
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

1,000,000+	250,000-999,000	100,000-249,000
Montreal	Halifax	St. John's, Nfld
Toronto	Quebec City	St. John, N.B.
Vancouver	Hamilton	Trois-Rivières
Ottawa-Gatineau	Kitchener-Waterloo	Kingston
Calgary	London	Saskatoon

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 $LQ \gg 1$ (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/implementation 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

