

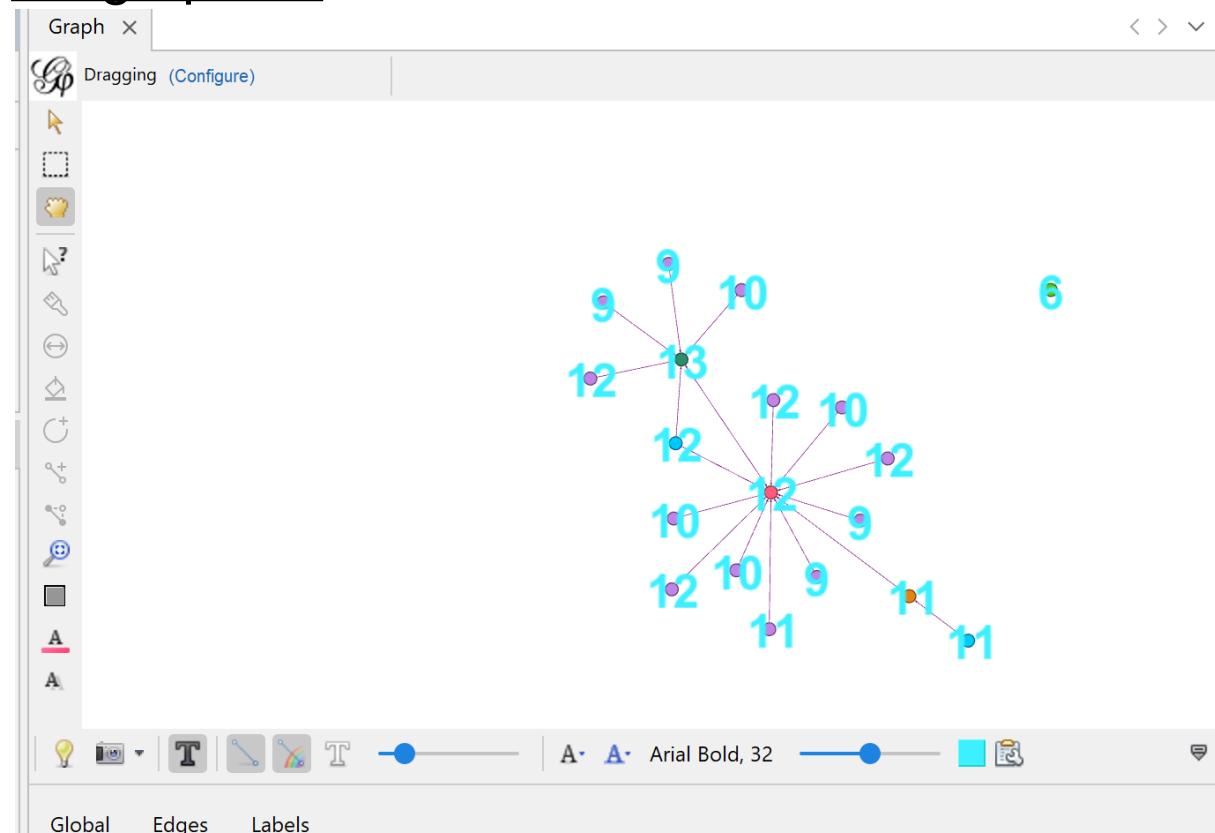
## Social network assignment

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Comparison between Graph 1 ([5G\\_Conspiracy\\_Graphs](#) ) and Graph 2 ([Non\\_Conspiracy\\_Graphs](#))

### 5G graph 30



1-Number of nodes and edges

Nodes : 20

Edges : 20

Parameters:

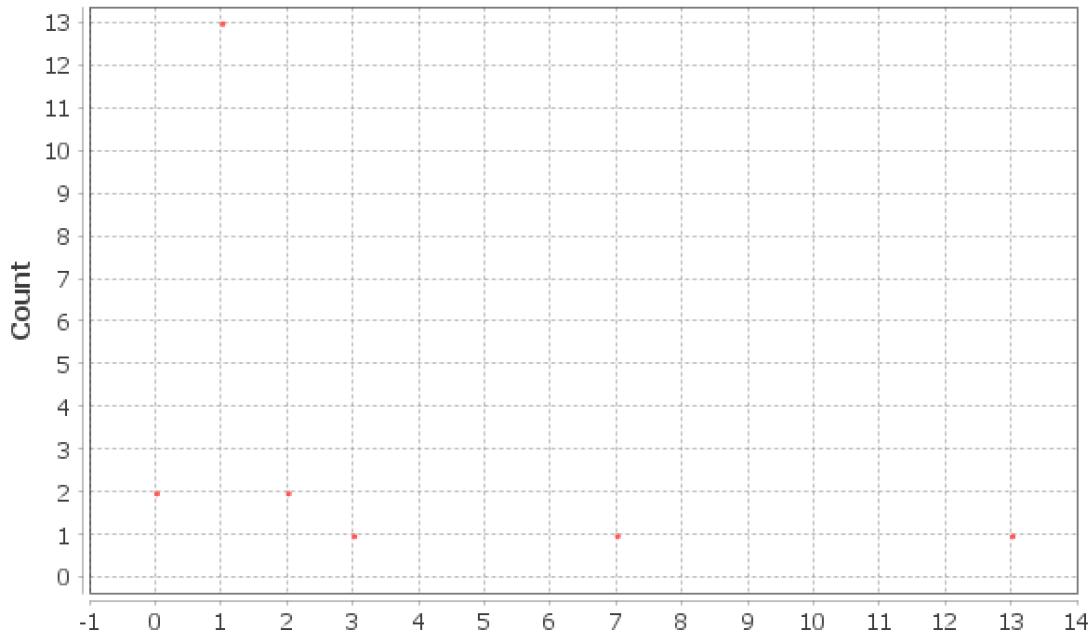
## 2- average Degree

### Degree Report

#### Results:

Average Degree: 1.000

#### Degree Distribution



## 3- Density Parameters:

Network Interpretation: directed

Results:

Density: 0.05

## 4- Clustering Coefficient Metric Report

Parameters:

Network Interpretation: directed

Results:

Average Clustering Coefficient: 0.052

The Average Clustering Coefficient is the mean value of individual coefficients.

5- Modularity (Q) and number of communities

## Modularity Report

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### Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

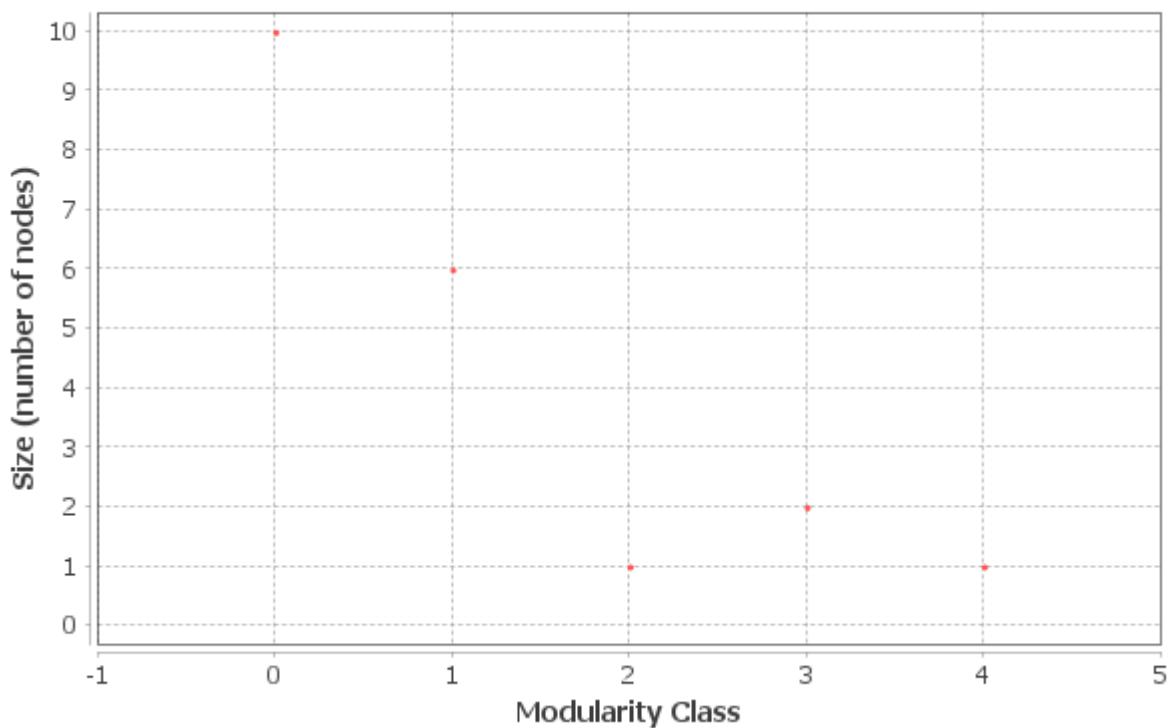
### Results:

Modularity: 0.375

Modularity with resolution: 0.375

Number of Communities: 5

**Size Distribution**



6-Betweenness and closeness centrality

## Graph Distance Report

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### Parameters:

Network Interpretation: directed

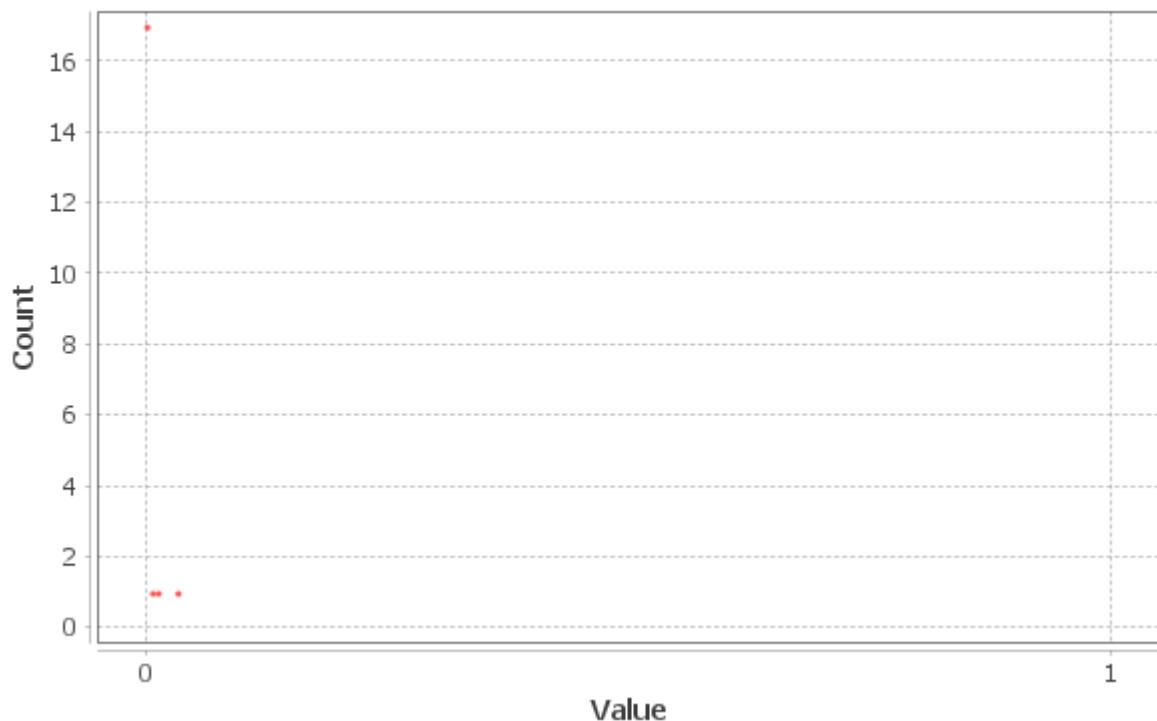
### Results:

Diameter: 3

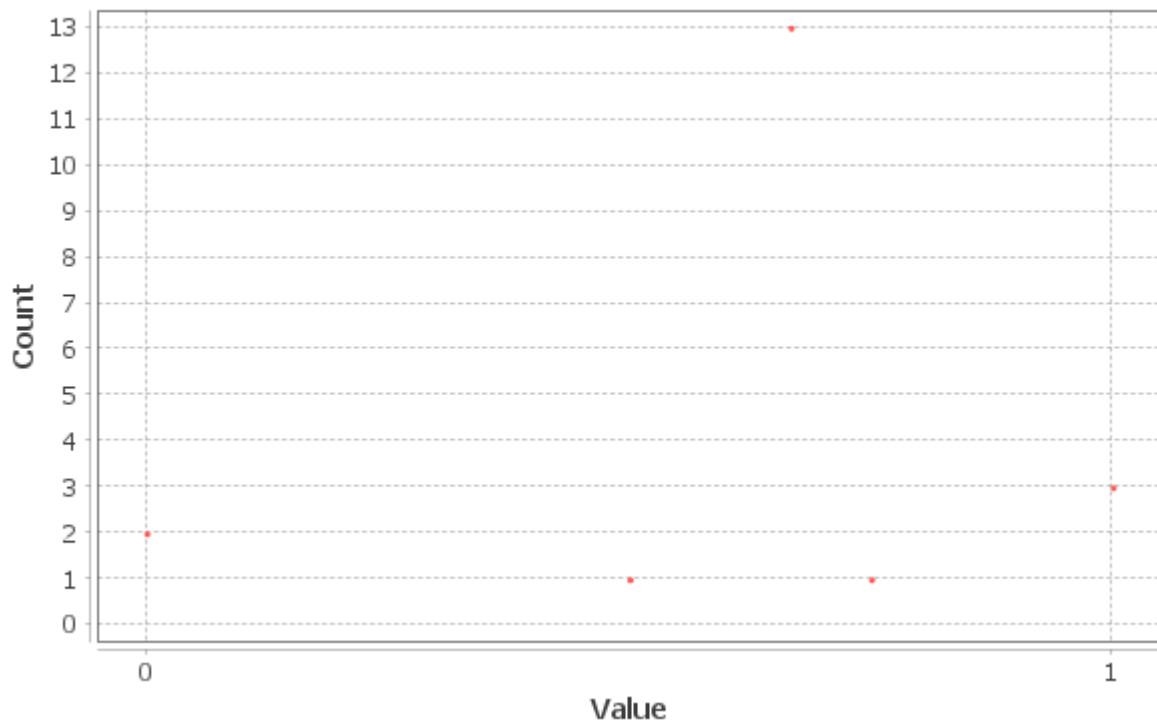
Radius: 0

Average Path length: 1.472222222222223

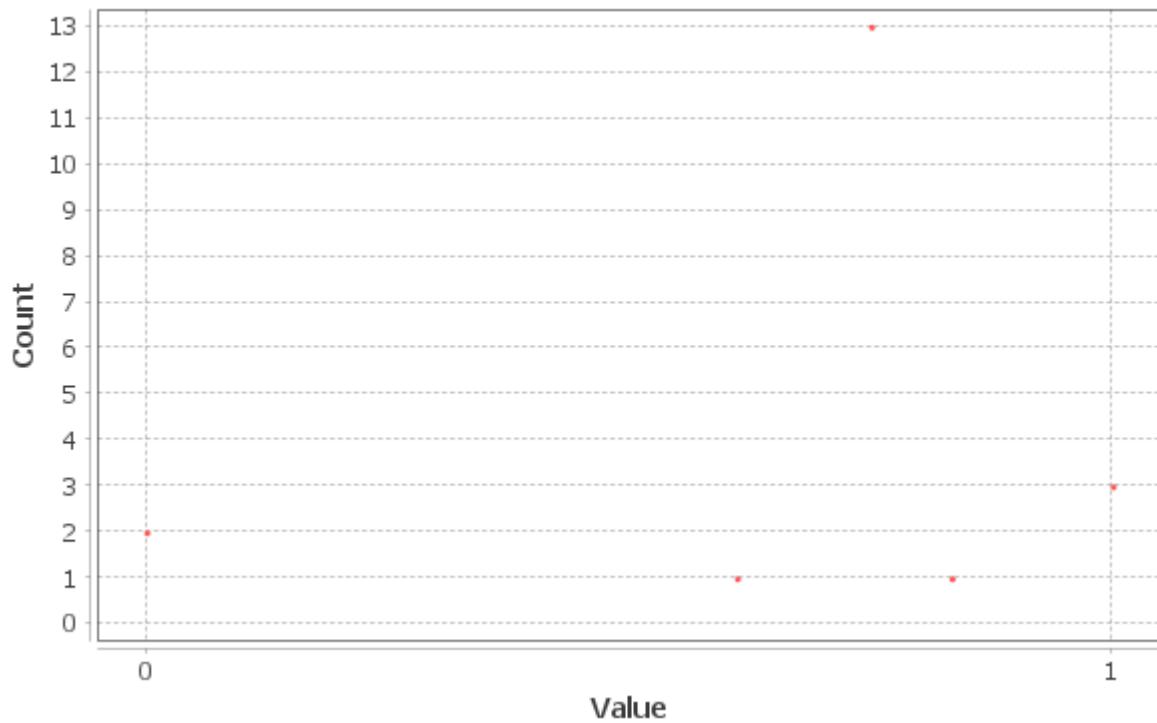
**Betweenness Centrality Distribution**



## Closeness Centrality Distribution



## Harmonic Closeness Centrality Distribution



# 7- Connected Components Report

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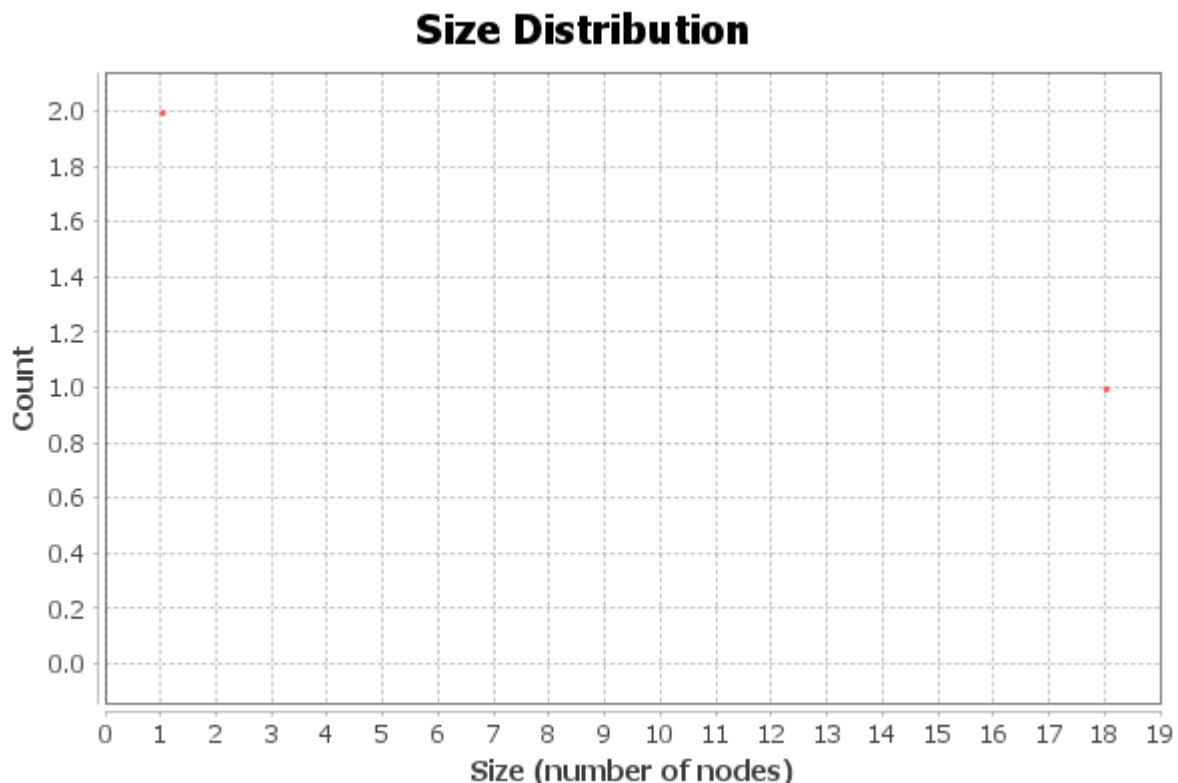
## Parameters:

Network Interpretation: directed

## Results:

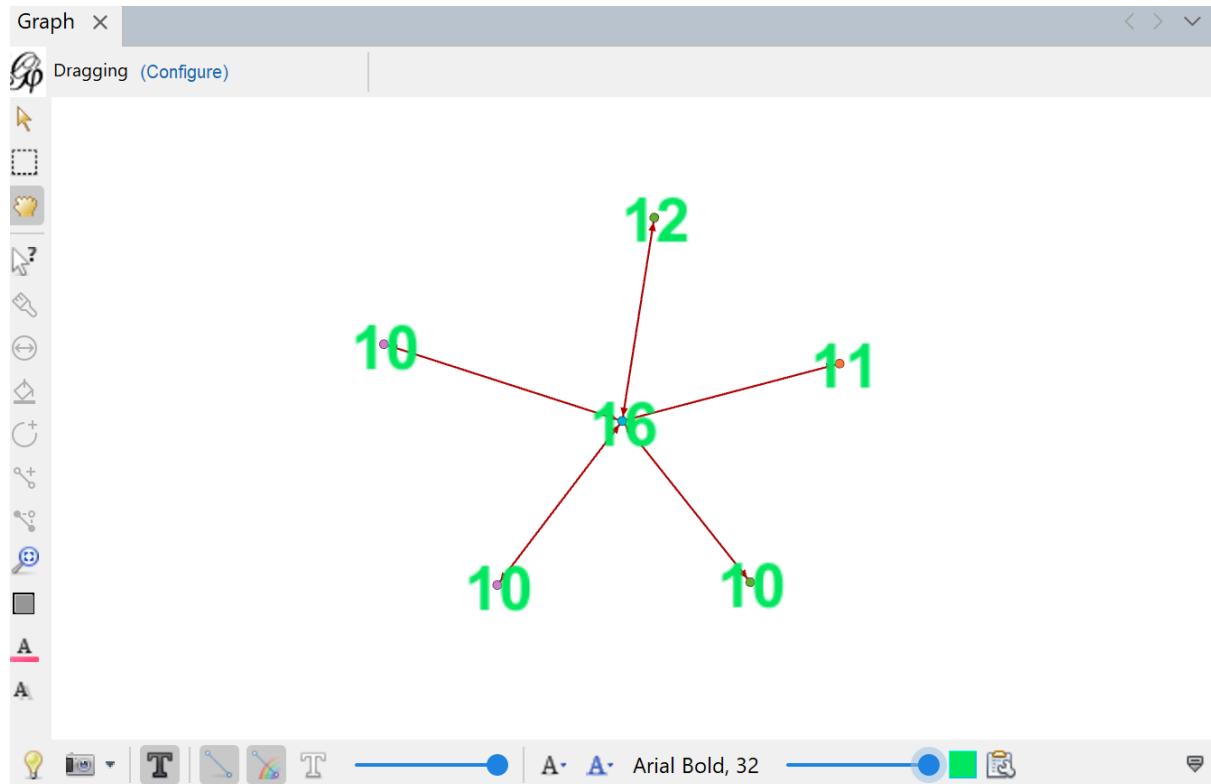
Number of Weakly Connected Components: 3

Number of Strongly Connected Components: 18



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## Non conspiracy Graph 30



1- Number on nodes : 6

Edges: 9

2-Average Degree

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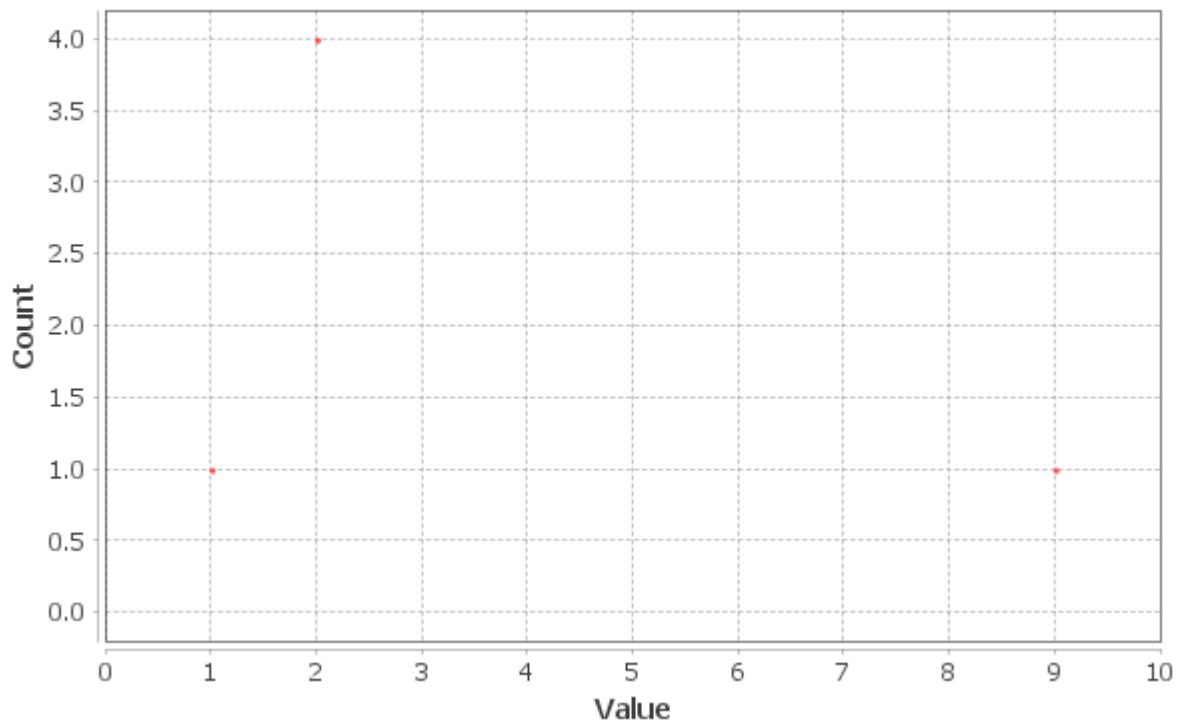
## Degree Report

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### Results:

Average Degree: 1.500

## Degree Distribution



## 3- Graph Density

Parameters:

Network Interpretation: directed

Results:

Density: 0.300

## 4- average clustering coefficient

Parameters:

Network Interpretation: directed

Results:

Average Clustering Coefficient: 0.000

The Average Clustering Coefficient is the mean value of individual coefficients.

5- Modularity Q and number of communities

## Modularity Report

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### Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

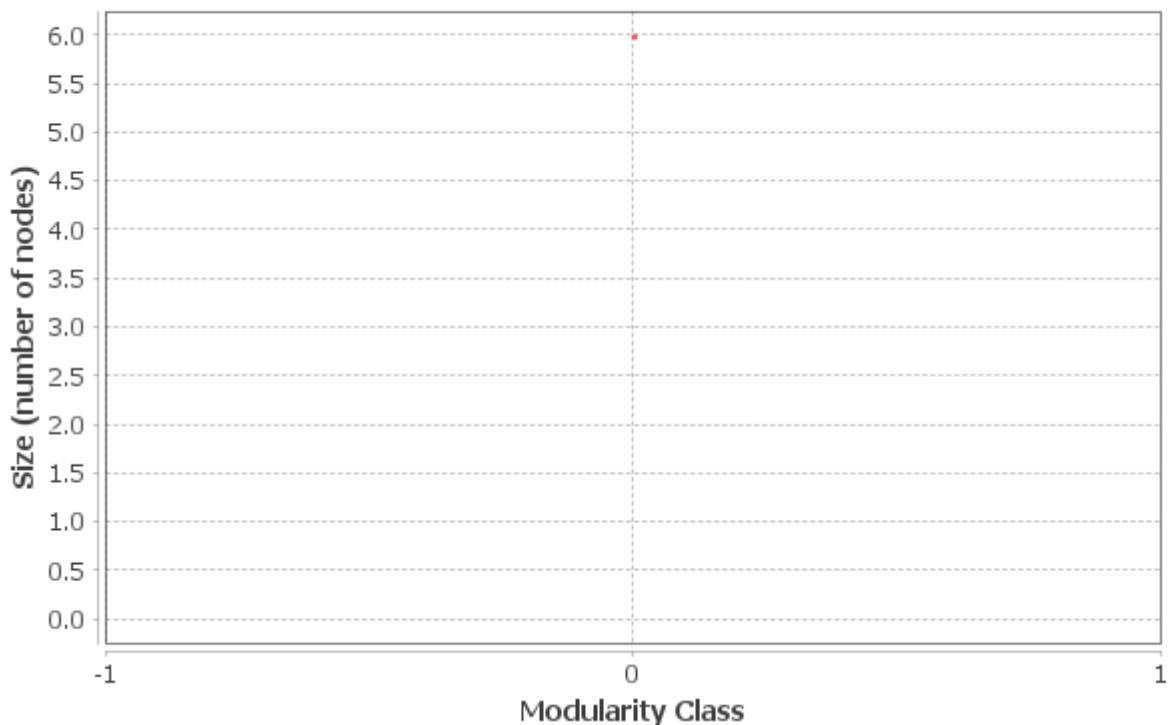
### Results:

Modularity: 0.000

Modularity with resolution: 0.000

Number of Communities: 1

**Size Distribution**



6-Betweenness and closeness centrality

## Graph Distance Report

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### Parameters:

Network Interpretation: directed

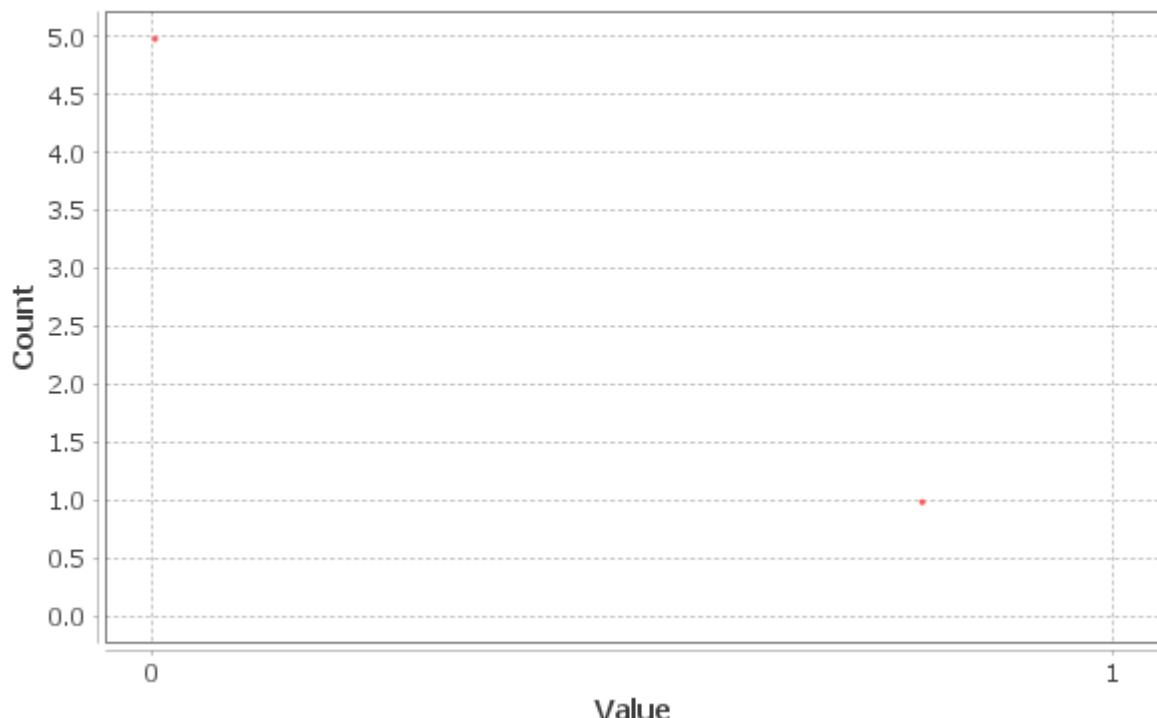
### Results:

Diameter: 2

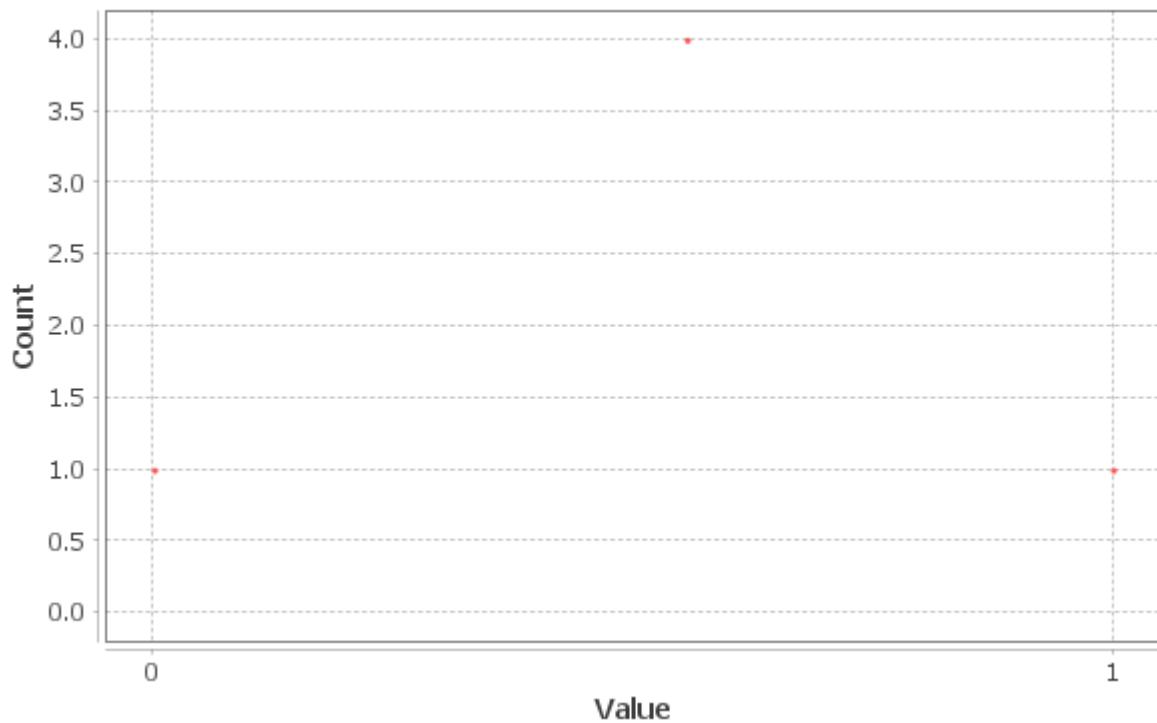
Radius: 0

Average Path length: 1.64

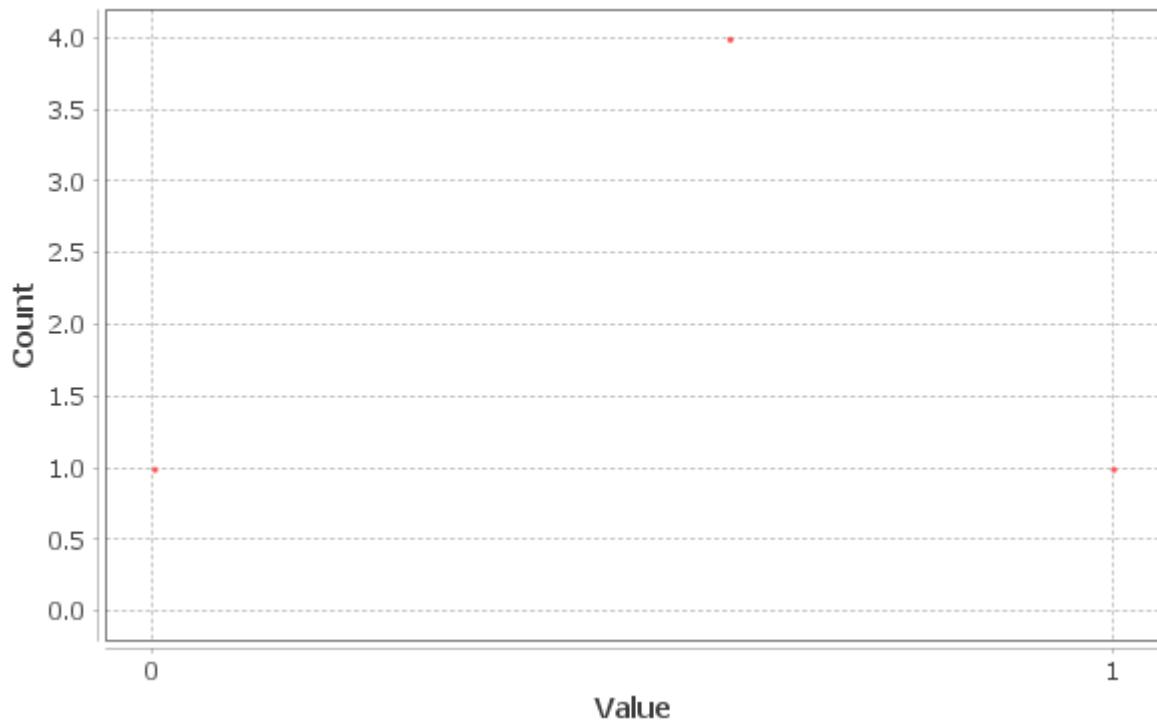
**Betweenness Centrality Distribution**



### **Closeness Centrality Distribution**



### **Harmonic Closeness Centrality Distribution**



# 7- Connected Components Report

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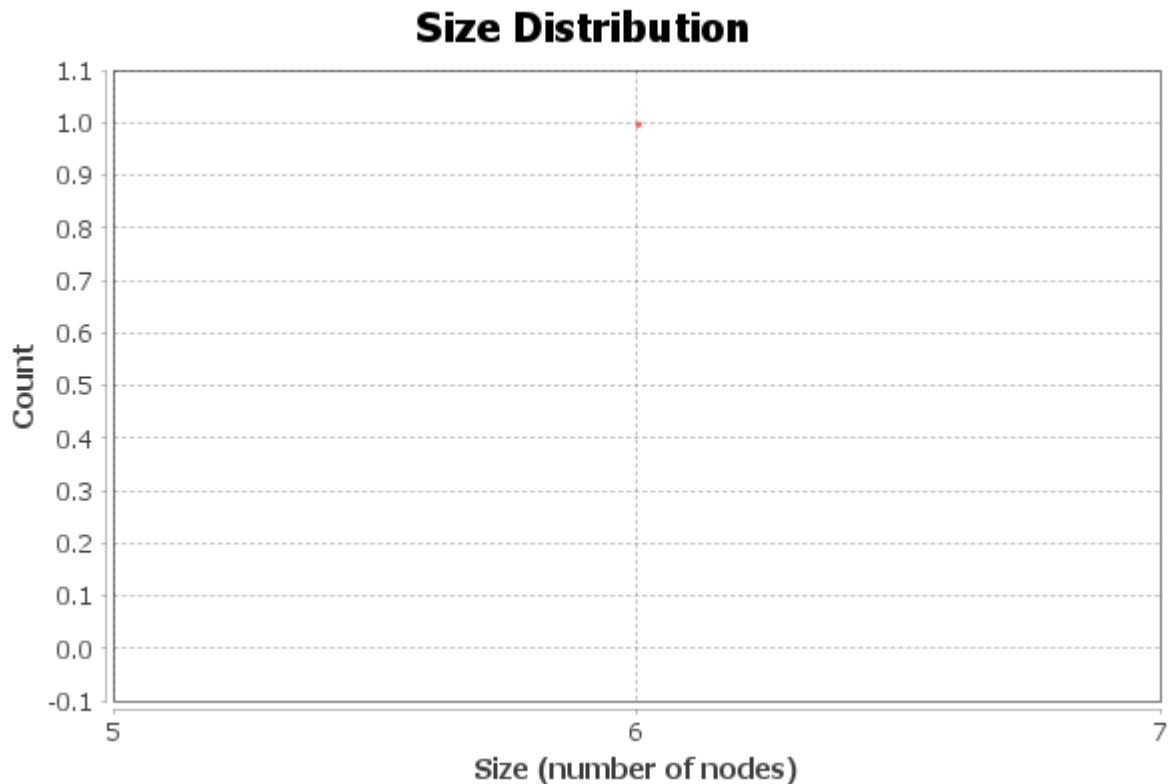
## Parameters:

Network Interpretation: directed

## Results:

Number of Weakly Connected Components: 1

Number of Strongly Connected Components: 2



|   | <b>Graph 30 conspiracy</b>   | <b>Graph 60 nonconspiracy</b> |
|---|------------------------------|-------------------------------|
| <b>number of nodes and edges</b>                      | <b>nodes=20<br/>edges=20</b> | <b>nodes=6<br/>edges=9</b>    |
| <b>Average degree</b>                                 | <b>1</b>                     | <b>1.5</b>                    |
| <b>Graph density</b>                                  | <b>0.05</b>                  | <b>0.3</b>                    |
| <b>Average clustering coefficient</b>                 | <b>0.052</b>                 | <b>0</b>                      |
| <b>Modularity (Q)</b>                                 | <b>0.375</b>                 | <b>0</b>                      |
| <b>number of communities</b>                          | <b>5</b>                     | <b>1</b>                      |
| <b>Betweenness and closeness centrality(diameter)</b> | <b>3</b>                     | <b>2</b>                      |
| <b>Connected components</b>                           | <b>18 strong</b>             | <b>2 strong</b>               |

