THE FRICTION OF DISTANCE & CREATIVE GROWTH IN BRITISH COLUMBIA'S SMALL CITIES: 1996-2006

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Introduction

In British Columbia during the mid 1990's, the traditional staples economy gave way to a "new economy" based on knowledge and creativity. Given their historic dependence on resource extraction, most of British Columbia's small cities were believed to be negatively affected by this change. Many assert that integrating cities into the "new economy" requires increased investments into transportation infrastructure. Transport Canada (2008) argues that one the most effective investments is in airports.

However, some have argued that in the "new economy" traditional location and distance relationships are irrelevant; that the economic vitality of a community is associated with quality of life and quality of place (Dicken 2007). Richard Florida's controversial works argue that the driving force in the "new economy" is the creative class (Florida 2002). These are highly educated and mobile individuals who choose to work in amenity rich places offering a high quality of life. According to his argument, small cities in the "new economy" are doomed as they do not have what it takes to attract members of the creative class.

Unfortunately, very little empirical evidence exists to challenge Florida when it comes to small cities, let alone small cities in British Columbia (Sands & Reese 2008; Petrov 2007). This problem has led to the following research objectives:

1)To determine whether or not small cities in British Columbia have experienced creative growth during the last decade.

2)To determine if creative growth translates into economic (labour force) and demographic (population) growth.

3)To determine if a small city's growth is influenced by its relative distance from a large city (Vancouver). In other words, is distance really dead?

4)If distance is not dead, to determine if access to large airports has contributed to a reduction in friction of distance for small cities.

Literature Review

A small but growing body of literature contradicts Florida's grim prediction for small cities (Nelson 2005, Petrov 2007, 2008). For instance, Petrov (2007), through empirical analysis of northern Canadian communities, concludes that small cities can attract the creative class, especially individuals who crave the benefits of remoteness. Nelson (2005) has observed that several small cities not only have the potential to grow, but have actively been growing in an increasingly creative economy.

Richard Florida defines the creative class based on occupation, and uses a complex set of indices to identify the places where they prefer to live. (See Florida 2002 for more details on the indices and Sands & Reese 2008 for a critique of his approach). Florida (2002) believes the creative class will drive growth in the new economy. This idea is well supported as several other studies have confirmed that economic growth and creative growth are related (Donegan et al 2008; Donegan & Lowe 2008). However, some have argued that in certain cases the relationship may not be causal (Shapiro 2006; McGranahan & Wojan 2007). For example, McGranahan & Wojan (2007) argue that government restructuring of services may lead to inflated creative growth in some communities. Nevertheless, the majority of the literature suggests that creative indicators are accurate measures of overall economic growth.

The question the research attempts to address is what type of small cities have grown creatively? As discussed, some argue remote cities have potential (Petrov 2007); on the other hand, Portnov & Weller (2008) have found that cities clustered within a 100 km radius of Vancouver display similar patterns of rapid growth. Areas outside of this radius were excluded in Portnov & Weller's study as they assume Vancouver's influence decreases beyond that threshold. Polese & Shearmur (2004) reiterate this fact and suggest that communities located far from Vancouver typically experience slower rates of growth. Some believe that certain communities can reduce this friction of distance, and experience growth in the "new economy" by investing in airports (Blakely & Bradshaw 2002; Siegel & Waxman 2001). They believe airports provide a critical link between small cities and enhance global mobility and linkages.

Hypotheses

Based on the literature reviewed the following hypothesis have been developed:

1)On average small cities in British Columbia have experienced creative growth.

2)Creative growth is highly related to economic (total labour force) and demographic (total population) growth.

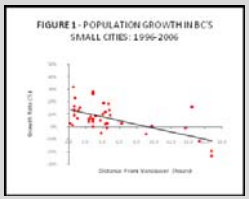
3)In British Columbia, the friction of distance between a small city and Vancouver limits growth in all of its forms: creative, economic (total labour force), and demographic (total population). In other words distance from Vancouver and growth are negatively related.

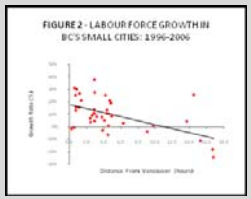
4)Small cities with access to large airports have reduced the friction of distance that limits growth in all of it's forms: creative, economic (total labour force), and demographic (total population) growth.

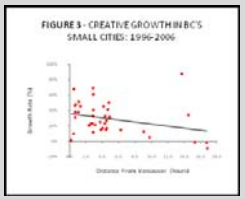
TABLE 1 – Relationship Between Types of Growth, Distance from Vancouver, & Airport Size, in BC's Small cities: 1996-2006

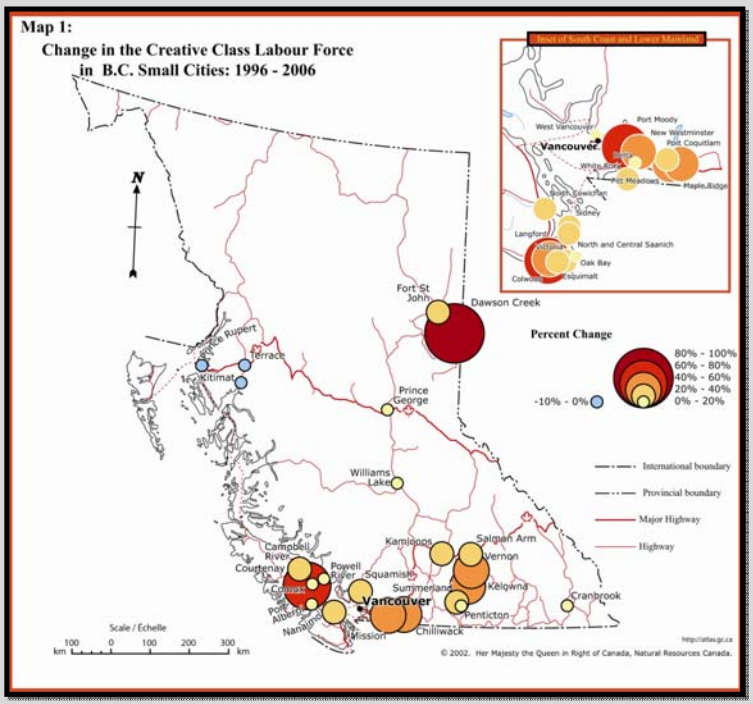
	Distance to Vancouver (hours)	Airport Size (NAP)	Population Growth	Labour Force Growth	Creative Class Growth
Distance to Vancouver	1	.089	-.611***	-.522***	-.303*
Airport Size		1	-.172	-.189	-.256*
Population Growth			1	.909***	.750***
Labour Force Growth				1	.763***
Creative Class Growth					1

* P < 0.01 ; ** P < 0.05 ; *** P < .001









Methodology

The Federation of Canadian Municipalities definition of a "small city" is a community with a population between 10,000 and 100,000. We chose this as our definition of a small city using 1996 as the base year.

We have used the National Airport Policy (NAP) classification system to determine the level of airport service communities have access to. This system ranks Canadian airports based on the volume of commercial air-traffic received. There are five levels associated with this classification system and in order to quantify this hierarchy, a rank value from 5 to 1 was assigned to each airport. The highest order airports received the highest score (5). Communities were then assigned a rank based on the highest level of airport located within a one hour drive (roughly 100 km) from downtown. If there were no airports within the one hour radius, the community received a rank of zero (0).

In order to calculate the absolute (km) and relative (hours) driving distance between cities and airports Google Earth was used. Both measures appear to be highly accurate and comparable. For this research distance in time travelled (hours) was used as we believed it would better reflect a common perception of distance.

The Persons Correlation Coefficient was used to determine the significance of relationships between the variables displayed in table 1.

Data Analysis

The majority of British Columbia's small cities have experienced creative growth between 1996 and 2006. On average the creative class has increased by 30 percent in small cities. However, the growth has not been uniform (see map 1).

Strong (statistically significant) negative correlations between distance and all forms of growth (table 1) confirm Portnov & Weller's (2008) research: growth decreases as distance from Vancouver increases. It should also be observed that when compared to total labour force and population growth, creative growth is less influenced by distance from Vancouver (figures 1-3). This becomes evident in Map 1. High levels of creative growth are clustered in areas relatively far away from Vancouver (notably the Okanagan Valley and North-Eastern B.C.).

Based on data in table 1, it can be inferred that airport size plays a small role in reducing the friction of distance for the creative class. While population growth and labour force growth show no statistically significant relationships with airport size, a weak relationship exists with the creative class. This is a negative relationship because as the size of an airport decreases, creative growth decreases.

Strong correlations in table 1 suggest that creative, labour force, and population growth are all highly related to one another. However, creative growth shows the weakest relationship when compared to the other variables. This finding casts some doubt on Florida's (2002) assertion that creative growth will directly lead to overall growth. In some cases, communities have experienced declines in their overall population and labour force while experiencing creative growth. One prominent example of this is Dawson Creek.

Conclusions

These results back our hypotheses and Nelson's (2005) conclusion, that "the future of small cities is not as universally bleak as Richard Florida... suggests" (p.104). Small cities can and are attracting the creative class in the new economy. The friction of distance proves an obstacle, but investment in airports appears to reduce its impact. The creative class appears to be more willing to work in remote areas if sufficient airport access exists.

In some communities it appears creative growth has not led to overall economic growth, contradicting our hypothesis. However, these cases do not appear to be typical. Although these anomalies may be hard to interpret, one explanation of simultaneous creative growth and economic decline could be attributed to government restructuring, a phenomena noted by McGranahan & Wojan (2007). However, further research is required to warrant these claims.

Best undergraduate poster, Western Division of the Canadian Association of Geographers conference, Vancouver Island University, Nanaimo, BC, March 7, 2009

Literature cited

Blakely, E.J. & Bradshaw, T.K. (2002). *Planning Local Economic Development: Theory and Practice*. 3rd ed. Thousand Oaks, California: Sage Publications.

Donegan, M., Drucker, J., Goldstein, H., Lowe, N., & Malizia, E. (2008). Which Indicators Explain Metropolitan Economic Performance Best? Traditional or Creative Class. *Journal of the American Planning Association*, *74*(2), 180-195.

Donegan, M. & Lowe N. (2008). Inequality in the creative city: is there still a place for "old-fashioned" institutions? *Economic Development Quarterly, 22*(1), 46-61.

Dicken, P. (2007). *Global Shift: mapping the changing contours of the world economy* (5th ed.). New York: The Guilford Press.

Florida, R.L. (2002). The rise of the creative class: and how it's transforming work, leisure, community and everyday life. New York: Basic Books.

Florida, R.L., Mellander, C., & Stolarick, K. (2008) Inside the black box of regional development - human capital, the creative class and tolerance. *Journal of Economic Geography, 8*(5), 615-649.

Markusen, A.; Wassell, G.H.; DeNatale, D.; Cohen, R. (2008). Defining the creative economy: industry and occupational approaches. *Economic Development Quarterly, 22*(1), 24-45.

Nelson, R. (2005) "A cultural hinterland? Searching for the creative class in a small Canadian city". In Garrett-Petts ed. *The Small Cities Book: On the Cultural Future of Small Cities.* Vancouver: New Star Books, 85-110.

Petrov, A.N. (2007). A Look beyond Metropolis: Exploring Creative Class in the Canadian Periphery. *The Canadian Journal of Regional Science, 30*(3), 451.

Petrov A.N. (2008) Talent in the cold? Creative capital and the economic future of the Canadian north. *Arctic, 61*(2), 162-176

Portnov, A.B., & Weller, B. (2004) "Development similarity based on proximity: A case study of urban clusters in Canada". *Papers in Regional Science*, 83 (2) 443-465. (TRU electronic journal library)

Polese, M. & Shearmur, R. (2004). Is distance really dead? Comparing industrial location patterns over time in Canada. *International Regional Science Review, 27*(4), 431-457.

Provincial and Territorial Outline: British Columbia Map. (2002). Ottawa: The Atlas of Canada, Natural Resources Canada. Retrieved October 30, 2008 from the World Wide Web: http://atlas.nrcan.gc.ca/site/english/maps/reference/outlineprov_terr/bc_outline

Provincial and Territorial Outline: British Columbia With Names Map. (2002). Ottawa: The Atlas of Canada, Natural Resources Canada. Retrieved October 30, 2008 from the World Wide Web: http://atlas.nrcan.gc.ca/site/english/maps/reference/outlineprov_terr/bc_outline_names

Provincial and Territorial: British Columbia Map. (2007). Ottawa: The Atlas of Canada, Natural Resources Canada. Retrieved October 30, 2008 from the World Wide Web: http://atlas.nrcan.gc.ca/site/english/maps/reference/provincesterritories/british_columbia

Sands, G. & Reese L. A. (2008) Cultivating the creative class: And what about Nanaimo? *Economic Development Quarterly 22* (1), 8-23.

Siegel, B. and Waxman, A. (2001) "Third-tier cities: adjusting to the new economy". *Reviews of Economic Development Literature and Practice*, No. 6, Economic Development Administration, United States Department of commerce.

Statistics Canada Census Data (1996 & 2006)

Shapiro, J. (2006, May). Smart Cities: Quality of Life, Productivity, and the Growth Effects of Human Capital. *Review of Economics and Statistics*, *88*(2), 324-335.

Transport Canada Website (2008). Airports: national airports policy. Retrieved October 27, 2008 from: http://www.tc.gc.ca/programs/airports/policy/nap/NAP.htm