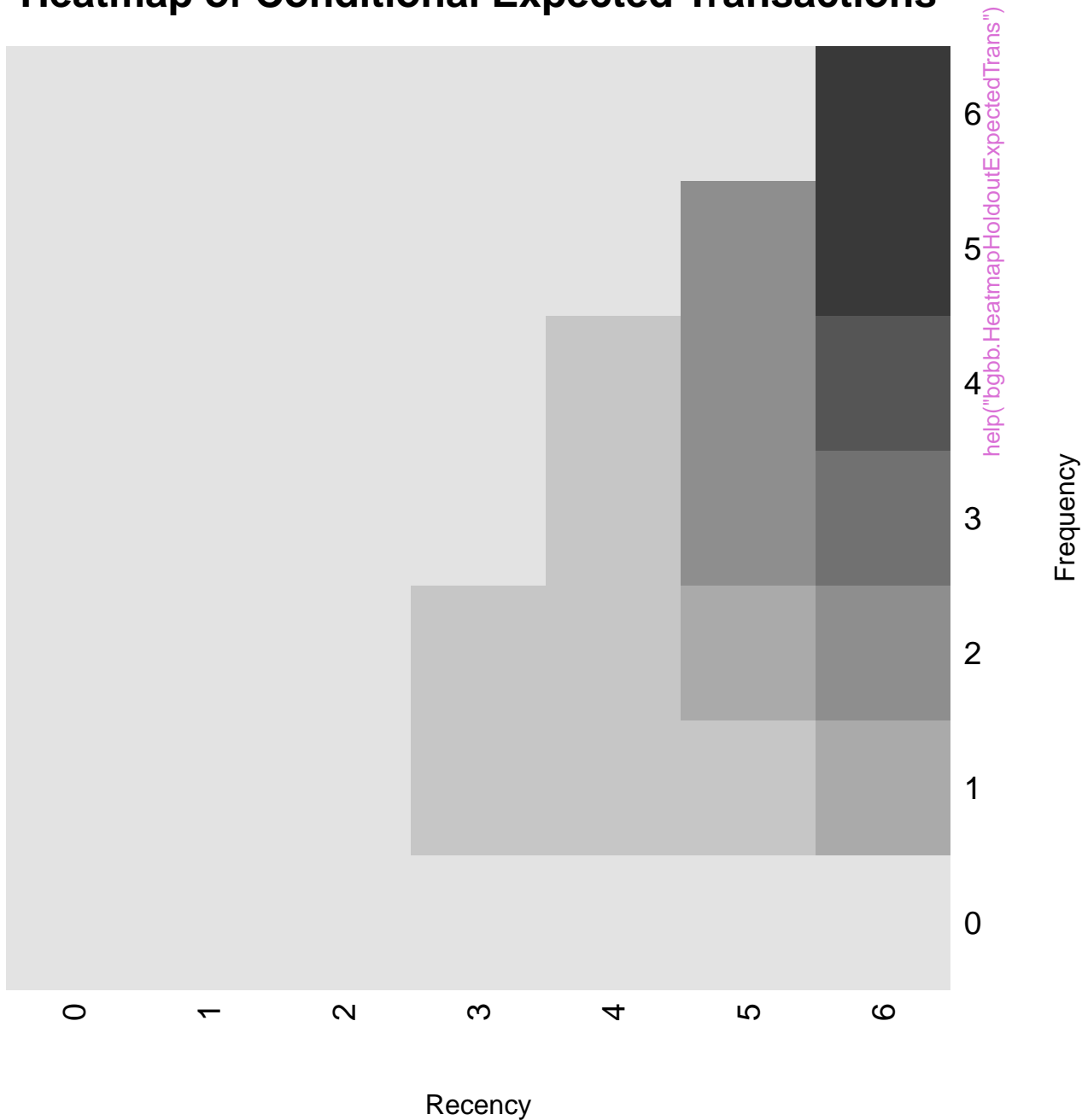# Heatmap of Conditional Expected Transactions
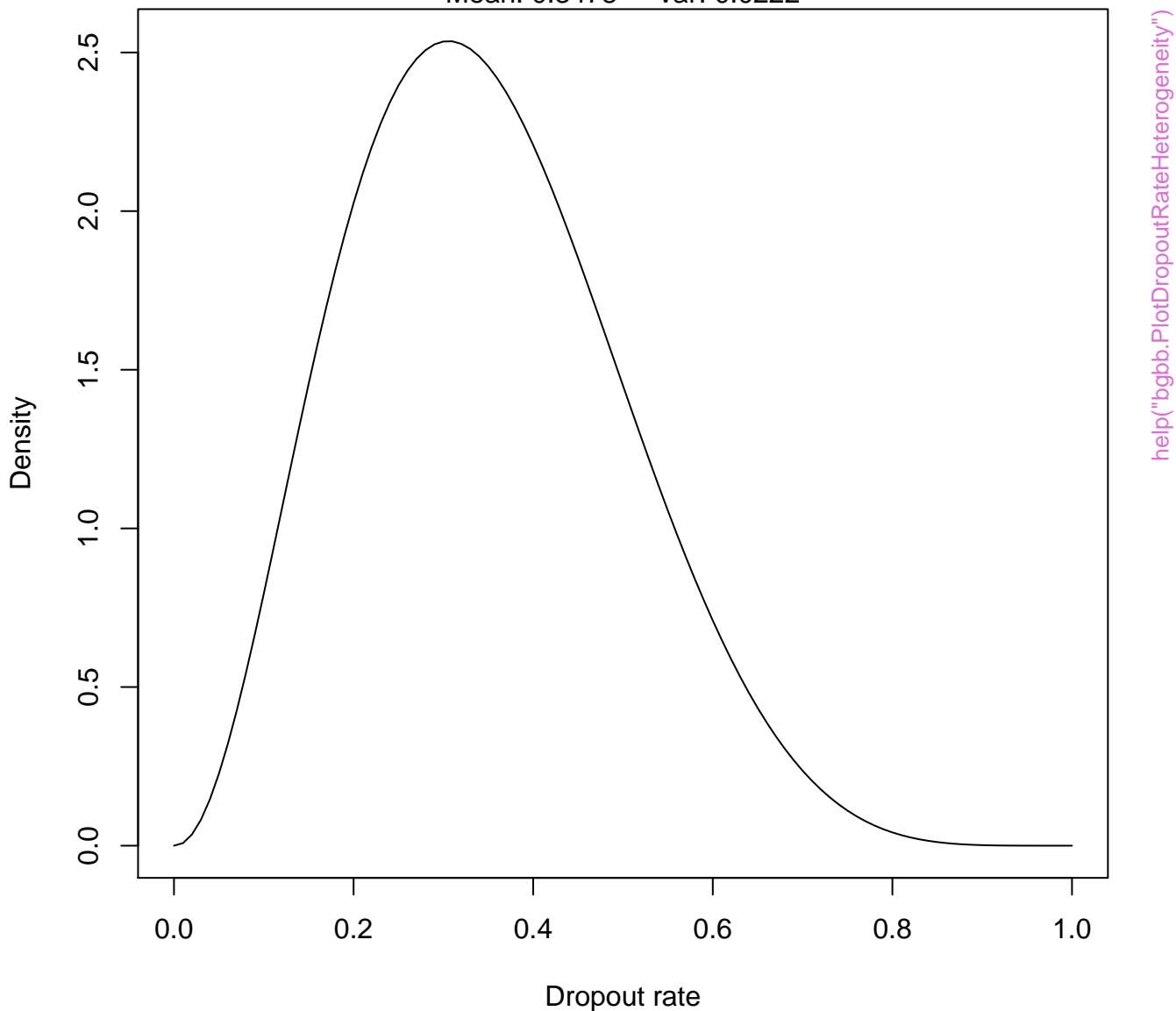
Heterogeneity in Dropout Rate

Mean: 0.1919   Var: 0.0349

help("bgbb.PlotDropoutRateHeterogeneity")
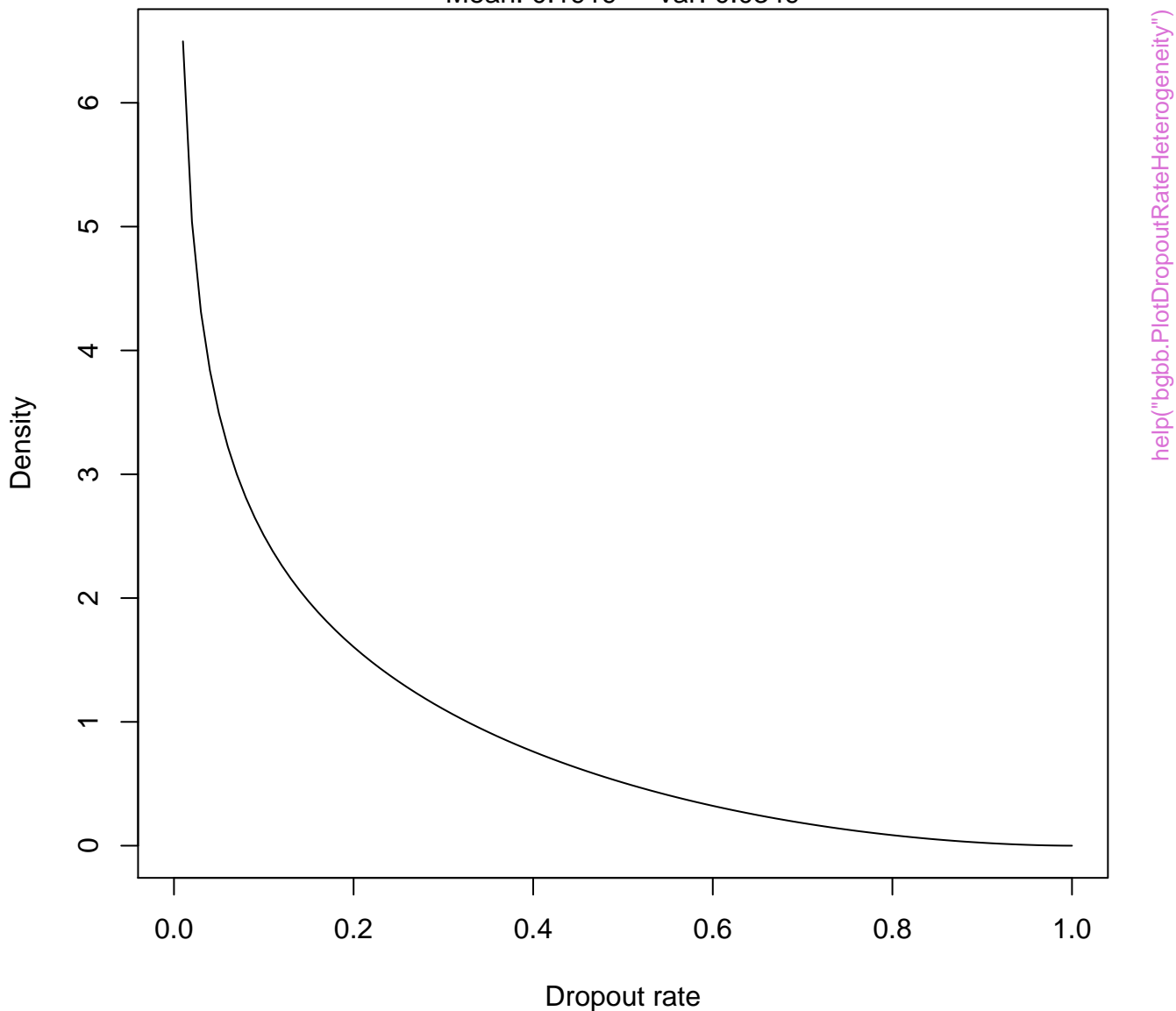
Heterogeneity in Dropout Rate

Mean: 0.3478   Var: 0.0222
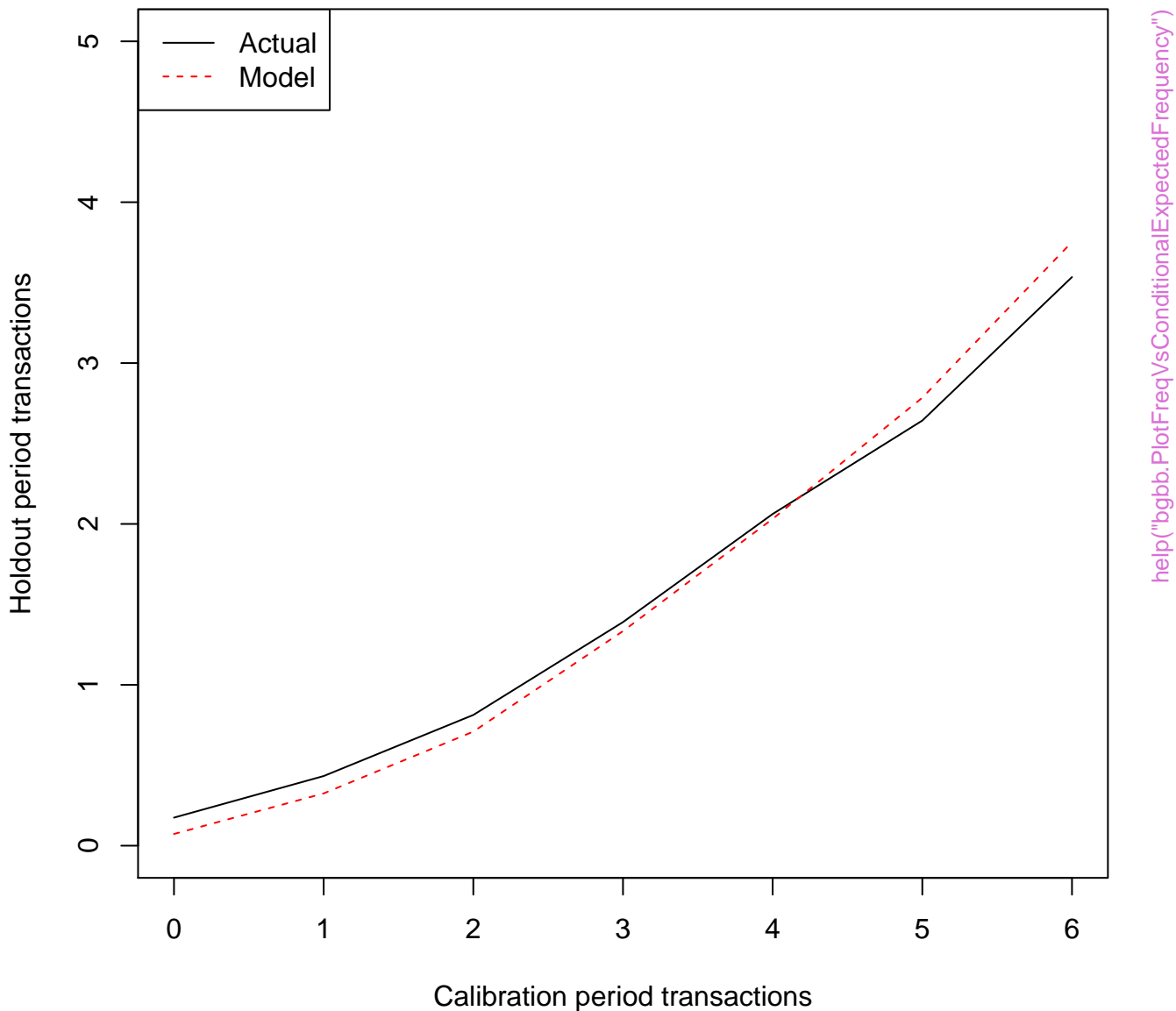
Density

Dropout rate

help("bgbb.PlotDropoutRateHeterogeneity")

Conditional Expectation

Holdout period transactions

Calibration period transactions

Actual
Model

help("bgbb.PlotFreqVsConditionalExpectedFrequency")

Frequency of Repeat Transactions

Legend:
- Actual (black)
- Model (red)

Y-axis: Customers (0, 500, 1000, 1500, 2000, 2500, 3000, 3500)

X-axis: Calibration period transactions (0, 1, 2, 3, 4, 5, 6)

help("bgbb.PlotFrequencyInCalibration")

Frequency of Repeat Transactions

Customers

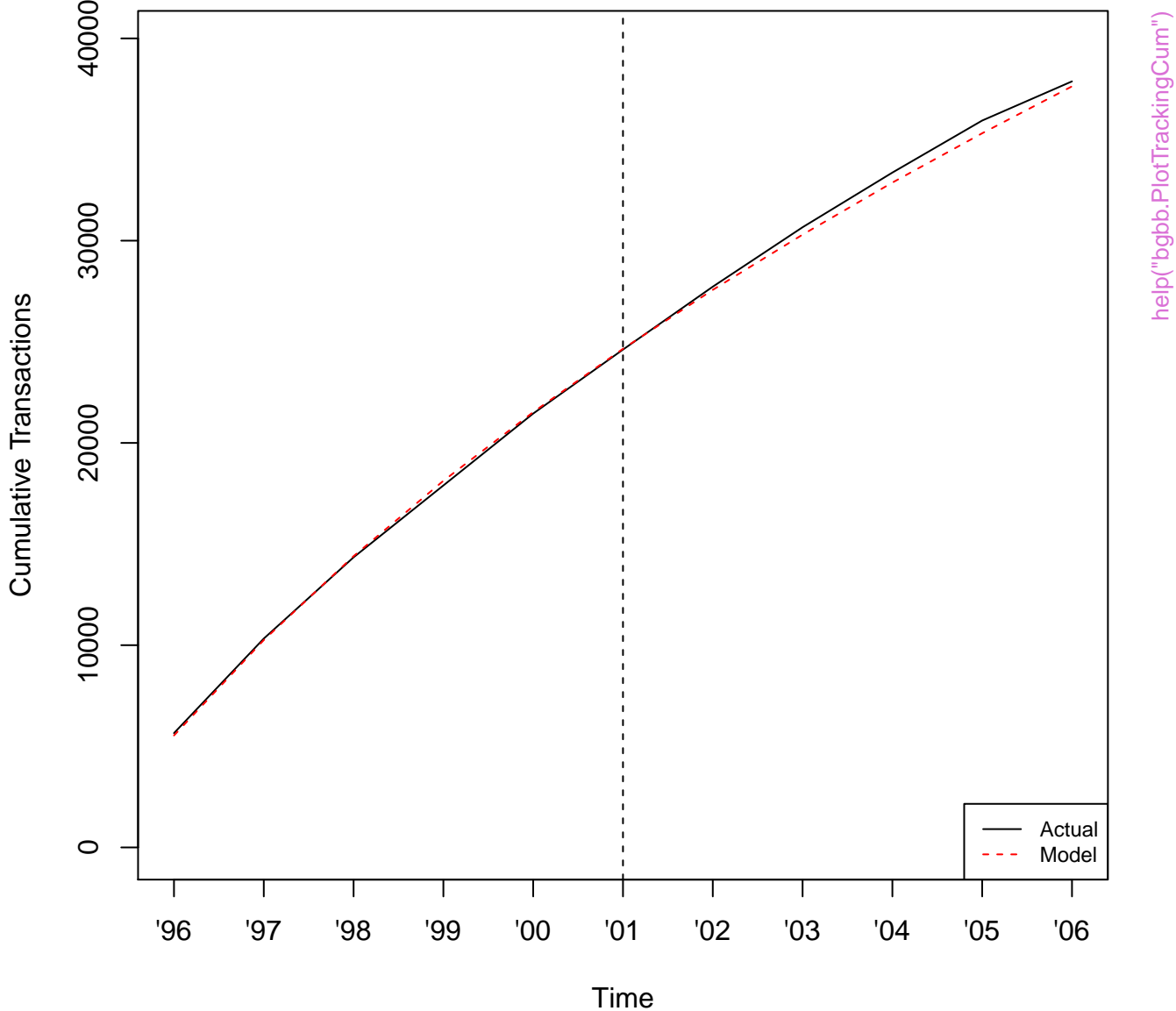Holdout period transactions

Actual
Model

help("bgbb.PlotFrequencyInHoldout")
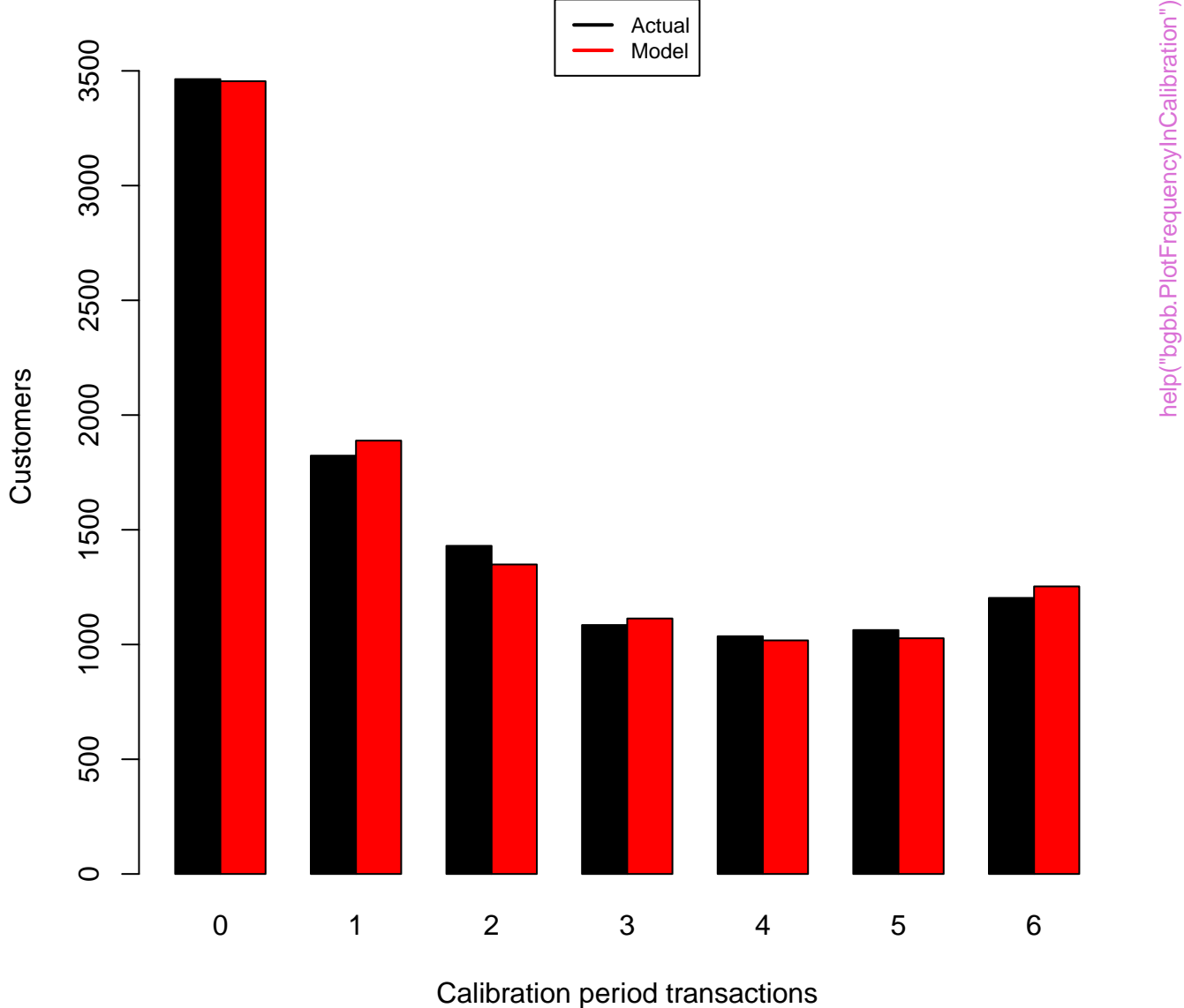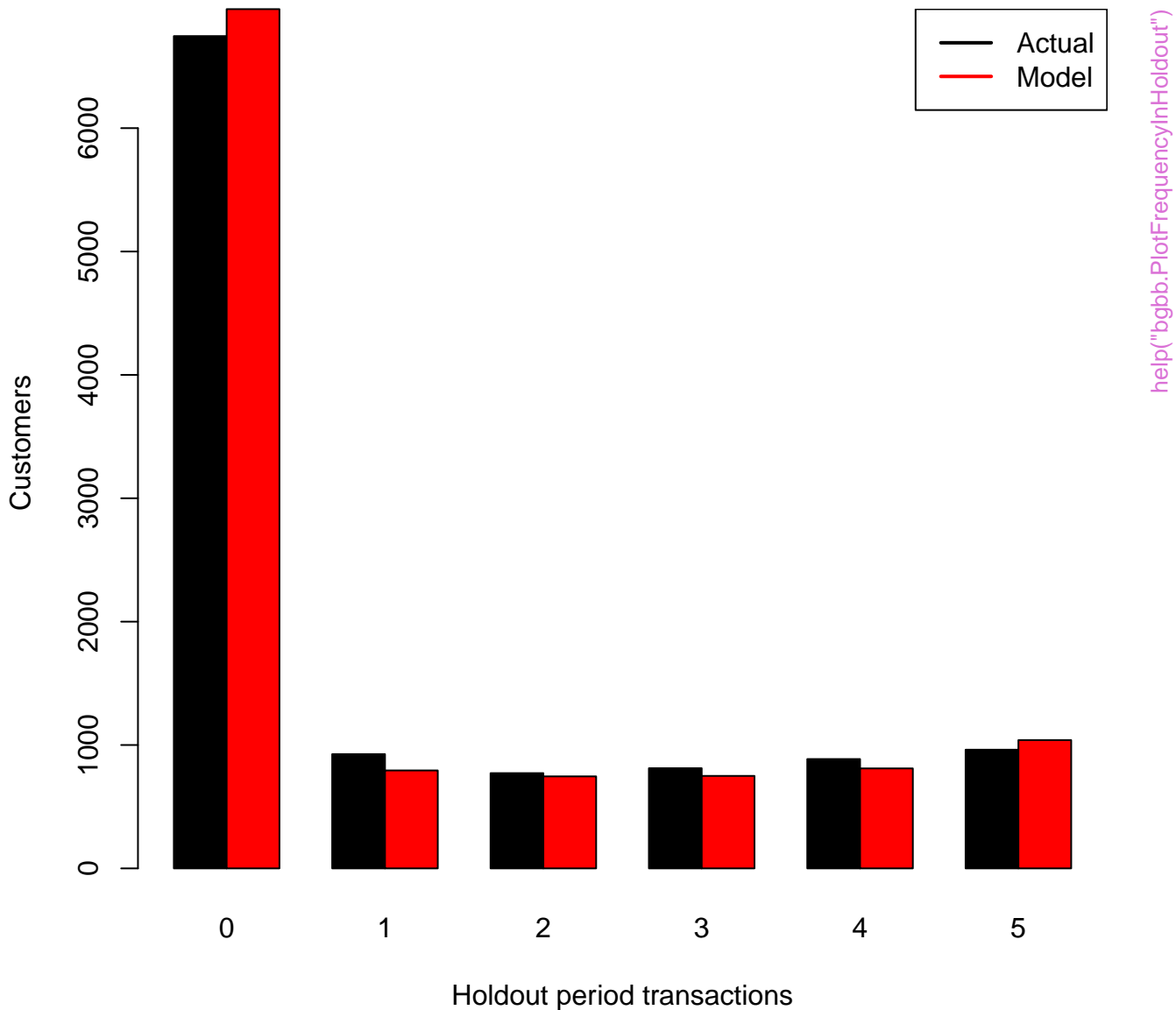
Conditional Expected Transactions by Recency
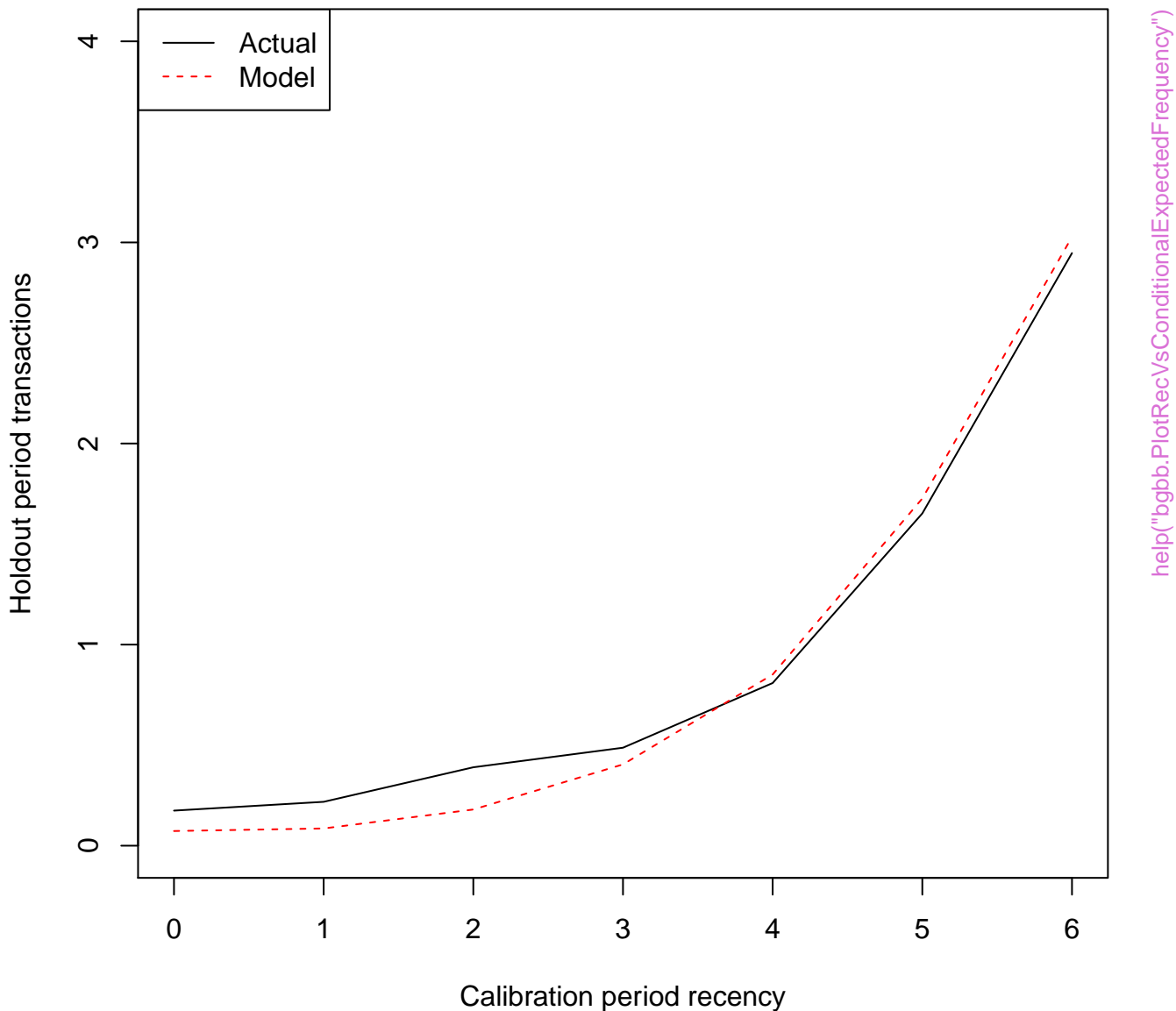
help("bgbb.PlotRecVsConditionalExpectedFrequency")

Tracking Cumulative Transactions

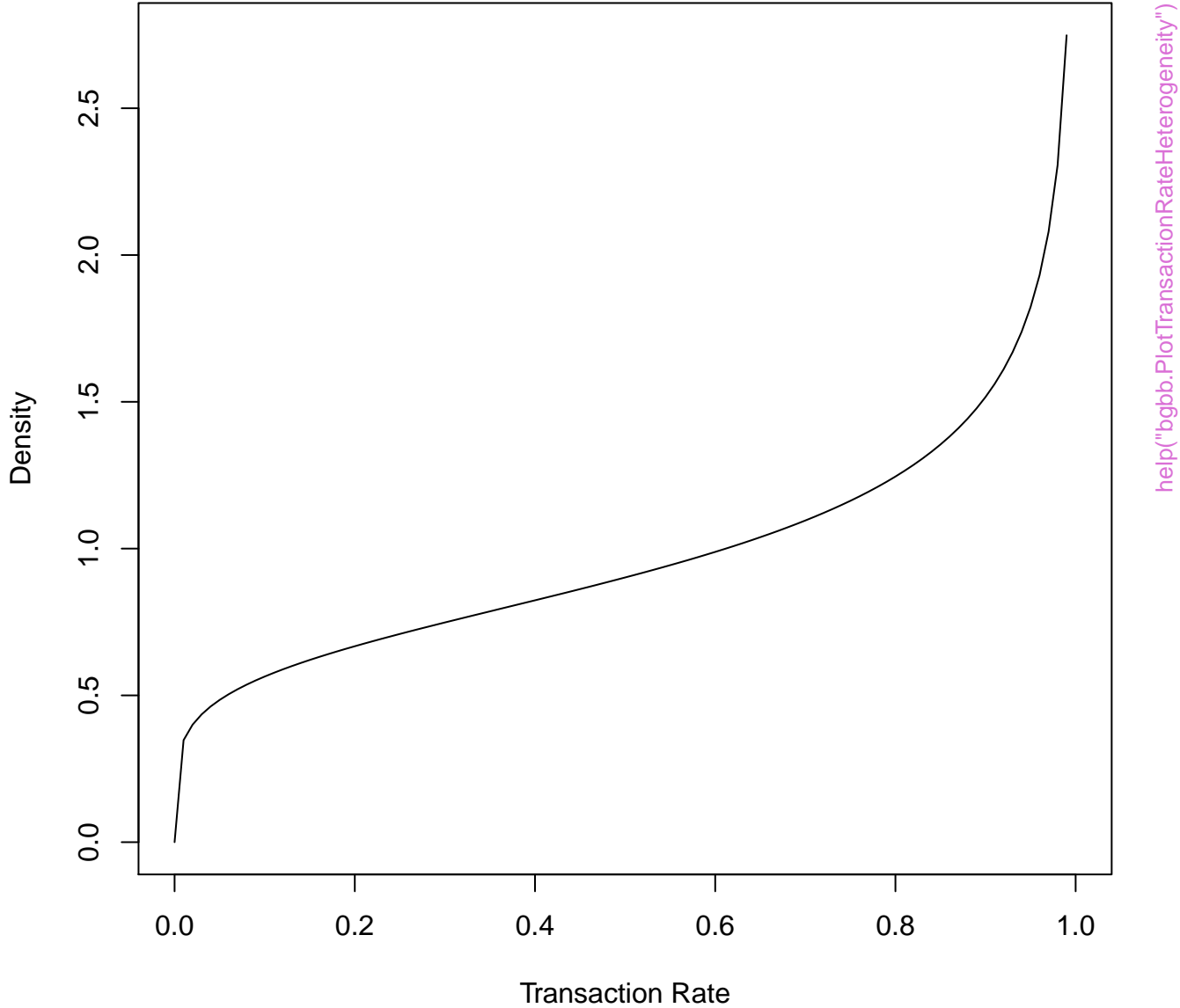Cumulative Transactions

Time

Actual
Model

help("bgbb.PlotTrackingCum")

'96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06

Tracking Incremental Transactions

Transactions

'96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06

Time

Actual
Model

help("bgbb.PlotTrackingInc")
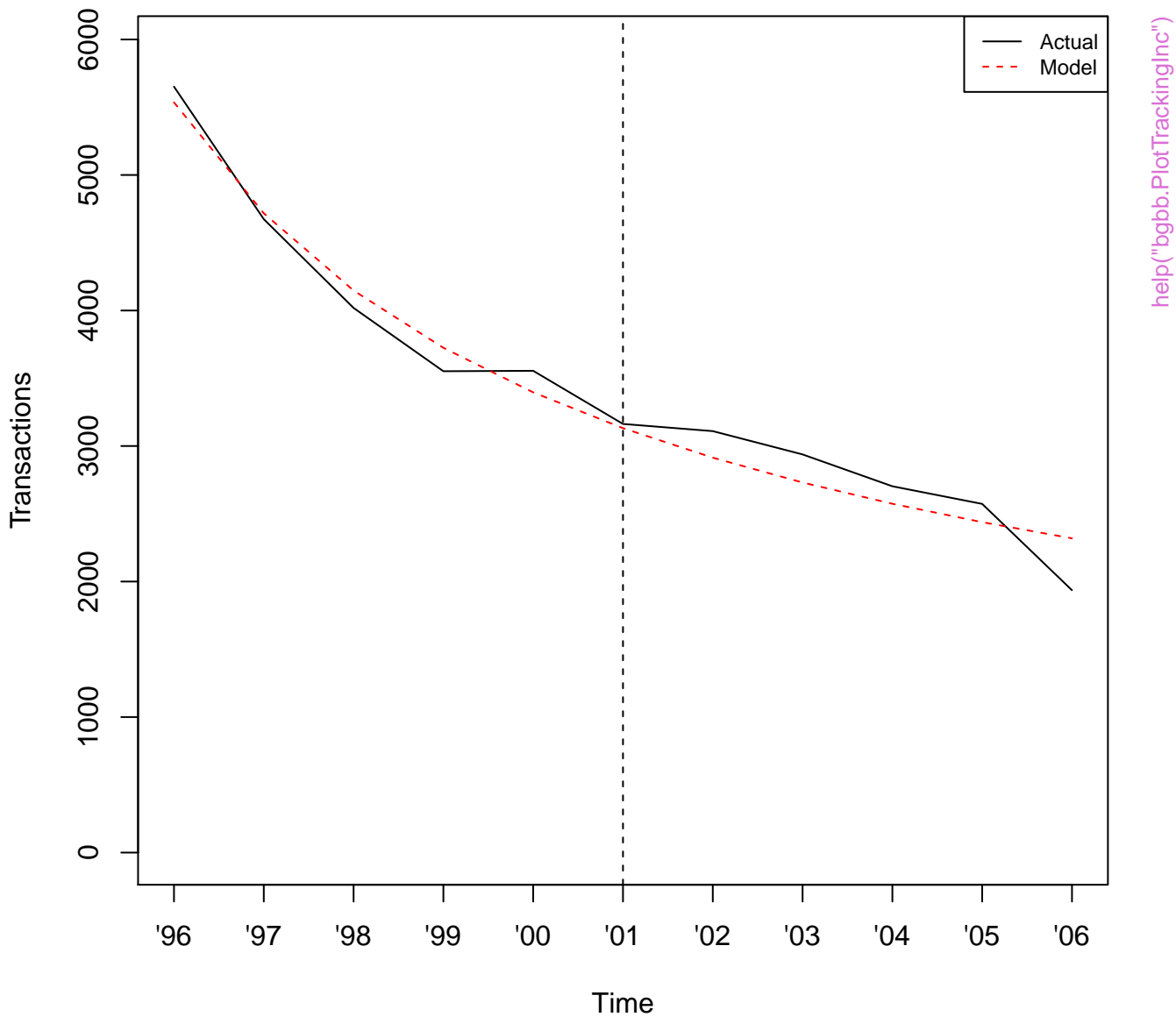
Heterogeneity in Transaction Rate

Mean: 0.6154   Var: 0.0802

Density

Transaction Rate

help("bgbb.PlotTransactionRateHeterogeneity")

Heterogeneity in Transaction Rate

Mean: 0.1176   Var: 0.0384

help("bgbb.PlotTransactionRateHeterogeneity")

density.default(x = p.alives)

help("bgnbd.PAlive")

N = 2357   Bandwidth = 0.04827
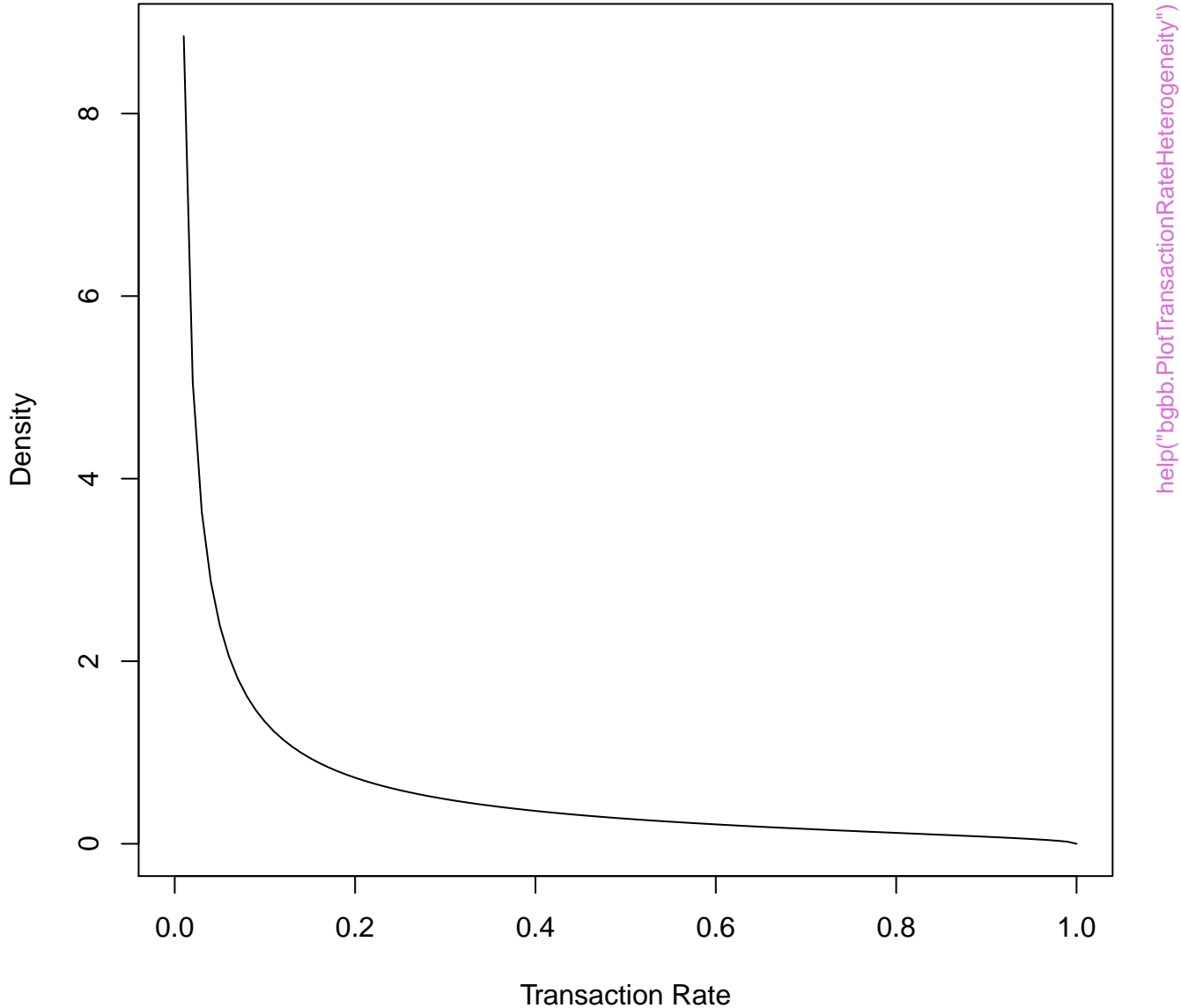
Density
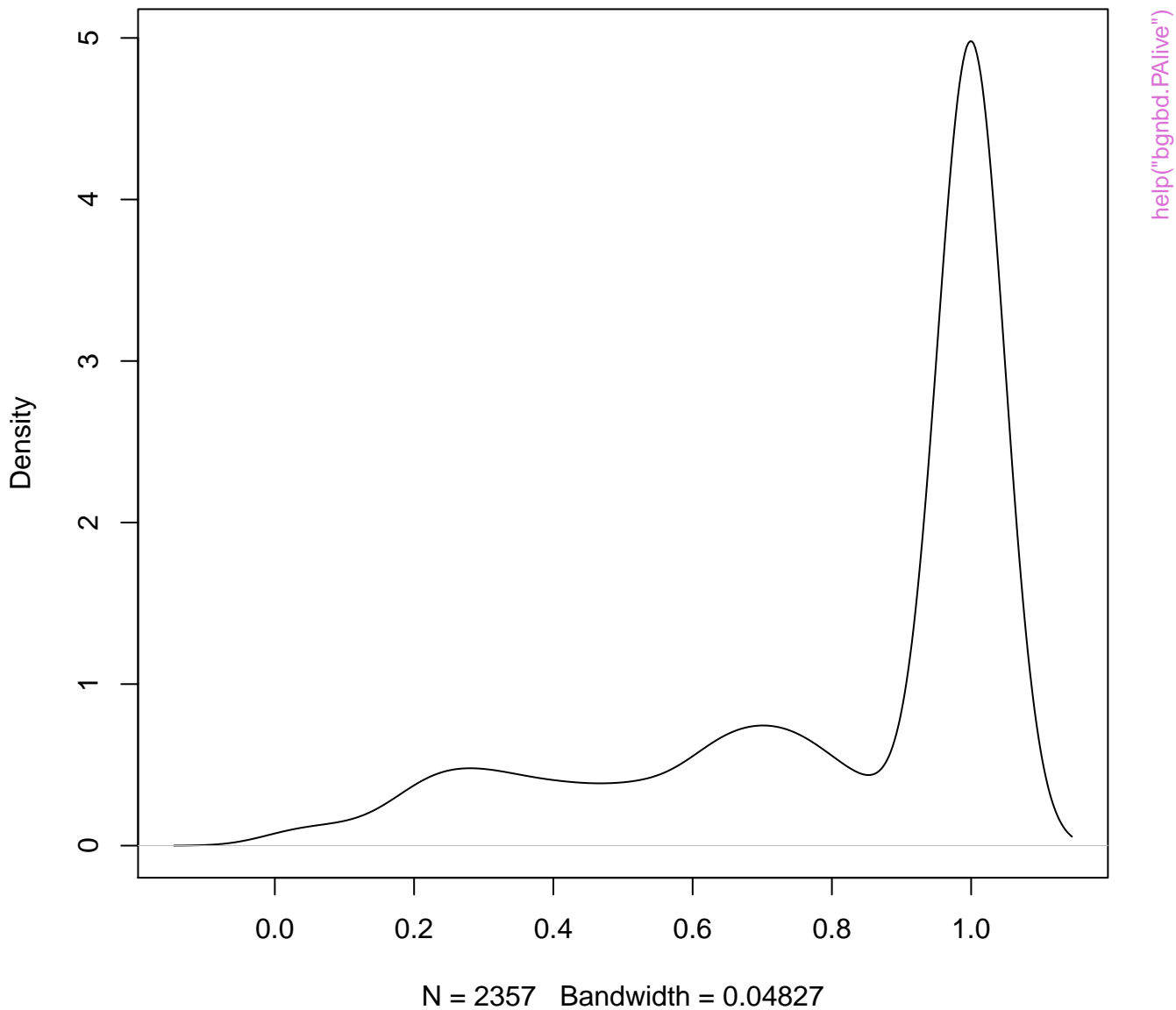
Heterogeneity in Dropout Probability

Mean: 0.2463   Var: 0.044

Density

Dropout Probability p

help("bgnbd.PlotDropoutRateHeterogeneity")
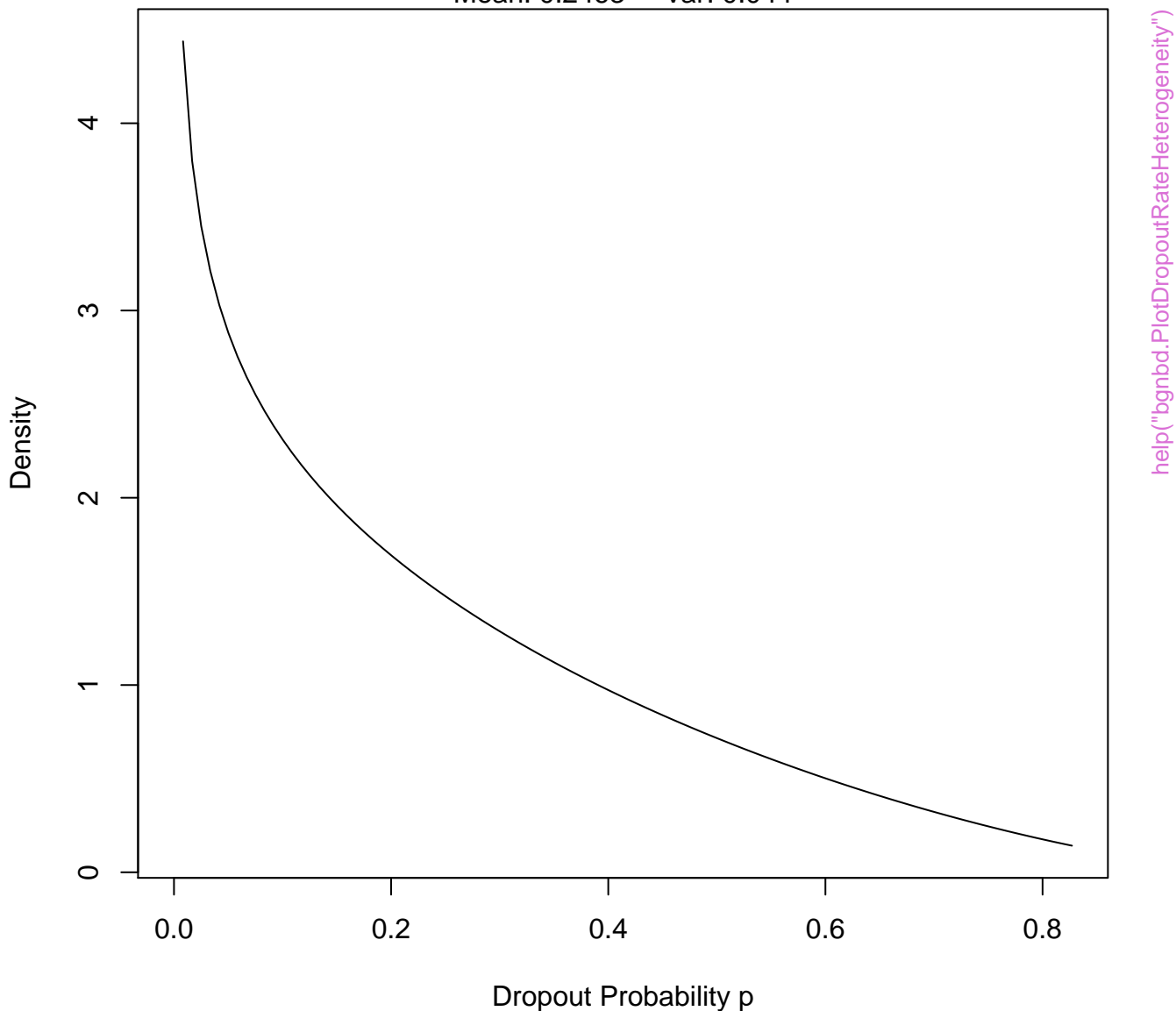
Heterogeneity in Dropout Probability

Mean: 0.3541   Var: 0.0481

Density

Dropout Probability p

help("bgnbd.PlotDropoutRateHeterogeneity")

Conditional Expectation

Calibration period transactions

Holdout period transactions

- Actual
- Model

help("bgnbd.PlotFreqVsConditionalExpectedFrequency")

Frequency of Repeat Transactions

Customers

help("bgnbd.PlotFrequencyInCalibration")
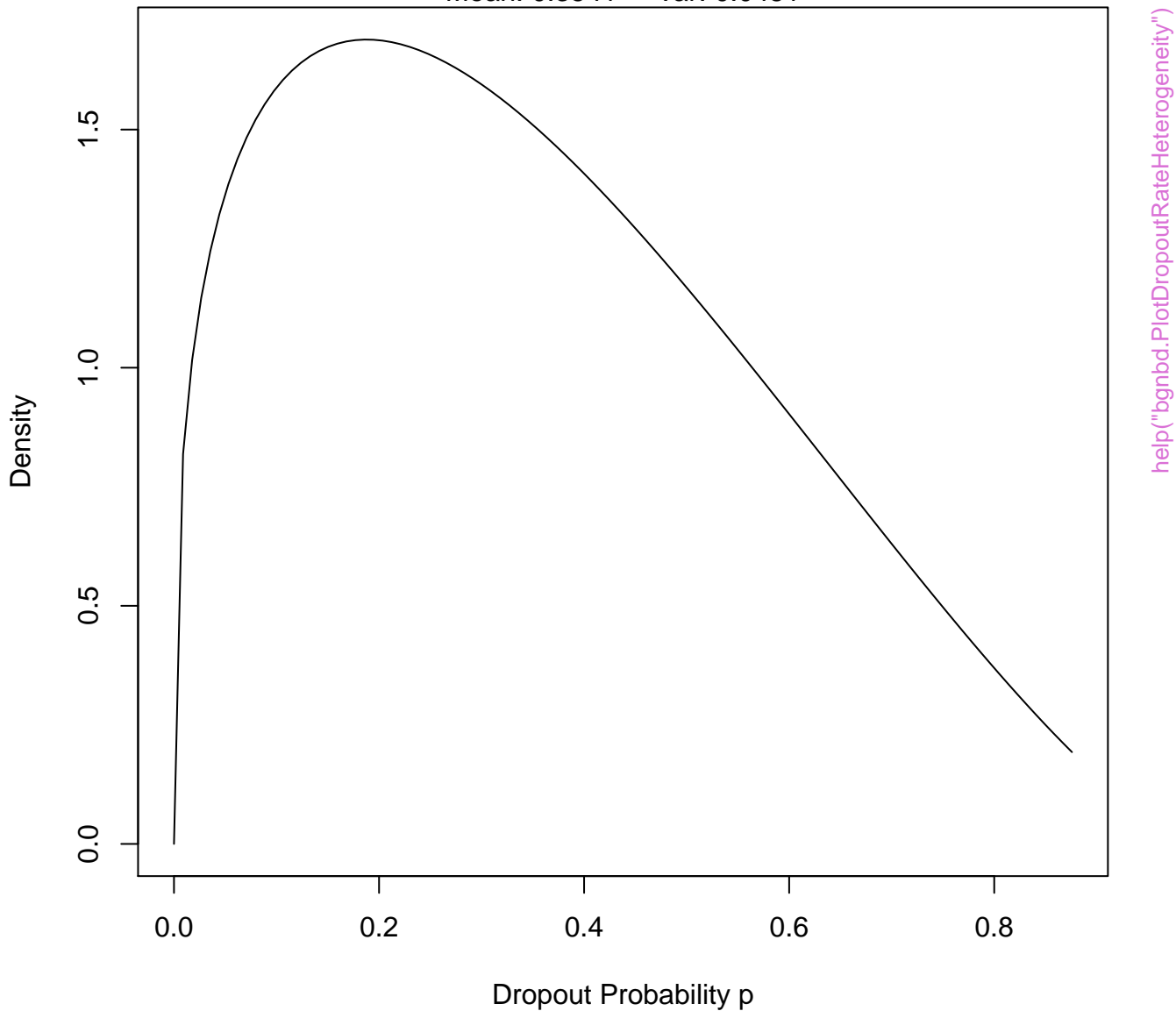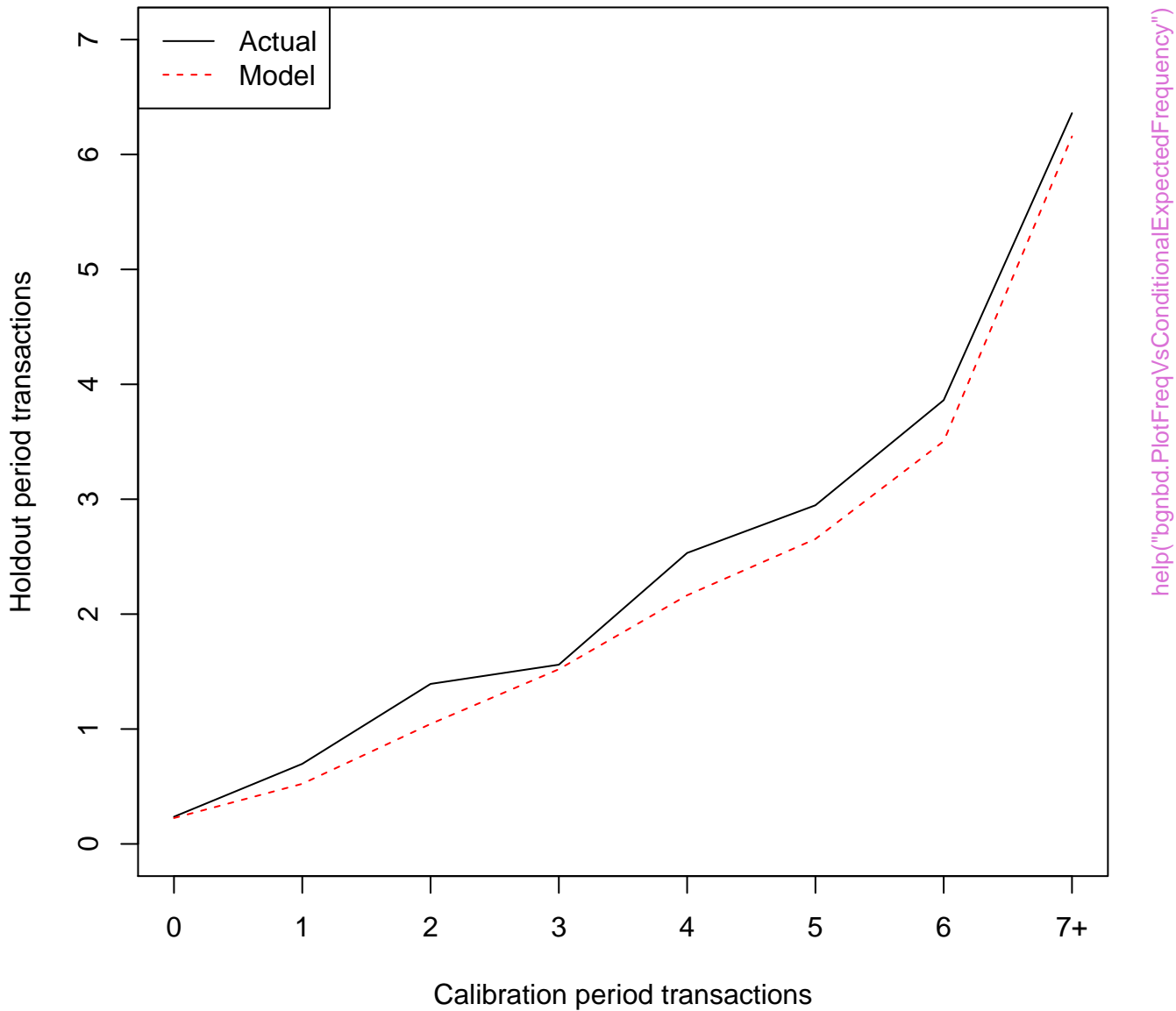
Calibration period transactions

Actual vs. Conditional Expected Transactions by Recency

Holdout period transactions

Calibration period recency

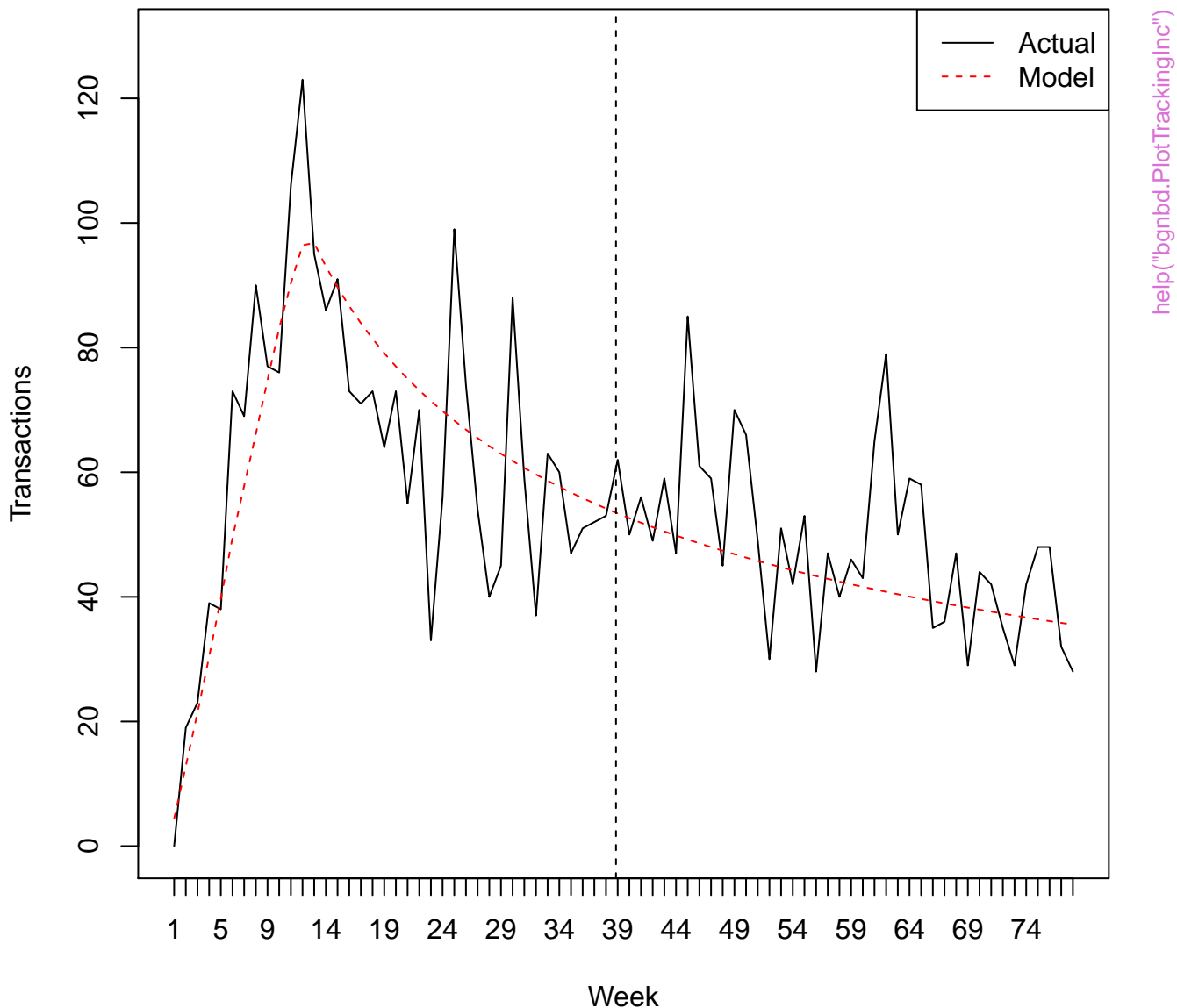help("bgnbd.PlotRecVsConditionalExpectedFrequency")
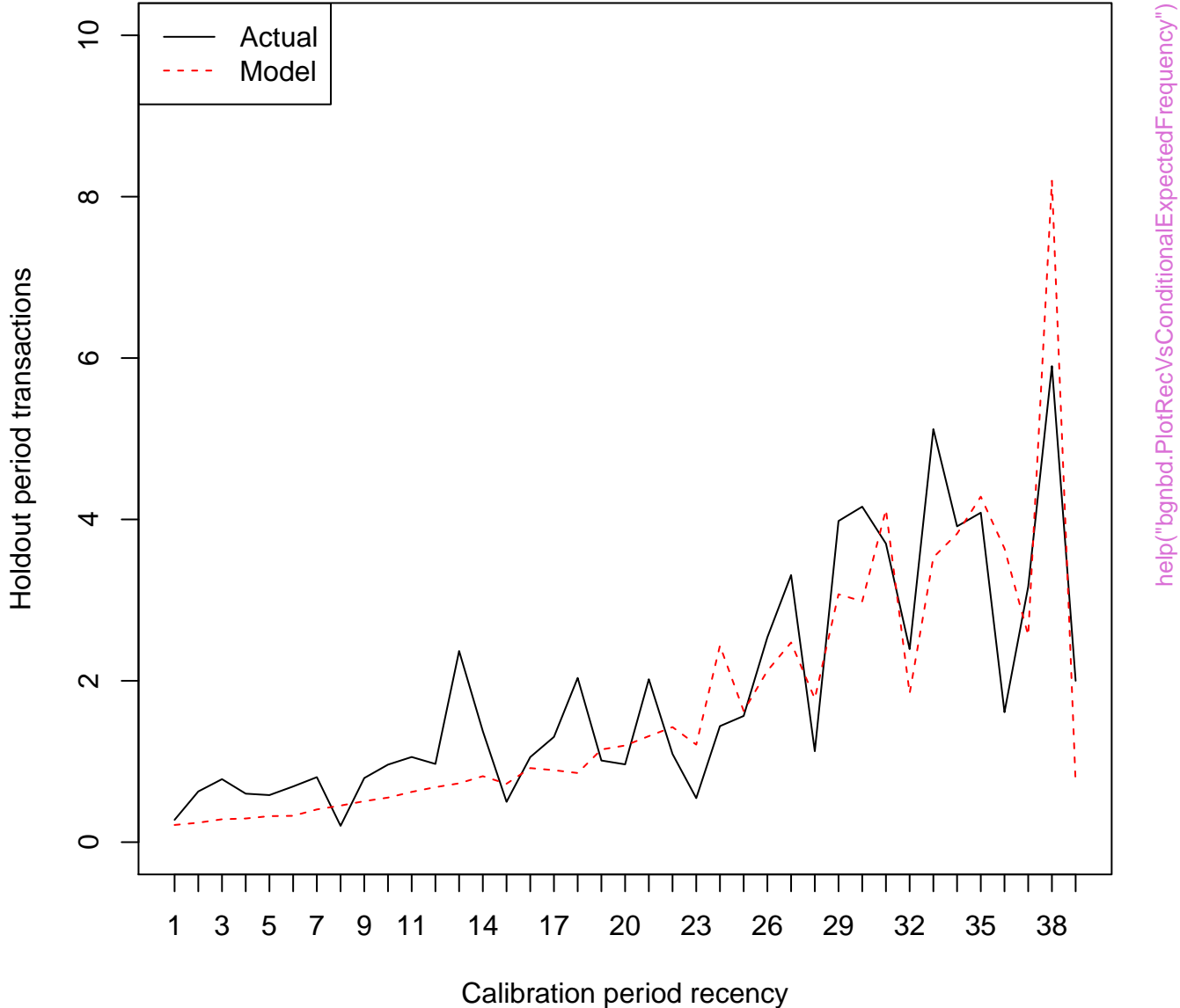
Tracking Cumulative Transactions
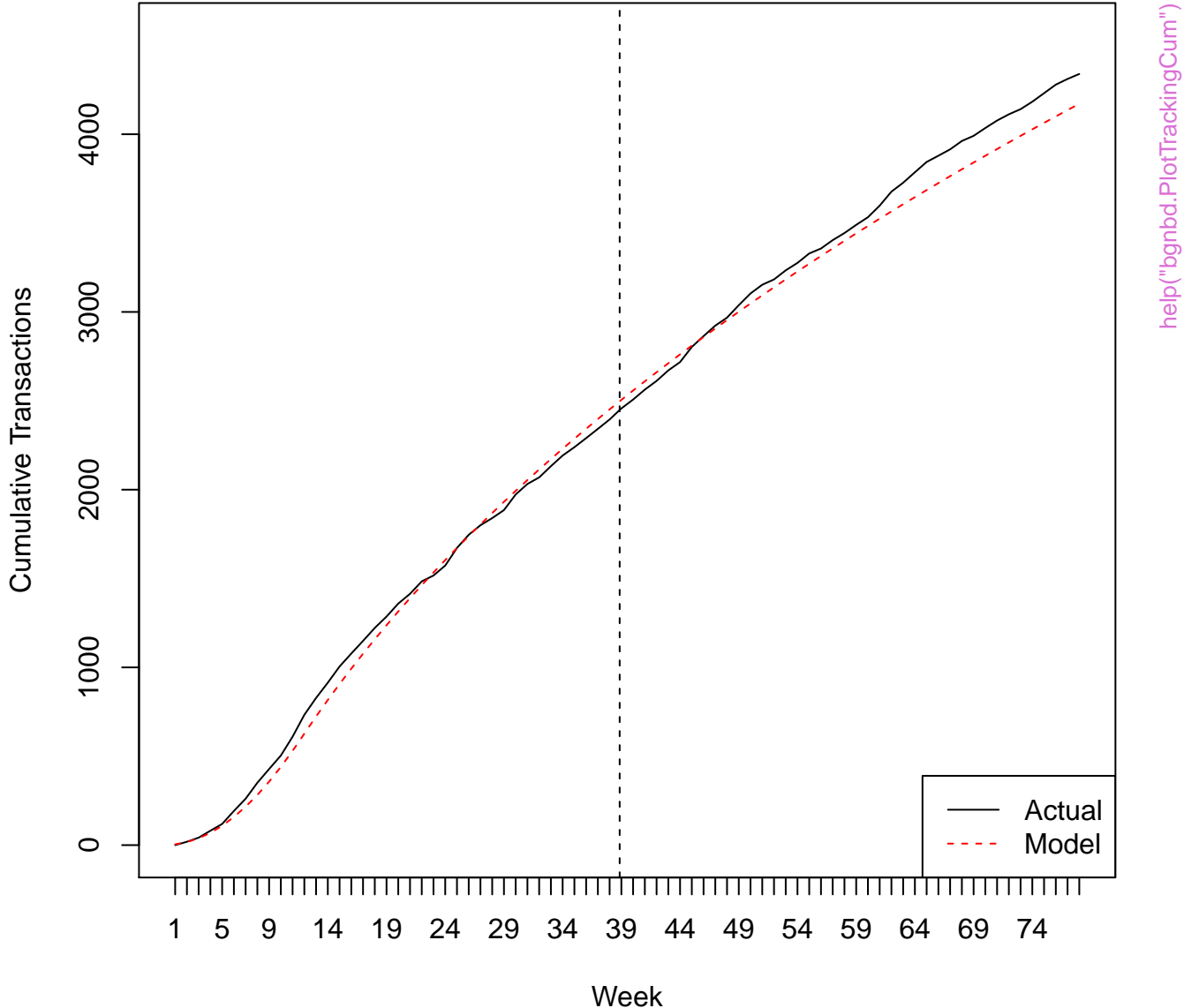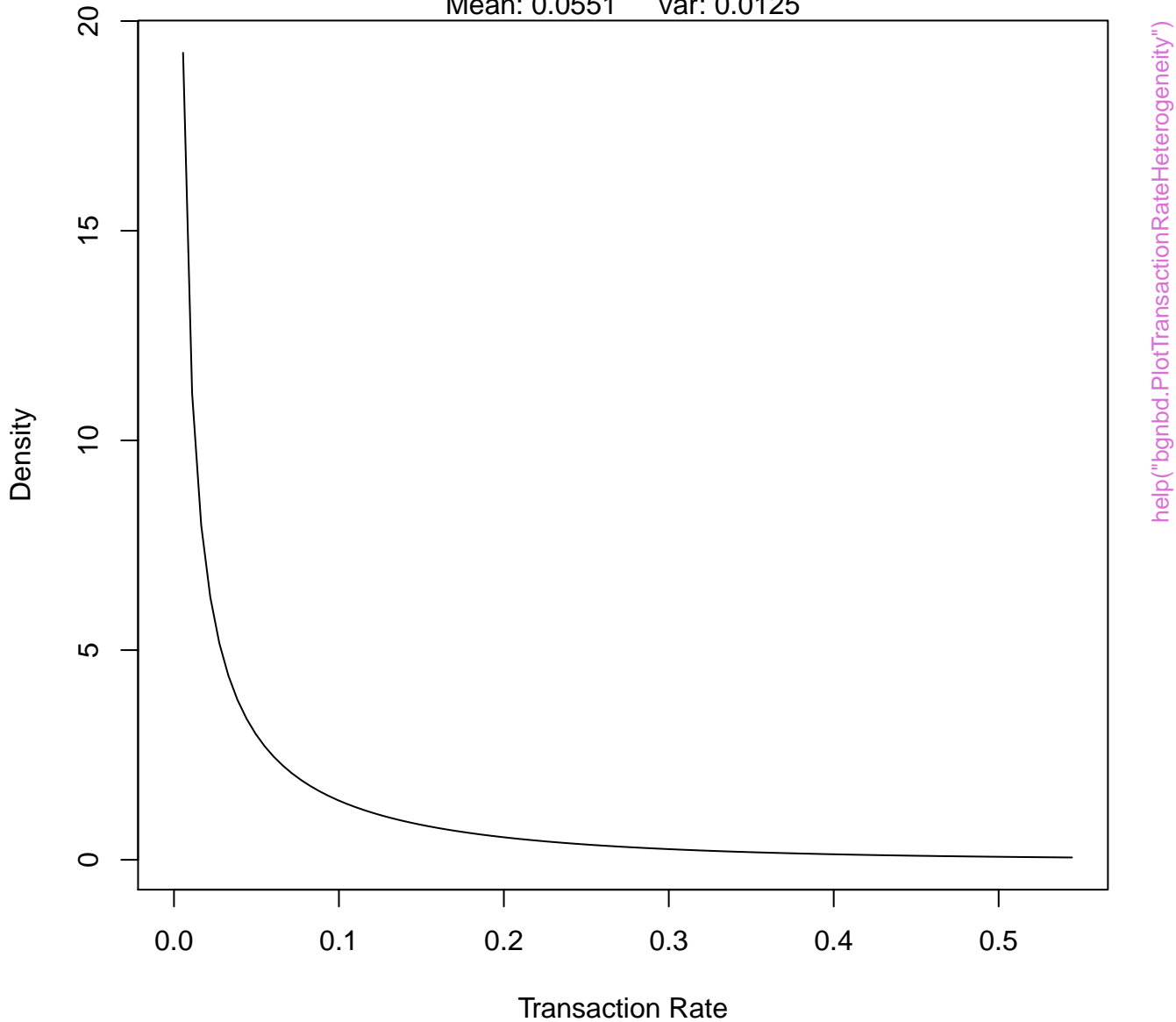

help("bgnbd.PlotTrackingCum")

Tracking Weekly Transactions

help("bgnbd.PlotTrackingInc")

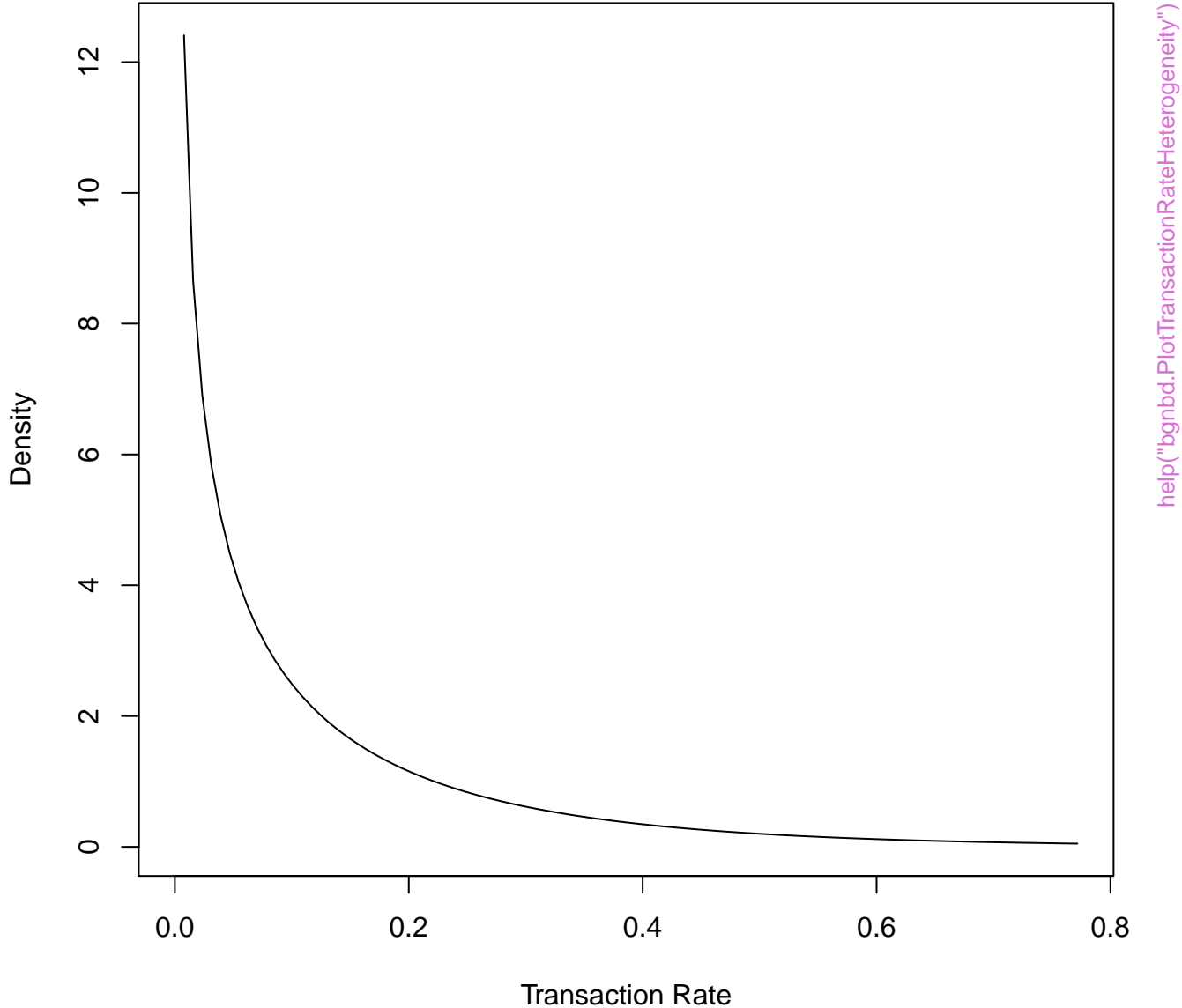# Heterogeneity in Transaction Rate
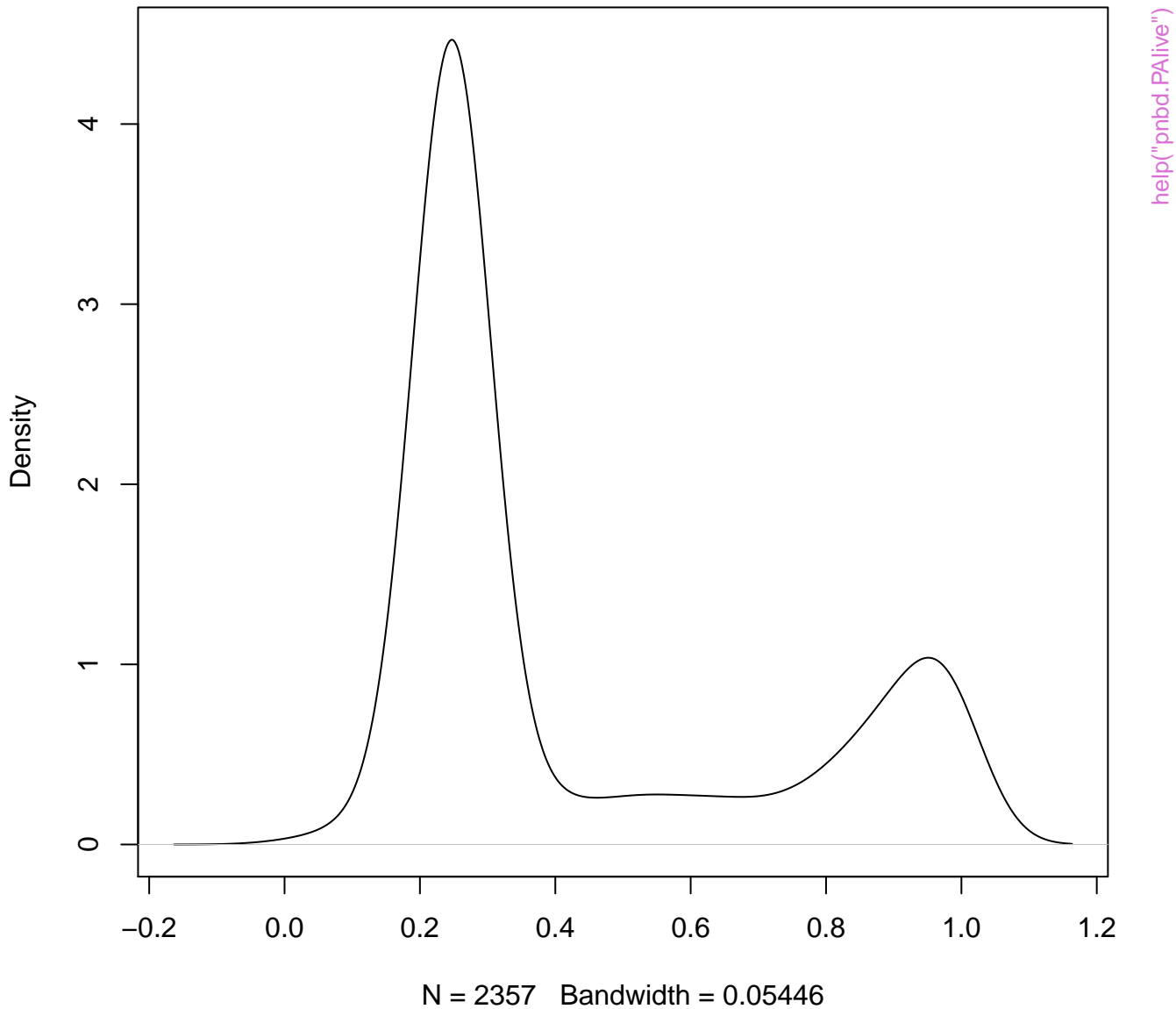
Mean: 0.0551   Var: 0.0125

help("bgnbd.PlotTransactionRateHeterogeneity")
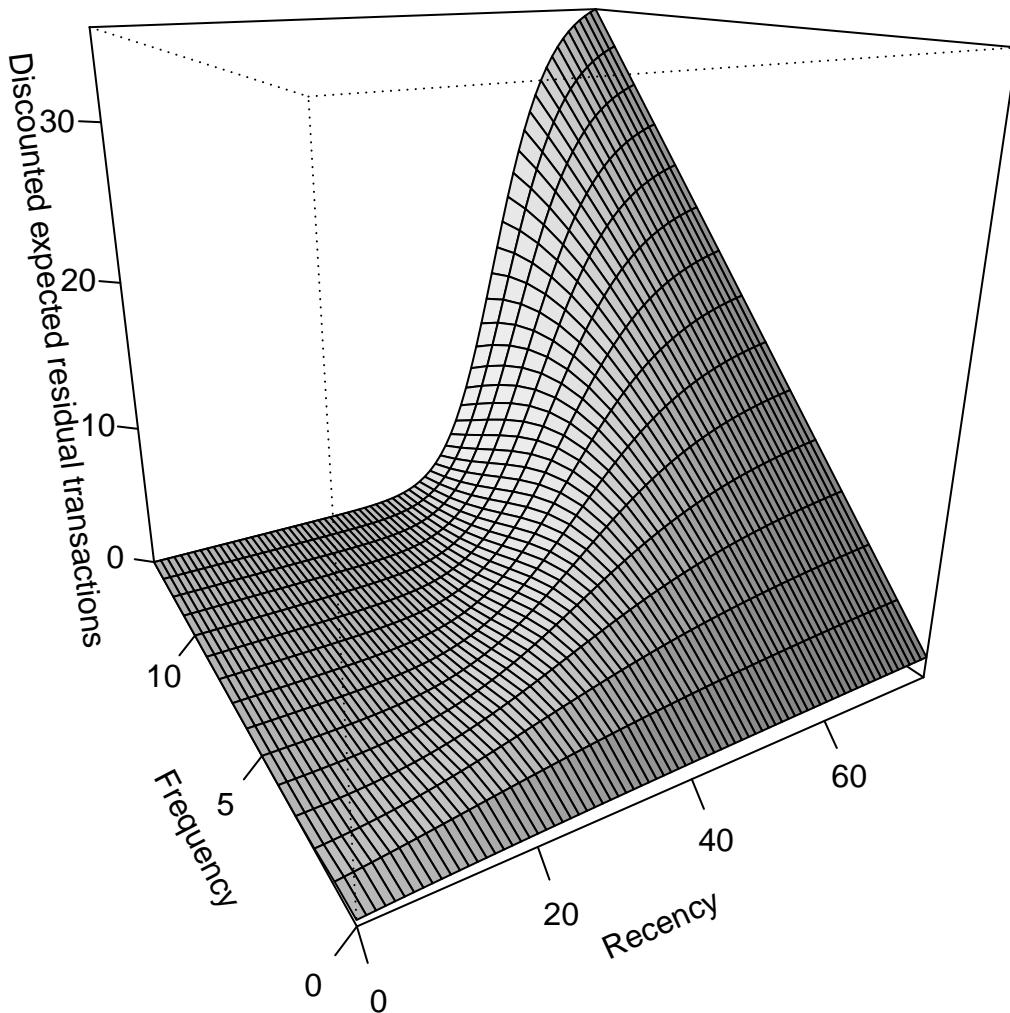
Heterogeneity in Transaction Rate

Mean: 0.1201   Var: 0.0272

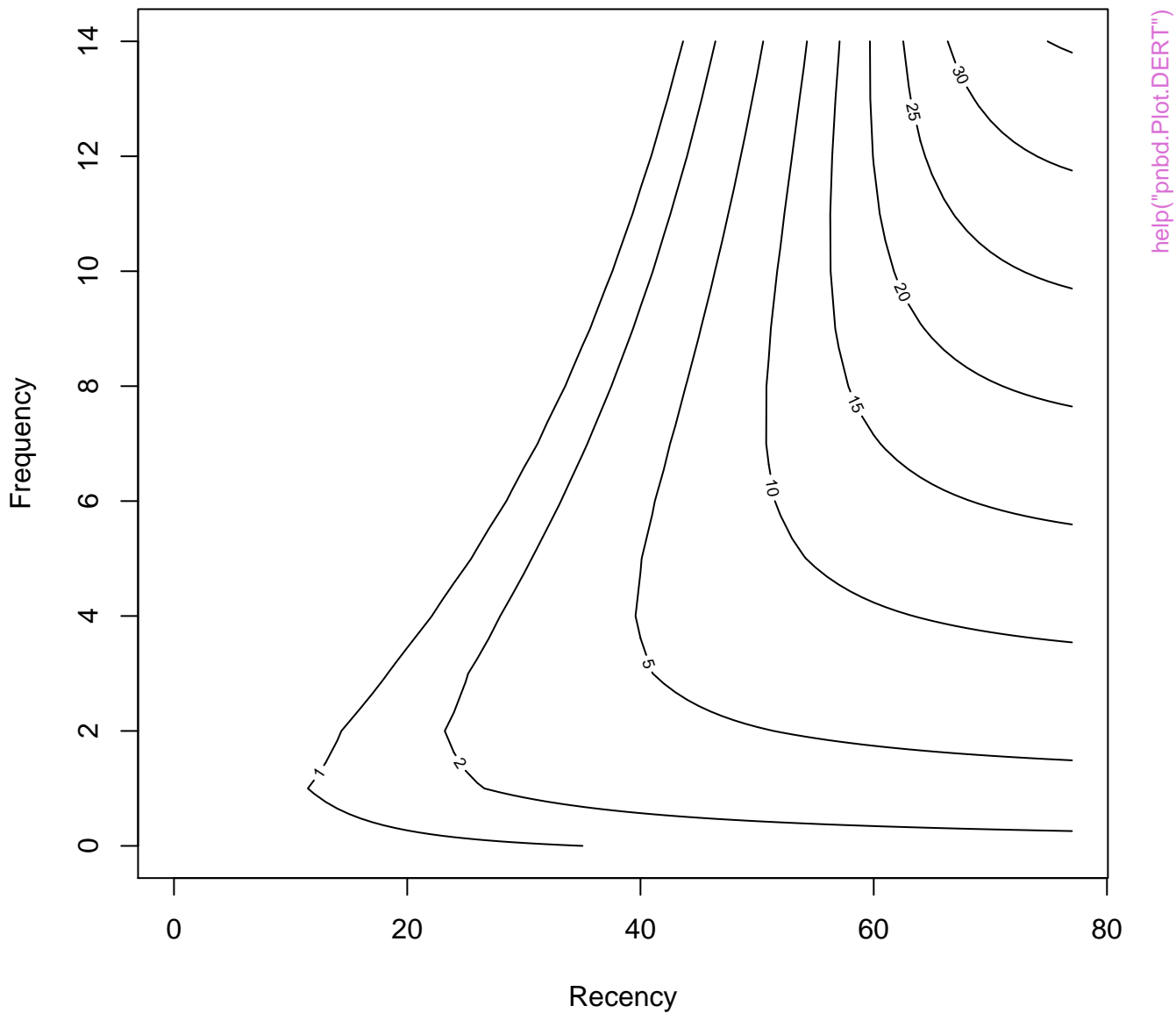Density

Transaction Rate

help("bgnbd.PlotTransactionRateHeterogeneity")

density.default(x = p.alives)

Density

N = 2357   Bandwidth = 0.05446

help("pnbd.PAlive")

DERT as a Function of Frequency and Recency

help("pnbd.Plot.DERT")

Iso−Value Representation of DERT

help("pnbd.Plot.DERT")

Frequency

Recency

Heterogeneity in Dropout Rate

Mean: 0.0524   Var: 0.0045

help("pnbd.PlotDropoutRateHeterogeneity")
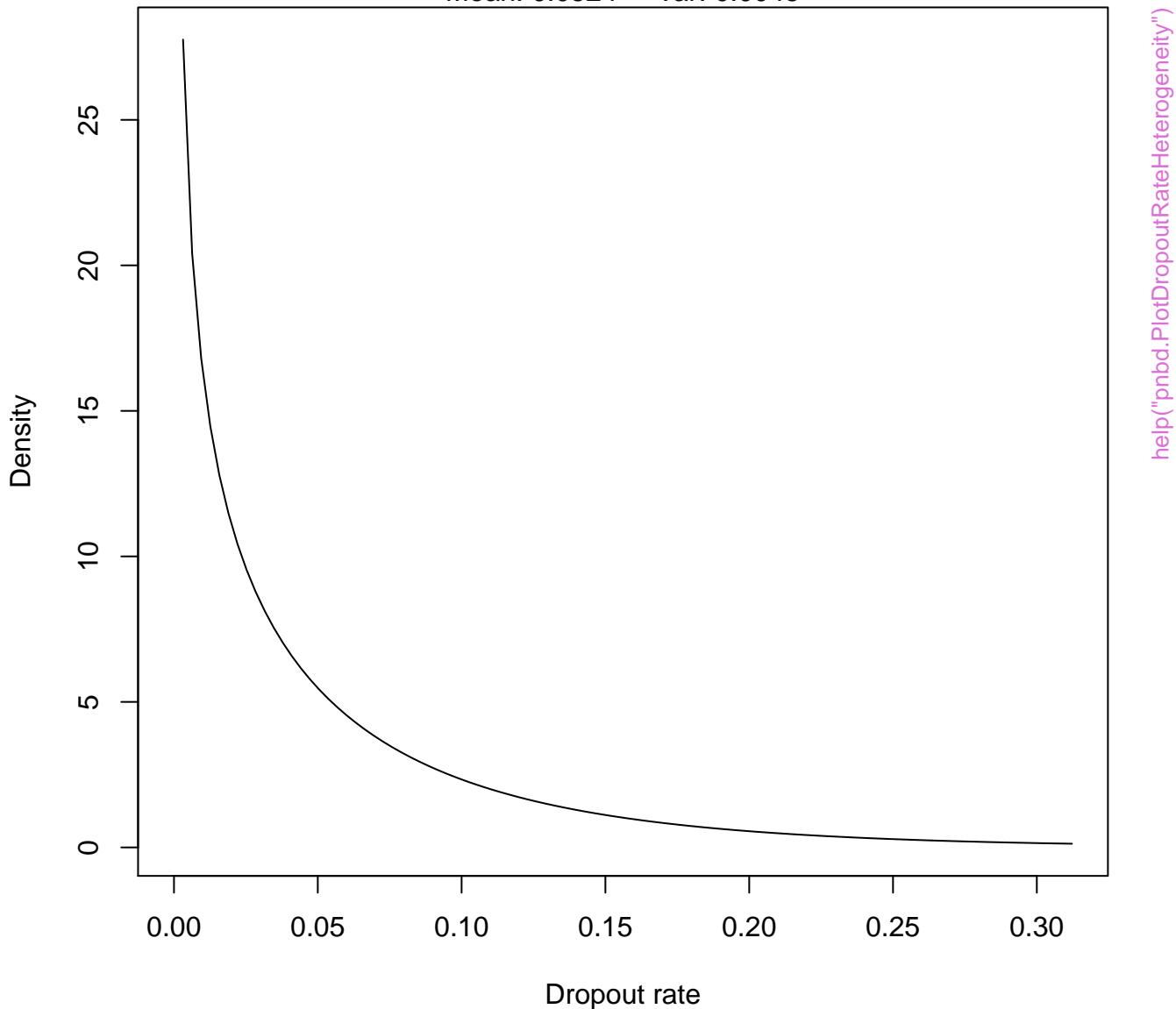
Heterogeneity in Dropout Rate

Mean: 0.2577   Var: 0.0221
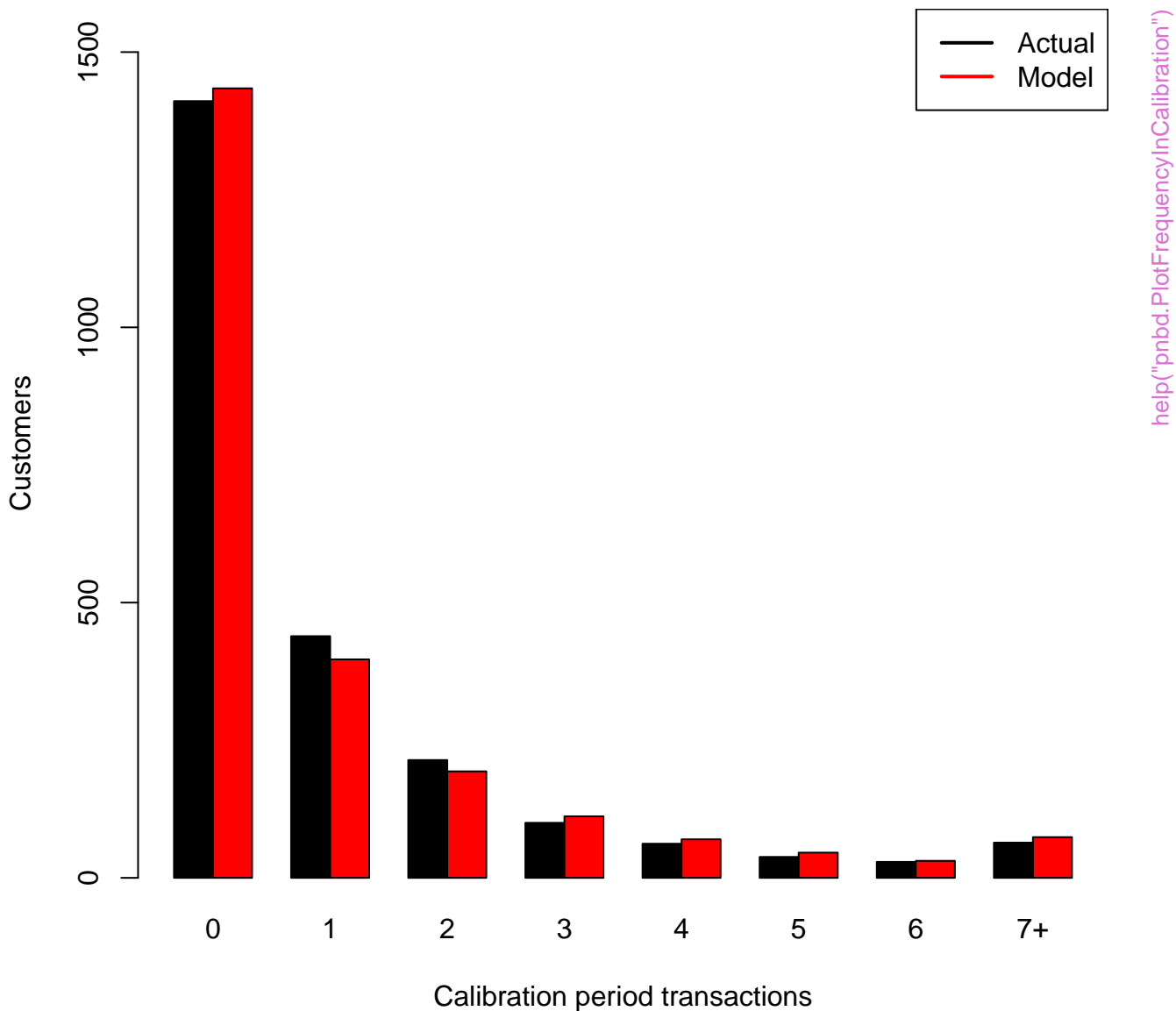
Density

Dropout rate

help("pnbd.PlotDropoutRateHeterogeneity")

Conditional Expectation

help("pnbd.PlotFreqVsConditionalExpectedFrequency")

Holdout period transactions

Calibration period transactions

Frequency of Repeat Transactions

help("pnbd.PlotFrequencyInCalibration")

Actual vs. Conditional Expected Transactions by Recency

help("pnbd.PlotRecVsConditionalExpectedFrequency")

Tracking Cumulative Transactions

Cumulative Transactions

help("pnbd.PlotTrackingCum")

Week

Actual
Model

Tracking Weekly Transactions

help("pnbd.PlotTrackingInc")

Heterogeneity in Transaction Rate

Mean: 0.0521   Var: 0.0049

help("pnbd.PlotTransactionRateHeterogeneity")
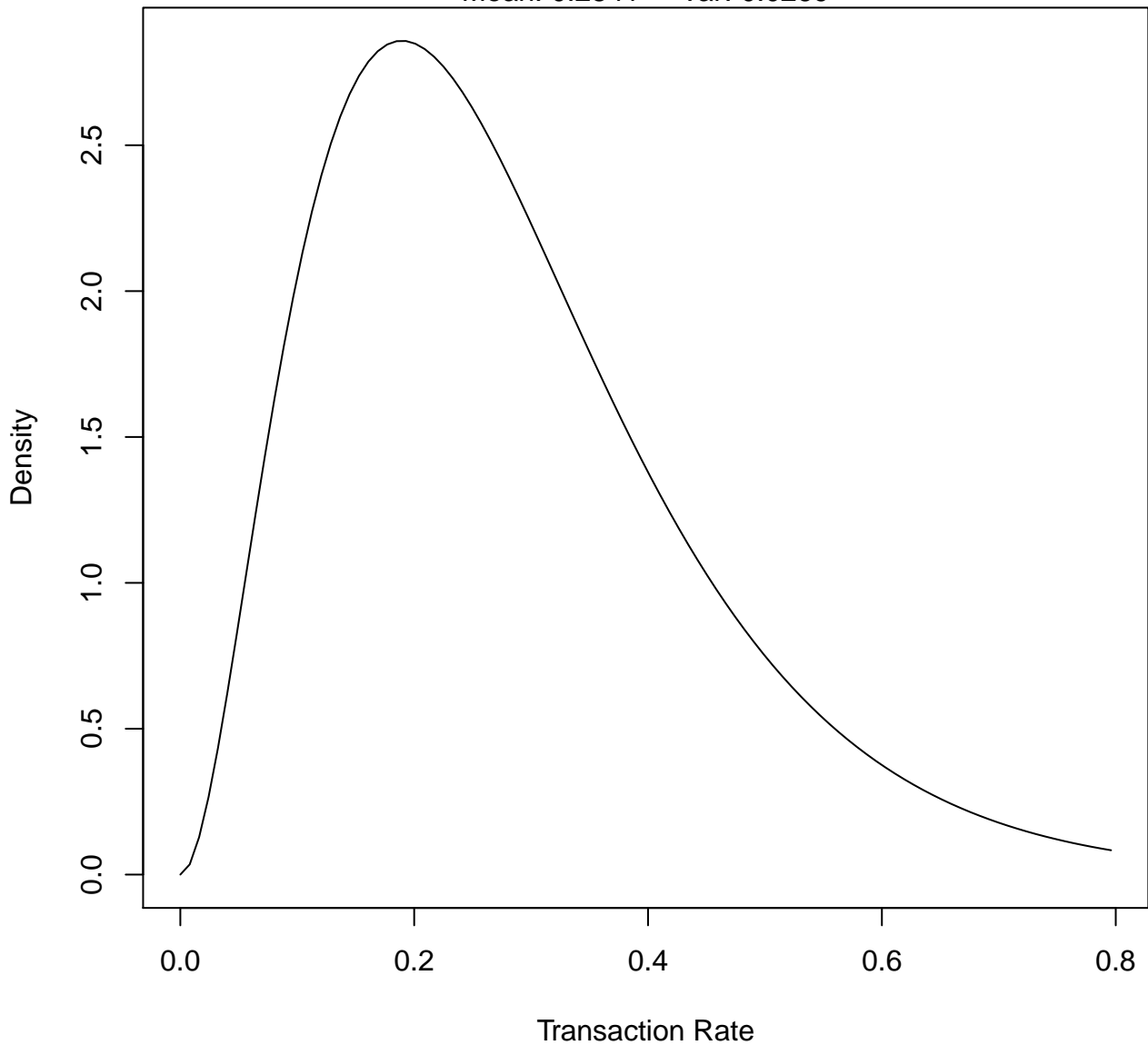
Density
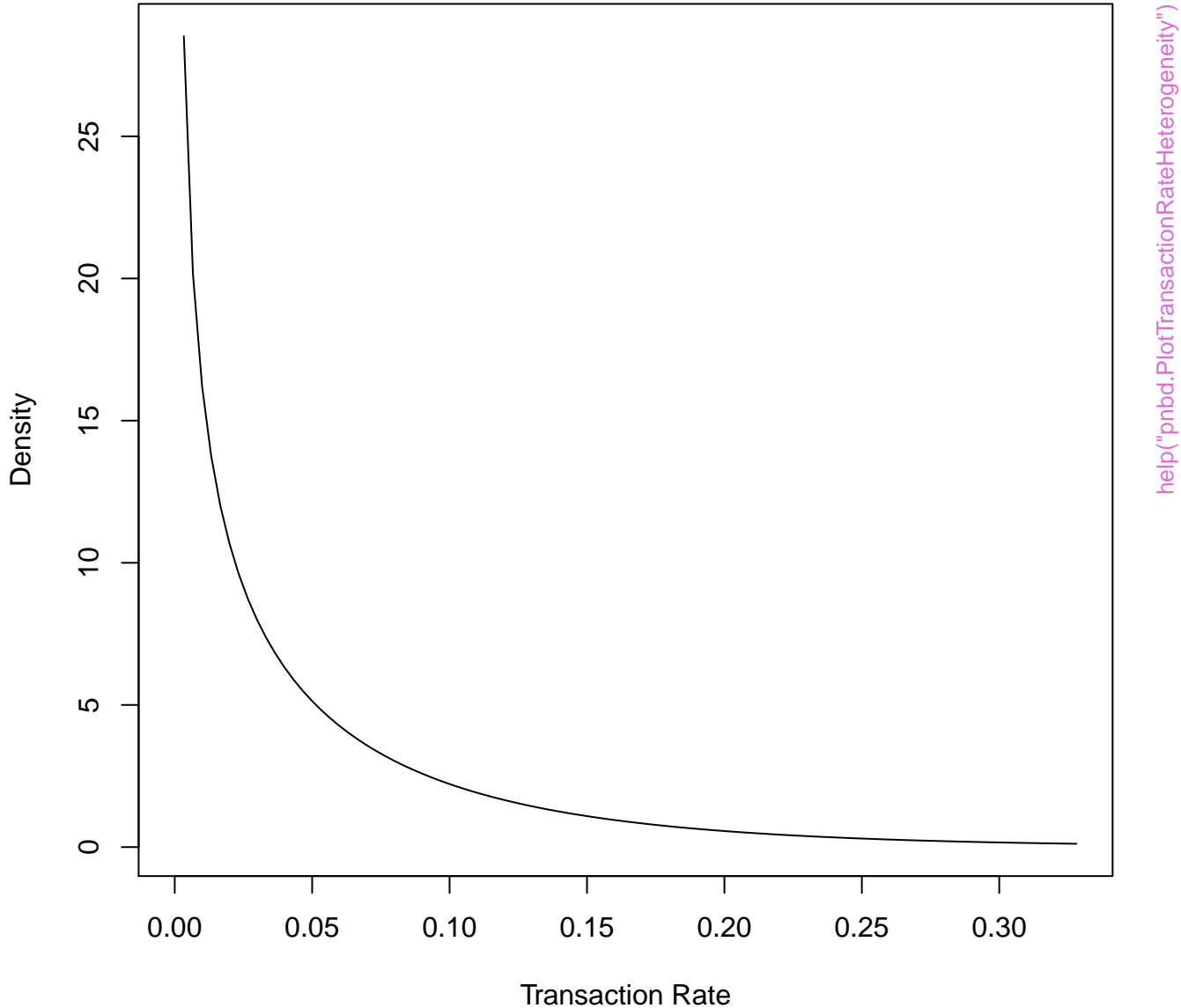
Transaction Rate

Heterogeneity in Transaction Rate

Mean: 0.2841   Var: 0.0269

help("pnbd.PlotTransactionRateHeterogeneity")

Actual vs. Expected Average Transaction Value Across Customers