

A Tale of Two Rural Cities: Interaction of Capitals during a North Dakota Oil Boom



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1.0 Introduction

Major and Minor are the county seats of two adjacent counties in the North Dakota Bakken shale play. Before the oil boom¹ began around 2005, the population of Major and Minor were around 12,500 and 1,300 respectively. From 2005 to 2013 the population in Major and Minor increased by 72% and 70% respectively. The rapid population influx and industrialization positioned the two communities on a path of development toward a new social and economic equilibrium.

Main Street: Major



Main Street: Minor



The Community Capitals Framework (CCF) has not been used to analyze community changes and challenges during an oil boom. In addition, very few studies have examined the interactions and relationships among the community capitals.

The purpose of this study is twofold:

- Elucidate the community changes and potential community development strategies during an oil boom using the CCF.
- Explicate the interactions and relationships between capitals.

2.0 Interaction of Community Capitals

Gutierrez-Montez (2005) and Emery and Flora (2006) present the notion of spiraling-up: assets invested in one capital increase the likelihood that assets will be increased in other capitals in a cumulative causation process of success leading to success. Other studies such as Stofferahn (2012) support this notion. However, Pigg et al. (2013) contend that the relationships among the capitals are more complex than the spiraling-up notion would imply: capitals are more multiple in their dimensionality and more limited in their relationships.

3.0 Methodology

The data were gathered through 56 semi-structured face-to-face interviews and observation of behavior in Major and 37 similar interviews in Minor. The interviews were conducted between May and August 2014. Participants were recruited using: (1) the University Extension Service in both communities; (2) personal acquaintances of friends and family; (3) chain/referral sampling.

Thirty four and 21 participants in Major and Minor, respectively, were male. Eighteen and 12 participants in Major and Minor, respectively, were seniors (60+). The data were coded and analyzed at two different levels: (1) structural coding- represent different types of capitals and assets in each type of capital; (2) thematic coding- represent relationships and interconnections among different assets in each type of capital. The findings were checked with community members to ensure validity.

4.0 Findings

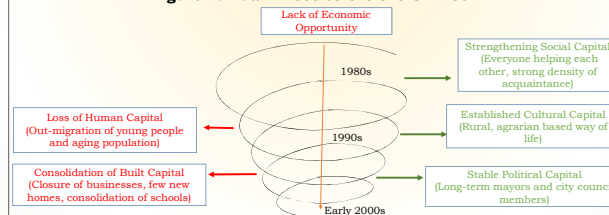
- The overall interactional direction of the capitals represent a dual-effect: an increase in one capital leads to an overall increase in some capital(s) while simultaneously contributing to an overall decrease in other capital(s) (Figure 2). Similarly, a decrease in one capital leads to an overall decrease in some capital(s) while contributing to an overall increase in other capital(s) (Figure 1).
- The specific interactions among capitals are multi-dimensional in nature: an increase in one capital contributes to an increase in certain assets of a another capital while it may have a neutral or negative impact on other assets within the same capital (Figure 3).

4.1 Spiraling-Down Before the Oil Boom?

- The consolidation of the agriculture industry and lack of economic vitality caused a declining trend in financial-human-built capitals.
- Stability and strengthening of social-cultural-political capitals instigated a countering process, which prevented the overall spiraling-down. Figure 1 outlines this process. For example, a resident in Minor noted:

"The community worked together well to get things done. For example the hospital was added on or built before the oil boom. Our bowling alley and movie theater used to be volunteer-run organizations. The school was doing OK. So those things were all very positive during that time. There used to be a lot of community stuff where people did things in the community."

Figure 1: Dual-Effect before the Oil Boom

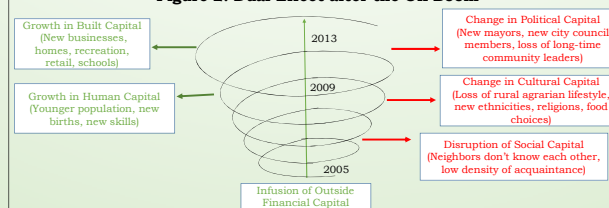


4.2 Spiraling-Up After the Oil Boom?

- Major and Minor experienced an overall growth in financial-human-built capitals based on the economic opportunity created by the oil boom and growth in population.
- A similar growth was not observed in social-cultural-political capitals. Figure 2 highlights this process. For example two residents from Major noted:

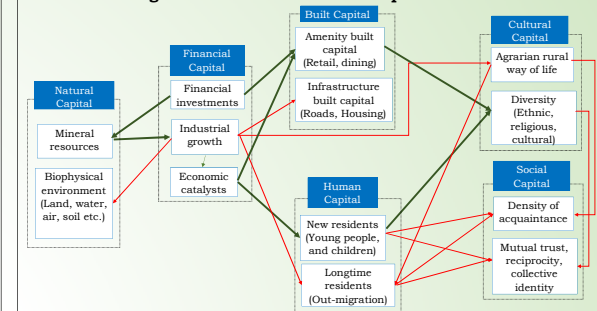
"We're gentrifying from being a very retirement heavy community to being young families, young kids. Having young families here comes with the growth and it's an indicator that we got a future ahead of us."
"The core parts to the community you know everybody kind of knew everybody. That has changed. You've lost that community feel in my mind."

Figure 2: Dual-Effect after the Oil Boom



4.3 Multi-Dimensionality of Capital Interactions

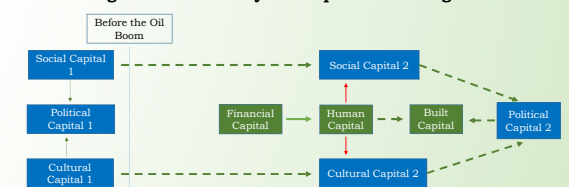
Figure 3: Multi-Dimensional Capital Interactions



4.4 Community Development Challenges

- Infusion of outside financial capital positively affected human capital and some aspects of built capital. More state support is required to build up the infrastructural aspects of built capital.
- A particular stock and quality of social and cultural capital existed in both communities before the oil boom, which has been disrupted. Intervention strategies are required to transition the old social capital and cultural capital to a new social and cultural capital. The new social and cultural capital will shape a new political capital in both communities (Figure 4)

Figure 4: Community Development Challenges



5.0 Take-Home

- The interactions among community capitals are multi-dimensional in nature and the overall direction represents a dual-effect.
- Investing in social and cultural capital is important irrespective of whether the community is in an upward or downward progression.
- Policy makers and practitioners need to design and implement multiple interventions to realize the process of spiraling-up during an oil boom.

Note: ¹Increase in shale oil drilling activity and the induced secondary and supporting economic activity in other sectors such as housing, infrastructure construction, and related services.

References

- Emery & Flora. 2006. *Community Development*, 37(1), 19–35.
Gutierrez-Montes. 2005. Thesis (Ph.D.), Iowa State University–Ames
Pigg et al. 2013. *Community Development*, 44 (4), 492–502.
Stofferahn. 2012. *Community Development*, 43 (4), 581–598.