Ideas

Consider removing 2004 data because 1/3 of the grants have teams of one – perhaps at that time only the PI was recorded in the databse?

Types of networks to analyze:

Two-mode:

grant to investigator (network analytics generated for both grants and investigators)

SNA results organized by grants and by investigator by copying and pasting them into a new excel file; all results are copied into this file then new sheets are created for grants and investigators. These two new sheets are converted into tables to facilitate analysis.

Main analytical results:

Grants:

degree (number of distinct Investigators collaborating on the grant –excludes name holders such as TBA, Technician, etc.

Average degree, betweeness, etc. for different categories such as ‘Awarded’/‘Not Awarded’, before/after 2009 (CCTR year), etc. Find differences and ratios of the averages across categories and draw conclusions…

Investigators:

Find top 20 for the different metrics such as degree (number of grants a person participated in).

Repeat above SNA but with edges being grants to departments/units

One-Mode:

investigator to investigator (edge means two investigators participated in the same grant; edge weight is the number of grants in which two investigators collaborated with each other)

department to department (edge means two investigators from the two different departments collaborated on the same grant; edge weight is the number of grants in which two investigators from the two departments collaborated with each other)

grant to grant (edge means at least one investigator participated in both grants; edge weight is the number of investigators who collaborated in both grants)

Find the number of granted proposals by department.

Calculate network analytics for investigators in the two-mode network