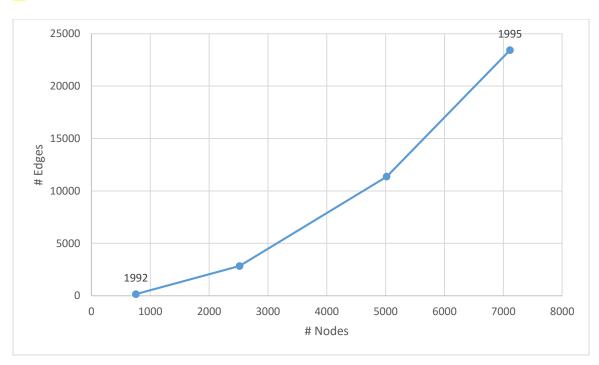
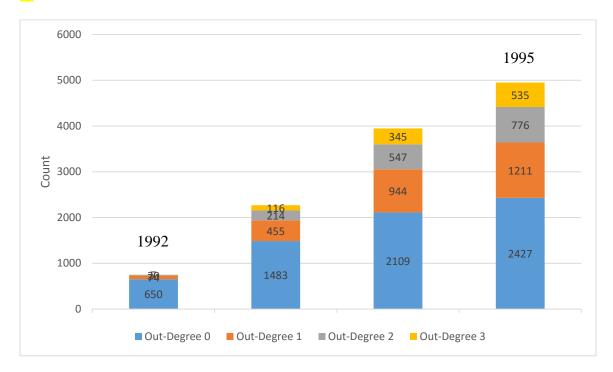
### Tarek Salama

# CSE 310 Project 3 Report – Nakamura

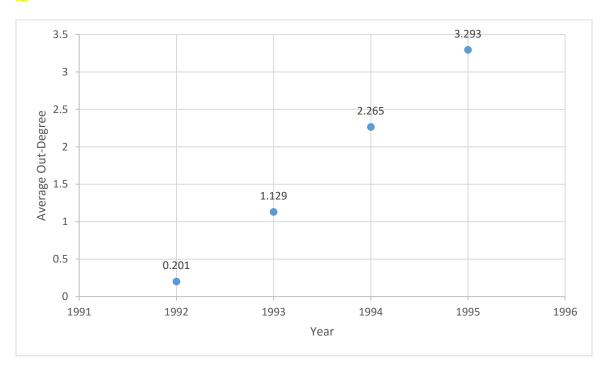
# **Paper Citation Data**







c)



#### Observations

- It can be seen from the first chart that as the range of years increases, the number of nodes and edges increase at an increasing rate.
- o It can be seen from the second chart that as the range of years increases, the outdegree for each of the first 4 degrees increases as well but at a near-steady rate.
- It can be seen from the third chart that as the range of years increases, the average
  out-degree increases at a linear rate as well.

#### **Patent Citation Data**

• I was not able to get any data on the Patent Citation Data because when running the code, both my IDE and the general as used userver would time out (that is, it would neither crash nor produce any error) – I am assuming this occurs because the Patent text files are so large, and I did not use a hash table (somehow it works fine for the Paper files, though) – therefore, the lookup takes much longer than it should. I will make sure to fix it for the final submission.