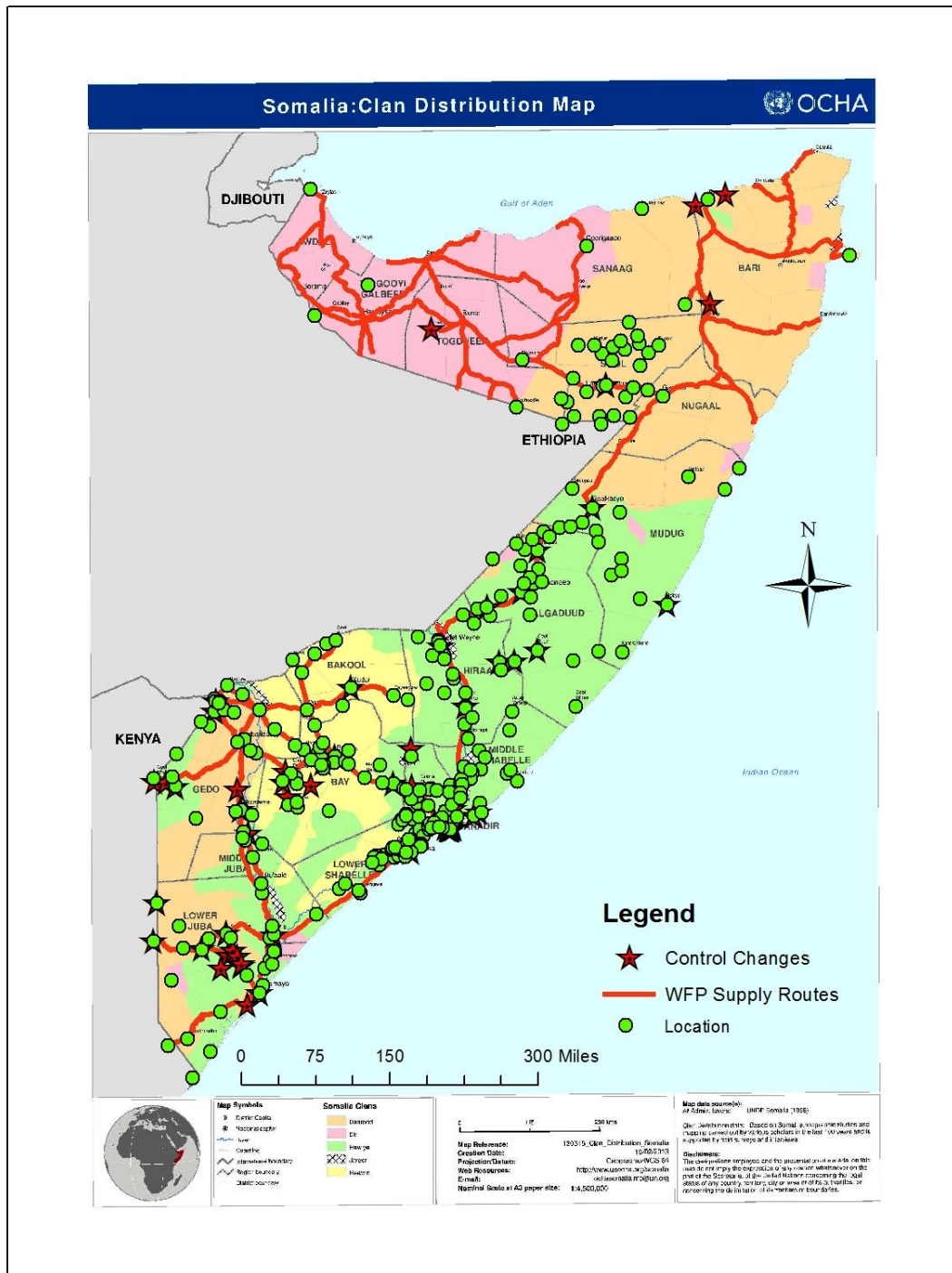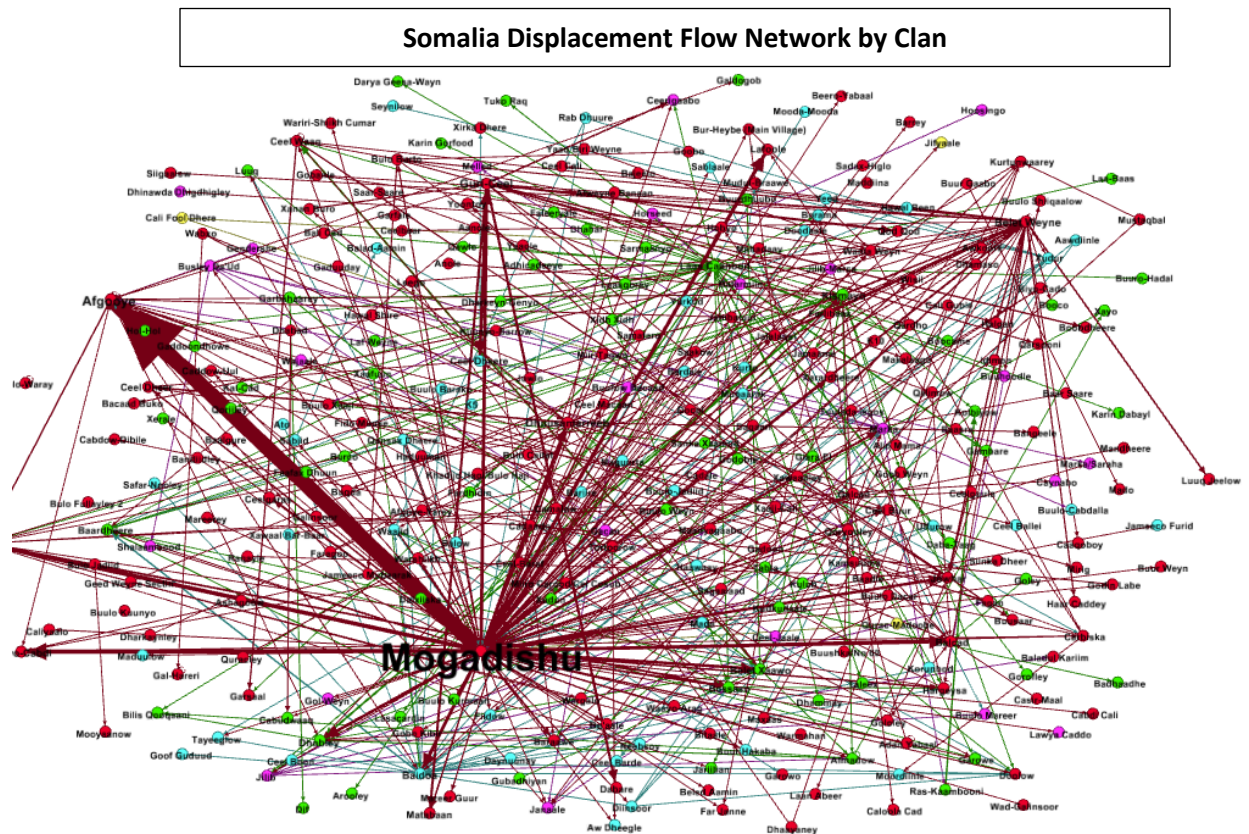# Appendix

Below is the map created in ArcGIS showing the variables used to create the node attributes.

Below are the network plots with colors based on node attributes that are mentioned in the main text.

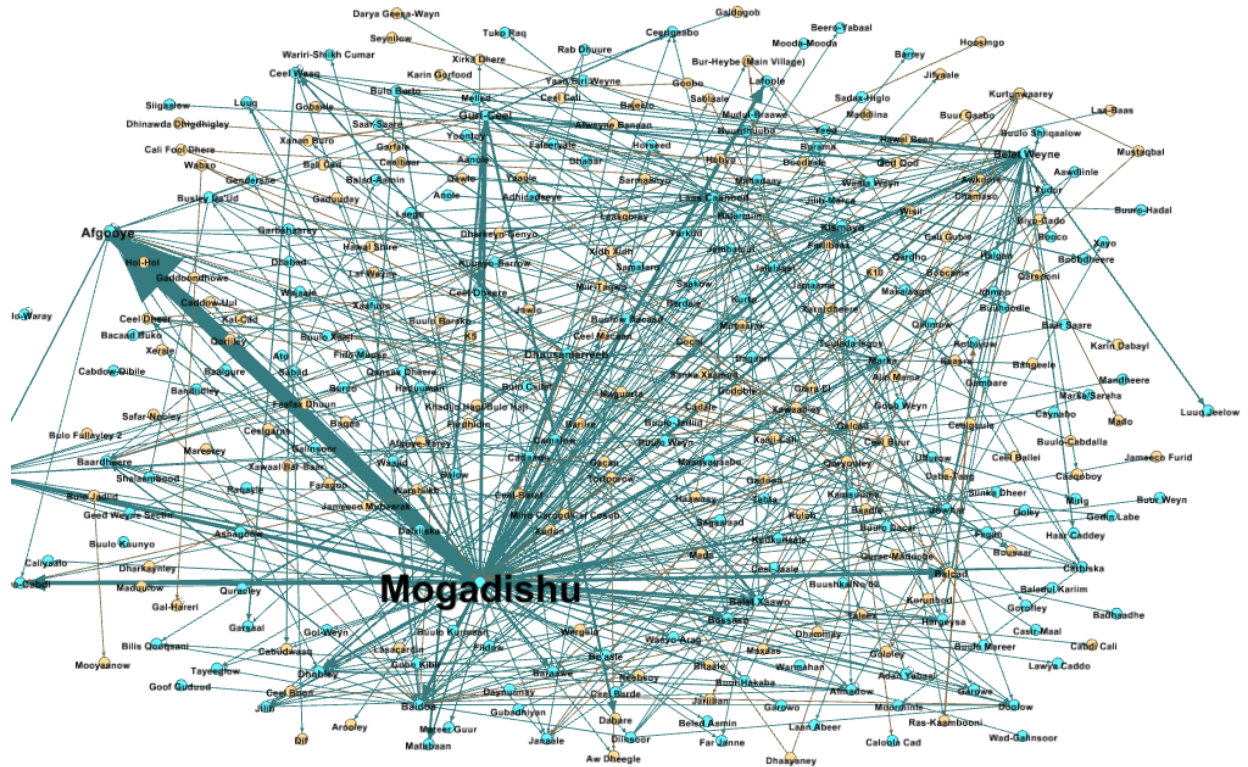**Somalia Displacement Flow Network by Clan**

Note: Label size is based on weighted degree centrality. Edges are weighted based on IDP flows. Red nodes are Hawiye. Green nodes are Darod. Purple nodes are Dir. Blue nodes are Rahanweyn. Yellow nodes are Bantu.

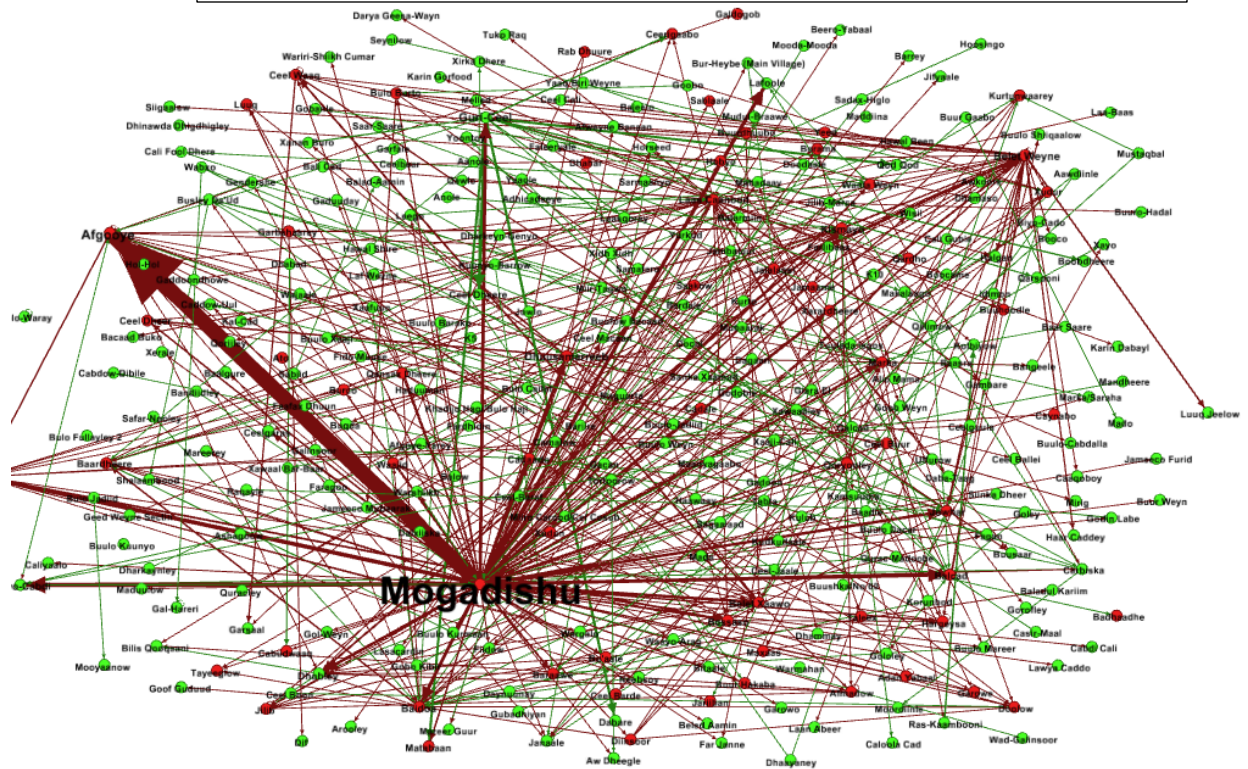**Somalia Displacement Flow Network by Control Changes**
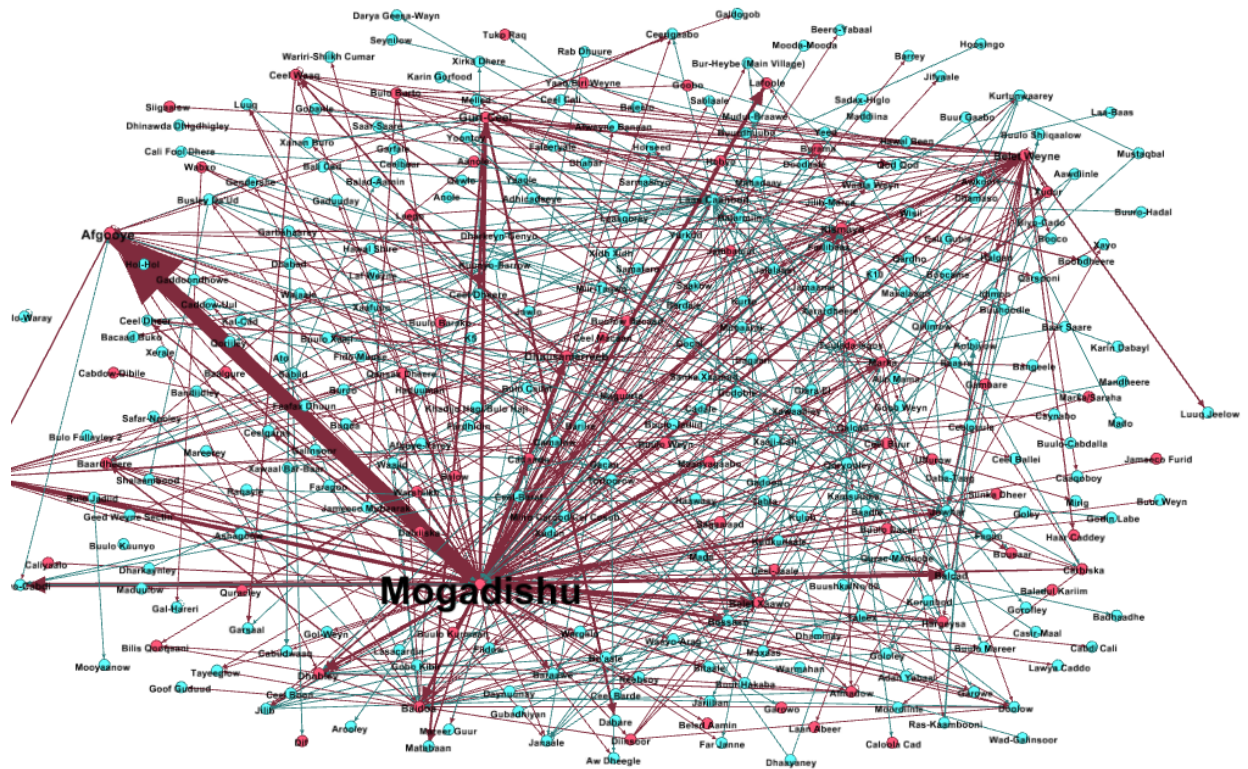
Note: Label size is based on weighted degree centrality. Edges are weighted based on IDP flows. Red nodes have control changes. Blue nodes do not have control changes.

Somalia Displacement Flow Network by Road

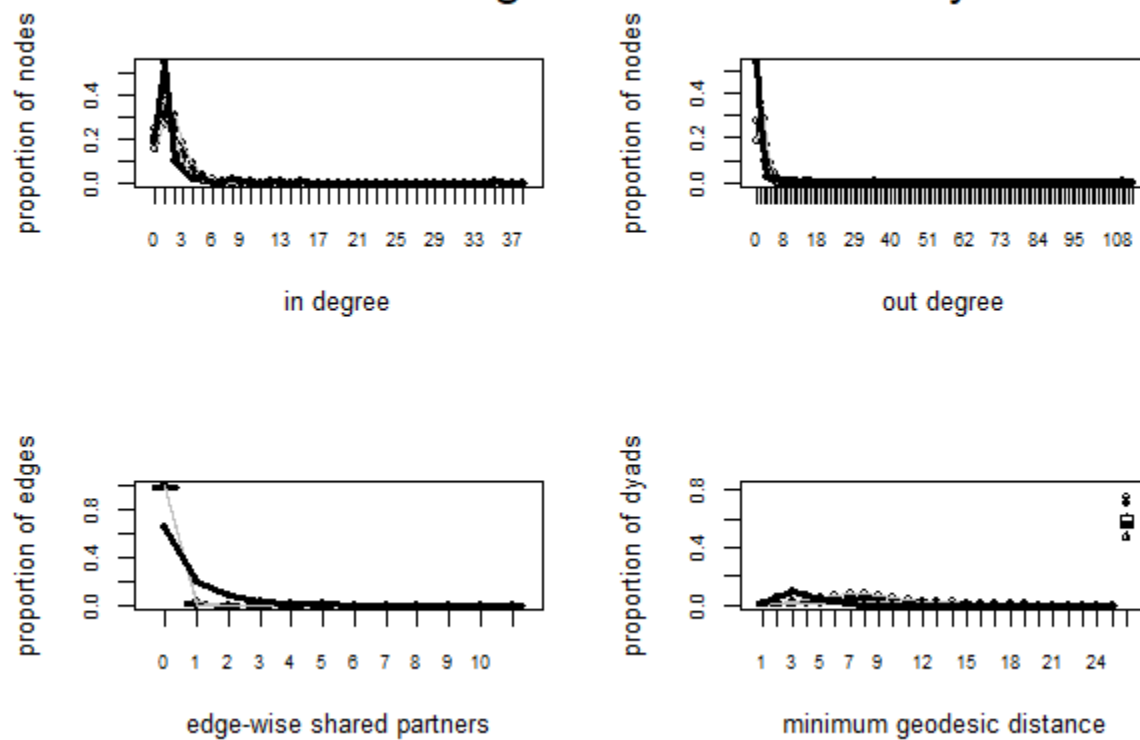Note: Label size is based on weighted degree centrality. Edges are weighted based on IDP flows. Blue nodes have control changes. Orange nodes do not have control changes.
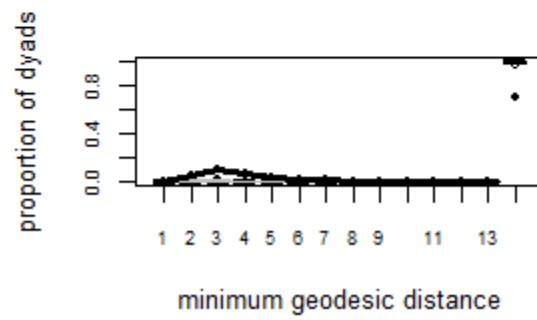
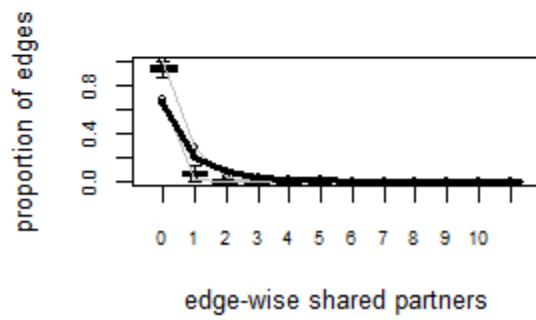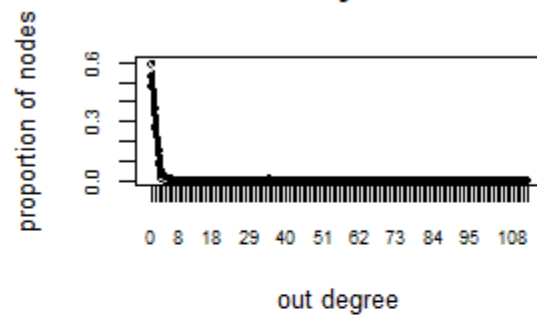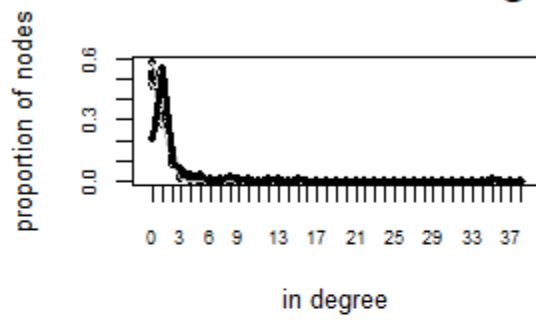**Somalia Displacement Flow Network by Urban**

Note: Label size is based on weighted degree centrality. Edges are weighted based on IDP flows. Red nodes are urban. Green nodes are rural.

Below are the goodness of fit plots for each ERGM model. These plots informed the selection of the best fitting models. In the main text, the best fitting model at each threshold level turns out to be the model with the lowest AIC statistic.
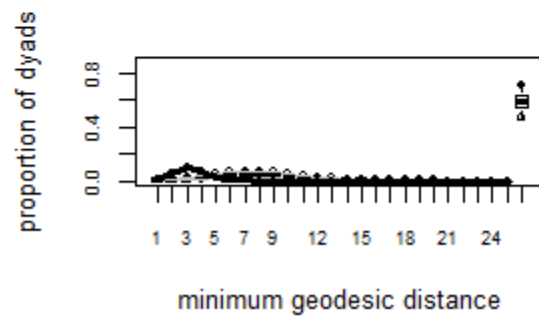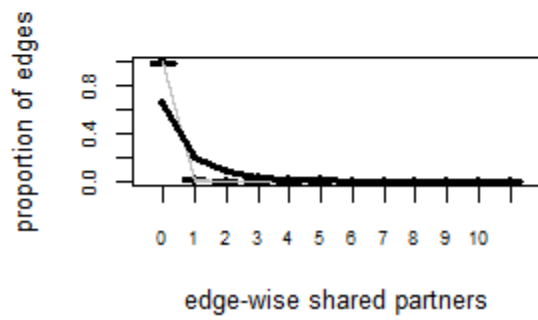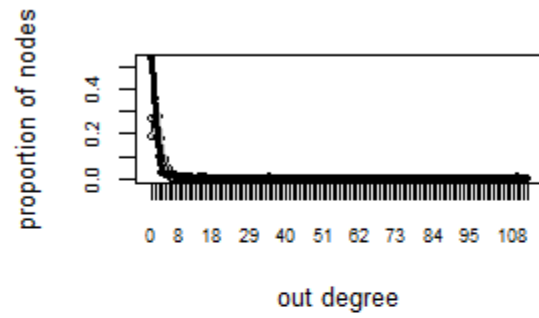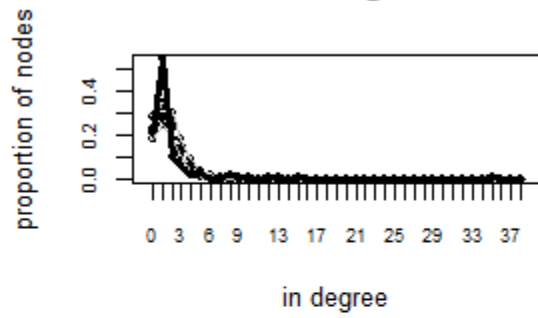
GOF Unweighted Covariates Only

proportion of nodes

in degree

proportion of nodes

out degree

proportion of edges

edge-wise shared partners

proportion of dyads
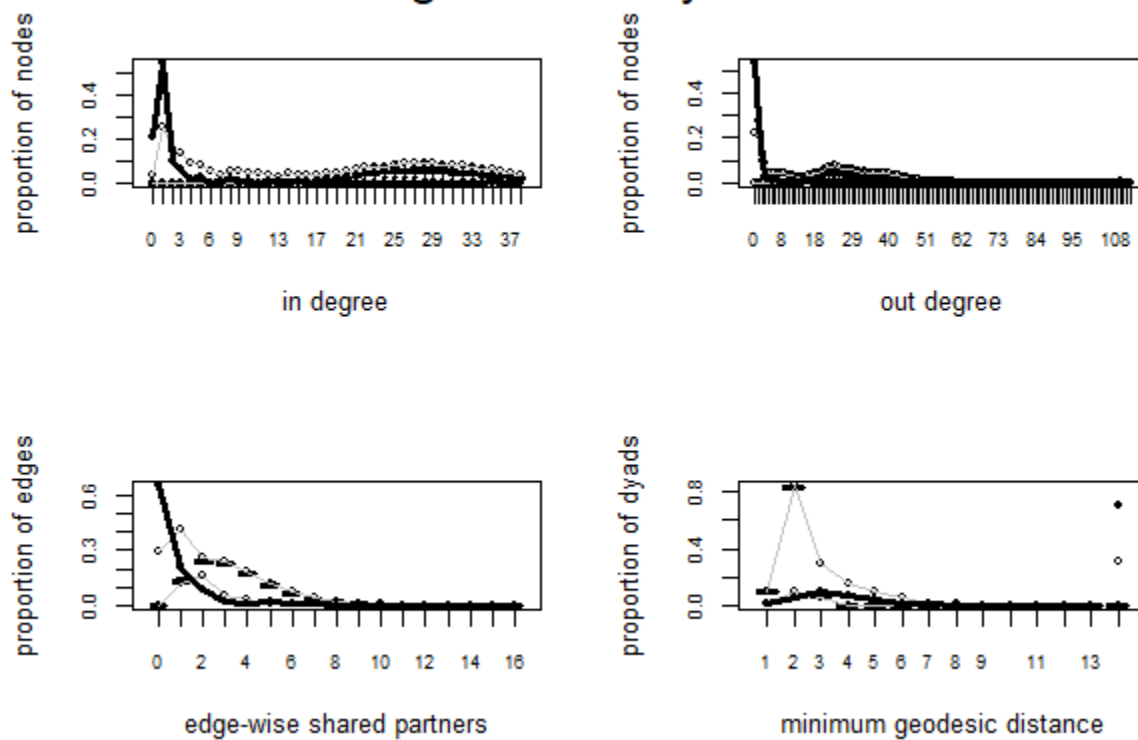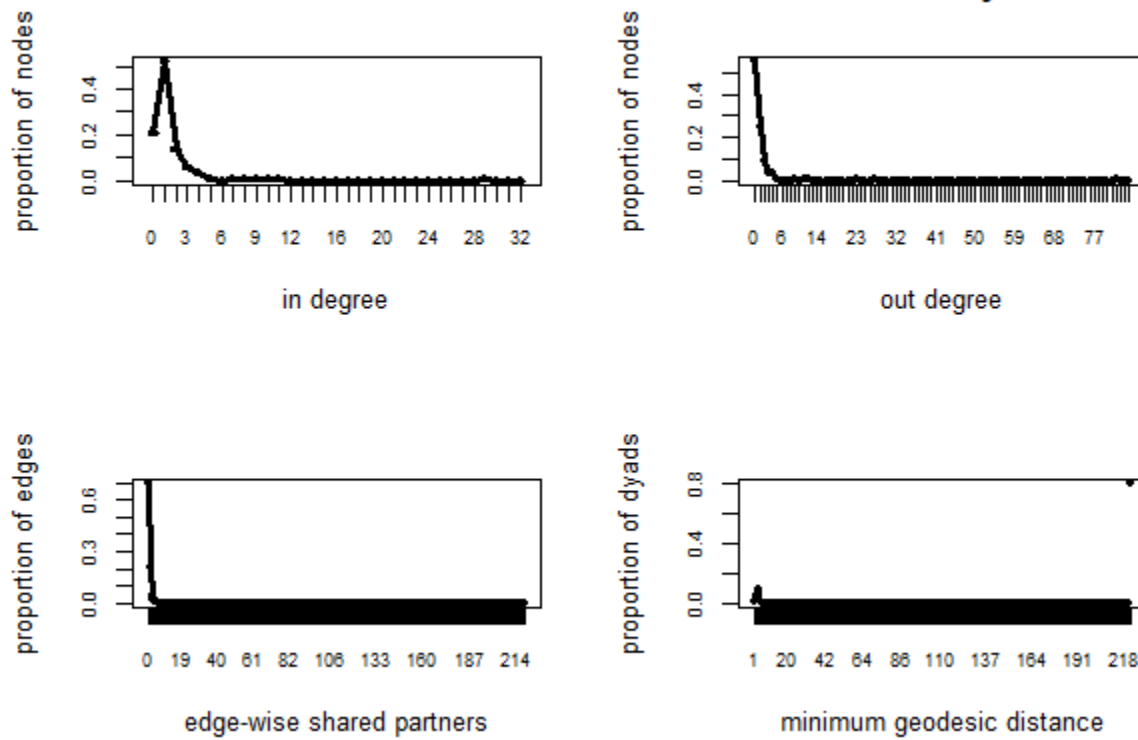
minimum geodesic distance

GOF Unweighted with Transitivity

GOF Unweighted with Preferential Attachment

GOF Unweighted with Systemic Variables

GOF 25th Percentile Covariates Only

proportion of nodes — in degree

proportion of nodes — out degree

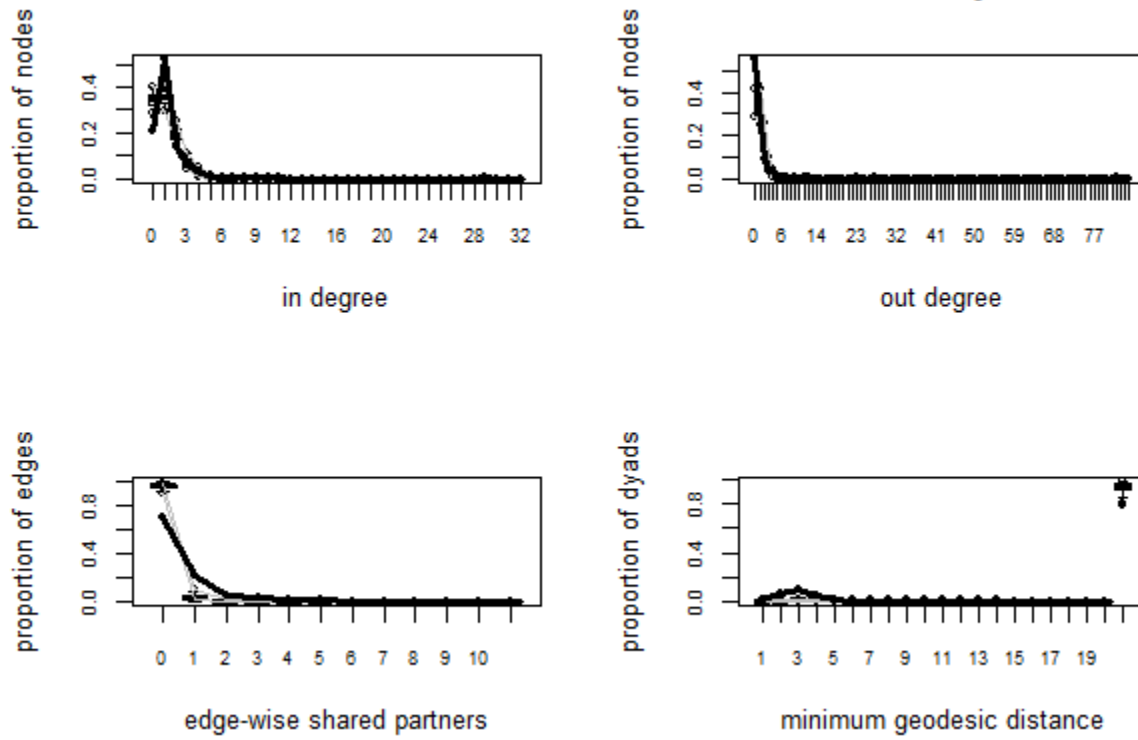proportion of edges — edge-wise shared partners
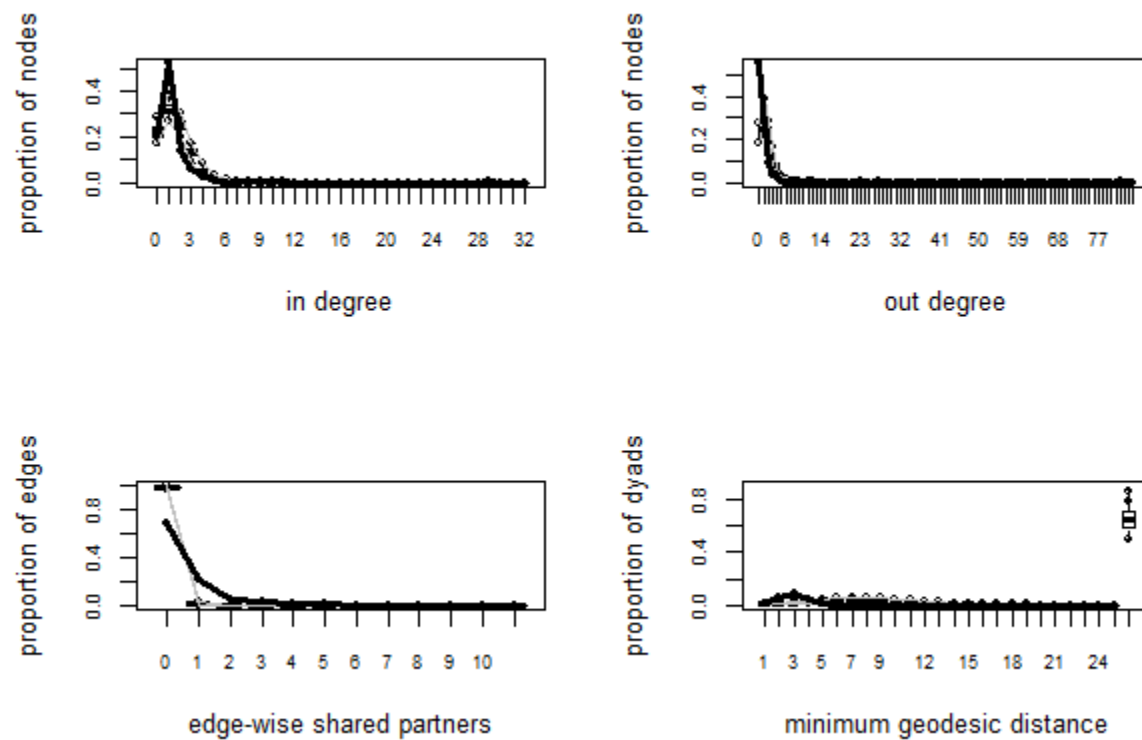
proportion of dyads — minimum geodesic distance

Note: These diagnostics produced some error messages, which is why there are thick solid black lines on two of the plots.
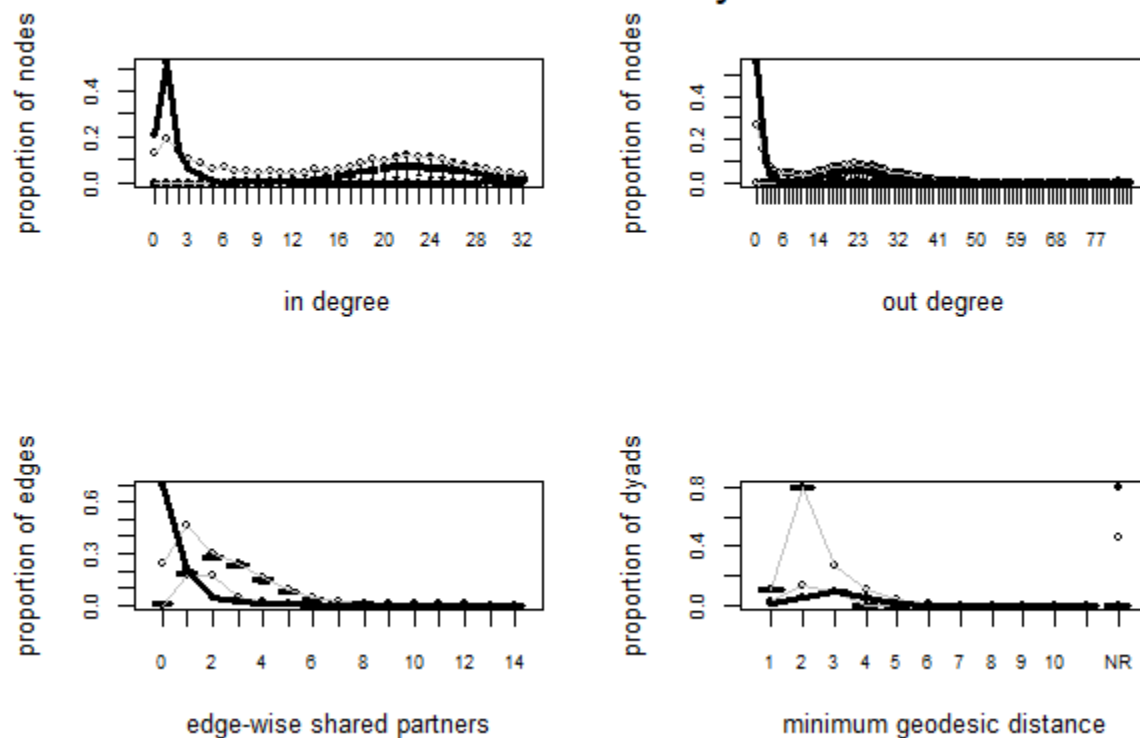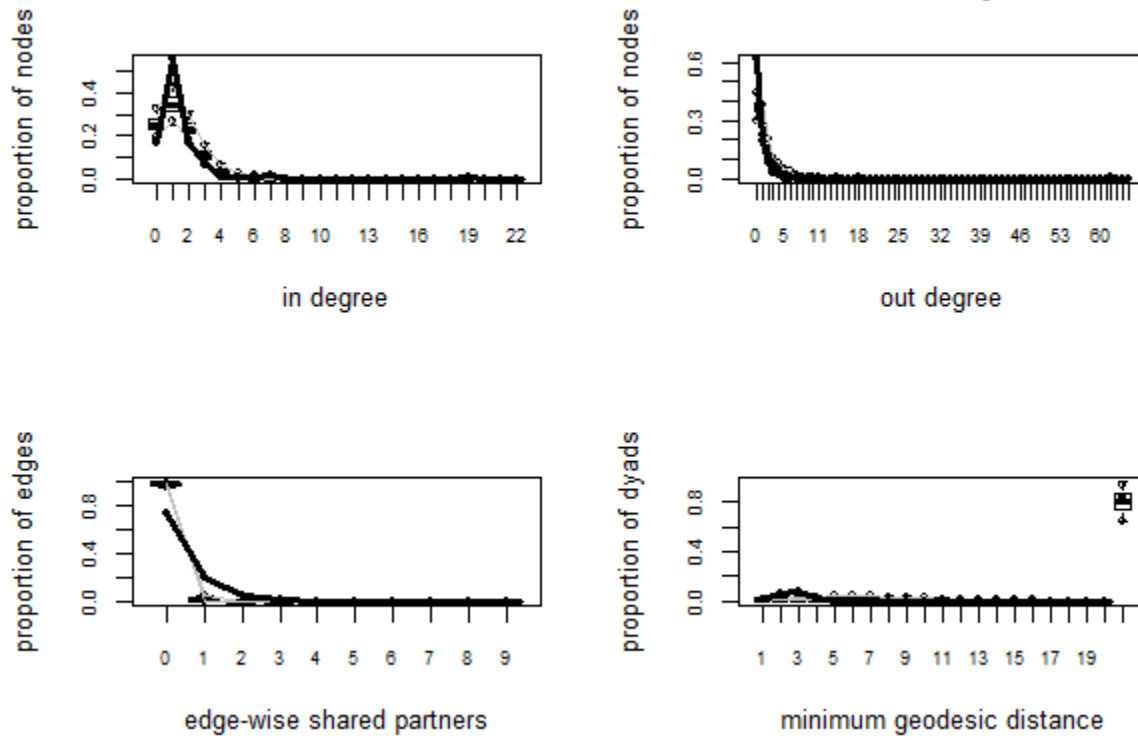
GOF 25th Percentile with Transitivity

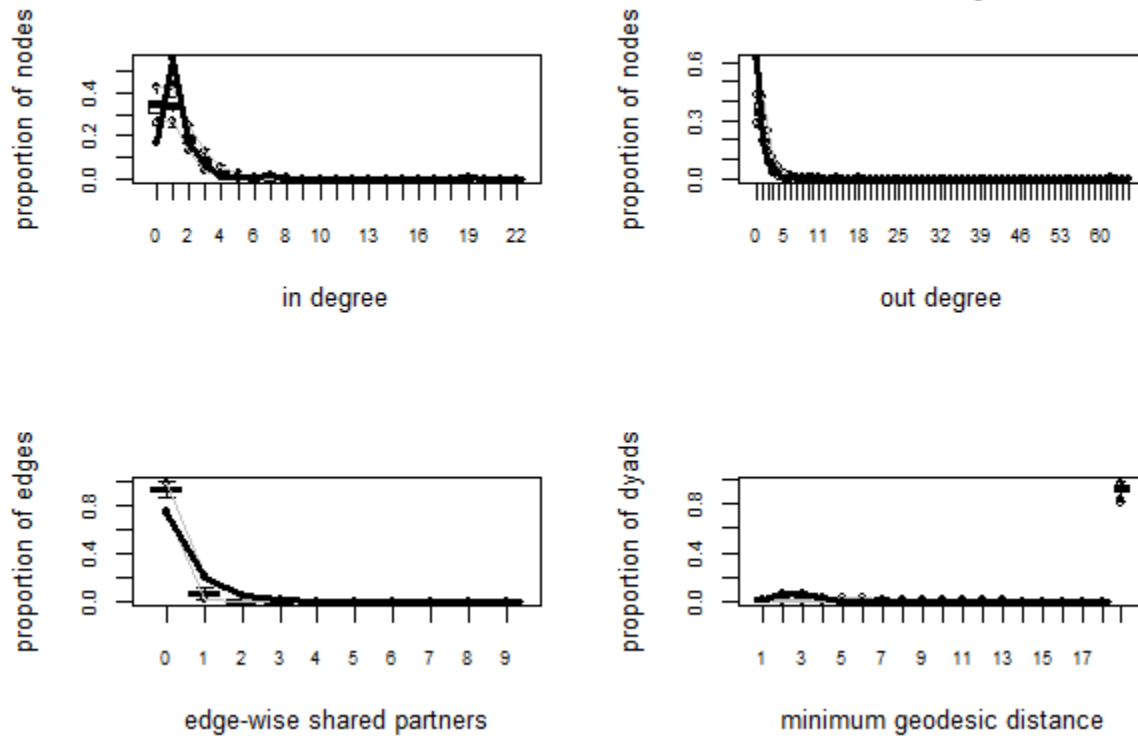# GOF 25th Percentile with Preferential Attachment
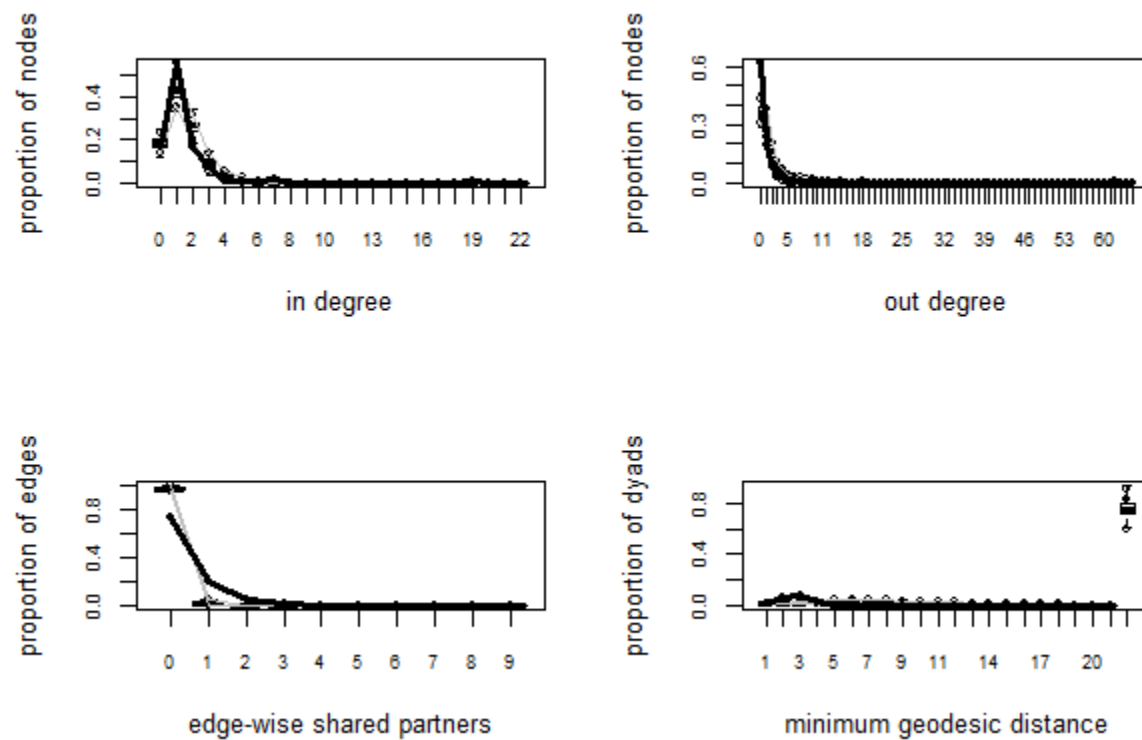
GOF 25th Percentile with Systemic Variables

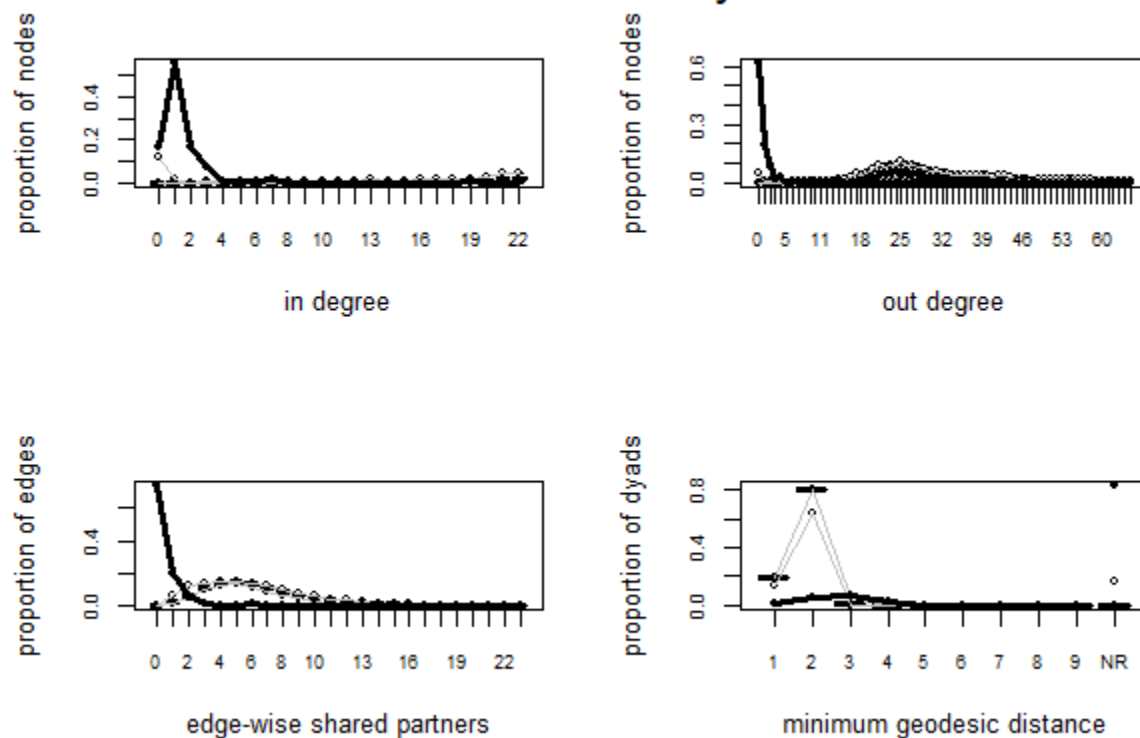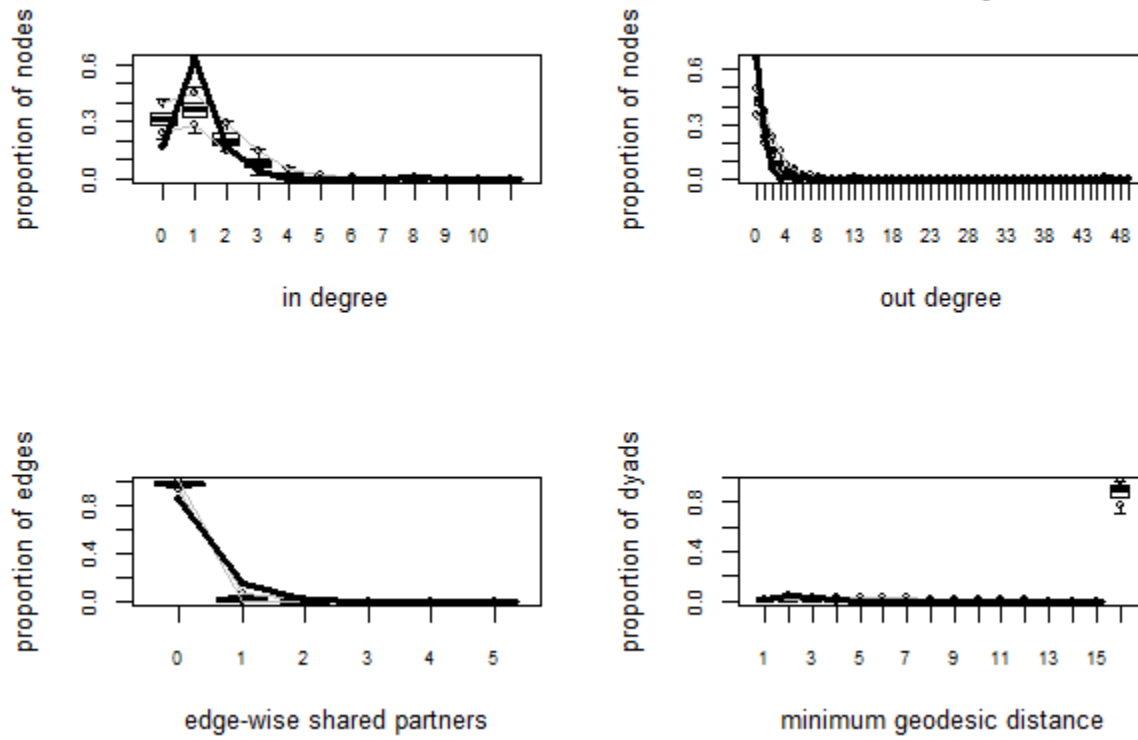# GOF 50th Percentile Covariates Only

GOF 50th Percentile with Transitivity

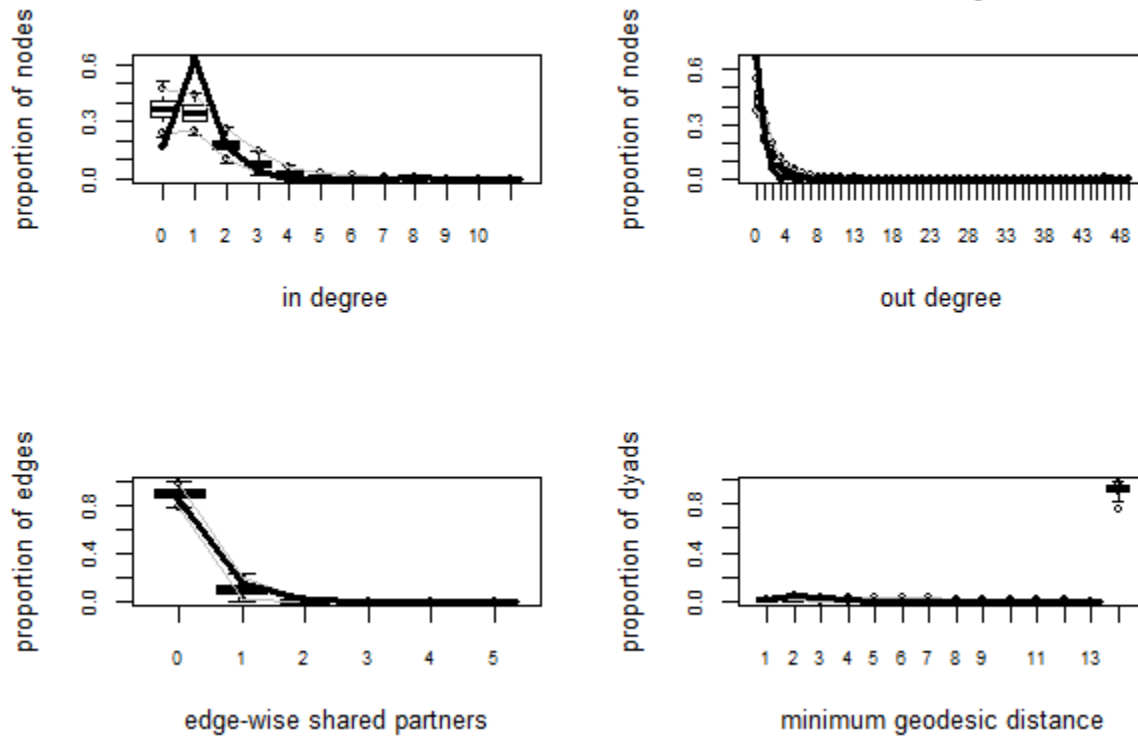# GOF 50th Percentile with Preferential Attachment

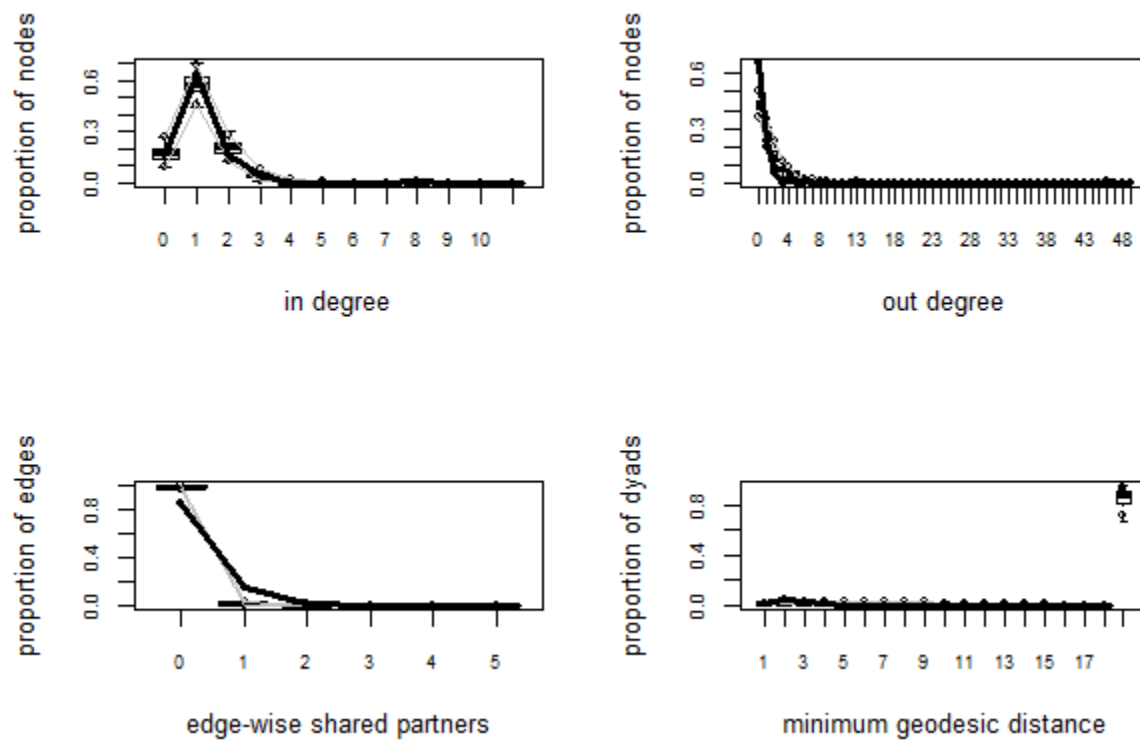# GOF 50th Percentile with Systemic Variables

GOF 75th Percentile Covariates Only

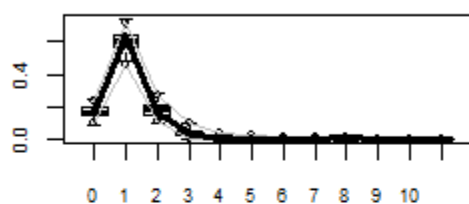# GOF 75th Percentile with Transitivity
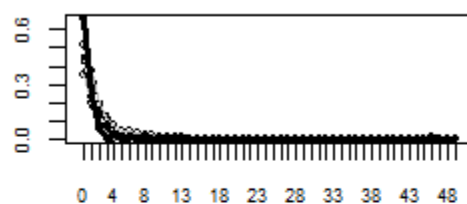
GOF 75th Percentile with Preferential Attachment

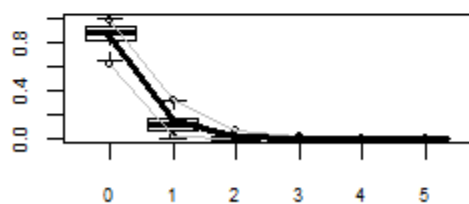GOF 75th Percentile with Systemic Variables