Local Networks Assignment

Today's Assignment;

1. Compute Measures of Local Network Composition
2. Plot and Interpret Results

1. Compute Local Network Composition Measures

For "School 23" from the National Longitudinal Study of Adolescent Health Data, for each individual in the school, compute the following:

- network size (i.e., degree - separately for in, out & total)
- ego-network density
- transitivity
- Burt's constraint

2. Evaluate Local Variation in the Graph

Construct the mixing matrix for gender and IQV scores for each node.

-**Bonus:** Build a random network and compare scores.

3. Graph and Interpret your results

-Plot the degree distribution
-**Bonus:** Plot the relationship between network size (total degree) and each of the other measures that you created (density, transitivity, constraint)
-Plot the network highlighting gender and transitivity

Interpret the results: What have you learned about School 23 by working through the local networks that comprise it?