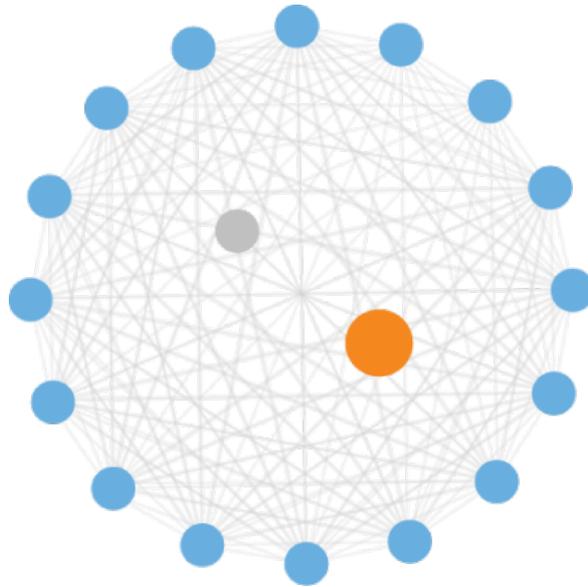# Personalized Network Analysis Report

Prepared for
Name Surname
February 2015

SurveyName56

Overview

Recently you completed the Mappian network survey. The survey contained a number of questions about you, your contacts, and your relationships with your contacts. The survey was designed to help you better understand what your network currently looks like and identify ways that you can potentially improve and make better use of your network.

Based on your responses to the survey questions, we have now analyzed your network and produced several metrics that describe your network and the broader network of the participants in CourseCode. This report describes those metrics, how to interpret them, and what their implications are for you. The report is customized specifically for you - providing the metrics for your network as well as relating your network metrics to those of the participants in CourseCode. The metrics are not reflective of 'good' or 'bad' networks, but rather indicative of the potential for your network to provide different kinds of benefits.

The survey and this report were designed by Bill McEvily, professor of Strategic Management and Diederik van Liere, PhD founder of Mappian, specifically for analyzing individual contact networks and the broader network of participants in CourseCode.

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Reference Group Network (CourseCode)

This map shows who is connected to whom in the reference group (CourseCode). A line connecting two people means one or both people identified the other as someone they go to for information, problem-solving, professional advice or personal support. People are grouped by similar demographic attributes. To change the demographic grouping, select the appropriate category in the drop-down menu below.

White
Multiracial
Black / African
South Asian (e
Other

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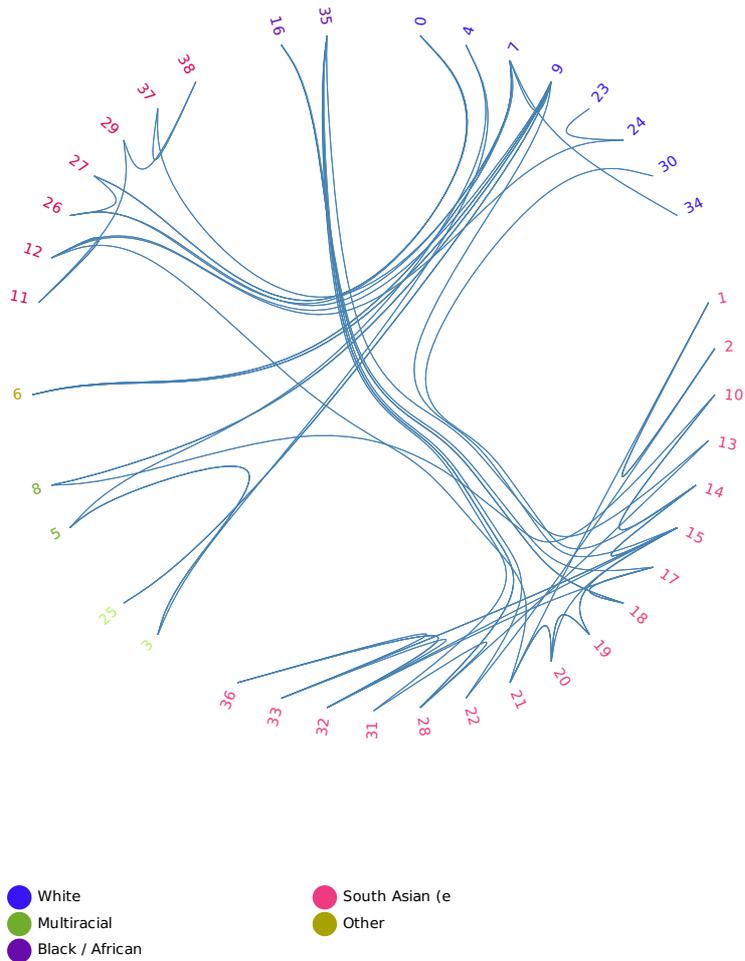
Your Network

You are the blue circle. The arrows pointing to you mean that a contact identified you in their network survey as someone they go to for information, problem solving, professional advice, or personal support. The arrows pointing to your contacts mean that you identified that contact as someone you go to for information, problem solving, professional advice, or personal support. To identify your contacts by demographic category, select the appropriate category in the drop-down menu below. To see how different features of your network compare to those of your contacts, select the appropriate network metric in the drop-down menu below.
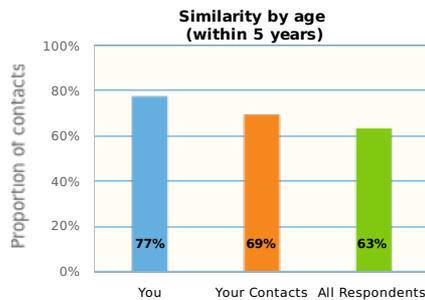

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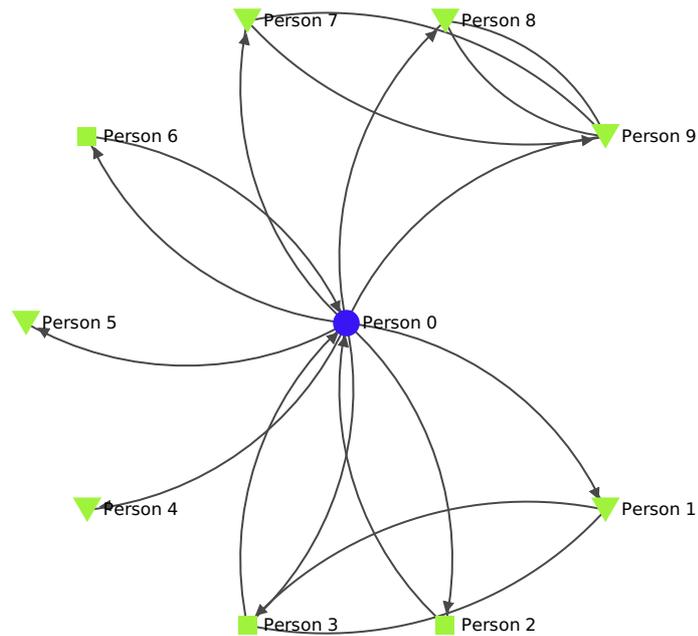
Network of Support

Birds of a feather flock together. In network terms this means that we gravitate towards people similar to ourselves and is known as the <u>principle of similarity</u>. There is an extensive body of research documenting our strong tendencies to form and maintain relationships with people like ourselves. The strongest and most consistent effects have been found for demographic attributes. The graphs below report the proportion of your contacts that are the same as you in terms of age, gender, language, and ethnicity.

**Similarity by age
(within 5 years)**

Proportion of contacts

You	Your Contacts	All Respondents
77%	69%	63%

Similarity by gender

Proportion of contacts

You	Your Contacts	All Respondents
77%	77%	63%

Similarity by language

Proportion of contacts

You	Your Contacts	All Respondents
22%	69%	70%

Similarity by ethnicity

Proportion of contacts

You	Your Contacts	All Respondents
66%	50%	57%

For 'Your Contacts' and 'All Respondents', we display the average scores.

Benefits

Similarity in networks is beneficial because it is the basis of attachment, liking, and support. Similarity also eases communication, can engender trust, and provides us with opportunities to pursue our interests.

Tradeoffs

Similarity in networks can also create some drawbacks. Networks organized by similarity can create and reinforce boundaries, leading to enclaves and ghettos that are not well-integrated with the broader community. Excessive levels of similarity can also limit our exposure to different perspectives, experiences, and understandings.

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Network of Cooperation

Networks also have a tendency towards clustering, meaning groups of people that are densely interconnected with each other. In network terminology this is known as the principle of closure. The intuition here is that if you are strongly tied to two contacts, those contacts are likely to form a relationship with each other as well, resulting in a "closed" triad. Closure occurs because of the increased opportunity for contacts that interact with you frequently to meet, interact, and learn about each other. Closure also makes it easier and more efficient for you to maintain your relationships with two contacts. And, closure can result from your endorsing contacts to each other. The graphs below report the degree to which the contacts in your network are embedded in closed triads.
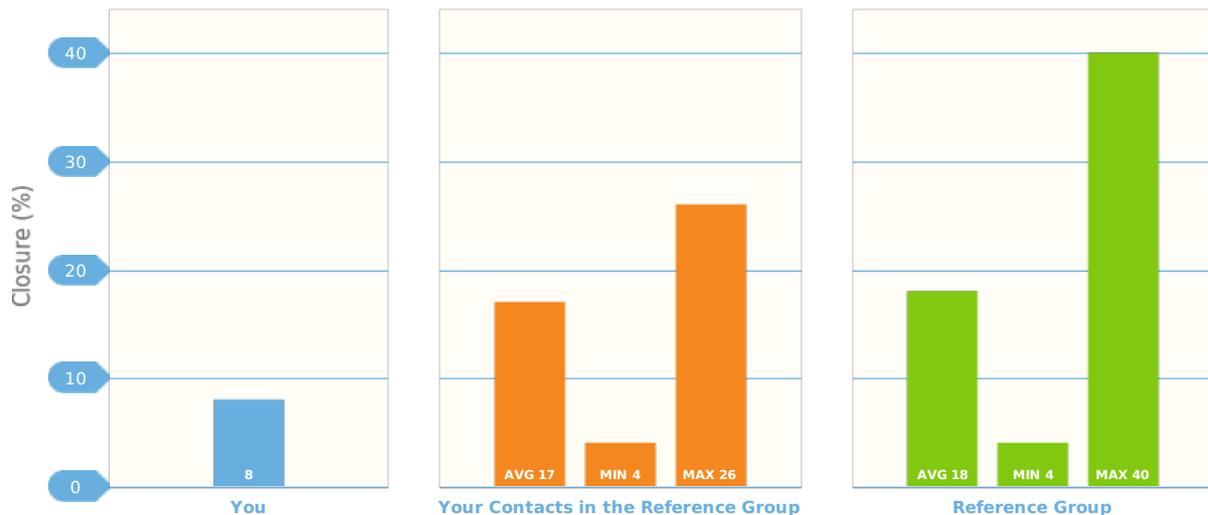
Benefits

Since the flow of information is rapid and efficient in closed networks, coordinating activities and calibrating expectations among the members of such densely interconnected clusters is facilitated. As a result, closed networks have an enhanced capacity to establish strong social norms and foster trust among its members. Reputations also take on heightened value in a closed network, which allow its members to enlist cooperation from each other.

Tradeoffs

Closed networks also have the potential to fuel gossip, be exclusionary, and therefore insular to the input of those outside the cluster. Inside the cluster, closure can also be constraining since the social norms often involve reciprocating, assisting others, and deferring private gain for collective well-being.

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Network of Cooperation (by contact)

The potential for cooperation is not equal for all contacts, but rather varies by the extent to which you and a given contact have ties to the same other contacts. These underlined shared third party contacts are key to identifying closed networks and, therefore, the potential for cooperation. The table below shows for each contact in your network (1) the number of third party contacts you share with each person and (2) the corresponding proportion that represents of the total number of other contacts in your network.

	Number of Shared Third Party Contacts	Proportion of Shared Third Party Contacts
Person 0	2	25.0%
Person 1	1	12.5%
Person 2	1	12.5%
Person 3	1	12.5%
Person 4	1	12.5%
Person 5	0	0.0%
Person 6	0	0.0%
Person 7	0	0.0%
Person 8	0	0.0%

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Network of Discovery

Of course, not all of our contacts are densely interconnected. In fact, most of us have at least a few contacts in our networks that link us to different social and professional circles. The principle of bridging states that a tie is a bridge if it is the only way for one of your contacts to reach one of your other contacts. Specifically, if you have two contacts that are not otherwise directly or indirectly linked to each other, then you constitute a bridge between those contacts. And, if those two contacts are part of network clusters that are not otherwise directly or indirectly linked to each other, then you constitute a bridge between those clusters. Thus, bridging ties represent relatively rare connections that link parts of a network that are otherwise sparsely interconnected. The graphs below report the degree to which you are positioned as a bridge between the contacts in your network who are not directly connected to each other.

You	Your Contacts in the Reference Group	Reference Group
13.35	AVG 6.11 MIN 0.95 MAX 12.02	AVG 4.35 MAX 13.35

Betweenness (%): 0, 4, 8, 12

Benefits

The rareness of bridging ties is precisely what makes them valuable and of strategic significance. Bridging ties provide you with a vision advantage since you are uniquely positioned to see and access diverse ideas, knowledge, and opportunities across two otherwise disconnected contacts or clusters in a network. Consistent with this, research has documented a myriad of benefits associated with bridging ties including: securing employment, advancement and promotion, knowledge sharing, creativity, innovation, and performance (at the individual, team, and organization levels) among other things. Bridging ties also provide you with a measure of autonomy and power by, for instance, providing the opportunity to broker the flow of ideas, knowledge, and opportunities in ways that favor your interests.

Tradeoffs

It is important to also recognize, however, that bridging ties are relatively unstable and short-lived. Bridging ties can be difficult to maintain due to differences in interests and values across disconnected clusters of a network. And, when there is discord or disagreement between two clusters, your bridging ties to those clusters may become conflicting affiliations. Resolving the tensions that occur when two clusters present you with opposing expectations and demands often proves to be challenging or insurmountable. As a result you may find yourself in the position of attempting to mediate between the two clusters, or in extreme cases having to choose sides. Lastly, people positioned as the bridge between large clusters or many clusters can find themselves overwhelmed by requests and the source of bottlenecks in the workflow and decision making processes.
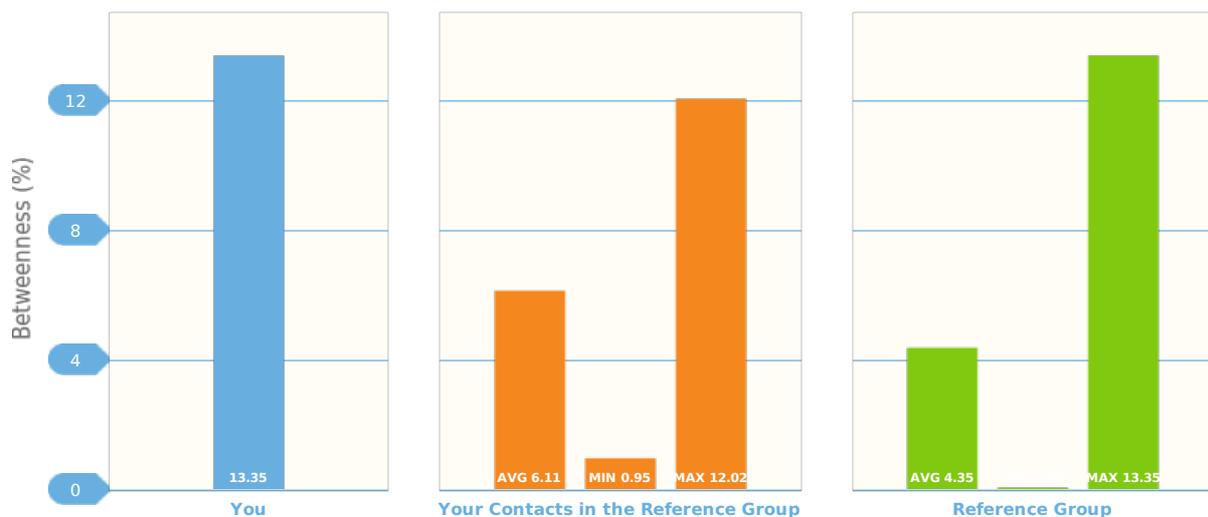
Network of Discovery (by contact)

The potential for discovery is not equal across all contacts, but rather varies by the extent to which you and each contact have ties to different people. These <u>non-redundant ties</u> are key to identifying bridges in networks and, therefore, the potential for discovery. The table below shows for each contact in your network the number of their contacts to whom neither you nor your other contacts are directly or indirectly connected (1) overall and (2) in the reference group.

Contact	Number of Indirect Contacts Accessible	Number of Indirect Contacts Accessible within Reference Group
Person 0	21	5
Person 1	21	3
Person 2	16	1
Person 3	13	0
Person 4	9	3
Person 5	7	0
Person 6	0	0
Person 7	0	0
Person 8	0	0

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Beyond our immediate network of contacts to whom we are directly tied, we are also indirectly linked to a broader web of connections. The chain of indirect links that connect us to people we vaguely know, people we know of, and people we do not know at all is the idea behind the underlined principle of small worlds. According to this principle, any two people in the world selected at random are separated by a very small number of indirect connections. The first study that set out to document this idea found that the actual number was on average six, giving rise to the idiom "six degrees of separation." The graph below is an indication of how far you can reach through just the indirect connections of the members of the reference group. The map shows you, your direct connections in the reference group, and how they link you to the rest of the reference group.

Benefits
The principle of small worlds is so compelling because it suggests that we have the potential to exercise influence far beyond those to whom we are directly connected. It is these chains of indirect connection through which: ideas, innovations, and diseases spread; new initiatives and change efforts diffuse and catch hold; mass social movements are organized, mobilized, and propelled; and even revolutions and political upheavals are realized.

Tradeoffs
The promise of small worlds needs to be measured against the reality of their realization. Achieving influence in the broader network requires enlisting not just the assistance and support of those you know and with whom you have some sort of relationship, but also engaging complete strangers. And, recent research has shown that the willingness and motivation of those to whom you are only indirectly connected falls off rapidly the further removed you are from them.
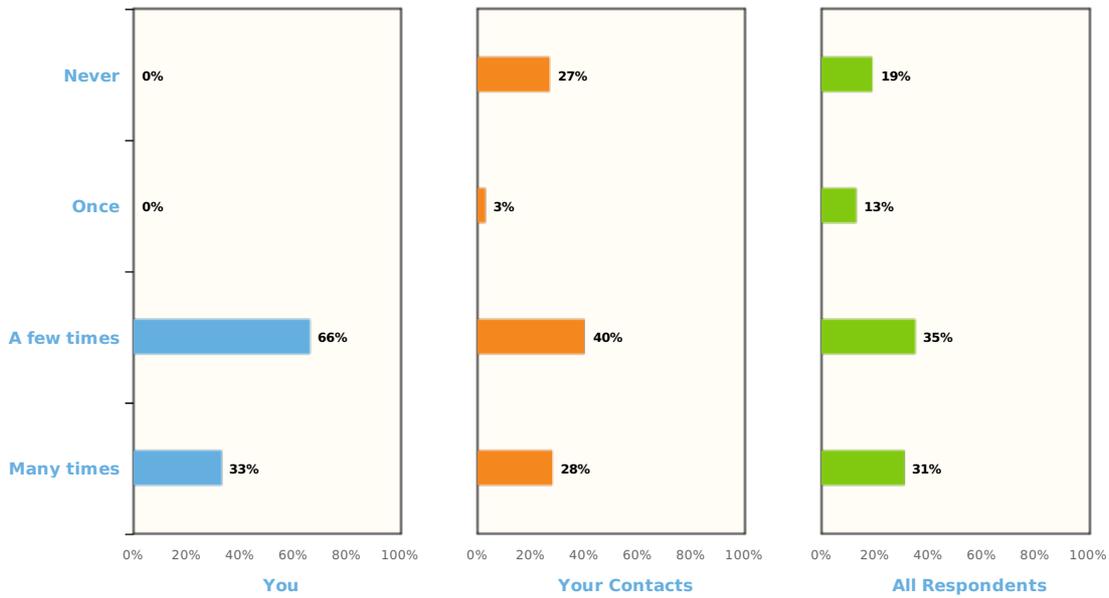
Network of Influence (continued)

The potential to realize influence through networks varies, in part, based on how close to or far away from others you are in a particular network. The greater the number of indirect connections (i.e., degrees of separation) linking you to other people in a network, the less likely you will be able to reach, and therefore exercise influence over, those people. Beyond three degrees of separation (a friend of a friend of a friend), the potential to realize influence through networks is virtually nil. The graphs below report the average <u>distance</u> (degrees of separation) between you and everyone else in the reference group network. Lower values indicate greater influence potential.
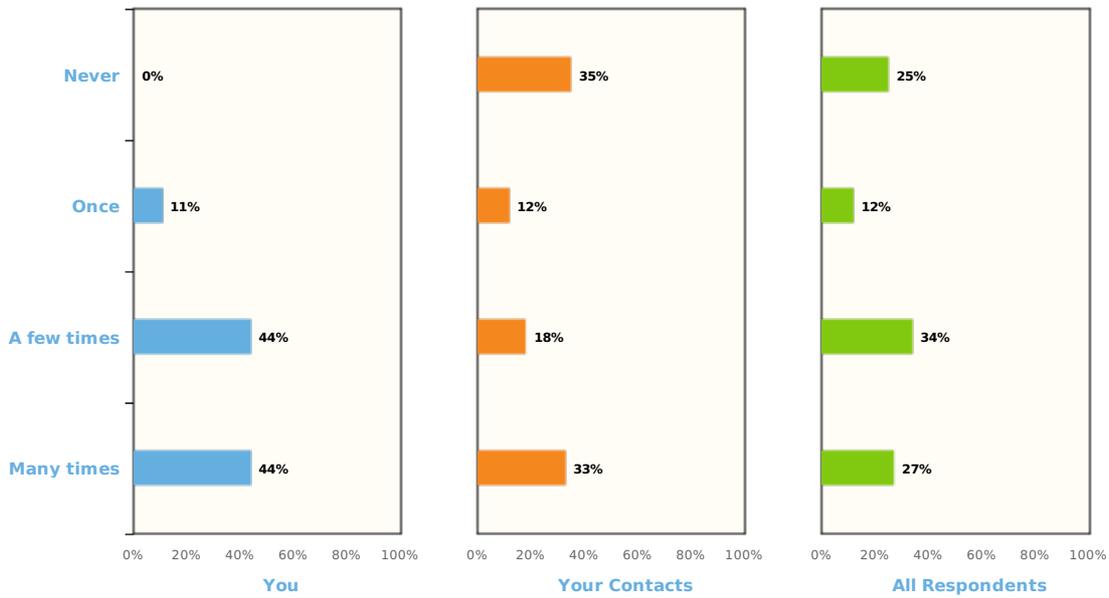

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Do your contacts broaden your network?

One of the main ways that we can broaden our networks is through introductions from our existing contacts. The charts below show the proportion of your contacts that have introduced you to new people many times, a few times, once and never.

|	You	Your Contacts	All Respondents
Never	0%	27%	19%
Once	0%	3%	13%
A few times	66%	40%	35%
Many times	33%	28%	31%

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Do you broaden your contacts' networks?

Introductions are also one of the main ways that your contacts can broaden their networks. The graphs below show the proportion of your contacts that you have introduced to new people many times, a few times, once and never.

|	You	Your Contacts	All Respondents
Never	0%	35%	25%
Once	11%	12%	12%
A few times	44%	18%	34%
Many times	44%	33%	27%

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Network Size

Most people think that more contacts are better, however research shows that the size of your network is not the full story. The next two charts breakdown size into incoming (people in the reference group who identified you as a contact) and outgoing (people in the reference group you identified as a contact) relationships.

	You
6	6

	AVG 2	MIN 1	MAX 6
Your Contacts in the Reference Group			

|	AVG 2	MIN 1	MAX 6
Reference Group			

14
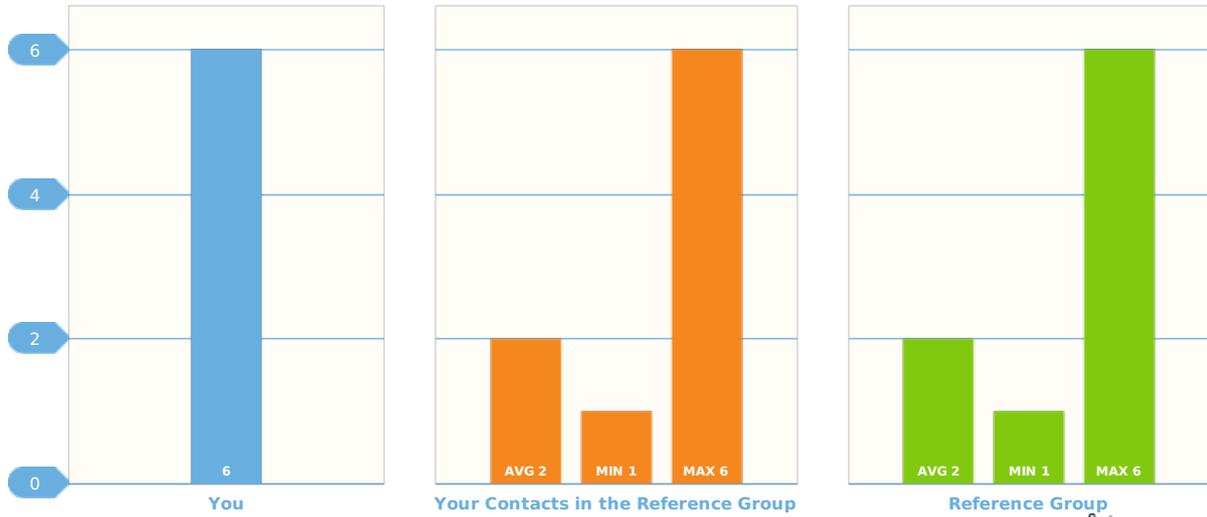
Incoming Ties

People identifying you as a contact indicates that they value their relationship with you, whether that be for the opportunity to discuss important matters, because they rely on you for information, advice, support, or other resources, or simply because they like you. Regardless of the reason, these relationships represent a potential resource for you and you may wish to consider why these people identified you, how you view your relationship with that person, and what this may imply for your relationship going forward. Note: the people in the reference group who identified you as a contact can be found in the network map on page 4 by tracing the arrows pointing to you back to their source.

You

Your Contacts in the Reference Group
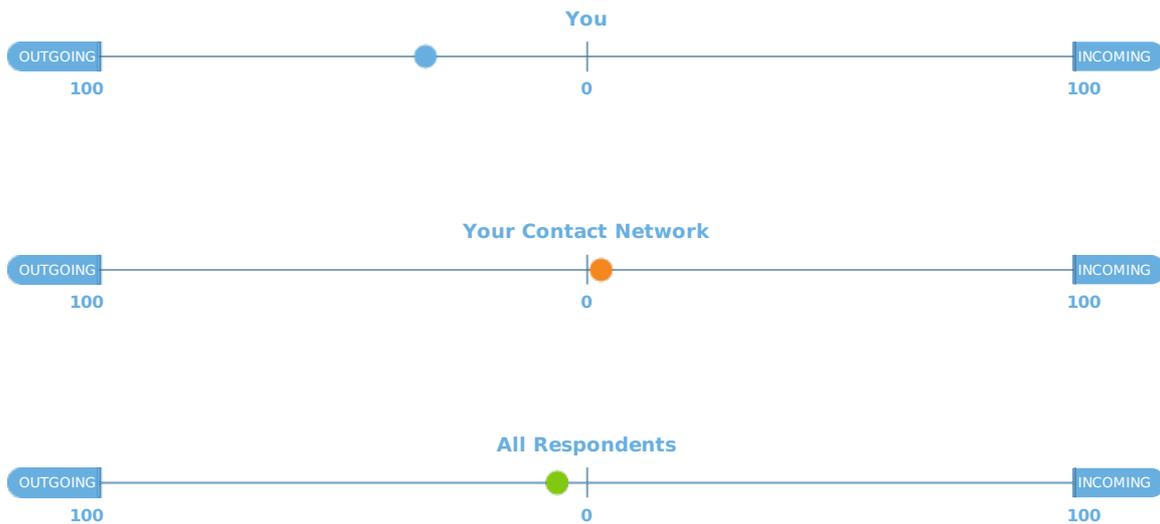
Reference Group

15
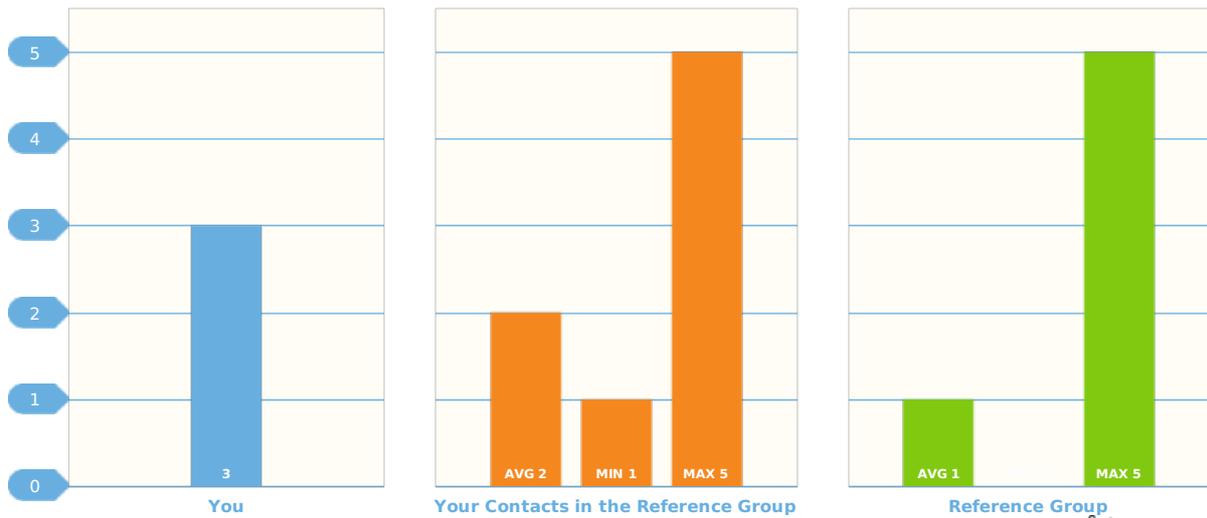
Outgoing Ties

People you identify as a contact indicates that you value your relationship with them. Given that they are important to you, you may wish to consider how they view their relationship with you and what this may imply for your relationship going forward. Note: the people in the reference group who you identified as a contact can be found in the network map on page 4 by tracing the arrows pointing from you to your contacts.

You	Your Contacts in the Reference Group	Reference Group
6	AVG 1 · MIN 1 · MAX 4	AVG 1 · MIN 1 · MAX 6

16
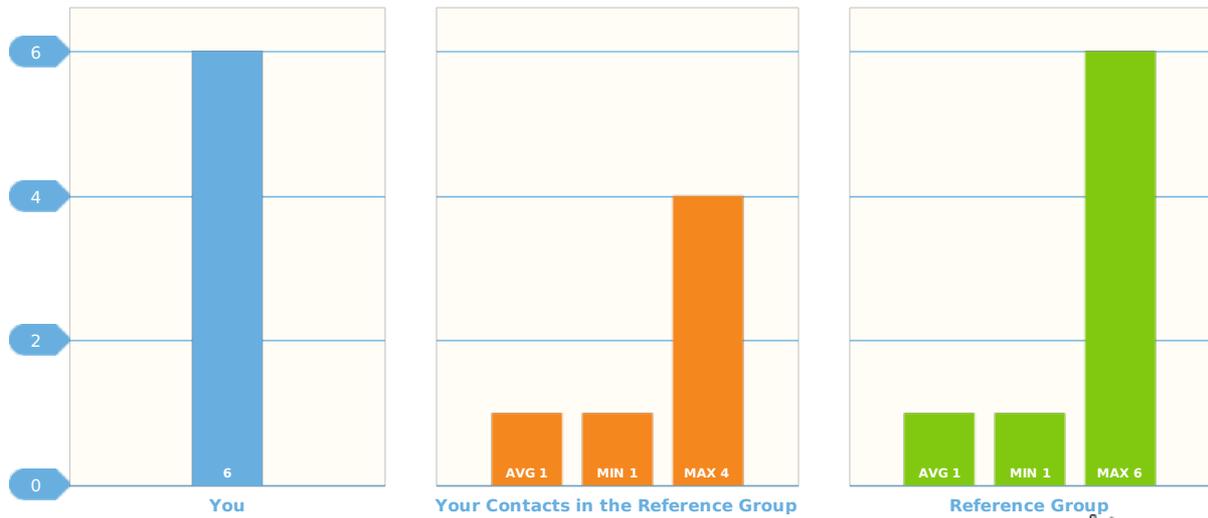
Balance of Social Capital

The scales below show your mix of incoming and outgoing ties in the reference group. Values closer to zero indicate a balanced network. Values closer to incoming indicate more people come to you than you go to others. Values closer to outgoing suggest that you go to more people than come to you. The important things to consider in evaluating the balance in your network are whether: you are able to meet the expectations and obligations of those coming to you, your requests of those you go to are reasonable, your exchanges with each person are equitable, and overall your network is assisting you in achieving your goals.

You

OUTGOING		INCOMING
100	0	100

Your Contact Network

OUTGOING		INCOMING
100	0	100

All Respondents

OUTGOING		INCOMING
100	0	100

For "Your Contact Network" and "All Respondents" we display the average scores.