• At home, revisiting Elizabeth and Taya’s confusion
• At home, revisiting Elizabeth and Taya’s confusion
• While we were discussing adv./disadv. of networks, ... ...
• Q: Market and hierarchy structure can be analyzed from network perspective?
  ▫ What are the main features of networks?
I realized that we did not differentiate “network” and “network analysis” last week.

- Which might make you confused.
- As PAD 637 focused on learning analytic skills of network analysis more > theory learning about networks,
  - In last week, we only discussed historical evolution of “network analysis”, not “network theory (?)”
Studies on organizational networks

• Provan and Kenis (2008) *JPART*
• Most research on organizational networks can be broadly characterized by two approaches:
  ▫ 1. “Network analytical” approach
  ▫ 2. “Network as a form of governance” approach
“Network analytical” approach

- focuses mainly on micro-level
  - building largely on work done by sociologists studying networks of individuals.
- This perspective has had a long history (Moreno 1934).
  - Which we discussed last week
- Contributed to the description, explanation, and comparison of network structural characteristics using network concepts as density, centrality, and structural holes (Burt 1992; Wasserman and Faust 1994).
“Network analytical” approach

- We can see the “machine-like” hierarchical structures using a “network analytical” approach.
“Network as a form of governance” approach

- Focuses mainly on functioning of networks
- Treats “networks” as the unit of analysis
- Networks is viewed as a mechanism of coordination
- This discussion can start with these two studies:
  - Williamson (1975) Markets and Hierarchies
Williamson (1975) Markets and Hierarchies

- Oliver Eaton Williamson,
  - professor at Univ. of California, Berkeley
  - recipient of the Nobel Memorial Prize in Economic Sciences with Elinor Ostrom in 2009
  - Specialize in transaction cost economics
  - Williamson is a student of Ronald Coase, Herbert Simon and Richard Cyert
  - Focused on market and non-market decision-making processes, management and service provision
Williamson (1975) Markets and Hierarchies

- Oliver Eaton Williamson,
  - **Core argument:**
    - Transactions with uncertainty about the outcomes – “transaction-specific investments” (e.g., money, time, or energy) - are more likely to take place within hierarchically organized firms than a market.
    - “Bounded rationality” and “opportunism” lead to greater costs of market transactions.
  - **Contributions:**
    - Brings our attention to seeing firms as governance structures; moving the economics of organizations close to the fields of law, org. theory, and business history
Powell (1990) Neither Market nor Hierarchy

• Question by Powell
  ▫ **Wait!** Hey, Williamson, are you satisfied with the continuum view (Market and Hierarchy)?
  ▫ Look at franchising firms, joint ventures, decentralized profit centers, and matrix structures!

• Answer by Williamson
  ▫ Still my transaction cost theory explains these middle range forms
  ▫ Also, based on the distribution of transactions ... “the tails of this continuum from market to hierarchy are ‘thick’.”
Powell (1990) Neither Market nor Hierarchy

- Powell said “NO!”

- Market is not a starting point
- Hierarchy does not represent an evolutionary endpoint of economic exchange
- Academic operationalization
- E.g., high tech start-ups in US and craft-based firms in Northern Italy suggest externally-driven growth network form from preexisting relationships
Powell (1990) Neither Market nor Hierarchy

• Suggests Networks as a form of economic organizations

• Qs: What are the main characteristics of network forms? What features make network different from market and hierarchy?

• Let’s think about market and hierarchy first
Markets, Hierarchies, and Nets

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Reciprocity reminds me of Professor Weinberg’s face?? Why??

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Reciprocity reminds me of Professor Weinberg’s face?? Why??

Source: Hierarchy
Markets, Hierarchies, and Nets

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Behavior economist
In PAD 703 and PAD 503, we learned the Tit-for-tat strategy in “game theory”, close to “reciprocity” Also, important principle in network studies
## Markets, Hierarchies, and Nets

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Reciprocity is also used a measure of level of trust!

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<td>Dependent</td>
<td>Interdependent</td>
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<td>[Already given]</td>
<td></td>
<td>[Doesn’t matter]</td>
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Defining networks

• Now, do we have a better sense of what organizational networks are?? 😊

• handout
Defining networks

- Think about what’s the network?
- Brass et al. (2004)
  - “a set of nodes and the set of ties representing some relationship, or lack of relationship, between the nodes.”
  - “contents of relationship” are up to YOU!

- So, our job is exploring a network governing mechanism using a network analysis.
Examples of network forms

• Here, I mainly focus on interorganizational network form (Barringer & Harrison, 2000. JoM)

• Joint ventures
  ▫ An entity that is created when two or more firms pool a portion of their resources to create a separate jointly owned organization.
    • E.g., a joint venture between General Motors and Chrysler to build manual transmissions.
    • E.g., Joint ventures between American and European food companies
      • to provide an access to enter a European market & distribution channels
Examples of network forms

• Consortia
  ▫ Specialized joint ventures encompassing many different arrangements.
  ▫ Consortia are often grouping of firms oriented towards problem solving and technology development
    • E.g, R&D consortia like SEMATECH, semiconductor consortium
    • E.g., Financial Services Technology Consortium (FSTC)
      ▫ Was built to enhance the competitiveness of the United States financial services industry across for-profit, govt, and not-for-profit
      ▫ Its members include banks, financial service providers, research laboratories, universities, and governmental agencies
Examples of network forms

• **Alliance**
  ▫ An arrangement between two or more firms that establishes an exchange relationship but has no joint ownership involved.
  ▫ E.g., R&D alliances: small firms with specific skills and larger firms with experience

• **Trade Association**
  ▫ typically nonprofit Organizations
  ▫ are formed by firms in the same industry
    • to collect and disseminate trade information,
    • offer legal and technical advice,
    • furnish industry-related training,
    • provide a platform for collective lobbying.
  ▫ E.g., American Petroleum Institutes
Examples of network forms

• Interlocking Directorate
  ▫ when a director or executive of one firm sits on the board of a second firm
  ▫ or when two firms have directors who also serve on the board of a second firm, interlocking directorate occurs
  ▫ Interlocking directorates serve as a mechanism for interfirm information sharing and cooperation.

• Many studies in interlocking directorate
  ▫ The basic academic interest in interlocking directorates comes from the belief that the composition of a firm’s board reflects its resource needs (Burt, 1980).
What about nets in public admin. & Policy?

• We have developed two concepts around network forms
  ▫ Policy networks
  ▫ Collaborative networks
  ▫ The backgrounds of the distinction of these two concepts came from the history of the politics-administration dichotomy.
Policy networks

- Politics and policymaking have become organizational (Laumann and Knoke 1987) in the context of mutual dependence across the public-private divide. Because (Rethemeyer & Hatmaker, 2008)
  - The decline of party dominance,
  - spread of government oversight/intervention into every sector; more complex social life; “wicked” problems
  - “hollowing out” of the state
  - Agencies’ information seeking to manage third-party governance
  - Increased participation by corporate entities in politics and policymaking
  - Development of organizational coalition of citizen to counter corporate power.
Policy networks

- denote a set of public agencies, legislative offices, private organizations, nonprofits that have an interest in public decisions within a particular area of policy
- because they are interdependent and have a “shared fate” affected by public decisions
- These actors constitute a “network”
- So, policy networks are used as a policy decision-making mechanisms
  - E.g., Sabatier, Weible (Advocacy coalition framework)
Collaborative networks

- are collections of government agencies, nonprofits, and for-profits that work together to provide a public good, service, or “value”
- Because
  - a single public agency is unable to create the good or service on its own
  - the private sector is unable or unwilling to provide the goods or services at all or in the desired quantities
  - E.g., O’Toole, Agranoff, McGuire
Policy & Collaborative networks

- They seem to have emerged for similar reasons
- Conceptually they are differentiated because of the academic silos and history of the politics-administration dichotomy
  - Policy networks: policy decisionmaking processes
    - Political science areas
  - Collaborative networks: policy implementation processes
    - Public administration areas
Policy & Collaborative networks

- Examples
    - ABE and MH policy networks
  - Feiock (2007)
    - Examining voluntary regional governance among interlocal collaboration
    - Between policy and collaborative nets (?)
  - Kun & Provan (2007)
    - MH service networks in Arizona State
  - Agranoff & McGuire
    - E.g., Indiana rural council, Partnership for rural Nebraska
- However, again, the bottom line is that
  - Whether it is policy networks or collaborative networks really depends on your “contents of relationship”!!!
• Let’s start Dante and Taya’s lecture!
Core discussion Networks of Americans

• What would happen to discussion networks of Americans during two decade? Any guess??
McPherson et al. (2006) Social Isolation in America: Changes in Core Discussion Networks over Two Decades

- In the 2004 GSS, the authors replicated 1985 questions
- Discussion networks are smaller in 2004 than in 1985.
- The number of people saying there is NO one with whom they discuss important matters
  - nearly tripled.
- The mean network size decreases by about a third (one confidant),
  - from 2.94 in 1985 to 2.08 in 2004.
- Both kin and non-kin confidants were lost in the past two decades,
  - but the greater decrease of non-kin ties
    - leads to more confidant networks centered on spouses and parents,
    - with fewer contacts through voluntary associations and neighborhoods.
Most people have densely interconnected confidants similar to them.

Some changes reflect the changing demographics of the U.S. population:
- Educational heterogeneity of social ties has decreased,
- Racial heterogeneity has increased.

The data may overestimate the number of social isolates, but these shrinking networks reflect an important social change in America.