

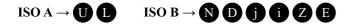
DEMO | GROUP 1 RELEVANT NODES

### a. Whom would you choose to spend a free outing with?

P	$IC \cdot KZ \cdot PR \cdot CL \cdot BL \cdot AI \cdot II \cdot POP$	85	M	$IC \cdot PR \cdot BL \cdot AI \cdot II \cdot POP$	52
Y	$IC \cdot KZ \cdot BT \cdot BL \cdot AI \cdot POP$	52	V	CL · POP	25
i	$\operatorname{BT}\cdot\operatorname{AI}$	25	E	AI · POP	20

### b. Whom would you not choose to spend a free outing with?

$IC \cdot KZ \cdot PR \cdot BT \cdot CL \cdot BL \cdot AI \cdot II \cdot REJ$	95	0	$IC \cdot KZ \cdot PR \cdot BT \cdot CL \cdot BL \cdot AI \cdot II \cdot REJ$	74
II · REJ	20	C	IM · II	20



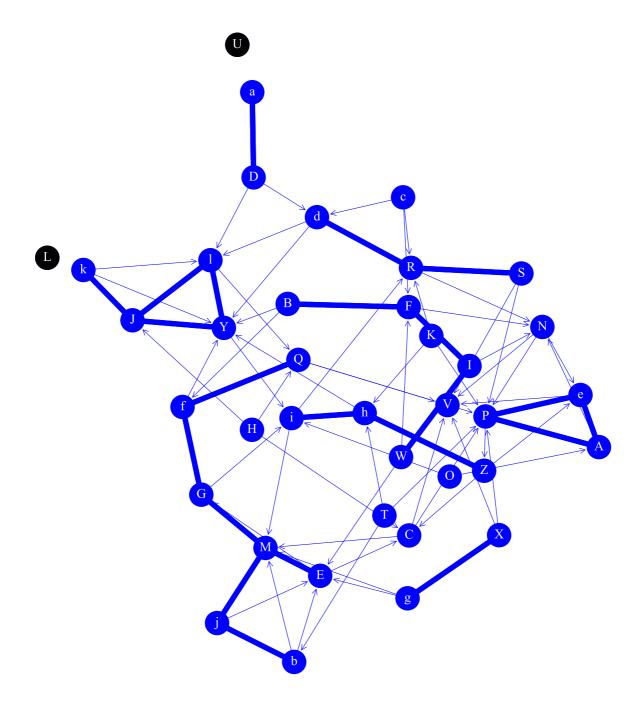
In alphabetical order: AI Affiliation Index AMB Ambitendent APP Appreciated BT Betweenness CL Closeness CON Controversial DIS Disliked HU
Hub Centrality IC In-Degree Centrality II Influence Index IM Impact ISO Isolated KZ Katz Centrality MAR Marginal POP Popular PR PageRank
Centrality REJ Rejected



DEMO | GROUP 1 SNA | NETWORK GRAPH

### a. Whom would you choose to spend a free outing with?

NN 38, NE 102, RE 22, ND 7%, NC 17%, NT 28%, NR 43%



In alphabetical order: NC Centralization NE Number of Edges NN Number of Nodes NR Reciprocity NT Transitivity NX Density RE Number of Mutual Edges



DEMO | GROUP 1 SNA | RAW SCORES

### a. Whom would you choose to spend a free outing with?

ID	CHOICES	IC	KZ	PR	ВТ	CL	HU	ND
A	N, P, e	0.08	0.17	0.04	0.01	0.30	0.05	
В	F, Y, f	0.03	0.13	0.01	0.02	0.06	0.02	
C	M, P, V	0.08	0.16	0.03	0.05	0.28	0.08	
D	a, d, l	0.03	0.13	0.01	0.02	0.03	0.01	
E	C, G, M	0.14	0.19	0.04	0.05	0.28	0.02	
F	B, I, N	0.11	0.17	0.02	0.02	0.11	0.01	
G	M, f, i	0.08	0.17	0.04	0.08	0.29	0.02	
Н	C, J, Q	0.00	0.12	0.01	0.00	0.00	0.01	←
I	F, N, W	0.05	0.14	0.01	0.01	0.07	0.01	
J	Y, k, 1	0.11	0.18	0.04	0.03	0.28	0.01	
K	P, R, h	0.00	0.12	0.01	0.00	0.00	0.06	←
L	<del>-</del>	0.00	0.00	0.00	0.00	0.00	0.00	$\rightleftharpoons$
M	E, G, j	0.19	0.23	0.06	0.11	0.35	0.01	
N	P, V, e	0.11	0.18	0.03	0.03	0.32	0.08	
O	A, i	0.00	0.12	0.01	0.00	0.00	0.01	←
P	A, Z, e	0.24	0.25	0.07	0.12	0.42	0.02	
Q	P, V, f	0.08	0.16	0.03	0.05	0.27	0.07	
R	N, S, d	0.14	0.19	0.03	0.08	0.29	0.01	
S	P, R, V	0.03	0.13	0.01	0.01	0.22	0.08	
T	P, b, h	0.00	0.12	0.01	0.00	0.00	0.05	←
U	-	0.00	0.00	0.00	0.00	0.00	0.00	$\rightleftharpoons$
V	-	0.16	0.21	0.05	0.00	0.40	0.00	$\rightarrow$
W	E, F, I	0.03	0.13	0.01	0.01	0.05	0.01	
X	P, V, g	0.03	0.13	0.01	0.00	0.03	0.07	
Y	J, i, 1	0.19	0.23	0.06	0.13	0.37	0.01	
Z	C, e, h	0.05	0.16	0.03	0.08	0.31	0.03	
a	D	0.03	0.13	0.01	0.00	0.03	0.00	
b	E, M, j	0.05	0.14	0.01	0.00	0.21	0.02	
c	F, R, d	0.00	0.12	0.01	0.00	0.00	0.02	←
d	R, Y, 1	0.08	0.16	0.02	0.03	0.23	0.02	
e	A, P, V	0.11	0.19	0.06	0.01	0.34	0.07	
f	G, Q, Y	0.08	0.16	0.03	0.05	0.28	0.01	
g	E, M, X	0.03	0.13	0.01	0.01	0.03	0.02	
h	Y, Z, i	0.11	0.17	0.03	0.07	0.31	0.01	
i	M, R, h	0.11	0.18	0.05	0.14	0.35	0.04	
j	E, M, b	0.05	0.15	0.03	0.02	0.26	0.02	
k	J, Y, 1	0.03	0.13	0.02	0.00	0.22	0.01	
1	J, Q, Y	0.14	0.20	0.05	0.05	0.29	0.01	

In alphabetical order: BT Betweenness CL Closeness HU Hub Centrality IC In-Degree Centrality KZ Katz Centrality ND No In-Degree  $(\leftarrow)$  No Out-Degree  $(\rightarrow)$  No In or Out-Degree  $(\rightleftharpoons)$  PR PageRank Centrality



DEMO | GROUP 1 SNA | RANK SCORES

### a. Whom would you choose to spend a free outing with?

ID	CHOICES	IC	KZ	PR	ВТ	CL	HU	ND
A	N, P, e	6	14	10	21	10	9	
В	F, Y, f	8	26	27	19	24	20	
C	M, P, V	6	18	18	12	13	1	
D	a, d, l	8	28	25	20	26	33	
E	C, G, M	4	6	11	11	13	17	
F	B, I, N	5	15	22	17	22	34	
G	M, f, i	6	12	9	6	12	12	
Н	C, J, Q	9	29	31	29	27	31	←
I	F, N, W	7	22	26	25	23	30	
J	Y, k, 1	5	10	8	15	14	23	
K	P, R, h	9	29	31	29	27	7	←
L	-	9	30	32	29	27	36	$\rightleftharpoons$
M	E, G, j	2	3	2	4	4	25	
N	P, V, e	5	11	12	16	7	3	
О	A, i	9	29	31	29	27	24	<b>←</b>
P	A, Z, e	1	1	1	3	1	19	
Q	P, V, f	6	16	16	13	16	4	
R	N, S, d	4	8	14	7	11	32	
S	P, R, V	8	24	24	26	19	2	
T	P, b, h	9	29	31	29	27	8	←
U	-	9	30	32	29	27	36	$\rightleftarrows$
V	-	3	4	5	29	2	36	$\rightarrow$
W	E, F, I	8	27	29	22	25	27	
X	P, V, g	8	28	30	27	26	6	
Y	J, i, l	2	2	3	2	3	29	
Z	C, e, h	7	20	13	5	8	11	
a	D	8	28	28	29	26	35	
b	E, M, j	7	23	23	28	21	15	
c	F, R, d	9	29	31	29	27	18	<b>←</b>
d	R, Y, 1	6	19	20	14	18	14	
e	A, P, V	5	7	4	23	6	5	
f	G, Q, Y	6	17	17	10	15	26	
g	E, M, X	8	28	30	24	26	16	
h	Y, Z, i	5	13	15	8	9	22	
i	M, R, h	5	9	7	1	5	10	
j	E, M, b	7	21	19	18	17	13	
k	J, Y, 1	8	25	21	29	20	21	
1	J, Q, Y	4	5	6	9	12	28	

In alphabetical order: BT Betweenness CL Closeness HU Hub Centrality IC In-Degree Centrality KZ Katz Centrality ND No In-Degree  $(\leftarrow)$  No Out-Degree  $(\rightarrow)$  No In or Out-Degree  $(\rightleftharpoons)$  PR PageRank Centrality



### **DEMO | GROUP 1**

### **SNA | NODES ORDERED BY RANK**

# a. Whom would you choose to spend a free outing with?

IC	RK	KZ	RK	PR	RK	ВТ	RK	CL	RK	HU	RK
P	1	P	1	P	1	i	1	P	1	С	1
Y	2	Y	2	M	2	Y	2	V	2	S	2
M	2	M	3	Y	3	P	3	Y	3	N	3
V	3	V	4	e	4	M	4	M	4	Q	4
1	4	1	5	V	5	Z	5	i	5	e	5
E	4	Е	6	1	6	G	6	e	6	X	6
R	4	e	7	i	7	R	7	N	7	K	7
i	5	R	8	J	8	h	8	Z	8	T	8
h	5	i	9	G	9	1	9	h	9	A	9
F	5	J	10	A	10	f	10	A	10	i	10
e	5	N	11	Е	11	E	11	R	11	Z	11
J	5	G	12	N	12	C	12	1	12	G	12
N	5	h	13	Z	13	Q	13	G	12	j	13
f	6	A	14	R	14	d	14	C	13	d	14
d	6	F	15	h	15	J	15	Е	13	b	15
Q	6	Q	16	Q	16	N	16	J	14	g	16
A	6	f	17	f	17	F	17	f	15	E	17
C	6	C	18	C	18	j	18	Q	16	c	18
G	6	d	19	j	19	В	19	j	17	P	19
b	7	Z	20	d	20	D	20	d	18	В	20
j	7	j	21	k	21	A	21	S	19	k	21
I	7	I	22	F	22	W	22	k	20	h	22
Z	7	b	23	b	23	e	23	b	21	J	23
В	8	S	24	S	24	g	24	F	22	O	24
g	8	k	25	D	25	I	25	I	23	M	25
D	8	В	26	I	26	S	26	В	24	f	26
S	8	W	27	В	27	X	27	W	25	W	27
X	8	a	28	a	28	b	28	a	26	1	28
W	8	D	28	W	29	Н	29	D	26	Y	29
k	8	g	28	g	30	K	29	g	26	I	30
a	8	X	28	X	30	L	29	X	26	Н	31
O	9	Н	29	T	31	V	29	L	27	R	32
c	9	c	29	O	31	c	29	U	27	D	33
Н	9	T	29	Н	31	a	29	c	27	F	34
K	9	K	29	c	31	k	29	T	27	a	35
U	9	O	29	K	31	T	29	Н	27	V	36
T	9	L	30	U	32	U	29	O	27	U	36
L	9	U	30	L	32	O	29	K	27	L	36

In alphabetical order: BT Betweenness CL Closeness HU Hub Centrality IC In-Degree Centrality KZ Katz Centrality RK Rank PR PageRank Centrality



**DEMO | GROUP 1** 

### **SNA | EDGES GROUPED BY TYPE**

## a. Whom would you choose to spend a free outing with?

### Non reciprocal edges

 $X \rightarrow Y$  in network A · not  $Y \rightarrow X$  in network A

 $F\cdot N$  $C\cdot V$  $E\cdot C$  $\mathbf{H}\cdot\mathbf{C}$  $\mathbf{B} \cdot \mathbf{Y}$  $B \cdot f$  $\mathbf{C} \cdot \mathbf{M}$  $\mathbf{C} \cdot \mathbf{P}$  $D\cdot d$  $D \cdot 1$  $\mathbf{E} \cdot \mathbf{G}$  $G\cdot i$  $H \cdot J$  $\boldsymbol{H}\cdot\boldsymbol{Q}$  $I \cdot N$  $K \cdot P$  $K\cdot R$  $K \cdot h$  $N\cdot P$  $N\cdot V$  $N \cdot e$  $O \cdot A$  $0 \cdot i$  $P \cdot Z$  $Q\cdot P$  $Q \cdot V$  $R\cdot N$  $S \cdot P$  $S \cdot V$  $T\cdot b$  $W\cdot E$  $W\cdot F$  $X\cdot P$  $\mathbf{X}\cdot\mathbf{V}$  $Y\cdot i$  $Z\cdot C$  $Z \cdot e$  $T\,\cdot\, P$  $T \cdot h$  $b \cdot E$  $b \cdot M$  $\mathbf{c} \cdot \mathbf{F}$  $c\,\cdot\, R$  $c \cdot d$  $f\cdot Y$  $g \cdot E$  $g\cdot M$  $\mathbf{h} \cdot \mathbf{Y}$  $i \cdot M$  $i\cdot R\\$ d · 1  $e \cdot V$  $j \cdot E$ 

### Reciprocal edges

 $X \rightarrow Y$  in network  $A \cdot Y \rightarrow X$  in network A

 $\mathbf{B} \cdot \mathbf{F}$  $D\cdot a$  $E\cdot M$  $F \cdot I$  $G\cdot M$  $G \cdot f$  $I \cdot W$  $J\cdot k$  $J \cdot 1$  $M \cdot j$  $P\cdot e$  $Q \cdot f$  $\mathbf{R}\cdot\mathbf{S}$  $\mathbf{A} \cdot \mathbf{P}$  $A \cdot e$  $X\cdot g$  $Z \cdot h$ b · j

#### Half symmetrical edges

 $X \rightarrow Y$  in network  $A \cdot X \rightarrow Y$  in network B

 $B\cdot Y$  $B \cdot f$  $C\cdot M$  $\mathbf{C} \cdot \mathbf{P}$  $D\cdot d$  $D \cdot 1$  $\mathbf{E} \cdot \mathbf{G}$  $F \cdot N$  $G\cdot i$  $K\cdot P$  $A\cdot N$  $N\cdot e$  $K\cdot R$  $K \cdot h$  $N \cdot P$  $N \cdot V$  $0 \cdot i$  $P \cdot Z$  $O \cdot V$  $S \cdot V$  $T \cdot b$  $T \cdot h$  $c \cdot d$  $d \cdot 1$  $k \cdot 1$ 

# Reversed half symmetrical edges

 $X \to Y$  in network  $A \cdot Y \to X$  in network B

### Full symmetrical edges

 $X \to Y, Y \to X$  in network  $A \cdot X \to Y, Y \to X$  in network B

 $\mathbf{A} \cdot \mathbf{P}$  $\mathbf{B} \cdot \mathbf{F}$  $D\cdot a$  $E \cdot M$  $F \cdot I$  $G \cdot M$  $G \cdot f$  $I \cdot W$  $J \cdot k$  $J \cdot 1$  $M \cdot j$  $R \cdot S$  $X\cdot g$  $Z\cdot h$  $\mathbf{b} \cdot \mathbf{j}$  $R \cdot d$  $Y \cdot 1$ h·i

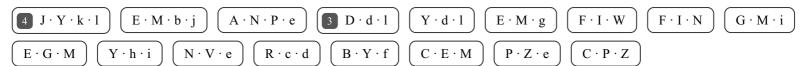


DEMO | GROUP 1 SNA | SUBGRAPHS

## a. Whom would you choose to spend a free outing with?

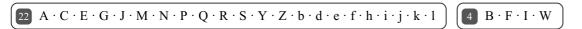
Cliques

Each node can reach every other node: a) without intermediaries; b) ignoring the direction of connections



#### **Strongly Connected Groups**

Each node can reach every other node: a) with or without intermediaries; b) following the direction of connections



### **Weakly Connected Groups**

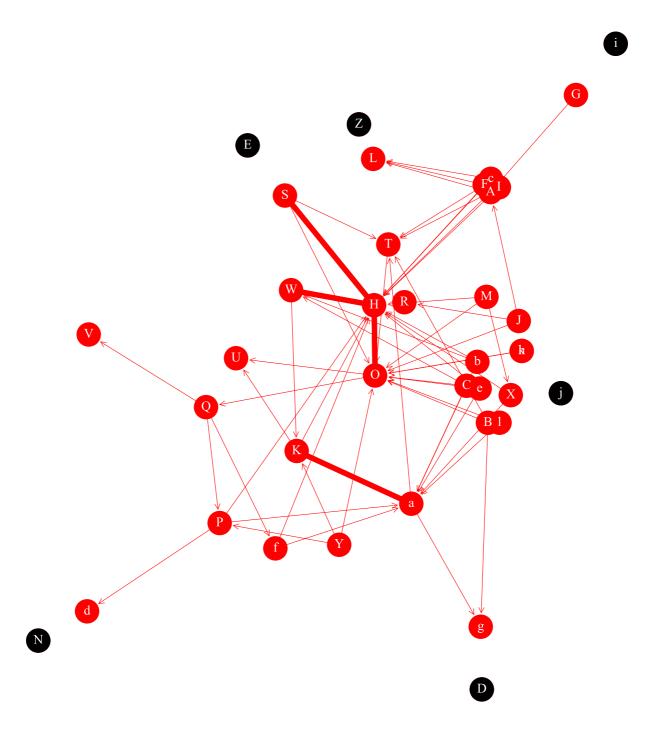
Each node can reach every other node: a) with or without intermediaries; b) ignoring the direction of connections



DEMO | GROUP 1 SNA | NETWORK GRAPH

### b. Whom would you not choose to spend a free outing with?

NN 38, NE 63, RE 4, ND 4%, NC 31%, NT 12%, NR 13%



In alphabetical order: NC Centralization NE Number of Edges NN Number of Nodes NR Reciprocity NT Transitivity NX Density RE Number of Mutual Edges



DEMO | GROUP 1 SNA | RAW SCORES

# b. Whom would you not choose to spend a free outing with?

ID	CHOICES	IC	KZ	PR	ВТ	CL	HU	ND
A	H, L, T	0.05	0.15	0.02	0.01	0.05	0.05	
В	O, T, g	0.00	0.13	0.01	0.00	0.00	0.03	←
C	O, W, a	0.00	0.13	0.01	0.00	0.00	0.05	←
D	-	0.00	0.00	0.00	0.00	0.00	0.00	$\rightleftharpoons$
Е	-	0.00	0.00	0.00	0.00	0.00	0.00	$\rightleftarrows$
F	H, L, T	0.00	0.13	0.01	0.00	0.00	0.05	←
G	A	0.00	0.13	0.01	0.00	0.00	0.00	←
Н	O, S, W	0.38	0.35	0.15	0.10	0.47	0.03	
I	Н	0.00	0.13	0.01	0.00	0.00	0.03	←
J	A, O, R	0.00	0.13	0.01	0.00	0.00	0.02	←
K	H, U, a	0.08	0.18	0.05	0.02	0.25	0.06	
L	-	0.08	0.17	0.02	0.00	0.10	0.00	$\rightarrow$
M	Н, О, Х	0.00	0.13	0.01	0.00	0.00	0.06	←
N	-	0.00	0.00	0.00	0.00	0.00	0.00	⇄
O	H, Q, U	0.32	0.31	0.14	0.13	0.42	0.04	
P	H, a, d	0.05	0.16	0.02	0.03	0.21	0.06	
Q	P, V, f	0.03	0.16	0.05	0.08	0.27	0.00	
R	-	0.03	0.14	0.01	0.00	0.03	0.00	$\rightarrow$
S	Н, О, Т	0.03	0.16	0.05	0.01	0.28	0.06	
T	0	0.14	0.21	0.05	0.01	0.30	0.02	
U	-	0.05	0.18	0.06	0.00	0.29	0.00	$\rightarrow$
V	-	0.03	0.14	0.02	0.00	0.21	0.00	$\rightarrow$
W	H, K	0.08	0.19	0.06	0.02	0.30	0.04	
X	Н, а	0.03	0.14	0.01	0.00	0.03	0.05	
Y	K, O, P	0.00	0.13	0.01	0.00	0.00	0.03	←
Z	-	0.00	0.00	0.00	0.00	0.00	0.00	$\rightleftarrows$
a	K, T, g	0.22	0.24	0.05	0.03	0.25	0.02	
b	H, W, a	0.00	0.13	0.01	0.00	0.00	0.06	←
c	H, L	0.00	0.13	0.01	0.00	0.00	0.04	←
d	-	0.03	0.14	0.02	0.00	0.17	0.00	$\rightarrow$
e	Н, О, а	0.00	0.13	0.01	0.00	0.00	0.07	←
f	Н, а	0.03	0.14	0.02	0.01	0.20	0.05	
g	-	0.05	0.16	0.03	0.00	0.21	0.00	$\rightarrow$
h	O	0.00	0.13	0.01	0.00	0.00	0.02	←
i	-	0.00	0.00	0.00	0.00	0.00	0.00	$\rightleftarrows$
j	-	0.00	0.00	0.00	0.00	0.00	0.00	$\rightleftarrows$
k	O	0.00	0.13	0.01	0.00	0.00	0.02	←
1	O, a	0.00	0.13	0.01	0.00	0.00	0.04	<b>←</b>

In alphabetical order: BT Betweenness CL Closeness HU Hub Centrality IC In-Degree Centrality KZ Katz Centrality ND No In-Degree  $(\leftarrow)$  No Out-Degree  $(\rightarrow)$  No In or Out-Degree  $(\rightleftharpoons)$  PR PageRank Centrality



DEMO | GROUP 1 SNA | RANK SCORES

### b. Whom would you not choose to spend a free outing with?

ID	CHOICES	IC	KZ	PR	ВТ	CL	HU	ND
A	H, L, T	6	13	14	8	15	8	
В	O, T, g	8	17	17	13	17	15	←
C	O, W, a	8	17	17	13	17	9	←
D	-	8	18	18	13	17	23	$\rightleftharpoons$
E	-	8	18	18	13	17	23	$\rightleftharpoons$
F	H, L, T	8	17	17	13	17	8	←
G	A	8	17	17	13	17	22	←
Н	O, S, W	1	1	1	2	1	16	
I	Н	8	17	17	13	17	14	←
J	A, O, R	8	17	17	13	17	18	←
K	H, U, a	5	6	7	7	8	4	
L	-	5	8	13	13	14	23	$\rightarrow$
M	Н, О, Х	8	17	17	13	17	5	←
N	-	8	18	18	13	17	23	$\rightleftharpoons$
O	H, Q, U	2	2	2	1	2	12	
P	H, a, d	6	12	11	5	10	6	
Q	P, V, f	7	11	9	3	7	21	
R	-	7	16	16	13	16	23	$\rightarrow$
S	H, O, T	7	10	6	11	6	2	
T	O	4	4	8	9	3	19	
U	-	6	7	3	13	5	23	$\rightarrow$
V	-	7	14	12	13	9	23	$\rightarrow$
W	H, K	5	5	4	6	4	13	
X	Н, а	7	16	16	12	16	7	
Y	K, O, P	8	17	17	13	17	17	←
Z	-	8	18	18	13	17	23	$\rightleftharpoons$
a	K, T, g	3	3	5	4	8	20	
b	H, W, a	8	17	17	13	17	3	←
c	H, L	8	17	17	13	17	11	←
d	-	7	15	15	13	13	23	$\rightarrow$
e	Н, О, а	8	17	17	13	17	1	←
f	Н, а	7	14	12	10	12	7	
g	-	6	9	10	13	11	23	$\rightarrow$
h	O	8	17	17	13	17	19	←
i	-	8	18	18	13	17	23	$\rightleftharpoons$
j	-	8	18	18	13	17	23	$\rightleftharpoons$
k	O	8	17	17	13	17	19	←
1	O, a	8	17	17	13	17	10	←

In alphabetical order: BT Betweenness CL Closeness HU Hub Centrality IC In-Degree Centrality KZ Katz Centrality ND No In-Degree  $(\leftarrow)$  No Out-Degree  $(\rightarrow)$  No In or Out-Degree  $(\rightleftharpoons)$  PR PageRank Centrality



## **DEMO | GROUP 1**

### **SNA | NODES ORDERED BY RANK**

# b. Whom would you not choose to spend a free outing with?

IC	RK	KZ	RK	PR	RK	ВТ	RK	CL	RK	HU	RK	
Н	1	Н	1	Н	1	0	1	Н	1	e	1	
O	2	O	2	O	2	Н	2	O	2	S	2	
a	3	a	3	U	3	Q	3	T	3	b	3	
T	4	T	4	W	4	a	4	W	4	K	4	
W	5	W	5	a	5	P	5	U	5	M	5	
K	5	K	6	S	6	W	6	S	6	P	6	
L	5	U	7	K	7	K	7	Q	7	f	7	
A	6	L	8	T	8	A	8	a	8	X	7	
g	6	g	9	Q	9	T	9	K	8	A	8	
U	6	S	10	g	10	f	10	V	9	F	8	
P	6	Q	11	P	11	S	11	P	10	C	9	
f	7	P	12	f	12	X	12	g	11	1	10	
d	7	A	13	V	12	L	13	f	12	c	11	
X	7	f	14	L	13	j	13	d	13	O	12	
V	7	V	14	A	14	i	13	L	14	W	13	
R	7	d	15	d	15	h	13	A	15	I	14	
S	7	X	16	R	16	g	13	R	16	В	15	
Q	7	R	16	X	16	В	13	X	16	Н	16	
N	8	e	17	M	17	e	13	M	17	Y	17	
j	8	c	17	h	17	d	13	j	17	J	18	
i	8	b	17	В	17	c	13	i	17	k	19	
h	8	C	17	C	17	b	13	h	17	h	19	
В	8	M	17	e	17	C	13	В	17	T	19	
C	8	Y	17	c	17	Z	13	C	17	a	20	
e	8	1	17	b	17	Y	13	e	17	Q	21	
D	8	F	17	1	17	D	13	D	17	G	22	
c	8	k	17	Y	17	V	13	c	17	U	23	
b	8	G	17	F	17	U	13	E	17	j	23	
Z	8	I	17	G	17	E	13	N	17	i	23	
Y	8	J	17	I	17	k	13	Z	17	g	23	
F	8	В	17	k	17	R	13	Y	17	L	23	
G	8	h	17	J	17	F	13	F	17	N	23	
I	8	i	18	N	18	G	13	G	17	D	23	
J	8	j	18	Е	18	I	13	I	17	Z	23	
M	8	N	18	i	18	N	13	J	17	R	23	
k	8	E	18	j	18	M	13	k	17	V	23	
E	8	D	18	Z	18	J	13	b	17	d	23	
1	8	Z	18	D	18	1	13	1	17	E	23	

In alphabetical order: BT Betweenness CL Closeness HU Hub Centrality IC In-Degree Centrality KZ Katz Centrality RK Rank PR PageRank Centrality



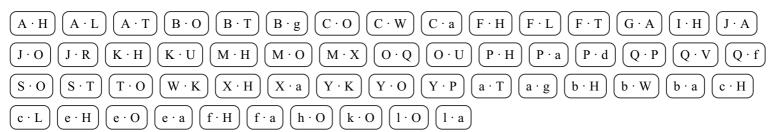
**DEMO | GROUP 1** 

**SNA | EDGES GROUPED BY TYPE** 

## b. Whom would you not choose to spend a free outing with?

### Non reciprocal edges

 $X \rightarrow Y$  in network  $B \cdot not Y \rightarrow X$  in network B



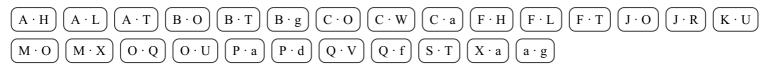
### Reciprocal edges

 $X \to Y$  in network  $B \cdot Y \to X$  in network B



#### Half symmetrical edges

 $X \to Y$  in network  $B \cdot X \to Y$  in network A



# Reversed half symmetrical edges

 $X \rightarrow Y$  in network  $B \cdot Y \rightarrow X$  in network A



# Full symmetrical edges

 $X \to Y, \, Y \to X$  in network  $B \, \cdot \, X \to Y, \, Y \to X$  in network A





DEMO | GROUP 1 SNA | SUBGRAPHS

### b. Whom would you not choose to spend a free outing with?

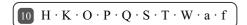
### Cliques

Each node can reach every other node: a) without intermediaries; b) ignoring the direction of connections



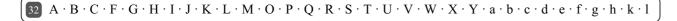
#### **Strongly Connected Groups**

Each node can reach every other node: a) with or without intermediaries; b) following the direction of connections



#### **Weakly Connected Groups**

Each node can reach every other node: a) with or without intermediaries; b) ignoring the direction of connections





DEMO | GROUP 1 SNA | DESCRIPTIVE

### a. Whom would you choose to spend a free outing with?

NN 38, NE 102, RE 22, ND 7%, NC 17%, NT 28%, NR 43%

ID	Count	Min	Max	Median	Mean	SD	CV	GN	SK	KT	P25	P75
In-Degree Centrality	38.00	0.00	0.24	0.07	0.07	0.06	0.84	0.46	0.80	0.28	0.03	0.11
PageRank Centrality	38.00	0.00	0.07	0.02	0.03	0.02	0.75	0.42	0.56	-0.79	0.01	0.04
Katz Centrality	38.00	0.00	0.25	0.16	0.15	0.05	0.33	0.17	-1.10	3.09	0.13	0.18
Betweenness Centrality	38.00	0.00	0.14	0.02	0.03	0.04	1.18	0.61	1.24	0.59	0.00	0.05
Closeness Centrality	38.00	0.00	0.42	0.25	0.19	0.14	0.75	0.41	-0.23	-1.59	0.03	0.30
Hub Centrality	38.00	0.00	0.08	0.02	0.03	0.03	1.00	0.51	1.09	-0.30	0.01	0.04

In alphabetical order: COUNT Frequency CV Coefficient of Variation GN Gini Coefficient KT Kurtosis MAX Maximum Value MEAN Mean MEDIAN Median MIN Minimum Value NC Centralization NE Number of Edges NN Number of Nodes NR Reciprocity NT Transitivity P25 25th Percentile P75 75th Percentile RE Number of Mutual Edges SD Standard Deviation SK Skewness

### b. Whom would you not choose to spend a free outing with?

NN 38, NE 63, RE 4, ND 4%, NC 31%, NT 12%, NR 13%

ID	Count	Min	Max	Median	Mean	SD	CV	GN	SK	KT	P25	P75
In-Degree Centrality	38.00	0.00	0.38	0.00	0.04	0.09	1.92	0.76	2.83	8.08	0.00	0.05
PageRank Centrality	38.00	0.00	0.15	0.01	0.02	0.03	1.34	0.58	2.51	6.84	0.01	0.03
Katz Centrality	38.00	0.00	0.35	0.13	0.13	0.08	0.57	0.28	0.18	1.67	0.13	0.16
Betweenness Centrality	38.00	0.00	0.13	0.00	0.01	0.03	2.41	0.85	3.02	8.82	0.00	0.01
Closeness Centrality	38.00	0.00	0.47	0.00	0.11	0.14	1.32	0.66	0.99	-0.21	0.00	0.21
Hub Centrality	38.00	0.00	0.07	0.02	0.03	0.02	0.91	0.50	0.24	-1.34	0.00	0.05

In alphabetical order: COUNT Frequency CV Coefficient of Variation GN Gini Coefficient KT Kurtosis MAX Maximum Value MEAN Mean MEDIAN Median MIN Minimum Value NC Centralization NE Number of Edges NN Number of Nodes NR Reciprocity NT Transitivity P25 25th Percentile P75 75th Percentile RE Number of Mutual Edges SD Standard Deviation SK Skewness



**DEMO | GROUP 1** 

### SOCIOGRAM | RAW SCORES

ID	RP	RR	GP	GR	MP	MR	BL	OR	IM	AI	II	ST
A	3	2	3	3	2	0	1	0	5	1	5	ambitendent
В	1	0	3	3	1	0	1	0	1	1	2	marginal
C	3	0	3	3	0	0	3	0	3	3	3	appreciated
D	1	0	3	0	1	0	1	3	1	4	2	marginal
E	5	0	3	0	1	0	5	3	5	8	6	popular
F	4	0	3	3	2	0	4	0	4	4	6	appreciated
G	3	0	3	1	2	0	3	2	3	5	5	appreciated
Н	0	14	3	3	0	3	-14	0	14	-14	0	rejected
I	2	0	3	1	2	0	2	2	2	4	4	appreciated
J	4	0	3	3	3	0	4	0	4	4	7	appreciated
K	0	3	3	3	0	1	-3	0	3	-3	0	disliked
L	0	3	0	0	0	0	-3	0	3	-3	0	disliked
M	7	0	3	3	3	0	7	0	7	7	10	popular
N	4	0	3	0	0	0	4	3	4	7	4	appreciated
О	0	12	2	3	0	1	-12	-1	12	-13	0	rejected
P	9	2	3	3	2	0	7	0	11	7	11	popular
Q	3	1	3	3	1	0	2	0	4	2	4	appreciated
R	5	1	3	0	2	0	4	3	6	7	7	appreciated
S	1	1	3	3	1	1	0	0	2	0	2	ambitendent
T	0	5	3	1	0	0	-5	2	5	-3	0	rejected
U	0	2	0	0	0	0	-2	0	2	-2	0	disliked
V	6	1	0	0	0	0	5	0	7	5	6	popular
W	1	3	3	2	1	1	-2	1	4	-1	2	disliked
X	1	1	3	2	1	0	0	1	2	1	2	ambitendent
Y	7	0	3	3	2	0	7	0	7	7	9	popular
Z	2	0	3	0	1	0	2	3	2	5	3	appreciated
a	1	8	1	3	1	1	-7	-2	9	-9	2	rejected
b	2	0	3	3	1	0	2	0	2	2	3	appreciated
c	0	0	3	2	0	0	0	1	0	1	0	marginal
d	3	1	3	0	1	0	2	3	4	5	4	appreciated
e	4	0	3	3	2	0	4	0	4	4	6	appreciated
f	3	1	3	2	2	0	2	1	4	3	5	appreciated
g	1	2	3	0	1	0	-1	3	3	2	2	ambitendent
h	4	0	3	1	2	0	4	2	4	6	6	appreciated
i	4	0	3	0	1	0	4	3	4	7	5	appreciated
j	2	0	3	0	2	0	2	3	2	5	4	appreciated
k	1	0	3	1	1	0	1	2	1	3	2	marginal
1	5	0	3	2	2	0	5	1	5	6	7	popular

In alphabetical order: AI Affiliation Index BL Balance GP Given Preferences GR Given Rejections II Influence Index IM Impact MP Mutual Preferences MR Mutual Rejections OR Orientation RP Received Preferences RR Received Rejections ST Sociometric Status



# **DEMO | GROUP 1**

# SOCIOGRAM | NODES ORDERED BY RANK

BL	RK	IM	RK	AI	RK	II	RK	ST	RK
P	1	H	1	E	1	P	1	1	1
M	1	O	2	M	2	M	2	Y	1
Y	1	P	3	R	2	Y	3	V	1
1	2	a	4	P	2	1	4	E	1
V	2	Y	5	N	2	J	4	P	1
Е	2	V	5	Y	2	R	4	M	1
F	3	M	5	i	2	h	5	d	2
R	3	R	6	h	3	E	5	e	2
e	3	A	7	1	3	F	5	f	2
i	3	T	7	j	4	e	5	R	2
N	3	1	7	V	4	V	5	Q	2
h	3	Е	7	d	4	i	6	Z	2
J	3	J	8	Z	4	f	6	N	2
C	4	N	8	G	4	A	6	i	2
G	4	i	8	D	5	G	6	J	2
I	5	h	8	I	5	j	7	I	2
d	5	Q	8	e	5	Q	7	j	2
j	5	F	8	F	5	I	7	G	2
Q	5	f	8	J	5	d	7	F	2
b	5	e	8	f	6	N	7	C	2
Z	5	W	8	С	6	Z	8	h	2
f	5	d	8	k	6	C	8	b	2
A	6	L	9	Q	7	b	8	k	3
k	6	g	9	g	7	В	9	D	3
D	6	C	9	b	7	g	9	c	3
В	6	G	9	c	8	D	9	В	3
X	7	K	9	A	8	S	9	g	6
c	7	Z	10	X	8	X	9	A	6
S	7	b	10	В	8	W	9	X	6
g	8	X	10	S	9	k	9	S	6
U	9	U	10	W	10	a	9	W	8
W	9	I	10	U	11	Н	10	U	8
L	10	j	10	T	12	c	10	L	8
K	10	S	10	L	12	U	10	K	8
T	11	В	11	K	12	T	10	T	9
a	12	D	11	a	13	K	10	O	9
O	13	k	11	O	14	L	10	Н	9
Н	14	c	12	Н	15	O	10	a	9

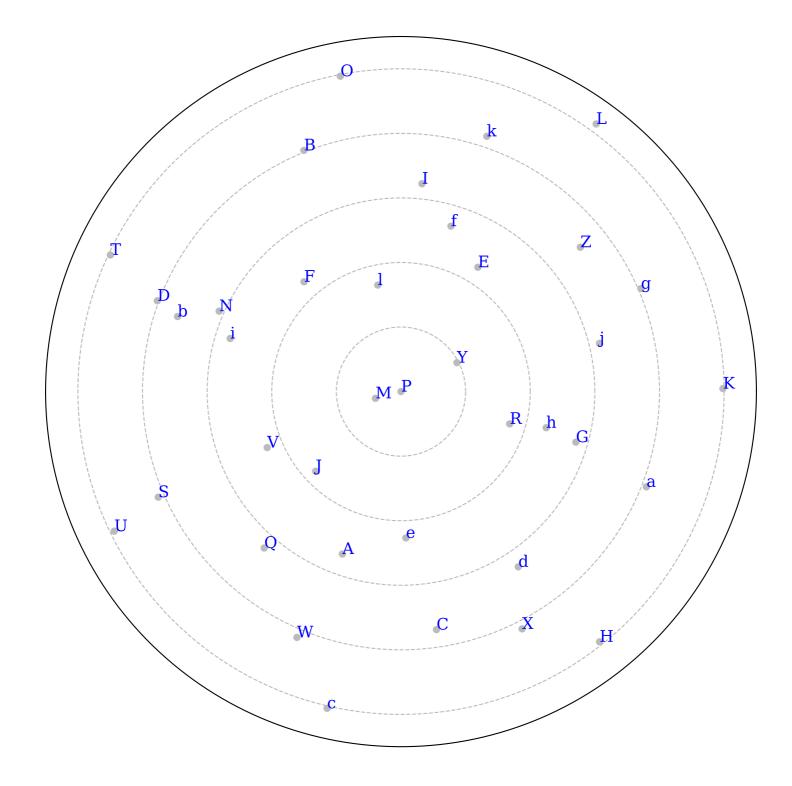
In alphabetical order: AI Affiliation Index BL Balance II Influence Index IM Impact ST Sociometric Status



DEMO | GROUP 1 SOCIOGRAM | GRAPH

Influence index

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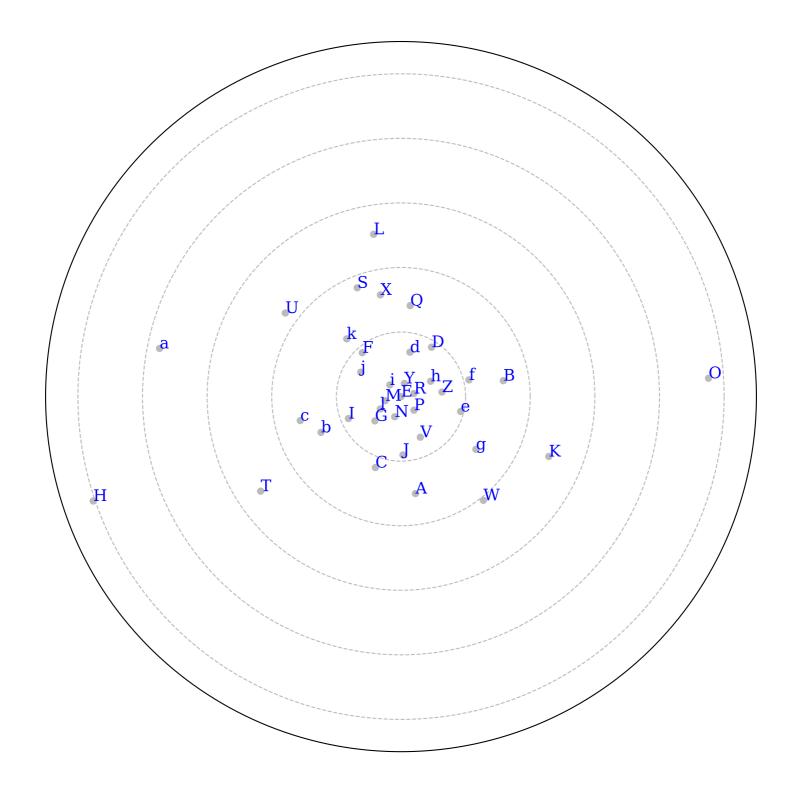




DEMO | GROUP 1 SOCIOGRAM | GRAPH

Affiliation index

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### **DEMO | GROUP 1**

### **SOCIOGRAM | DESCRIPTIVES**

Type I Cohesion Index: 43.14% Type II Cohesion Index: 0.58 Type I Conflict Index: 12.70% Type II Conflict Index: 0.11

ID	Count	Min	Max	Median	Mean	SD	CV	GN	SK	KT	P25	P75
Received Preferences	38.00	0.00	9.00	2.50	2.68	2.27	0.84	0.46	0.80	0.28	1.00	4.00
Received Rejections	38.00	0.00	14.00	0.00	1.66	3.18	1.92	0.76	2.83	8.08	0.00	2.00
Given Preferences	38.00	0.00	3.00	3.00	2.68	0.87	0.33	0.10	-2.66	5.73	3.00	3.00
Given Rejections	38.00	0.00	3.00	2.00	1.66	1.32	0.80	0.43	-0.21	-1.76	0.00	3.00
Mutual Preferences	38.00	0.00	3.00	1.00	1.16	0.89	0.77	0.41	0.17	-0.83	0.25	2.00
Mutual Rejections	38.00	0.00	3.00	0.00	0.21	0.58	2.74	0.88	3.55	14.69	0.00	0.00
Balance	38.00	-14.00	7.00	2.00	1.03	4.61	4.49	0.15	-1.61	3.18	0.00	4.00
Orientation	38.00	-2.00	3.00	0.50	1.03	1.38	1.35	0.24	0.21	-1.01	0.00	2.00
Impact	38.00	0.00	14.00	4.00	4.34	3.05	0.70	0.35	1.52	2.49	2.00	5.00
Affiliation Index	38.00	-14.00	8.00	3.50	2.05	5.19	2.53	0.16	-1.67	2.92	1.00	5.00
Influence Index	38.00	0.00	11.00	4.00	3.84	2.88	0.75	0.41	0.52	-0.12	2.00	6.00

In alphabetical order: COUNT Frequency CV Coefficient of Variation GN Gini Coefficient KT Kurtosis MAX Maximum Value MEAN Mean MEDIAN Median MIN Minimum Value P25 25th Percentile P75 75th Percentile SD Standard Deviation SK Skewness