Social Dynamics of Economic Performance: Innovation and Creativity in City Regions

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Innovation Systems Research Network
Context

• Innovation Systems Research Network (ISRN)

• Established in 1998 to support interaction among researchers and their partners
  – SSHRC, NSERC, NRC funding
  – Diffuse research findings to public and private sector partners

• ISRN cluster initiative launched in 2001
  – Support from SSHRC and other federal and provincial partners

• To investigate the process of cluster development in:
  – knowledge-intensive and traditional sectors
  – metro and non–metro regions

• Builds upon the capabilities and partnerships of ISRN
  – Links with extensive network of government partners
  – Strong network of international collaborators – RAC

Innovation Systems Research Network
From Clusters to City Regions: Primary Research Question

How do local social characteristics and processes in city-regions determine their economic vitality and dynamism as centres of innovation and creativity?
Three Key Dimensions

• Social learning dynamics and knowledge flows between economic actors in dynamic city-regions

• Social dimensions of talent and creativity in city-regions (including diversity, openness, inclusion)

• Social nature of civic engagement and governance processes
Key Issues

• Knowledge flows and knowledge dynamics: intra-sectoral or within city region?
  – Role of research and knowledge infrastructure in supporting innovation and growth: intra-sectoral or cross-sectoral?

• Can city-regions pursue *socially inclusive* talent-based economic development strategies?

• Conditions that facilitate/inhibit effective collaborative leadership, civic engagement?

• Prospects for mid-size and smaller city-regions?
### Case Study City Regions

<table>
<thead>
<tr>
<th>Population Range</th>
<th>City 1</th>
<th>City 2</th>
<th>City 3</th>
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</thead>
<tbody>
<tr>
<td>1,000,000+</td>
<td>Montreal</td>
<td>Halifax</td>
<td>St. John’s, Nfld</td>
</tr>
<tr>
<td>250,000-999,000</td>
<td>Toronto</td>
<td>Quebec City</td>
<td>St. John, N.B.</td>
</tr>
<tr>
<td>100,000-249,000</td>
<td>Vancouver</td>
<td>Hamilton</td>
<td>Trois-Rivières</td>
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<td></td>
<td>Ottawa-Gatineau</td>
<td>Kitchener-Waterloo</td>
<td>Kingston</td>
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<td></td>
<td>Calgary</td>
<td>London</td>
<td>Saskatoon</td>
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Specialization or Diversity: Marshall versus Jacobs?

- Cluster literature (Marshall/Arrow/Romer) implies specialization
  - Proximity favors intra-industry knowledge flows
- ‘Jane Jacobs’ model stresses benefits of diversity
- Specialization is risky: few regions can make it work
- Many of most dynamic regions have BOTH
  - A diverse portfolio of specializations
  - ‘Old’ industries: basis for ‘new’ ones
- Can mid-size city-regions pursue such a strategy successfully?
  - Waterloo region: high-tech darling or diverse specialization?
Unique Local Capabilities

- Regional Innovation Systems produce *localised unique capabilities*, which become a key source of competencies for local firms in a *variety of sectors*.

- Localised capabilities include:
  - The region’s specific institutional endowment
  - Local research and knowledge infrastructure
  - Unique knowledge and skills available in the region

- These capabilities develop and evolve slowly over time.

- A region’s institutional endowment shapes:
  - Distinctive rules, practices, routines, habits, traditions, customs and conventions
  - Entrepreneurial spirit, moral beliefs, political traditions and decision-making practices
  - Distinctive regional ‘culture’
Theme I: Social Nature of the Innovation Process

• Primary Hypothesis
  – economic and creative performance of city regions depends on three characteristics:
    • strength of local knowledge circulation processes within individual industries/clusters
    • the strength of local knowledge circulation between individual industries/clusters
    • and the strength of knowledge-based linkages between local and non-local economic actors.
Theme I: Qualitative Analysis

- Structured interviews with:
  - Managers, entrepreneurs
  - Economic development organizations
  - Educational/research organizations

- Deeper understanding of processes by which knowledge is circulated
  - Mobility of skilled workers, managers, entrepreneurs
  - Role of economic diversity, mix
  - Alternative ways of organizing production (e.g. projects)
  - Formal and informal modes of interaction

- Key issue:
  - How do we measure and analyze knowledge flows?
Theme I: Quantitative Analysis

- Use Indicators database to explore relationship between ECP and
  - Diversity of internal economic structure
  - Relative strength of local K linkages
  - Relative strength of external K linkages
  - [K in disembodied and embodied forms]

- Use StatCan (SIEID) innovation survey data for similar analysis

- Develop custom surveys for individual city regions
Strategy for selecting K-intensive, creative sectors: 4-step plan

1. Identify sectors with LQ>>1 (employment, establishments)
2. Co-specialization patterns? (identify parallel specializations; compare to national cluster models; judgement)
3. Identify sectors with high K-intensity, creativity-intensity
   • % K occupations, % creative occupations
   • % high educational attainment
4. Identify fast-growing sectors
   • employment, establishment data (new firm formation)
The Role of Talent in Innovation

- Labour is the single most important input for innovation
  - Labour flows to those places that have a ‘buzz’ about them
    - Track this through star scientists (Darby and Zucker)

- Universities are key creators and attractors of talent
  - “universities are a crucial piece of the infrastructure of the knowledge economy, providing mechanisms for generating and harnessing talent” (Florida)
  - But problems with competing definitions of talent and creative class (Florida vs. Michigan)
    - Do understanding role talent and creativity involve focus on the cultural and creative industries or much more?

- Universities reinforce quality of place by fostering tolerance and diversity and creating ‘humane’ capital (Gertler and Vinodrai)

- Many places can produce talent – but far fewer succeed in retaining it and attracting it from elsewhere
  - Why? Is the key question
Theme II: Social Foundations of Talent Attraction and Retention

• Primary Hypothesis
  – economic competitiveness of city-regions depends on quality of place characteristics:
    • Cultural dynamism
    • Social diversity
    • Openness/tolerance
    • Social inclusion/cohesion
Theme II: Qualitative Analysis

- Structured interviews with:
  - creative &/or highly educated workers
  - employers of creative &/or highly educated workers
  - intermediary organizations

- Objectives:
  - to substantiate, deepen quantitative analysis (impact of key local social characteristics on attraction and retention of talented workers)
  - explore motivations of creative &/or highly educated workers, their employers
  - identify institutions, policies, practices that facilitate/discourage integration of talented newcomers, enable full participation by socially disadvantaged
Theme II: Quantitative Analysis

• Use Indicators database to explore relationship between ECP and QoP, with some new wrinkles:
  – Measures of social inclusion/exclusion
  – New measures of diversity (beyond foreign-born)
  – Large vs. mid-size, smaller urban centres?

• Objectives:
  – Is it possible to pursue a talent-based ED strategy while enhancing social inclusion?
  – Do ‘big city’ relationships hold in S, M cities?
New Forms of Governance

- Multilevel governance draws on programs and resources of all three levels of government
- Associative governance recognizes the importance of community actors as important sources of local knowledge
- Joined-up governance overcomes policy silos and improves coordination among policies at different levels of government
- Allows for economic development to be addressed holistically
  - Community level issues that are key to economic development (e.g., transportation) can be addressed in decision-making.
- Overcomes policy/implementatioon dichotomy
Role of Collaborative Institutions

- Formal and information organizations that:
  - Facilitate exchange of information and technology
  - Foster cooperation and coordination

- Social capital - shared norms and trust
  - Trust is a unique asset – it has value, but no price (Morgan)
  - Earned by discharging obligations to your partners
  - Facilitates cooperation among firms and sectors
  - Expedites learning and speeds the flow of knowledge

- Enhance social capital and improve competitiveness by:
  - Creating relationships and establishing trust
  - Creating collective institutions
  - Identifying common strengths and developing common agenda

- Strategic planning exercises draw upon social capital created by these institutions
  - Generate trust by engaging key social partners in ‘talk’ – builds set of shared understandings and expectations
Social Inclusion

- To what extent do strategic planning exercises at the local level involve broader social community?
  - How inclusive are the associational groups that participate in strategic planning exercises?
  - To what extent are social issues deliberately framed as part of strategic planning exercises?
  - To what extent are ‘inclusive’ issues framed as part of agenda
    - Employment opportunities
    - Integration of immigrants

- How responsive are civic leaders to non-traditional or non-elite groups?
  - To what extent are strategic planning exercises ‘old boys’ club?
  - What role is played by associations that represent other social groups in the community?
Theme III: Inclusive Communities and Civic Engagement

- **Primary H**: ECP of city-regions depends on:
  - Their ability to generate effective new forms of associative governance, collaborative leadership
  - Social inclusiveness of new governance forms
Theme III: Qualitative Analysis

• Structured interviews with:
  – Civic leaders (in business, government, CBOs)
  – Reps of key minority groups, socially disadvantaged
  – Employers in K-intensive, creative industries

• Objectives:
  – To determine effectiveness of local governance mechanisms in promoting economic success of the city-region
  – To document degree of openness of governance structures to newcomers, outsiders
  – Identify factors that differentiate between ‘successful’ and ‘less successful’ city-regions