# Big Data: Homework 4

Will Clark & Matthew DeLio
41201-01

April 30, 2015

## 1 Network Connectivity Transformation

Network connectivity (which we are calling `degree`) is measured by the number of edges for each node in a network. In this context, `degree` measures the number of relationships that a household in our population has. We observe in Figure 1 that `degree` is distributed logarithmically.

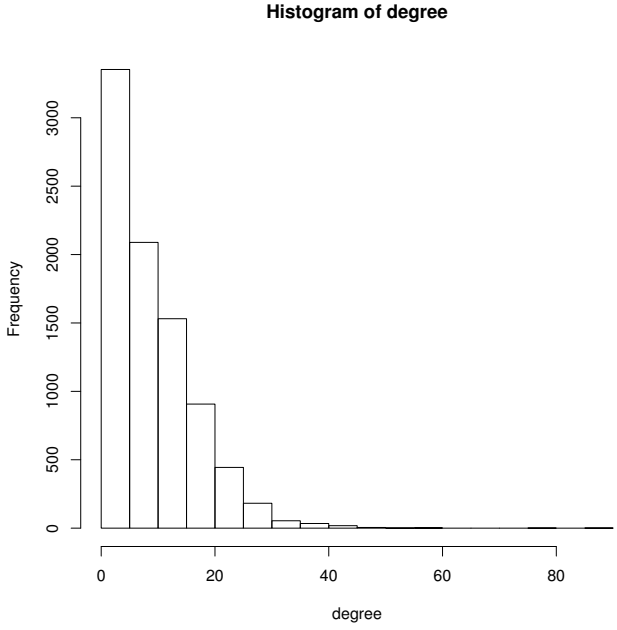


Figure 1: Distribution of `degree`

**2 Predicting Network Connectivity from Controls**

**3 Effect of Network Connectivity on Loan Propensity**

**4 Naive Estimation of Loan Propensity**

**5 Bootstrapping Uncertainty**

**6 Experimental Design**