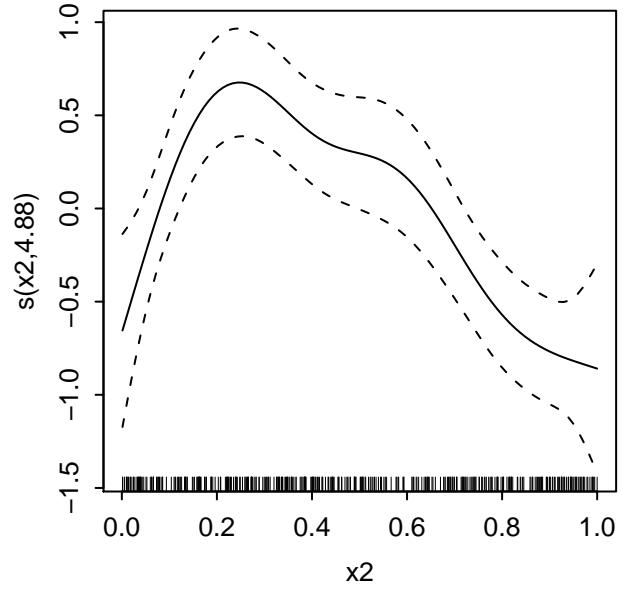
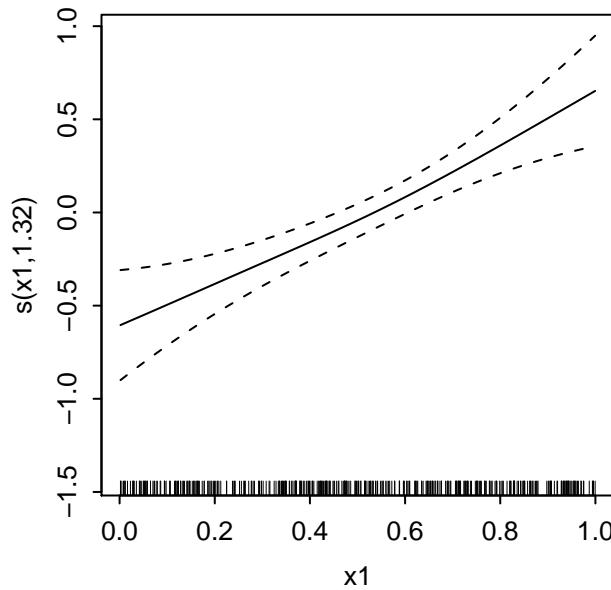
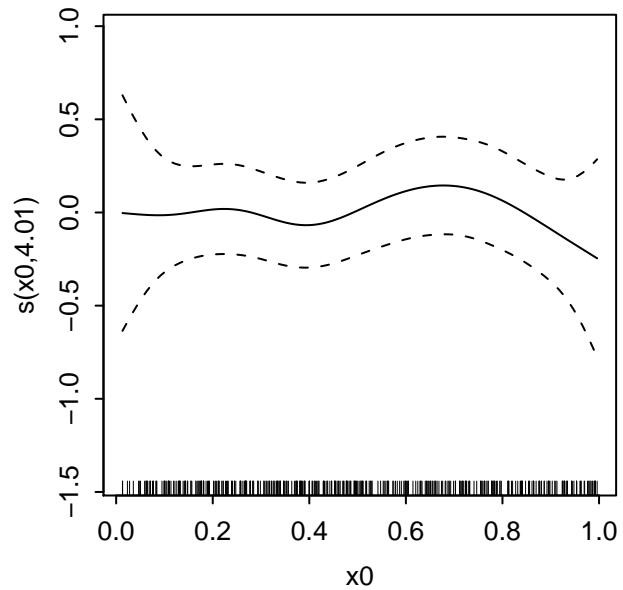
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$

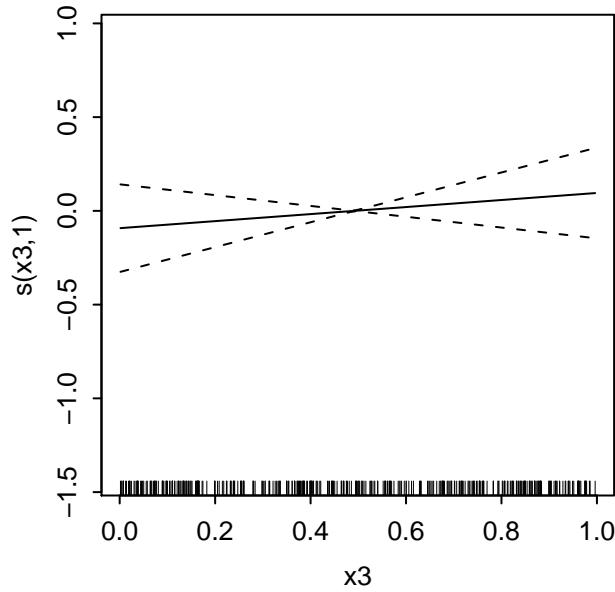
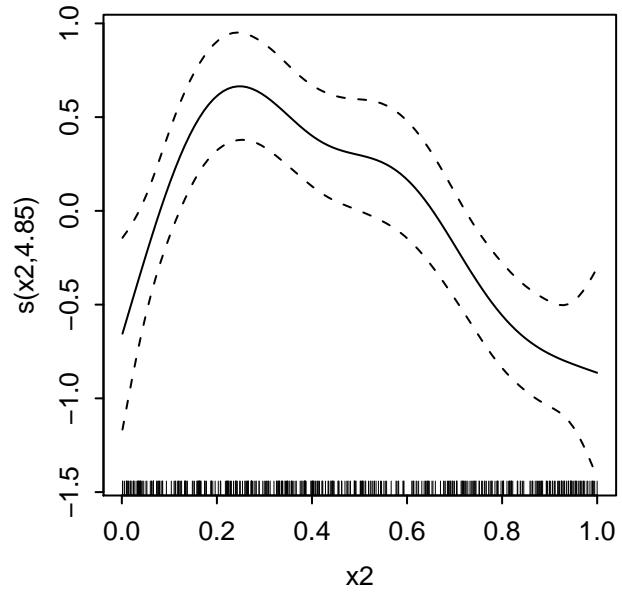
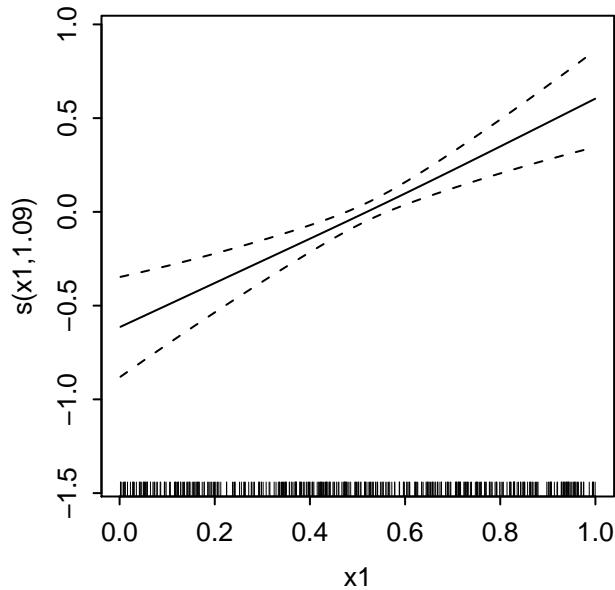
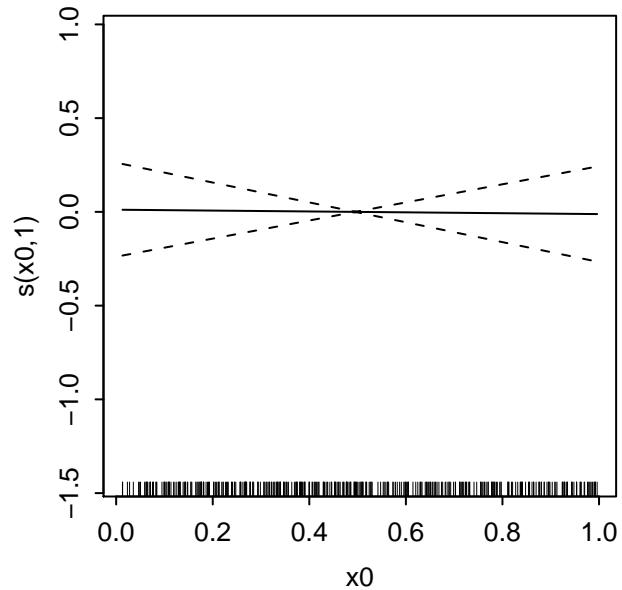


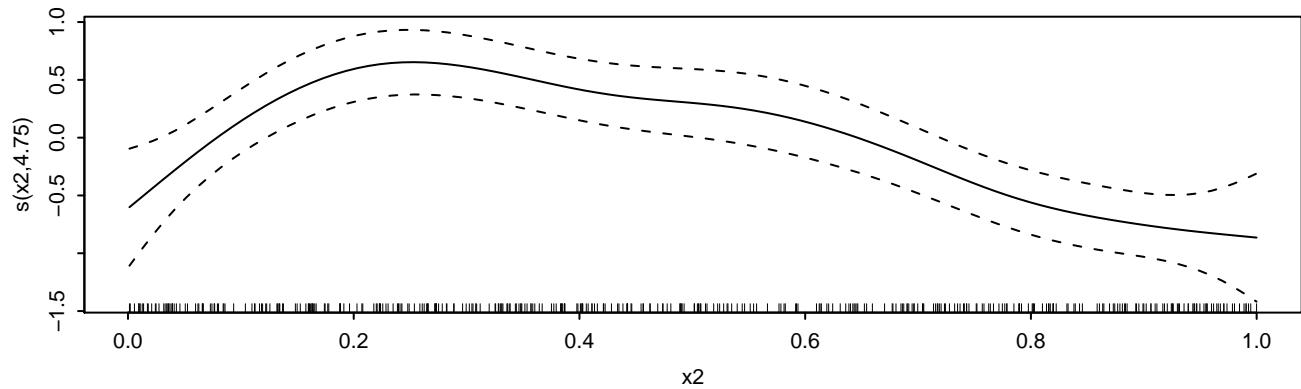
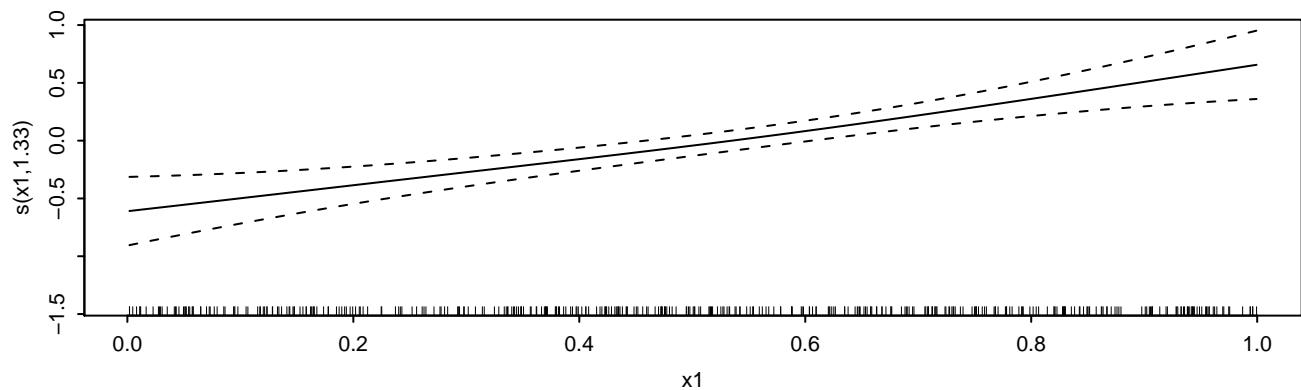
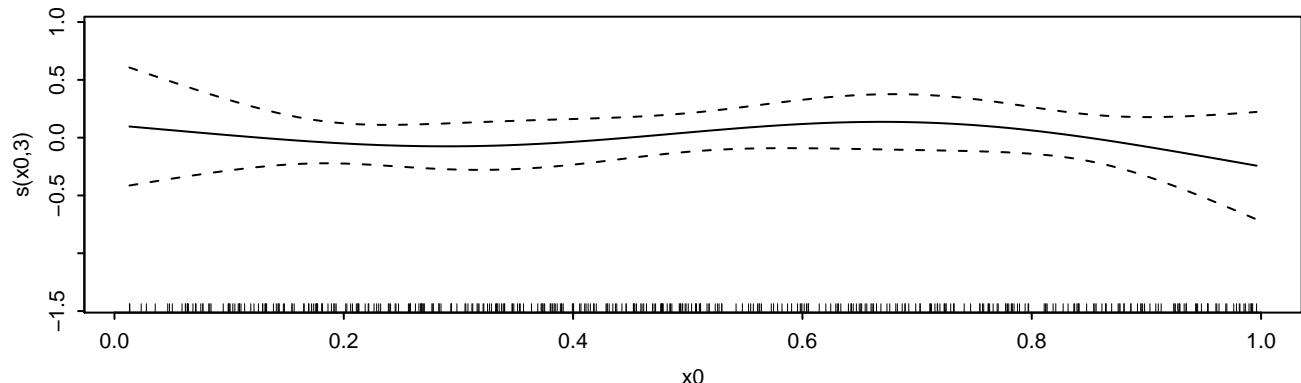
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



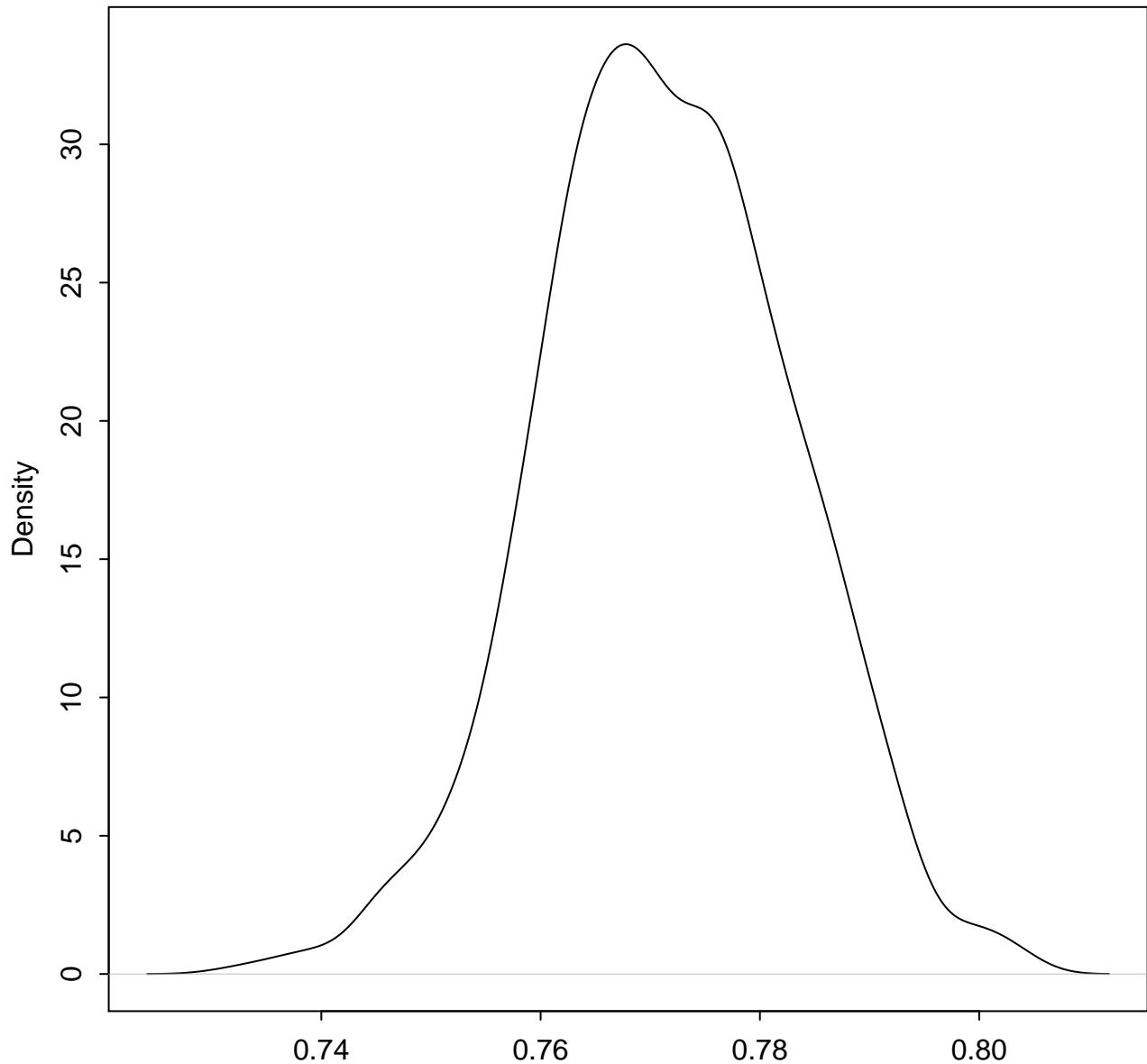




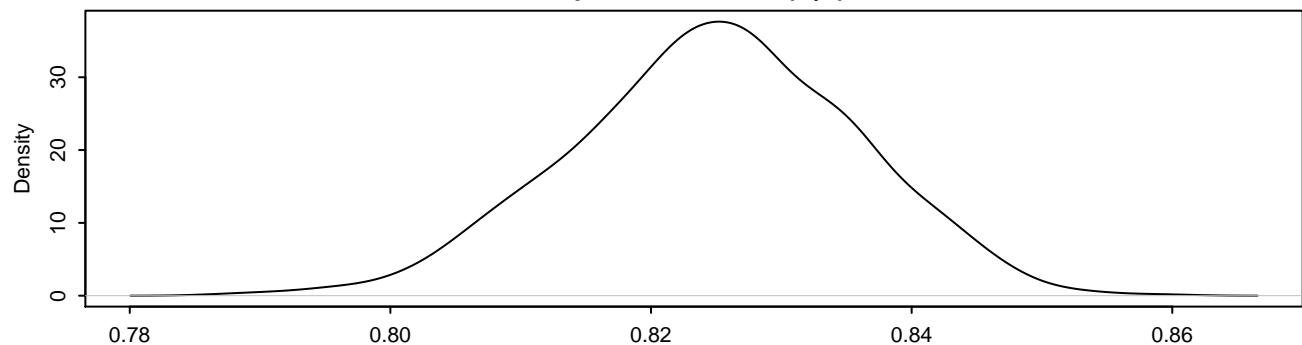




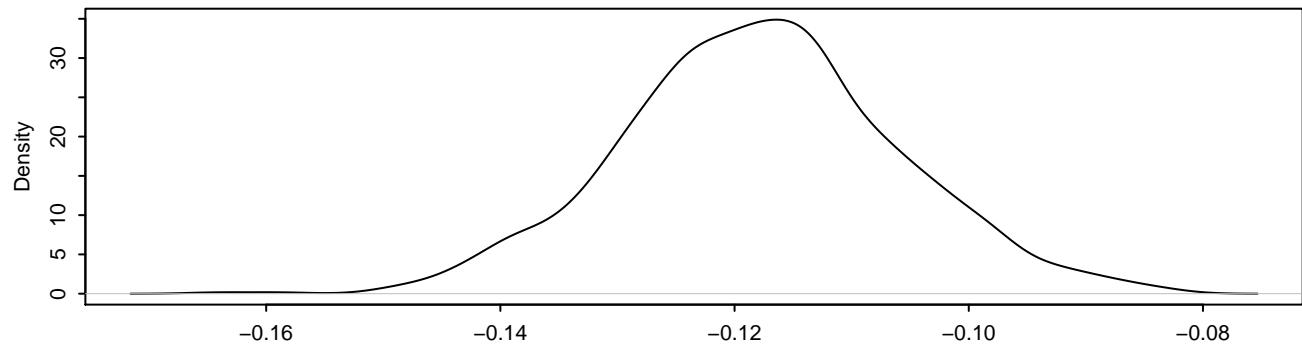
## Expected Values: $E(Y|X)$



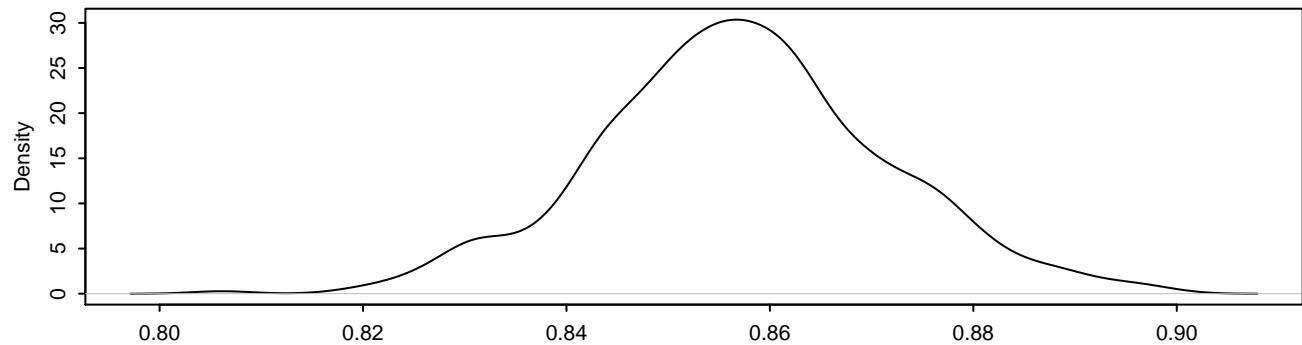
### Expected Values: $E(Y|X)$



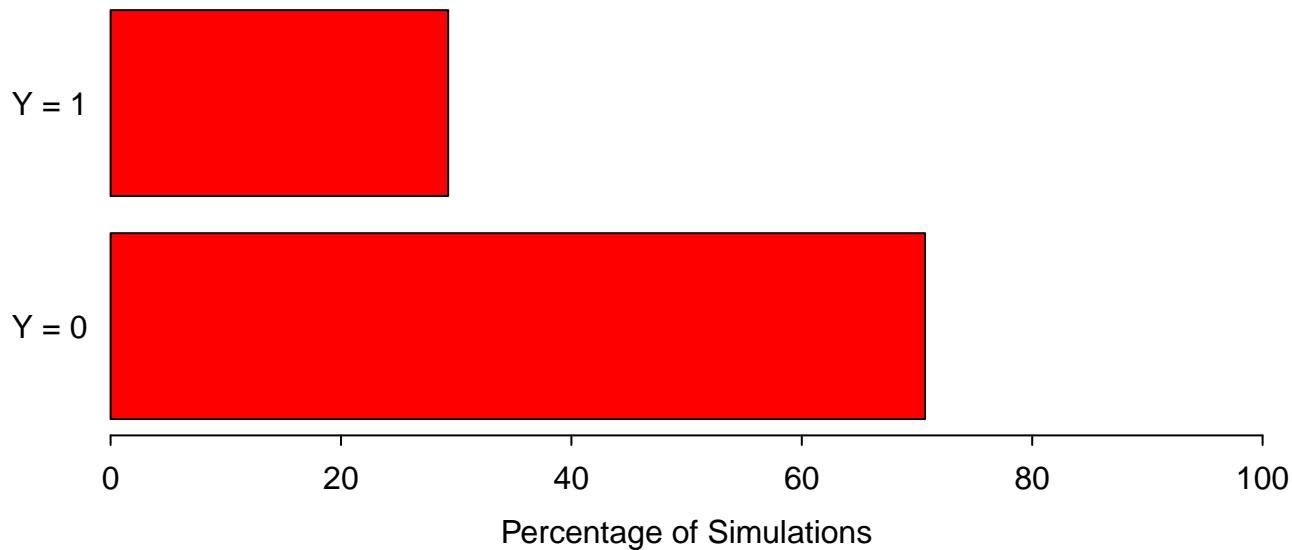
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



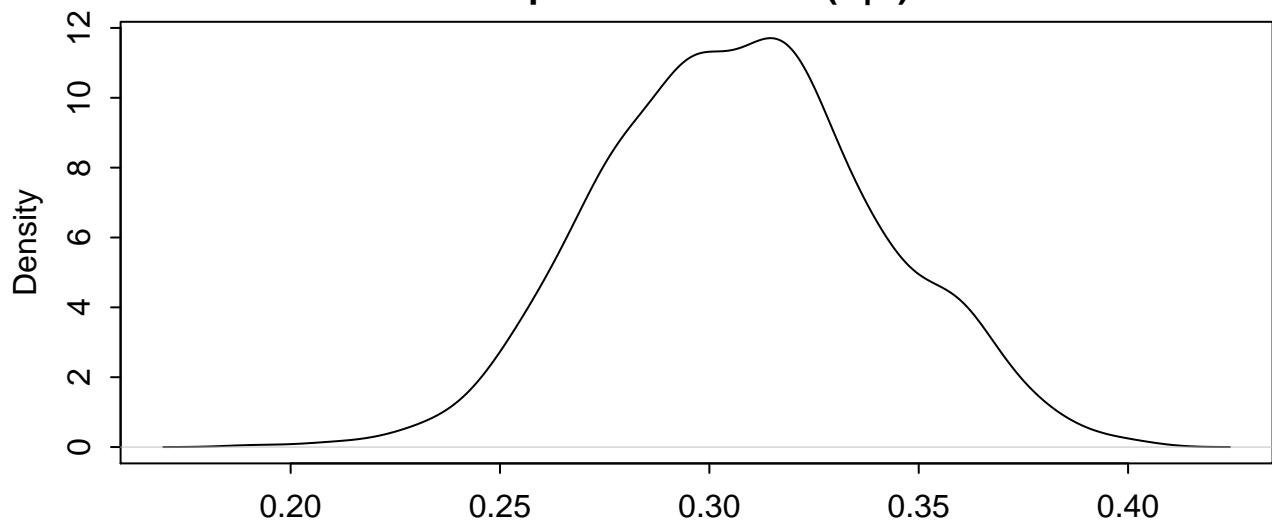
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



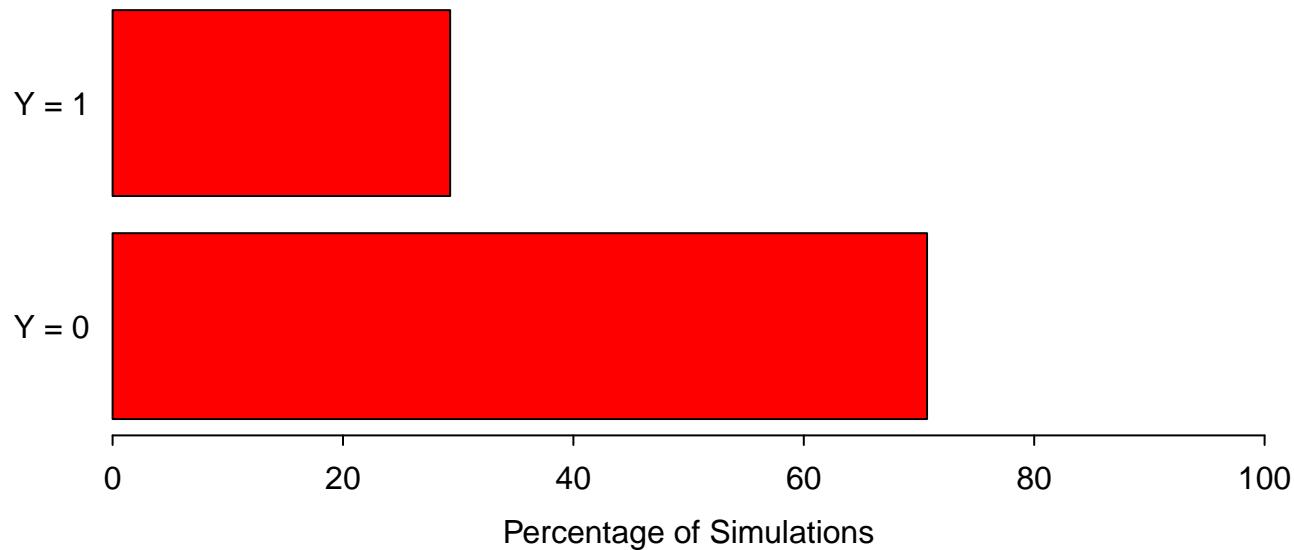
## Predicted Values: $Y|X$



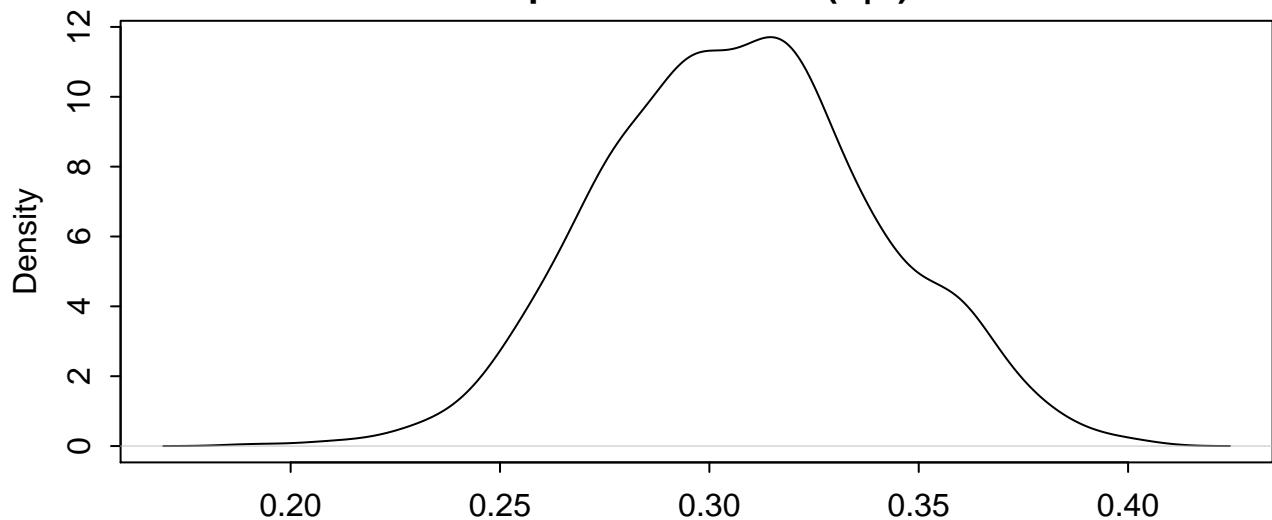
## Expected Values: $E(Y|X)$



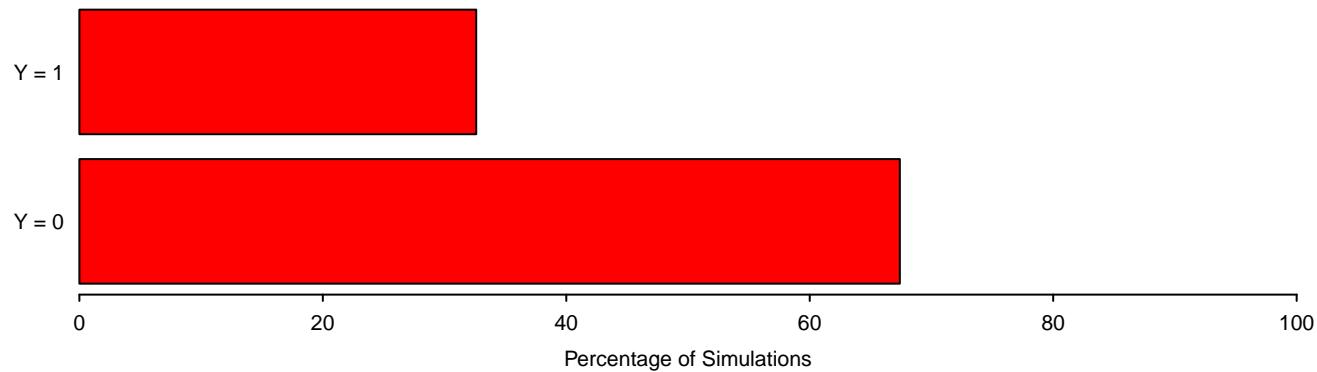
## Predicted Values: $Y|X$



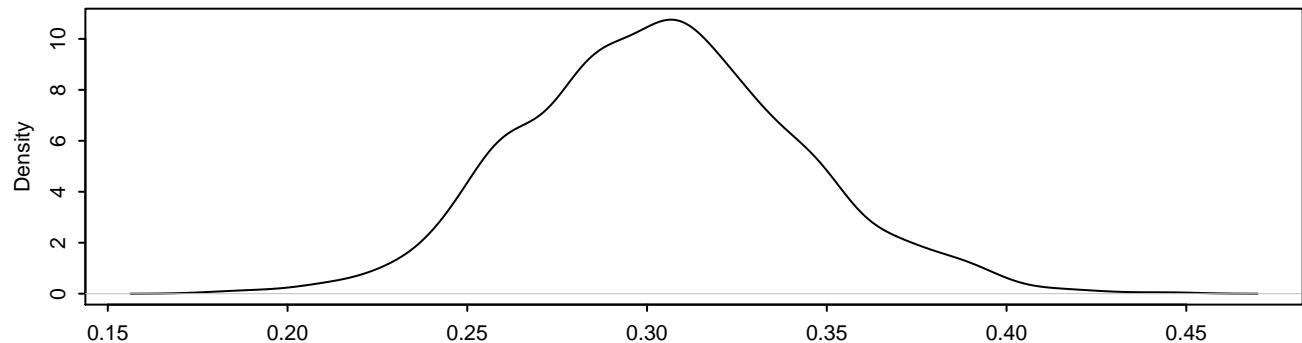
## Expected Values: $E(Y|X)$



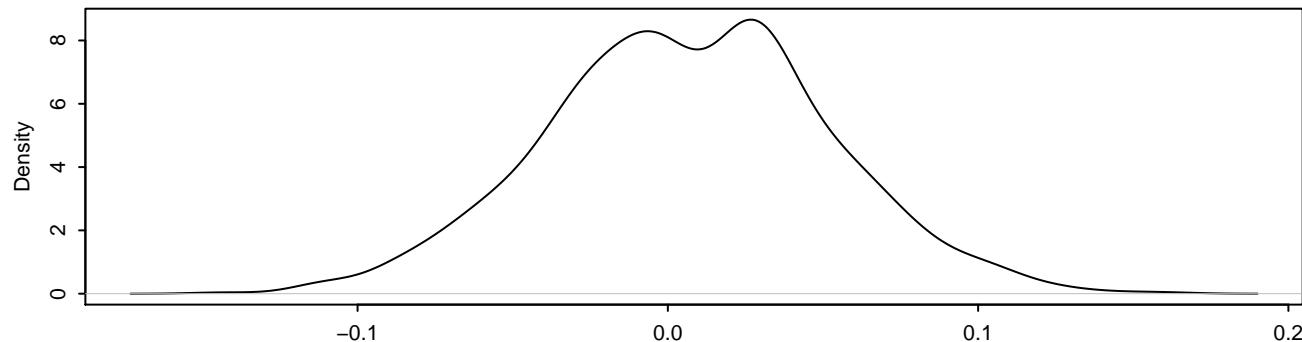
### Predicted Values: $Y|X$



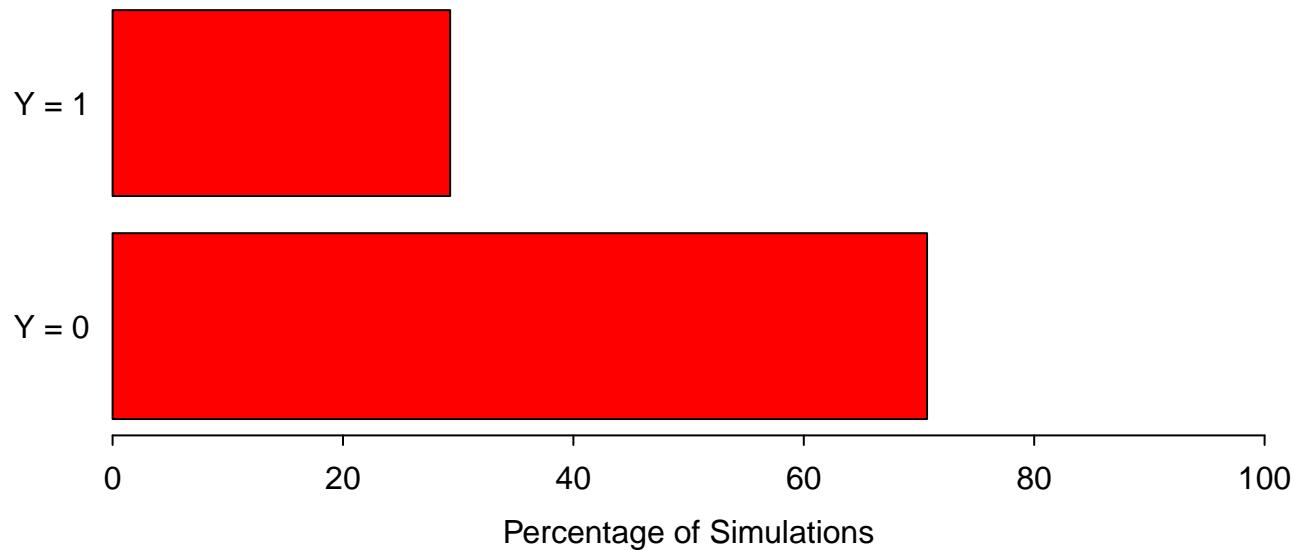
### Expected Values: $E(Y|X)$



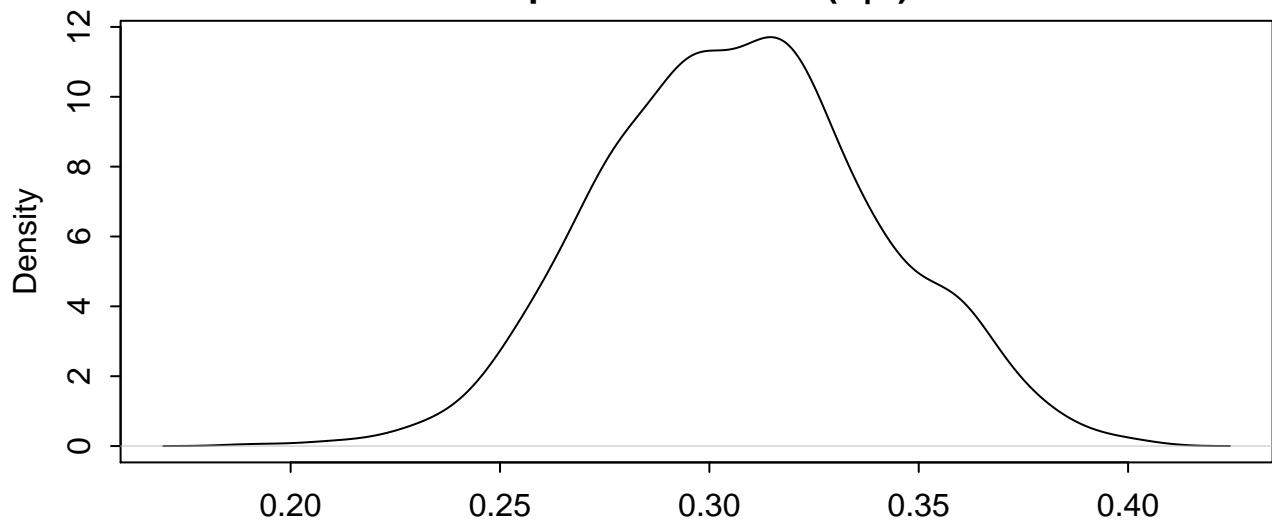
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



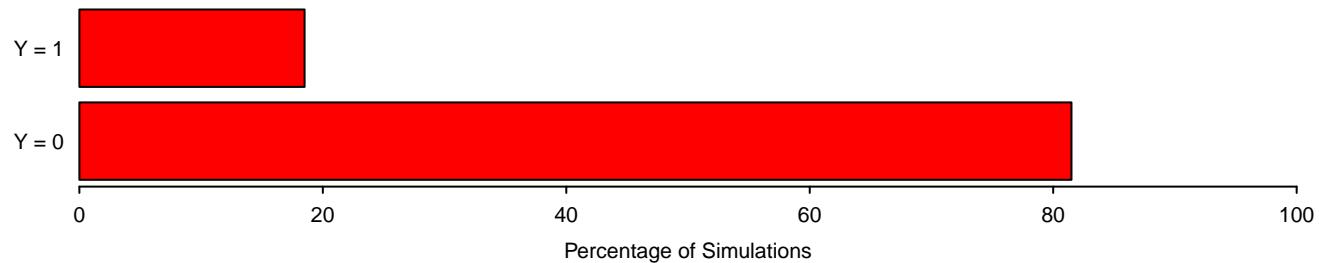
## Predicted Values: $Y|X$



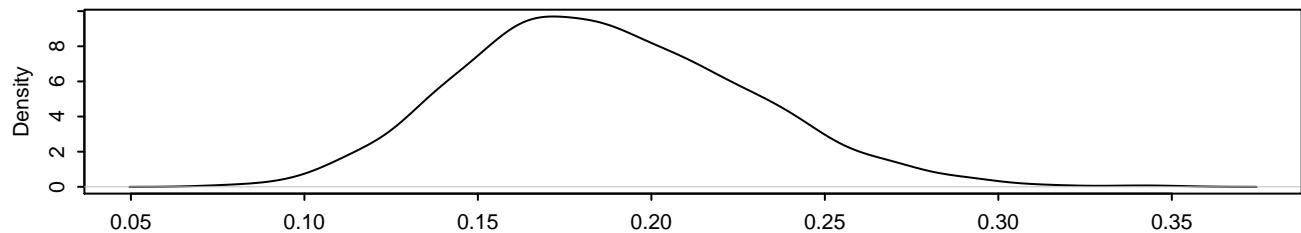
## Expected Values: $E(Y|X)$



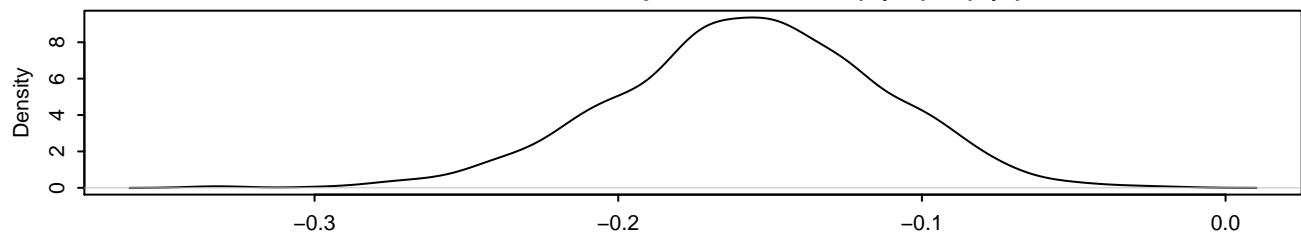
### Predicted Values: $Y|X$



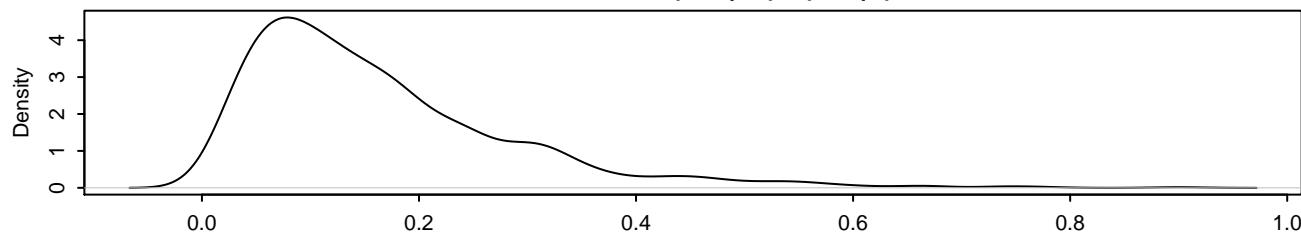
### Expected Values: $E(Y|X)$



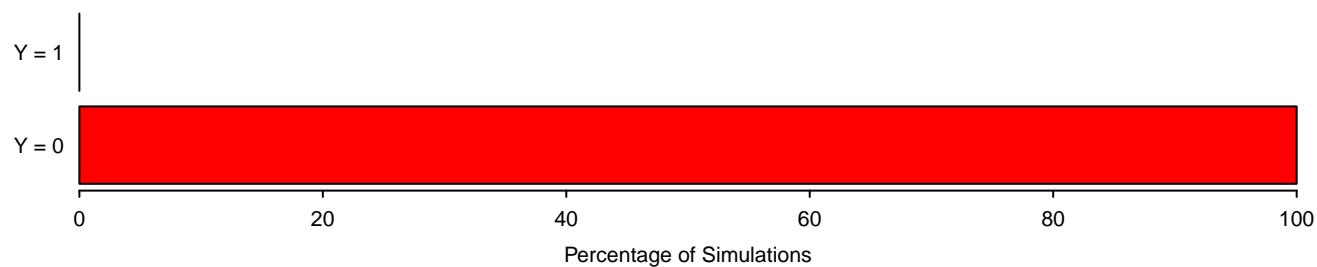
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



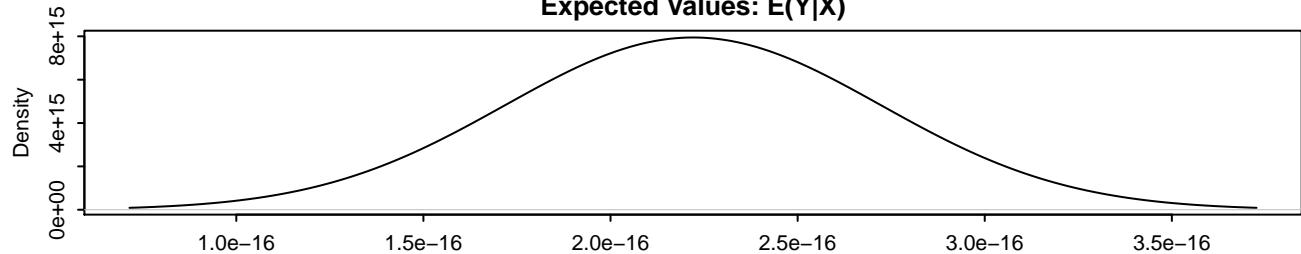
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



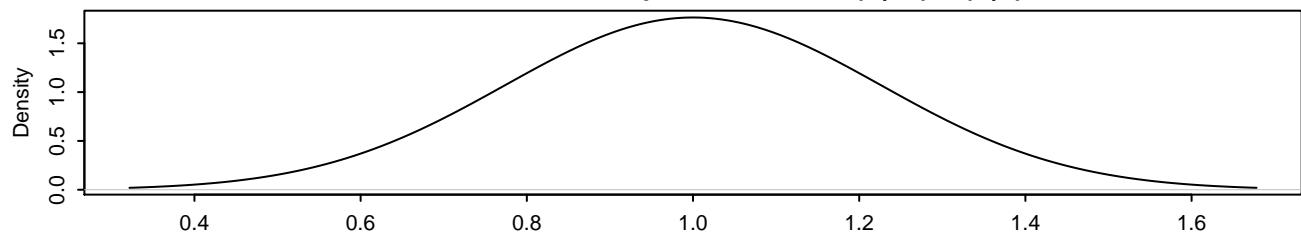
### Predicted Values: $Y|X$



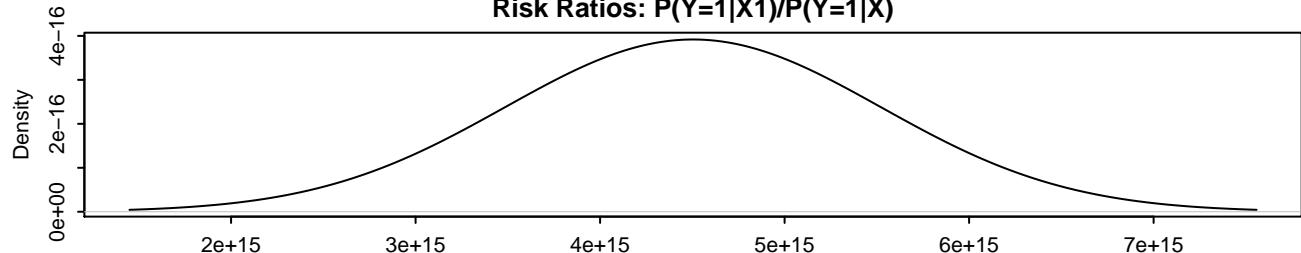
### Expected Values: $E(Y|X)$



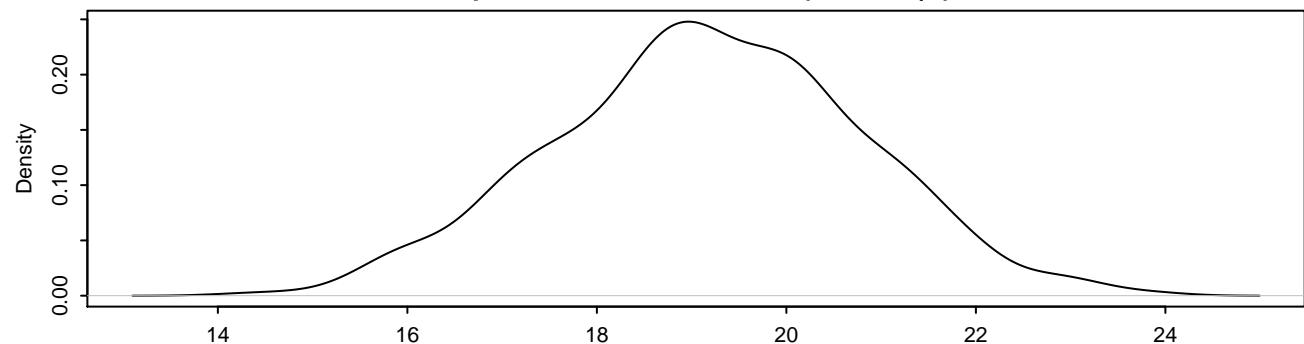
### First Differences in Expected Values: $E(Y|X_1) - E(Y|X)$



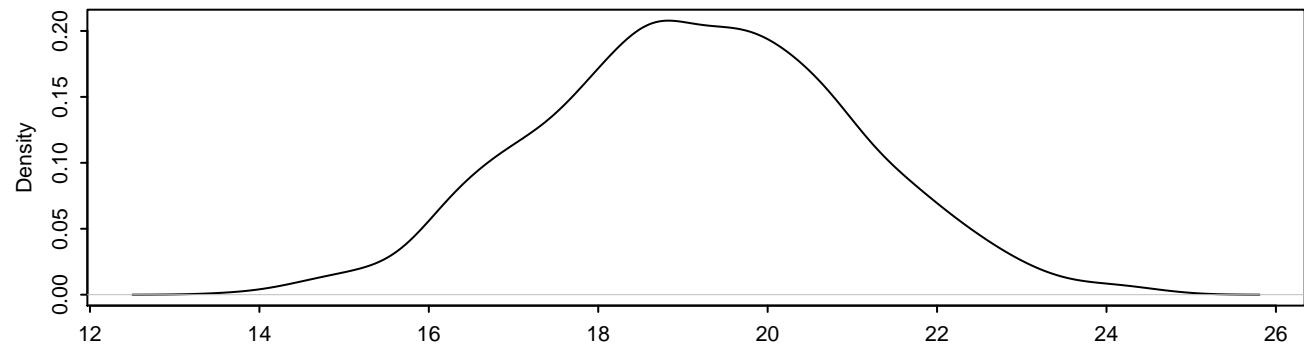
### Risk Ratios: $P(Y=1|X_1)/P(Y=1|X)$



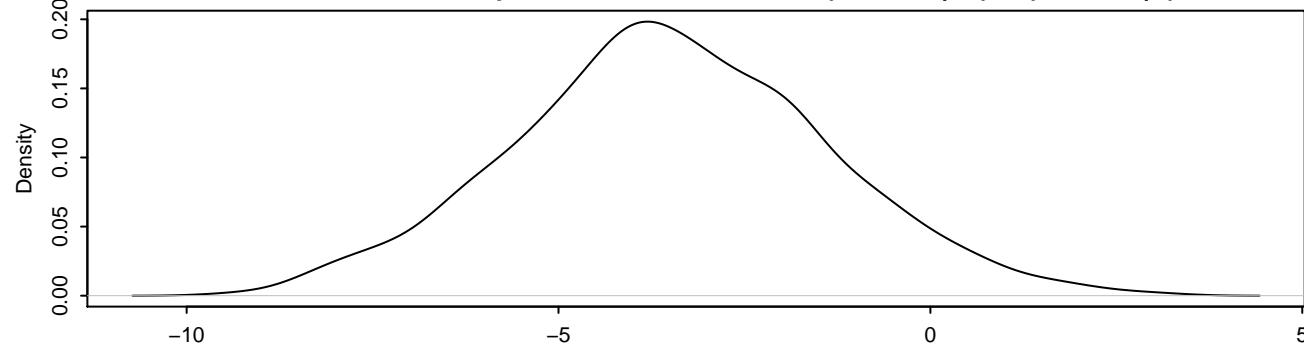
**Expected Quantile Values:  $Q(\tau= 0.5 | X)$**



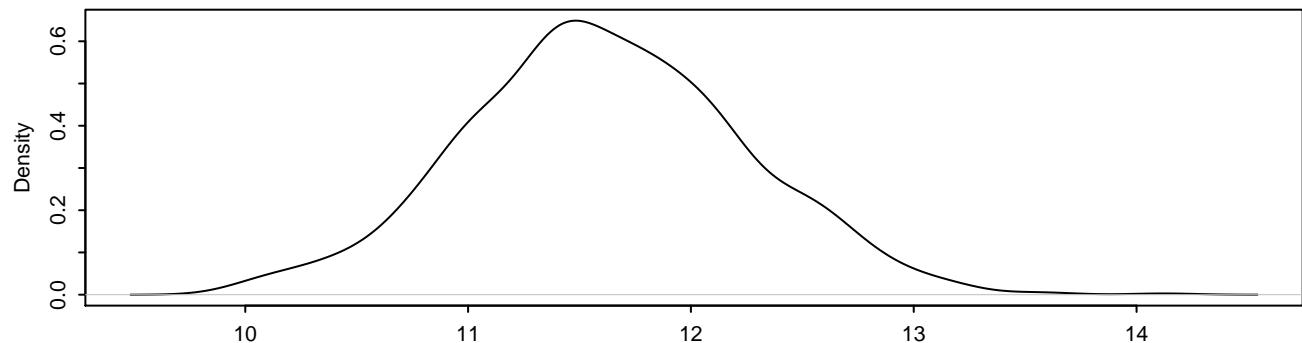
**Predicted Quantile Values:  $Q(\tau= 0.5 | X)$**



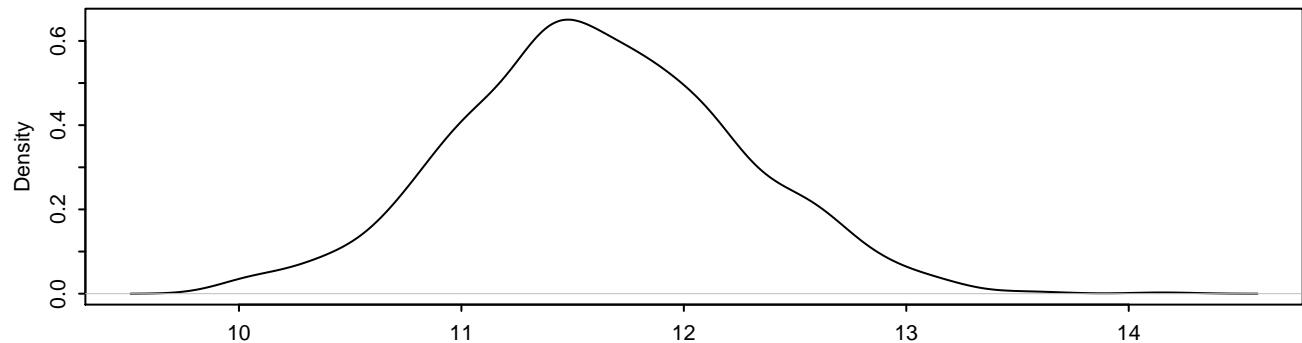
**First Differences in Expected Quantile Values:  $Q(\tau= 0.5 | X_1) - Q(\tau= 0.5 | X)$**



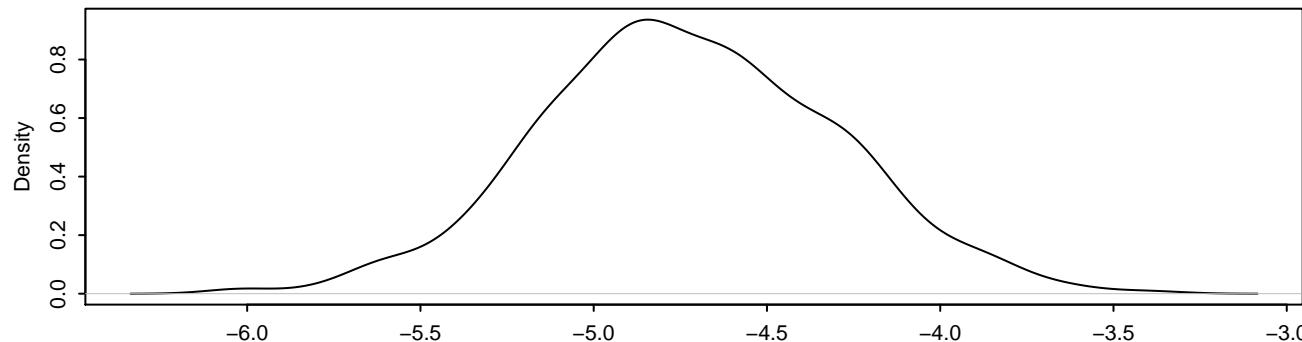
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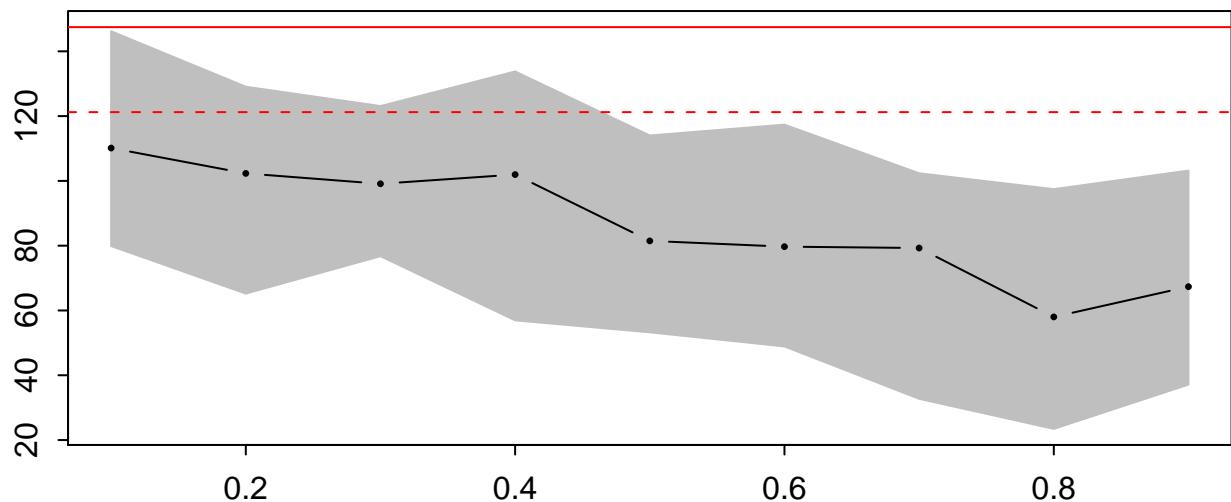
**Predicted Quantile Values:  $Q(\tau= 0.5 | X)$**



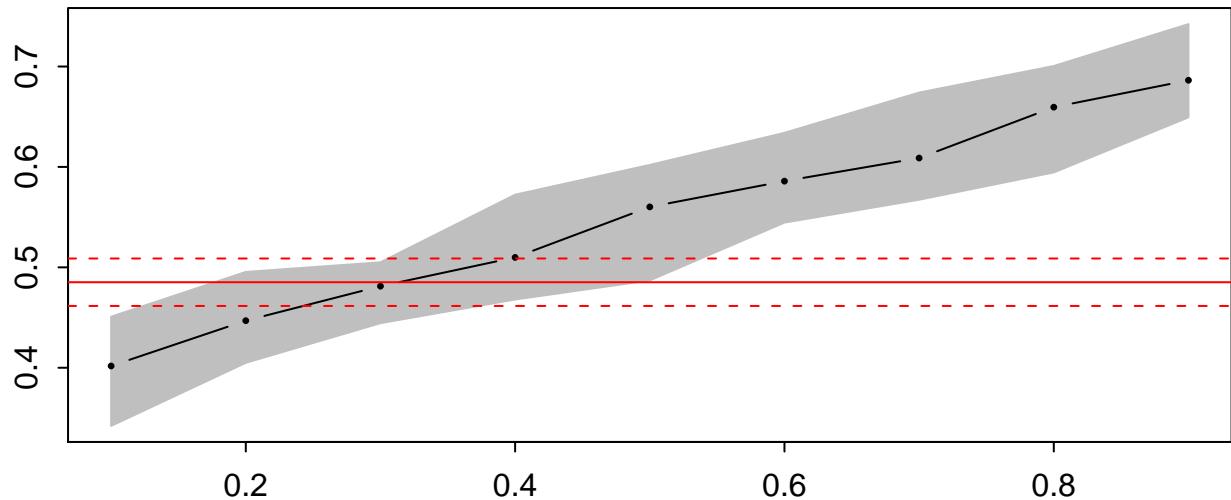
**First Differences in Expected Quantile Values:  $Q(\tau= 0.5 | X_1) - Q(\tau= 0.5 | X)$**



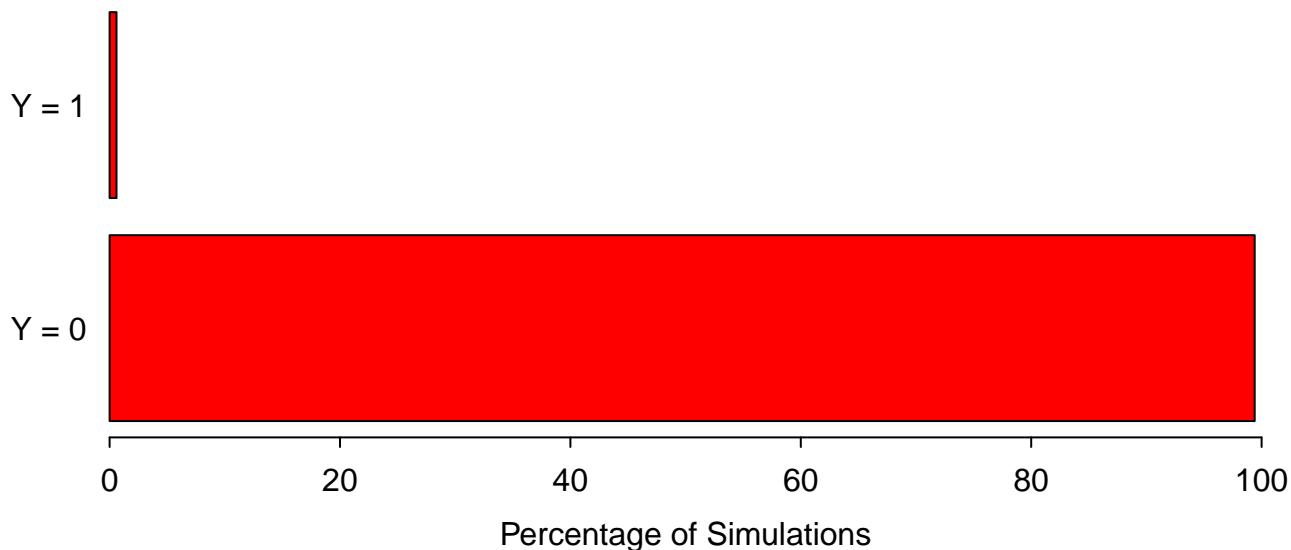
### (Intercept)



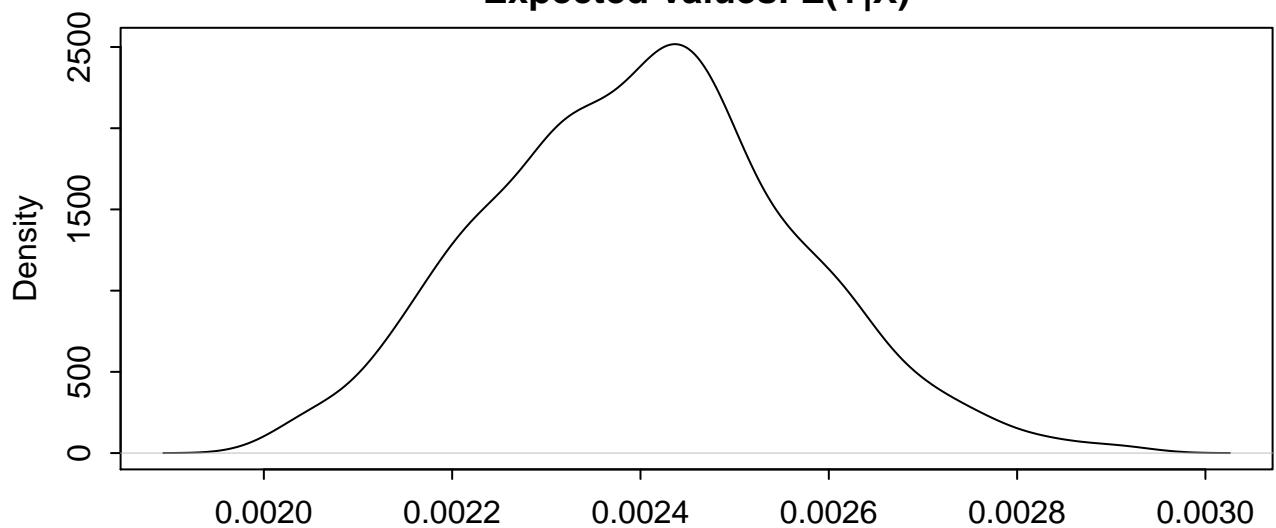
### income



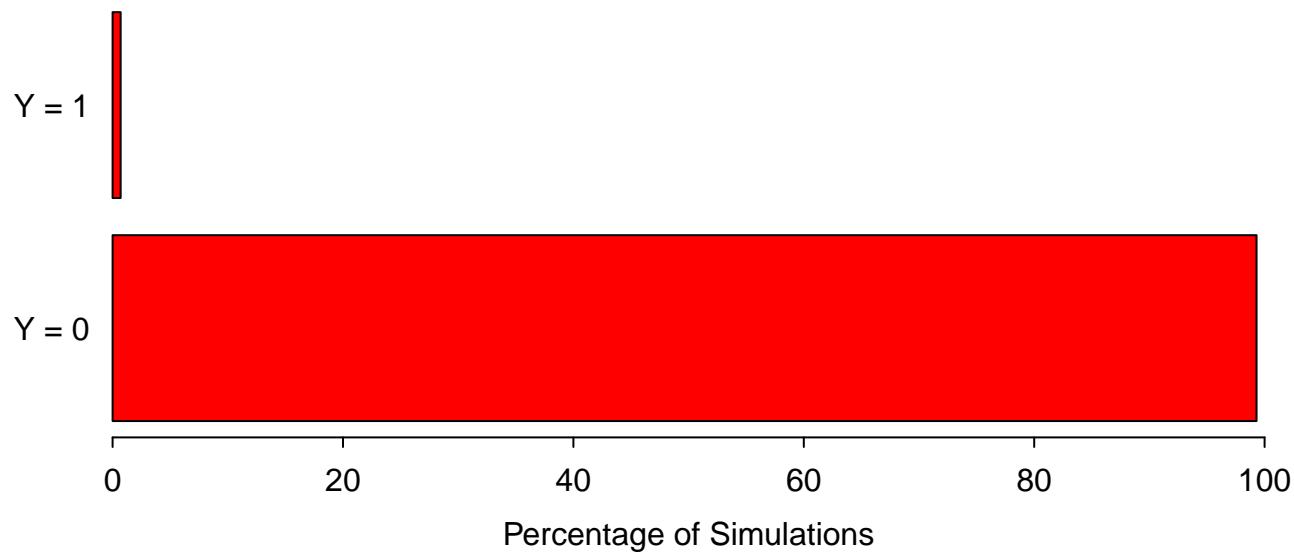
## Predicted Values: $Y|X$



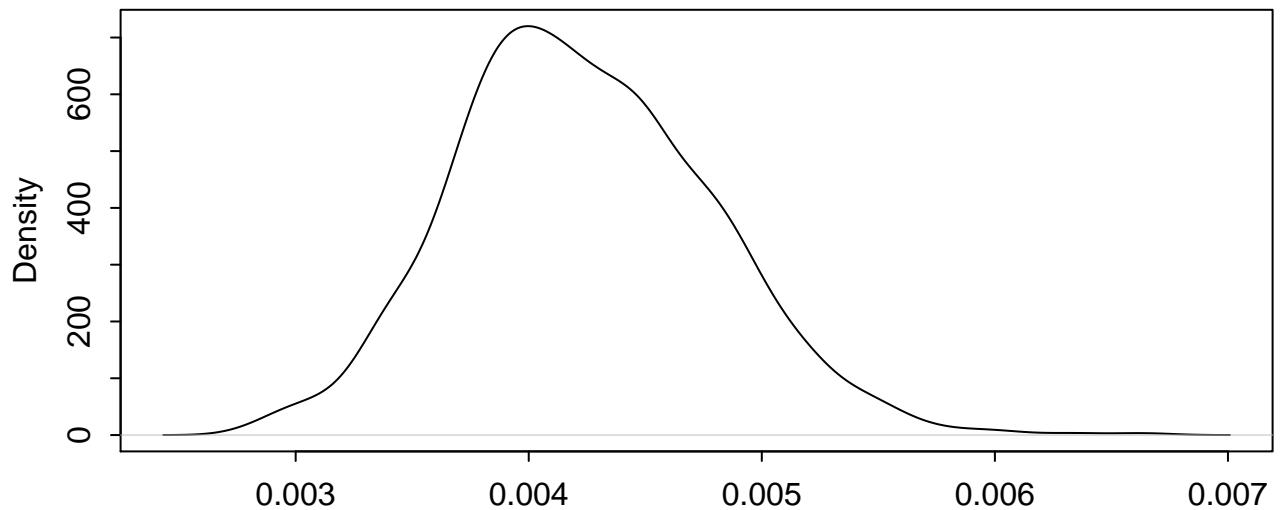
## Expected Values: $E(Y|X)$



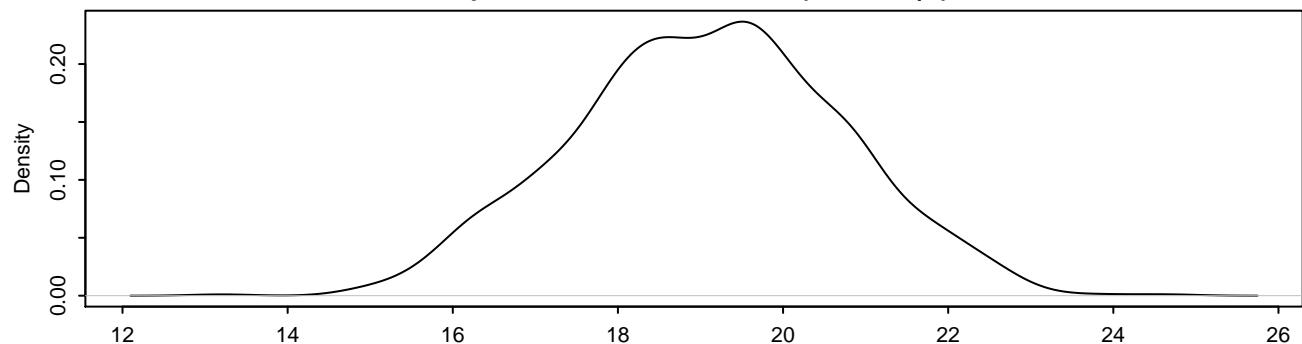
## Predicted Values: $Y|X$



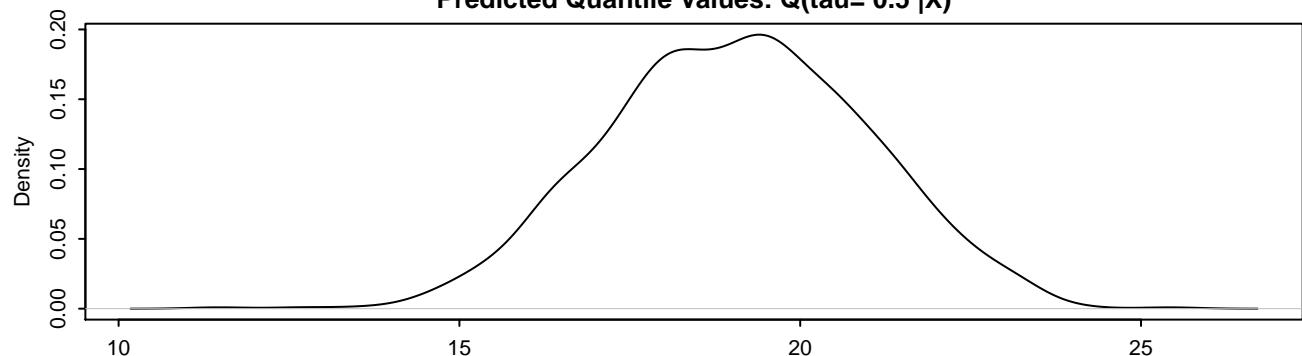
## Expected Values: $E(Y|X)$



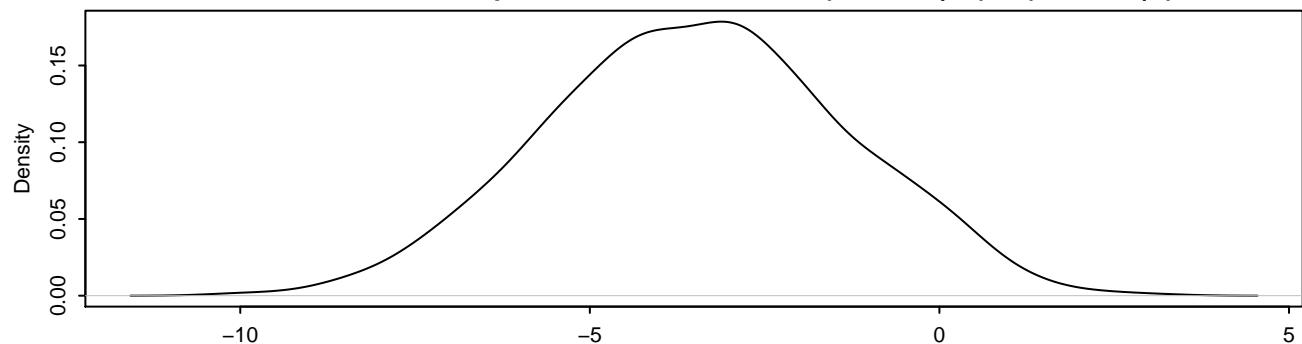
**Expected Quantile Values:  $Q(\tau= 0.5 | X)$**



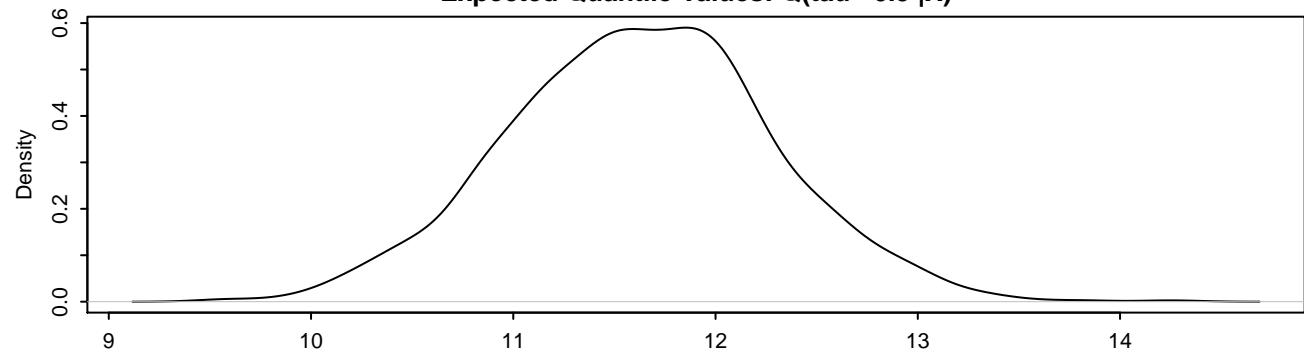
**Predicted Quantile Values:  $Q(\tau= 0.5 | X)$**



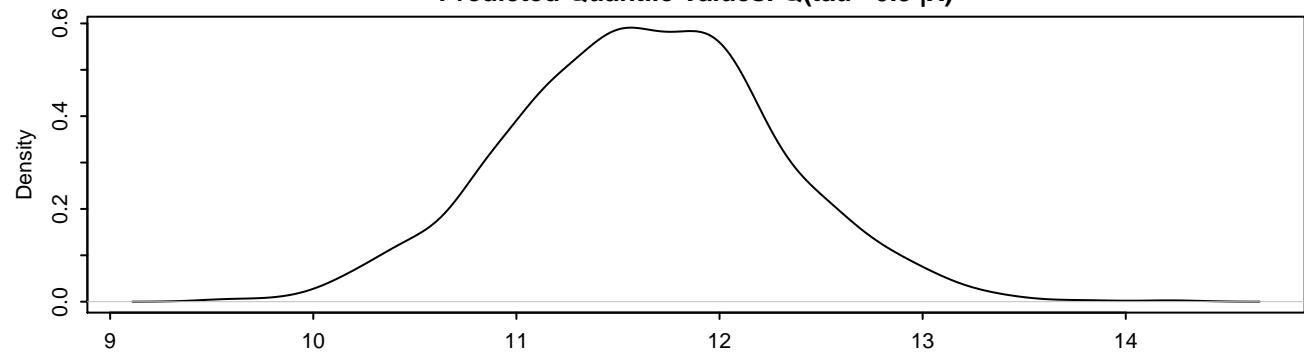
**First Differences in Expected Quantile Values:  $Q(\tau= 0.5 | X_1) - Q(\tau= 0.5 | X)$**



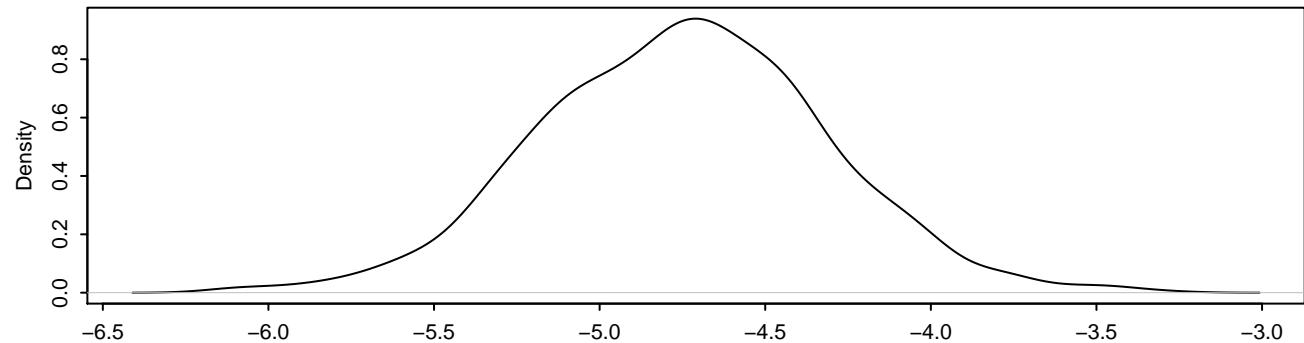
**Expected Quantile Values:  $Q(\tau= 0.5 | X)$**



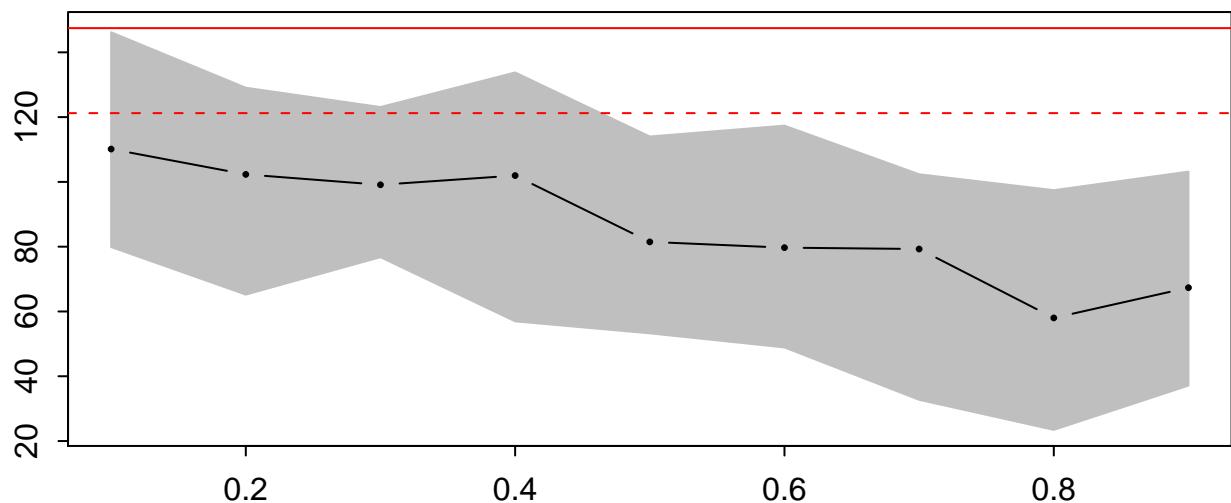
**Predicted Quantile Values:  $Q(\tau= 0.5 | X)$**



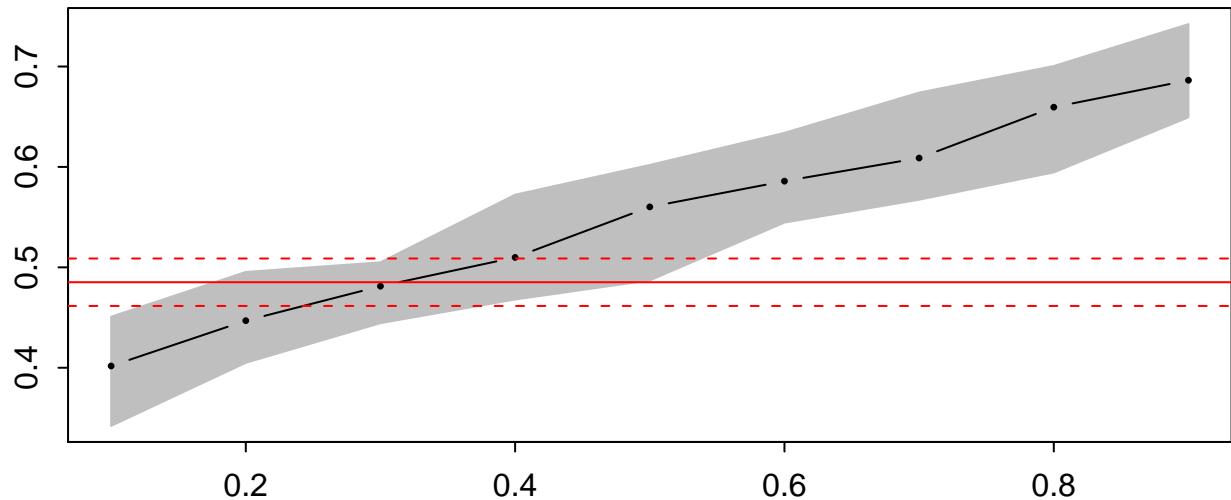
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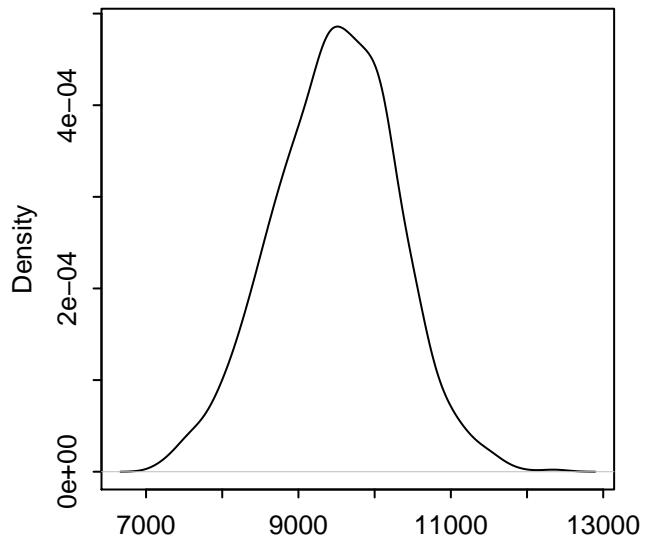
### (Intercept)



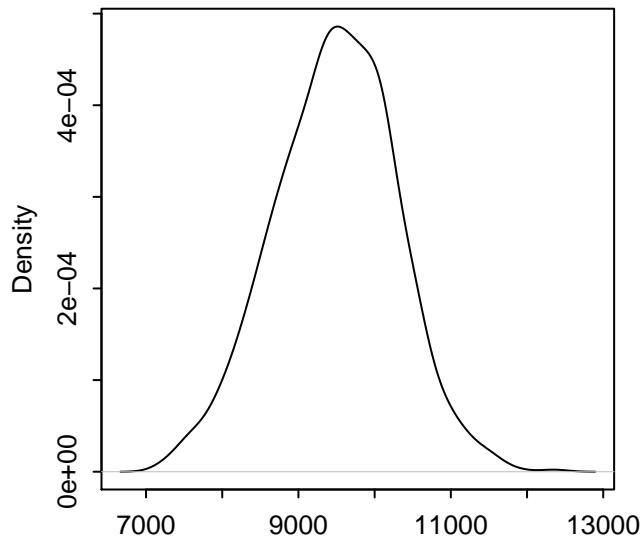
### income



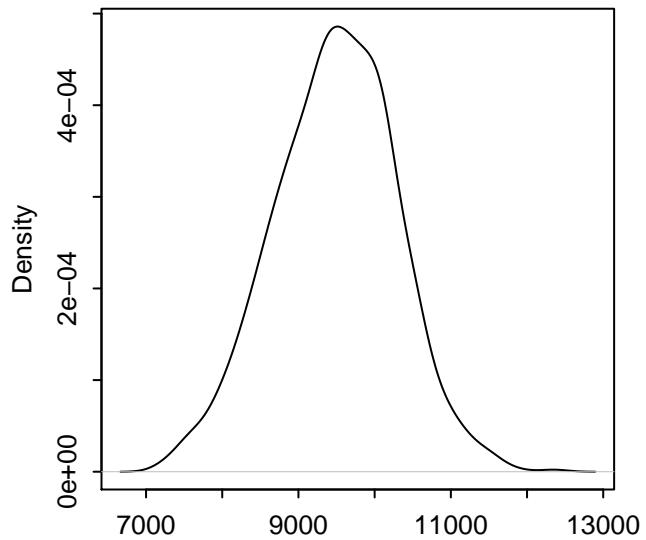
**Expected Values:  $E(Y|X)$**



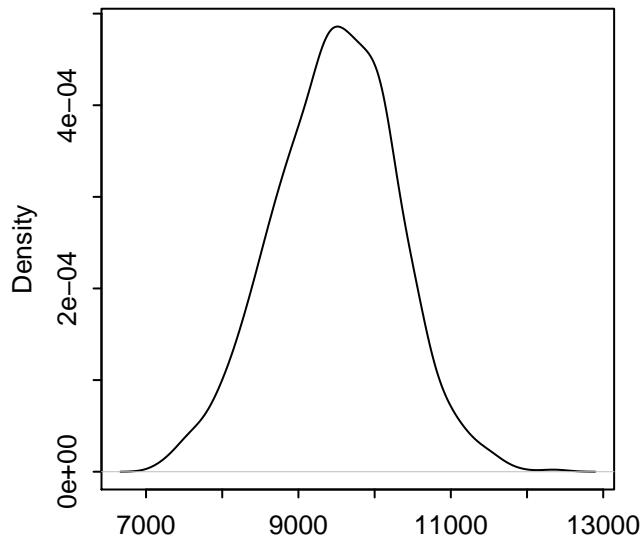
**Expected Values:  $E(Y|X)$**

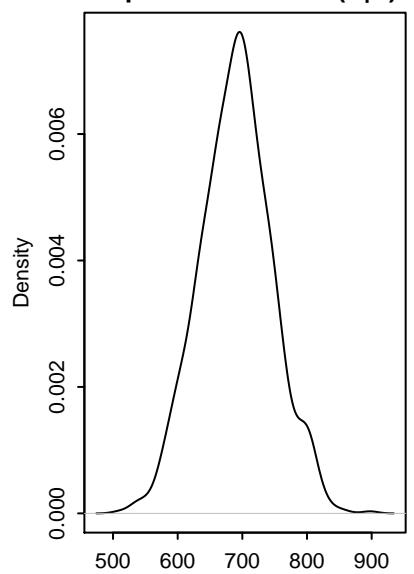
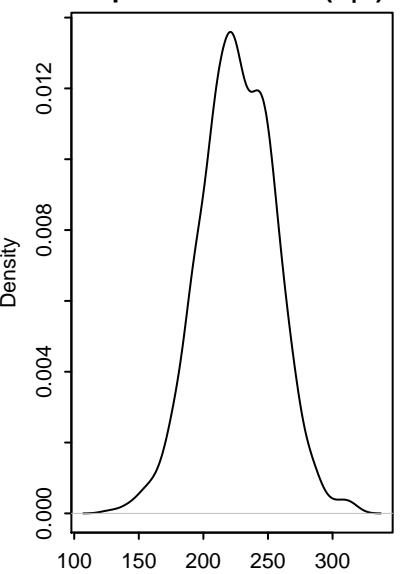
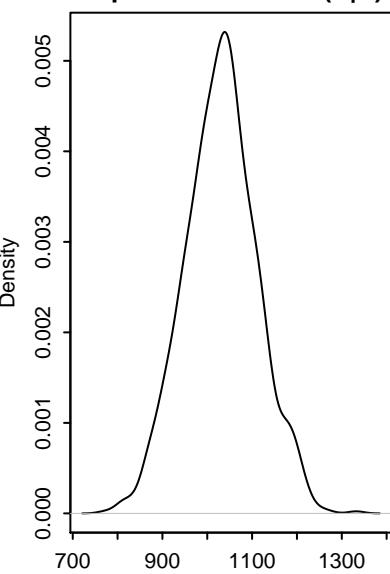
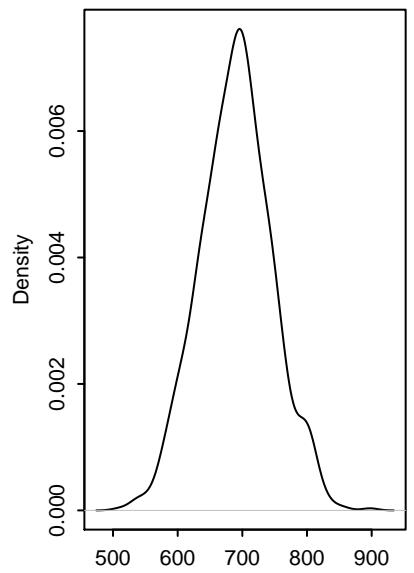
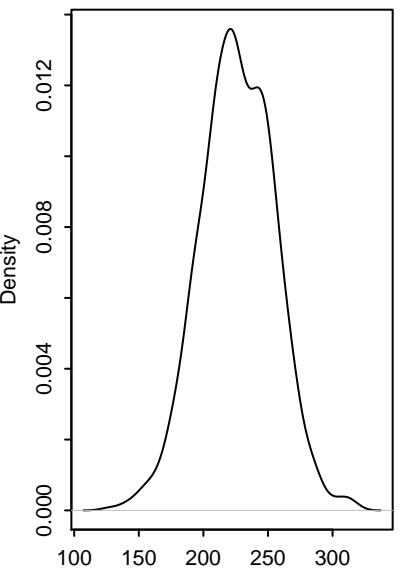
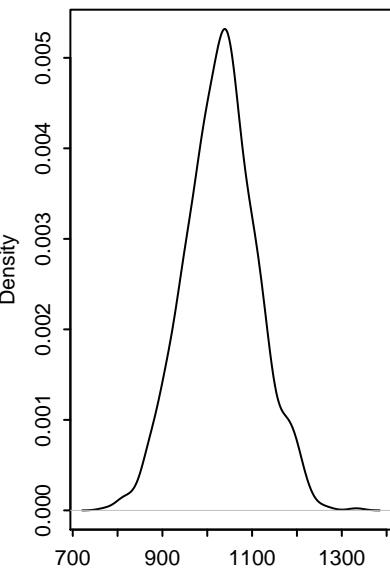


**Predicted Values:  $Y|X$**

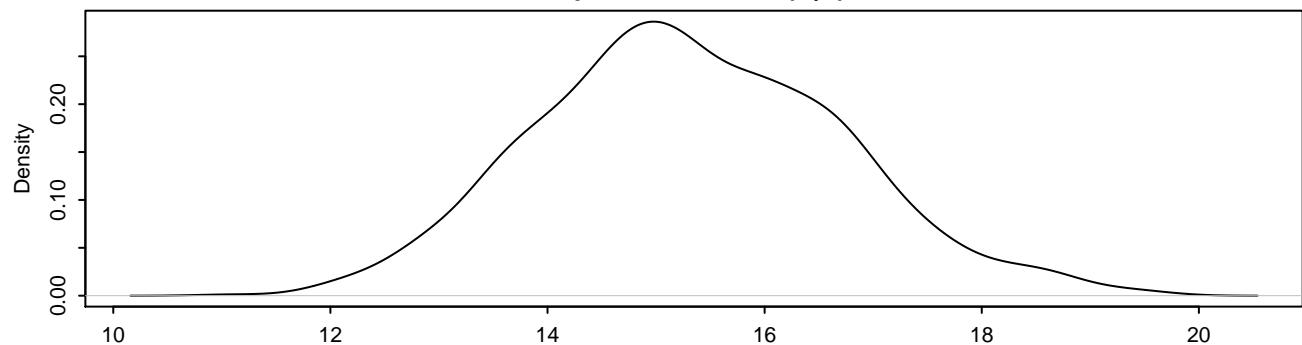


**Predicted Values:  $Y|X$**

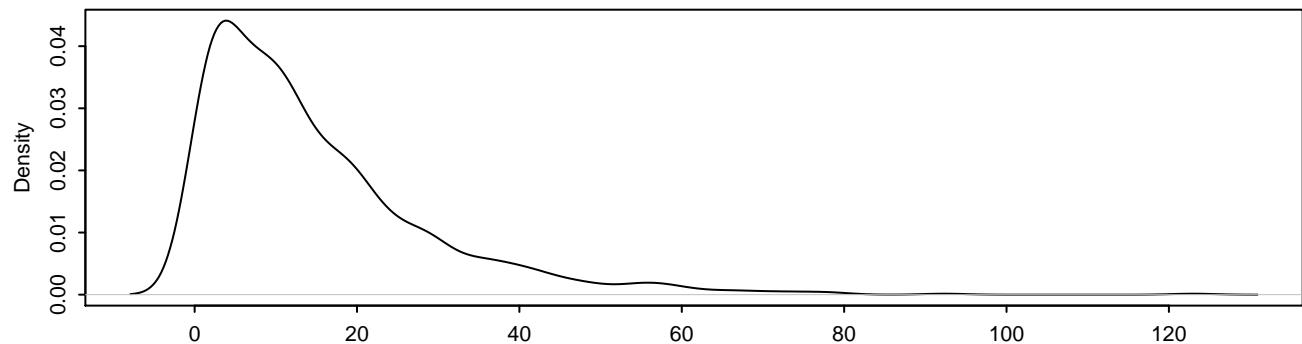


**Expected Values:  $E(Y|X)$** **Expected Values:  $E(Y|X)$** **Expected Values:  $E(Y|X)$** **Predicted Values:  $Y|X$** **Predicted Values:  $Y|X$** **Predicted Values:  $Y|X$** 

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



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



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

