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# **Social Network Analysis – Nicaragua Workforce Development System**

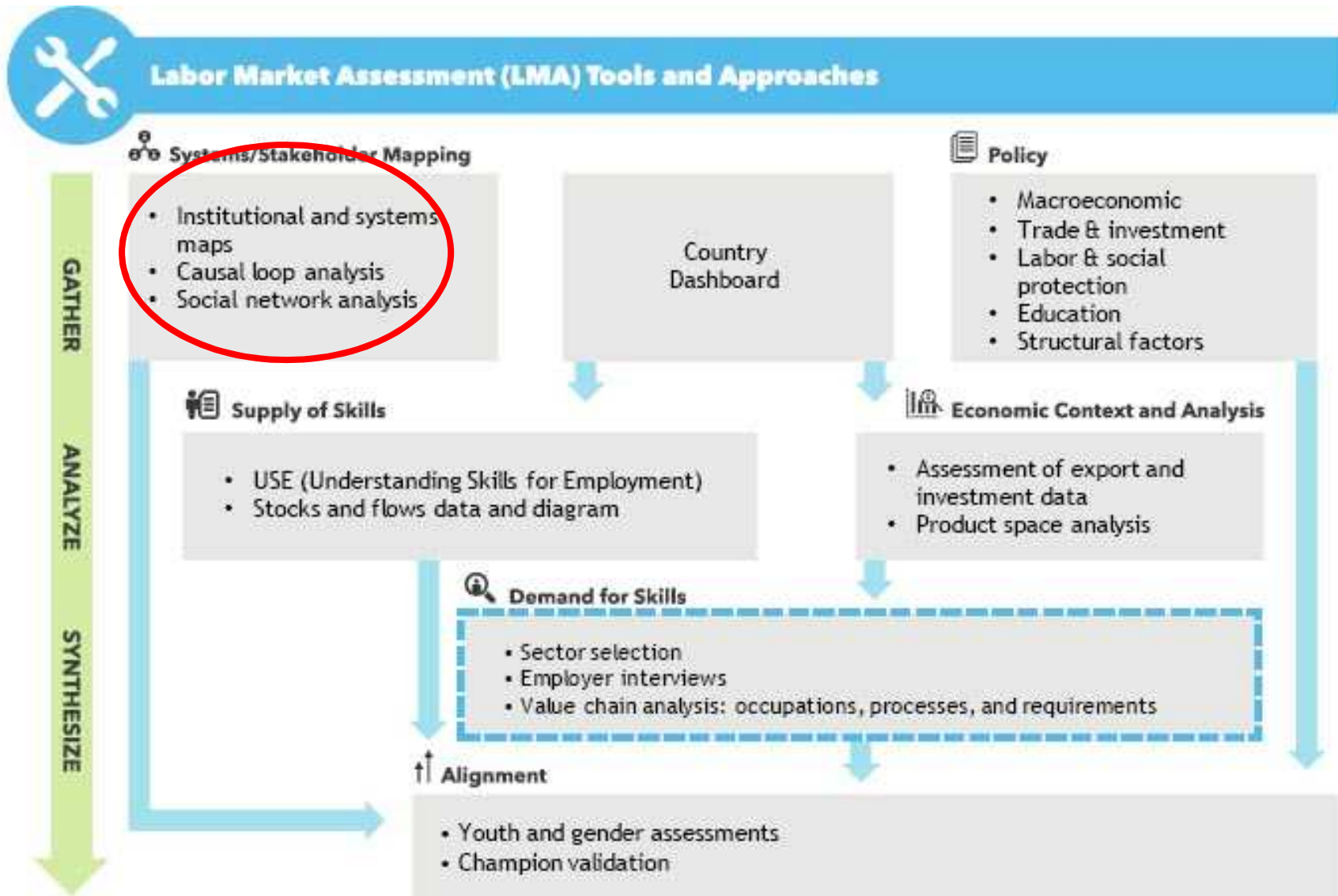
7 October 2015

Global Youth Economic Opportunity Summit

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# SNA in the context of labor market assessment



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# nicaragua ONA – overview and method

## ***Overview:***

- Conducted from May-Sept, 2015
- 3 locations: Managua, Leon, Matagalpa
- Consultations – fieldwork - **results**

## ***Method:***

- Snowball nomination
- In-person enumeration / probing
  - Analysis in NodeXL



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# nicaragua ONA – objectives and network

## *Learning Objectives*

1. Address critical WfD program design information needs
2. Assess specific functions within the WfD system
3. Provide comparative insight

## *Overview:*

- Conducted from May-Sept, 2015
- 3 locations: Managua, Leon, Matagalpa
- Consultations – fieldwork - **results**

## *Method:*

- Snowball nomination
- In-person enumeration / probing
- Analysis in NodeXL

## *Network Definition:*

The workforce development network is defined to consist of actors that:

- Operate within the Departments of Managua, Leon, and/or Matagalpa;
- Strive to increase quality or quantity of jobs and/or labor supply;
- Are formal organizations;
- Do not simply employ job-seekers
- Are not simply job seekers.



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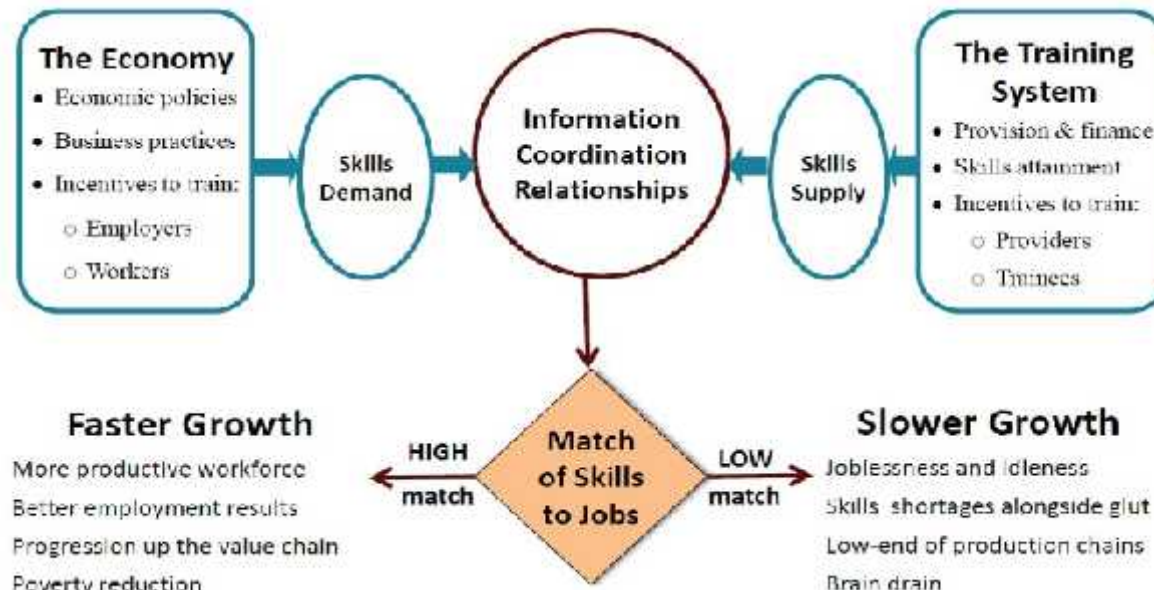


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# defining theory of change and WfD functions



World Bank, Systems Approach for Better Education Results. SABER Working Paper Series: "What Matters for Workforce Development: A Framework and Tool for Analysis" (No 6, April 2013), pp. 10-15.

## Nicaragua WfD Functional Groupings

●	Private Enterprise/Coop (Employer); n=13	●	Employment Agency; n=6
●	Educational Institutions (High School, University); n=7	●	Labor / Trade Union; n=3
●	Vocational / Technical School; n=21	●	NGO; n=32
●	Government (Local, Central); n=8	●	External Stakeholder (Foundation, Donor, Research Org); n=25
●	Business Association; n=16		



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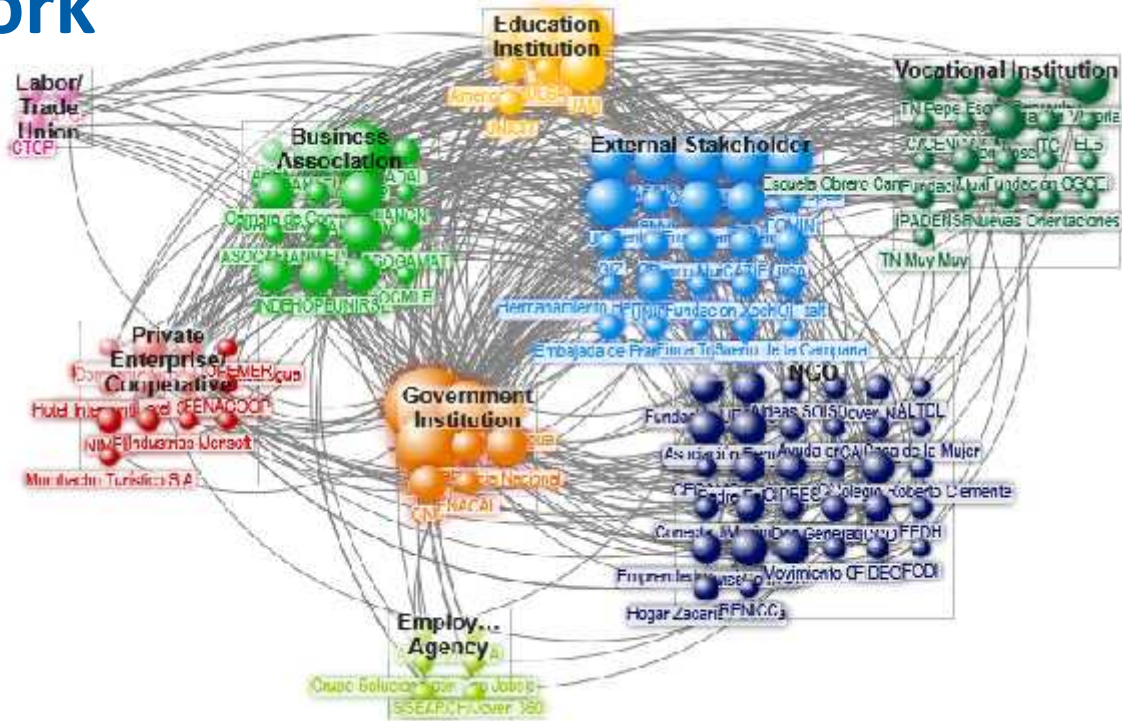
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# the whole network

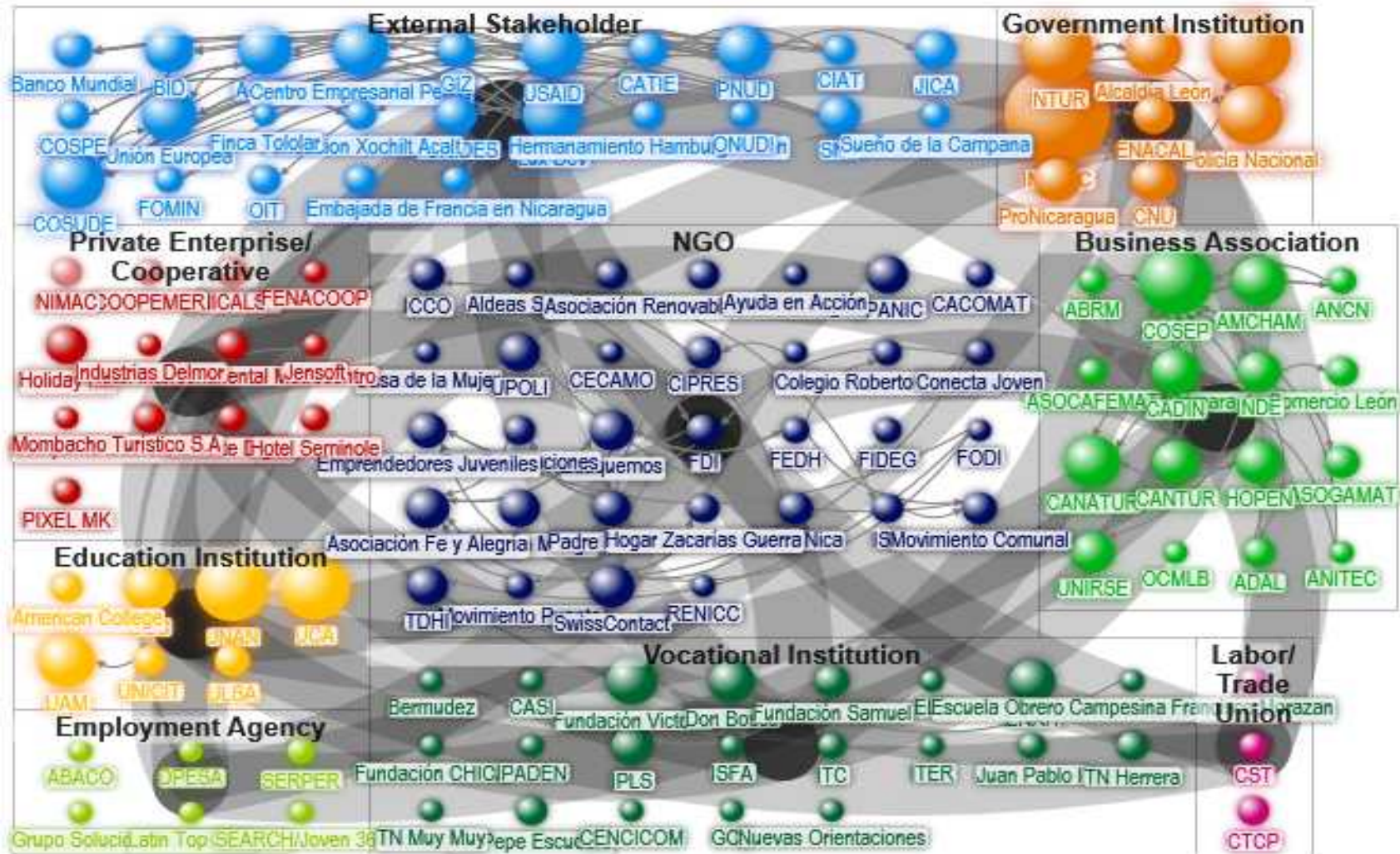
Network Phenomena	Results
<b>Basic Network Features</b>	
Size	131
Ties	566
Components	1
<b>Network Cohesion</b>	
Density	3.3%
Betweenness Centrality	207.48
Closeness Centrality	0.003
<b>Distance between Actors</b>	
Diameter	5
Average Distance	2.5762
<b>Strength and Clustering</b>	
Reciprocity (Av / Med)	14% / 25%
Clustering Coefficient	13.7%
<b>Potential for Change</b>	
# of Actors	133
Desired ties	732
Potential Density	4.2%



Observations
Diffuse but resilient network with no single actor capable of disruption
Weak reciprocity among actors
Network clustered around smaller groups, more than the network as a whole
Weak potential for change absent outside intervention

Wfd Strategies
<ul style="list-style-type: none"> <li>• Network hub development</li> <li>• Incubation of pivotal actors / groups</li> </ul>
<ul style="list-style-type: none"> <li>• Strengthening network communities</li> <li>• Deepening intragroup relations</li> </ul>
<ul style="list-style-type: none"> <li>• Engage sub-groups for rapid diffusion</li> <li>• Forge new intergroup ties to bridge gaps</li> </ul>
<ul style="list-style-type: none"> <li>• Targeted Wfd network development programming</li> </ul>

# functional groups



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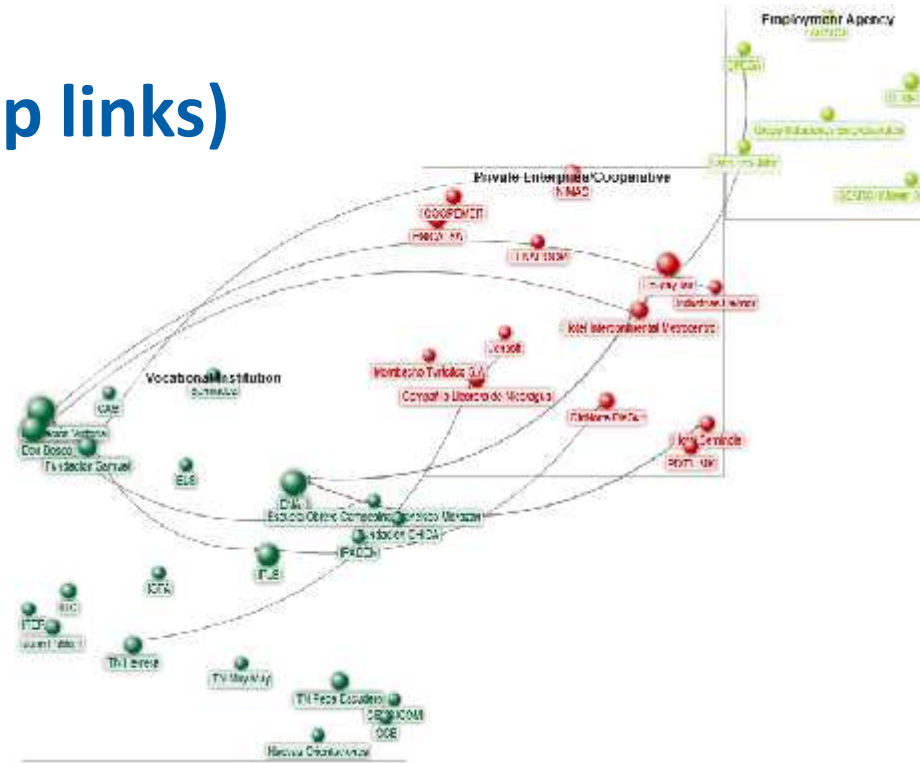
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# WfD functions (missing intergroup links)



<i>Observations</i>	<i>Strategies</i>
Weak intragroup ties among employment agencies, unions, employers	<ul style="list-style-type: none"> <li>• Incubation, group coordination, joint initiatives</li> <li>• Business devt support to expand ties of small groups</li> </ul>
Weak links between employment agencies, vocational institutions and employers	<ul style="list-style-type: none"> <li>• <b>Strengthening critical links between these groups, especially via employment agencies</b></li> </ul>



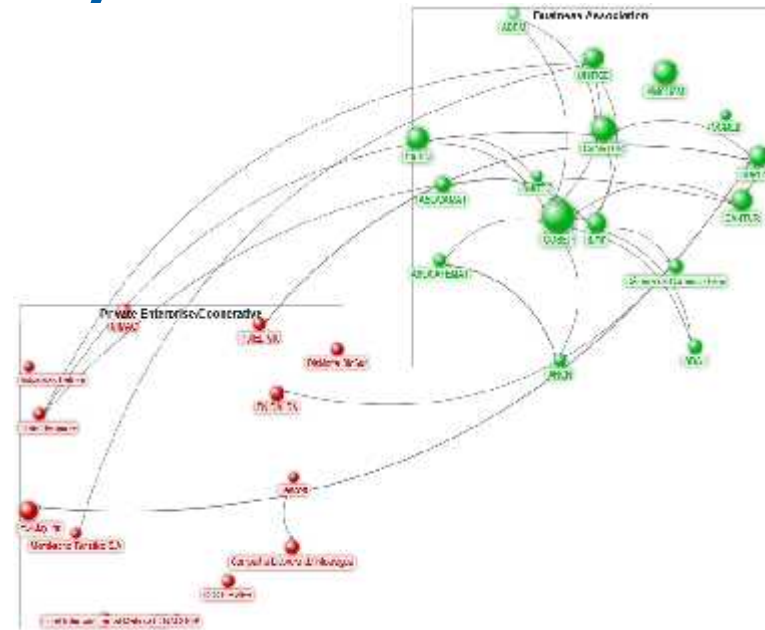
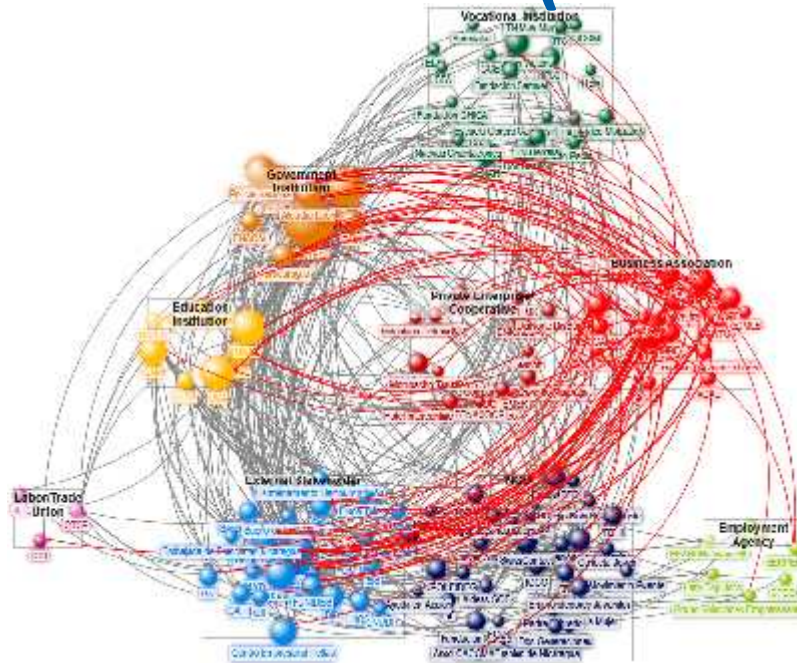
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# WfD functions (associations)



## Observations

Weak intragroup ties among employment agencies, unions, employers

Weak links between employment agencies, vocational institutions and employers

Associations have strong position in network, but weak ties to employers

## Strategies

- Incubation, group coordination, joint initiatives
- Business devt support to expand ties of small groups
- Strengthening critical links between these groups, especially via employment agencies
- Potential node(s) for hub development
- Bolster member services / links



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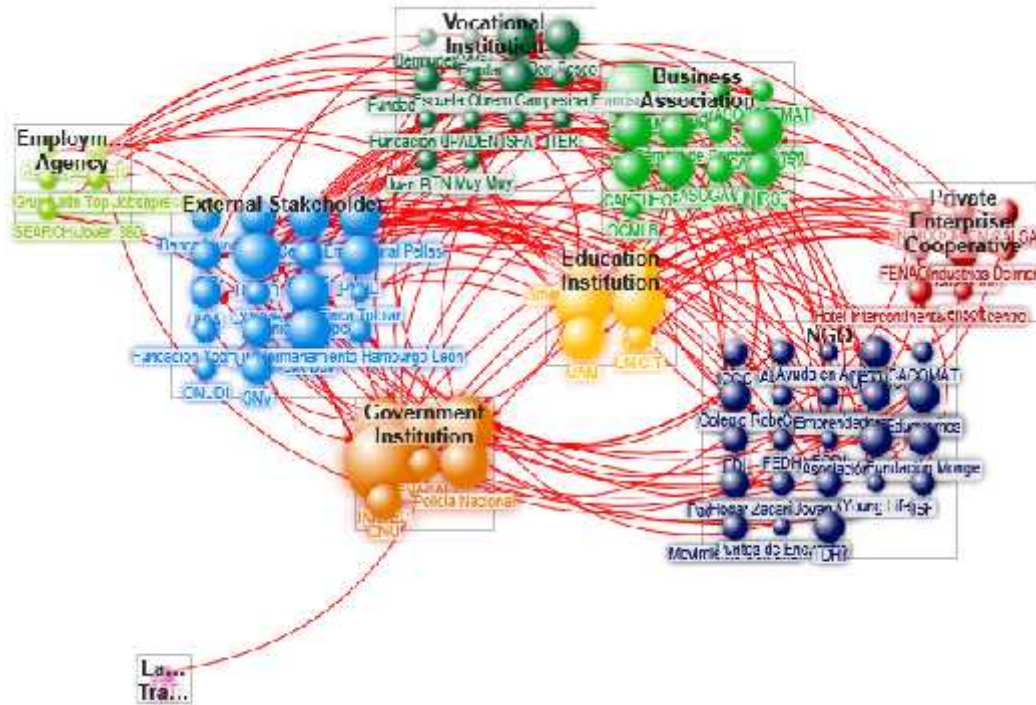


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# WfD functions (desired ties)

Group	Desired In ties	Organization	Desired In ties
Govt.	70	INATIC	47
		MINED	26
Educational Institution	66	INTUR	20
		LINAN	21
		UCA	19
		UNI	13
		UAM	12
External Stakeholder	94	COSUDE (SDC)	15
		USAID	14
		Lux Dev	13
		Centro Empresarial Pellas	11
		Unión Europea (EU)	11
		A-CID	10
		PNUD	10
		Fundación Telefonica (MOVISIALI)	10



Observations
Weak intragroup ties among employment agencies, unions, employers
Weak links between employment agencies, vocational institutions and employers
Associations have strong position in network, but weak ties to employers
<b>Donors, govt, educational institutions have highest levels of social capital and prestige</b>

Strategies
<ul style="list-style-type: none"> <li>Incubation, group coordination, joint initiatives</li> <li>Business devt support to expand ties of small groups</li> </ul>
<ul style="list-style-type: none"> <li>Strengthening critical links between these groups, especially via employment agencies</li> </ul>
<ul style="list-style-type: none"> <li>Potential node(s) for hub development</li> <li>Bolster member services / links</li> </ul>
<ul style="list-style-type: none"> <li><b>Facilitation based strategies</b></li> <li><b>Leverage for advocacy and influence</b></li> </ul>



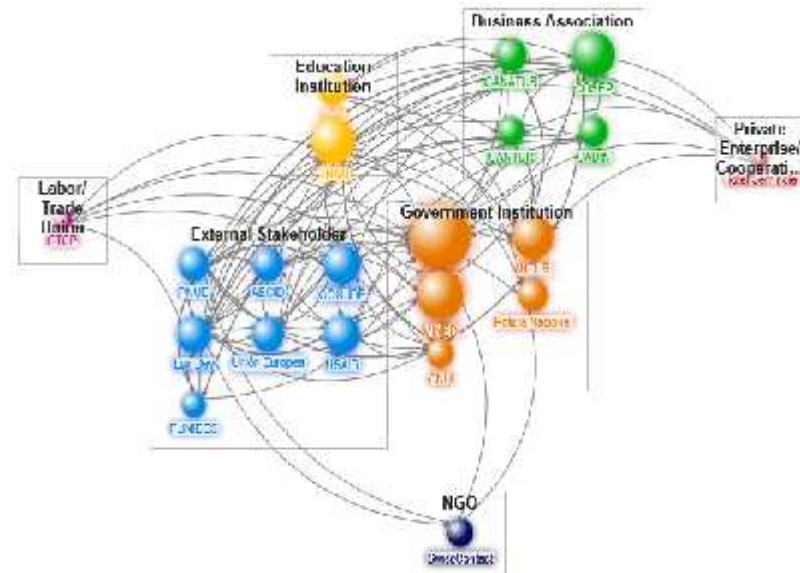
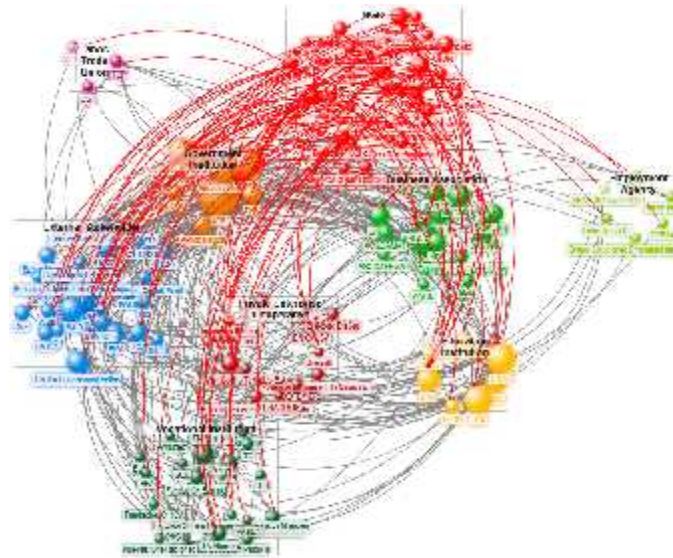
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# WfD functions (NGOs)



Observations
Weak intragroup ties among employment agencies, unions, employers
Weak links between employment agencies, vocational institutions and employers
Associations have strong position in network, but weak ties to employers
Donors, govt, educational institutions have highest levels of social capital and prestige
<b>NGOs are entrepreneurial, eager partners but constrained by a lack of influence</b>

Strategies
<ul style="list-style-type: none"> <li>• Incubation, group coordination, joint initiatives</li> <li>• Business devt support to expand ties of small groups</li> </ul>
<ul style="list-style-type: none"> <li>• Strengthening critical links between these groups, especially via employment agencies</li> </ul>
<ul style="list-style-type: none"> <li>• Potential node(s) for hub development</li> <li>• Bolster member services / links</li> </ul>
<ul style="list-style-type: none"> <li>• Facilitation based strategies</li> <li>• Leverage for advocacy and influence</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Leverage connectedness to multiple actors</b></li> <li>• <b>Beware of limited utility convening powerful actors</b></li> </ul>



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# lessons learned

- Carefully map network analysis to a theory of change or development hypothesis. (e.g. SABER model)
- Establish a clear network boundary (e.g. common goal, geography), and consider employers carefully as they are a potentially limitless population.
- Expect little regional variation in metrics between multiple networks where there is overlap among actors. (e.g. government, national NGOs)
- Consider the willingness of network actors to participate in the survey, especially in centralized environments. (e.g. INATEC)
- Develop strategies to assess potential for network growth in the absence of a baseline. (e.g. desired linkages, comparative subnetworks)



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# thank you

To download the full report, “Organizational Network Analysis – Nicaragua Workforce Development System”, please visit:

[www.linclocal.org/tools/network-analysis](http://www.linclocal.org/tools/network-analysis)

For more information, comments and questions please contact LINC Managing Director, Patrick Sommerville:

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