

PRESENTER:
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BACKGROUND: One strategy of building strong social networks within an organization is through intra-organizational mobility, where members move from one sub-group to another, creating long-range social ties along the way. Organizations support internal mobility largely through internal hiring, “time in chair” policies, and organized rotational programs. While intra-organizational mobility is a phenomenon of interest in management science, network science has yet to be utilized in its study. In this work, we create network models of an organization, and run experiments to explore the extent to which network science can suggest optimal policies for managing intra-organizational mobility.

Exploratory simulation work

1. Ran a variety of simulations merging a normal Cayley tree (representing an organization’s hierarchy) with a GNP network (representing the addition of random long range social ties from internal mobility).
2. Created a new measure of edge centrality (aggregate geodesic reduction ratio), to determine the benefit of adding a new edge to the network, from a perspective of reduced distance required for knowledge to be accessed anywhere in the organization.
3. Ran simulations determining the “smart edge” to add to an existing network, to best reduce the overall distance between nodes in the network.

Code

• Simulation code can be found online:
https://github.com/mjhofer/networks_project

Individuals changing jobs in an organization creates informal networks, and we should pay attention to them

Proposed Organizational Strategy:

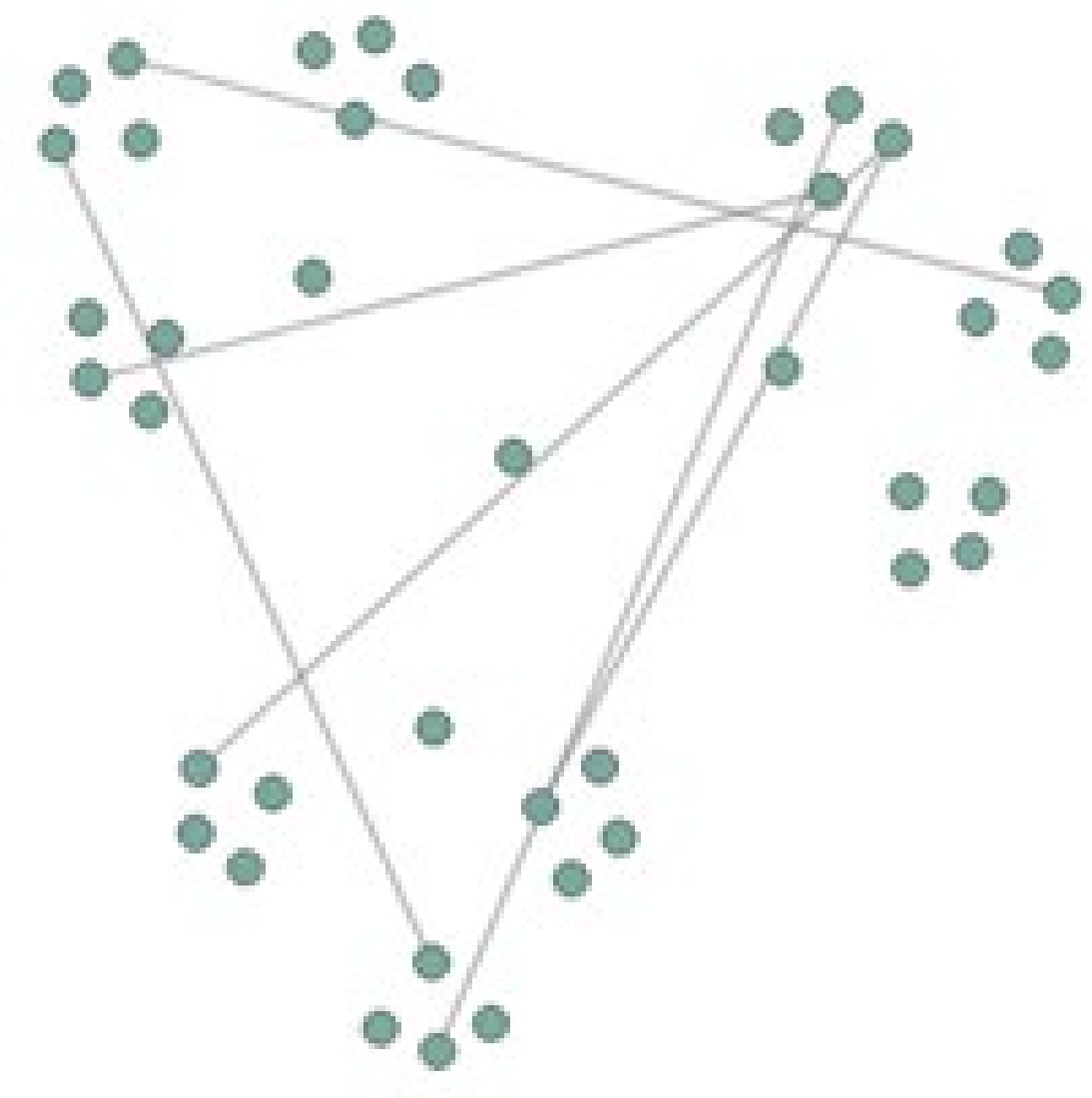
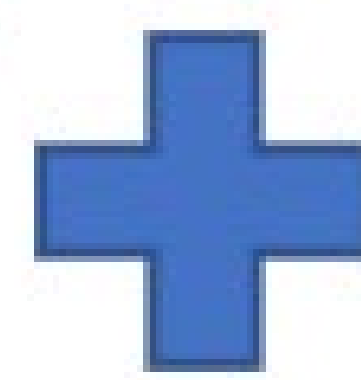
1) *Employees move around in the organization, creating long range social ties*

2) *Construct information networks based on this movement*

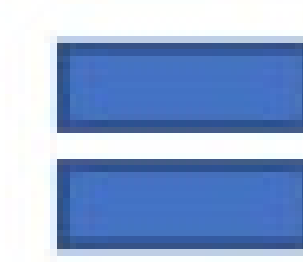
3) *Craft policy to optimize the network for information flow and innovation*



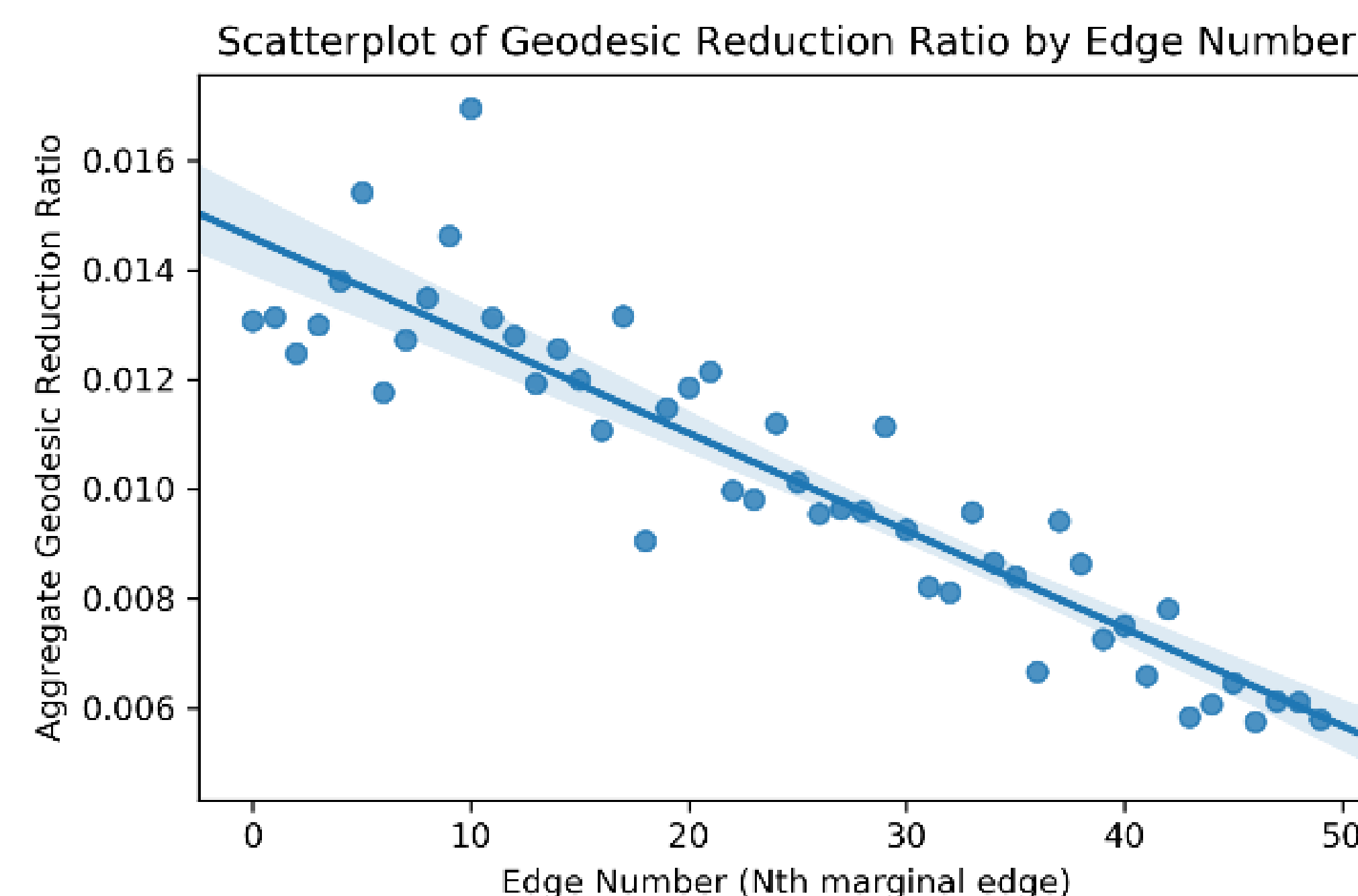
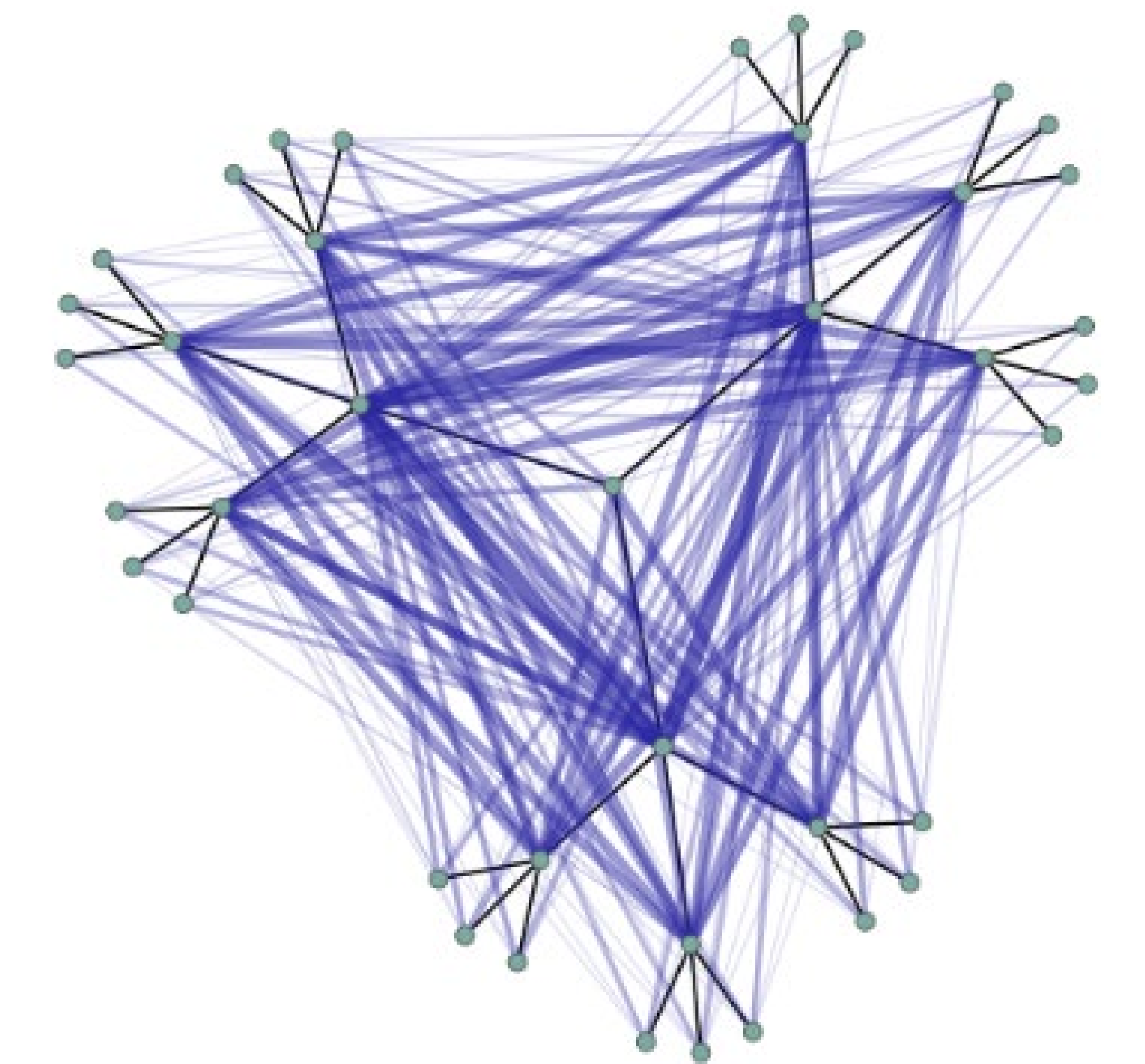
Formal org structure



Informal Mobility Networks



Pathways for information flow



“Levers” for management influence:

1. *Rotational programs*
2. *Time in chair policies*
3. *Crossbusiness unit internal hiring policies*