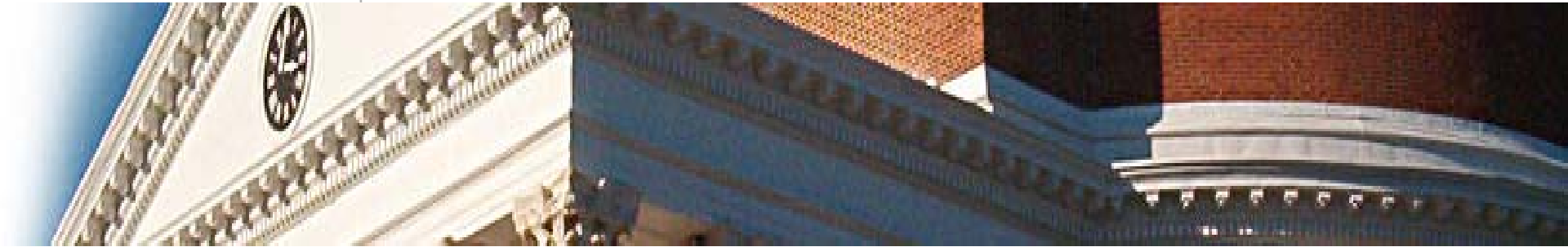


Applying Network Analysis for Insights into the Decentralization Strategy at the International Finance Corporation

Robert Cross and Deborah Zehner
2008



Agenda

- About the International Finance Corporation
- Situation Overview
- Opportunity Areas
 - Improve Information Flow in the Network
 - Build Connectivity Across Silos and Reduce Overload
 - Identify Experts and “Go-To” People
 - Develop Personal Networks
- Specific Recommendations
- Questions Raised as Decentralization Begins
- Appendix
 - Why Network Analysis is Important
 - How to Interpret a Network Diagram
 - Key SNA Terms

Note: The initials of all people cited in this document are disguised.

About the International Finance Corporation (IFC): Reducing Poverty, Improving Lives

- The IFC, a member of the World Bank Group, was created in 1956, representing the first step by the global community to foster private sector investment in developing nations.
- IFC's vision is that poor people have the opportunity to escape poverty and improve their lives.
- IFC provides loans, equity, structured finance and risk management products as well as advisory services to promote sustainable private sector development in developing countries.
- IFC has over 3,100 staff, of whom 51% work in field offices and 49% at headquarters in Washington, D.C.
- Sustainability is at the core of IFC's strategy and environmental and social expertise are a key differentiator for the organization.



The IFC's Environmental and Social Development Department (CES) Applied Organizational Network Analysis to Help Develop Their Decentralization Strategy

Context

The IFC is currently undergoing a process of decentralization which will see a progressive delegation of responsibilities to regional hubs.

Project Objectives for the Environmental and Social Development Department (CES)

- ▶ Provide baseline data against which to monitor the impact of the decentralization process.
- ▶ Map current network flows/communities that will need to be maintained regardless of geographical location of staff.
- ▶ Identify key experts and connectors that need to be provided with special support to maintain their influencing role.
- ▶ Provide insights to structure KM incentives.
- ▶ Identify potential information blockages and strategies to improve connectivity.
- ▶ Recommend knowledge management priority areas.

Our Analysis Suggested Four Opportunity Areas (examples of major findings with each area are included)

Improve Information Flow In Network

Build awareness of expertise at the right junctures

- **On average people are not aware of 48 others.**

Improve network balance

- **Network measures reveal one of the most connected networks examined to date.**

Build Connectivity Across Silos & Reduce Overload

Address fragmentation and improve cross-unit ties

- **People in hierarchical levels 2 and 3 are the least known and sought out.**

- **People are not well established until after three years.**

- **Awareness of regional expertise is low.**

Identify Experts and “Go-To” People

Identify experts and “go-to” people, areas where expertise should be better balanced, and areas where it is unclear.

- **In several cases there is just one, sometimes two clear experts. In several others areas (particularly the regions) it is unclear who to turn to for information.**

Develop Personal Networks

Improve personal networks

- **Compared to other analyses, people rely more heavily on external relationships** (although almost one-third are with WBG).

- **Reliance on clients and regional facilities in personal networks is low.**

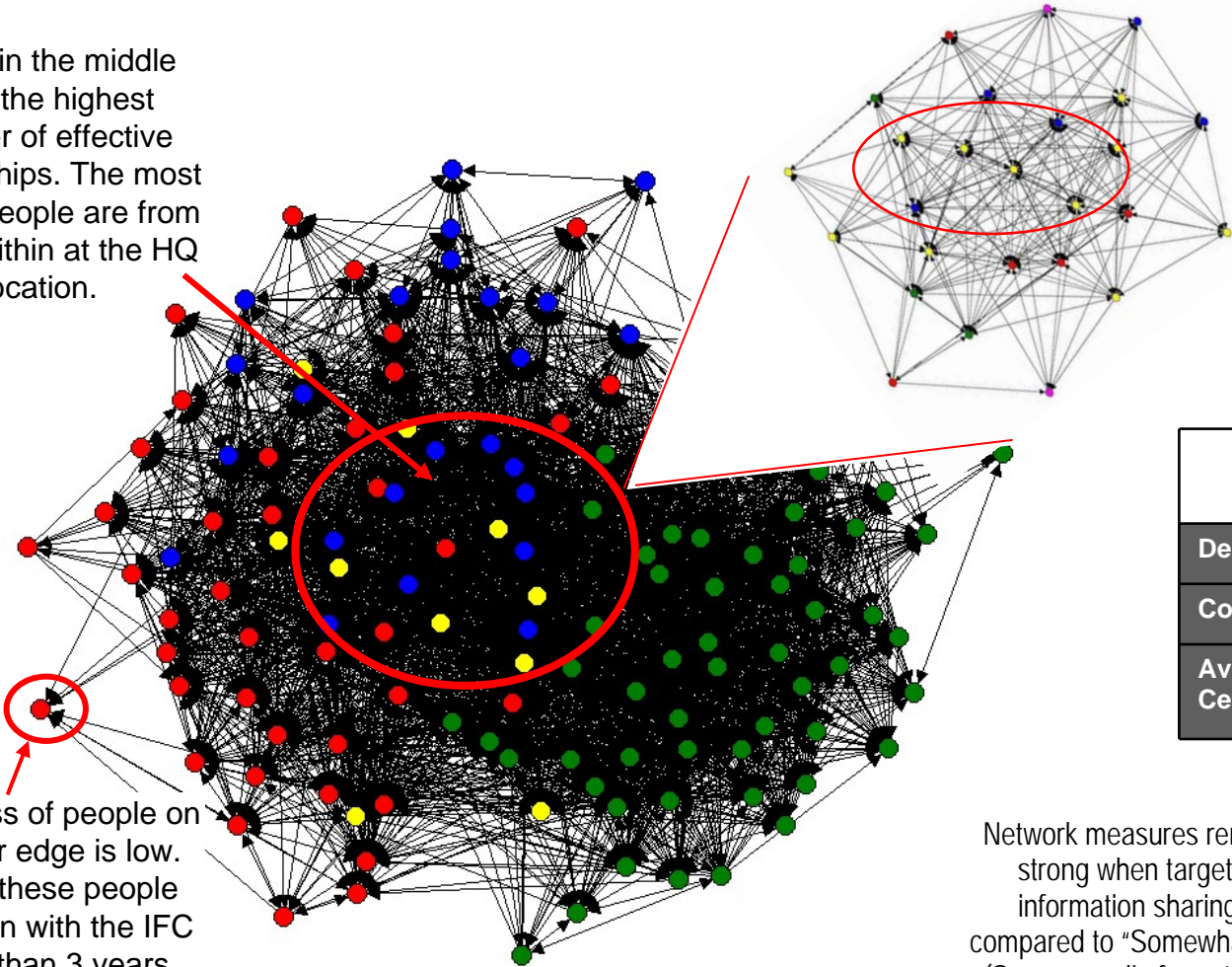
- **People rely heavily on peers or those higher in the hierarchy and not those below them.**

Information Flow: There are many effective information relationships, however the number varies greatly (from 2-97 relationships per person).

Question: Please indicate the extent to which the following people are effective in providing you with info or advice.
Response: Effective (timely, meaningful or relevant info)

Those in the middle have the highest number of effective relationships. The most central people are from Unit B within at the HQ location.

Zooming in on roles within Unit B shows the central role played by officers (yellow nodes).



Awareness of people on the outer edge is low. Most of these people have been with the IFC for less than 3 years.

Network Measures

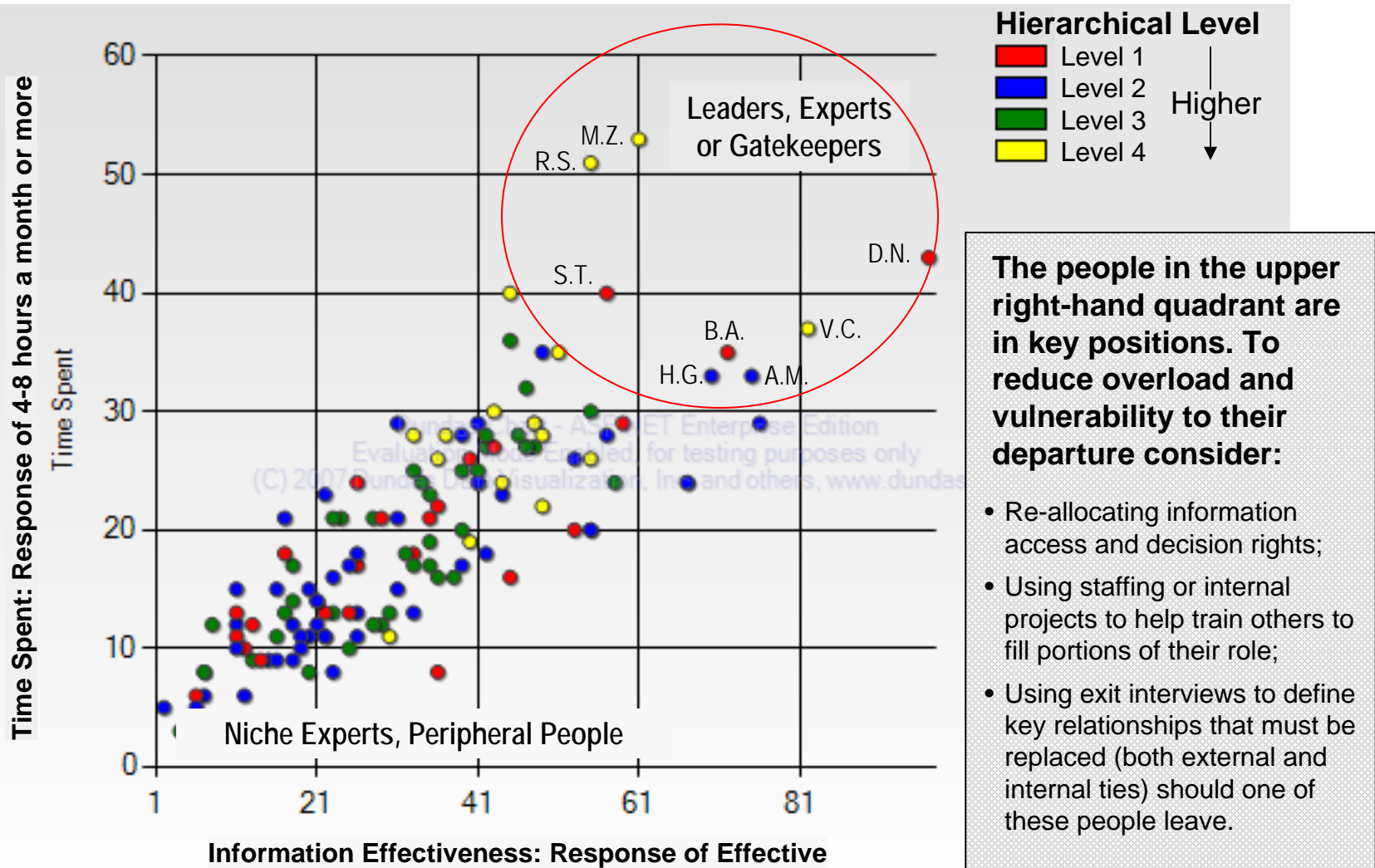
	Somewhat Effec & Effec	Effective
Density	36.2%	25.3%
Cohesion	1.7	1.8
Avg. Centrality	47 (SD=21.4)	33 (SD=18.1)

Network measures remain unusually strong when targeting "Effective" information sharing relationships compared to "Somewhat Effective" ones. (See appendix for network definitions.)

Unit

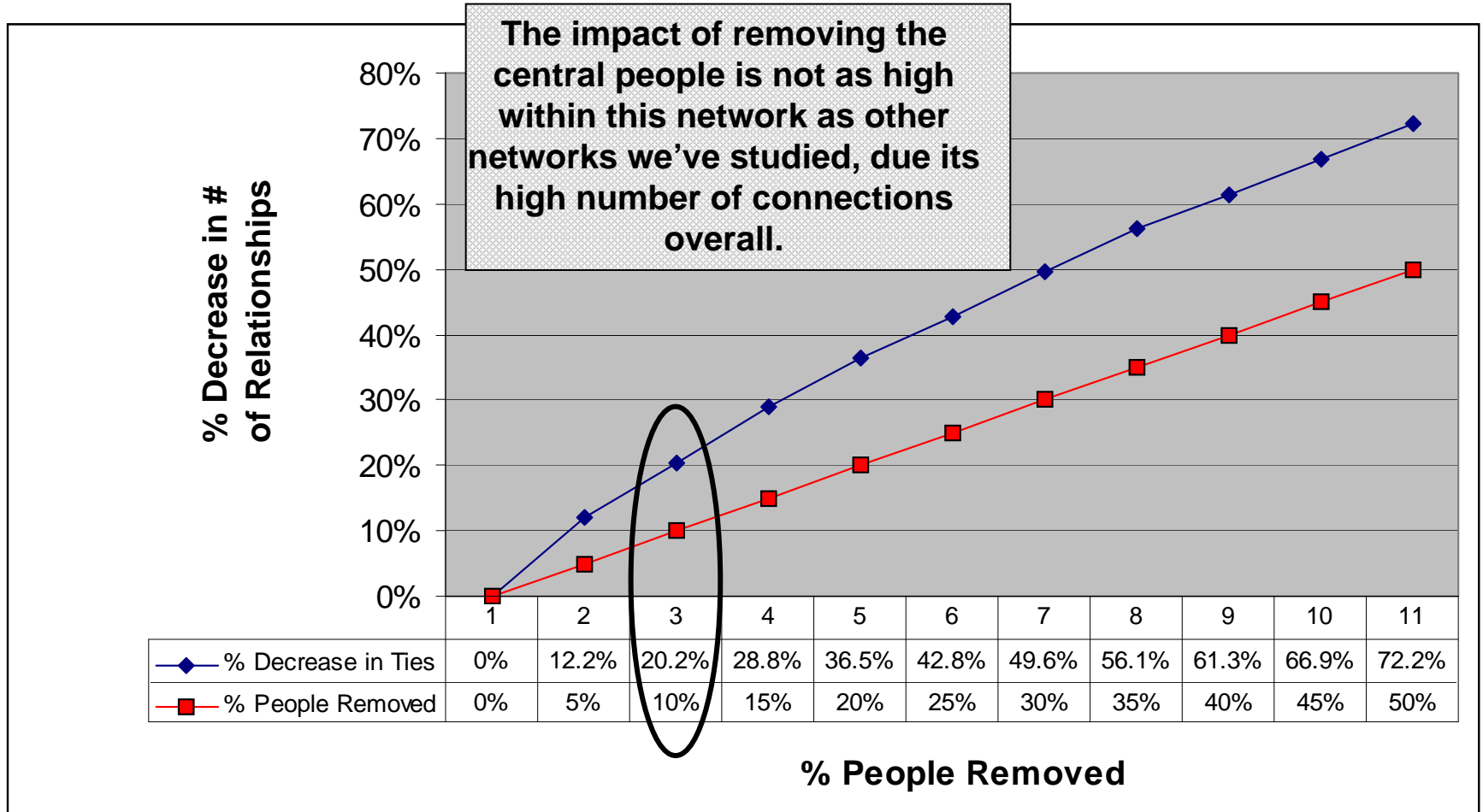
- = UNIT A
- = UNIT B
- = UNIT C
- = UNIT D

Information Flow: The leaders, experts and gatekeepers (upper right quadrant) are in critical roles.



Information Flow: Removing the 10% most central people who *effectively* collaborate reduces the number of relationships by a disproportionate 20%.

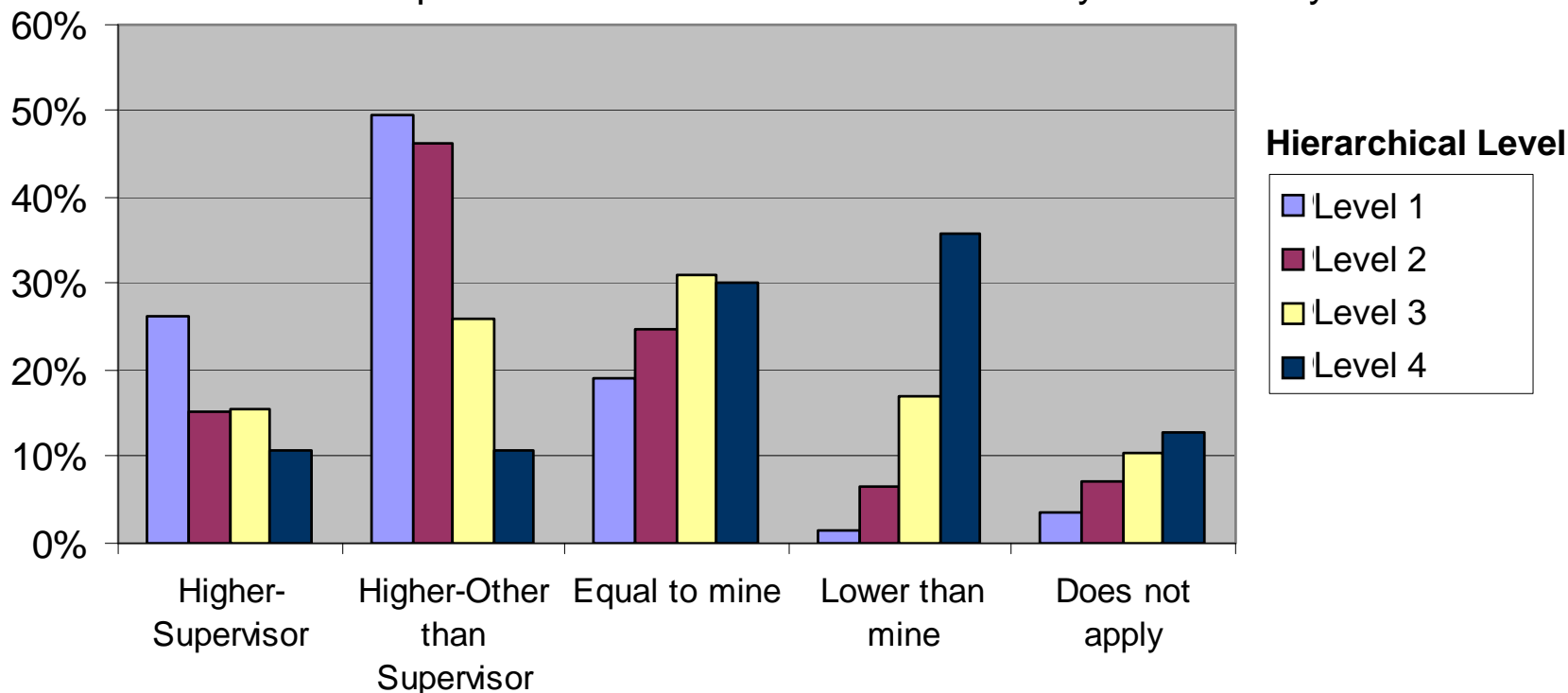
Question: Please indicate the extent to which the following people are effective in providing you with info or advice.
Response: Effective (timely, meaningful or relevant info)



Information Flow: The aggregate personal network data depicts the tendency for people, except the most senior level, to rely on people higher in the hierarchy.

Aggregate Personal Network Responses by Hierarchy

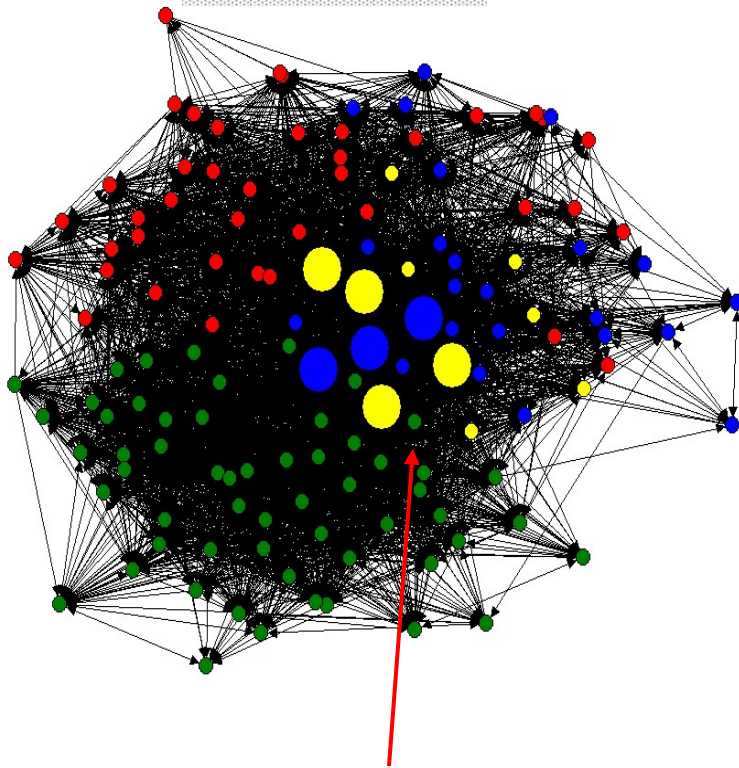
Please indicate each person's hierarchical level relative to your own – by level



Build Connectivity: Brokers are high-leverage employees who connect people across boundaries, such as functions, and geography. They are extremely effective when driving change or innovation.

Question: Please indicate the extent to which the following people are effective in providing you with info or advice.
Response: Somewhat Effective (somewhat timely, meaningful or relevant info) or Effective (timely, meaningful or relevant info)

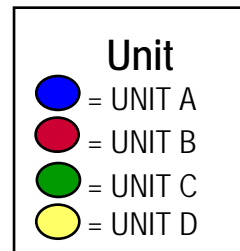
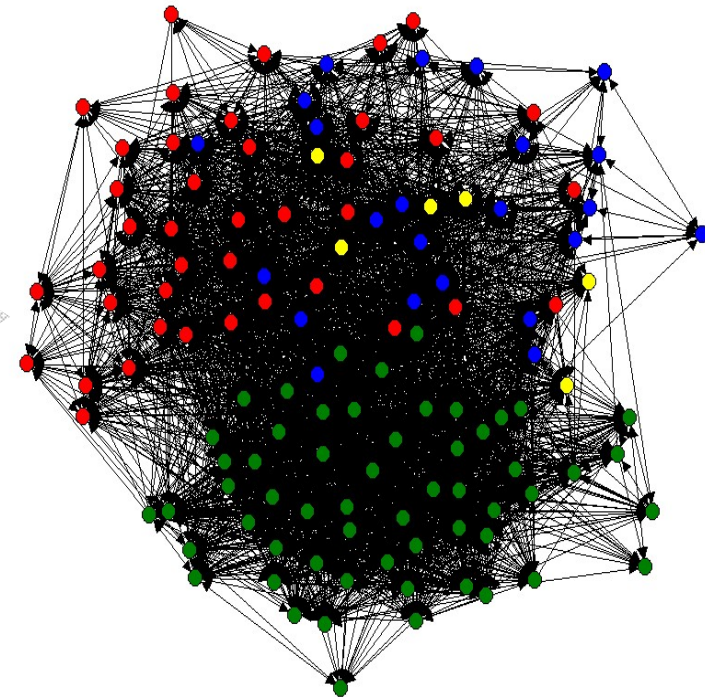
With Brokers



These 7 brokers represent the top 5% of brokers within this IFC group.

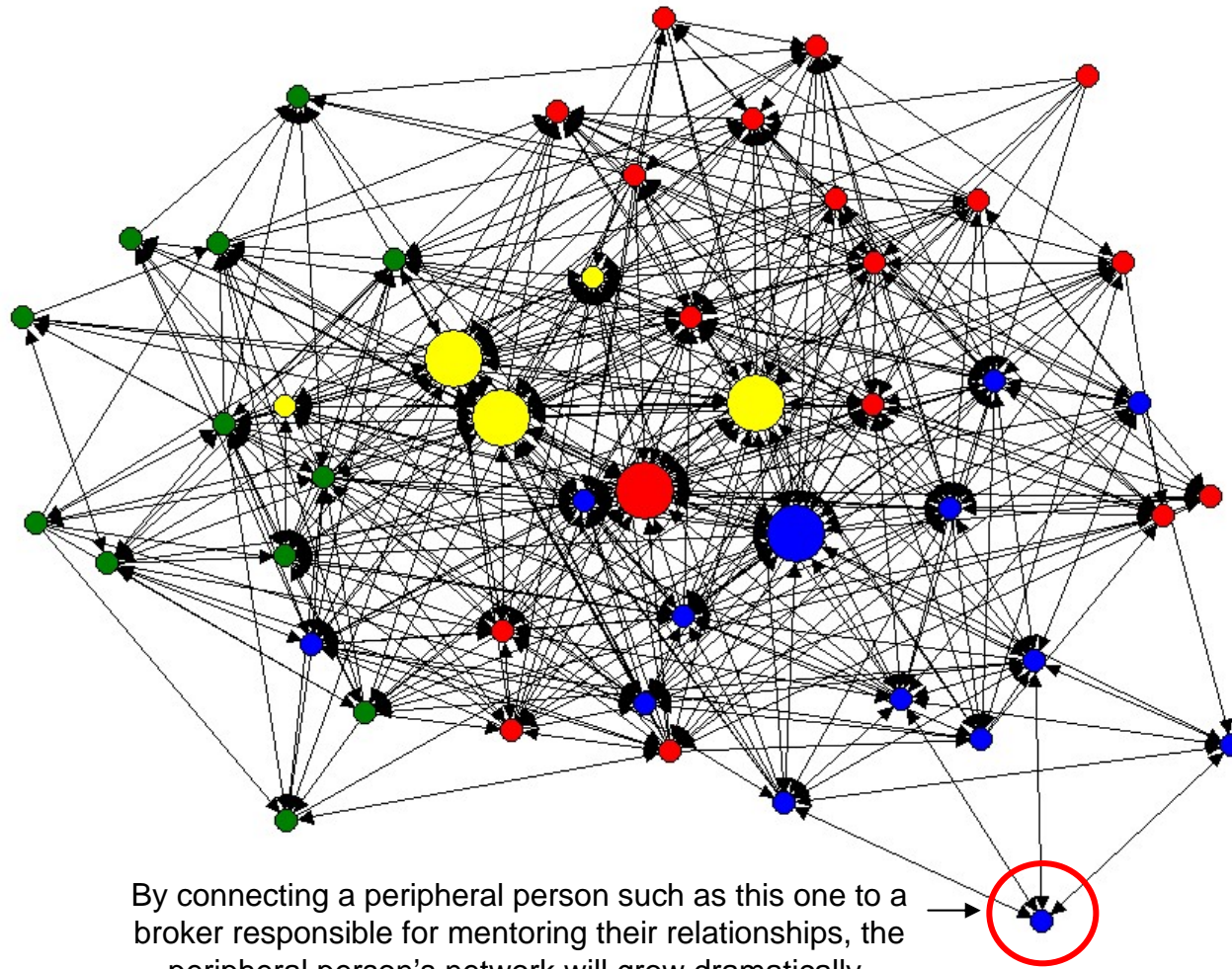
Removing the top 5% of brokers decreases the number of cross-unit ties by 27%.

Brokers Removed



Build Connectivity: Brokers within this particular hierarchical level can influence changes and connect the more peripheral employees.

Question: Please indicate the extent to which the following people are effective in providing you with info or advice.
Response: Effective (timely, meaningful or relevant info)



By connecting a peripheral person such as this one to a broker responsible for mentoring their relationships, the peripheral person's network will grow dramatically.

Top 5 Brokers

- A.M.
- C.D.
- E.G.
- H.G.
- R.I.

Network Measures

Density	23%
Cohesion	1.9
Avg. Centrality	11.2 (SD=6.4)

Unit

- = UNIT A
- = UNIT B
- = UNIT C
- = UNIT D



Build Connectivity: Assessing collaboration within and between units can identify opportunities to strengthen the network.

Question: Please indicate the extent to which the following people are effective in providing you with info or advice.
Response: Somewhat Effective (somewhat timely, meaningful or relevant info) or Effective (timely, meaningful or relevant info)

		Information Providers			
		Unit A	Unit B	Unit C	Unit D
Information Seekers	Unit A (40)	39%	37%	16%	53%
	Unit B (26)	34%	56%	21%	45%
	Unit C (57)	17%	29%	63%	40%
	Unit D (10)	42%	51%	34%	86%

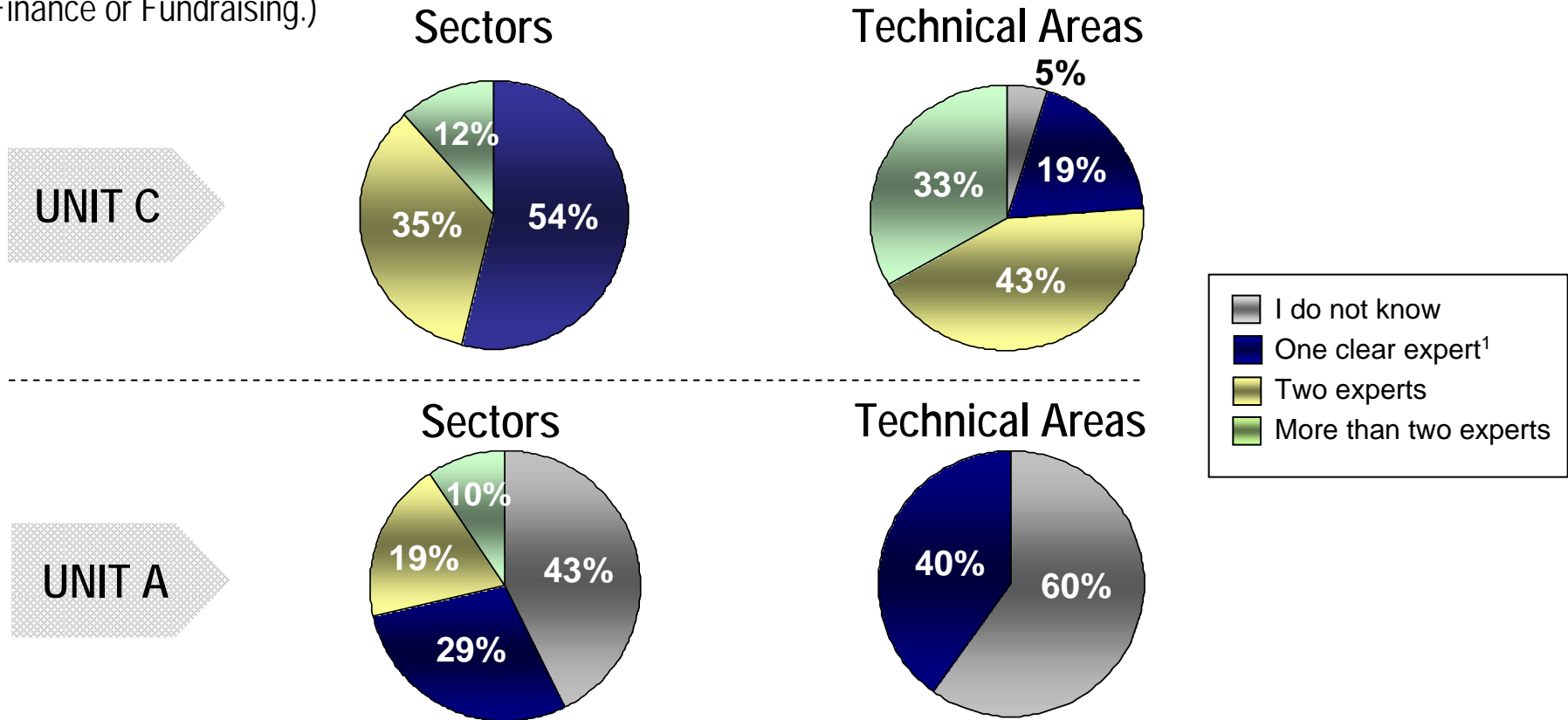
Density Table: density levels on the diagonal represent collaboration within units while density levels off the diagonal represent collaboration across units. The table is read from row to column when understanding who goes to whom for information.

- Internal collaboration is decent within most groups (the numbers in the gray diagonal), except Unit A where internal collaboration is low.
- Collaboration outside of the groups tends to be low except for those with Unit D.
- Unit A and Unit C interact together less frequently than the other groups.

	Cells representing interactions within the same unit. (Uncolored cells represent interactions across Units.)
	Cells where interactions are low.

Experts: A summary of responses to questions on experts reveals that in most cases, expertise resides in one or two people only. However, there are many areas where people don't know who to seek out.

Question: Please identify the primary person within CES that you have or would seek out for information in each respective area. (An example of a sector is Chemicals or Financial Markets; an example of a technical area is Carbon Finance or Fundraising.)



In addition to ensuring expertise is balanced, it is important for people to have a means of identifying the right “go-to” person (particularly for newcomers).

¹ Where at least 50% of people turned to one person for expertise in this area and where fewer than 20% of people turned to a second person.

Experts: Drilling Down on "Go-To" People Within Unit C

*The top two or sometimes three selections are shown here.

Agribusiness: Animal Production	
Person	# Selected
P.R.	24
H.S.	22
I DO NOT KNOW who I would seek out.	3

In some cases, such as Agribusiness: Animal Production, there are two people who are clearly known experts.

Transport and Logistics Infrastructure	
Person	# Selected
A.D.	33
J.C.	7

However, in the majority of cases, such as Transport and Logistics Infrastructure, people only know of one expert.

General Mnftg (light industries): Ceramic	
Person	# Selected
R.G.	30
E.V.	10

General Mnftg (light industries): Electronics	
Person	# Selected
R.G.	31
I DO NOT KNOW	10

General Mnftg (light industries): Glass Mnftg	
Person	# Selected
R.G.	33
I DO NOT KNOW	9

Who to turn to for work information isn't as clear in the General Manufacturing: Light Industries area.

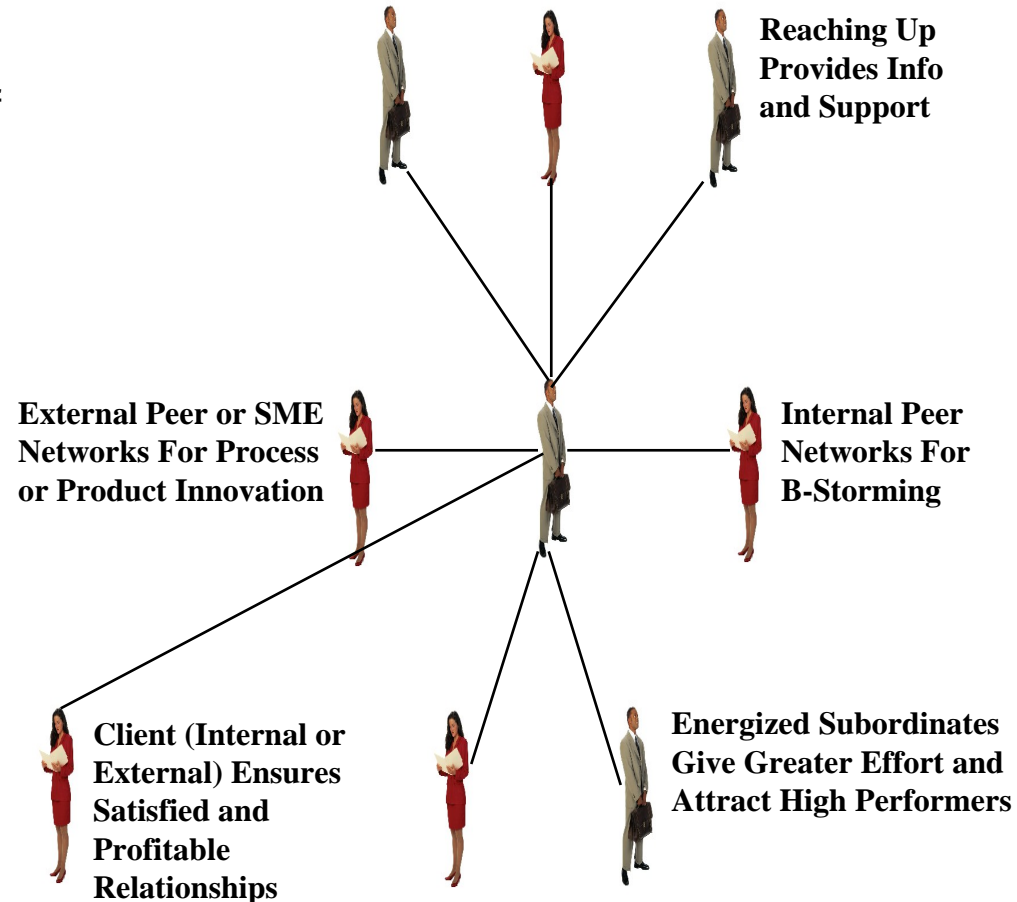
General Mnftg (light industries): Printing	
Person	# Selected
R.G.	31
I DO NOT KNOW	12

General Mnftg (light industries): Textiles	
Person	# Selected
V.Q.	24
I DO NOT KNOW	10

Personal Networks: Characteristics of personal networks can be examined for higher performance.

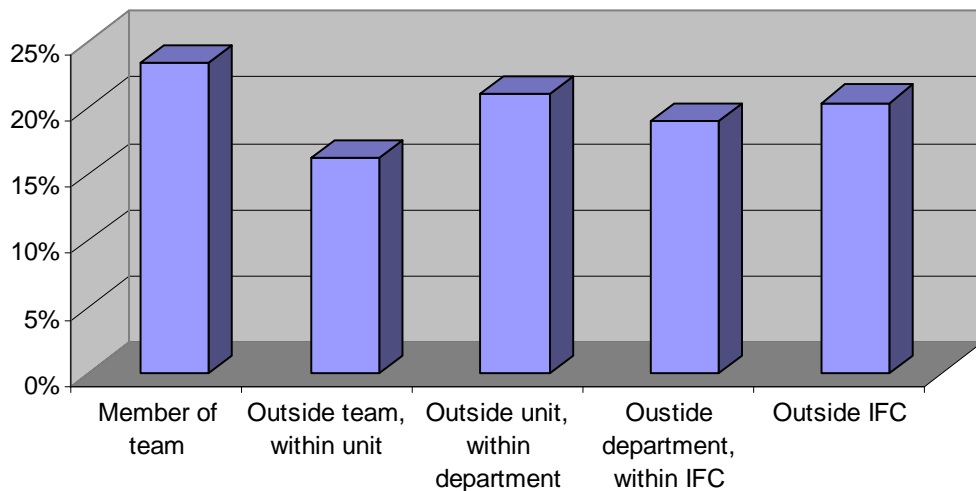
High Performers (i.e., top 20%) Have Non-Insular Networks:

- Select ties up in the hierarchy (to your boss and others) provides a breadth of information, context, resources and political support for your initiatives.
- Lateral connections to peers within the organization are important for brainstorming and best practice transfer as these people face similar issues.
- High quality (i.e., energizing) relations to those lower in the hierarchy creates reputation and draws emerging high performers to you over time.
- Select ties to experts outside of the organization yield innovations and novel opportunities not circulating within company.
- Quality relationships with clients help ensure relevance and profitable work.



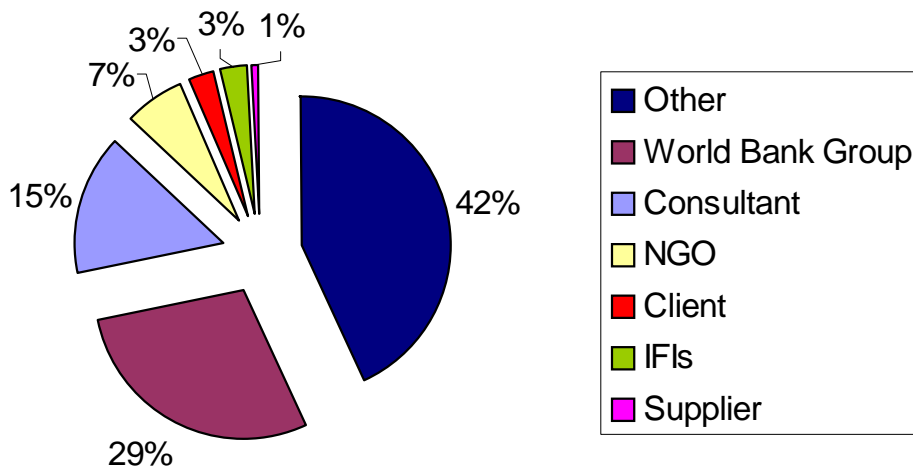
Personal Networks: An examination of aggregate responses shows that people balance reliance on people across several boundaries.

Please indicate where each of these people work



There is a good balance of relationships across working groups and higher external connections than people in most organizations.

Where People Reside Who are "Outside IFC"

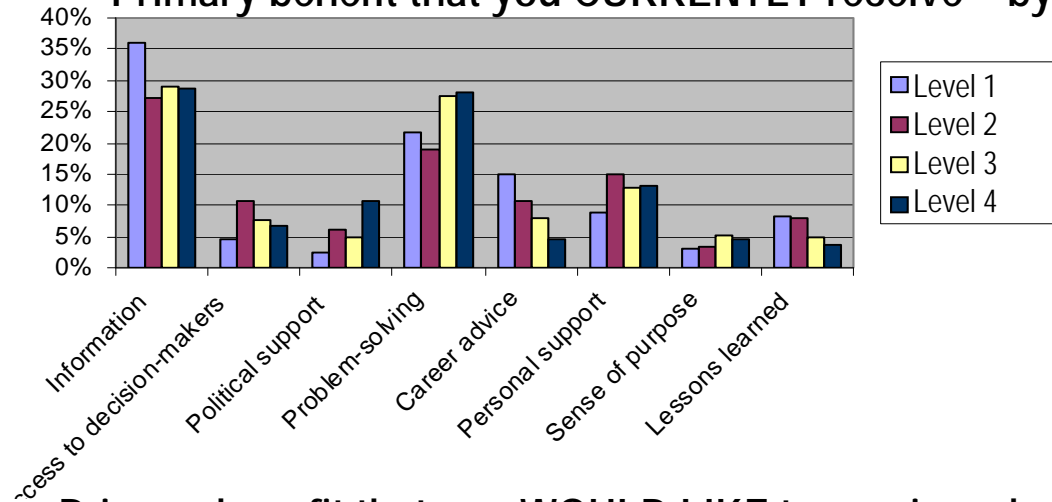


Of the people identified as outside of IFC, 70% are "Other" (family, friends, etc.) or WBG.

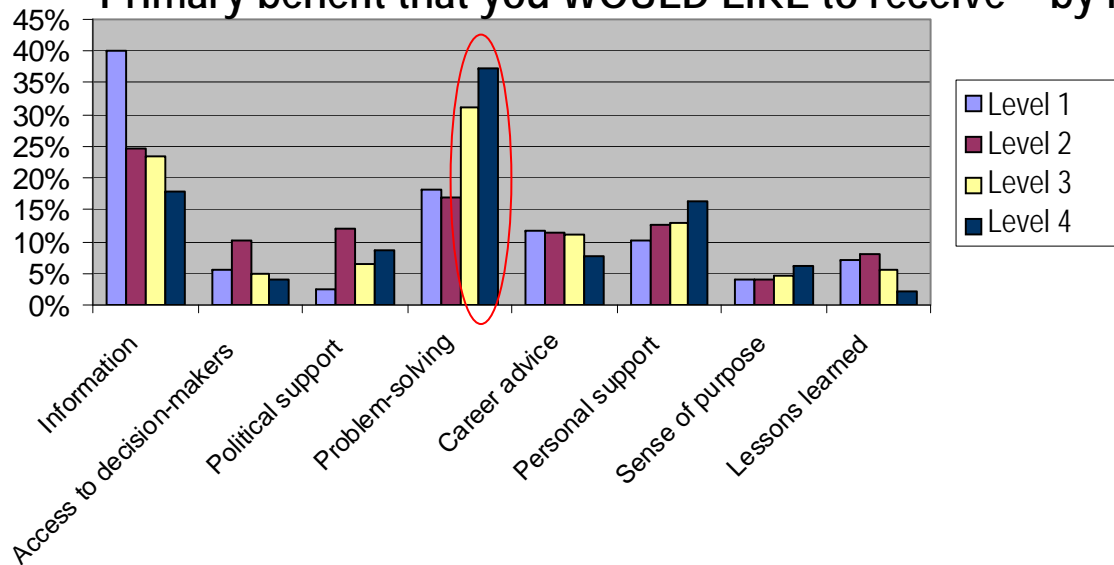
Reliance on clients is very low, but that may be due to the nature of the work.

Personal Networks: The primary benefits people currently receive and would like to receive are information and problem-solving. Early in people's career, they'd prefer more information and later in their career more problem solving.

Primary benefit that you CURRENTLY receive – by hierarchical level



Primary benefit that you WOULD LIKE to receive – by hierarchical level



Recommendations Across the Four Opportunity Areas

Improve Information Flow In Network

Shifts in staffing, rotations, internal committees with an eye to building connectivity across roles and locations.

On-boarding which includes communicating expertise.

Problem-solving and visioning sessions.

Skill profiling that includes professional content for legitimacy and personal information for connections.

Build Connectivity Across Silos & Reduce Overload

Leverage Brokers

- Position brokers (highly effective ambassadors) on change and/or implementation teams.
- Connect brokers with one or two peripheral people (as a mentor).
- Form communities of practice around brokers for best practice transfer.

Bridge Disconnects

- Create communities of practice at intersections.
- Identify causes of lack of collaboration by interviews on either side of fragmentation points and define ways to promote integration

Identify Experts and “Go-To” People

Create secondary “go to” people in areas where core expertise is critical to success.

Encourage use of collaborative tools and knowledge repositories.

Profile expertise through the intranet, brown-bag lunches, and Webinars.

Implement an exit process which assists in capturing key knowledge when experts depart.

Develop Personal Networks

Employ on-boarding practices which help to build out networks systematically (structured introductions, making a newcomers expertise available to others, short rotations and smart mentoring programs).

Leadership training and career development.

Staffing and rotation practices.

Experiential processes such as the after action review.

Review individual skills to provide a sense of what skills are needed and where expertise lies.

The Following Questions Were Raised Based on ONA Findings

How can we improve awareness of expertise across the department and the sustainability network?

- How do we reduce the lack of awareness number of 48 by half?
- How do we raise awareness of expertise of staff in regional offices?
- How do we capitalize on staff's expertise prior to joining IFC?

How do we collaborate more effectively across the department and the network?

- How do we increase collaboration across units on cross-cutting issues that are corporate priorities (e.g. climate change, water)?
- How do we support the key brokers in the network, particularly as we decentralize?
- How do we increase collaboration with regional facilities on common priorities?

How can we effectively on-board new hires into the department and the sustainability network?

- How do we reduce the current 3-year period it takes for a new department/network member to establish themselves to 1 year?
- How do we improve awareness of expertise across “new” and “old” staff?

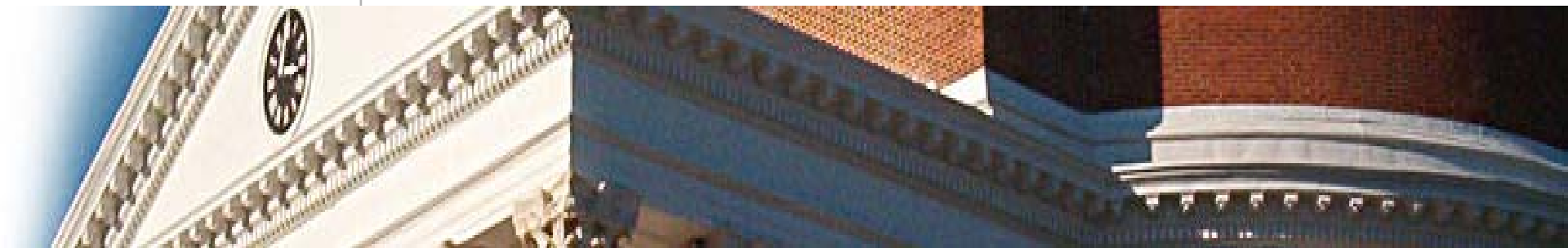
Network Analysis Has Helped to Inform the IFC's Decentralization Strategy

As the IFC started to move towards a decentralised structure, the Environment and Social Development department decided to investigate the implications of moving from a traditional department model to a "network". Through this network analysis project, we were able to hone in on a number of strategic areas, such as awareness of expertise, the onboarding of staff and cross-unit collaboration, and define priorities for action accordingly.

Network analysis was most helpful in translating the sometimes abstract concepts of collaboration and knowledge management into concrete, measurable dimensions. The results of this process will inform the Department's strategy moving forward.

—Giulio Quaggiotto, Programme Officer, IFC

Appendix



Why We Should Focus Our Attention on Organizational Networks

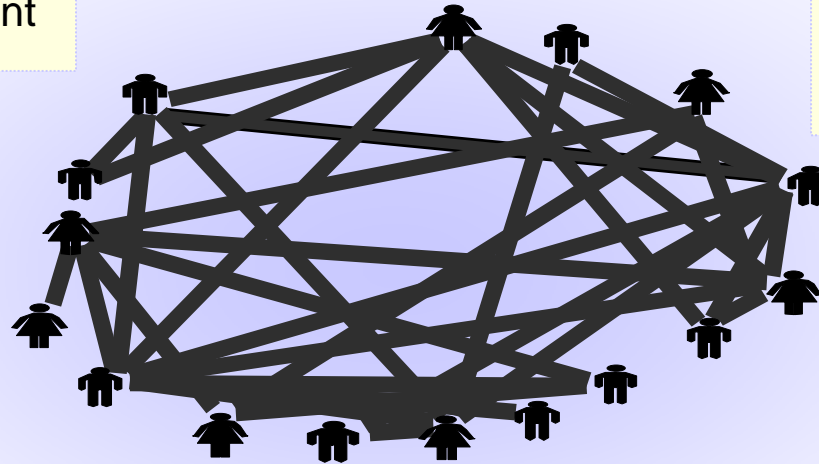
Key Reasons Why Organizational Networks Are Important

Where Work Happens

- Lack of boundaries
- Informal networks increasingly important

Where People Engage

- Join and commit to people
- Trust accrues in networks of relations



Where Knowledge Lives

- Rely on people for information
- People can provide more than databases

BUT...

- Invisible
- Complements formal structure

How to Interpret a Network Diagram

- **Central People**

- Are an important source of expertise
- May become bottlenecks

- **Peripheral People**

- Are underutilized resources
- Feel isolated from the network
- Have a higher likelihood of leaving

- **External Connectivity**

- Provides balanced and appropriate sources of learning
- Holds relevant influence with key stakeholders

- **Brokers**

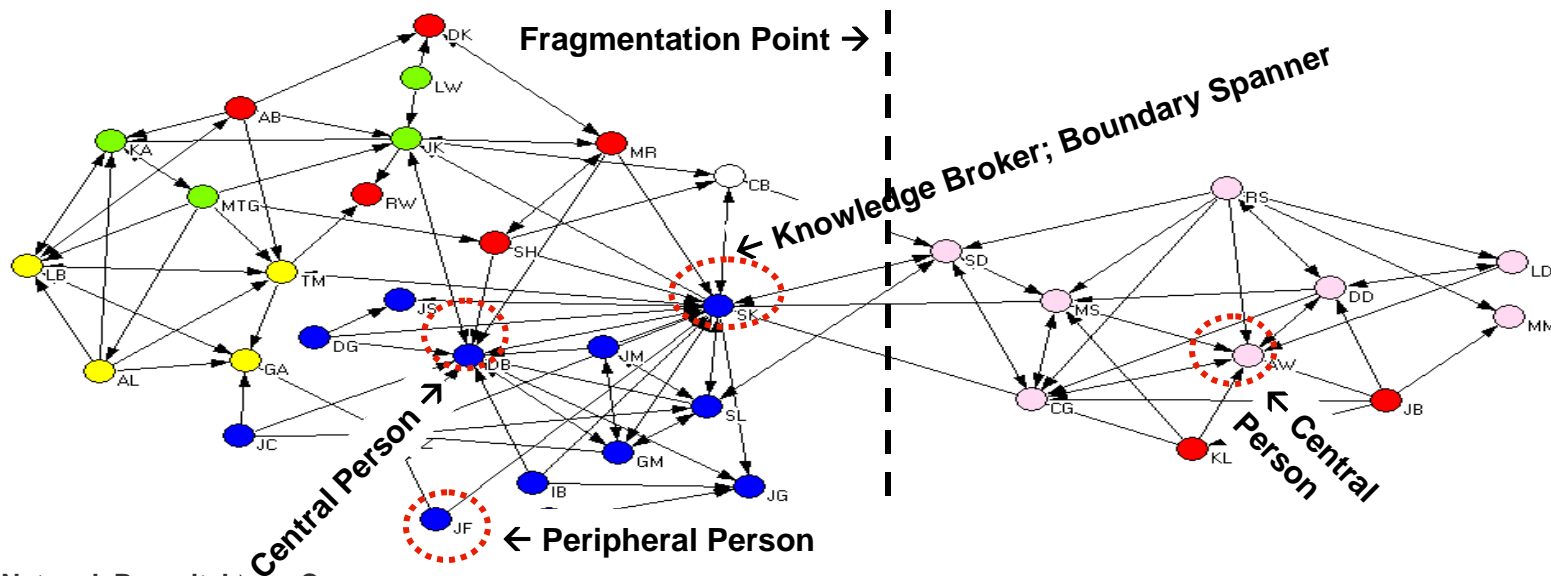
- Are critical connectors between diverse information sources and specific kinds of expertise. High leverage points.

- **Fragmentation Points**

- Affect information flow across boundaries (e.g., cross functional, hierarchical, geographical, or expertise)
- Provide targeted opportunities

- **Personal Connectivity**

- Improves community leader effectiveness
- Enables grass roots network development efforts



Key SNA Terms—Quantitative Metrics

Density: Robustness of network (group measure)

- Number of connections that exist in the group out of 100% possible in that network.
- **Bottom Line:** More points connected means quicker and more accurate information flow.

Cohesion (Distance): Ease with which a network can connect

- Shows average distance for people to get to all other people.
- **Bottom Line:** Shorter distances mean faster, more certain, more accurate transmission/ sharing.

Centrality: Identifies influential people (individual measure)

- Number of direct connections (ties) that individuals have with others in the group.
- **Bottom Line:** Individuals with more ties to others may be in more advantaged positions and may have access to more of the information or knowledge in the network.