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**UiT** The Arctic University of Norway

Faculty of Humanities, Social Sciences and Education

## **What Happened in Northern Norway?**

A comparative and quantitative analysis of political and demographic development in Northern Norway from 1950 to 2015

Jonas Stein

A dissertations for the degree of Philosophiae Doctor – August 2019



## Summary

The thesis *What Happened in Northern Norway?* is a quantitative analysis of various aspects of the political and demographic development in Northern Norway from 1950 to today. The theories of Ottar Brox and in his seminal work *Hva skjer i Nord-Norge?* (What Is Happening in Northern Norway?), have influenced regional and national actors in their understanding of the region and their policy development. This thesis aims to analyze what *actually* happened in Northern Norway in the years following Brox's work by using a different theoretical framework for the center–periphery relationship, one developed by another social scientist with roots in Northern Norway, Stein Rokkan, and by applying quantitative methodology.

The first paper, “The Striking Similarities between Northern Norway and Northern Sweden,” published in *Arctic Review on Law and Politics* (2019), uses a comparative perspective to find a very similar pattern of demographic development in municipalities in Northern Norway and Northern Sweden, especially from 1975 to 2015, despite important differences in regional policies applied in the two countries. In the second paper, “The Centre–Periphery Dimension and Trust in Politicians: The Case of Norway,” published in *Territory, Politics, Governance* (2019), Northern Norway serves as a case for exploring if there is a spatial dimension in trust in politicians that goes beyond the urban–rural dimension. The results produced when using the Rokkanian framework reveal lower trust in national and local politicians in Northern Norway than elsewhere in the country, despite controlling for performance, cultural, political, and socio-economic variables. The paper also shows how distance from the capital could replace the dummy variable *Northern Norway* and, hence, has relevance for trust studies in other countries. The third paper, “The Local Impact of Increased Numbers of State Employees on Start-ups in Norway,” published in *Norwegian Journal of Geography* (2019), examines the effect of regional policies particularly important in Northern Norway, the relocation of state employees, and the creation of regional universities. The relative number of state employees in a municipality seems unrelated to local growth. Universities, on the other hand, seem to stimulate regional development. The findings indicate that the relocation of state

employees may be a rather limited tool for stimulating local and regional growth and, if applied, policymakers should consider how the relocation could stimulate place-sensitive development in individual municipalities.

*Theoretically*, the thesis adds new knowledge to the literature on political trust and to the literature regarding the effects of different forms of regional policies. *Empirically*, it adds new knowledge about the political and demographic development in Northern Norway. *Methodologically*, it exhibits the benefits of using quantitative tools to study a region that has mainly been studied qualitatively. Finally, in light of the empirical results, the overall perspective of Stein Rokkan generally seems to be more accurate for describing and understanding the demographic and political development in Northern Norway than the perspective of Ottar Brox. Northern Norway is a developed region also marked by the classical characteristics of a peripheral region, and the demographic development over the last 65 years is strikingly similar to the most similar peripheral region: Northern Sweden.

## Acknowledgments

I would like to thank everyone who has contributed to the journey that this thesis has been for me. The transition from the life of a politician to one as a political scientist has been a challenging—but also enjoyable—journey. Understanding that failure is inevitable on the road to success has been the most important lesson in this process. Having your work criticized and rejected is an intrinsic part of academic life, but it is painful and frustrating. These processes have also taught me the truth in Barry H. Gillespie’s words: “*The path isn't a straight line; it's a spiral. You continually come back to things you thought you understood and see deeper truths.*” Having supporters in this process has been of vital importance for me—without their support, this thesis would not have been completed.

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# 1 Introduction—Aims of This Study

In 1966, Ottar Brox (Brox, 1966) asked *What Is Happening in Northern Norway?*

Although his theories have influenced politics, academia, and public debate (Strøksnes, 2008), little interest has been shown in investigating what *actually* happened in Northern Norway in the following decades from a quantitative and comparative perspective. While important work on the development in Northern Norway has been carried out, this work has predominantly been of a qualitative nature (Arbo & Hersoug, 2010; Brox, 1984; Eriksen, 1996; Røvik, Nergård, & Jentoft, 2011, 2013). Emerging at around the same time as Brox, another social scientist born in Northern Norway, Stein Rokkan, also started writing about the center–periphery relationship (Lipset & Rokkan, 1967; Rokkan, 1987a; Rokkan & Urwin, 1983). Growing up in a relatively poor, peripheral region like Northern Norway in the 1930s influenced both Brox and Rokkan in their theory development (for more on Rokkan, see Stubhaug, 2019). Rather tellingly, Lipset and Rokkan (Lipset & Rokkan, 1967) dedicated their main work, *Cleavage Structures, Party Systems, and Voter Alignments: An Introduction*, “[t]o the memory of our fathers: defenders of the periphery.”

Although Rokkan and Brox both acknowledge the asymmetric power relationship between Northern Norway and the south, their theories do differ as to the solution and development within this framework. Hence, part of the project in hand is to analyze the respective theoretical frameworks of Rokkan and Brox and explore their relevance by using empirical data from Northern Norway on demographic development and trust in politicians. At the same time, the results from the empirical analyses are used to add knowledge to the general literature in political science concerning both political trust and policies for regional development. Consequently, Northern Norway becomes not only interesting as an empirical study for regional actors, but also as a comparative and explorative study for more generalized analyses (George & Bennett, 2005; Lijphart, 1975).

The aims of this study could be divided into three different but interconnected projects. The thesis title, *What Happened in Northern Norway?*, connects the theoretical, empirical, and methodological ambitions. The theoretical project aims to

explore the relevance of Rokkan's concept of the territorial dimension of politics between the center and the Northern Norwegian periphery, but also with respect to other parts of the general political science literature concerning political trust and regional policies. It also tries to compare and evaluate the respective theories developed by Rokkan and Brox. Empirically, the thesis focuses on developing new insights into the development in Northern Norway since the 1950s on the individual, municipal, and regional levels. The methodological aim of the study is to show the benefit of quantitative, comparative, longitudinal, spatial, and multilevel methods in social sciences by using quantitative tools to study a region that has mainly been studied qualitatively (e.g. Brox, 1966; Eriksen, 1996; Røvik et al., 2011). Historically, there have been few regional-level comparative analyses, a phenomenon perhaps resulting from that which Rokkan (2009) has described as the "whole-nation bias." The data has therefore primarily been collected about nation-states and limitations in tools of analysis explaining the scarcity of analyses on the regional level.

Studying every aspect of what has happened in Northern Norway over the last 65 years is not possible in a single thesis. Even broader scholarly collaborations, such as Røvik et al. (2011) and Elenius, Tjelmeland, Lähteenmäki, and Golubev (2015) do not cover all aspects. The main focus of this thesis is on political and demographic development, the main question, "What happened in Northern Norway?," answered by addressing three sub-questions, each corresponding to a paper in this thesis.

1. How has the demographic development in Northern Norway compared to Northern Sweden over the last 65 years?
2. Why is trust in politicians lower in Northern Norway than in the rest of the country?
3. What are the local effects, especially relevant in Northern Norway, of the policy of relocating and creating state jobs outside the capital?

By its very nature, demographic development is a rather slow process, and a 65-year period is not particularly long compared to many other demographic studies (e.g. Boserup, 1981; Braudel, 1958). It should be possible, however, to find room for time-

series studies shorter than the French *École des Annales* (e.g. Bloch, 1954; Bloch & Fossier, 1968; Braudel, 1958; Febvre & Martin, 1976) and at the same time benefit from the major advantages of longitudinal studies as compared to cross-sectional studies (see Beckett, 2013; Midtbø, 2000 and also chapter 4.4). Longitudinal and spatial aspects of variations in classical themes of political science, such as voter turnout and party preferences in Northern Norway, are thoroughly treated by Rokkan (1987c) for the period 1882–1961 and Buck (2013) for 1945–2009; however, there are no studies of the demographic development over time and in a comparative perspective.

Using a longitudinal and comparative approach, Paper I, “The Striking Similarities Between Northern Norway and Northern Sweden,” published in *Arctic Review on Law and Politics* (Stein, 2019b) explores the effects of regional policies in Northern Norway in a comparative perspective with Northern Sweden, an example of that which Teune and Przeworski (1970) defined as a most similar systems design (MSSD). Contrary to the view held by many actors, the paper shows how the demographic development in Northern Norway and Northern Sweden is much more similar than as commonly perceived by most actors in both countries. It is difficult to see that the expensive and exogenous Norwegian regional policies have been more successful compared to the much less costly regional policy implemented in Northern Sweden.

The importance of political trust as an important indicator of political legitimacy is an emerging area of political science. To my knowledge, no studies on political trust have been conducted in Northern Norway, and only one concerning trust in general (Ellingsen, 2015). Paper II in this thesis, “The Centre–Periphery Dimension and Trust in Politicians: The Case of Norway,” has been co-written with Marcus Buck and Hilde Bjørnå and published in *Territory, Politics, Governance* (Stein, Buck, & Bjørnå, 2019). The paper explores the spatial dimension of trust in politicians. Political trust is often explained in relation to government performance and citizens’ normative expectations (Hetherington, 1998; Rothstein, 2011), in relation to cultural norms and early-life socialization (Almond & Verba, 2015; Inglehart, 1997; Mishler & Rose,

2001; Putnam, 2001), or in relation to political and electoral variables (Listhaug, 1995; Miller & Listhaug, 1990; Newton & Norris, 2000). If used as control variables, spatial factors have mainly been linked to urban-vs.-rural residence (e.g. Delhey & Newton, 2005). By taking into account the center–periphery framework developed by Stein Rokkan, the paper finds that citizens living in one of the peripheral regions produced by the Norwegian nation-building process display lower trust in both national *and* local politicians, despite controlling for socioeconomic factors and other relevant theories about political trust. By exploring the spatial dimension regarding trust in politicians, our findings suggest that space could be a political construct and, in this case, that the most important spatial component is the region’s distance from the political center, not the urban–rural divide.

The last theme of this thesis is an analysis of the effect of the growth of state employees and its local effects (Paper III). The paper is entitled “The Local Impact of Increased Numbers of State Employees on Start-ups in Norway,” and was published in *Norwegian Journal of Geography* (Stein, 2019a). The relocation or creation of state employment in peripheral or declining areas has been a popular policy for governments to moderate the center–periphery cleavage and to promote regional development; a policy particularly prominent in Northern Norway (see section 5.3). The assumption is that, based on a local multiplier effect, new public jobs create additional local jobs as a result of the increased demand for locally produced goods and services (Moretti, 2010). This policy has been particularly popular in Northern Norway (see section 5.3). Despite having been implemented in the UK (Lyons, 2004), Denmark (Kommunaldepartementet, 2017), and Norway (Arbeidsdepartementet, 2003), few studies have been conducted of its local and regional impact (Faggio, 2019; Faggio & Overman, 2014). In Norway, important work has been done on the relocation process (Kiland & Trondal, 2010) and the independence of the relocated agencies (Egeberg & Trondal, 2011), but no studies have been conducted on its regional effect. Following a multilevel panel data analysis of Norwegian municipalities from 2006 to 2014, the paper shows that the percentage of state employees did not have any effect on local development, measured in terms of the

relative number of start-up firms or population growth. While there was a modest positive effect of state employees in the bivariate model, state employees did not have a significant effect on local development when controlling for relevant factors such as municipality size or the presence of universities. The findings indicate that the relocation of state employees may be a rather limited tool for stimulating local and regional growth and, if applied, policymakers should consider how relocation might stimulate place-sensitive development in individual municipalities. Instead of understanding the relocation of public sector workers as a tool for generating regional economic development, it might be more useful to approach it as a political solution to a political problem aiming to bridge the center–periphery cleavage inherent in the political system.

The structure of the thesis is as follows. Chapter 2 starts with a broad review of the theories of both Rokkan and Brox concerning regional development. Rokkan’s theoretical relevance to other sub-disciplines of political science is then discussed together with a broader literature review of those sub-disciplines. The next chapter deals with the empirical material in Northern Norway and gives an account for the relevance of studying Norway and Northern Norway. Chapter 4 discusses the methodological tools applied in this thesis and some of the broader methodological advantages of quantitative methods. Chapter 5 gives a brief account of the papers in the thesis. Chapter 6 discusses the empirical material in light of the theoretical, empirical, and methodological framework in Chapters 2, 3, and 4. Finally, I conclude in Chapter 7 and briefly discuss the limitations of this thesis and potential future studies.

## **2 Theoretical Framework**

### **2.1 Stein Rokkan and the Center–Periphery Dimension of Politics**

#### **2.1.1 What Is the Center–Periphery Dimension?**

When reflecting on the methodological problems of incorporating time and space in social science analysis, Michael Keating (2018) recently wrote that social science used to treat space merely as where things happened rather than something with explanatory capacity. He argued that recent developments in ontology and epistemology had permitted new approaches, where space is seen as not merely a topological category but as a social and political construct, the meaning of which is determined by its content. This emphasis on time and space echoes the theoretical framework elaborated by Stein Rokkan and shows its relevance for contemporary social and political sciences.

The work of Stein Rokkan (1987c) on center–periphery relations is important to understand the policy development in the majority of western European democracies. Combining the organizational decision system of Hirschman (1970) and Talcott Parsons’ paradigm for functional differentiation within states (Parsons, 1963), Rokkan identified four subsystems in analyzing the emergence of the modern state: the military, judicial, economic, and cultural systems. Rokkan’s most important contribution to political analysis, however, was the addition of an independent territorial dimension to politics: the center–periphery axis linking the institutional architecture of a nation-state to its territorial structure; that is, its given political and geographical characteristics (Rokkan, 1987c, 1999; Taylor & Johnston, 1979).

The theoretical salience of the center–periphery axis is that the existence of a political center logically presupposes a periphery—and vice versa. The two are interdependent. In macro-historical terms, the center and periphery are both dependent variables. As noted by Bakka (1996), however, since a preliminary definition of a political center is that it is a node in a discrete network of human interaction wherein power resources are accumulated and projected into the network, a reasonable definition of a periphery



denotes it as a field in which exit and entry are controlled through the exercise of authoritative power by a node; in other words, center and periphery constitute a bounded hierarchical political network. Then, of course, the logical interdependence between the two presupposes a causal relationship in which the existence of the periphery depends on the existence of a center in temporal terms. Analytically, a center–periphery relationship exists only at Time<sub>1</sub>. At Time<sub>0</sub>, only competing nodes exist (Bakka, 1996). The center needs the periphery to be a center.

The Rokkanian center–periphery model also acknowledges the existence of different kinds of peripheries. Figure 1 shows Rokkan and Urwin’s typology of peripheries. At the top of the pyramid are the peripheries that have gained or are trying to gain full independence. At the bottom are the regions or provinces without any separate cultural identity and with no ambition to claim a distinctiveness vis-à-vis the center. Over time, peripheries can evolve from one category to another, often dependent on two parameters: the resources for regional mobilization within the periphery and responses from the center to mend the cleavage between center and periphery. Through this theoretical framework, the peripheral ideology is not a constant factor, but rather a dynamic factor that possibly varies over time.

The salience of Rokkan’s general model for the center–periphery relationship is that it allows for various kinds of peripheral status. That which all of the peripheries share in common, however, is an asymmetrical relationship with the dominant center and that actors within the peripheries can mobilize upon a distinctiveness vis-à-vis the center. Even without the presence of obvious cultural stigmata such as language, this distinctiveness would nevertheless imply some degree of consciousness of separateness, where the impact of history upon identity is that of ensuring the retention of collective memories (Strauss, 2017). At the lowest level of regional mobilization (see Figure 1), actors are primarily arguing for the unique character of a given territory and its population and urging the preservation of its distinctive artifacts and stigmata. When analyzing the development of nationalism, Hobsbawm and Ranger (2012) have

used the term “invented tradition,” where traditions appearing or claiming to be old are often actually quite recent in origin and sometimes invented.

Figure 1: Pyramid of Regional Aims (derived from Rokkan and Urwin 1983)

<i>Types of peripheral ideology defined in terms of desired final territorial solution</i>	<i>Stages of escalation</i>	<i>Examples of relevant political movements</i>
Separatism	Full independence	Wars, acts of terrorism, state-level negotiations
Confederalism	Regional autonomy with a central authority only for interregional problems	Loosely constituted party system of statewide alliances between regionally based parties
Federalism	Shared autonomous powers between a central government and all provinces	Several regional parties contesting national elections
Regional autonomy	Autonomous status for only one peripheral region, to be treated differently from the rest of the state	Peripheral party with strong electoral support contesting national elections
Regionalism	Preservation of the cultural characteristics of a peripheral population	Stable peripheral party tending to compete only in local and regional elections
Peripheral protest	Putting peripheral demands on the agenda of the central political system	Statewide party with high degree of electoral support in the periphery
Peripheral identity-building	Arguing for the unique character of a given territory and its population and urging the preservation of its distinctive artifacts and stigmata	Cultural defense associations
	Province or state with no separate cultural identity	

This method could also be used in the early stages of regionalism, where regional actors are arguing for the peripheral distinctiveness from the center. Even if the distinctiveness is derived from “invented traditions” or long-term cultural differences, once this distinctiveness is accepted by enough actors within the periphery, the center

and periphery enter into a conflict that mobilizes actors. Regardless of the dominant peripheral ideology and its strength, the center and periphery both share some common types of strategies for mending the center–periphery cleavage.

### **2.1.2 The Role of the Center**

Harold Innis (2008) once described center-building as temporal imperialism: You privilege one site over others by investing so much effort in this single location that it becomes progressively more difficult to conceive of an alternative contender. The reasons for the original choice may have been utterly arbitrary, but once some arenas have been established and monuments built in one site, the costs of founding another prove excessive. Centers, then, can be minimally defined as privileged locations within a territory (Rokkan & Urwin, 1983, 6). In this perspective, elites in the center try to centralize as much power as possible and to standardize politics, culture, and the economy throughout the state (Rokkan & Urwin, 1983). Once peripheral regions are mobilized (as seen in section 2.1), however, the center must take action to mend the center–periphery cleavage.

To generate loyalty from the peripheral territories, the capital has several choices within three functions; cultural, legal, and economic. Including parts of the peripheral culture in the nation-building process, cultural concessions are one option, as seen in the case of Norway with the inclusion of *landsmål* (later called *Nynorsk*) from the South-West periphery in the development of the Norwegian nation (Rokkan & Urwin, 1983, 82). Including the periphery in the decision making with political citizenship and democracy is an option within the legal function. The expansion of democracy is not only a process of including more citizens in the decision making, but also of giving decision-making power to peripheral actors; power that is normally exclusive to the actors in the center. The redistribution of goods and resources is the final option within the economic function. The welfare state, for example, is a *regional* stabilizer as well as a *social* stabilizer (Armstrong & Taylor, 2000). The main argument for these policies is often the social dimension, but this also has a significant spatial impact, as poverty and social problems are not evenly distributed across the territory.

Rokkan's perspective also gives us a theoretical framework for the comprehension of the motives and causes of regional economic policy, as he described as an example of a limited alternative that avoids the more thorny political questions (Rokkan & Urwin, 1983, 179). In this perspective, economic redistribution is a tool for generating cohesion and loyalty from peripheral territories to the capital and to the state, and a necessary instrument for guaranteeing the continued supremacy of the political center; hence political stability (Rokkan & Urwin, 1983, 173). The main interest of policymakers is therefore to generate a *perception* of the state redistributing resources, not the actual effects of the policies. National governments can implement regional policies to gain loyalty from peripheral regions, not necessarily to develop the region. Then, the emphasis is not on the efficiency of the policies, but on their actual existence and acceptance by regional and local governments. When analyzing the regional economic policies implemented in the years after World War II, Rokkan noted that the regional policy has been based on central premises and that its implications can extend far beyond economics (Rokkan & Urwin, 1983, 179).

### **2.1.3 Choices for the Periphery—Exit, Voice, or Loyalty?**

Because any collective distinction may serve as the underpinning for political mobilization (Sartori, 1990), differing historiographies may create territorially different political identities, as seen in the Rokkan model of peripheral aims (see Figure 1). Hence, political actors who perceive themselves as representatives of “peripheries” tend to nurture the idea that different identities linked to territories have developed over time. Some geographical identity is thus an asset in the regional political mobilization against the state's centralizing efforts. Whether regional actors choose and succeed in mobilizing on a territorial basis will largely depend on the status of the region vis-à-vis the state in the various phases of the modernization process. Throughout the nation-building process, the periphery is left with three choices that regional actors can mobilize upon; *exit, voice, or loyalty* (Hirschman, 1970).

*Exit*—the creation of a more or less independent regional state—is one of the aims for some peripheral regions (see Figure 1). However, through the use of protest (*voice*),

peripheral actors could mobilize their distinctiveness without having to demand an exit. Finally, the periphery could opt to nurture a close relationship with the center (*loyalty*). Especially between voice and loyalty, there are dilemmas confronting regional actors. Rokkan and Urwin have described this as follows:

*We may also distinguish and identify two types of middlemen: government agents and mobilized community leaders or spokesmen. Typical government agents would be local schoolteachers, local mayors (under the Napoleonic regime), or local minister of state-established or controlled church. Where there appears cultural tension between the center and the periphery, or where the center increases pressure upon this local institutional network, these agents may be confronted with a dilemma. They can act primarily as the extended arm of the central authority, or they may choose to view themselves as spokesmen and defenders of the peripheral population, utilizing their institutional links with the central authority to gain access to the political core of the state. Mobilized community leaders by contrast, owe their position not to the institutional network of government, but to the indigenous network supported by the peripheral community. Here there is no division of loyalty; these people have no access to the center. It will therefore be easier for them to oppose pressure of standardization rather than to seek mediation. (Rokkan & Urwin, 1983, 132)*

Peripheral political actors receiving regional economic policies are confronted with this same dilemma. They must raise their voice to get attention and acceptance for expansive regional policies. At the same time, if they use their voice too much, they risk being perceived as disloyal by central actors, which could have consequences for their respective individual careers and the prospects of the region. As we will see in the last sub-chapter, this may also have other consequences.

#### **2.1.4 State Dependency**

The mere existence of regional policies creates an asymmetric relationship between donor (center) and receiver (periphery). James Q. Wilson (1989) describes the political

relationship between donors and receivers of certain political programs as “client politics,” focusing particularly on agriculture and urban renewal programs. He shows how client-oriented departments in the bureaucracy develop a client-oriented relationship often based on a common objective of increasing subsidies and protection programs, even though the initial purpose of such programs was not subsidies and protection. Actors in the client position manage the free-riding problem by organizing collective action around a common strategy (Olson, 2009). While the taxes financing these programs are relatively small per capita, these programs matter greatly to the benefiting group and they are therefore highly motivated (Wilson, 1989, 93). This also explains why, at least from a public choice perspective, such programs could be based not on economic calculations but more on political estimations concerning, in this case, the center–periphery relationship (Rokkan & Urwin, 1983).

When analyzing the development in Northern Norway in the 1970s and 1980s, Erik Oddvar Eriksen (1996) used the Wilsonian concept of clientelism to develop the notion of *state dependency*. He saw the region in a client-like position in relation to the central government and therefore adopted a clientelist perspective. This perspective confines the regional actors’ scope for alternative political actions; instead, their only focus is on existing programs and subsidies as the only possible way forward (Eriksen, 1996, 154). The region develops a *state dependency* in which new, alternative solutions are unexplored and old, existing systems and programs remain unchallenged. Public policies, hence, become a double-edged sword; often created to compensate for social injustices or market failures, at their best they could be liberating and stimulate positive development. At their worst, they could also lead to clientelism, stigmatization, and dependency. This is *the faces of Janus in politics* (Eriksen, 1996, 172).

Combining Rokkan with Wilson and Eriksen, it becomes possible to argue for a *client paradox* in regional policies. Due to the asymmetric center–periphery relationship, regional policies could develop into clientelism, both parties relatively comfortable with the status quo. The donor gives some money to the client but expects loyalty. The

client develops a state dependency, and their only *modus operandi* is to receive benefits from the donor. As long as the development is relatively stable and merely moving slowly in a negative direction without too many dramatic changes, both actors seem content. Hence, this client paradox possibly explains why actors in some peripheral regions choose to protect the status quo instead of demanding political changes or mobilizing forces within the region.

## 2.2 Ottar Brox and the Alternative Way of Regional Policy

### 2.2.1 Small Jurisdictions and Anti-Industrialization

Writing his most important work, *What happens in Northern Norway?*, at the same time as Rokkan was emerging, Ottar Brox (1966) has had much more influence on both policymaking and public perception than Rokkan. Brox himself would argue that his analyses have had relatively little influence, especially in terms of fishery policies (Brox, 1984, 2007). There are important differences between policy development in Northern Norway and Northern Sweden, however, and as we will see, the policies implemented in Norway are *closer* to the policies envisaged by Brox than those implemented in Sweden (Stein, 2019b). Ottar Brox's position in Northern Norway is reflected in his appointment as honorary professor at UiT—The Arctic University of Norway in 2003<sup>1</sup> and his recent description as a “living legend” by the regional theatre Hålogaland Teater.<sup>2</sup> When the Norwegian newspaper *Dagbladet* selected the 25 most important Norwegian nonfiction books published since World War II, Rokkan was not on the list, but *What Happens in Northern Norway?* by Brox was selected as number 4 (Fløgstad, 2008).

In his book, Brox emphasizes the relative wealth of the agriculturist/fishermen-life in the rural parts of Northern Norway, the so-called *fisher-farmer* making the choice of a life in small peripheral communities a rational one. Due to the long Norwegian coastline, the fisher-farmer could settle in small, rural villages and “live off the land” by harvesting from nature. He could lead a relatively self-sufficient life outside the

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<sup>1</sup> <https://uit.no/50/portretter/aresdoktorer>

<sup>2</sup> <https://halogalandteater.no/nyheter/2019-05/ottar-brox-moter-skjalg-fjellheim>

monetary economy, requiring only basic supplies from the monetary economy financed by the sale of his surplus fish. According to Brox, the fisher-farmer's relative wealth made it rational for him not to move to industrial cities and, given a choice, he would choose to live in the rural settlement. This combination was unique for the coastal areas of Northern Norway and was the basis for the idea of a special way for Northern Norway, where urbanization and industrialization were not seen as a necessity, but rather something that the people were free to reject. Implicit in the Broxian theories, we find that, given a choice, people in Northern Norway would choose the rural life and reject urbanization and industrialization.

Another important aspect of the Broxian theories is the notion of small, independent local jurisdictions free from interference from the greater society. The political economy literature also postulates that citizens are more satisfied with smaller jurisdictions because they are more efficient, homogeneous, and democratic (Mouritzen, 1989; Oates, 1999; Tiebout, 1956; Wolman, 1990). Local governments offer some benefits that citizens appreciate: They facilitate local adaptations and variations, facilitate citizen influence and participation, and facilitate coordination efficiency. Decentralized governments are said to be flexible and largely able to adapt to changing circumstances (Clark, 1984; Goldsmith & Page, 1987; Osborne & Gaebler, 1992; Sharpe, 1988).

These theoretical assumptions about the importance of small municipalities where the needs and desires of the rural population are emphasized are echoed in Brox's work on Northern Norway. He claims that it is vital to enable local communities to generate population growth. To achieve this goal, the problems must be solved within homogenous local communities, and not like in the development plan for Northern Norway that promoted regional structures that mixed expansion areas with sparsely populated areas (Brox, 1966). According to Brox, compared to Sweden and Scotland, the success of Northern Norway was due to the combination a large degree of self-determination within smaller local communities and a strong influence from actors in the primary industries on the policymaking.



Revising his ideas about Northern Norway in the 1980s, Brox concludes that Northern Norway had chosen neither the technocratic nor the populist pathway he had envisaged (Brox, 1984; Nielsen, 1987). Even though his alternative plan had not been implemented by the authorities, he would still argue that because of the populist influence on policy development (see section 3.3 for further details), Northern Norway should, after a relative decline between 1950 and 1970, be able to achieve a consolidated population settlement (Brox, 1984, 12).

In contrast to a concentration process whereby more people are concentrated cumulatively in the urban areas, Brox believed that Northern Norway in the 1970s was approaching a consolidation process wherein the settlement structures would be frozen. According to Brox, there were five main reasons for why this consolidation thesis would succeed in Northern Norway in the 1980s and 1990s. These are also linked to the reasons developed in the framework from the 1960s (Brox, 1966). First, fewer people in the peripheral villages would mean easier access to land, natural resources, and falling housing prices (Brox, 1984, 133). Second, higher accommodation prices in the urban areas would slow down urbanization and make it rational to choose life in a peripheral village (Brox, 1984, 134). Third, public services and the expansion of the welfare state would create a steady income that could be combined with the small-scale fisher-farmer life, especially for women (Brox, 1984, 144). Fourth, the expansion of infrastructure (especially new roads) would create regional integration, rendering it possible to commute from villages to the urban center (Brox, 1984, 144). Fifth, the expansion of the new public regional policies in the 1970s through municipalities would stimulate peripheral development (Brox, 1984, 194).

Finally, revisiting Northern Norway in the 2000s, Brox (2007) acknowledged that the consolidation hypothesis had not succeeded. This was mainly explained by two factors. First, the closing of public services, such as the post and telegraph offices. Second, the changes in the fishery policy (Brox, 2007). However, he still maintained

that Norway had been more successful in keeping a dispersed population than Sweden due to the peripheral mobilization and different policy choices in the 1970s (Brox, 1984, 72).

### **2.2.2 Differences between Rokkan and Brox**

Brox used a rational-actor perspective in his analyses. It was profitable for the individual to choose life in the peripheral villages over industrial jobs in the city (Brox, 1984, 99). Willy Gunneriussen and others have criticized this perspective for excessively emphasizing the rationality and strategic approach of the individual actor (Gunneriussen, 1984). Conversely, Rokkan used a structural-functionalist approach, where region-specific structures are used retrospectively to explain variations in Europe. For Berntzen and Selle (1992), this could lead to the danger of a circular argument: The unit of analysis is adapted to the characteristics of the phases of development. The emphasis on Rokkan's structural-functional models also risks undervaluing the social actors (Berntzen & Selle, 1990). Even though Rokkan attributes decisive weight to the goal-oriented actions of social groups, their intentions and meanings are introduced *post festum*, and Rokkan never undertakes a real analysis of their ideologies, resources, and strategic choices (Berntzen & Selle, 1990). This implies that any researcher employing the Rokkan model will have to identify these actors and their strategies in any given case (Buck, 2006, 36). For example, Rokkan postulates the existence of the “nation-builders” category without telling us who they are, where they come from, and—when the nation-building process is “completed”—what happens to them afterward (Berntzen & Selle, 1992). This has since been successfully carried out in Norway by Rune Slagstad (1998).

Rokkan and Brox also differed in their methodological approach. Inspired by the empirical sociology developed by Paul Lazarsfeld for analyzing US presidential elections (Lazarsfeld, Berelson, & Gaudet, 1944), Rokkan, together with Valen, started the first empirical voter analyses in Norway (Aardal, 2017; Rokkan, 1958). Later, based on large bodies of historical data, he elaborated his theoretical models. Stepping on the toes of historians provoked criticism, the historians critical of the tyranny of the models (Seip, 1975). However, this methodological approach—where

theories and models are elaborated, constructed, and adjusted based on quantitative data—was a new way of using big data to understand the past and present (Mjøset, 1987). This method was very different from Ottar Brox’s approach, who developed theory, hypotheses, and analyses based more on personal observations, analyses, and theoretical knowledge. If empirical data has been used, it has more so supported his theories, like the comparison between Northern Norway and Scotland (Brox, 1966). His critics would say that this hypothesis of consolidation was only “based on frail observations from a couple of villages in Troms” (Hansen, 1983), but Brox would counter this argument by saying that he only uses the observations to create hypotheses and develop theories about the future population development.

Even though both Rokkan and Brox acknowledge the asymmetrical relationship between Northern Norway and the south, they do depart in their theories about solution and development within this framework. Brox emphasizes the importance of small jurisdictions and the importance of the primary industries. For him, Northern Norway was given a *Sonderweg* due to the municipal structure, the fisher-farmer culture, and the opportunity to remain outside the grinding mill of modern capitalism symbolized by the central authorities in Brussels. Opposition to Norwegian membership in the European Union became a hallmark for Broxian supporters (Brox, 1989, 2004).

Rokkan, on the other hand, held a much more cynical view. As seen in section 2.1, Rokkan developed a broad theoretical framework in which the center–periphery cleavage is built-in in every nation-state. Northern Norway is by no means a unique case and, despite having some distinct cultural traits (like all territories have), the experiences and development are similar to most other peripheral regions in the democracies of western Europe. Regional economic policies, small jurisdictions, and the old primary industries are not the solutions for the peripheries. Instead, Rokkan argued that the peripheries need to obtain the ability to control the appropriate means and instruments at a regional level, not a small local level as emphasized by Brox. Such a transfer of powers implies that the peripheries should receive the financial

autonomy that centers have consistently refused to grant (Rokkan & Urwin, 1983, 177). Without a political will of regionalism and functional regional authorities gaining sufficient political power, the development toward more centralization would continue.

As seen above, Rokkan and Brox departed with two different perspectives for understanding social development. Brox departed from the individual actor perspective, while Rokkan departed from a historical and institutional perspective and how these factors shape the individual actions. They were also based on two different methodological approaches. While Rokkan applied comparative and quantitative methods, Brox developed hypotheses and theory based on a deep knowledge of small empirical samples. Based on these differences, Brox and Rokkan developed theoretical frameworks and hypotheses that could be relevant for understanding development in a peripheral region like Northern Norway. In the next chapter, we will see how they could be relevant when applied to areas studied in this thesis.

## **2.3 Literature Review and the Relevance of the Center–Periphery Framework**

### **2.3.1 Political Trust**

The Rokkan model of center–periphery cleavage makes it possible to argue and explore if the center–periphery cleavage also could explain some differences in people’s trust in politicians. Political trust is considered an essential component of a well-functioning society. Political trust on the local and national levels concerns public sentiment about the government and its political representatives. There is, however, a growing perception that political trust is deteriorating in contemporary democracies (Hardin, 2013; Klingemann, 1999; Lipset & Schneider, 1983; Norris, 1999; Nye, Zelikow, & King, 1997; Pharr & Putnam, 2000; Torcal, 2014) , albeit less so in the Nordic countries (Dalton, 2005).

Political trust is unevenly dispersed, also—at least to some degree—within countries. It is often explained in relation to government performance and citizens’ normative expectations (Hetherington, 1998; Rothstein, 2011), in relation to cultural norms and

early-life socialization (Almond & Verba, 2015; Inglehart, 1997; Mishler & Rose, 2001; Putnam, 2001), or in relation to political and electoral variables (Listhaug, 1995; Miller & Listhaug, 1990; Newton & Norris, 2000). The center–periphery dimension, however, has been rather absent from the explanatory framework and has mostly occurred as a control variable for the urban–rural divide in empirical studies (e.g. Delhey & Newton, 2005; M. Hooghe, Marien, & de Vroome, 2012).

The asymmetrical power relationship between center and periphery could cause people in the periphery to feel powerless and that they have less influence on the political power located in the center. As seen above, actors in the periphery could also mobilize upon this sense of powerlessness and the distinctiveness in the periphery vis-à-vis the center. In this perspective, the center–periphery theory could *add* an explanatory variable to Rokkan for differences in political trust; a viewpoint that would be supported by the Broxian theory of the importance of local identities and skepticism toward the central authorities, although for him the urban–rural divide might be just as important as the center–periphery dimension.

Another aspect of political trust is the difference between trust in national and local politicians. Here, Rokkan and Brox would split. With Brox’ emphasis on small jurisdictions and the salience of close ties between citizens in the periphery with their local authorities, his theories would predict higher trust in the local politicians, especially in a periphery like Northern Norway. The argument about differences in trust between local and national politicians is not thoroughly argued in Rokkan’s theories about the nation-building process and the center–periphery conflict. Nevertheless, the Rokkanian assumption about an asymmetrical power structure between center and periphery could lead citizens to distrust local politicians perceived as powerless and as representatives of the central authorities.

In sum, the center–periphery theoretical framework would add some possible explanations for a better understanding of political trust. The empirical results will be further explored in Paper II in section 5.2.

### **2.3.2 Regional Development**

Local and regional development is an increasingly global issue (Pike, Rodríguez-Pose, & Tomaney, 2007), although it has been on the political agenda since the 1950s, when a greater institutional effort emerged with deliberate attempts to coordinate and structure state intervention more organically, in accordance with the declared objective of efficiency (Rokkan & Urwin, 1983). Governments very easily switched from the problem of backward rural areas to those of the older, outdated industrial concentrations, whose current or projected obsolescence due to emerging technologies and new locational requirements was deemed to have more significant consequences for the national economy (Fleming, 1967). The new key words in the dominant theory of poles and axes of development were priority zones and sectors (Perroux, 1950; Petrella, 1978). Until the 1980s, regional economic policies were heavily influenced by top-down exogenous growth theories (Begg, Moore, & Rhodes, 1986) focusing on creating poles in less successful regions to create multiplier effects mainly through investment in infrastructure.

Together with the challenges generated by globalization, the failure of traditional top-down policies has led to a serious rethinking of local and regional development by practitioners and academics (Pike et al., 2007). Since the 1990s, there has been a shift toward bottom-up development, so-called endogenous growth theories (Aghion, Howitt, Howitt, Brant-Collett, & García-Peñalosa, 1998; Martin & Sunley, 1998). Regional economic policies have changed from infrastructure, aid, subsidies, or tax breaks toward research and technology, leveraging private investment and high-tech clusters. The mixed results of the regional policies in the EU (see review in Mohl & Hagen, 2010) has led to changes in the perception of the regional policies and literature. In the 2010s, new ideas like smart specialization (Foray, David, & Hall, 2009; McCann & Ortega-Argilés, 2011), triple helix (Etzkowitz, 2008; Leydesdorff, 2012a), and quadruple helix (Leydesdorff, 2012b) became the new regional policy trends. These policies claim to be more place-sensitive and strongly based on theory and evidence. They aim at tapping local potential based on the implementation of place-sensitive policies (Iammarino, Rodríguez-Pose, & Storper, 2018; Rodríguez-

Pose & Ketterer, 2019). They also stress the importance of collaboration between local and regional business, local and regional public authorities, and important regional institutions, like universities. These trends are connected to the renewed emphasis on the salient role of institutions for development, and Rodríguez-Pose (2013) has shown that institutions play a vital role at the regional level as well as mattering for national development (Acemoglu, Johnson, & Robinson, 2005; Acemoglu & Robinson, 2013; Rothstein & Teorell, 2008).

As seen above, over the last 70 years, different policies based on different theoretical ideas have been implemented to promote regional development. This provides opportunity to explore which policies have been successful and which have been less so. But how do we measure the success of regional policies? The center–periphery framework might help us understand the motives and causes behind the regional economic policy. In this framework, economic redistribution is conceived as a tool for mending this tension between center and periphery. The goal for the center is not necessarily to use economic redistribution to develop the periphery but to mend the tension between the actors. Consequently, the goal is not necessarily efficient policies but to create the *perception* that something is being done.

For local and regional policymakers, there is a trade-off between voice and loyalty (Rokkan & Urwin, 1983). As seen in section 2.1.3, local and regional actors could end up like middlemen between authorities in the center and demands from the peripheral population. So if the voters seem relatively happy with the current policies (even if they are relatively inefficient), there are no incentives for local actors to voice their concerns too much with their national actors. On the contrary, the implementation of regional policies is proof of a peripheral actor’s voice being heard and being awarded for their loyalty. The background peril is becoming too dependent on regional subsidies and, as seen in section 2.1.4, is developing a clientelistic relationship.

### **2.3.3 What Kind of Regional Policies Work?**

As seen in the previous sub-chapter, the Rokkanian perspective could add some knowledge about the motivations and other potential goals of regional policies.

Nevertheless, analyzing what kind of regional policies works for their stated goal is of interest for scholars and policymakers. This thesis will try to add knowledge to the general literature about three specific policies.

First, tax incentives for businesses to promote growth in lagging regions have been politically popular for decades. Some academic studies (Billings, 2009; O'Keefe, 2004) find that such incentives do have a positive effect. A recent report for the Norwegian government (Rybalka et al., 2018) finds a positive effect in some of their econometric models on employment, using data from municipalities in Southern Norway. However, they do indicate that they are unable to test the effect of the scheme in the region where the scope is greatest (i.e. in Finnmark and Northern Troms) due to a lack of variation in the scheme in this area during the evaluation period (Rybalka et al., 2018, x). Other studies (Frick, Rodriguez-Pose, & Wong, 2019; Neumark & Kolko, 2010) show that tax-incentivized enterprise zones are not as effective and do not increase employment. Using panel data for all 50 U.S. states from 1977 to 2005, Prillaman and Meier (2014) show that state tax cuts for businesses have little to no positive impact on gross state production, job creation, personal income, poverty rates, and business establishments. A thorough literature review by Peters and Fisher (2004) finds that the standard justifications given for incentive policy by state and local officials, politicians, and many academics are, at best, poorly supported by the evidence. Paper I in the thesis aims to add knowledge to this literature.

Second, the thesis also reports on the effect of establishing regional universities, as analyzed in Papers I and III. The political motivation behind the creation of some of the newer universities is clearly within a center–periphery framework (Fulsås, 1993), and there are case studies about the regional effects of the universities in Tromsø (Arbo, 2011; Fulsås, 1993) and Umeå (Olsson & Wiberg, 2003). The general literature about the role of universities in regional development is not as clear-cut. Benneworth and Nieth (2018) argued that policymakers accepted relatively straightforward narratives of universities working with regional partners, often encoded within happy family stories; Pinheiro, Benneworth, and Jones (2012) in particular highlighted the



factors and mechanisms that could explain why universities may fail to stimulate regional development. First, regional development may not be particularly lucrative for them, and they might therefore pursue other activities and strategies that bring more guaranteed and regular funding. Second, they may believe that they lack the capacity to engage in entrepreneurial discovery processes. Finally, there may simply be a mismatch between the profile of universities and that of the region, making it difficult to identify areas in which university knowledge can be meaningfully applied to drive regional development benefits (Benneworth & Nieth, 2018).

On the other hand, university activities, particularly knowledge-based activities, such as teaching and basic research, have been found to have substantial positive effects on a variety of measures of regional economic progress (Drucker & Goldstein, 2007). Other studies indicated that the presence of universities *per se* does not influence employment growth but that university regions with high concentrations of human capital and, in particular, with employees characterized by the synthetic knowledge base, show higher growth rates (Eriksson & Forslund, 2014). Benneworth and Nieth (2018) summed up the main theoretical arguments on the role of universities in regional development from an institutional perspective. First, universities can be actively involved in defining the parameters of regional strategies because of their detailed knowledge of gaps and opportunities. Second, they can be important contributors to regional capacities regarding institutional and social attributes. A third element is that universities also contribute to smart specialization policies (Foray et al., 2009; McCann & Ortega-Argilés, 2011) through the creation of external connections outside of the immediate innovation system.

Third, the thesis also aims to add some knowledge about the policies of the relocation of state employees as a tool for regional development; another type of regional policy that could be understood in Rokkan's center-periphery framework. The assumption is that based on a local multiplier effect, new public jobs will create additional local jobs as a result of the increased demand for locally produced goods and services (Moretti, 2010). There have been few academic studies of these policies, however, and the only

major work on the local effects—especially on the labor market—is that of Faggio (2019), which examined the effects of the Lyons Review in the UK. She found a small, positive local effect of relocating state jobs. When using English data at the local authority level for 2003–2007, however, Faggio and Overman (2014) found that public sector employment had no identifiable effect on total private sector employment.

Scholarly work on the relocation of state agencies in Norway is relatively scarce. The majority is reviewed in an anthology edited by Trondal (2011). Some important work on the various political processes involved in moving out of state agencies has been conducted (Kiland & Trondal, 2010; Saba, 2011; Sætren, 2011). Egeberg and Trondal (2011) showed that agency autonomy, agency influence, and inter-institutional coordination seem to be relatively unaffected by agency site. To my knowledge, however, no previous study has investigated the local impact of public sector relocation policies in Norway, although a report done by consultants for the government has made a number of generalized estimates about some smaller positive local effects of the relocation in 2003 (Fornyingsdepartementet, 2009). The thesis in hand adds knowledge to the general literature about the relocation of state employees and, in particular, about the Norwegian case.

## 3 Empirical Approach—Why Northern Norway?

### 3.1 Why Study Norway and Northern Norway?

#### 3.1.1 Partial Generalization Based on a “Normal” Case

When writing about *Division and Cohesion in Democracy* in 1966, Harry Eckstein, made an unusual choice for an American political scientist by choosing to use the Norwegian political system as a case study. He admitted that his decision was influenced by the work of Norwegian scholars like Rokkan and Valen (1964), Valen (1956), and Torgersen (1964), but his main reason to perform a theoretical case study on Norway was that he did not regard Norway’s political system to be unique in any substantial sense.

*No doubt, Norwegian politics and social life do have distinctive characteristics, as do all concrete phenomena, be they persons, relationships, objects or events: But the fact that this is a “theoretical case study” necessarily implies a strong assumption on my part that Norway is not unique, in one or both of the two senses: first, that what is the case in Norway may also be substantially the case elsewhere, however exotic some aspects of Norwegian life may seem; second, that there are general principles which we can account for any distinctive characteristics of Norway and for the undoubtedly distinctive general configuration of the whole society. (Eckstein, 2015, 3)*

Eckstein’s observation is linked to one of the key issues in choosing a case for case studies. While there is obviously something to be learned from outlier and problematic cases, at the same time there are important problems associated with deviant or extreme cases (George & Bennett, 2005). If the cases are too extreme, it becomes difficult to extract something that could be generalized for broader theoretical and empirical use (e.g. see the debate about ethical and methodological problems of studying the Nazi regime in Kershaw, 2015). Eckstein (2015) argued that political science should be concerned about discovering broader generalizations about political systems, broad strategies for making sense of them, and that political scientists are overly concerned with “problem cases;” that is, cases posing conspicuous policy

problems—and rightly so. But why not a similar concern with what one might call “solution cases?”

An assumption that serves as the point of departure for this thesis is that Norway in general and Northern Norway in particular represent a normal, well-functioning political system with liberal democracy, a market economy, and a well-functioning welfare state. While Northern Norway does have some distinct characteristics, most are shared in common with the characteristics found elsewhere in Norway and most OECD countries. Based on Rokkan’s theoretical assumptions, some of the distinctive characteristics are not specific regional characteristics of Northern Norway, but rather characteristics that can be explained more generally in a center–periphery framework. Based on these assumptions, I therefore do believe that findings using Norway or Northern Norway as a case could be generalized and used to add knowledge to the general literature in political science (see section 2.3 and the broader methodological approach in Chapter 4).

### **3.1.2 Empirical Interest**

As mentioned in the introduction, this thesis has two dimensions: It aims to add knowledge to the general political science literature as well as producing empirical knowledge about what happened in Northern Norway. For those living in the region or scholars studying other phenomena in the region, these empirical aspects of the development could be interesting and important for their work and lives. Producing new knowledge about the effects of regional policies and political trust in Northern Norway has value for individuals, policymakers, and scholars from other sciences studying or operating in the region.

Even though I do think that Northern Norway and Norway are “normal cases,” both Norwegian society and the region of Northern Norway have some distinctive characteristics and cultural traits. As seen in the theoretical framework, both Rokkan and Brox acknowledge that Northern Norway has distinct characteristics. For Rokkan, this distinctiveness is in large part explained by a broader and more general theory about the center–periphery relationship. Brox (1966), on the other hand, explained the

distinctiveness of Northern Norway in terms of the unique geographical, economic, and demographic structure of Northern Norway. As mentioned, the latter theoretical explanation has had a much stronger influence on policy development, academic studies, and public perception.

### **3.2 Northern Norway—A Peripheral Region within a Peripheral Nation-state**

In the paper “Geography, Religion and Social Class: Crosscutting Cleavages in Norwegian Politics” (Rokkan, 1967), Stein Rokkan presents a thorough analysis of the development of the Norwegian political system before 1960. He argued that the main theme of Norwegian politics had been the opposition to central authorities; initially to gain national independence from Denmark and subsequently Sweden in the 19<sup>th</sup> century. The opposition to central authorities in Oslo (Christiania/Kristiania) developed gradually in reaction to the nation-building process.

According to Rokkan, the Norwegian state- and nation-building processes yielded two distinct peripheries functionally different from each other: Northern Norway and South-West Norway. While Northern Norway was seen as an economically backward periphery marked by class polarization, South-West Norway was a cultural periphery marked by alternative standards, such as language (Nynorsk), lay Christianity, and temperance. The main point is that the different forms of peripherality may lay the foundations for political mobilization against the centralizing forces of the center or lead to alienation and distrust in what is perceived as institutions of the center.

According to Rokkan, democratic mobilization should lead to integration into the system.

Regarding political mobilization, the two peripheries have indeed differed since the introduction of universal (female) suffrage in 1913. Where the South-West periphery successfully managed to establish a political party in 1933, The Christian People’s Party (Krf), the periphery in the north has seen only sporadic and unsuccessful

attempts at party-building.<sup>3</sup> Hence, as shown elsewhere, it comes as no surprise that Northern Norway exhibits significantly lower voter turnout than the rest of Norway from 1945 onwards, although the gap has steadily waned over the years (Buck, 2013).

Throughout the early 20<sup>th</sup> century, the struggles of the economically backward periphery blended with class struggle. The fight for Northern Norway became synonymous with the struggles of the emerging Labor Party, and the socialist parties have been in the majority in Northern Norway since the elections in 1927 (Rokkan, 1987c). Having the peripheral claims absorbed by a large national party has some obvious advantages, especially since Labor became the all-powerful political party in the 1930s (Seip, 1963), although this also meant that peripheral cultural identity and political independence were less accentuated than economic issues and class struggle. Using Rokkan's Pyramid of Regional Aims (see Figure 1 in section 2.1), Northern Norway has to be typified at the lower end of the pyramid as *peripheral identity-building*. Consequently, *Exit* in the sense of creating a more or less independent regional state that has been used in many countries with more or less success has never been a real option in Northern Norway.

Instead, the regional culture distinctiveness became more accentuated in the years after World War II. Regional actors started arguing for the unique character of a given territory and its population (Brox, 1966, 1984) and urged the preservation of its distinctive artifacts, stigmata, and culture (e.g. Drivenes, Hauan, & Wold, 1994; Eilertsen, 2005). This consciousness of peripheral identity and culture has enabled actors to gain some regional concessions, either by use of protest (*voice*) or making deals with the central government (*loyalty*). The use of voice has not mainly been through the channels of a regional party in parliament but through the channel of action-based protest against elites (Inglehart, 1997) or as a regional fraction within the bigger national parties, mainly the Labor Party. In many ways, Northern Norway

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<sup>3</sup> Aune-listen (1989) and Coastal Party (1997 and 2001) have had one MP representing regional parties.

became a classic example of what Rokkan and Urwin would describe as a peripheral region at the lower end of the pyramid (see Figure 1).

### **3.3 A Brief Overview of Regional Policies in Northern Norway**

Throughout the post-war era, numerous regional policies were implemented to stimulate the regional development in Northern Norway (Elenius et al., 2015; Røvik et al., 2011); a peripheral region considered by central authorities as backward-lying and less developed (Grønaas, Halvorsen, & Torgersen, 1948). The industrial focus in the 1950s and 1960s was later challenged by the theories of Brox (1966), which had a major impact on the political development in Norway in terms of ecological awareness and as a counter-weight to industrialization and globalization (Brandal, Bratberg, & Thorsen, 2013), primarily associated with the powerful Labor Party, pictured as a one-party state (Seip, 1963; Slagstad, 1998). They also contributed as a theoretical framework for the radical left in the 1970s and the mobilization of the winning coalition against Norwegian EEC membership in 1972 and the Labor Party's policies for rural development (Hersoug & Leonardsen, 1979).

The pro-EEC central authorities responded by strengthening regional policies, especially toward Northern Norway. In 1977, the new Labor government established what was to become the official Norwegian policy for regional policy; “the objective is to maintain the fundamental features of the population distribution” (Teigen, 2011). This objective has very important implications for evaluating the actual effects of regional policies. For more than 40 years, the Norwegian authorities have worked to maintain the percentage of the population living in peripheral regions, especially in Northern Norway, and the goal has gained hegemonic status in Norwegian regional policy (Cruickshank, 2006).

A variety of more exogenous regional policies were implemented, the most important being the regionally differentiated payroll tax on employees (Hervik & Rye, 2003; Rybalka et al., 2018). Implemented in 1975 and later expanded, the total national cost

for the RDP was estimated at NOK 13.3 billion in 2016,<sup>4</sup> and approximately NOK 8 billion in Northern Norway. Regional governments and Innovation Norway have also received money to stimulate regional and business development in Norway. In 2016, one-third of all funds for regional development went to counties in Northern Norway despite only 9 percent of the national population living in the region (Norway, 2016).

An extra contribution was created in 1986 for the Northern Norwegian municipalities: the *Nord-Norge tilskot* (Eriksen, 1996, 148). The complicated revenue system for Norwegian municipalities involves many factors, but the special treatment of Northern Norway is obvious, and the contribution per capita is much higher than for peripheral municipalities in the south. In 2017, this extra contribution amounted to around NOK 1.3 billion (Norway, 2017). Table 1 displays the net contribution per capita in areas in Northern Norway, compared internally and externally to the peripheral areas in the south.

Table 1: Contribution from the Norwegian government to municipalities and for regional development

Regions	Extra contribution 2017- budget (NOK per capita)	Regional funds 2016-budget (NOK per capita)
Nordland and Namdalen	1710	730
Troms (outside special zone)	3279	682
Special zone Troms	3864	682
Finnmark	8008	1087
Peripheral areas south	218-1087 <sup>5</sup>	433 <sup>6</sup>

<sup>4</sup> [http://www.statsbudsjettet.no/upload/Statsbudsjett\\_2017/dokumenter/pdf/skatt.pdf](http://www.statsbudsjettet.no/upload/Statsbudsjett_2017/dokumenter/pdf/skatt.pdf)

<sup>5</sup> Contribution per capita varies depending on the peripheral index for each municipality. There is also a fixed contribution up to NOK 1.2 million per municipality, depending on peripheral status.

<sup>6</sup> Average for the counties Hedmark and Oppland.



A variety of other individual-level subsidies, such as lower energy taxes, have also been introduced. Through the creation of the special zone for municipalities in Finnmark and Northern Troms in 1990 (population of around 80,000), people living there pay lower income tax rates, receive extra childcare support (until 2014), and they receive a discount on their student loans. According to the national budget for 2017, the individual-level incentives for living in the special zone amount to approximately NOK 1 billion. In addition to these major policies, there are also other special arrangements for Northern Norway in smaller policy areas, such as culture, sports, and higher education.

In 2017, the total sum of regional policies mainly aimed at promoting living in Northern Norway amounted to at least NOK 12 billion (annually). These policies were all implemented in the period 1970–1990. This review has shown that the amount of resources spent on promoting regional development in Northern Norway is not insignificant and that there are valid grounds to expect these policies to have political and demographic effects.

## 4 Methodological Approach

### 4.1 Why Quantitative Methods?

How have scholars studied regions, regional culture, and regional development? According to Keating, Loughlin, and Deschouwer (2003), there have traditionally been two methodological approaches. First, studies of individual regions and the construction of a narrative about the region and its success. Most of the stories are about successful regions, and they are remarkably similar. Essentially, the story in this region is that we have a common history and identity marked by a commitment to social co-operation. Decision-making circles are small, everyone knows each other, and there is extensive face-to-face contact. The story is seductive but, having heard it repeatedly, one becomes a little suspicious (Keating et al., 2003, 27). Could this not be a myth that people are creating about themselves, complete with invented traditions (Hobsbawm & Ranger, 2012) and a selectively interpreted past? A thorough review of many of the success stories reveals that the positive impact in many of the cases is rather marginal (e.g. Geddes, 2000).

The other approach to analyzing culture and development is based on survey data (e.g. Cooke, Clifton, & Oleaga, 2005; Sternberg, 2000). Here, culture is conceptualized as a set of attitudes and norms that can be measured by standardized questionnaires and systematically compared. Surveys are an important tool for social sciences and could be useful for gaining more knowledge about society. When studying a phenomenon like political trust, surveys are often the best available tool, which is also why the paper about the spatial dimension of trust in politicians in this thesis is explored using a survey (Paper II). That said, even when there is a consensus about the use of surveys, as in the case of political trust, there are often methodological debates about how to use surveys to measure the object of interest (see discussion about political trust in Turper & Aarts, 2017).

However, even though there is valuable information, surveys have some basic problems such as whether or not people actually mean what they say. As in most

social sciences based on interviews and survey data, the observations rest on the respondents' *perceptions* (Egeberg & Trondal, 2011). Literature reviews (e.g. Bertrand & Mullainathan, 2001; Tanur, 1992) imply a great deal of skepticism in relation to subjective questions. In an econometric framework, these findings cast serious doubts on attempts to use subjective data as dependent variables, because the measurement error appears to correlate with a large set of characteristics and behaviors. Second, problems can also occur because of their level of generality and lack of control over the effect of variables and interactions (Morgan & Sonquist, 1963).

As seen, studying regions individually without comparison has some major disadvantages. One solution to these challenges is to use public data in a quantitative and comparative perspective. National and international bureaus of statistics collect enormous amounts of data about what has actually happened in societies. By using a stringent approach and standard statistical tools, it is possible to use the hypothetico-deductive model or method to generalize from observations, falsify theories, and to generate new "general laws" or theories. Caused by what Rokkan (2009) has described as the "whole-nation bias," relatively few comparative studies have been done regionally. Historically, national bureaus of statistics have collected data mostly about national states. Limitations in tools of analysis also explain the scarcity of regional-level analyses. This is no longer an issue, as there is a wealth of regional data and powerful tools for data analyses are readily available.

In the case of Northern Norway, there are relatively few quantitative studies (an exception is Buck, 2013), and the scarcity of quantitative social and political studies regarding Northern Norway is striking. Hence, from an empirical point of view, this thesis adds new knowledge about what has actually happened in Northern Norway in recent decades and what is happening today.

In the next sub-chapters, I will account for some of the aspects of the methodological approach of this thesis, describing how and why these approaches are beneficial for a better understanding and analysis of the research questions in this thesis.

## 4.2 Comparative Social Research

The main question raised in this thesis is about what happened in Northern Norway. But to understand what happened in Northern Norway, it is necessary to compare the region with something else. All too often, social and historical studies in Norway have been reduced to single-case studies (Kjeldstadli, 1988). Carried out thoroughly (see discussion in George & Bennett, 2005), single-case studies can be highly useful instruments (Lijphart, 1971). Social development does not happen in a void, however, and the main advantage of a comparative approach is that it allows for understanding a social phenomenon *relative* to something else and controlling for explanatory variables.

The comparative design allows for a better understanding of both dependent and independent variables of interest for a research project. On its very basic the two methods of John Stuart Mill (1893) the “method of agreement” and the “method of difference” are the basic forms of comparative research. In the method of the agreement, the logic is that if A B C D occur together with w x y z, and A E F G occur together with w t u v, then A is the cause, or the effect, of w. In “the method of difference,” if A B C D occur together with w x y z and B C D occur together with x y z, then A is the cause, or the effect, or a part of the cause of w.

Drawing extensively on Mill, Teune and Przeworski (1970) developed their “most similar system design” (MSSD). The starting point of their method is the analysis of behavior “at a level lower than that of systems. Most often this will be the level of individual actors.” Common systematic characteristics are conceived as “controlled for,” whereas intersystemic differences are viewed as explanatory variables. Hence, will any set of variables that differentiates these systems in a manner corresponding to the observed differences in behavior (Teune and Przeworski, 1970, 34). The logical consequence of this approach is also that if the dependent variable does not vary despite there being a difference in the independent variable, the explanatory power of the independent variable will be zero. The hypothesis of the effect of the independent variable must be rejected, at least when the common systematic similarities of the

studied social systems are in play. Anckar (2008) argues that MMSD is particularly useful in cases where we are interested in systemic-level variables. Other labels that have been attached to the comparative method in the sense of the comparable-cases approach are the “method of controlled comparison” (Eggan, 1954) and “specification” (Holt & Turner, 1970).

The comparative method is not a simple method, as it is by no means easy to identify comparable cases. With that in mind, the emphasis of Eckstein (2000, 2015) on choosing “normal” cases for comparison and study is worth bearing in mind. Furthermore, there is the problem that comparable cases are likely to be similar not only regarding potentially confounding background variables which should be controlled for but also with regard to the operative variables (Lijphart, 1975).

In Paper I, Northern Norway is compared with Northern Sweden over time in an MSSD design (Teune & Przeworski, 1970). The two regions share many similarities but have experienced different regional policies over time (see paper I and Andersson, 2005 for a more thorough review of Swedish regional policies). There is a vast literature of comparative analysis in social sciences examining the Scandinavian countries (e.g. Hendin, 1964; Miller & Listhaug, 1990; Svalastoga, 1959), although not so many on the regional level, so the comparative study between Northern Norway and Northern Sweden is not something that, at least to my knowledge, has not been done before.

In the two other papers in this thesis, the main advantage of the comparative approach is that it keeps unobserved institutional and structural variables constant. In Paper II, the levels of political trust in Northern Norway are compared to the levels of political trust in other regions in the country. In Paper III, the development in municipalities with a larger number of state employees (many of them in Northern Norway) is compared with the development in municipalities with fewer state employees. Empirical data from other countries, regions, and municipalities is used as a tool for comparison to enhance our understanding of what has happened in Northern Norway.

### 4.3 The Spatial Dimension of Political Science

Comparative methods have been popular in political science for many years (e.g. Denters, Gabriel, & Torcal, 2007; Rokkan, 1987a, 2009; Skocpol, 1979). As noted by Keating (2018), however, time and space have been rather absent from the explanatory framework in social and political science:

*Time was at one time left to the historians, who focused on the past. We could draw lessons for the present, but this did not form part of social scientific explanations. As for space, most social sciences treated it as just where things happened rather than something with explanatory capacity. Recent developments in ontology and epistemology, however, have permitted new approaches to both time and space. History is not just the past but is also with us. The past casts a shadow over the present, but the reverse is also true, as new social and political concerns provoke revisions of our understandings of the past. Space is seen as not merely a topological category but as a social and political construct, whose meaning is given by its content. State space defined by jurisdictional boundaries is merely one meaning, an important one given its connection to power, but challenged by other spatial imaginaries, above, below and across it. (Keating, 2018)*

The combination of time and space makes it possible to provide context to events. Rather than being mere residuals, explaining things that cannot be understood using standard variables, they can move to the center of analysis. This is not to say that social science is thereby reduced to a set of space- and time-bound case studies, but the spatial and longitudinal dimension could *add* explanatory power to understand the social phenomenon.

The main object for social and political studies is to explore general and universal causes and effects in society. But in the desire to develop more general theories and to avoid reducing political science to specific empirical case studies, the spatial dimension has often been ignored. As seen in section 2.1, however, there are

theoretical aspects about territorial structures that potentially could have explanatory power for objects of interest for political scholars. Studies of politics often highlight how an asymmetric power relationship is important for understanding outcomes, whether it regards factors like capital (Piketty, 2015) or the size of states in conflicts (Mack, 1975), it should not be surprising that the asymmetrical territorial relationship could hold explanatory power in other areas.

In this thesis, the spatial dimension is accounted for using two different methods. In Paper I, Northern Norway is used as a dummy variable to explore the spatial dimension of political trust and the effects of regional policies, and the data is presented in maps (e.g. Figure 3 in section 5.2). Further, in Paper II, the distance in kilometers from the capital (Oslo) is used to replace the more case-specific dummy variable, *Northern Norway*; in other words, trying to replace proper names with a more general spatial variable.

An even more advanced approach would have been the use of spatial regression models (Bivand, Pebesma, Gomez-Rubio, & Pebesma, 2008; Ward & Gleditsch, 2018). Beyond creating and viewing maps, spatial data analysis is concerned with questions not directly answered by examining the data itself. These questions refer to hypothetical processes that generate the observed data. Statistical inference for such spatial processes is often challenging and the reason why the papers in the thesis are not analyzed with spatial regression models, but instead with multilevel regressions models (see section 4.5).

#### **4.4 The Times They Are a-Changin'—Longitudinal Approach to Social Science**

Reflecting on the relationship between political scientists, political sociologists, and historians, Rokkan (1987b, 217) acknowledged that the social sciences would not progress without accounting for the time dimension and the prior historical processes in the analytical framework. He also noted that historians could learn from political scientists about mastering technical tools, organizing data, and data analysis. It is

reasonable to question whether a sufficient number of social scientist have used the longitudinal dimension enough as a tool in their analyses (Keating, 2018). Time-series analysis is a powerful tool for two of the main objects of social science: establishing causality and comparing development (Berry & Lewis-Beck, 1986; Janoski & Isaac, 1994; Midtbø, 2000). In contrast to cross-section analyses, it allows for analyzing longer trends instead of just a snapshot at one point in time, which can sometimes be misleading. Some social changes are rapid (e.g. social revolutions), whereas others are slower, drawn-out processes, and there can sometimes be a lag between cause and effect.

Plotting the data over time is a recommended starting point (Beckett, 2013; Chatfield, 2016), and visual analysis provides information about each time-series as well as giving a hint about correlations and the potential causality between various variables over time. This was the starting point for the comparative analysis between Northern Norway and Northern Sweden, which will be further elaborated in section 5.1.

The univariate model of just one time series is often a useful second step. ARIMA-analyses (Box, Jenkins, Reinsel, & Ljung, 2015) allow for a meaningful analysis of the underlying stochastic process and identify changes, or ruptures, within the time series. The ARIMA models use three different techniques to deal with autocorrelation; autoregressive term (AR), integrator (I), and moving-average term (MA). The major challenge with time-series analysis is that it violates the Gauss–Markov theorem assumptions for regression that the errors should be uncorrelated and homoscedastic. The errors of  $Y_t$  are correlated with the errors of  $Y_{t-1}$  or even further observations. To deal with this problem, the models in all papers have had their error term corrected with an AR1 structure, which more or less removes the autocorrelation.

The third step would be to compare time series with other time series in a panel data set, where we have multiple variables observed over time. Panel data can be specified as “standard” multilevel model (Singer & Willett, 2003). For individual  $i$  (or in this



case municipality  $i$ ) on occasion  $j$ , we assume that opposites-naming score  $Y_{ij}$  is a linear function of TIME:

$$Y_{ij} = \pi_{0i} + \pi_{1i} \text{TIME}_{j} + e_{ij}$$

$$\pi_{0i} = \beta_{00} + u_{0i}$$

$$\pi_{1i} = \beta_{10} + u_{1i}$$

#### 4.5 Multilevel Regression Modeling

Since panel data analysis is a form of multilevel modeling (applied in Papers I and III), the themes about multilevel regression modeling (applied in Paper II) will be relevant for the panel data analyses as well. The integration of micro and macro data is now seen as the state of the art in many subfields of political science (Stegmueller, 2013) and has become increasingly popular in recent decades (Gelman & Hill, 2006). There are good theoretical and statistical arguments for using multilevel models (Luke, 2004). Theoretically, it is logical that an individual  $i$  is affected by the group  $j$  that they belong to or live in. If different policies are applied for different groups (country, region, school, class, etc.) that are characteristics of the group  $j$ , not the individual  $i$ . Statistically, scholars have tried to disaggregate group-level information for the group  $j$  onto the individual  $i$ . There are at least two problems with doing so. First, all of the un-modeled contextual information ends up pooled into the single individual error term (Duncan, Jones, & Moon, 1998). This is problematic, because individuals belonging to the same context will presumably have correlated errors, which violated one of the basic assumptions of regression analysis. Second, by ignoring the context, the model assumes that the regression coefficients apply equally to all contexts, “thus propagating the notion that the process works out in the same way in different contexts” (Duncan et al., 1998, 98).

Using this multilevel setup, a diverse range of topics has been studied: policy diffusion (Gilardi, 2010), attitudes toward immigration (O'Rourke & Sinnott, 2006), ethnic and social tolerance (Andersen & Fetner, 2008), rightwing voting (Arzheimer, 2009), social and political trust (Dalton, 2005; M. Hooghe, Reeskens, Stolle, & Trappers, 2009), satisfaction with democracy (Anderson & Singer, 2008), political participation (Van der Meer, Van Deth, & Scheepers, 2009), the political economy of gender vote

gap (Iversen & Rosenbluth, 2006), and support for European integration (L. Hooghe & Marks, 2004).

Most studies employ pooled individual-level survey data with matched country-level information to estimate micro and macro effects. This is the same technique applied in Paper II in this thesis, but instead of having countries as level 2 units, we have used 417 municipalities as level 2 units on a survey with 22,000 respondents (Difi, 2015). One of the criticisms against multilevel modeling is that researchers are often analyzing countries with insufficient numbers of level-2 observations (Stegmueller, 2013). The research strategies in this thesis have created a design in which there are sufficient level-2 observations by using municipalities at level 2 in all papers and time or individuals at level 1. The general analytical strategy has been conducted through five steps in all papers.

1. Empty model—finding the ICC (Interclass Correlation Coefficient)
2. Model with all level 1 variables + random intercepts
3. Add level 2 variables
4. Check the variation of random slopes
5. Full model where level 2 variables can explain varying slopes and intercepts

All of the models are estimated by estimation algorithms. The two most commonly used in multilevel modeling are REML (restricted maximum likelihood) and ML (maximum likelihood). The difference between them relates to how it estimates the interplay between all of the relationships. REML gives the most parsimonious results, minimizes variance the best, and produces the most unbiased estimates. The one major problem is that you can only compare models if the change in the models only occurs in the random effects.

Consequently, all of the models in this thesis are estimated with both ML and REML to assure consistency in the findings, but the reported models are estimated with ML.

To examine which model has the best fit, it is recommended to use either the Akaike Information Criterion (Akaike, 1974) or Bayesian Information Criterion (BIC is often called the Schwartz Information Criteria). AIC and BIC cannot be interpreted in absolute terms, but the smaller the number, the better the model fits the data.

#### **4.6 Open Science and the Building of Gator**

Transparency, openness, and reproducibility are readily recognized as vital features of science (McNutt, 2014; Nosek et al., 2015). When asked, most scientists embrace these features as disciplinary norms and values (Martinson, Anderson, & De Vries, 2005); one might therefore expect these valued features to be routine in daily practice. A growing body of evidence suggests that this is not the case (Banks et al., 2016; Ioannidis, Munafo, Fusar-Poli, Nosek, & David, 2014; John, Loewenstein, & Prelec, 2012). This has led to discussions about how to open science, and the most recent example is the debate about Plan S<sup>7</sup>, which currently comprises 13 national research funding organizations from 12 countries which have agreed to implement the 10 principles of Plan S in a coordinated manner together with the European Commission and the ERC to open science. Regardless of their stand regarding open access publishing, the majority of scientists would agree that striving for more transparency is desirable. The question then becomes: What kind of transparency?

A literature review by Fecher and Friesike (2014) shows that there are different schools regarding open science. *The infrastructure school* (which is concerned with the technological architecture), *the public school* (which is concerned with the accessibility of knowledge creation), *the measurement school* (which is concerned with alternative impact measurement), *the democratic school* (which is concerned with access to knowledge) and *the pragmatic school* (which is concerned with collaborative research). Inspired by these schools, this thesis attempts to be available to the community to evaluate, critique, reuse, and extend. The analyses in this thesis are

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<sup>7</sup> <https://www.scienceeurope.org/coalition-s/>

made with open software (R), and all of the codes and data used in thesis have been made publicly available at <https://github.com/TromsoJonas>

A final part of this thesis project, which answers to the infrastructure school of open science, has been the creation of the dataverse Gator (Svalestuen, Buck, Stein, & Haugen, 2017) inspired by the ideas of Gary King (2007) about various researchers working together with open data sets, making replication data sets available. The data has been made available through a dataverse.<sup>8</sup> This is the same tool now used by journals like the *American Journal of Political Science* to ensure openness about the data used in their publications.<sup>9</sup>

The data material about Norwegian municipalities is excellent, and the majority of the variables included in the data set stem from Kommunedatabasen (NSD) and Statistikkbanken (SSB). The accessibility to the data has not always been so easy, however, particularly with regard to longitudinal analyses. Fiva, Halse, and Natvik (2012) have created a very good and easily available panel data set with Norwegian municipalities from 1972 to 2016, but Gator adds both more longitudinal observations (1945–2016) and more variables (around 1100 variables). This empirical data gives scholars and students the opportunity to compare the development in Norwegian municipalities *between* and *within* each other. The Gator data has already been used for work on elections to the Sami Parliament (Buck, Haugen, Stein, & Svalestuen, 2018), and there are ongoing projects involving fishery policies, educational research, and health sciences in which the data from this data set will be used.

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<sup>8</sup> <https://dataverse.no/dataverse/uit>

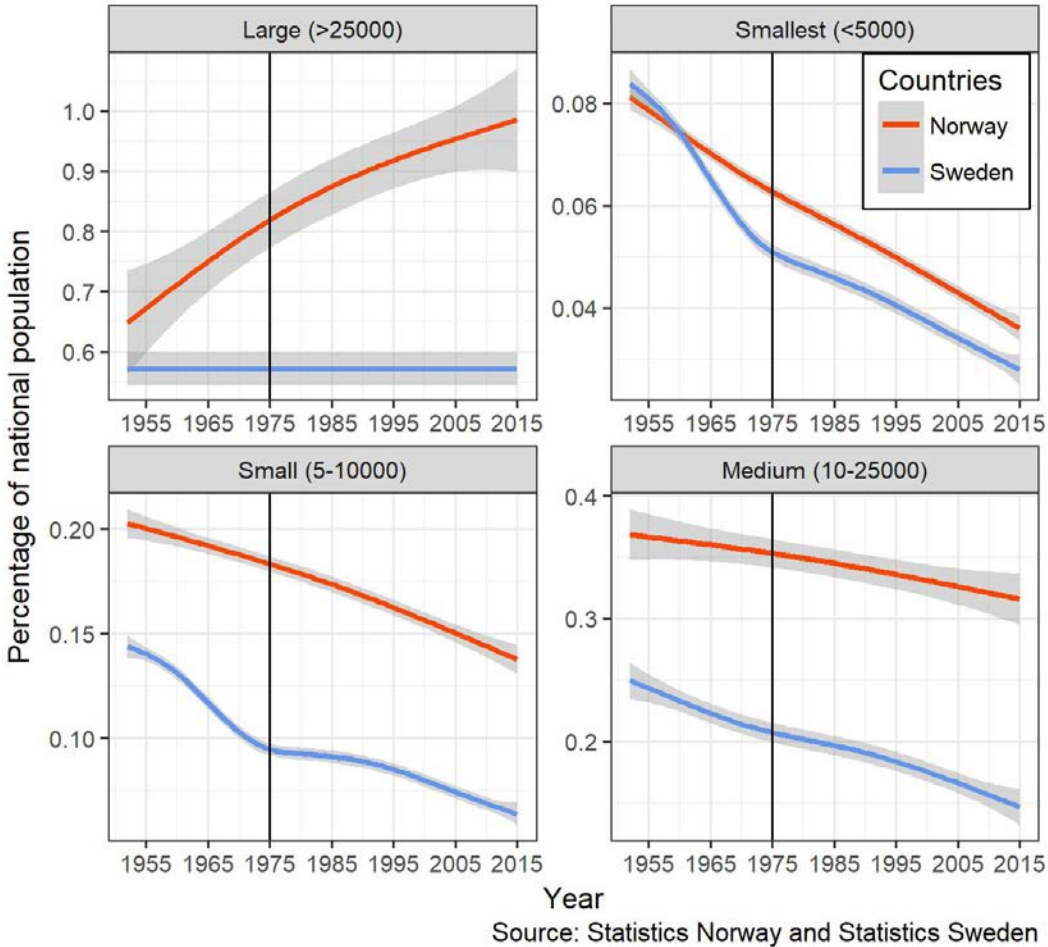
<sup>9</sup> <https://dataverse.harvard.edu/dataverse/ajps>

# 5 Results

## 5.1 Paper I—The Striking Similarities between Northern Norway and Northern Sweden

Contrary to the view held by many actors, by using a quantitative and longitudinal analysis in a comparative perspective, this paper shows that the demographic development in Northern Norway and Northern Sweden is much more similar than many think. Figure 2 shows that the demographic trends in the two countries are almost identical. The difference between the largest municipalities are mainly explained by the relatively few municipalities with more than 25,000 inhabitants in Norway and that two (Tromsø and Bodø) of the three are classified as “knowledge cities,” a significant variable in the models (see regression models in Paper I).

Figure 2: Demographic development in Northern Norway and Northern Sweden 1952–2015



Despite adopting an expansive regional policy around 1975 inspired by Broxian theories of growth in smaller municipalities, these policies do not appear to have had any significant impact on the demographic development. This is striking due to the numerous similarities between Northern Norway and Northern Sweden, but Sweden has had a much less expansive regional policy (Andersson, 2005), reduced the number of municipalities from 2000 to around 290 in the 1970s (Kjellberg, 1988), and joined the European Union; all factors that, according to Broxian theories, should have contributed to a less positive development than in Norway.

The larger trend in both countries is that the population in the north is declining at approximately the same relative speed as the rest of the nation. This said, some regionally based policies, such as the establishment of universities in the north, seem to have had a positive effect on the development. “Knowledge cities,” especially the two university cities, Tromsø and Umeå, have been the drivers for demographic development in Arctic Scandinavia.

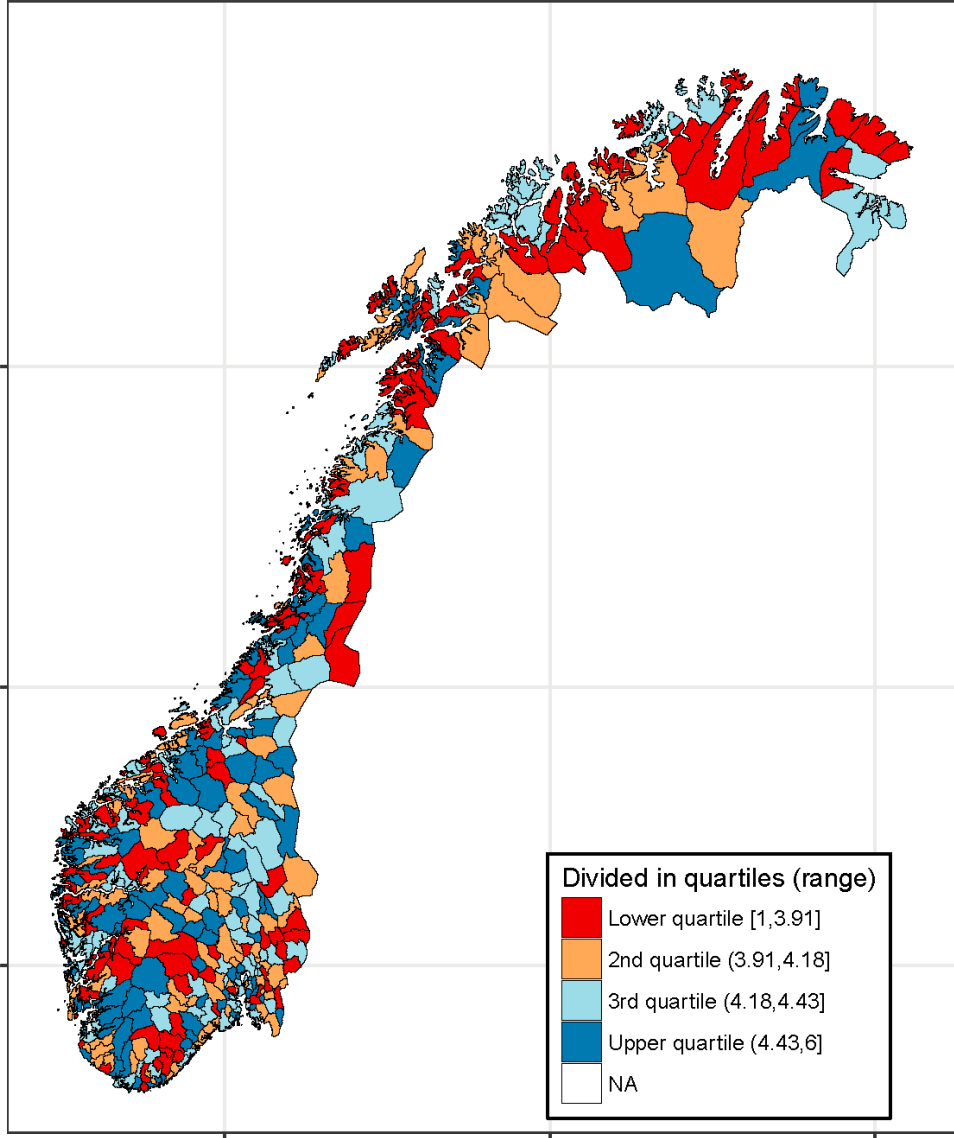
## **5.2 Paper II—The Center–Periphery Dimension and Trust in Politicians: The Case of Norway**

This paper explores the spatial dimension of political trust. Figure 3 shows how the municipalities in Northern Norway are among the Norwegian municipalities with the lowest trust in national politicians on an aggregated level. The paper examines if this difference is due to other explanations or if the center–periphery framework could hold explanatory power even when considering other explanations. Scholars have often studied social, political, and economic reasons for why trust waxes and wanes. As seen in section 2.3.1, there are theoretical arguments for why regional spatial location could be considered an independent variable and that the centre–periphery framework, as elaborated by Stein Rokkan, would hold more explanatory power than the other forms of spatial location, such as the degree of rurality.

By using multilevel regression analysis on a large-N survey on a crucial case (Norway), the models have 14 different control variables for the urban–rural divide and cultural, institutional, political, and economic factors at both the individual and

municipal levels (see regression model in Paper II). The findings indicate that regional spatial location manifests itself as a unique explanatory variable and that the Rokkan center–periphery framework has explanatory value for explaining differences in trust in politicians. It also shows how the spatial dimension could be relevant when studying political and social phenomena.

Figure 3: Trust in national politicians aggregated to municipalities



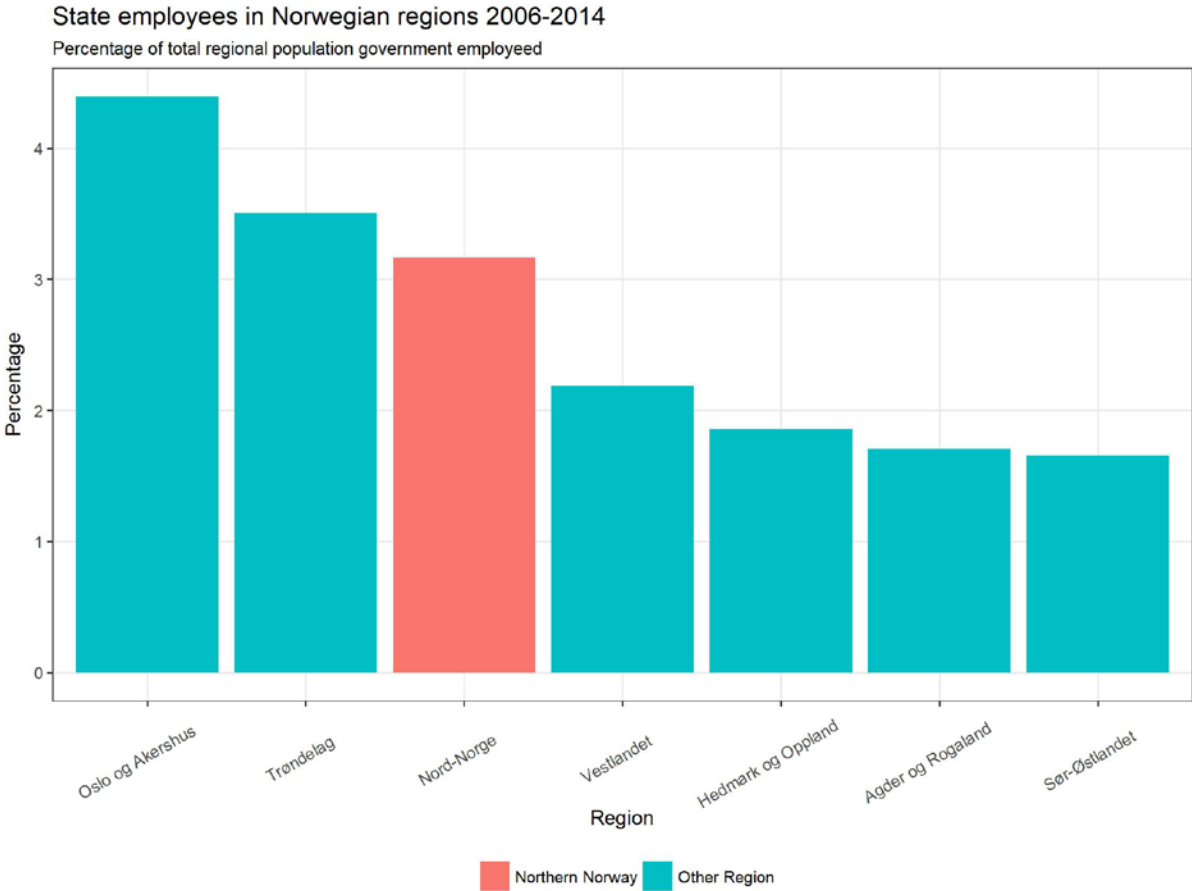
The paper also shows that the general variable *distance from the capital* could replace the more case-specific variable, *Northern Norway*. This possibly indicates that

distance from the political center matters more for explaining territorial differences in trust in politicians than economic and cultural factors.

### 5.3 Paper III—The Local Impact of Increased Numbers of State Employees on Start-ups in Norway

This paper explores the effect of a specific policy for regional development: the relocation of state employees. As seen in Figures 4 and 5, state employees are particularly important in Northern Norway. In 2014, five of the 10 municipalities with the largest percentage of state employees were located in Northern Norway (Kautokeino, Vadsø, Tromsø, Karasjok, and Brønnøy).

Figure 4: State employees in Norwegian regions 2006-2014—Percentage of total regional population government employeed



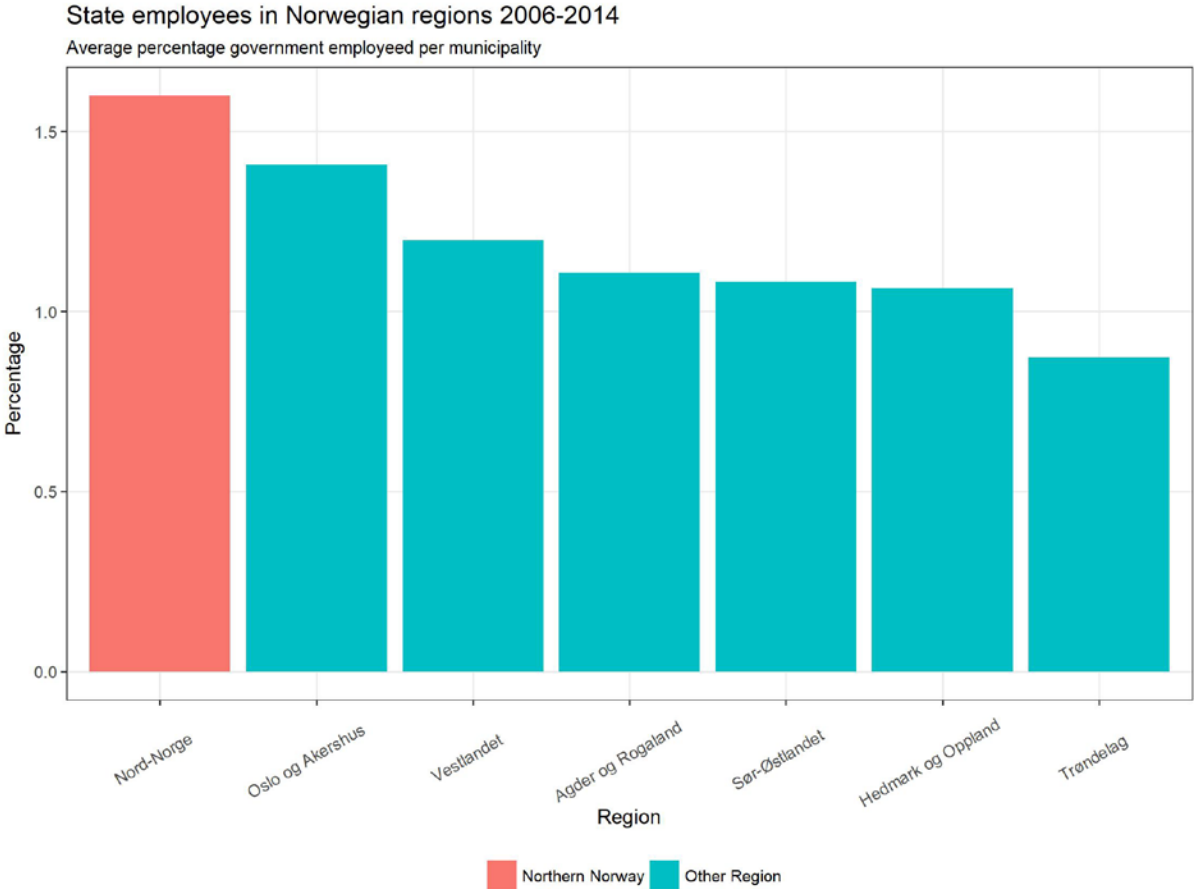
Source: NSD

Local multiplier effect theory (Moretti, 2010) suggests that increased local demand of state employees, especially high-skilled employees, will stimulate the local supply of



goods and services and, hence, local development. This study assesses the local effects of having a high percentage of state employees in a municipality (see regression models in Paper III). While it finds a small positive effect of state employees in a bivariate model, when controlling for relevant factors such as municipality size, regional universities, or unemployment rate, there is no significant effect of state employees on local development. This finding suggests that the relocation of state employees is a rather limited tool for stimulating local and regional development. The finding is similar when using population growth as an alternative measurement for local development. However, the local existence of universities seems to have a positive effect on the number of start-up firms. Even when controlled for city size, unemployment rate, demographic characteristics, and larger national and global trends (financial crisis), university cities have a significant positive effect.

Figure 5: State employees in Norwegian regions 2006–2014—Average percentage government employed per municipality



Source: NSD

## 6 What Happened in Northern Norway?

### 6.1 The Effect of Regional Policies?

#### 6.1.1 Peripheral Mobilization for Regional Gains

So what happened in Northern Norway? Overall, in light of the empirical results, the general theories of Stein Rokkan seem to hold more explanatory power than the those of Ottar Brox, even though Brox's theories have had a much stronger political impact than those of Rokkan. It is understandable how the ideas of a specific regional culture could be captivating for regional actors and observers (Hobsbawm & Ranger, 2012; Keating et al., 2003). Perhaps this captivating narrative needs to be understood as a part of the Rokkanian *Pyramid of Regional Aims* (see Figure 1)? Northern Norway has experienced what Rokkan would describe as a period of peripheral identity-building, where regional actors are arguing for the unique character of a given territory, economy, and its population, and urging the preservation of its distinctive artifacts and stigmata. This peripheral identity-building has succeeded in mobilizing regional actors and creating a general acceptance of the peripheral identity in Northern Norway in contrast to the central national identity. As seen in Paper II, even today there is less trust in national politicians among those living in Northern Norway, which cannot be explained by other social, economic, or political factors.

The mobilization of the center–periphery tension has proven to be an effective political tool, especially when mobilizing against Norwegian EU membership (Jenssen & Valen, 1995; Valen, 1973). Applying the tools of *voice* and *loyalty* (Rokkan & Urwin, 1983), regional actors have managed to use the peripheral identity to get attention and acceptance for gaining concessions in terms of regional policies (see section 3.3). Since the 1970s, Norway has voted against EU membership twice (1972 and 1994), implemented an expansive regional policy, and did not radically reform the municipality structure as was the case in Sweden. These are all policy choices closer to Broxian theories (see section 2.2) and, according to his hypotheses, should have stimulated a more positive development in Northern Norway than in Northern Sweden. It should be noted that Brox (Brox, 1984, 2007) himself would emphasize that not all of his policy plans have been implemented. He has been very critical of the

industrial and market-based fishery policies in Norway in this period (Brox, 2006), even though other scholars (Holm, Raakjær, Jacobsen, & Henriksen, 2015) contest that the social contract is changed. However, in Northern Norway only around 4,000 people are registered as fishermen, so their effect on the longer development trend should not be overestimated; especially since aquafarming, an industry often located in smaller municipalities along the coast, has boomed in the same period.

Paper I shows that the idea of a specific *sonderweg* for Northern Norway, at least in terms of demographic development, is not supported by a longitudinal comparative analysis with Northern Sweden in an MSSD. In fact, the similarities are striking. The comparison also reveals the subtlety and craftiness of longitudinal analyses. A cross-section comparison between the two regions would conclude that the Norwegian regional policy in Northern Norway has succeeded inasmuch as a relatively larger part of the population lives in the northernmost region. As shown in the longitudinal analysis in Paper I, a relatively larger percentage lived in Northern Norway in the 1950s, and the trends have been identical since 1975. There do not seem to be any positive effects of these types of regional policy choices.

As seen in Paper III, it is also difficult to find any local effects of another popular tool often used in the center–periphery framework: the relocation of state employees. In 2003, the Norwegian government carried out its third relocation program, around 1,000 jobs in seven different agencies being moved from Oslo to five other regions (Arbeidsdepartementet, 2003) and two subsequent white papers on relocations plans in Norway, regional development is seen as a key argument for relocation (Fornyingsdepartementet, 2009; Kommunaldepartementet, 2017). This has been particularly popular in Northern Norway, with the large state agencies like the National Registry established in Brønnøysund in 1980<sup>10</sup> and the National Collection Agency established in Rana in 1990.<sup>11</sup>

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<sup>10</sup> <https://www.brreg.no/om-oss/historien-var/>

<sup>11</sup> <https://www.sismo.no/en/pub/information/about-us>

But should the success of regional policies not be measured in terms of local development but instead as a tool for curbing the tensions between the center and the periphery? Policies like the relocation of public sector employees (Paper III) or regionally based subsidies and tax incentives (Paper I) allow center-based politicians to provide a specific and visible solution to the tension between the center and the periphery at a relatively small net cost and sometimes aid the readjustment after de-industrialization, as in the case of Rana. Stephanie Rickard (2018) has also shown that regional subsidies could be used as an election-winning policy tool for politicians.

As seen in the study by Buck (2013), the voting gap between Northern Norway and the rest of the country has decreased since the 1950s. Although Paper II shows that there is a significant difference in trust between people living in Northern Norway and the rest of the country, the difference in point estimate is relatively small and not more than .15 (standard error .04) on a 1–7 scale. We have no earlier trust data, but it would have been very interesting to see from a longitudinal perspective if the spatial difference was diverging or converging. A comparative study with other countries experiencing territorial tensions between center and periphery could also provide an interesting perspective.

### **6.1.2 Potential Negative Externalities of Regional Policies**

Even though regional policies may not have any positive effects, some would argue that they do no harm. This might not be so obvious. This thesis also shows that there are some potentially negative externalities that might be associated with being on the receiving end of regional policies.

First, there is the risk of developing a position of state dependency (see section 2.1.4). At their best, public policies created to compensate for social injustice or market failures could be liberating and stimulate positive development; at worst, they could contribute to clientelism, stigmatization, and dependency (Eriksen, 1996, 172). The lack of debate on the effects of regional policies in Northern Norway might be an indicator of state dependency. The rural (and to a certain extent regional) depopulation

should have mobilized regional actors in Northern Norway to protest against or at least question some of the regional policies applied for regional development. Regional actors in the north have not been highly mobilized around the broader fundamental debates about regional policies; instead, there has recently been a massive political mobilization against structural changes at the municipal and regional levels (Finnmark, 2018). These structural changes might not have too many advantages, but they do not have many disadvantages, either (see Paper I). However, in a state of state dependency, it is easy for political actors to mobilize the peripheral distrust of structural changes enforced by central authorities who often lack sensitivity to actors in the periphery voicing their concerns.

Second, connected to the notion of state dependency, local and regional actors tend to underestimate the interconnection between different forms of trust. Studies have shown that different forms of political trust are connected (Denters, 2002; Torcal, 2014; Turper & Aarts, 2017), and, as seen in Paper II, there is less trust in national politicians in Northern Norway, but there is no significant difference in trust in local and national politicians in Northern Norway. The spillover effect of lower trust in national politicians appears to influence the trust in the local politicians. Even though skilled politicians and other actors distinguish between local and national politicians, ordinary people appear to associate the question of trust in politicians more with their trust in the institutions of the political system, which again relates to their quality and performance (Hetherington, 1998; Mishler & Rose, 2001; North, 1990; Rothstein, 2011; Van Ryzin, 2007).

For local actors, the potential pitfall is that when they protest too much or aim to delegitimize the national actors, the result is lower trust in the political system nationally *and* locally. The debate about the structural reform of the regional level is not yet finished. For scholars, it will be interesting to use future data from the Citizens Survey (Difi, 2015) to explore if trust in national politicians and trust in local politicians in Finnmark has declined since 2013. My assumption is that both types of

trust in politicians have decreased, although the trust in national politicians has most likely decreased more.

## **6.2 Urbanization and Growth of Knowledge-based Cities**

### **6.2.1 Urbanization**

The other major finding in Northern Norway over the last 50 years is the urbanization of the region (see Paper I). This is not unique to the region, and global urbanization is one of the major trends in the 20<sup>th</sup> century (Friedman, 2005; Pike et al., 2007). Despite the more general Norwegian regional policies being especially beneficial to sparsely populated areas and Finnmark and the Broxian theories of why rural development in Northern Norway should thrive, the major demographic development has been in the two largest cities in Northern Norway: Tromsø and Bodø; although Brox assumed that, if given the opportunity, people would reject the urban centers and choose life in the periphery, especially in a region like Northern Norway, where people could live the life as *fisher-farmers*. This has not turned out to be the case in Northern Norway.

This echoes earlier empirical studies of Northern Norway (Elenius et al., 2015) and could be explained by the role of the cities and the creative class as engines for regional and urban development (Florida, 2005). It is worth noting, however, that the growth in urban municipalities is also a trend in the rest of Norway (Paper III) and Northern Sweden (Paper I). Some might argue that this is only a part of a larger trend toward urbanization. At the same time there are findings suggesting that the empirical trend in Northern Norway consists of more than mere urbanization *per se*, and that the growing municipalities have more to offer than just urbanity.

### **6.2.2 Knowledge-based Cities**

The urbanization trend does not mean that people merely move to larger cities; it is important to understand what kinds of cities are growing. In both Papers I and III, having a university or university city college appears to stimulate growth; growth that cannot be explained by city size alone. It might not be surprising that the two largest cities, Tromsø and Bodø, have experienced the largest population growth in recent decades. The same pattern is found in Northern Sweden, with the growth of Umeå and

Luleå (Paper I). However, the growth of Alta, a municipality without a hospital and regional administrative functions, underlines the importance of knowledge-based cities (see also Paper I). It is not the third-largest city in Northern Norway, but it is the one that has been growing most in recent decades—not larger municipalities like Rana. The similar decline between the old industrial towns in Arctic Scandinavia, Rana and Skellefteå, illustrate that knowledge-based cities, not just cities, have been the population winners over the last 50 years (Paper I). Skellefteå used to be the biggest city in northern Sweden but has been surpassed by Umeå and Luleå.

The establishment and increased financing of higher education in the northern region has undoubtedly been a key policy for regional development in Northern Norway. The decision to use the expansion of higher education, a policy for social equality and knowledge development, to also promote regional development was clearly a political decision inspired by the establishment of the University of Umeå (Fulsås, 1993). When national authorities realized that the existing capacity of the existing universities in Oslo and Bergen was insufficient, they decided to meet the growing need for higher education through the establishment of a new university in Tromsø, despite strong concerns from the existing research communities. This decision has to be understood on the background of the center–periphery conflict in Norwegian politics.

The success of higher education as a tool for regional development is apparent in Northern Norway and illustrates another point regarding regional development: The success of the relocation of state employees or the establishment of new functions within the state depends on the functional demands of the state and society. The general demand for higher education has rapidly increased in recent decades for social and economic reasons, which has contributed to the growth in the cities having such state functions. More stable functions (e.g. regional administration or the National Registry) do not seem to stimulate growth in the same way. The risk is that they become conservatory power, a pretext for doing nothing or merely maintaining the status quo. There may be good reasons for discussing the rationale behind some of the restructuring processes in the Norwegian state apparatus. But even when there are

clear benefits for society in general, such as the efficiency improvement for collecting the television license, local politicians tend to demand that no local jobs be affected.<sup>12</sup>

Finally, without wanting to dismiss the value of attracting more state employees to a municipality, the benefits of which could be more than purely economic, local actors should at least be conscious about the limited effects of this strategy for local development; at least if the strategy is not supported by thought-through, place-sensitive policies (Iammarino et al., 2018; Rodríguez-Pose & Ketterer, 2019). A better strategy for local and regional actors wanting to use the state apparatus to promote local and regional development may be to think “Don’t ask what Norway can do for you, but ask what you can do for Norway!” and to use cluster theories (Porter, 1998, 2000) to find local and regional comparative advantages to combine with necessary tasks within or in the future for the state apparatus (see also Paper III).

## **6.3 What Does Knowledge of Northern Norway Add to the General Literature?**

### **6.3.1 Political Trust**

The most important finding in this thesis for the general literature in political science is regarding the explanatory power of the spatial dimension in relation to trust in politicians. As seen in section 2.1, the Rokkanian framework provides a theoretical background for explaining why the center–periphery conflict is important for understanding various political processes and outcomes. This paper finds that although institutional, cultural, and political factors are the strongest explanatory variables, the spatial dimension in a center–periphery framework is significant for explaining the differences in trust in politicians. The paper also shows that the general variable, *distance from the capital*, could replace the more case-specific variable, *Northern Norway*. This leads to a more general finding that could be relevant for political trust in other countries and contexts. As Scott (2010) has shown, those who are more skeptical of the powerful central state and government are more likely to move farther from the political center. And this might also work the other way around; that the

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<sup>12</sup> <https://ranano.no/ranas-ordforer-ber-om-mote-med-kulturministeren/17.10-01:15>



distance causes those living far away from the political center to become more skeptical of institutions controlled from far away and they feel that their influence on those institutions is limited. Scott's perspective could be seen as complementary or overlapping the Rokkanian center–periphery perspective.

Despite decades of regional policy and the development of a universal welfare system created to even-out social and spatial inequalities, we still find a significant spatial independent variable that cannot be explained by controls on the individual or municipal level in our multilevel regression model (see Paper II and section 4.5). Those living in Northern Norway, one of the two peripheral regions defined by (Rokkan, 1987c), have lower trust in national-level politicians despite relevant controls. This suggests that what Caramani (2004) described as the “nationalization of politics,” making internal spatial location unimportant, cannot be taken for granted.

The finding in Paper II suggests that the spatial dimension is more than just the level of urbanization, something which is also controlled for in the paper. Keating (2018) noted that in most social science, space has been treated as just “where things happened,” rather than something with explanatory capacity. This is particularly relevant in the literature regarding political trust. The spatial perspective has not been thoroughly studied in the trust literature other than sometimes as an urban–rural control variable in empirical studies (e.g. Delhey & Newton, 2005; M. Hooghe et al., 2012). That differences in trust in politicians is correlated with distance from the capital illustrates that the spatial dimension has the explanatory capacity for social analyses.

This finding with regard to political trust should be regarded as a first step, an explorative case study for partial generalization (see section 3.1). Further studies should explore the center–periphery framework in other countries and other forms of political trust, especially by using *distance from the capital* as an explanatory variable.

### 6.3.2 The Effects of Regional Policies

This thesis has also explored the motivation and effects of regional policies. The center–periphery framework could help to understand some of the motivations behind regional policies. Some actors narrowly perceive regional policy just as some kind of “development aid” that the center donates out of generosity to the periphery. The Rokkanian Pyramid of Regional Aims (see Figure 1 in section 2.1.1) shows that resolving the center–periphery relationship is essential for not escalating the tension between center and periphery, consequently developing the tension into a cleavage (see Aardal, 1994 for cleavage debate). The EU has used the expression “cohesion policy” about the European regional policy. This expression is rather precise as to the main objective of regional policy: keeping center and periphery together. It also underlines why reviews around regional development programs (e.g. Mohl & Hagen, 2010) find relatively small success for the various regional policy programs (see Paper I), especially regarding tax incentives (Neumark & Kolko, 2010). It could also depend on the kind of dependent variable used for measurement. The goal might not always be variables related to growth, but possibly goals measured by other variables, such as political trust. As seen in section 6.1.1., even though there is a significant difference, the gap between the center and periphery in Norway regarding political trust is not insurmountable.

This also highlights another finding for the more general literature. Peripheral mobilization against the center could also have negative spillover effects for peripheral actors. As seen in Paper II, there is a potential spillover effect of lower trust in national politicians to the trust in local politicians. This might be an unintended effect of peripheral mobilization against the central authorities.

Finally, using the tools of *Voice* and *Loyalty*, regional actors could gain concessions in terms of regional policies. Some kinds of regional policies obviously seem to work, but being on the receiving end of policies could ultimately prove to be a double-edged sword. Similar to some of the debates on the limited effect of development aid (e.g. Collier, 2008), the effects of regional policies are a rather limited tool for regional

development. Receiving excessive regional funding could lead to a state of *state dependency* (Eriksen, 1996), where there is little or no debate around the effect of the policy, and the only solution is maintaining the status quo and receiving more funds.

### **6.3.3 Regional Role of Universities**

As seen in the previous sub-chapter, there are other measurements of success for regional policies; nevertheless, development in terms of economic or demographic growth is considered the main criteria of success. Papers I and III add to the general discussion around the role of universities. As seen in section 2.3.3, there is a broad literature around the role of regional universities as an engine for innovation and regional development (Benneworth & Nieth, 2018; Berger & Duguet, 1982; Drucker & Goldstein, 2007; Goddard & Chatterton, 1999).

This finding is by no means sensational but does add to the general literature on institutional theory and the role of universities (see section 2.3.3). Institutional quality seems to be of vital importance for development in industrial countries (Acemoglu & Robinson, 2013; Rothstein, 2011), developing countries (Acemoglu & Robinson, 2013; Collier, 2008), and regions (Rodríguez-Pose, 2013). Universities could contribute to the reinforcement of institutional quality at the local and regional levels.

### **6.3.4 The Relocation of State Employees**

This thesis also adds to the literature on the effect of the relocation of state employees. As seen in section 2.3.3, the scholarly work done on these types of reforms is limited, even though they are increasingly popular among policymakers (Kommunaldepartementet, 2017). Earlier studies from the UK have produced somewhat mixed results of the effect of the relocation of state employees (Faggio, 2019; Faggio & Overman, 2014). The models in Paper III suggest that there seems to be no positive effect of the increased number of state employees in a municipality on the relative number of new firms, a proxy variable for local growth. The findings are similar when using population growth as the dependent variable.

The findings in this paper also add to the literature on the relocation of state employees in Norway, which is a recurring policy debate in Norwegian politics (Sætren, 1983,

2011). The three main arguments in favor of relocation were increased agency independence, reduced expenditure, and the development of regional centers (Arbeidsdepartementet, 2003). First, as shown by Egeberg and Trondal (2011), location does not seem to matter much for Norwegian government agencies. Second, the evaluation after the relocation program concludes that expenditure has not been reduced (Fornyingsdepartementet, 2009). Third, Paper III in this thesis concludes that also the third argument, local economic development, is not something that can be learned from the Norwegian experience of creating or relocating state jobs to peripheral regions.

Since the local and regional extended economic effects are relatively limited, national policymakers should at least reconsider their arguments for relocation programs. There might be other arguments in favor of the relocation of state employees, and the models suggest that there might be some positive effects if jobs are relocated to larger municipalities capable of building sustainable clusters around the state employees.

### **6.3.5 The Limited Effect of Regional Policies**

Finally, a recurring theme in this thesis when evaluating the different forms of regional policies is that exogenous policy interventions seem to be relatively futile and ineffective, at least when using classic indicators of growth such as population or innovation. The only exception is regional universities.

The major explanation may be that even though regional policies are of great interest to policymakers and scholars, their relative impact is rather limited. It is difficult or maybe even impossible to halt the larger global trend toward urbanization. The comparative study between Northern Norway and Northern Sweden may also add another explanation: the stabilizing effect of the welfare state. Municipalities do play an important role for dispersed settlement, but not in a Broxian manner, where it is the local decision-makers controlling their own life, but rather because the municipalities are the main provider of services from the national welfare-state, which is also accompanied with the local jobs necessary to deliver local services.

In countries like the Nordic countries, with high taxation, universal welfare systems, and centralized collective bargaining systems, public goods like childcare, education, social services, and unemployment benefits are equally distributed through a welfare system in which social rights are secured by national laws on an individual level regardless of the place of residence. Universal welfare goods are guaranteed regardless of municipality size. As an example of this so-called “Spatial Keynesianism,” a government increase in spending on unemployment benefits, when unemployment is distributed unevenly between regions, would cause the channeling of resources from richer regions to lagging regions. More than just a social stabilizer, the welfare state is also a regional stabilizer (Armstrong & Taylor, 2000) that provides spatial redistribution as well as social redistribution.

Compared with the massive weight of urbanization and the welfare state, the overall regional policy is relatively feeble. Small, more general measures seem to be of little effect. There are, however, some more specific policies that build around some clusters (Porter, 1998, 2000), knowledge hubs, or smart specialization policies (Foray et al., 2009; McCann & Ortega-Argilés, 2011) that could have some claim to being a success.

Perhaps regional policies should be seen as a *political* tool more than an *economic* tool for development. They offer a means to provide a visible and specific solution to the periphery being subject to the center. Even though, at least in the case of Norway, there is a spatial dimension regarding political trust, the difference is relatively small. Until this is further studied, this is at least in theory something that regional policies could claim credit for.

## **6.4 Further Development in Northern Norway**

### **6.4.1 Northern Norway—Still a Periphery?**

The center–periphery tension is an underlying current in Norwegian politics and society. While it may have been written-off on numerous occasions, it continues to pop up at regular intervals. In Northern Norway, it has been activated in the referendums about EU membership, but also more recently when central authorities

rejected the bid for the Winter Olympics in Northern Norway (2004 and 2008) and in the restructuring of the municipalities and especially the county of Finnmark (2017). The success of the Center Party (despite its name, it is a political party actually mobilizing *for* the periphery *against* the center) in Norway in general, but specifically in Northern Norway in the two recent elections (2015 and 2017), could be an indicator of discontentment among a growing number of people living in peripheral regions with policies perceived as disadvantageous for the periphery. Opinion polls carried out in connection with the 2019 local elections indicate the continued growth of the Center Party, some polls suggesting that they will become the largest party for the first time in Northern Norway.<sup>13</sup>

It is difficult to say whether Northern Norway still *is* a peripheral area. It is not evident that young people living in larger urban areas consider themselves as representatives of the periphery. As seen in Paper II, although there are differences in trust in politicians, the differences are not insurmountable. What is clear is that the center–periphery *tension* is something that can be mobilized by political actors. How it resonates with those in the periphery may be subject to other factors. The responsiveness of central national actors may also be important for explaining if the tensions escalate or not.

#### **6.4.2 Why Not Change Policies?**

If regional policies have not worked especially well, why is there so little debate about them in Northern Norway? A major explanation could be state dependency theory, where regional actors are locked in one perspective and have little flexibility to re-think their options (Eriksen, 1996).

For national actors, the policy of the regionally differentiated payroll tax on employees seems to offer the perfect example of a political compromise that characterizes European multiparty systems (Laver & Schofield, 1998). When political issues or the

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<sup>13</sup> <https://www.nordlys.no/politikk/arbeiderpartiet/senterpartiet/fersk-nordlys-maling-viser-et-politisk-jordskjelvsom-gar-gjennom-hele-nord-norge/s/5-34-1166294>

political system become too polarized, it is difficult to reach political compromises (Gutmann & Thompson, 2010). For both major parties (Conservative and Labor), the cleavage between center and periphery cuts through their party and is a political issue that they would benefit from getting less politically polarized. Regional tax cut for enterprises are something that the Conservative Party, generally skeptical of increasing public expenses, could accept, since they generally argue for cutting taxes for business. For its part, Labor has offered a specific policy response to voices from mobilized peripheries. In the aftermath of the 1972 referendum on EU membership, Labor suffered major losses in the subsequent election in 1973; something that was explained by the cross-fire in which Labor Party voters in Northern Norway in particular found themselves (Hellevik, 1973). The losses were much smaller in the subsequent elections after and before the 1994 referendum. This possibly indicates that the strategy to contain the center–periphery framework has succeeded. The combination of a slightly more lenient approach to Labor Party members voting “no” compared to 1972 and the much more expansive regional policies seem to have protected the support of Labor.

A recurring theme in this thesis has been the motivations behind regional policies. If regional policies are primarily aimed at curbing the tension between center and periphery, at least they could claim partial success in Northern Norway. It is not so easy to find good policies that actually manage to change the larger global trend of urbanization. The national political compromise about a regionally differentiated payroll tax on employees combined with some direct transfers (*Nord-Norge tilskot*) to municipalities and individuals might be a well-functioning solution, at least for national actors.

## 7 Conclusion

### 7.1 Main Concluding Remarks

The aims of this study could be divided into three different but interconnected projects. The thesis title *What Happened in Northern Norway?* connected the theoretical, empirical, and methodological dimensions of the project. The theoretical dimension aimed at exploring the relevance of Rokkan's concept of the territorial dimension of politics between the center and periphery in Northern Norway, but also in other parts of the general political science literature concerning political trust and regional policies. As seen in Paper II, Rokkan's theories regarding the center–periphery relationship could add knowledge about explanatory factors for variations in political trust, generally measured as the *distance from the capital*. As regards regional policies, the Rokkanian framework could help to explain the motivations behind them. Combined with Rokkan, state dependency (Eriksen) could lead to a pitfall for regional policies. The Broxian assumptions about a special path for Northern Norway seem to hold much less explanatory power about what actually happened in the region. Ideas about certain geographical characteristics, smaller municipalities, and liberty from supranational control did not appear to lessen the depopulation of peripheral areas in Northern Norway compared to Northern Sweden.

The thesis has also focused on finding new knowledge about the development in Northern Norway since the 1950s on the individual, municipal, and regional levels. This thesis adds several new findings about Northern Norway. First, no earlier studies have explored political trust in Northern Norway compared to the rest of the country. This thesis finds it to be lower in national and local politicians alike. Second, the longitudinal demographic comparison with Northern Sweden also added new knowledge, and the development is much more similar than many people think. Third, the role of the universities has been explored as a single-case study but not as a systemic factor for explaining positive municipal development (Papers I and III). Fourth, the local effects of the relocation of state employees had not been explored in the Norwegian case. Since there are relatively few studies internationally, the findings



of a very limited local effect add to the general literature on the relocation of state employees as a tool for local growth.

The methodological aim of the study was to demonstrate the benefits of quantitative, longitudinal, spatial, and multilevel methods in social sciences by using the quantitative tools to study a region that has mainly been studied qualitatively. Especially the comparative study between Northern Norway and Northern Sweden (Paper I) casts light on the pertinence of longitudinal tools for exploring social issues. A cross-sectional analysis of the two countries would wrongly have concluded that the demographic development had been more positive in Northern Norway than in Northern Sweden due to the implementation of a set of specific regional policies for Northern Norway.

Multilevel modeling allows for a much more nuanced exploration of competing explanatory theories. All of the papers in this thesis show how quantitative tools can be extremely useful for finding new knowledge about societal and political issues. Hopefully, more studies concerning Northern Norway and other regions will reveal the benefits of quantitative methods for new findings. A final contribution from this thesis is also the open science approach featuring tools and approaches that other researchers could use in their endeavors.

## **7.2 Implications**

The thesis has implications for both the general literature and for regional policies. It has shown that the central–periphery framework still holds substantial explanatory power for explaining policies and other political outcomes. It is a tension that should not be underestimated by national or regional actors. Elaborating policies that could mend this tension should be of interest for many actors. Factors like demographic and economic growth, which tend to be correlated, are often the goal for these types of policies. Based on the findings in this thesis, one might ask if the current policies for regional development in Northern Norway are meeting their declared objectives.

Regional actors should invest time in re-thinking regional policies. They should ask themselves if general tax breaks for companies or people (as in the case of Finnmark) are the best way forward. Some of the resources spent on these tax breaks could instead be invested in attractive welfare arrangements (e.g. free childcare and after-school programs), region-specific investment funds, and/or major infrastructure investment. Regardless of which side of the political spectrum actors are speaking from, there are sufficient grounds for re-thinking the regional development in Northern Norway.

Discussion of the relocation of state employees should also consider the relatively limited impact that the number of state employees has on local growth and development. Policymakers should have thorough relocation plans that demonstrate how the specific relocation or creation of state jobs could interact with other parts of the local community to stimulate local growth and development based on a strategy supported by thought-through, place-sensitive policies (Iammarino et al., 2018; Rodríguez-Pose & Ketterer, 2019)

Another important implication from this paper is the importance of higher education for regional development. The theoretical and empirical findings supporting the relevance of institutions hosting research and higher education for regional growth are significant. In the modern political era, policymakers somehow seem to omit the spatial dimension of higher education. Research funding is increasingly being channeled through national and European bodies. While this has many obvious advantages in terms of research quality, it is also important for national policymakers to remember that higher education serves goals other than research alone. Universities and university city colleges were established in Northern Norway and Northern Sweden, highly motivated by regional factors. As seen in this thesis, this has probably been the most successful regional policy measured in terms of impact on regional development, even though it is a policy that is not located in the Ministry for Regional Development.

Globalization has marginalized many regions within the developed world and has concentrated economic and political power. Many of the votes cast for Brexit and Donald Trump have been understood as an expression of anger at systems that seem rigged (e.g. Evans & Tilley, 2017; Lee, Morris, & Kemeny, 2018; Rodríguez-Pose, 2018). Unless policymakers grapple seriously with the problem of regional development, the fury of such voters will only increase. This center–periphery tension is by no means a new phenomenon, but it is something that regional and national actors must continually work on.

### **7.3 Limitations and Future Studies**

As mentioned in the Introduction, I have made some choices as to which aspects of regional development have been in focus in this thesis. Thus, there is a myriad of other aspects of regional development that have *not* been treated in this thesis. I could have chosen other economic factors as the dependent variable (in Paper III), but at least all of the models have been run with demographic changes as the dependent variable and produced similar results.

Working with this thesis, I've become increasingly fascinated by time as a factor in social and political studies. I sincerely regret that there is so little data on political trust before 2013. This obviously limits my study, and I would have loved to have those rich sources of data going back 20–30 years or even longer to have a broader foundation upon which to analyze the effects of regional policies.

That said, these types of data will be available for social researchers in the future. An obvious extension of this thesis would be to examine political trust in Northern Norway in the years to come. As mentioned in Chapter 6, the consequences of the peripheral revolt in Finnmark (2017–2018) against the merger between the Troms and Finnmark counties will be extremely interesting to analyze quantitatively. What are the electoral changes in 2017, 2019, and 2021? And will the relative political trust decline further in both national and local politicians?

Finally, this is a quantitative study, with all its advantages and limitations. Done properly, qualitative and quantitative research share the same “logic of inference” (King, Keohane, & Verba, 1994) and could often be complementary (George & Bennett, 2005). Aiming for that which Tarrow (1995) refers to as putting “qualitative flesh on quantitative bone,” Abadie, Diamond, and Hainmueller (2015) argue that their synthetic control method provides the qualitative researcher with a quantitative tool to select or validate comparison units. Based on a donor pool of comparable regions and cases, Abadie et al. (2015) use statistical inferential techniques to construct a synthetic version of the unit of study based on a weighted average of most similar cases, chosen by statistical data. In this thesis, this could have been done by a pool of regions, which could then be compared to Northern Norway. In such a study, Northern Sweden would probably be attributed important weight but would not be the only similar region to construct a “synthetic Northern Norway” to evaluate the effects of regional policies. It would have been a useful and complementary study.

Applying a mixed-methodological approach could yield an interesting analysis for qualitatively oriented social scholars. Data from this thesis could be used to select cases for in-depth studies. For example, Hammerfest Municipality is characterized by a high average level of trust in politicians, especially local politicians. Why is the trust so much higher in Hammerfest than in a similar-sized municipality, like Lenvik? An interesting single-case study in terms of population growth is the relative success of Sortland, a growing municipality in the north without higher education institutions. Are there any lessons to be drawn from Sortland?

By its very nature, research is ultimately an incremental process. In that respect, this thesis is merely another step; an attempt at adding a little more knowledge about what happened from 1950 to 2015 in Northern Norway.

## References

- Aardal, B. (1994). Hva er en politisk skillelinje? En begrepsmessig grenseoppgang. *Tidsskrift for samfunnsforskning*, 35(2), 218-249.
- Aardal, B. (2017). 60 år med valgforskning—hva har vi lært? *Norsk statsvitenskapelig tidsskrift*, 33(03-04), 292-311.
- Abadie, A., Diamond, A., & Hainmueller, J. (2015). Comparative politics and the synthetic control method. *American Journal of Political Science*, 59(2), 495-510.
- Acemoglu, D., Johnson, S., & Robinson, J. A. (2005). Institutions as a fundamental cause of long-run growth. *Handbook of economic growth*, 1, 385-472.
- Acemoglu, D., & Robinson, J. A. (2013). *Why nations fail: The origins of power, prosperity, and poverty*. New York: Broadway Business.
- Aghion, P., Howitt, P., Howitt, P. W., Brant-Collett, M., & García-Peñalosa, C. (1998). *Endogenous growth theory*. Boston: MIT press.
- Akaike, H. (1974). A new look at the statistical model identification. *IEEE transactions on automatic control*, 19(6), 716-723.
- Almond, G. A., & Verba, S. (2015). *The civic culture: Political attitudes and democracy in five nations*. Princeton: Princeton university press.
- Anckar, C. (2008). On the Applicability of the Most Similar Systems Design and the Most Different Systems Design in Comparative Research. *International Journal of Social Research Methodology*, 11(5), 389-401. doi:10.1080/13645570701401552
- Andersen, R., & Fetner, T. (2008). Economic inequality and intolerance: Attitudes toward homosexuality in 35 democracies. *American Journal of Political Science*, 52(4), 942-958.
- Anderson, C. J., & Singer, M. M. (2008). The sensitive left and the impervious right: multilevel models and the politics of inequality, ideology, and legitimacy in Europe. *Comparative political studies*, 41(4-5), 564-599.
- Andersson, R. (2005). The efficiency of Swedish regional policy. *The Annals of Regional Science*, 39(4), 811-832. doi:10.1007/s00168-005-0024-8
- Arbeidsdepartementet. (2003). *St.meld. nr. 17 (2002-2003) Om statlige tilsyn*. Retrieved from <https://www.regjeringen.no/no/dokumenter/stmeld-nr-17-2002-2003-/id134860/>
- Arbo, P. (2011). Universitetet som regional utviklingsaktør. In S. Jentoft, J.-I. Nergård, & K. A. Røvik (Eds.), *Hvor går Nord-Norge? Tidssbilder fra en landsdel i forandring*. Stamsund: Orkana Akademisk.
- Arbo, P., & Hersoug, B. (2010). *Oljevirkosomhetens inntog i nord: næringsutvikling, politikk og samfunn*. Oslo: Gyldendal akademisk.
- Armstrong, H., & Taylor, J. (2000). *Regional Economics and Policy (3rd edition)*. Oxford: Blackwell.
- Arzheimer, K. (2009). Contextual factors and the extreme right vote in Western Europe, 1980–2002. *American Journal of Political Science*, 53(2), 259-275.
- Bakka, P. H. (1996). Elements in a Theory of State - Building: An Inquiry into the Structural Preconditions for Successful State - Building in Europe. *Scandinavian Political Studies*, 19(4), 293-308.
- Banks, G. C., O'Boyle Jr, E. H., Pollack, J. M., White, C. D., Batchelor, J. H., Whelpley, C. E., . . . Adkins, C. L. (2016). Questions about questionable research practices in the field of management: A guest commentary. *Journal of Management*, 42(1), 5-20.
- Beckett, S. (2013). *Introduction to time series using Stata*: Stata Press College Station, TX.
- Begg, I., Moore, B., & Rhodes, J. (1986). Economic and social change in urban Britain and the inner cities. *Critical issues in urban economic development*, 1, 10-49.

- Benneworth, P., & Nieth, L. (2018). The persistent problems of universities' contributions to regional development. *RSA Regions*(1). Retrieved from <https://regions.regionalstudies.org/ezone/article/the-persistent-problems-of-universities-contributions-to-regional-development-2/>
- Berger, G., & Duguet, P. (1982). *The University and the Community: The Problems of Changing Relationships*. Paris: ERIC.
- Berntzen, E., & Selle, P. (1990). Structure and social action in Stein Rokkan's work. *Journal of theoretical politics*, 2(2), 131-149.
- Berntzen, E., & Selle, P. (1992). Values count but institutions decide: the Stein Rokkan approach in comparative political sociology. *Scandinavian Political Studies*, 15(4), 289-306.
- Berry, W. D., & Lewis-Beck, M. S. (1986). *New tools for social scientists: Advances and applications in research methods*. London: Sage Publications, Inc.
- Bertrand, M., & Mullainathan, S. (2001). Do people mean what they say? Implications for subjective survey data. *American Economic Review*, 91(2), 67-72.
- Billings, S. (2009). Do enterprise zones work? An analysis at the borders. *Public Finance Review*, 37(1), 68-93.
- Bivand, R. S., Pebesma, E. J., Gomez-Rubio, V., & Pebesma, E. J. (2008). *Applied spatial data analysis with R* (Vol. 747248717). Berlin: Springer.
- Bloch, M. (1954). *The historian's craft*. Manchester: Manchester University Press.
- Bloch, M., & Fossier, R. (1968). *La société féodale* (Vol. 7). Paris: Albin Michel.
- Boserup, E. (1981). *Population and technological change: A study of long-term trends*. Chicago: Chicago University Press.
- Box, G. E., Jenkins, G. M., Reinsel, G. C., & Ljung, G. M. (2015). *Time series analysis: forecasting and control*. Hoboken: John Wiley & Sons.
- Brandal, N., Bratberg, Ø., & Thorsen, D. (2013). *The Nordic model of social democracy*. Berlin: Springer.
- Braudel, F. (1958). *Histoire et sciences sociales: la longue durée*. Paper presented at the Annales. Histoire, Sciences Sociales.
- Brox, O. (1966). *Hva skjer i Nord-Norge?* Oslo: Pax Forl.
- Brox, O. (1984). *Nord-Norge: Fra allmenning til koloni*. Oslo: Universitetsforlaget.
- Brox, O. (1989). EF - kamp på nytt grunnlag. In R. Berg (Ed.), ... *og atter nei? : Norge og EF* (pp. 152-159). Oslo: Pax.
- Brox, O. (2004). *Hvorfor nei?* Oslo: Oslo nei til EU.
- Brox, O. (2006). *The political economy of rural development: modernisation without centralisation? : Eburon Uitgeverij BV*.
- Brox, O. (2007). Nord-Norges bygder – er de liv laga? *Plan*, 39(2), 28-35. Retrieved from <http://www.idunn.no/plan/2007/02/nord-norges-bygder-er-de-liv-laga>
- Buck, M. (2006). *Transition from authoritarian rule and democratic consolidation: The electoral nexus. An ecological study of the Spanish general elections 1977-2000*. (PhD PhD). UiT, Tromsø. Retrieved from <https://hdl.handle.net/10037/287>
- Buck, M. (2013). Politisk mobilisering i Nord-Norge 1945-2009: En demokratisk periferi? In S. Jentoft, J.-I. Nergård, & K. A. Røvik (Eds.), *Hvor går Nord-Norge?* (Vol. 3, pp. 155-168). Stamsund: Orkana Akademisk.
- Buck, M., Haugen, K. H., Stein, J., & Svalestuen, S. (2018). Oppslutningen om Ap, H, Sp og FrP ved sametingsvalg sammenliknet med stortingsvalg 1989–2017: Er det nasjonale valgvinger eller samepolitikken som teller? In K. Johnsen (Ed.), *Samiske tall forteller 11 - Kommentert samisk statistikk 2018* (pp. 16-43). Kautokeino: Sametinget.
- Caramani, D. (2004). *The nationalization of politics: The formation of national electorates and party systems in Western Europe*. Cambridge: Cambridge University Press.

- Chatfield, C. (2016). *The analysis of time series: an introduction*. Boca Ranton: CRC press.
- Clark, G. L. (1984). A theory of local autonomy. *Annals of the Association of American Geographers*, 74(2), 195-208.
- Collier, P. (2008). *The bottom billion: Why the poorest countries are failing and what can be done about it*. Oxford: Oxford University Press.
- Cooke, P., Clifton, N., & Oleaga, M. (2005). Social capital, firm embeddedness and regional development. *Regional studies*, 39(8), 1065-1077.
- Cruikshank, J. (2006). Protest against centralisation in Norway: The evolution of the goal for maintaining a dispersed settlement pattern. *Norsk Geografisk Tidsskrift - Norwegian Journal of Geography*, 60(3), 179-188. doi:10.1080/00291950600889954
- Dalton, R. J. (2005). The social transformation of trust in government. *International Review of Sociology*, 15(1), 133-154.
- Delhey, J., & Newton, K. (2005). Predicting cross-national levels of social trust: global pattern or Nordic exceptionalism? *European Sociological Review*, 21(4), 311-327.
- Denters, B. (2002). Size and political trust: evidence from Denmark, the Netherlands, Norway, and the United Kingdom. *Environment and Planning C: Government and Policy*, 20(6), 793-812.
- Denters, B., Gabriel, O., & Torcal, M. (2007). Political confidence in representative democracies. In J. W. Van Deth, J. R. Montero, & A. Westholm (Eds.), *Citizenship and involvement in European democracies. A comparative analysis* (pp. 66-87). New York: Routledge.
- Difi. (2015). *Innbyggerundersøkelsen* [Survey]. Retrieved from: <https://www.difi.no/rapporter-og-statistikk/undersokelser/innbyggerundersokelsen-2015>
- Drivenes, E.-A., Hauan, M., & Wold, H. A. (1994). *Nordnorsk kulturhistorie: Det gjenstridige landet* (Vol. 1). Oslo: Gyldendal.
- Drucker, J., & Goldstein, H. (2007). Assessing the regional economic development impacts of universities: A review of current approaches. *International regional science review*, 30(1), 20-46.
- Duncan, C., Jones, K., & Moon, G. (1998). Context, composition and heterogeneity: using multilevel models in health research. *Social science medicine*, 46(1), 97-117.
- Eckstein, H. (2000). Case study and theory in political science. In M. Hammersley, P. Floster, & R. Gomm (Eds.), *Case study method* (pp. 119-164). London: Sage.
- Eckstein, H. (2015). *Division and cohesion in democracy: A study of Norway*. Princeton: Princeton University Press.
- Egeberg, M., & Trondal, J. (2011). Agencification and location: Does agency site matter? *Public Organization Review*, 11(2), 97-108.
- Eggan, F. (1954). Social anthropology and the method of controlled comparison. *American Anthropologist*, 56(5), 743-763.
- Eilertsen, J. H. (2005). *Polare scener: nordnorsk teaterhistorie: fra 1971-2000*. Stamsund: Orkana.
- Elenius, L., Tjelmeland, H., Lähteenmäki, M., & Golubev, A. (2015). *The Barents Region: A Transnational History of Subarctic Northern Europe*. Oslo: Pax Forlag.
- Ellingsen, M.-B. (2015). *The Trust Paradox An inquiry into the core of social life*. University of Tromsø, Tromsø.
- Eriksen, E. O. (1996). Det nye Nord-Norge: Avhengighet og modernisering i nord. In E. O. Eriksen (Ed.), *Avhengighet og modernisering i nord* (pp. 150-180). Bergen: Fagbokforlaget.

- Eriksson, R. H., & Forslund, F. (2014). How do universities contribute to employment growth? The role of human capital and knowledge bases. *European Planning Studies*, 22(12), 2584-2604.
- Etzkowitz, H. (2008). *The triple helix: university-industry-government innovation in action*. London: Routledge.
- Evans, G., & Tilley, J. (2017). *The new politics of class: The political exclusion of the British working class*. Oxford: Oxford University Press.
- Faggio, G. (2019). Relocation of public sector workers: Evaluating a place-based policy. *Journal of Urban Economics*, 111, 53-75.
- Faggio, G., & Overman, H. (2014). The effect of public sector employment on local labour markets. *Journal of Urban Economics*, 79, 91-107.
- Febvre, L., & Martin, H.-J. (1976). *The coming of the book: the impact of printing 1450-1800* (Vol. 10). Brooklyn: Verso.
- Fecher, B., & Friesike, S. (2014). Open science: one term, five schools of thought. In *Opening science* (pp. 17-47). London: Springer.
- Finnmark, F. (2018). *Resultater av folkeavstemning mai 2018*. Retrieved from [https://www.ffk.no/\\_f/p10/i11b1992b-c546-494f-9d23-c53c75060dd0/resultat-folkeavstemning-1.pdf](https://www.ffk.no/_f/p10/i11b1992b-c546-494f-9d23-c53c75060dd0/resultat-folkeavstemning-1.pdf)
- Fiva, J. H., Halse, A., & Natvik, G. J. (2012). Local government dataset. *Dataset available from esop. uio. no*.
- Fleming, D. K. (1967). Coastal steelworks in the Common Market countries. *Geographical Review*, 48-72.
- Florida, R. (2005). *Cities and the creative class*. Brooklyn: Routledge.
- Fløgstad, K. (2008). Her er Norges viktigste sakprosabok. *Dagbladet*. Retrieved from <https://www.dagbladet.no/kultur/her-er-norges-viktigste-sakprosabok/66505484>
- Foray, D., David, P. A., & Hall, B. (2009). Smart specialisation—the concept. *Knowledge economists policy brief*, 9(85), 100.
- Fornyingsdepartementet. (2009). *Evaluering av utflytting av statlig virksomhet*. Retrieved from <https://www.regjeringen.no/no/dokumenter/evaluering-av-utflytting-av-statlig-virk/id566795/>
- Frick, S. A., Rodriguez-Pose, A., & Wong, M. D. (2019). Toward Economically Dynamic Special Economic Zones in Emerging Countries. *Economic geography*, 95(1), 30-64. doi:10.1080/00130095.2018.1467732
- Friedman, T. L. (2005). *The world is flat: A brief history of the twenty-first century*. London: Macmillan.
- Fulsås, N. (1993). *Universitetet i Tromsø 25 år*. Tromsø: Universitetet i Tromsø.
- Geddes, M. (2000). Tackling social exclusion in the European Union? The limits to the new orthodoxy of local partnership. *International journal of urban and regional research*, 24(4), 782-800.
- Gelman, A., & Hill, J. (2006). *Data analysis using regression and multilevel/hierarchical models*. Cambridge: Cambridge university press.
- George, A. L., & Bennett, A. (2005). *Case studies and theory development in the social sciences*. Cambridge MA: MIT Press.
- Gilardi, F. (2010). Who learns from what in policy diffusion processes? *American Journal of Political Science*, 54(3), 650-666.
- Goddard, J., & Chatterton, P. (1999). Regional Development Agencies and the knowledge economy: harnessing the potential of universities. *Environment and Planning C: Government and Policy*, 17(6), 685-699.
- Goldsmith, M., & Page, E. (1987). *Central and local government relations: a comparative analysis of West European unitary states*: Sage London.



- Grønaas, O., Halvorsen, J., & Torgersen, L. (1948). *Problemet Nord-Norge*. Oslo: Studieselskapet for nordnorsk næringsliv.
- Gunneriussen, W. (1984). *Polemikk om "kokfisk"* (08011931). Retrieved from Tromsø:
- Gutmann, A., & Thompson, D. (2010). The Mindsets of Political Compromise. *Perspectives on Politics*, 8(4), 1125-1143. doi:10.1017/S1537592710003270
- Hansen, J. C. (1983). *Bosettingsmønsteret i utkant: Stabilt eller dynamisk?* Bergen: Geografisk Inst. ved Norges Handelshøyskole og Univ. i Bergen.
- Hardin, R. (2013). Government without trust. *Journal of Trust Research*, 3(1), 32-52. doi:10.1080/21515581.2013.771502
- Hellevik, O. (1973). *Endring i Standpunkt til norsk EF-medlemskap: Betydningen av nærmiljø og politisk parti analysert ved hjelp av en krysspress modell*. Oslo: UiO.
- Hendin, H. (1964). *Suicide and Scandinavia*. New York: Grune & Stratum.
- Hersoug, B., & Leonardsen, D. (1979). *Bygger de landet*. Oslo: Pax forlag.
- Hervik, A., & Rye, M. (2003). *An empirical and theoretical perspective on regional differentiated payroll taxes in Norway*. Retrieved from
- Hetherington, M. J. (1998). The political relevance of political trust. *American Political Science Review*, 92(4), 791-808.
- Hirschman, A. (1970). *Exit, voice, and loyalty*. Cambridge, MA: Harvard University Press.
- Hobsbawm, E., & Ranger, T. (2012). *The invention of tradition*. Cambridge: Cambridge University Press.
- Holm, P., Raakjær, J., Jacobsen, R. B., & Henriksen, E. (2015). Contesting the social contracts underpinning fisheries—lessons from Norway, Iceland and Greenland. *Marine Policy*, 55, 64-72.
- Holt, R. T., & Turner, J. E. (1970). *The Methodology of Comparative Research: Ed. By Robert T. Holt and John E. Turner*. New York: Free Press.
- Hooghe, L., & Marks, G. (2004). Does identity or economic rationality drive public opinion on European integration? *PS: Political Science & Politics*, 37(3), 415-420.
- Hooghe, M., Marien, S., & de Vroome, T. (2012). The cognitive basis of trust. The relation between education, cognitive ability, and generalized and political trust. *Intelligence*, 40(6), 604-613.
- Hooghe, M., Reeskens, T., Stolle, D., & Trappers, A. (2009). Ethnic diversity and generalized trust in Europe: A cross-national multilevel study. *Comparative political studies*, 42(2), 198-223.
- Iammarino, S., Rodriguez-Pose, A., & Storper, M. (2018). Regional inequality in Europe: evidence, theory and policy implications. *Journal of Economic Geography*, 19(2), 273-298. doi:10.1093/jeg/lby021
- Inglehart, R. (1997). *Modernization and postmodernization: Cultural, economic, and political change in 43 societies*. Princeton: Princeton University Press.
- Innis, H. A. (2008). *The bias of communication*. Toronto: University of Toronto Press.
- Ioannidis, J. P., Munafo, M. R., Fusar-Poli, P., Nosek, B. A., & David, S. P. (2014). Publication and other reporting biases in cognitive sciences: detection, prevalence, and prevention. *Trends in cognitive sciences*, 18(5), 235-241.
- Iversen, T., & Rosenbluth, F. (2006). The political economy of gender: Explaining cross-national variation in the gender division of labor and the gender voting gap. *American Journal of Political Science*, 50(1), 1-19.
- Janoski, T., & Isaac, L. W. (1994). Introduction to time-series analysis. *The Comparative Political Economy of the Welfare State*, 31-53.
- Jenssen, A. T., & Valen, H. (1995). *Brussel midt imot: folkeavstemningen om EU*. Oslo: Ad Notam Gyldendal.

- John, L. K., Loewenstein, G., & Prelec, D. (2012). Measuring the prevalence of questionable research practices with incentives for truth telling. *Psychological science*, 23(5), 524-532.
- Keating, M. (2018). Time, space and methodological pluralism. *Territory, Politics, Governance*, 6(3), 277-278. doi:10.1080/21622671.2018.1488459
- Keating, M., Loughlin, J., & Deschouwer, K. (2003). *Culture, institutions and economic development: a study of eight European regions*. Cheltenham: Edward Elgar Publishing.
- Kershaw, I. (2015). *The Nazi dictatorship: Problems and perspectives of interpretation*. London: Bloomsbury Publishing.
- Kiland, C., & Trondal, J. (2010). Byråkrati og geografi–Geografisk relokalisering av norsk sentralforvaltning. *Norsk statsvitenskapelig tidsskrift*, 25(04), 331-355.
- King, G. (2007). An introduction to the Dataverse Network as an infrastructure for data sharing. *Sociological Methods & Research*, 36(2), 173-199.
- King, G., Keohane, R. O., & Verba, S. (1994). *Designing social inquiry: Scientific inference in qualitative research*. Princeton: Princeton university press.
- Kjeldstadli, K. (1988). Nytt av å sammenlikne. *Tidsskrift for samfunnsforskning*, 29(5), 435-448.
- Kjellberg, F. (1988). Local government and the welfare state: Reorganization in Scandinavia. In B. Dente & F. Kjellberg (Eds.), *The Dynamics of Institutional Change. Local Government Reorganisation in Western Democracies*. London: Sage Publications.
- Klingemann, H.-D. (1999). Mapping political support in the 1990s: A global analysis. In P. Norris (Ed.), *Critical citizens: Global support for democratic government* (pp. 31-56). Oxford: Oxford University Press.
- Kommunaldepartementet. (2017). *Meld. St. 18 (2016–2017) Berekraftige byar og sterke distrikt - Vedlegg*. Retrieved from <https://www.regjeringen.no/no/dokumenter/meld.-st.-18-20162017/id2539348/>
- Laver, M., & Schofield, N. (1998). *Multiparty government: The politics of coalition in Europe*. Michigan: University of Michigan Press.
- Lazarsfeld, P. F., Berelson, B., & Gaudet, H. (1944). *The people's choice: How the voter makes up his mind in a presidential campaign*. New York: Columbia University Press.
- Lee, N., Morris, K., & Kemeny, T. (2018). Immobility and the Brexit vote. *Cambridge Journal of Regions, Economy and Society*, 11(1), 143-163.
- Leydesdorff, L. (2012a). The Triple Helix of University-Industry-Government Relations. In E. Carayannis & D. Campbell (Eds.), *Encyclopedia of Creativity, Innovation, and Entrepreneurship* (pp. 125-138). New York: Springer.
- Leydesdorff, L. (2012b). The triple helix, quadruple helix, . . . , and an N-tuple of helices: explanatory models for analyzing the knowledge-based economy? *Journal of the Knowledge Economy*, 3(1), 25-35.
- Lijphart, A. (1971). Comparative politics and the comparative method. *American Political Science Review*, 65(3), 682-693.
- Lijphart, A. (1975). II. The comparable-cases strategy in comparative research. *Comparative political studies*, 8(2), 158-177.
- Lipset, S., & Rokkan, S. (1967). *Cleavage structures, party systems, and voter alignments: an introduction*. New York: Free Press.
- Lipset, S., & Schneider, W. (1983). The decline of confidence in American institutions. *Political Science Quarterly*, 98(3), 379-402.
- Listhaug, O. (1995). The dynamics of trust in politicians. In H.-D. Klingemann & D. Fuchs (Eds.), *Citizens and the state* (pp. 261-297). Oxford: Oxford University Press.
- Luke, D. A. (2004). *Multilevel modeling* (Vol. 143). London: Sage.

- Lyons, S. M. (2004). *Well Placed to Deliver?: Shaping the Pattern of Government Service: Independent Review of Public Sector Relocation*. London: HM Stationery Office.
- Mack, A. (1975). Why big nations lose small wars: The politics of asymmetric conflict. *World politics*, 27(2), 175-200.
- Martin, R., & Sunley, P. (1998). Slow convergence? The new endogenous growth theory and regional development. *Economic geography*, 74(3), 201-227.
- Martinson, B. C., Anderson, M. S., & De Vries, R. (2005). Scientists behaving badly. *Nature*, 435(7043), 737.
- McCann, P., & Ortega-Argilés, R. (2011). Smart specialisation, regional growth and applications to EU cohesion policy. *IEB Working Paper 2011/14*.
- McNutt, M. (2014). Reproducibility. *science*, 343(6168), 229. doi:10.1126/science.1250475
- Midtbø, T. (2000). Et spørsmål om tid: Tidsserieanalyse som et verktøy i samfunnsvitenskapen. *Tidsskrift for samfunnsforskning*, 41(4), 58-84.
- Mill, J. S. (1893). *A system of logic, ratiocinative and inductive: Being a connected view of the principles of evidence and the methods of scientific investigation*. London: Harper & brothers.
- Miller, A. H., & Listhaug, O. (1990). Political parties and confidence in government: A comparison of Norway, Sweden and the United States. *British Journal of Political Science*, 20(3), 357-386.
- Mishler, W., & Rose, R. (2001). What are the origins of political trust? Testing institutional and cultural theories in post-communist societies. *Comparative political studies*, 34(1), 30-62.
- Mjøset, L. (1987). Stein Rokkan og den norske metodestriden. *Sociologisk Forskning*, 24(1), 12-25. Retrieved from <http://www.jstor.org/stable/20850842>
- Mohl, P., & Hagen, T. (2010). Do EU structural funds promote regional growth? New evidence from various panel data approaches. *Regional Science and Urban Economics*, 40(5), 353-365. doi:<https://doi.org/10.1016/j.regsciurbeco.2010.03.005>
- Moretti, E. (2010). Local Multipliers. *American Economic Review*, 100(2), 373-377. doi:doi:10.1257/aer.100.2.373
- Morgan, J. N., & Sonquist, J. A. (1963). Problems in the analysis of survey data, and a proposal. *Journal of the American statistical association*, 58(302), 415-434.
- Mouritzen, P. E. (1989). City size and citizens' satisfaction: two competing theories revisited. *European Journal of Political Research*, 17(6), 661-688.
- Neumark, D., & Kolko, J. (2010). Do enterprise zones create jobs? Evidence from California's enterprise zone program. *Journal of Urban Economics*, 68(1), 1-19.
- Newton, K., & Norris, P. (2000). Confidence in public institutions. In S. J. Pharr & R. D. Putnam (Eds.), *Disaffected democracies. What's troubling the trilateral countries*. Princeton: Princeton University Press.
- Nielsen, T. H. (1987). Hva skjedde i Nord-Norge? : Ottar Brox i samtale med Torben Hviid Nielsen. *Samtiden (trykt utg.)*, nr 5(1987), 36-42.
- Norris, P. (1999). *Critical citizens: Global support for democratic government*. Oxford: Oxford University Press.
- North, D. C. (1990). A transaction cost theory of politics. *Journal of theoretical politics*, 2(4), 355-367.
- Norway, G. o. (2016). *Tilskuddsbrev til fylkeskommuneen 2016 Programkategori 13.50 post 60*. Retrieved from <https://www.regjeringen.no/no/dokument/dep/kmd/tildelingsbrev/tilskotsbrev-fylkeskommunene-post-60-2016/id2470419/>
- Norway, G. o. (2017). *Grønt hefte - Inntektssystemet for kommuner og fylkeskommuner*. Retrieved from

[https://www.regjeringen.no/contentassets/57979690b3ef4486be00173573d7d93b/no/sved/h-2380\\_n\\_inntektssystemet\\_pdfits.pdf](https://www.regjeringen.no/contentassets/57979690b3ef4486be00173573d7d93b/no/sved/h-2380_n_inntektssystemet_pdfits.pdf)

- Nosek, B. A., Alter, G., Banks, G. C., Borsboom, D., Bowman, S. D., Breckler, S. J., . . . Christensen, G. (2015). Promoting an open research culture. *science*, 348(6242), 1422-1425.
- Nye, J. S., Zelikow, P., & King, D. C. (1997). *Why people don't trust government*. Cambridge, MA: Harvard University Press.
- O'Keefe, S. (2004). Job creation in California's enterprise zones: a comparison using a propensity score matching model. *Journal of Urban Economics*, 55(1), 131-150.
- O'Rourke, K. H., & Sinnott, R. (2006). The determinants of individual attitudes towards immigration. *European journal of political economy*, 22(4), 838-861.
- Oates, W. E. (1999). *Fiscal federalism*. Cheltenham: Edward Elgar Publishing.
- Olson, M. (2009). *The logic of collective action* (Vol. 124). Harvard: Harvard University Press.
- Olsson, B., & Wiberg, U. (2003). *Universitetet och den regionala utmaningen*. Nora: Bokförlaget nya Doxa.
- Osborne, D., & Gaebler, T. (1992). *Reinventing government: How the entrepreneurial spirit is transforming government*. Reading Mass.: Adison Wesley Public Comp.
- Parsons, T. (1963). On the concept of political power. *Proceedings of the American Philosophical Society*, 107(3), 232-262.
- Perroux, F. (1950). Economic space: theory and applications. *The Quarterly Journal of Economics*, 64(1), 89-104.
- Peters, A., & Fisher, P. (2004). The failures of economic development incentives. *Journal of the American Planning Association*, 70(1), 27-37.
- Petrella, R. (1978). *La renaissance des cultures régionales en Europe*. Paris: Editions Entente.
- Pharr, S. J., & Putnam, R. D. (2000). *Disaffected democracies: what's troubling the trilateral countries?* Princeton: Princeton University Press.
- Pike, A., Rodríguez-Pose, A., & Tomaney, J. (2007). What kind of local and regional development and for whom? *Regional studies*, 41(9), 1253-1269.
- Piketty, T. (2015). About capital in the twenty-first century. *American Economic Review*, 105(5), 48-53.
- Pinheiro, R., Benneworth, P., & Jones, G. A. (2012). *Universities and regional development: A critical assessment of tensions and contradictions*. London: Routledge.
- Porter, M. E. (1998). Clusters and the new economics of competition. *Harvard Business Review Boston*, 76(6).
- Porter, M. E. (2000). Location, competition, and economic development: Local clusters in a global economy. *Economic development quarterly*, 14(1), 15-34.
- Prillaman, S. A., & Meier, K. J. (2014). Taxes, incentives, and economic growth: Assessing the impact of pro-business taxes on US state economies. *The Journal of Politics*, 76(2), 364-379.
- Putnam, R. D. (2001). *Bowling alone: The collapse and revival of American community*. New York: Simon and Schuster.
- Rickard, S. J. (2018). *Spending to win: Political institutions, economic geography, and government subsidies*. Cambridge: Cambridge University Press.
- Rodríguez-Pose, A. (2013). Do Institutions Matter for Regional Development? *Regional studies*, 47(7), 1034-1047. doi:10.1080/00343404.2012.748978
- Rodríguez-Pose, A. (2018). The revenge of the places that don't matter (and what to do about it). *Cambridge Journal of Regions, Economy and Society*, 11(1), 189-209.

- Rodríguez-Pose, A., & Ketterer, T. (2019). Institutional change and the development of lagging regions in Europe. *Regional studies*, 1-13.  
doi:10.1080/00343404.2019.1608356
- Rokkan, S. (1958). *Valgundersøkelsen 1957. Kapitteloversikt for det norske fellesbind: 2, utkast.* . Retrieved from Bergen:
- Rokkan, S. (1967). Geography, religion, and social class: Crosscutting cleavages in Norwegian politics. In S. Lipset & S. Rokkan (Eds.), *Cleavage Structures, Party Systems, and Voter Alignments: An Introduction* (pp. 379-386). New York: Free Press.
- Rokkan, S. (1987a). *Centre-periphery structures in Europe: An ISSC workbook in comparative analysis*. Frankfurt Am Main: Campus Verlag.
- Rokkan, S. (1987b). Sentrum og periferi, økonomi og kultur: Modeller og data i kliometrisk sosiologi. In S. Rokkan (Ed.), *Stat, nasjon, klasse. Essays i politisk sosiologi*. Oslo: Universitetsforlaget.
- Rokkan, S. (1987c). *Stat, nasjon, klasse*. Oslo: Universitetsforlaget.
- Rokkan, S. (1999). *State formation, nation-building, and mass politics in Europe: the theory of Stein Rokkan: based on his collected works*. Oxford: Clarendon Press.
- Rokkan, S. (2009). *Citizens, elections, parties: Approaches to the comparative study of the processes of development*. London: ECPR Press.
- Rokkan, S., & Urwin, D. W. (1983). *Economy, territory, identity: Politics of West European peripheries*. London: Sage Publications.
- Rokkan, S., & Valen, H. (1964). *Regional contrasts in Norwegian politics*. Bergen: Chr. Michelsens institutt.
- Rothstein, B. (2011). *The quality of government: Corruption, social trust, and inequality in international perspective*. Chicago: University of Chicago Press.
- Rothstein, B., & Teorell, J. A. (2008). What is quality of government? A theory of impartial government institutions. *Governance*, 21(2), 165-190.
- Rybalka, M., Benedictow, A., Cappelen Bjørn, E., Winger Eggen, F., Salte Flatval, V., Norberg-Schulz, M., . . . Vik, L. (2018). *Evaluation of the regionally differentiated social security contributions in Norway*.
- Røvik, K. A., Nergård, J.-I., & Jentoft, S. (2011). *Hvor går Nord-Norge?* Stamsund: Orkana akademisk.
- Røvik, K. A., Nergård, J.-I., & Jentoft, S. (2013). *Hvor går Nord-Norge? - Bind 3 Politiske tidslinjer*. Stamsund: Orkana akademisk.
- Saba, K. (2011). Koste hva det koste vil? Oppsummering av to relokaliseringsprosesser. In J. Trondal (Ed.), *Byråkrati og geografi : geografisk relokalisering av norsk sentraladministrasjon*. (pp. 27-58). Oslo: Universitetsforlaget.
- Sartori, G. (1990). The Sociology of Parties. In P. Mair (Ed.), *The west European party system*. Oxford: Oxford University Press.
- Scott, J. C. (2010). *The art of not being governed: An anarchist history of upland Southeast Asia*. Singapore: Nus Press.
- Seip, J. A. (1963). *Fra embedsmannsstat til ettpartistat og andre essays*. Oslo: Universitetsforlaget.
- Seip, J. A. (1975). Modellenes tyranni. *Studier i historisk metode*, 10, 1-10.
- Sharpe, L. J. (1988). Local government reorganization: general theory and UK practice. *The Dynamics of Institutional Change*, 89-129.
- Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. Oxford: Oxford University Press.
- Skocpol, T. (1979). *States and social revolutions: A comparative analysis of France, Russia and China*. Cambridge: Cambridge University Press.
- Slagstad, R. (1998). *De nasjonale strateger*. Oslo: Pax.

- Stegmueller, D. (2013). How many countries for multilevel modeling? A comparison of frequentist and Bayesian approaches. *American Journal of Political Science*, 57(3), 748-761.
- Stein, J. (2019a). The local impact of increased numbers of state employees on start-ups in Norway. *Norsk Geografisk Tidsskrift - Norwegian Journal of Geography*, 73(3), 156-167. doi:10.1080/00291951.2019.1644369
- Stein, J. (2019b). The Striking Similarities between Northern Norway and Northern Sweden. *Arctic Review on Law and Politics*, 10, 79-102. doi:10.23865/arctic.v10.1247
- Stein, J., Buck, M., & Bjorna, H. (2019). The Centre-Periphery Dimension and Trust in Politicians: The Case of Norway. *Territory, Politics, Governance*. doi:10.1080/21622671.2019.1624191
- Sternberg, R. (2000). Innovation networks and regional development—evidence from the European Regional Innovation Survey (ERIS): theoretical concepts, methodological approach, empirical basis and introduction to the theme issue. *European Planning Studies*, 8(4), 389-407.
- Strauss, A. L. (2017). *Mirrors and masks: The search for identity*. London: Routledge.
- Strøksnes, M. (2008, 30.07.). Nordlands profet. *Dagbladet*. Retrieved from <https://www.dagbladet.no/kultur/nordlands-profet/66504418>
- Stubhaug, A. (2019). *Stein Rokkan - fra periferien til sentrum*. Bergen: Vigmostad & Bjørke.
- Svalastoga, K. (1959). *Prestige, class, and mobility*. Stockholm: Scandinavian University Books.
- Svalestuen, S., Buck, M., Stein, J., & Haugen, K. H. (2017). Gator (Publication no. doi/10.18710/O2ZAPJ). from DataverseNO <http://dx.doi.org/10.18710/O2ZAPJ>
- Sætren, H. (1983). *Iverksetting av offentlig politikk: En studie av utflytting av statsinstitusjoner fra Oslo 1960-1981*. Oslo: Universitetsforlaget.
- Sætren, H. (2011). Fra ord til handling. In J. Trondal (Ed.), *Byråkrati og geografi : geografisk relokalisering av norsk sentraladministrasjon*. (pp. 27-58). Oslo: Universitetsforlaget.
- Tanur, J. M. (1992). *Questions about questions: Inquiries into the cognitive bases of surveys*. New York: Russell Sage Foundation.
- Tarrow, S. (1995). Bridging the quantitative-qualitative divide in political science. *American Political Science Review*, 89(2), 471-474.
- Taylor, P. J., & Johnston, R. J. (1979). *Geography of elections*. Abingdon-on-Thames: Croom Helm.
- Teigen, H. (2011). Distriktpolitikens historie: Frå nasjonal strategi til regional fragmentering? *Plan*, 43(06), 48-54. Retrieved from <http://www.idunn.no/plan/2011/06/art08>
- Teune, H., & Przeworski, A. (1970). *The logic of comparative social inquiry*. New York: Wiley-Interscience.
- Tiebout, C. M. (1956). A pure theory of local expenditures. *Journal of political economy*, 64(5), 416-424.
- Torcal, M. (2014). The decline of political trust in Spain and Portugal: economic performance or political responsiveness? *American Behavioral Scientist*, 58(12), 1542-1567.
- Torgersen, U. (1964). *Norske politiske institusjoner: En innføring i statsvitenskap*. oslo Universitetsforlaget.
- Trondal, J. (2011). *Byråkrati og geografi : geografisk relokalisering av norsk sentraladministrasjon*. Oslo: Universitetsforlaget.
- Turper, S., & Aarts, K. (2017). Political trust and sophistication: Taking measurement seriously. *Social indicators research*, 130(1), 415-434.
- Valen, H. (1956). Nominations for Storting Elections. *Statsøkonomisk Tidsskrift*, 70, 115-142.
- Valen, H. (1973). Norway: 'no' to EEC. *Scandinavian Political Studies*, 8(A8), 214-226.

- Van der Meer, T. W., Van Deth, J. W., & Scheepers, P. L. (2009). The politicized participant: Ideology and political action in 20 democracies. *Comparative political studies*, 42(11), 1426-1457.
- Van Ryzin, G. G. (2007). Pieces of a puzzle: Linking government performance, citizen satisfaction, and trust. *Public Performance & Management Review*, 30(4), 521-535.
- Ward, M. D., & Gleditsch, K. S. (2018). *Spatial regression models* (Vol. 155). London: Sage Publications.
- Wilson, J. (1989). *Bureaucracy: What government agencies do and why they do it*. New York: Basic Books.
- Wolman, H. (1990). Decentralization: what it is and why we should care. *Decentralization, Local Governments, and Markets*, 29-42.

## **Appendix**

All data analyses used in this paper is available for replication at

<https://github.com/TromsoJonas>





## Paper I

Jonas Stein (2019) *The Striking Similarities between Northern Norway and Northern Sweden*.  
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# The Striking Similarities between Northern Norway and Northern Sweden

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## Abstract

Contrary to the view held by many actors, this paper, by using a quantitative and longitudinal analysis in a comparative perspective, show that demographic development in Northern Norway and Northern Sweden is much more similar than many think. Over the last 60 years, there has been a small negative trend in the relative percentage of the national population that lives in the two regions, with “knowledge cities”, and especially the two university cities Tromsø and Umeå, as the exception. Despite Broxian social theories of regional development in Northern Norway and the implementation of a generous set of regional policies, there seems to be no cause to claim that Northern Norway has followed a unique path of development compared to Northern Sweden, neither in general nor in smaller and more rural communities.

**Keywords:** *regional policy, Arctic, Northern Norway, university, municipalities*

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## 1. Introduction

Many politicians<sup>1</sup>, scholars<sup>2</sup> and regional actors have proclaimed that Norway’s regional policies in Northern Norway have succeeded extremely well. Since the mid-1970s Norwegian authorities have implemented generous policies for regional

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1 Kjell Werner, “Helga satser på by og land,” *FriFagbevegelse*, <https://frifagbevegelse.no/article-6.158.52638.bdb95fa104>.

2 Ottar Brox, *Hva skjer i Nord-Norge?* (Oslo: Pax Forl., 1966).

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development aimed at maintaining a dispersed population in Northern Norway. Of interest in this paper is to assess the aims of these different policies and their actual effect on regional development. In 2016 the Norwegian government spent around 12 billion NOK on specific policies aimed at regional development in Northern Norway (Finnmark, Troms and Nordland counties). In comparison, Sweden through European Union structural funds, spent around 0.3 billion NOK on regional development in Northern Sweden (Västerbotten and Norrbotten counties). Norway and Sweden share a multitude of common social, cultural and political factors, making a most similar case design comparison a fruitful methodological approach.

The idea of a unique path for Northern Norway is rooted in the ideas of Ottar Brox.<sup>3</sup> His early works on Northern Norway are considered some of the most important works of nonfiction in Norway since 1945.<sup>4</sup> They have heavily influenced policymaking in Northern Norway, resulting in important differences in those policies geared toward regional development and those promoting dispersed settlement in the north. There are many structural similarities between Northern Norway and Northern Sweden. At the regional level, there are important similarities, like the establishment of universities in the North and similar universal welfare systems administered at the municipal level.

However, there are also some important differences in regional policies between Norway and Sweden, and according to Broxian theories, these differences should have led to more positive development in Northern Norway. First, the Norwegian people chose to stay outside the European Union twice; national referendums were held in 1972 and 1994. A major factor for voters was to maintain national sovereignty over policies for regional development.<sup>5</sup> Second, Norway has implemented regional policies that include regionally differentiated payroll taxes on employees, with an extra contribution for municipalities in Northern Norway<sup>6</sup> and individual level tax cuts for people living in the special zone. Third, Norway has also chosen to maintain a large number of small municipalities compared to Sweden. These differences have led Norwegian politicians, including two former ministers, Trygve Slagsvold Vedum<sup>7</sup> and Helga Pedersen,<sup>8</sup> to claim that Norway, through its regional policies, has been much more successful in keeping a dispersed population structure than its neighboring countries, especially in the High North. The question is; is there cause to claim that Northern Norway has followed a unique development path compared to Northern Sweden?

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3 Ibid.; *Nord-Norge: Fra allmenning til koloni* (Oslo: Universitetsforlaget, 1984).

4 Morten Strøksnes, "Nordlands profet," *Dagbladet*, 30.07. 2008.

5 Henry Valen, "Norway: 'No' to EEC," *Scandinavian Political Studies* 8, no. A8 (1973).

6 Erik Oddvar Eriksen, "Det nye Nord-Norge: avhengighet og modernisering i nord," in *Avhengighet og modernisering i nord*, ed. Erik Oddvar Eriksen (Bergen: Fagbokforlaget, 1996).

7 Trygve Slagsvold Vedum, "Sentraliseringen er blåkopi," *Nasjonen*, 12.08.2015 2015.

8 Werner, "Helga satser på by og land".

Even though Brox's theories have had massive importance theoretically and politically, they have not been tested empirically. This paper will argue that a quantitative comparison of Northern Norway and Northern Sweden does not bring forth any arguments that support the claim that Norway has followed a unique path of development in the Arctic region. On the contrary, the similarities between the two regions are striking. First, I will review the theoretical and empirical arguments for Norwegian regional policies and alternative theories of regional development. Afterward I will account for the quantitative methodological approach used in this study. Finally, the empirical results will be analyzed and discussed.

## 2. Theoretical framework

### 2.1 Center-peripheral relationship in the North and opposition to EU membership

Both Northern Norway and Northern Sweden exist within what Stein Rokkan<sup>9</sup> would describe as a center-peripheral relationship, which is important to understand policy development. Combining the organizational decision-making system of Hirschman,<sup>10</sup> and Talcott Parson's paradigm for functional differentiation within states,<sup>11</sup> Rokkan provides a general and theoretical model for solving the relationship between the center and the territorial periphery within the state. The theoretical salience of the center-periphery axis is that the existence of a political center logically presupposes a periphery – and vice versa. The two are interdependent.

Because any collective distinction may serve as the underpinning for political mobilization<sup>12</sup> differing historiographies may create territorially different political identities. Hence, political actors that perceive themselves as representatives of “peripheries” tend to nurture the idea that different identities linked to territories have developed over time. Some geographical identity is thus an asset in the regional political mobilization against the state's centralizing efforts. Whether regional actors choose and succeed in mobilizing on a territorial basis will largely depend on the status of the region vis-à-vis the state during the various phases in the modernization process. Throughout the nation-building process, the periphery is left with three choices that regional actors can mobilize upon; *exit, voice or loyalty*.

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9 Stein Rokkan, *Stat, Nasjon, Klasse* (Oslo: Universitetsforlaget, 1987); *State Formation, Nation-Building, and Mass Politics in Europe: The Theory of Stein Rokkan: Based on His Collected Works* (Clarendon Press, 1999); Stein Rokkan and Derek W. Urwin, *Economy, Territory, Identity: Politics of West European Peripheries* (London: Sage Publications, 1983).

10 Albert Hirschman, “*Exit, Voice, and Loyalty*,” Cambridge, MA: Harvard University Press (1970).

11 Talcott Parsons, “On the Concept of Political Power,” *Proceedings of the American Philosophical Society* 107, no. 3 (1963).

12 Giovanni Sartori, “The Sociology of Parties,” in *The West European Party System*, ed. Peter Mair (Oxford: Oxford University Press on Demand, 1990).

*Exit*, which entails the creation of a more or less independent regional state, has never been a real option in either Northern Norway or Northern Sweden. However, through protests (*voice*) or making deals with the central government (*loyalty*) some regional concessions have been made, especially in Norway. The reasons for regional policies have to be understood within the context of a center-peripheral relationship. However, achieving concessions sometimes turns out to be a double-edged sword. Departing from the Wilsonian concept of *Clientelism*,<sup>13</sup> Eriksen develops the notion of state dependency; the region occupies a clientele position towards the central government, and adopts a clientelist perspective. This perspective confines the regional actors' scope for alternative political action, and instead, their focus is on existing programs and subsidies as the only possible way forward.<sup>14</sup>

Rokkan and other scholars identified Northern Norway as a peripheral region that was considered backward and less developed by the central authorities.<sup>15</sup> Norway implemented a number of regional policies throughout the post-war era, to stimulate regional development in Northern Norway. In the early 1950s, the Labor Party government created a development plan for Northern Norway based on industrialization and macro-economic principles.<sup>16</sup> These principles for social and economic development were later challenged by the theories of Ottar Brox<sup>17</sup> who emphasized the relative wealth of the fisher-farmer lifestyle in the rural parts of Northern Norway, explaining why life in small peripheral communities is a rational choice for people. Due to the Norwegian geography with its long coastline, the fisher-farmer could live in small rural villages supporting himself mostly by harvesting from nature. He could stay self-sufficient outside the monetary economy. According to Brox, the relative wealth of the fisher-farmer was the reason that people did not move to industrial cities and chose instead to remain in rural settlements. This combination was unique for the coastal areas of Northern Norway and was the basis for the idea of a unique situation in Northern Norway where urbanization and industrialization were not seen as a necessity, but as something that could be rejected by the people. Implicit in the Broxian theories we find the idea that given a choice, people will choose a rural lifestyle and reject urbanization and industrialization.

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13 James Wilson, *Bureaucracy: What Government Agencies Do and Why They Do It* (New York: Basic Books, 1989).

14 Eriksen, "Det nye Nord-Norge: Avhengighet og modernisering i nord."

15 O. Grønnaas, J. Halvorsen, and L. Torgersen, "Problemet Nord-Norge," *Studieselskapet for nordnorsk næringsliv*. (1948).

16 Kjell Arne Røvik, Jens-Ivar Nergård, and Svein Jentoft, *Hvor går Nord-Norge?* (Stamsund: Orkana akademisk, 2011).

17 Brox, *Hva skjer i Nord-Norge?*

Brox's theories have had a major impact on political ideology in Norway, with ecological awareness being seen as a counterweight to industrialization and globalization,<sup>18</sup> ideas primarily associated with the powerful Labor party.<sup>19</sup> In addition to contributing to the Labor Party's rural development policies,<sup>20</sup> Brox's theories also provided a framework for the radical left in the 1970s and underpinned the mobilization of the winning coalition against Norwegian membership in the EEC in 1972, a coalition that combined urban radical leftists with the peripheral interests of fisher-farmers.<sup>21</sup> In the Norwegian referendums on EEC membership in 1972 and EU membership in 1994, opposition was particularly strong in peripheral areas, particularly in Northern Norway. Excluding the no-votes in Northern Norway (Nordland, Troms, and Finnmark counties) there would have been a small majority (50.2 percent) in the rest of the country for Norwegian EU membership in 1994. In Northern Sweden (Västerbotten and Norrbotten), we find the same pattern of opposition against joining the European Union. In the EU referendum in 1994, 64 percent of voters in Northern Sweden voted against EU membership.<sup>22</sup> 72 percent of voters in Northern Norway voted against.<sup>23</sup> The main difference, however, was the outcome of the national referendum. A majority of Swedish voters opted for EU membership, but Norway voted to remain outside.

## 2.2 Differentiated tax roll and other subsidies

In the aftermath of the Norwegian EEC referendum in 1972, when a periphery-led opposition against Norwegian membership won the referendum, the pro-EEC Labor party lost heavily in the next general election, especially in the periphery. Subsequently, the Labor party changed its rhetoric and goals for regional development. When the Labor party regained strength in the 1977 parliamentary election, they did so in a broader alliance with peripheral regions, changing the official Norwegian policy to "maintain the fundamental features of the population distribution".<sup>24</sup> As shown by Cruickshank<sup>25</sup> this goal has won hegemony in Norwegian society.

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18 Nik Brandal, Øivind Bratberg, and Dag Thorsen, *The Nordic Model of Social Democracy* (Berlin: Springer, 2013).

19 Rune Slagstad, *De nasjonale strateger* (Oslo: Pax, 1998).

20 Bjørn Hersoug and Dag Leonardsen, "*Bygger de landet*," (Oslo: Pax forlag 1979).

21 Valen, "Norway: 'No' to EEC."

22 European Election Database, "Election Results, Sweden: Referendum on the Accession to the European Union, 1994," (2018).

23 "Norway: Referendum on the Accession to the European Union 1994," (2018).

24 Håvard Teigen, "Distriktpolitikken historie: Frå nasjonal strategi til regional fragmentering?," *Plan* 43, no. 06 (2011).

25 Jørn Cruickshank, "Protest against Centralisation in Norway: The Evolvement of the Goal for Maintaining a Dispersed Settlement Pattern," *Norsk Geografisk Tidsskrift – Norwegian Journal of Geography* 60, no. 3 (2006).



From the 1970s, national governments have created various policies to stimulate growth in peripheral areas, especially in Northern Norway. For business development, the most important policy was the introduction of the Regional differentiated payroll taxes (RDP) measure in 1975, based on a series of theoretical studies that discussed the market failures of regional labor markets.<sup>26</sup> Employers in Norway are levied a payroll tax, which differs between five geographical zones. The highest rate of 14.1 percent is charged in zone 1, where around 80 percent of the population resides. In the other zones, the rate decreases according to remoteness. In the northernmost regions (Finnmark and Northern Troms) the rate is zero percent. The total national cost of the RDP was estimated to be 13.3 billion NOK in 2016,<sup>27</sup> of which approximately 8 billion NOK was for businesses located in Northern Norway. Regional governments and Innovation Norway have also received money to stimulate regional and business development in Norway. In 2016, one-third of all funds for regional development (370 million NOK) went to counties in Northern Norway, despite the fact that only 9 percent of the national population lives in the region.

There is also an extra contribution for municipalities in Northern Norway. The revenue system for Norwegian municipalities is complicated, but the special treatment of Northern Norway is obvious, and the contribution per capita is much higher than for peripheral municipalities further south. In 2017 the total sum of the extra contribution (Nord-Norge tilskot) was around 1.57 billion NOK.<sup>28</sup> Table 1 displays the net contribution per capita in areas in Northern Norway, compared internally and externally with peripheral areas in the south.

Table 1. Contribution from the national government for regional development.

Regions	Extra contribution 2017-budget (NOK per capita)	Regional funds 2016-budget (NOK per capita)
Nordland and Namdalen	1710	730
Troms (outside special zone)	3279	682
Special zone Troms	3864	682
Finnmark	8008	1087
Peripheral areas in the south	218–1087 <sup>29</sup>	433 <sup>30</sup>

26 Arild Hervik and Mette Rye, “An Empirical and Theoretical Perspective on Regional Differentiated Payroll Taxes in Norway,” (2003).

27 [http://www.statsbudsjetten.no/upload/Statsbudsjett\\_2017/dokumenter/pdf/skatt.pdf](http://www.statsbudsjetten.no/upload/Statsbudsjett_2017/dokumenter/pdf/skatt.pdf)

28 Government of Norway, “Tilskuddsbrev til fylkeskommunene 2016 Programkategori 13.50 Post 60,” ed. Ministry of Local Government and Modernisation (2016).

29 Contribution per capita varies depending on the peripheral index for each municipality. There is also a fixed contribution up to 1.2 mill NOK per municipality depending on peripheral status.

30 Average for the counties Hedmark and Oppland.

Other subsidies at the individual level have also been implemented, such as lower energy taxes that apply only to Northern Norway. Through the creation of the special zone for municipalities in Finnmark and Northern Troms in 1990, people who live in these municipalities benefit from lower income taxes, extra childcare support (until 2014) and student loan write-off schemes. The total sum of individual level incentives for living in the special zone is about 1 billion NOK according to the 2017 national budget. In addition to these major policies, there are also other special arrangements for Northern Norway in smaller policy areas, such as culture, sports and higher education.

The total sum of regional policies aimed primarily at promoting living in Northern Norway was around 12 billion NOK in 2017. All these policies were implemented between 1970 and 1990. Even though they vary in nature, they can be categorized as exogenous growth policies, designed to use fiscal incentives to create growth in lagging areas.<sup>31</sup>

Sweden has also implemented regional policies to promote regional development in lagging regions.<sup>32</sup> However, the resources used by the government are on a much lower scale than in Norway. For instance, Sweden does provide small tax breaks for companies in lagging regions, but in the period 2000–2006 these tax breaks accounted for about 0.5 billion NOK yearly,<sup>33</sup> compared to 13.3 billion NOK (8 billion in Northern Norway) in 2015. As in Norway, some resources used to promote regional development are also allocated through the County Administrative Boards (länsstyrelser) or to the county or regional councils in Sweden. However, there are not as many specific policies targeting Northern Sweden compared to the Norwegian model, although many of the municipalities that benefit from the Swedish regional policies and transfers within the municipality revenue system are located in the north. The most specific Swedish subsidy that targets the north is a tax deduction for long-distance commuters,<sup>34</sup> a tax deduction that all long-distance commuters in Norway receive.

Since joining the European Union, Northern Sweden has fallen under the jurisdiction of the EU regional policy, also referred to as the Cohesion Policy. For the period 2014–2020, €207 million was earmarked for the Northern Sparsely Populated Areas,<sup>35</sup> resulting in an annual contribution to Northern Sweden of around 0.3 billion NOK.

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31 Iain Begg, Barry Moore, and John Rhodes, “Economic and Social Change in Urban Britain and the Inner Cities,” *Critical issues in urban economic development* 1 (1986).

32 For a thorough review see Roland Andersson, “The Efficiency of Swedish Regional Policy,” *The Annals of Regional Science* 39, no. 4 (2005).

33 Ibid.

34 Ibid.

35 European Commission, “Cohesion Policy and Sweden,” [http://ec.europa.eu/regional\\_policy/en/information/publications/factsheets/2014/cohesion-policy-and-sweden](http://ec.europa.eu/regional_policy/en/information/publications/factsheets/2014/cohesion-policy-and-sweden).

Sweden does have a regional policy, but compared to Norway, the difference in scale and resources committed to regional development, especially in the northern areas, is striking.

### 2.3 Structure of Municipalities

The second major policy difference between Northern Norway and Northern Sweden is found in their municipal structure. Sweden conducted a major municipal reform in the 1960s and 1970s, reducing the number of municipalities from around 2000 to 290. The motivation behind this reform was to ensure that municipalities were capable of producing the necessary services of the new social democratic welfare state.<sup>36</sup> Francesco Kjellberg describes this process as one of the comprehensive political reforms in western democracies,<sup>37</sup> leading to a highly different municipal structure in Northern Norway and Northern Sweden (see table 2), despite the fact that Norway implemented a smaller reform in the mid-1960s, reducing the number of municipalities from around 750 to 450.

Table 2. Municipalities in Northern Norway and Northern Sweden (in 2015).

2015	Northern Norway	Northern Sweden
Number of municipalities	87	29
Number of municipalities <2000	38	0
Number of municipalities <5000	66	9
Largest municipality (population)	72 681	120 777
Smallest municipality (population)	486	2 453
Mean population per municipality	5 525	17 693
Population median municipality	2 188	6 771

There are theoretical arguments that claim that smaller jurisdictions lead to more satisfied citizens,<sup>38</sup> and hence people will not move away. The political economy literature postulates that citizens are more satisfied with smaller jurisdictions because they are more efficient, homogeneous, and democratic.<sup>39</sup> This perspective argues that local governments offer benefits that citizens appreciate: they facilitate local

36 Lars Strömberg and Jörgen Westerståhl, “De nya kommunerna,” in Strömberg, Lars & Jörgen Westerståhl (red.), *De nya kommunerna. En sammanfattning av den kommunaldemokratiska forskningsgruppens undersökningar*. (Stockholm: Liber Förlag 1983).

37 Francesco Kjellberg, “Local Government and the Welfare State: Reorganization in Scandinavia,” in Dente, B. & Kjellberg, F. (red.) *The Dynamics of Institutional Change. Local Government Reorganisation in Western Democracies*. (London: Sage Publications 1988).

38 Charles M Tiebout, “A Pure Theory of Local Expenditures,” *Journal of political economy* 64, no. 5 (1956).

39 Poul Erik Mouritzen, “City Size and Citizens’ Satisfaction: Two Competing Theories Revisited,” *European Journal of Political Research* 17, no. 6 (1989); Wallace E Oates, “Fiscal Federalism.” (Cheltenham: Edward Elgar Publishing 1999); Tiebout, “A Pure Theory of Local

adaptions and variations, facilitate citizen influence and participation, and facilitate coordination efficiency. Decentralized governments are said to be more flexible and to have greater ability to adapt to changing circumstances.<sup>40</sup>

These theoretical assumptions about the importance of small municipalities where the needs and desires of the rural population are emphasized are echoed in the works of Ottar Brox on Northern Norway.<sup>41</sup> He claims that it is vital to enable and empower local communities in order to generate economic development and population growth. To achieve this goal, problems need to be solved within homogeneous local communities, and counter to the development plan for Northern Norway, not within regional structures that mix areas of expansion with sparsely populated areas.<sup>42</sup> According to Brox, the successful historical development of Northern Norway, compared to Sweden and Scotland, was due to the combination of a large degree of self-determination within smaller local communities and the strong influence of actors from the primary industries in policymaking.

On the other hand, in today's world it is increasingly difficult for smaller municipalities to meet the demands and standards of local government regarding the provision of public services that require a larger scale of production. One of the strategies to cope with these issues is inter-municipal cooperation. According to Hulst and Van Montfort<sup>43</sup> the joint provision of public services is a way to overcome production-related obstacles and meet the rising expectations of citizens. At the same time, this could mean that the expected advantages, in terms of local adaptations and variations, and citizens' greater influence over policies, are lost. There is little comparative data on the extent of inter-municipal cooperation in Norway, but a report from 2011<sup>44</sup> shows that most inter-municipal cooperation is found in technical areas like ICT, auditing and purchasing, although there are cases of cooperation in other policy areas like environmental protection, business development and emergency preparedness. Though not widespread, inter-municipal cooperation is a potential explanation for the limited effect of preserving smaller municipalities in Norway.

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Expenditures.”; Harold Wolman, “Decentralization: What It Is and Why We Should Care,” *Decentralization, Local Governments, and Markets* (1990).

40 Gordon L. Clark, “A Theory of Local Autonomy,” *Annals of the Association of American Geographers* 74, no. 2 (1984); Michael Goldsmith and Edward Page, *Central and Local Government Relations: A Comparative Analysis of West European Unitary States* (Sage London, 1987); David Osborne and Ted Gaebler, “Reinventing Government: How the Entrepreneurial Spirit Is Transforming Government,” *Reading Mass. Addison Wesley Public Comp* (1992); Lawrence J. Sharpe, “Local Government Reorganization: General Theory and Uk Practice,” *The Dynamics of Institutional Change* (1988).

41 Brox, *Hva skjer i Nord-Norge?*

42 *Ibid.*, 129.

43 Rudie Hulst and André Van Montfort, *Inter-Municipal Cooperation in Europe*, vol. 238 (Berlin: Springer, 2007).

44 Dag Ingvar Jacobsen et al., “Evaluering av interkommunalt samarbeid etter kommunelovens § 27–Omfang, organisering og virkemåte,” *Universitetet i Agder. Kristiansand* (2011).

A regional economic policy with tax breaks and subsidies has to be kept separate from the question of municipal structure. However, Broxian theories about the salience of small municipalities and national self-determination over primary industries (because of opting out of EU) point in the same direction. The assumption is that smaller Northern Norwegian municipalities should show more positive demographic development compared to municipalities in Northern Sweden. Deriving from the sections above, there are arguments for this hypothesis.

*H1: Demographic development has been stronger in smaller municipalities in Northern Norway than in Northern Sweden since 1975.*

#### 2.4 Urbanization, higher education and general theories of development

Enterprise zone programs, with tax incentives for businesses to promote growth in lagging regions, have been politically popular for decades. Some studies<sup>45</sup> find a positive effect of Special Economic Zones. More recent studies<sup>46</sup> show that tax incentivized enterprise zones are not as effective as thought, and do not increase employment. Porter<sup>47</sup> has emphasized an alternative endogenous approach for regional development, where the need for building and creating localized clusters for economic activity, rather than simply relying on temporary tax breaks or fiscal stimulus packages for attracting exogenous investment, is seen as an alternative strategy for regional development. New Economic Geography theories<sup>48</sup> focus on core economic agglomerations and urban regions, so-called “spatial spikes”, as dominant factors for regional development. Richard Florida<sup>49</sup> has emphasized the role of cities and the creative class as engines for regional and urban development. Mellander and Florida have analyzed the role of the creative class in Sweden, but mainly focus on larger cities in the south.<sup>50</sup>

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45 Stephen Billings, “Do Enterprise Zones Work? An Analysis at the Borders,” *Public Finance Review* 37, no. 1 (2009); Suzanne O’Keefe, “Job Creation in California’s Enterprise Zones: A Comparison Using a Propensity Score Matching Model,” *Journal of Urban Economics* 55, no. 1 (2004).

46 David Neumark and Jed Kolko, “Do Enterprise Zones Create Jobs? Evidence from California’s Enterprise Zone Program,” *ibid.* 68 (2010); Susanne A. Frick, Andrés Rodríguez-Pose, and Michael Wong, “Towards Economically Dynamic Special Economic Zones in Emerging Countries,” (Utrecht University, Department of Human Geography and Spatial Planning, Group Economic Geography, 2018).

47 Michael E. Porter, “Location, Competition, and Economic Development: Local Clusters in a Global Economy,” *Economic development quarterly* 14, no. 1 (2000).

48 Steven Brakman, Harry Garretsen, and Charles Van Marrewijk, *The New Introduction to Geographical Economics* (Cambridge: Cambridge University Press, 2009).

49 Richard Florida, *Cities and the Creative Class* (Brooklyn: Routledge, 2005).

50 Charlotta Mellander and Richard Florida, “Creativity, Talent, and Regional Wages in Sweden,” *The Annals of Regional Science* 46, no. 3 (2011).

The establishment of universities also plays a significant role in the production of talent and in population growth.<sup>51</sup> Norway and Sweden are both countries that have funded, on a national scale, higher education institutions in remote and outlying regions in order to ensure a place for these regions in the modern economy. There are case studies in both Norway<sup>52</sup> and Sweden<sup>53</sup> on the regional effect of the establishment of universities in the North. The decision to establish universities in Umeå, Sweden in 1965 and Tromsø, Norway in 1968 was not arbitrary. The intention behind the creation of universities in the North was not only to make higher education available to more people, but also to promote development in these northernmost regions, first in Sweden and then in Norway.<sup>54</sup> Based on endogenous growth theories that emphasize the role of knowledge cities and urbanization, it is possible to launch a second hypothesis (H2), which does not exclude H1.

*H2: Demographic development has been stronger in university cities in Northern Norway and Northern Sweden compared to other cities in the region.*

Finally, it is worth bearing in mind that the Scandinavian welfare model may hold a strong explanatory power for similar development patterns in Norway and Sweden. Esping-Andersen has advanced the importance of the Nordic welfare model<sup>55</sup> for more social and regional equality. In countries like the Nordic countries with high taxation, universal welfare systems and centralized wage bargaining systems, public goods like kindergarten, education, social services and unemployment benefits are equally distributed through a welfare system where social rights are secured by national law on an individual basis regardless of the place of residence. These comprehensive, universal fundamentals of the Nordic welfare state model are essential for explaining why people live in small rural areas in the Scandinavian Arctic region. Universal welfare goods are guaranteed regardless of the size of the municipality. As an example of this so-called “Spatial Keynesianism”, a governmental increase in expenditures on unemployment benefits, when unemployment is distributed

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51 Peter Arbo and Paul Benneworth, “Understanding the Regional Contribution of Higher Education Institutions: A Literature Review,” *OECD Education Working Papers*, no. 9 (2007).

52 Narve Fulsås, *Universitetet i Tromsø 25 år* (Universitetet i Tromsø, 1993); Peter Arbo, “Universitetet som regional utviklingsaktør,” in *Hvor går Nord-Norge? Tidbilder fra en landsdel i forandring*, ed. Svein Jentoft, Jens-Ivar Nergård, and Kjell Arne Røvik (Stamsund: Orkana Akademisk, 2011).

53 Björn Olsson and Ulf Wiberg, *Universitetet och den regionala utmaningen* (Nora, Bokförlaget nya Doxa, 2003).

54 Lars Elenius et al., *The Barents Region: A Transnational History of Subarctic Northern Europe* (Oslo: Pax Forlag, 2015).

55 Gosta Esping-Andersen, *The Three Worlds of Welfare Capitalism* (New York: John Wiley & Sons, 2013).

unevenly between regions, channels resources from richer regions to lagging regions. The welfare state is not only a social stabilizer, but also a regional stabilizer.<sup>56</sup> In this comparative analysis, the welfare system may be an important counter-theory that explains the relative small effect of regional policies.

### 3. Methodology

Although there are perfectly valid arguments for single case studies, there is a tendency for there to be too many of them, especially concerning historical analyses. Kjeldstadli<sup>57</sup> has argued that historical studies could learn from the social sciences where the comparative method is essential for analyses. There are very few comparative analyses on development in the Arctic regions, although the recent work of Elenius et al.<sup>58</sup> is an important step in the comparative direction.

The comparative method is not a simple method because it is by no means easy to identify comparable cases.<sup>59</sup> By taking the approach of Teune and Przeworski<sup>60</sup> it is possible to apply the method that they call “most similar systems” design,<sup>61</sup> which entails finding two cases that are similar in all independent variables except one crucial variable, and then find out if the dependent variable varies between the two cases. Regarding regional development policy in the Arctic region, this pertains to Northern Norway and Northern Sweden.

Comparative research in the social sciences on the Nordic countries is far from new.<sup>62</sup> However, few analyses on the regional level have been conducted, a phenomenon possibly attributed to what Rokkan<sup>63</sup> describes as the “whole-nation bias”. Traditionally it has been relatively easy to obtain data at the national level,

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56 Harvey Armstrong and Jim Taylor, *Regional Economics and Policy 3rd Edition* (Oxford: Blackwell, 2000).

57 Knut Kjeldstadli, “Nytten av å sammenlikne,” *Tidsskrift for samfunnsforskning* 29, no. 5 (1988).

58 Elenius et al., *The Barents Region: A Transnational History of Subarctic Northern Europe*.

59 Arend Lijphart, “Ii. The Comparable-Cases Strategy in Comparative Research,” *Comparative political studies* 8, no. 2 (1975).

60 Henry Teune and Adam Przeworski, *The Logic of Comparative Social Inquiry* (New York: Wiley-Interscience, 1970).

61 See Alexander L. George and Andrew Bennett, *Case Studies and Theory Development in the Social Sciences* (Boston: MIT Press, 2005). For a broader discussion of various names on comparative analysis.

62 Herbert Hendin, “Suicide and Scandinavia,” (New York: Grune & Stratum 1964); Kaare Svalastoga, *Prestige, Class, and Mobility* (Stockholm: Scandinavian University Books, 1959); Arthur H. Miller and Ola Listhaug, “Political Parties and Confidence in Government: A Comparison of Norway, Sweden and the United States,” *British Journal of Political Science* 20, no. 3 (1990).

63 Stein Rokkan, *Citizens, Elections, Parties: Approaches to the Comparative Study of the Processes of Development* (ECPR Press, 2009).

and comparatively difficult at the subnational level. Northern Norway and Northern Sweden are both geographically located at the same northerly latitude, and both have large capitals in the south, with a difficult infrastructure system on the North-South axis. The settlement structure of both countries was quite similar in the early to mid-20<sup>th</sup> century, despite differences in scale. During the same period, both countries had Lutheran state churches<sup>64</sup> and politics were dominated by the Labor (Norway) and Social Democratic (Sweden) parties, especially in the North.<sup>65</sup> The northern parts of Norway and Sweden also share numerous other social and cultural traits with large homogenous majority populations and small indigenous Sami groups. There is much more that unites these two regions than separates them.

Population growth can be seen as an indicator of regional development.<sup>66</sup> Even though there are other variables that measure regional development, population growth is used as a proxy variable for development in this paper, especially since the explicit goal of Norwegian policymakers was to maintain the population distribution. Population growth can be measured in absolute or relative terms. The relative growth rate is often more interesting than the absolute growth rate, especially when comparing two regions in two different countries. Relative growth controls for national trends that might impact one of the two countries.

To assess our hypothesis about population development, I have used registry data from the municipal level collected mainly by Statistics Norway and Statistics Sweden. The hierarchical structure of this data allows for comparative analyses of regions at a variety of regional levels, in addition to state-level analyses. To keep the unit of analysis constant throughout the period, the unit of analysis used is the municipality structure of 2013. The dependent variable is defined as a change variable. So, for every municipality we have;

$$\text{Change}_t = \frac{\text{percentage of national population}_t - \text{percentage of national population}_{t-1}}{\text{percentage of national population}_{t-1}} \quad (1)$$

Even after redefining our dependent variable as a change variable, there is still important autocorrelation in the variance of the models. To deal with this problem, all the models have their error term corrected with an AR1 structure, which more or

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64 State and Church are now separate in both countries (as of 2000 in Sweden and 2012 in Norway).

65 Anders Lidström, "Socialdemokraternas tillbakagång 1973–2014: Strukturella förklaringar och regionala variationer," in *Forskningsrapporter i statsvetenskap vid Umeå universitet* (Umeå: Umeå universitet, 2018).

66 Kristina Vaarst Andersen et al., "Nordic City Regions in the Creative Class Debate—Putting the Creative Class Thesis to a Test," *Industry and Innovation* 17, no. 2 (2010).



less removes the autocorrelation.<sup>67</sup> The models are defined as a panel data analysis. In all models, the variable *Year* has a random slope for each municipality. There are 116 municipalities based on 64 yearly observations (1952–2015), so the total number of observations is 7 424. This means that every year *t* is nested within *i* municipalities. The baseline model (model 0) is defined as:

$$\begin{aligned} \text{Level 1:} \quad & \gamma \text{ change}_{it} = \pi_{0i} + \pi_{1i} \text{trend}_{it} + e_{it} \\ \text{Level 2:} \quad & \pi_{0i} = \beta_{00} + u_{0i} \\ & \pi_{1i} \text{trend}_{it} = \beta_{10} + u_{1i} \end{aligned}$$

New models are subsequently built by adding new independent variables. In model 1, an interaction term is modulated for the period 1975–2015 to see if there is any significant change for Norwegian municipalities after implementation of new regional policies and rejection of EU membership. This variable, *Year after 1975*, is evidently highly correlated with the variable *Year* (see appendix for correlation matrix for all variables). This small potential problem with multicollinearity does not alter the general fit of the model. Since the aim of this variable is only to control for major changes after 1975, I have included the variables in the models. In model 2 the municipalities are analyzed based on their population size in 1975 (see table 3), to see if there is any difference within categories and to analyze if the effect of Norwegian regional policies is different on various types of municipalities.<sup>68</sup>

Table 3. Municipality categories in Northern Norway and Northern Sweden (in 1975).

1975	Northern Norway	Northern Sweden
Smallest (<5000)	62	6
Small (5–9999)	15	14
Medium (10–25000)	7	2
Largest (>25000)	3	7

Finally, in model 3 we assess the effects of higher education by creating two dummy variables, one for universities (Tromsø and Umeå) and another one for university colleges based on the year the institutions were founded in these municipalities.<sup>69</sup> To compare different models, all models are estimated by maximum likelihood procedure (ML). They have also been run with restricted maximum likelihood procedure (REML) showing the same results.

67 Autocorrelation for first lag is –0.06 in the last model.

68 The models were also run with log (1975–population) as an independent variable. The results are the same as in the reported models, with almost the same level of AIC.

69 Tromsø (1968), Umeå (1965), Bodø (1971), Luleå (1971), Alta (1973), Nesna (1918), Harstad (1994), Kautokeino (1989), Narvik (1994).

## 4. Results

### 4.1 Descriptive statistics

In figure 1, we see the demographic development in the four categories based on smoothed trend lines. After 1975, in particular, we find some striking similarities.

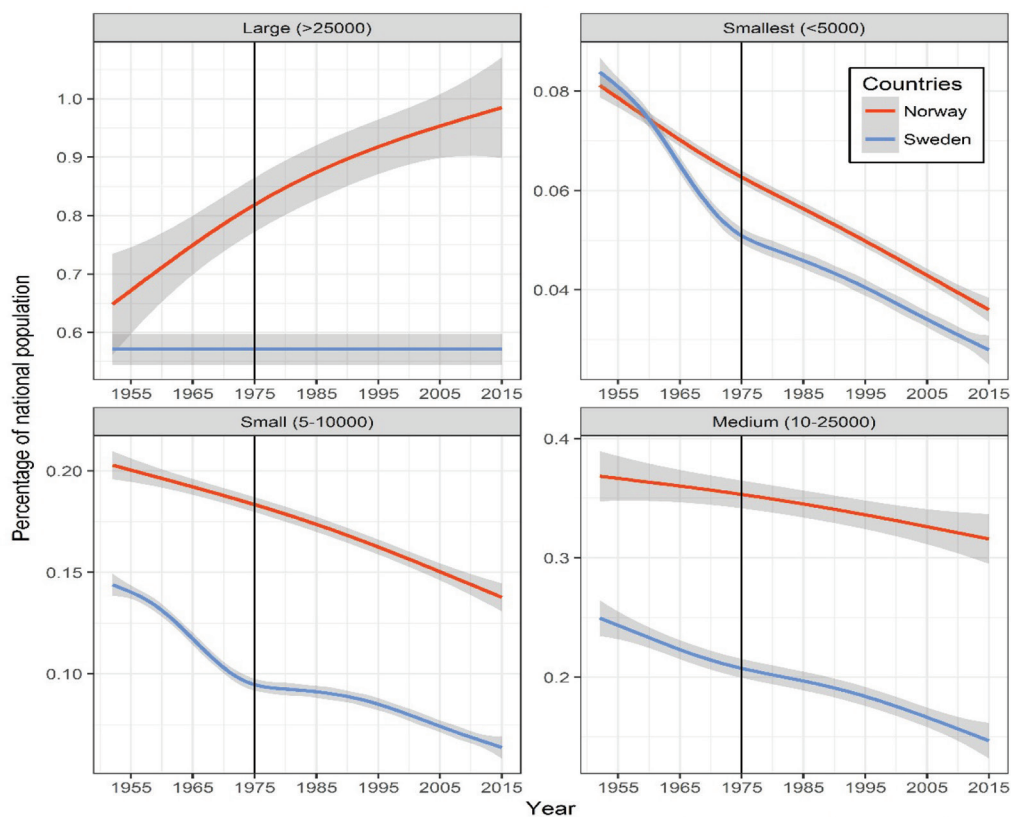


Figure 1. Percentage of national population 1952–2015.

Source: Statistics Norway and Statistics Sweden.

The similar demographic decline seen in figure 1, can also be seen in figure 2, where demographic development in the three largest municipalities in Northern Norway and Northern Sweden respectively is shown in a longitudinal perspective.

### 4.2 Regression models

All models are specified with *Year* as a random slope for each municipality. In model 0, there is a small significant negative trend for all municipalities throughout the period. In model 1, this effect is no longer significant when controlling for the interaction in 1975. Here the interaction term for Norway is extremely close to zero and not significant. In model 2, the category with the largest municipalities is used as a

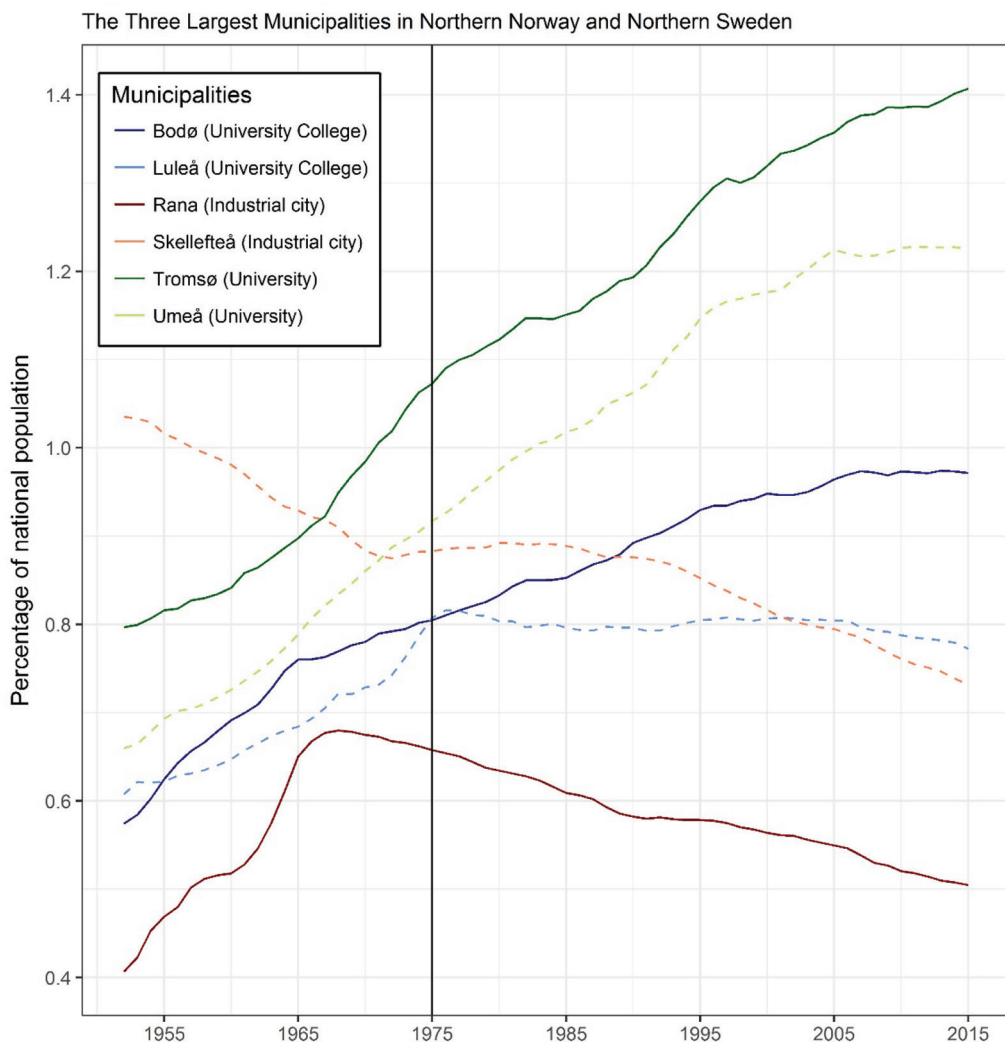


Figure 2. Percentage of national population 1952–2015.

Source: Statistics Norway and Statistics Sweden.

baseline. There is a negative effect for all of the other municipalities compared to the reference category. The interaction between Norway and the other categories of municipalities is significantly negative with a coefficient of  $-0.004$  to  $-0.005$ . However, the total difference between Norway and Sweden is zero due to the dummy variable “Norway” which is significantly positive at  $0.005$ . This means that demographic development between all the categories, except the largest, is very similar between Northern Norway and Northern Sweden. The relative success of the largest Norwegian municipalities may also be because they are few in number, only three, compared to seven in Sweden.

*The Striking Similarities between Northern Norway and Northern Sweden*

Table 4. Multilevel Regression Analysis 1952–2015.

	<i>Dependent variable:</i>			
	Yearly change			
	Model 0	Model 1	Model 2	Model 3
Year	–0.00001*** (0.00000)	–0.00001 (0.00001)	–0.00001 (0.00001)	–0.00002* (0.00001)
Year after 1975		–0.00002 (0.00001)	–0.00002 (0.00001)	–0.00001 (0.00002)
Norway		–0.0002 (0.0004)	0.005*** (0.001)	0.002*** (0.001)
Municipality < 5000			–0.001 (0.001)	0.002*** (0.0004)
Municipality 5000–10000			–0.001* (0.001)	0.001*** (0.0003)
Municipality 10000–25000			–0.001 (0.001)	0.001 (0.001)
University city				0.009*** (0.0005)
University College city				0.001*** (0.0003)
Interaction Norway*Year after 1975		0.00002 (0.00001)	0.00002 (0.00001)	0.00002 (0.00002)
Municipality < 5000* Norway			–0.005*** (0.001)	–0.002*** (0.001)
Municipality 5–10000* Norway			–0.005*** (0.001)	–0.003*** (0.001)
Municipality10–25000* Norway			–0.004*** (0.001)	–0.002*** (0.001)
Constant	–0.0002 (0.0002)	–0.0002 (0.0004)	0.0004 (0.001)	–0.001*** (0.0004)
Observations	7,424	7,424	7,424	7,424
Log Likelihood	36,725.160	36,838.970	36,857.040	36,959.960
Akaike Inf. Crit.	–73,440.310	–73,657.940	–73,682.080	–73,883.920
Bayesian Inf. Crit.	–73,405.750	–73,588.810	–73,571.480	–73,759.500

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Standard errors in parenthesis

Finally, in our last model we test our *H2* and find a relatively large positive effect of having a university, and a smaller, but still significantly positive effect of having a university college. “Knowledge cities” show more positive development than other municipalities. Even though the coefficient is changed in model 3 compared to model 2, the pattern is the same with regards to the relationship between the

interaction term with population category and Norway. All models show a decreasing AIC and BIC throughout the model building, hence showing that model 3 is the best statistical fit for describing the demographic development in municipalities in Northern Norway and Northern Sweden from 1952 to 2015.

## 5. Discussion

The regression models in Table 4 reject *H1*. There is no case for arguing that demographic development in smaller municipalities in Northern Norway has been more positive than demographic development in Northern Sweden. The combination of the theoretical framework of Brox,<sup>70</sup> the implementation of generous regional policies and most importantly the fact that a larger percentage of the national population lives in Northern Norway than in Northern Sweden, makes it understandable why people claim that Norway's regional policies have been successful. Confirmation bias and the notion of state dependency<sup>71</sup> may lead politicians<sup>72</sup> and scholars<sup>73</sup> towards the narrative of a Norwegian success story when analyzing regional policy. The error may also occur because people think cross-sectionally, instead of longitudinally, when analyzing social development. The majority of Norwegian political scientists and sociologists, especially in the 20<sup>th</sup> century, mainly used cross-sectional analyses instead of longitudinal analyses.<sup>74</sup> Finally, as mentioned earlier, comparative regional studies are rare in the literature.

The analysis also shows that not all policies for regional development have been in vain. In both countries, policies that have had a significant local and regional impact are not always considered to be policies that promote spatial redistribution, but rather policies that promote social redistribution in line with the Nordic welfare state model.<sup>75</sup> Public goods like kindergartens, schools, social services and unemployment benefits are equally distributed spatially in the welfare state. Small rural communities are secured a functioning welfare system, and jobs required for welfare production (teachers, nurses, etc.) are also available. Another example is the effect of the national decision to create universities in Umeå and Tromsø to promote social equality by offering higher education to young Swedes and Norwegians in the North. This has also had a strong regional effect. Derived from this, *H2* postulating more positive development in the university cities is confirmed.

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70 Brox, *Hva skjer i Nord-Norge?*

71 Eriksen, "Det nye Nord-Norge: Avhengighet og modernisering i nord."

72 Werner, "Helga satser på by og land"; Vedum, "Sentraliseringen er blåkopi."

73 Paul Pedersen, "Personrettede tiltak som distriktpolitiske virkemiddel i Nord-Troms og Finnmark etter år 2000," in *Hvor går Nord-Norge? Bind 3*, ed. Svein Jentoft, Jens-Ivar Nergård, and Kjell Arne Røvik (Stamsund: Orkana akademisk, 2013).

74 Tor Midtbø, "Et spørsmål om tid: Tidsserieanalyse som et verktøy i samfunnsvitenskapen," *Tidsskrift for samfunnsforskning* 41, no. 4 (2000).

75 Esping-Andersen, *The Three Worlds of Welfare Capitalism*.

Instead of finding a unique path of regional development in Northern Norway, I have found that Northern Norway and Northern Sweden have experienced a strikingly similar development path over the last 65 years. First, there is a larger trend where a majority of municipalities (105 out of 116) showed negative relative growth in the period 1952–2015. In both countries, universities were established in the 1960s and 1970s within a social egalitarianism framework to expand opportunities for higher education, develop the Northern regions<sup>76</sup> and meet the need for highly trained personnel in the expanding health and welfare services sectors in the north.<sup>77</sup> As seen in the regression model (Table 4) and figure 2, population growth in the two university cities, Umeå and Tromsø, is very similar. These “knowledge cities” seem to be the winners in the Scandinavian North. There is no doubt that the establishment and increased financing of higher education in the Northern regions has been a key policy for national policymakers. When the Norwegian authorities realized that there was not enough capacity in the existing universities in Oslo and Bergen, they decided to meet the expanding need for higher education through the establishment of new universities, despite strong concerns from existing research communities.<sup>78</sup> Inspired by the establishment of the University of Umeå, the University of Tromsø was also established to promote regional development. The decision to establish a university in Tromsø should be understood as part of the central-peripheral conflict in Norwegian politics.<sup>79</sup>

Second, there are also strong similarities in the relative development between Bodø and Luleå, where national authorities established university colleges in the 1970s, partly as regional investment in industrial activity in the northern part of the country.<sup>80</sup> The relative success of Tromsø and Bodø (see figure 2) also explains why average growth in the largest municipalities in Northern Norway is so much higher (see figure 1).

Third, the relative decline in the old industrial cities in the High North, especially after 1975, is also striking. Their decline challenges the viewpoint that urbanization is the driving force behind demographic change. Until the early 1970s, Skellefteå was the largest city in Northern Sweden, but it has now been surpassed by Umeå and Luleå. In Northern Norway, Rana’s share of the national population has declined since 1970, but a smaller city like Alta, where there is a university college, has increased. The deindustrialization that has marked Western Europe for the last 40 years has also asserted itself in Arctic Scandinavia.

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76 Elenius et al., *The Barents Region: A Transnational History of Subarctic Northern Europe*.

77 Fulsås, *Universitetet i Tromsø 25 år*; Olsson and Wiberg, *Universitetet och den regionala utmaningen*; Arbo, “Universitetet som regional utviklingsaktør.”

78 Fulsås, *Universitetet i Tromsø 25 år*.

79 Rokkan, *Stat, Nasjon, Klasse*.

80 Elenius et al., *The Barents Region: A Transnational History of Subarctic Northern Europe*.

Fourth, as seen in the regression models and in figure 1, development after 1975 is very similar for the smallest municipalities, smaller municipalities and medium-sized municipalities, regardless of country. This may partly be explained by the dependence of smaller municipalities on inter-municipal cooperation in order to take advantage of tailor-made policies adapted to local needs. However, the slow but consistent decline over the last 40 years, as predicted by theories of “knowledge cities”,<sup>81</sup> urbanization and New Economic Geography<sup>82</sup>, is clear when all municipalities are taken into account, including those with less inter-municipal cooperation. Tiebout<sup>83</sup> has used the expression “voting with their feet” to describe how people with the freedom to move, choose to live in communities whose local government best satisfies their set of preferences. Comparing Northern Norway and Northern Sweden shows that people in Arctic Scandinavia choose urban locations when they have the choice, not the rural lifestyle envisaged by Brox.<sup>84</sup> Finally, what do these findings mean for regional policies? Sweden has spent much less than Norway on policies for regional development in the northern parts, but the results are strikingly similar. Future discussions around policies for regional development, should take into account what type of regional policies work instead of focusing solely on the amount of resources applied. Regional development is more than the money spent on regional policies. In order to escape state dependency, actors in peripheral regions should also challenge their perceptions of what is required for development in their region and embrace new ideas for regional development. Putting more and more money into the same structures, like tax subsidies for businesses, does not seem like a good strategy.

Nevertheless, perhaps regional policies should be viewed as a *political* tool, rather than an *economic* tool for regional development. This would provide a visible and specific solution to periphery-center misalignment, or as Rokkan puts it, gaining loyalty from the periphery to the center and curbing the center-periphery tension. From this perspective the success of regional policies is not measured by economic or population growth, but by political goals like voting participation or political trust to national institutions. If this is the case, national politicians should reframe the official goals of regional policies.

## 6. Conclusion

Analyzing the long lines of demographic development in Arctic Scandinavia over the last 60 years reveals a striking similarity in development between Northern Norway and Northern Sweden. Despite Norway adopting an expansive regional policy inspired by Broxian theories of growth in smaller municipalities, there is no

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81 Florida, *Cities and the Creative Class*.

82 Brakman, Garretsen, and Van Marrewijk, *The New Introduction to Geographical Economics*.

83 Tiebout, “A Pure Theory of Local Expenditures.”

84 Brox, *Hva skjer i Nord-Norge?*

significant effect of these policies regarding demographic development. The larger trend in both countries is that the population in the North has declined at approximately the same relative speed compared to the rest of the nation.

That said, some regionally based policies, like the establishment of universities in the north, seem to have had a positive effect on development. “Knowledge cities” are the drivers for demographic development in Arctic Scandinavia. Establishing regional universities and university colleges has been a deliberate choice by policy-makers partly motivated by a desire to promote regional development. In both countries, this has been the most successful regional development policy in the north.

This study also raises questions about what are the most efficient regional policies. The findings suggest that it is not necessarily the amount of resources applied that matter the most for regional development, and that other factors may be more important. At the same time, the goal of regional policies might be of a more political nature, aiming to curb the center-periphery tension as described by Rokkan.

This study has only focused on the two most similar regions in the Arctic, because of a desire to analyze the specific effect of policies targeted towards Northern Norway. A broader comparative analysis of the whole Arctic region could be a path for further study. Applying a mixed-methodological approach, case studies of some of the smaller, but still relatively successful municipalities in Arctic Scandinavia could also be of interest to social scientists.

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## References

- Andersen, Kristina Vaarst, Høgni Kalsø Hansen, Arne Isaksen, and Mika Raunio. “Nordic City Regions in the Creative Class Debate—Putting the Creative Class Thesis to a Test.” *Industry and Innovation* 17, no. 2 (2010/04/01 2010): 215–40.
- Andersson, Roland. “The Efficiency of Swedish Regional Policy.” *The Annals of Regional Science* 39, no. 4 (December 01 2005): 811–32.
- Arbo, Peter. “Universitetet som regional utviklingsaktør.” In *Hvor går Nord-Norge? Tidsbilder fra en landsdel i forandring*, edited by Svein Jentoft, Jens-Ivar Nergård and Kjell Arne Røvik. Stamsund: Orkana Akademisk, 2011.
- Arbo, Peter, and Paul Benneworth. “Understanding the Regional Contribution of Higher Education Institutions: A Literature Review.” *OECD Education Working Papers*, no. 9 (2007): 1.
- Armstrong, Harvey, and Jim Taylor. *Regional Economics and Policy (3rd Edition)*. Oxford: Blackwell, 2000.
- Begg, Iain, Barry Moore, and John Rhodes. “Economic and Social Change in Urban Britain and the Inner Cities.” *Critical issues in urban economic development* 1 (1986): 10–49.
- Billings, Stephen. “Do Enterprise Zones Work? An Analysis at the Borders.” *Public Finance Review* 37, no. 1 (2009): 68–93.



- Brakman, Steven, Harry Garretsen, and Charles Van Marrewijk. *The New Introduction to Geographical Economics*. Cambridge University Press, 2009.
- Brandal, Nik, Øivind Bratberg, and Dag Thorsen. *The Nordic Model of Social Democracy*. Berlin: Springer, 2013.
- Brox, Ottar. *Hva skjer i Nord-Norge?:* Oslo: Pax Forl., 1966.
- . *Nord-Norge: Fra allmenning til koloni*. Oslo: Universitetsforlaget, 1984.
- Clark, Gordon L. “A Theory of Local Autonomy.” *Annals of the Association of American Geographers* 74, no. 2 (1984): 195–208.
- Commission, European. “Cohesion Policy and Sweden.” [http://ec.europa.eu/regional\\_policy/en/information/publications/factsheets/2014/cohesion-policy-and-sweden](http://ec.europa.eu/regional_policy/en/information/publications/factsheets/2014/cohesion-policy-and-sweden).
- Cruickshank, Jørn. “Protest against Centralisation in Norway: The Evolvement of the Goal for Maintaining a Dispersed Settlement Pattern.” *Norsk Geografisk Tidsskrift – Norwegian Journal of Geography* 60, no. 3 (2006/09/01 2006): 179–88.
- Database, European Election. “Election Results, Sweden: Referendum on the Accession to the European Union, 1994.” 2018.
- . “Norway: Referendum on the Accession to the European Union 1994.” 2018.
- Elenius, Lars, Hallvard Tjelmeland, Maria Lähteenmäki, and Alexey Golubev. *The Barents Region: A Transnational History of Subarctic Northern Europe*. Oslo: Pax Forlag, 2015.
- Eriksen, Erik Oddvar. “Det nye Nord-Norge: Avhengighet og modernisering i nord.” In *Avhengighet og modernisering i nord*, edited by Erik Oddvar Eriksen. Bergen: Fagbokforlaget, 1996.
- Esping-Andersen, Gosta. *The Three Worlds of Welfare Capitalism*. New York: John Wiley & Sons, 2013.
- Florida, Richard. *Cities and the Creative Class*. London: Routledge, 2005.
- Frick, Susanne A., Andrés Rodríguez-Pose, and Michael Wong. “Towards Economically Dynamic Special Economic Zones in Emerging Countries.” Utrecht University, Department of Human Geography and Spatial Planning, Group Economic Geography, 2018.
- Fulsås, Narve. *Universitetet i Tromsø 25 år*. Tromsø: Universitetet i Tromsø, 1993.
- George, Alexander L., and Andrew Bennett. *Case Studies and Theory Development in the Social Sciences*. Boston: MIT Press, 2005.
- Goldsmith, Michael, and Edward Page. *Central and Local Government Relations: A Comparative Analysis of West European Unitary States*. Sage London, 1987.
- Grønnaas, O., J. Halvorsen, and L. Torgersen. “Problemet Nord-Norge.” *Studieselskapet for nordnorsk næringsliv*. (1948).
- Hendin, Herbert. “*Suicide and Scandinavia*.” New York: Grune & Stratum (1964).
- Hersoug, Bjørn, and Dag Leonardsen. “*Bygger de landet*.” Oslo: Pax forlag (1979).
- Hervik, Arild, and Mette Rye. “An Empirical and Theoretical Perspective on Regional Differentiated Payroll Taxes in Norway.” (2003).
- Hirschman, Albert. “*Exit, Voice, and Loyalty*.” Cambridge, MA: Harvard University Press 1 (1970).
- Hulst, Rudie, and André Van Montfort. *Inter-Municipal Cooperation in Europe*. Vol. 238: Springer, 2007.
- Jacobsen, Dag Ingvar, E. Kvelland, C. Kiland, and F. S. Gundersen. “Evaluering av interkommunalt samarbeid etter kommunelovens § 27–Omfang, organisering og virkemåte.” *Universitetet i Agder. Kristiansand* (2011).
- Kjeldstadli, Knut. “Nyten av å sammenlikne.” *Tidsskrift for samfunnsforskning* 29, no. 5 (1988): 435–48.
- Kjellberg, Francesco. “Local Government and the Welfare State: Reorganization in Scandinavia.” in *Dente, B. & Kjellberg, F. (red.) The Dynamics of Institutional Change. Local Government Reorganisation in Western Democracies*. London: Sage Publications (1988).
- Lidström, Anders. “Socialdemokraternas tillbakagång 1973–2014: Strukturella förklaringar och regionala variationer.” In *Forskningsrapporter i statsvetenskap vid Umeå universitet*, 55. Umeå: Umeå universitet, 2018.
- Lijphart, Arend. “Ii. The Comparable-Cases Strategy in Comparative Research.” *Comparative political studies* 8, no. 2 (1975): 158–77.
- Mellander, Charlotta, and Richard Florida. “Creativity, Talent, and Regional Wages in Sweden.” *The Annals of Regional Science* 46, no. 3 (2011): 637–60.
- Midtbø, Tor. “Et spørsmål om tid: Tidsserieanalyse som et verktøy i samfunnsvitenskapen.” *Tidsskrift for samfunnsforskning* 41, no. 4 (2000): 58–84.
- Miller, Arthur H., and Ola Lishaug. “Political Parties and Confidence in Government: A Comparison of Norway, Sweden and the United States.” *British Journal of Political Science* 20, no. 3 (1990): 357–86.

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- Mouritzen, Poul Erik. "City Size and Citizens' Satisfaction: Two Competing Theories Revisited." *European Journal of Political Research* 17, no. 6 (1989): 661–88.
- Neumark, David, and Jed Kolko. "Do Enterprise Zones Create Jobs? Evidence from California's Enterprise Zone Program." *Journal of Urban Economics* 68, no. 1 (2010): 1–19.
- Norway, Government of. "Tilskuddsbrev til fylkeskommunene 2016 programkategori 13.50 post 60." edited by Ministry of Local Government and Modernisation, 2016.
- O'Keefe, Suzanne. "Job Creation in California's Enterprise Zones: A Comparison Using a Propensity Score Matching Model." *Journal of Urban Economics* 55, no. 1 (2004): 131–50.
- Oates, Wallace E. *"Fiscal Federalism."* Cheltenham: Edward Elgar Publishing (1999).
- Olsson, Björn, and Ulf Wiberg. *Universitetet och den regionala utmaningen*. Nora, Bokförlaget nya Doxa, 2003.
- Osborne, David, and Ted Gaebler. "Reinventing Government: How the Entrepreneurial Spirit Is Transforming Government." *Reading Mass. Addison Wesley Public Comp* (1992).
- Parsons, Talcott. "On the Concept of Political Power." *Proceedings of the American Philosophical Society* 107, no. 3 (1963): 232–62.
- Pedersen, Paul. "Personrettede tiltak som distriktspolitiske virkemiddel i Nord-Troms og Finnmark etter år 2000." In *Hvor går Nord-Norge? Bind 3*, edited by Svein Jentoft, Jens-Ivar Nergård and Kjell Arne Røvik. Stamsund: Orkana akademisk, 2013.
- Porter, Michael E. "Location, Competition, and Economic Development: Local Clusters in a Global Economy." *Economic development quarterly* 14, no. 1 (2000): 15–34.
- Rokkan, Stein. *Citizens, Elections, Parties: Approaches to the Comparative Study of the Processes of Development*. ECPR Press, 2009.
- . *Stat, Nasjon, Klasse*. Oslo: Universitetsforlaget, 1987.
- . *State Formation, Nation-Building, and Mass Politics in Europe: The Theory of Stein Rokkan: Based on His Collected Works*. Clarendon Press, 1999.
- Rokkan, Stein, and Derek W. Urwin. *Economy, Territory, Identity: Politics of West European Peripheries*. London: Sage Publications, 1983.
- Røvik, Kjell Arne, Jens-Ivar Nergård, and Svein Jentoft. *Hvor går Nord-Norge?* Stamsund: Orkana akademisk, 2011.
- Sartori, Giovanni. "The Sociology of Parties." In *The West European Party System*, edited by Peter Mair: Oxford: Oxford University Press on Demand, 1990.
- Sharpe, Lawrence J. "Local Government Reorganization: General Theory and UK Practice." *The Dynamics of Institutional Change* (1988): 89–129.
- Slagstad, Rune. *De nasjonale strateger*. Oslo: Pax, 1998.
- Strøksnes, Morten. "Nordlands profet." *Dagbladet*, 30.07. 2008.
- Strömberg, Lars, and Jörgen Westerståhl. "De nya kommunerna." i *Strömberg, Lars & Jörgen Westerståhl (red), De nya kommunerna. En sammanfattning av den kommunaldemokratiske forskningsgruppens undersökningar*. Stockholm: Liber Förlag (1983).
- Svalastoga, Kaare. *Prestige, Class, and Mobility*. Stockholm: Scandinavian University Books, 1959.
- Teigen, Håvard. "Distriktspolitikens historie: Frå nasjonal strategi til regional fragmentering?" *Plan* 43, no. 06 (2011): 48–54.
- Teune, Henry, and Adam Przeworski. *The Logic of Comparative Social Inquiry*. New York: Wiley-Interscience, 1970.
- Tiebout, Charles M. "A Pure Theory of Local Expenditures." *Journal of political economy* 64, no. 5 (1956): 416–24.
- Valen, Henry. "Norway: 'No' to EEC." *Scandinavian Political Studies* 8, no. A8 (1973): 214–26.
- Vedum, Trygve Slagsvold. "Sentraliseringen er blåkopi." *Nasjonen*, 12.08.2015 2015, 18.
- Werner, Kjell. "Helga satser på by og land." FriFagbevegelse, <https://frifagbevegelse.no/article-6.158.52638.bdb95fa104>.
- Wilson, James. *Bureaucracy: What Government Agencies Do and Why They Do It*. New York: Basic Books, 1989.
- Wolman, Harold. "Decentralization: What It Is and Why We Should Care." *Decentralization, Local Governments, and Markets* (1990): 29–42.

**Appendix: Correlation matrix**

Variable	Year	Norway	University city	University College city	Year after 1975	Municipality size (numeric)
Year	1	0	0.05	0.11	0.95	0
Norway	0	1	-0.07	0.04	0	-0.05
University city	0.05	-0.07	1	-0.02	0.03	-0.21
University College city	0.11	0.04	-0.02	1	0.10	-0.001
Year after 1975	0.95	0	0.03	0.10	1	-0
Municipality size (numeric)	0	-0.05	-0.21	-0.001	-0	1

NB: Coding and data set for this paper are available at: <https://github.com/Tromso-Jonas/ThesisPaper1>

## **Paper II**

Jonas Stein, Marcus Buck & Hilde Bjørnå (2019) *The centre–periphery dimension and trust in politicians: the case of Norway*, Territory, Politics, Governance, DOI:

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## The centre–periphery dimension and trust in politicians: the case of Norway


Jonas Stein, Marcus Buck & Hilde Bjørnå

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# The centre–periphery dimension and trust in politicians: the case of Norway

Jonas Stein <sup>a</sup>, Marcus Buck <sup>b</sup> and Hilde Bjørnå <sup>c</sup>

## ABSTRACT

Scholars have often studied social, political and economic factors affecting trust. This paper considers the relationship between spatial location and trust in politicians. It is hypothesized that the centre–periphery framework developed by Stein Rokkan has explanatory value for the study of trust in politicians. By using multilevel regression analysis on a large-*N* survey on a crucial case (Norway), the paper controls for the urban–rural divide and cultural, institutional, political and economic factors at both the individual and municipal levels. The findings indicate that spatial location manifests itself as a unique explanatory variable and that the peripheral regional location (i.e., distance from the political centre) matters more for spatial differences in trust in politicians than the urban–rural divide. The spatial dimension of political trust could be considered as an additional factor for explaining differences in trust in politicians.

## KEYWORDS

political trust; geography; centre; periphery; trust in politicians; urban; rural; distance; Norway


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## INTRODUCTION

While high levels of political trust are considered an essential component of a well-functioning society, there is a growing sense that such trust is deteriorating in contemporary democracies (Hardin, 2013; Klingemann, 1999; Lipset & Schneider, 1983; Norris, 1999; Nye, Zelikow, & King, 1997; Pharr & Putnam, 2000; Torcal, 2014), albeit less so in the Nordic countries (Dalton, 2005). Understanding the causes behind political trust is of interest not only for political scientists but also for governments and citizens in general.

In the present paper, we understand political trust to be the public sentiment about the (local and national) government and its political representatives (Turper & Aarts, 2017). Political trust is often explained in relation to government performance and citizens' normative expectations (Hetherington, 1998; Rothstein, 2011) in relation to cultural norms and early-life socialization (Almond & Verba, 2015; Inglehart, 1997; Mishler & Rose, 2001; Putnam, 2001) or to political and electoral variables (Listhaug, 1995; Miller & Listhaug, 1990; Newton & Norris, 2000). The spatial aspects of political systems, however, have mainly been relegated to control variables linked


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to urban versus rural residence (e.g., Delhey & Newton, 2005; Hooghe, Marien, & de Vroome, 2012).

This study turns the tables and explores the explanatory power of the centre–periphery divide on citizens’ trust in local and national politicians. We hypothesize that even though government performance, cultural and political variables certainly have a strong influence on trust in politicians, their explanatory powers are not fully sufficient to explain political trust formation. This paper highlights the spatial dimension of trust and that regional spatial location (in a centre–periphery framework) could be considered an additional independent variable for explaining trust in politicians. More specifically, the spatial location could be measured in terms of the distance from the capital.

The centre–periphery framework has long been important to political scholars (Iversen, 1994; Keating, 1998; Lipset & Rokkan, 1967). Especially Rokkan and Urwin (1983) argued that the peripheral ‘predicament’ itself is a distinct factor that must be considered when explaining various political systems and outcomes. Rokkan (1999) argued that in all European countries, the nation-building process yielded a centre–periphery tension between the capital region and peripheral regions, and that this tension was key in the formation of the political system.

We have chosen Norway as a case for this study, as we agree with Eckstein (2015) that the particular blend of division and cohesion in Norwegian democracy renders it a good crucial case to explore the validity of general hypotheses and theories (see Gerring, 2007, for a discussion). Past trust studies have also used Norway as an exploratory case (Denters, 2002; Høyer & Mønness, 2016). In addition, the peripheries of interest in this study are not highly mobilized regions demanding full independence, and we therefore avoid the problems associated with deviant or extreme cases (George & Bennett, 2005). Norway used to be spatially divided with regard to political identities but now generally demonstrates high average levels of trust in both government institutions and politicians (Dalton, 2005; Torcal, 2014). Generous policies for promoting social cohesion and regional development have been established (Eriksen, 1996). Thus, there are many arguments for why there should be *no* spatial differences in political trust in Norway today. To explore the relationship between the centre–periphery dimension and political trust, we applied a multilevel regression analysis on a survey (Difi, 2015) with 20,604 Norwegian respondents on level 1 (individual data). On level 2 (municipality data), we used public data from 427 Norwegian municipalities to explore social and economic explanations for spatial differences in trust in politicians.

The paper is structured as follows. It next discusses a broader conceptual and theoretical framework for the centre–periphery theory, other theories of political trust and the case of Norway. The paper then accounts for the data collection and methods applied. It then presents the main results and discusses them. Finally, it concludes.

## THEORETICAL AND EMPIRICAL FRAMEWORK

### The centre–periphery perspective

The centre–periphery dimension of the modern nation-state is first and foremost linked to the work of Stein Rokkan. Rokkan’s most important contribution to political analysis was the addition of an independent territorial dimension to politics: the centre–periphery axis linking the institutional architecture of a nation-state to its territorial structure (i.e., its given political and spatial characteristics) (Rokkan, 1987a, 1999). The theoretical salience of the centre–periphery nexus is that the existence of a political centre logically presupposes a periphery – and vice versa. The two are interdependent. Centre, as much as periphery, is a dependent variable in macro-historical terms.

From this follows that, as any collective distinction may serve as the underpinning for political mobilization (Sartori, 1975), differing historiographies linked to this process may create



territorially different political interests. Hence, political actors who perceive themselves as ‘representatives of peripheries’ tend to nurture the idea that different interests linked to territories have developed over time. A form of *spatial identity* is thus an asset in the regional political mobilization against the centralising efforts of the state.

Jennings and Stoker (2016) argued that there is a divide between the citizens residing in locations that are strongly connected to global growth and others that are not, and that a divide exists between those from densely populated urban centres with an emerging knowledge economy and those living in suburban communities, coastal areas and post-industrial towns. The latter group holds different values and feel ‘left behind’ in political visions and strategies (Jennings & Stoker, 2017b, pp. 4–5). In Britain, this manifests in the geographical polarization of voting behaviour. The geographical polarization of votes is an expression of disappointment and distrust in the trends in the economic, educational and social areas and illustrates disintegration; place-based experiences provide a dynamic that is pulling the cosmopolitan and ‘left-behind’ locations further apart (Jennings & Stoker, 2016; Rodríguez-Pose, 2018). As Jennings and Stoker (2017a) argue, this disintegration is due to vast global economic, cultural and social shifts: the economic in terms of divides between the knowledge/change economy and the traditional stable economy; the social in terms of divides in patterns of immigration and education; and the cultural in terms of divides between those with social liberal identities in the urban areas and those with traditionalist identities linked to ancestry and birthplace.

In line with the Rokkan perspective, we argue that regional disintegration might also be persistent and enduring; it builds on much the same mechanisms argued by Jennings and Stoker but is deep-seated and connected to the history of regions and their distance from the centre. While disintegration needs constant attention and accommodation from the centre to be overcome, the conception of ‘us’ in the region and ‘the elites’ in the centre may never be removed. According to the Rokkanian perspective, the regional identities are formed by economic, political and cultural *tensions* in relation to the centre. The degree of political representation in central government bodies matters, as does economic distribution. According to this perspective, the cultural tensions refer to the centre’s lack of integration and respect for regional cultural expressions. Such local cultural expressions are found in religious practices, language and local traditions. Regional identities building on an opposition to the centre can potentially mobilize against national strategies and spur mistrust in central government.

Whether the peripheral actors choose and succeed in mobilizing on a territorial basis largely depends on the status of the periphery vis-à-vis the state in the various phases of the process of modernization. In the struggle over the identity of the citizenry, the individual is subject to the pull of different identity-construction forces. As the centre–periphery power relationship is asymmetrical, factors such as distance, difference and dependence mean that the political discourse in the periphery tends to revolve around this very relationship. Rokkan and Urwin (1983) have shown how this dimension has contributed to the development of the political system and party structure in Western Europe. Recent political events like the referendums on independence in Catalonia (2018) and Scotland (2014) exemplify how the centre–periphery tensions are not only part of the contemporary political climate, but in some cases have turned into a manifest cleavage that structures politics within long-established European states. However, this centre–periphery dimension has not been analysed with regard to political trust. If this tension continues to affect the contemporary political organization, electoral system and party structure, it is reasonable to assume that it might also affect the trust people have in the politicians operating within that system. In other words, it is reasonable to assume that the centre–periphery tensions *spill over* to political trust.

Examining whether there is a difference in political trust between the centre and peripheral regions is the first step in the analysis. There are several explanations for *why* spatial differences possibly exist. First, socioeconomic characteristics might explain some differences in trust, as

they are not evenly distributed within the country. Studies should also control for differences in structural variables, such as age and gender. Dalton (2005) in particular has shown how higher education is strongly correlated with higher levels of trust.

Second, another spatial dimension of politics, namely the urban–rural divide, could explain regional differences. The transformation from agricultural to industrialized society has induced a sense of loss and deprivation in many rural areas due to depopulation and a loss of influence in politics. Past studies of political trust have used urban–rural residence as a control variable (e.g., Delhey & Newton, 2005; Hooghe et al., 2012).

Third, studies have shown that economic inequalities help explain differences in trust (e.g., Barbara, 2006; Uslaner, 1999). Variables such as economic growth or unemployment could therefore hold explanatory power for regional variations in trust.

Fourth, Kesler and Bloemraad (2010) found lower levels of societal trust in advanced democracies with higher levels of immigration; regional differences in immigration levels might explain differences in political trust.

Fifth, linked to the Rokkanian centre–periphery perspective, distance from the capital might explain differences in political trust. In the asymmetrical centre–periphery dimension linked to Rokkan’s theories about state- and nation-building, both the urban and rural areas in the periphery are characterized by distance, difference and dependence *in relation to the centre*. Their ability to influence distant decisions made in the political centre potentially fosters a sense of powerlessness and exclusion from the political system. The distance from the capital would also be in line with James Scott’s ideas about ‘The Art of Not Being Governed’, where the people are more sceptical regarding the powerful central state and government is more likely to move as far away from the political centre as possible (Scott, 2010).

### Cultural performance and electoral perspectives on trust

To be added to the theoretical arguments for why the centre–periphery dimension possibly has explanatory value for studies of political trust are other major theoretical explanations for differences in political trust. First, the cultural perspective on trust argues that trust in political institutions originates outside the political sphere and that trust is formed in long-standing and deep-seated beliefs about people that are rooted in cultural norms and communicated through early-life socialization (Almond & Verba, 2015; Inglehart, 1997; Mishler & Rose, 2001, p. 31; Putnam, 2001). This is a different understanding of culture than as found in the Rokkan perspective: the cultural perspective addresses a local social sphere and ties in society, not the centre’s integration policies with respect to regional cultural expressions. The cultural perspective argues that loss of trust ‘that reaches beyond the circle of personally known people’ (generalized trust) is caused by inequalities that prevail in society (Uslaner, 2002). Cultural theories hypothesize that trust originates outside the political sphere; it is exogenous and an extension of interpersonal trust. One strand of these theories emphasizes that trust is a collective property that is broadly shared by all members of society, while another argues that trust varies among citizens and is based on differences in socialization, background, experiences and the like. Interpersonal trust is further assumed to transfer into political institutions and to create a civic culture (Almond & Verba, 2015). This is what Putnam argues; that interpersonal trust spills over into cooperation in bowling leagues, choirs and voluntary organizations, and ‘spills up’ to political institutions (Helliwell & Putnam, 1995; Putnam, 1993). He identified membership in voluntary associations as a proxy for having higher trust individually and in society. This study, hypothesizing that regional spatial location might be an additional independent variable for explaining political trust, controls for membership in voluntary associations.

Second, the government performance perspective on trust (Van Ryzin, 2007), sometimes called the institutional perspective (Mishler & Rose, 2001), hypothesize that trust originates as an outcome of successful policies, that it is a consequence of institutional performance and that

it is politically endogenous. Trust in institutions is rationally based; it hinges on how citizens evaluate institutional performance. Institutions that perform well generate trust; untrustworthy institutions generate scepticism and distrust (Hetherington, 1998; North, 1990; Rothstein, 2011; Van Ryzin, 2007). One strand of the perspective on government performance emphasizes that trust in institutions varies across countries and must be regarded as an aggregate evaluation of the outputs of political institutions (success of government policies in matters like promoting growth, efficiency and avoiding corruption). Others argue that trust in institutions varies both within and across countries by individual tastes and experiences, attitudes, and individual social and economic position (Mishler & Rose, 2001). Political trust is often associated with trust in government (Nevitte & Kanji, 2002); a low level of trust in one institution is usually followed by low levels of trust in other institutions (Denters, Gabriel, & Torcal, 2007; Hetherington, 1998), and trust in institutions spills over to trust in politicians. The performance position has strong connotations with what Caramani (2004) described as the ‘nationalization of politics’, where major national factors explain differences, thereby rendering internal spatial location unimportant.

Third, studies of political trust have shown that political variables concerning elections are expected to provide a better explanation for different levels of political trust than demographic variables (Listhaug, 1995; Miller & Listhaug, 1990; Newton & Norris, 2000). Anderson (2005) argues that losing elections generates ambivalent attitudes towards political authorities. People who vote for parties that form a government (‘electoral winners’) tend to develop more positive attitudes to the political system, whereas those voting for parties that do not gain governmental power (‘electoral losers’) become more cynical. Those who abstain from voting also tend to have lower trust in politicians (Grönlund & Setälä, 2007). Many studies (Inglehart & Norris, 2016; Mudde, 2004, 2007) concerning the emerging populist or right-wing parties emphasize their distrust in politicians and the political system as important factors for their success. Their supporters have lower political trust, as also found in empirical studies in Scandinavia and Europe (Söderlund & Kestilä-Kekkonen, 2009).

Both the performance and the electoral perspectives should be considered mediator variables (Baron & Kenny, 1986). If living in the periphery is associated with lower trust in government and governmental institutions, it is reasonable to assume that those living in the periphery also display lower trust in the central government by abstaining from elections, voting for protest parties and/or dissatisfaction with public services. Consequently, when added to the model, these variables would predict peripheral status to have less effect.

### The spatial dimension of trust in local politicians

We also observe that the political trust concept is discussed less in relation to regional and local political actors and institutions. However, a study on Norway, Denmark, the Netherlands and the UK by Denters (2002) has shown that trust in local officeholders was typically (often considerably) higher than trust in national officeholders. This finding corresponds to predictions in political economy theory regarding the effect of size on satisfaction (Mouritzen, 1989); and satisfaction, as seen, is linked to trust in a performance perspective. Here, the most relevant political economy arguments are that smaller political units are more in accordance with citizen preferences. Small political systems force people to reveal their true preferences (Søndergaard, 1982) and are characterized by a closer relationship between political representatives and citizens; that is, that policies tend to correspond to the preferences of the citizens (Ostrom, Tiebout, & Warren, 1961). And further, that smaller political units are ideal for education to democracy, producing responsible citizens and opportunities for participation (Mill, 1861; Sharpe, 1970), whereas larger units produce alienation, cynicism and frustration (Mouritzen, 1989). Local governments offer benefits that citizens appreciate; they facilitate local adaptations and variations, facilitate citizen influence and participation, and they facilitate coordination efficiency. The cultural perspective

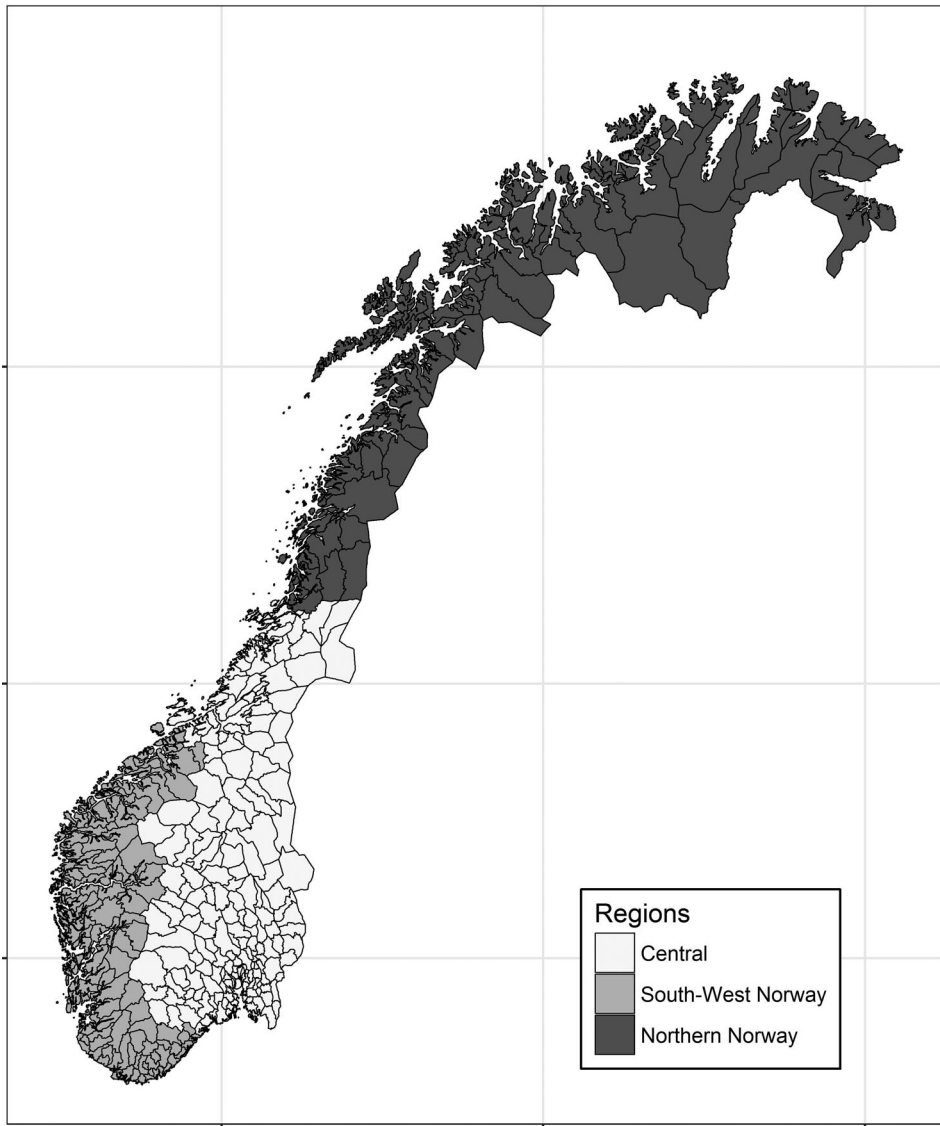
emphasizing the importance of societal trust for political trust also resonates with the idea of there being higher trust in local politicians who live their everyday lives in the local community and are connected with their voters. Hence, it is of interest whether citizens in the periphery exhibit higher trust in their local politicians than in national politicians.

The differences in trust between local and national politicians are not thoroughly considered in Rokkan's theories about the nation-building process and the centre–periphery conflict. The mechanism that would explain equal (or perhaps lower) trust in politicians in the periphery relative to the centre is deduced from the reform theory perspective (Mouritzen, 1989; Ostrom, 1972), arguing that larger political unit policies have greater impact and more effective service production than smaller ones. The Norwegian central government regulates many local policy fields tightly (e.g., schools and healthcare), as do most European countries, leaving local governments with limited autonomy. This likely constitutes a perception of local representatives more as brokers for the central government than advocates of the interests in the periphery (particularly if they are elected on the tickets of the nation-wide parties) and a perception of local governments as less significant. This leads to indifference when it comes trustworthiness. This explanation corresponds to the Rokkanian assumption about asymmetrical power structures between centre and periphery, and perceptions in the periphery as local governments being powerless and an extended arm of the central authority (Rokkan & Urwin, 1983). It is also worth noting that smaller political units are more likely to be homogenous as opposed to larger, more heterogenous units (Dahl & Tufte, 1973); and similarly, there is a chance of there being less diversity with respect to citizen preferences in smaller political units. A local government is therefore more likely to become a so-called 'tyranny of the majority' than a central government, which in itself can spur distrust in local governments.

### Empirical approach and the case of Norway

As mentioned, Rokkan detected the centre–periphery dimension in his studies on Norway. This dimension has been salient in Norwegian politics, as national governments have proposed and implemented policies aimed explicitly at remedying the centre–periphery divide (Eriksen, 1996; Teigen, 2011; Valen, 1973). For our purposes, Norway is an appropriate case, also because all the Norwegian municipalities, regardless of size, have the same responsibilities. Hence, trust in local politicians is easily comparable between municipalities and with national politicians. Further, the conditions in Norway are appropriate for investigating the centre–periphery as a unique explanatory variable for political trust, as it is likely that there should actually be no spatial differences regarding political trust. Trust levels in Scandinavia are among the highest in the world, and the high level of political trust is often ascribed to 'good government' (Rothstein & Stolle, 2003). High levels of socioeconomic resources, social security, income equality, civil liberties and gender equality (Sides, 1999) are embedded in state institutions and are crucial elements in generalized trust formation. The Scandinavian welfare model (Esping-Andersen, 2013) is universal in its character and essential for promoting social and spatial equality (Martin & Sunley, 1998). Norway (along with the other Scandinavian countries) has implemented explicit policies for limiting spatial inequalities within the country. Combined with good data on the individual and municipal level, this makes Norway a good case for exploring the relationship between the centre–periphery dimension and political trust on the national and local levels.

Rokkan defined two peripheral regions in Norway: Northern and South-West (Figure 1). South-West Norway was regarded as a cultural periphery marked by alternative standards, such as language (Nynorsk), lay Christianity and temperance. Northern Norway was seen as an economically backward periphery marked by class polarization. Regarding accommodation into the Norwegian political system, the two peripheries have fared differently. The cultural standards of the South-West were acknowledged relatively early in terms of the right to establish lay churches outside the official state church, a quota for Nynorsk in public administration, schools, and in national broadcasting as well as the right to ban alcohol locally. The establishment of both



**Figure 1.** Centre–periphery Rokkan model.

organized interest groups and a proper political party, the Christian Democratic Party (from 1933), further ensured that these cultural standards were voiced in the political system. The South-West has become a prosperous region with high incomes and population growth due to the hydrocarbon industry (Eurostat, 2017).

The Northern periphery has only seen sporadic and unsuccessful attempts at party-building to voice regional interests (Aune-listen and The Coastal Party) and has historically been marked by lower voter turnout in parliamentary elections (Buck, 2013) and slow demographic development compared with the rest of the country (Stein, 2019). However, the peripheral distinctiveness in Northern Norway has been used successfully for political mobilization against the political centre in Oslo on two occasions. In the Norwegian referendums about European Economic Community (EEC)/European Union (EU) membership in 1972 and 1994, the opposition was particularly strong in the peripheral areas and even more so in the north, where more than 70% of the

population voted against EU membership (Jenssen & Valen, 1995; Valen, 1973). After the 1972 debacle, Northern Norway benefited from large economic transfers in regional development funds from the centre. From a centre–periphery perspective, however, such funds could lead to a client–patron relationship (Eriksen, 1996), resulting in both increased dependency and mutual distrust. Since the two peripheries have had different political experiences, we expect the citizens of the Northern periphery to display lower levels of trust in politicians than those in the South–West periphery and the rest of the country. Thus, based on the theoretical framework above, we developed the following two main hypotheses.

*Hypothesis 1: Respondents in the Northern periphery exhibit lower levels of trust in national politicians than respondents in the rest of Norway.*

*Hypothesis 2: Respondents in both peripheries exhibit higher trust in local politicians than in national politicians.*

As a part of Hypothesis 1, we derived five sub-hypotheses in order to explore the causes of lower levels of trust in the peripheral regions:

*Hypothesis 1a: The lower levels of trust in national politicians are explained by socioeconomic and demographic differences.*

*Hypothesis 1b: The lower levels of trust in national politicians are explained by the urban–rural divide.*

*Hypothesis 1c: The lower levels of trust in national politicians are explained by differences in economic development and growth.*

*Hypothesis 1d: The lower levels of trust in national politicians are explained by differences in immigration settlement.*

*Hypothesis 1e: The lower levels of trust in national politicians are explained by the long distance from the capital (Oslo).*

## METHODS AND DATA

As mentioned above, scholars have debated how to measure political trust. We find the argument for creating an average of the levels of confidence that individuals have for a set of different political institutions compelling (Bovens & Wille, 2008; Catterberg & Moreno, 2006; Marien & Hooghe, 2011; Van der Brug & Van Praag, 2007). Although there are important similarities, trust in political actors, in liberal democratic institutions, and in the courts and police may vary (Denters et al., 2007). Nevertheless, we chose to use a single-item variable, ‘Trust in politicians’, as an indicator of the concept of political trust (for other studies with single-item indicators, see Hetherington & Rudolph, 2008; Newton, 2001; Rudolph & Evans, 2005; and Van der Meer, 2010). To compare trust between the local and national levels, it is necessary to have a comparable question to use to create the dependent variable. Consequently, we cannot say that our findings are valid for all types of political trust. Specifically, trust in local politicians is measured in terms of the question: ‘How much or little trust do you have that politicians in your municipality are working for the citizens’ best interests?’ (all questions answered on a scale from 1 to 7). Trust in national politicians is measured by the question: ‘How much or little trust do you have that politicians in Stortinget [the national parliament] are working for citizens’ best interests?’ (all questions answered on a scale from 1 to 7). The data came from the Norwegian Agency for Public Management and eGovernment’s citizen surveys (Dif, 2015) and included 20,744 respondents from all the Norwegian municipalities. The survey was conducted in two rounds (2013 and 2015).

Since there is almost no difference between the two waves (we ran models with a year dummy showing similar results), the responses were pooled for the analysis. The participants were a random sample drawn from the Norwegian population over age 18 years and invited by email to respond to the citizen’s survey. They could choose to respond by mail or online (see Appendix A in the supplemental data online for more specific information about the variables used in this survey).

In the analysis, we used a multilevel regression model with the respondents at level 1 ( $i$ ) and the 427 municipalities at level 2 ( $j$ ). All the independent variables (except two) were significant in bivariate models (see Appendix B in the supplemental data online), and we also ran the different models with various centring.<sup>1</sup> All the models were estimated by a maximum likelihood (ML) procedure. They were also run with a restricted maximum likelihood (REML) procedure, which produced the same results. The basic model takes the general form:

$$\text{Level 1: } Y_{ij} = \beta_{0j} + \beta_{1j}X_{ij} + r_{ij}$$

$$\text{Level 2: } \beta_{0j} = \gamma_{00} + \gamma_{01}W_j + u_{0j}$$

$$\beta_{1j} = \gamma_{10} + \gamma_{11}W_j + u_{1j}$$

The modelling strategy was to begin with exploring if there are regional differences in trust in national politicians. In model 1, we used Rokkan’s definition of functional peripheries in Norway to create two dichotomous variables: *Northern Norway* and *South-West Norway*. Northern Norway is defined as the three northernmost counties (Finnmark, Troms and Nordland). This definition is consistent with Rokkan’s periphery and is a level-2 region in Eurostat’s NUTS classification. The definition of *South-West Norway* is the same as used by Rokkan, that is, it consists of six counties: Hordaland, Møre og Romsdal, Sogn og Fjordane, Rogaland, Vest-Agder and Aust-Agder (Rokkan, 1987b).

Second, individual control variables such as age, income and education were added to the model. We also added a variable for urban–rural divide by adding the respondent’s residence (on a 1–6 scale depending on how rural they live). To control for cultural theories, it would have been preferable to have a variable for societal trust. Unfortunately, there is no such variable in this data set. Therefore, we used voluntary association membership as a proxy variable, as others have done (Baumgartner & Walker, 1988), which is also in line with Putnam (2001).

As mentioned above, some variables could be considered mediator variables, meaning that when they are added to the model not only do we expect them to have explanatory power in themselves but also we predict a decline in the strength of the effect of Northern Norway. In model 3, the variable *satisfaction with government services* is used to assess public performance. For electoral factors, we defined *right-wing voter* as a voter for the Norwegian Progress Party (Frp), *government party voter* as voting for the Conservative Party, Liberal Party, Christian People’s Party or Progress Party, and *abstainer* as anyone who said they had the right to vote but abstained from doing so. Here, the data are slightly susceptible due to the well-known tendency for surveys to underestimate the abstention rate (e.g., Granberg & Holmberg, 1991; Himmelweit, Biberian, & Stockdale, 1978).

In models 4–9, we try to dig deeper and based on the above hypotheses we try to remove any significant independent centre–periphery effect by adding one variable at a time at level 2. To control for economic inequalities, we used *GDP (at county level)* as a variable (there are 19 counties in Norway, three of which are in Northern Norway), and have also used another economic variable: *municipal unemployment rate* (model 5). As some studies (Kesler & Bloemraad, 2010) indicate that differences in immigration could influence trust, this is also controlled for in terms of the *percentage of municipal population classified as immigrants* (model 6). In the last models (7–9), we explored

the travelling distance (km) by car from the capital (Oslo) to the town hall in the municipality (using Open Street Maps).

To analyse Hypothesis 2 about the relative differences in trust between local and national politicians, we applied the same modelling strategy as in the analysis of trust in national politicians. The dependent variable is defined as:

$$\text{Difference trust} = \text{trust in local politicians} - \text{trust in national politicians}$$

## RESULTS

Model 1 shows a negative effect of *Northern Norway* on trust in national politicians, but no effect of the variable *South-West Norway*. As Rokkan suggested, even though both Northern and South-West Norway are peripheries, they are different kinds of peripheries. Respondents in the cultural periphery in South-West Norway do not have significantly lower trust in national politicians. In model 2, individual-level controls for socioeconomic characteristics and cultural theories are added to the model. As expected, some (higher education, membership in voluntary associations and rurality) have explanatory power. At the same time, note that the negative effect of *Northern Norway* remains significant. When the mediator variables are added to model 3, we find that all (except government-party voter) hold explanatory power and, as predicted, there is a decline in the strength of the effect of Northern Norway after adding those variables (Table 1).

However, a significant effect of Northern Norway remains after adding the control and mediator variables. This seems to support the more general Hypothesis 1 that there is significantly lower trust in national politicians in Northern Norway. As it can be explained by neither socioeconomic or demographic differences nor the urban-rural divide (see model 2), Hypotheses 1a and 1b must be rejected.

Adding economic variables (models 4 and 5) does not change the results. The same goes when immigration is added in model 6. Consequently, Hypotheses 1c and 1d are rejected.

When the distance from the capital is added in model 7, the dummy variable *Northern Norway* becomes insignificant. Using an interaction term in model 8, the peripheral indicator is insignificant and close to zero. In model 9, *Northern Norway* is left out of the model and *distance from the capital* becomes a significant variable for lower trust in national politicians. This seems to confirm Hypothesis 1e, according to which lower levels of trust in national politicians are explained by the long distance from the capital (Oslo). Distance from the capital is obviously correlated with the dummy variable *Northern Norway* (correlation = 0.82). In Appendix C in the supplemental data online, the same models are run with distance from the capital being logarithmically transformed, which reduces the collinearity (correlation = 0.47), but displaying similar results (Table 2).

Models 10–12 show the findings for differences in trust between national and local politicians. There are small differences as to which variables explain differences in political trust between local and national politicians. Even though the distance from the capital is significant in model 12, it is not significant in the bivariate model (model 15). The other spatial variables (*Northern Norway* and *Rurality*) hold no significant explanatory power in any of the models. This indicates that the spatial dimension is relatively limited for explaining differences in trust between national and local politicians.

## THE SPATIAL DIMENSION OF TRUST IN POLITICIANS

Based on the models, our findings indicate that there is a centre-periphery dimension for the explanation for some of the differences regarding trust in politicians. These findings are in line with theories emphasizing the spatial dimension of politics (Agnew, 1987; Iversen, 1994; Lipset



**Table 1.** Regression results.

	Dependent variable: Trust in national politicians								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Northern Norway</i>	-0.22*** (0.05)	-0.20*** (0.05)	-0.15*** (0.04)	-0.15*** (0.04)	-0.15*** (0.04)	-0.15*** (0.04)	-0.09 (0.09)	-0.01 (0.21)	
<i>South-West Norway</i>	-0.05 (0.04)	-0.03 (0.03)	-0.01 (0.03)	-0.02 (0.03)	-0.02 (0.03)	-0.01 (0.03)	-0.0004 (0.04)	-0.01 (0.04)	0.02 (0.03)
<i>Rurality</i>		-0.03*** (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
<i>Higher education</i>		0.38*** (0.03)	0.23*** (0.02)	0.23*** (0.02)	0.23*** (0.02)	0.23*** (0.02)	0.23*** (0.02)	0.23*** (0.02)	0.23*** (0.02)
<i>Age</i>		-0.001** (0.001)	-0.0005 (0.001)	-0.0005 (0.001)	-0.0005 (0.001)	-0.0005 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
<i>Income</i>		-0.003 (0.01)	0.005 (0.005)	0.004 (0.005)	0.004 (0.005)	0.004 (0.005)	0.004 (0.005)	0.004 (0.005)	0.004 (0.005)
<i>Woman</i>		0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)
<i>Membership in voluntary associations</i>		0.10*** (0.02)	0.04* (0.02)	0.04* (0.02)	0.04* (0.02)	0.04* (0.02)	0.04* (0.02)	0.04* (0.02)	0.04* (0.02)
<i>Satisfaction with government services</i>			0.80*** (0.01)	0.80*** (0.01)	0.80*** (0.01)	0.80*** (0.01)	0.80*** (0.01)	0.80*** (0.01)	0.80*** (0.01)
<i>Right-wing voter</i>			-0.45*** (0.04)	-0.45*** (0.04)	-0.45*** (0.04)	-0.45*** (0.04)	-0.45*** (0.04)	-0.45*** (0.04)	-0.45*** (0.04)
<i>Government party voter</i>			-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.02)

(Continued)

Table 1. Continued.

	Dependent variable: Trust in national politicians								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Abstainer</i>			-0.39*** (0.05)	-0.39*** (0.05)	-0.39*** (0.05)	-0.39*** (0.05)	-0.39*** (0.05)	-0.39*** (0.05)	-0.39*** (0.05)
<i>GDP (county level)</i>				0.001 (0.001)	0.001 (0.001)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)
<i>Municipal unemployment</i>					-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)
<i>Percentage of the population classified as immigrants</i>						0.001 (0.003)	-0.0001 (0.003)	0.0005 (0.004)	-0.001 (0.003)
<i>Distance from the capital (in 100 km)</i>							-0.01 (0.01)	-0.003 (0.01)	-0.01*** (0.003)
<i>Interaction term Distance*North</i>								-0.01 (0.02)	
Constant	4.25*** (0.02)	4.26*** (0.07)	0.21*** (0.07)	0.09 (0.16)	0.13 (0.16)	0.14 (0.17)	0.16 (0.17)	0.16 (0.17)	0.16 (0.17)
Observations	20,744	17,935	17,225	17,225	17,225	17,225	17,225	17,225	17,225
Log-likelihood	-39,374.13	-33,641.27	-28,967.39	-28,967.00	-28,966.62	-28,966.60	-28,966.38	-28,966.29	-28,966.82
Akaike information criterion (AIC)	78,758.27	67,304.55	57,964.79	57,966.01	57,967.23	57,969.20	57,970.76	57,972.59	57,969.64
Bayesian information criterion (BIC)	78,797.97	67,390.29	58,081.10	58,090.07	58,099.05	58,108.77	58,118.09	58,127.67	58,109.21

Notes: Standard errors are shown in parentheses. GDP, gross domestic product.

\* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$ .

**Table 2.** Regression results.

	Dependent variable: Difference in trust between national and local					
	(10)	(11)	(12)	(13)	(14)	(15)
<i>Northern Norway</i>	0.03 (0.07)	0.06 (0.08)	-0.24 (0.18)	0.05 (0.07)		
<i>South-West Norway</i>	-0.04 (0.05)	-0.06 (0.06)	-0.10 (0.07)			
<i>Rurality</i>		-0.02 (0.01)	-0.02 (0.01)		0.004 (0.01)	
<i>Higher education</i>		-0.21*** (0.03)	-0.22*** (0.03)			
<i>Age</i>		0.001 (0.001)	0.001 (0.001)			
<i>Income</i>		-0.02*** (0.01)	-0.02*** (0.01)			
<i>Woman</i>		0.01 (0.02)	0.01 (0.02)			
<i>Membership in voluntary associations</i>		0.01 (0.02)	0.01 (0.02)			
<i>Satisfaction with government services</i>		-0.13*** (0.01)	-0.13*** (0.01)			
<i>Right-wing voter</i>		0.06 (0.04)	0.07 (0.04)			
<i>Government party voter</i>		0.20*** (0.03)	0.20*** (0.03)			
<i>Abstainer</i>		0.23*** (0.06)	0.23*** (0.06)			
<i>GDP (county level)</i>			-0.003 (0.004)			
<i>Municipal unemployment</i>			-0.21*** (0.04)			
<i>Percentage of the population classified as immigrants</i>			0.02*** (0.01)			
<i>Distance from the capital (in 100 km)</i>			0.03** (0.02)			0.01 (0.01)
Constant	0.22*** (0.04)	0.98*** (0.10)	1.31*** (0.35)	0.20*** (0.03)	0.19*** (0.06)	0.18*** (0.04)
Observations	18,589	15,765	15,765	18,589	18,473	18,589

(Continued)

**Table 2.** Continued.

	Dependent variable: Difference in trust between national and local					
	(10)	(11)	(12)	(13)	(14)	(15)
Log-likelihood	-33,646.57	-28,172.57	-28,159.57	-33,646.89	-33,428.34	-33,646.54
Akaike information criterion (AIC)	67,303.14	56,375.14	56,357.13	67,301.79	66,864.69	67,301.08
Bayesian information criterion (BIC)	67,342.29	56,490.12	56,502.78	67,333.11	66,895.98	67,332.40

Note: Standard errors are shown in parenthesis. GDP, gross domestic product.

\* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$ .

& Rokkan, 1967; Rokkan, 1987a). Despite decades of so-called ‘Cohesion Policy’ and the development of a universal welfare system – the latter created to even-out social and spatial inequalities – we still find a significant spatial independent variable. The coefficient effect of the dummy variable is only 0.15 on a 1–7 scale (model 3), indicating that, while significant, the difference does not represent an unsurmountable cleavage in trust. In general, trust in politicians is high in Norway, even though it is slightly lower amongst people living in Northern Norway, one of two peripheral regions defined by (Rokkan, 1987b), and trust national-level politicians less, despite relevant control and mediator variables. This suggests that what Caramani (2004) described as the ‘nationalization of politics’, making internal spatial location unimportant, cannot be taken for granted. It suggests that regional disintegration might be persistent and enduring; the conception of ‘us’ in the region and ‘the elites’ in the centre is deep seated and may never disappear.

The models have also investigated what characterizes the peripheral dimension of trust in politicians. As model 7 illustrates, when the variable *distance from the capital* is added to the model, the dummy variable becomes insignificant. The Akaike information criterion (AIC) and Bayesian information criterion (BIC) basically being the same in model 6 (with Northern Norway and without *distance*) and model 9 (without Northern Norway and with *distance*) indicates that the general variable *distance from the capital* could replace the more case-specific variable *Northern Norway*. This could mean that distance from the political centre matters more for explaining territorial differences in trust in politicians than economic and cultural factors. As Scott (2010) has shown, those who are more sceptical of the powerful central state and government are more likely to move farther from the political centre. And this might also work the other way around: that the distance causes those living far away from the political centre to become more sceptical of institutions controlled from far away and that they feel that they have limited influence on those institutions.

It is also worth noting that the lower level of trust in national politicians in the peripheral region is similar to the level of trust in their local politicians. Again, this might indicate that local politicians are perceived less as defenders of the periphery and more as the extended arm of the central authorities (Rokkan & Urwin, 1983). The trust in local politicians is strongly correlated with trust in national politicians, and the relative differences are explained by performance (Denters et al., 2007; Hetherington, 1998; Rothstein, 2011) and political factors (Anderson, 2005; Newton & Norris, 2000; Söderlund & Kestilä-Kekkonen, 2009). In all the models for trust in both national and local politicians, the *rurality* variable is insignificant when controlling for cultural, performance and political factors. This indicates that some of the theoretical assumptions about the salience of small jurisdictions for trust in local democracy are weakened empirically. This might indicate that local politicians are perceived as insignificant or as brokers for the central government.

The spatial perspective has not been thoroughly studied in the trust literature other than sometimes as an urban–rural control variable in empirical studies (e.g., Delhey & Newton, 2005;

Hooghe et al., 2012). Keating (2018) noted that in most of the social sciences, space has merely been treated as ‘where things happened’ rather than something with explanatory capacity. He argued that space should be seen as not merely a topological category but as a social and political construct, the meaning of which is given by its content. By exploring the spatial dimension with regard to trust in politicians, our findings suggest that space could be a political construct and, in this case, that the most important spatial component is the region’s distance from the political centre, not the urban–rural divide. We also note that regional and municipal differences regarding economic performances and migration do not explain differences in political trust, at least not in a relatively egalitarian country like Norway.

In cross-country studies, many scholars have assumed that there is no regional difference between respondents within the same country. Adding a regional level in multilevel models might allow for more nuanced analyses. If there is a regional effect with regard to political trust in a rather homogenous, rich and politically stable country such as Norway, where the peripheral regions are not highly politically mobilized, one should take the possible effects of the centre–periphery dimension into account when studying differences in political trust in general.

## CONCLUSIONS

This study indicates that spatial location matters and suggests that lower levels of trust in politicians in peripheral regions cannot be accounted for entirely by the major theories of political trust. We find that the analyses have theoretical implications that go beyond current government performance, cultural and political explanations for the level of political trust, as this study deals with the uniqueness of space as a variable. It suggests that there are spillover effects of centre–periphery tensions to political trust and that the distance from the political centre matters for variations in trust in politicians. The theorized spillover effects in the cultural and performance perspective – that is, that interpersonal trust and trust in institutions spill over to trust in politicians – lacks this spatial dimension. This study suggests an additional explanation for political trust.

In addressing our case, we were looking particularly for the spatial dimension of political trust. Using a model with 15 different control and mediator variables, we were able to confirm the initial hypotheses that regional spatial location (in a centre–periphery framework) represents an additional independent variable that accounts for variations in trust in politicians. Furthermore, we asked if respondents in the Northern periphery display lower levels of trust in national politicians than those in the rest of Norway, which we found that they did. We found that the specific variable (*Northern Norway*) could be replaced by a more universal variable: distance from the capital (Oslo). This also means that the more general finding from this paper is that the distance to the central government seems to matter for individual political trust. We also asked whether peripheries display higher trust in local politicians than in national politicians and found that they did not. We ascribe this finding to political factors and explanatory variables in the performance perspective: we do not write off essential elements in other theoretical perspectives.

As to our methods, we acknowledge that there could be some sources of minor inaccuracies in some of the control variables and that additional control variables (e.g., societal trust) could be added. However, in a model with 15 different control and mediator variables, we believe that our general findings are solid and robust. This is a crucial case study, and single case studies such as this are limited with regard to generalizations, while the real need is to fashion generalizations with universal scope and validity. While we agree with this objection, single-case studies are useful as a first step and may be followed up by replications in different settings (Lijphart, 1975).

This paper has focused on the centre–periphery dimension for political trust in Norway. The centre–periphery relationship is part of all nation–building processes, and our finding is that it still seems to matter for social identities and trust, also after controlling for important socioeconomic factors and alternative theories. A more comprehensive analysis (e.g., including more countries or

other types of trust) could lead to a deeper understanding of the relationship between peripheral regions and political trust formation.

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## DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

## NOTE

1. All our models were also run with mean-centring of age, satisfaction with government services and trust in national politicians.

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## REFERENCES

- Agnew, J. (1987). *Place and politics*. Boston: Allen and Unwin.
- Almond, G. A., & Verba, S. (2015). *The civic culture: Political attitudes and democracy in five nations*. Princeton: Princeton university press.
- Anderson, C. (2005). *Losers' consent: Elections and democratic legitimacy*. Oxford: Oxford University Press on Demand.
- Barbara, A. (2006). *Diverse communities. The problem with social capital*. Cambridge New York: Cambridge University Press.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
- Baumgartner, F. R., & Walker, J. L. (1988). Survey research and membership in voluntary associations. *American Journal of Political Science*, 32, 908–928.
- Bovens, M., & Wille, A. (2008). Deciphering the Dutch drop: Ten explanations for decreasing political trust in the Netherlands. *International Review of Administrative Sciences*, 74(2), 283–305.
- Buck, M. (2013). Politisk mobilisering i Nord-Norge 1945–2009: En demokratisk periferi? In S. Jentoft, J.-I. Nergård, & K. A. Røvik (Eds.), *Hvor går Nord-Norge?* (Vol. 3, pp. 155–168). Stamsund: Orkana Akademisk.
- Caramani, D. (2004). *The nationalization of politics: The formation of national electorates and party systems in Western Europe*. Cambridge: Cambridge University Press.
- Catterberg, G., & Moreno, A. (2006). The individual bases of political trust: Trends in new and established democracies. *International Journal of Public Opinion Research*, 18(1), 31–48.
- Dahl, R. A., & Tufte, E. R. (1973). *Size and democracy*. Stanford: Stanford University Press.
- Dalton, R. J. (2005). The social transformation of trust in government. *International Review of Sociology*, 15(1), 133–154.

- Delhey, J., & Newton, K. (2005). Predicting cross-national levels of social trust: Global pattern or Nordic exceptionalism? *European Sociological Review*, 21(4), 311–327.
- Denters, B. (2002). Size and political trust: Evidence from Denmark, the Netherlands, Norway, and the United Kingdom. *Environment and Planning C: Government and Policy*, 20(6), 793–812.
- Denters, B., Gabriel, O., & Torcal, M. (2007). Political confidence in representative democracies. In J. W. Van Deth, J. R. Montero, & A. Westholm (Eds.), *Citizenship and involvement in European democracies. A comparative analysis* (pp. 66–87). New York: Routledge.
- Difi. (2015). *Innbyggerundersøkelsen* [Data set]. Retrieved from <https://www.difi.no/rapporter-og-statistikk/undersokelser/innbyggerundersokelsen-2015>
- Eckstein, H. (2015). *Division and cohesion in democracy: A study of Norway*. Princeton: Princeton University Press.
- Eriksen, E. O. (1996). Det nye Nord-Norge: Avhengighet og modernisering i nord. In E. O. Eriksen (Ed.), *Avhengighet og modernisering i nord* (pp. 150–180). Bergen: Fagbokforlaget.
- Esping-Andersen, G. (2013). *The three worlds of welfare capitalism*. New York: John Wiley & Sons.
- Eurostat. (2017). *Gross domestic product (GDP) at current market prices by NUTS 2 regions* [Data set]. Retrieved from [http://appsso.eurostat.ec.europa.eu/nui/show.do?data set=nama\\_10r\\_2gdp&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?data set=nama_10r_2gdp&lang=en)
- George, A. L., & Bennett, A. (2005). *Case studies and theory development in the social sciences*. Cambridge, MA: MIT Press.
- Gerring, J. (2007). Is there a (viable) crucial-case method? *Comparative Political Studies*, 40(3), 231–253.
- Granberg, D., & Holmberg, S. (1991). Self-reported turnout and voter validation. *American Journal of Political Science*, 35(2), 448–459.
- Grönlund, K., & Setälä, M. (2007). Political trust, satisfaction and voter turnout. *Comparative European Politics*, 5(4), 400–422.
- Hardin, R. (2013). Government without trust. *Journal of Trust Research*, 3(1), 32–52. doi:10.1080/21515581.2013.771502
- Helliwell, J. F., & Putnam, R. D. (1995). Economic growth and social capital in Italy. *Eastern Economic Journal*, 21(3), 295–307.
- Hetherington, M. J. (1998). The political relevance of political trust. *American Political Science Review*, 92(4), 791–808.
- Hetherington, M. J., & Rudolph, T. J. (2008). Priming, performance, and the dynamics of political trust. *The Journal of Politics*, 70(2), 498–512.
- Himmelweit, H. T., Biberian, M. J., & Stockdale, J. (1978). Memory for past vote: Implications of a study of bias in recall. *British Journal of Political Science*, 8(3), 365–375. doi:10.1017/S0007123400001411. Retrieved from <https://www.cambridge.org/core/article/memory-for-past-vote-implications-of-a-study-of-bias-in-recall/80FA5A33D95AC772D489B54905E5C12A>
- Hooghe, M., Marien, S., & de Vroome, T. (2012). The cognitive basis of trust. The relation between education, cognitive ability, and generalized and political trust. *Intelligence*, 40(6), 604–613.
- Høyer, H. C., & Mønness, E. (2016). Trust in public institutions – spillover and bandwidth. *Journal of Trust Research*, 6(2), 151–166. doi:10.1080/21515581.2016.1156546
- Inglehart, R. (1997). *Modernization and postmodernization: Cultural, economic, and political change in 43 societies*. Princeton: Princeton University Press.
- Inglehart, R., & Norris, P. (2016). *Trump, Brexit, and the rise of populism: Economic have-nots and cultural backlash*. Paper presented at 2016 meeting of the American Political Science Association.
- Iversen, T. (1994). The logics of electoral politics: Spatial, directional, and mobilizational effects. *Comparative Political Studies*, 27(2), 155–189.
- Jennings, W., & Stoker, G. (2016). The bifurcation of politics: Two Englands. *The Political Quarterly*, 87(3), 372–382.
- Jennings, W., & Stoker, G. (2017a). The new economy, social change, and polarised places: A changed terrain for British politics. *Renewal*, 25(3/4), 28–43.
- Jennings, W., & Stoker, G. (2017b). Tilting towards the cosmopolitan axis? Political change in England and the 2017 general election. *The Political Quarterly*, 88(3), 359–369.

- Jenssen, A. T., & Valen, H. (1995). *Brussel midt imot: folkeavstemningen om EU*. Oslo: Ad Notam Gyldendal.
- Keating, M. (1998). *The new regionalism in Western Europe: Territorial restructuring and political change*. Cheltenham, UK: E. Elgar.
- Keating, M. (2018). Time, space and methodological pluralism. *Territory, Politics, Governance*, 6(3), 277–278. doi:10.1080/21622671.2018.1488459
- Kesler, C., & Bloemraad, I. (2010). Does immigration erode social capital? The conditional effects of immigration-generated diversity on trust, membership, and participation across 19 countries, 1981–2000. *Canadian Journal of Political Science/Revue canadienne de science politique*, 43(2), 319–347.
- Klingemann, H.-D. (1999). Mapping political support in the 1990s: A global analysis. In P. Norris (Ed.), *Critical citizens: Global support for democratic government* (pp. 31–56). Oxford: Oxford University Press.
- Lijphart, A. (1975). II. The comparable-cases strategy in comparative research. *Comparative Political Studies*, 8(2), 158–177.
- Lipset, S., & Rokkan, S. (1967). *Cleavage structures, party systems, and voter alignments: An introduction*. New York: Free Press.
- Lipset, S., & Schneider, W. (1983). The decline of confidence in American institutions. *Political Science Quarterly*, 98(3), 379–402.
- Listhaug, O. (1995). The dynamics of trust in politicians. In H.-D. Klingemann & D. Fuchs (Eds.), *Citizens and the state* (pp. 261–297). Oxford: Oxford University Press.
- Marien, S., & Hooghe, M. (2011). Does political trust matter? An empirical investigation into the relation between political trust and support for law compliance. *European Journal of Political Research*, 50(2), 267–291.
- Martin, R., & Sunley, P. (1998). Slow convergence? The new endogenous growth theory and regional development. *Economic Geography*, 74(3), 201–227.
- Mill, J. S. (1861). *Considerations on representative government*. London: Parker and Son.
- Miller, A. H., & Listhaug, O. (1990). Political parties and confidence in government: A comparison of Norway, Sweden and the United States. *British Journal of Political Science*, 20(3), 357–386.
- Mishler, W., & Rose, R. (2001). What are the origins of political trust? Testing institutional and cultural theories in post-communist societies. *Comparative Political Studies*, 34(1), 30–62.
- Mouritzen, P. E. (1989). City size and citizens' satisfaction: Two competing theories revisited. *European Journal of Political Research*, 17(6), 661–688.
- Mudde, C. (2004). The populist zeitgeist. *Government and Opposition*, 39(4), 541–563.
- Mudde, C. (2007). *Populist radical right parties in Europe*. Cambridge: Cambridge University Press.
- Nevitte, N., & Kanji, M. (2002). Authority orientations and political support: A cross-national analysis of satisfaction with governments and democracy. *Comparative Sociology*, 1(3), 387–412.
- Newton, K. (2001). Trust, social capital, civil society, and democracy. *International Political Science Review*, 22(2), 201–214.
- Newton, K., & Norris, P. (2000). Confidence in public institutions. In S. J. Pharr & R. D. Putnam (Eds.), *Disaffected democracies: What's troubling the trilateral countries* (pp. 52–73). Princeton: Princeton University Press.
- Norris, P. (1999). *Critical citizens: Global support for democratic government*. Oxford: Oxford University Press.
- North, D. C. (1990). A transaction cost theory of politics. *Journal of Theoretical Politics*, 2(4), 355–367.
- Nye, J. S., Zelikow, P., & King, D. C. (1997). *Why people don't trust government*. Cambridge, MA: Harvard University Press.
- Ostrom, E. J. (1972). Metropolitan reform: Propositions derived from two traditions. *Social Science Quarterly*, 53(3), 474–493.
- Ostrom, V., Tiebout, C. M., & Warren, R. (1961). The organization of government in metropolitan areas: A theoretical inquiry. *American Political Science Review*, 55(4), 831–842.
- Pharr, S. J., & Putnam, R. D. (2000). *Disaffected democracies: What's troubling the trilateral countries?* Princeton: Princeton University Press.
- Putnam, R. D. (1993). The prosperous community. *The American Prospect*, 4(13), 35–42.



- Putnam, R. D. (2001). *Bowling alone: The collapse and revival of American community*. New York: Simon and Schuster.
- Rodríguez-Pose, A. (2018). The revenge of the places that don't matter (and what to do about it). *Cambridge Journal of Regions, Economy and Society*, 11(1), 189–209.
- Rokkan, S. (1987a). *Centre–periphery structures in Europe: An ISSC workbook in comparative analysis*. Frankfurt Am Main: Campus Verlag.
- Rokkan, S. (1987b). *Stat, nasjon, klasse*. Oslo: Universitetsforlaget.
- Rokkan, S. (1999). *State formation, nation–building, and mass politics in Europe: The theory of Stein Rokkan: Based on his collected works*. Oxford: Clarendon Press.
- Rokkan, S., & Urwin, D. W. (1983). *Economy, territory, identity: Politics of West European peripheries*. London: Sage Publications.
- Rothstein, B. (2011). *The quality of government: Corruption, social trust, and inequality in international perspective*. Chicago: University of Chicago Press.
- Rothstein, B., & Stolle, D. (2003). Social capital, impartiality and the welfare state: An institutional approach. In M. Hooghe & D. Stolle (Eds.), *Generating social capital* (pp. 191–209). New York: Palgrave Macmillan.
- Rudolph, T. J., & Evans, J. (2005). Political trust, ideology, and public support for government spending. *American Journal of Political Science*, 49(3), 660–671.
- Sartori, G. (1975). *Parties and party systems: A framework for analysis*. Cambridge: Cambridge University Press.
- Scott, J. C. (2010). *The art of not being governed: An anarchist history of upland Southeast Asia*. Singapore: Nus Press.
- Sharpe, L. J. (1970). Theories and values of local government. *Political Studies*, 18(2), 153–174.
- Sides, J. (1999). *It takes two: The reciprocal relationship between Social Capital and Democracy*. UC Berkeley. Retrieved from <https://escholarship.org/uc/item/2z6534q2>
- Söderlund, P., & Kestilä-Kekkonen, E. (2009). Dark side of party identification? An empirical study of political trust among radical right-wing voters. *Journal of Elections, Public Opinion and Parties*, 19(2), 159–181.
- Søndergaard, J. (1982). Kommunernes politiske ledelse – et miniportraet. In P. E. Mouritzen (Ed.), *Kommunalpolitik under ressourcneknapbed* (Vol. Report no. 3, pp. 3–10). Aarhus: Central Control, Local Communities and Local Politics.
- Stein, J. (2019). The striking similarities between Northern Norway and Northern Sweden. *Arctic Review on Law and Politics*, 10, 79–102. doi:10.23865/arctic.v10.1247
- Teigen, H. (2011). Distriktpolitikens historie: Frå nasjonal strategi til regional fragmentering? *Plan*, 43(6), 48–54. Retrieved from <http://www.idunn.no/plan/2011/06/art08>
- Torcal, M. (2014). The decline of political trust in Spain and Portugal: Economic performance or political responsiveness? *American Behavioral Scientist*, 58(12), 1542–1567.
- Turper, S., & Aarts, K. (2017). Political trust and sophistication: Taking measurement seriously. *Social Indicators Research*, 130(1), 415–434.
- Uslaner, E. M. (1999). Democracy and social capital. In M. Warren (Ed.), *Democracy and trust* (pp. 121–150). Cambridge: Cambridge University Press.
- Uslaner, E. M. (2002). *The moral foundations of trust*. Cambridge: Cambridge University Press.
- Valen, H. (1973). Norway: 'No' to EEC. *Scandinavian Political Studies*, 8(A8), 214–226.
- Van der Brug, W., & Van Praag, P. (2007). Erosion of political trust in the Netherlands: Structural or temporarily? A research note. *Acta Politica*, 42(4), 443–458.
- Van der Meer, T. (2010). In what we trust? A multi-level study into trust in parliament as an evaluation of state characteristics. *International Review of Administrative Sciences*, 76(3), 517–536.
- Van Ryzin, G. G. (2007). Pieces of a puzzle: Linking government performance, citizen satisfaction, and trust. *Public Performance & Management Review*, 30(4), 521–535.

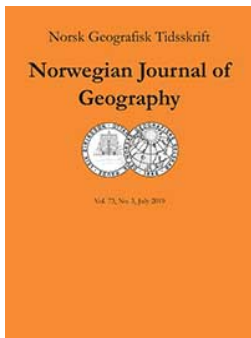
## **Paper III**

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## The local impact of increased numbers of state employees on start-ups in Norway

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## The local impact of increased numbers of state employees on start-ups in Norway

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### ABSTRACT

The purpose of the article is to assess the impact of concentrations of state employees on local growth and development. Local multiplier effect theory suggests that the increased local demand for state employees, especially highly skilled employees, would stimulate the local supply of goods and services, and hence local development. However, other theories of regional development have shown that factors such as having a university or city size may also explain why some municipalities with a high percentage of state employees grow faster than others. Following a multilevel panel data analysis of Norwegian municipalities, the author found that the percentage of state employees did not have any effect on local development, measured in terms of the relative number of start-up firms or population growth. While there was a small positive effect of state employees in the bivariate model, state employees did not have a significant effect on local development when controlling for relevant factors such as municipality size or the presence of universities. The author concludes that the relocation of state employees may be a rather limited tool for stimulating local and regional growth and, if applied, policymakers should consider how the relocation could stimulate place-sensitive development in individual municipalities.



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### Introduction

Like many other governments, the Norwegian government has designed a variety of policies to promote place-based and regional development (Teigen 2011; Stein 2019). One such policy is the relocation of public sector employees as a tool to help to address employment problems in areas marked by economic decline (Kiland & Trondal 2010; Trondal 2011). The aim is to use state employees as actors who may contribute to economic growth and development in two ways. First, based on a local multiplier effect theory, new public jobs create additional local jobs as a result of the increased demand for locally produced goods and services (Moretti 2010). Second, inspired by cluster theory, state employees potentially bring knowledge production and collaboration with diverse stakeholders for local development (Porter 1998; Reve 2009).

The positive contributions of the relocation policy are more or less taken for granted by policymakers, who have rolled out this type of policy in many different countries, including the United Kingdom, Sweden, Denmark, and Norway (Lyons 2004; Sjöstedt Landén 2012; Meld. St. 18 (2016–2017)). However, there have been

few academic studies of the effect of such policies and the only major work done on the local effects, especially on the labour market, has been by Faggio (2019), who examined the effects of the relocation of state employees in the UK, based on the Lyons Inquiry. She found a small, positive local effect of relocating state jobs. However, when using English data at the local authority level for 2003–2007, Faggio & Overman (2014) found that public sector employment had no identifiable effect on total private sector employment. As the studies by Faggio (2019) and Faggio & Overman (2014) only focused on the UK, it would be of academic interest to explore the local effect of relocation of public sector employees in other countries.

The main argument for choosing one country when studying the effect of specific policies is that other unobserved, country-specific institutional and structural variables are similar for all of the units affected by the policies. Consequently, the study of the effects of policies in a single unit could be done with the aim to be generalized across a larger set of units at a later date (Gerring 2004). The Norwegian government has relocated and

established state agencies around the country to stimulate local development (Meld. St. 18 (2016–2017)), yet scholarly work on the relocation of state agencies in Norway has been relatively scarce; the majority of published studies have been reviewed in an anthology edited by Trondal (2011). In particular, Sætren (1983) and Kiland & Trondal (2010) conducted important work on the various political processes involved in moving state agencies out of the national capital, Oslo. Egeberg & Trondal (2011) show how agency autonomy, agency influence, and inter-institutional coordination seem to be relatively unaffected by the location of the agency. However, no previous study has investigated the local impact of public sector relocation policies in Norway, although a consultant report ordered by the government includes some generalized estimates of some smaller positive local effects of the 2003 relocation (Fornyingsdepartementet 2009).

Closely related to the work of Faggio (2019), in this article I study the local effects of the relocation of state jobs in Norway as a tool for local development. The Norwegian case is of interest because relocation has been on the political agenda for more than 40 years (Sætren 1983; 2011; St.meld. nr. 17 (2002–2003); Fornyingsdepartementet 2009; Meld. St. 18 (2016–2017)). Combined with good, consistent, municipal-level data, the effect of state employees were analysed comparatively and longitudinally. In addition to providing information on the Norwegian case, the results of the analysis contributes to the general literature on the effects of relocating public sector workers and the growing literature on the evaluation of place-based government policies.

To analyse the effect of state employees on local development, empirical information was gathered for 1 million Norwegian state employees for the period 2006–2014 from the open registry at the Norwegian Centre for Research Data (NSD). By aggregating the information to the municipal level, each municipality received an annual score for the number of state employees. Together with other relevant data, these data were then used to create a panel data set of 417 Norwegian municipalities (see the Supplementary Appendix for details about the data). Based on an analysis of the collected data, I aim to answer the following question: Does having a high percentage of state employees in a municipality have any effect on local development?

There are many ways to measure local development and the repercussions of government policies. In my study, the main dependent variable was the number of start-up firms per 1000 inhabitants in each municipality. It was a good proxy variable for both economic and demographic development, because it measured the increased concentration of economic activity (Audretsch & Fritsch 1994), as well as how

local, regional, and national actors perceived the future local development in the municipality. Studies have shown a correlation between local development and the number of start-up firms (Audretsch & Fritsch 1994; Kane 2010). The same analyses were also run with population growth in the municipality as an alternative dependent variable for local development. They displayed similar results to the analyses run with start-ups as the dependent variable.

## Conceptual framework

### *The start-ups–local development relationship*

There is a vast body of literature on measuring development (see the discussion in Pike et al. 2007). Despite flaws and inaccuracy, GDP (gross domestic product) per capita has historically served as a relatively good estimate of national or regional development, due to its correlation with other social and economic development indicators (Diener & Suh 1997). No such indicator exists for analyses of smaller spatial units, such as municipalities.

In the 1990s and 2000s, literature emerged in which entrepreneurial activity was linked to growth and development, and economic performance was typically measured in terms of firm growth and survival (Audretsch 1995; Caves 1998; Davidsson et al. 2006). The compelling stylized fact emerging from that literature is that entrepreneurial activity is positively related to growth, findings that hold across Western economies and time periods (Carree & Thurik 2010).

In a small body of literature, researchers have developed linking measures of regional entrepreneurial activity to economic performance (Audretsch & Fritsch 2002; Acs & Armington 2004), and report finding that differences in levels of entrepreneurial activity are positively associated with variation in growth rates. The relationship is mutually reinforcing: If the city or region is growing, the demand for goods and services will increase, and new firms will supply some of that increased demand. If the city or region is characterized by an entrepreneurial spirit, more entrepreneurs will be attracted to the city and region, and they will develop new start-up firms, all of which will lead to growth. Based on the literature, it seems logical that a local community that is developing and growing will have a higher percentage of start-up firms compared with communities in stagnation or decline.

### *Theories on the benefits of public sector employment*

The basic assumption of the effect of public sector workers relates to the local multiplier effect, as described

by Moretti (2010): every time a local economy generates a new job by attracting new businesses in the traded sector, a significant number of additional jobs are created in the non-traded sector. Moretti & Thulin (2013) found that the multiplier effect was particularly large for jobs with high levels of human capital and high-technology industries. These findings are important for local development policies, as they suggest that municipalities in general and the goal of increasing local employment in particular should target high-tech employers with high levels of human capital. The non-tradable sector may supply intermediate goods and services to the public sector, meaning that increased public sector employment will directly increase demand (Faggio & Overman 2014).

Another potential, positive effect of state employees on local development could be found in cluster theories, all of which emphasize the need for building cities and regions around their core comparative advantage (Porter 1998; 2000; Maskell 2001; Reve 2009). According to Porter (1998), clusters are geographical concentrations of interconnected companies and institutions in a particular field. They are defined by critical masses – in one place – of unusual competitive success in particular fields. Clusters are a striking feature of virtually every national, regional, state, and even metropolitan economy, especially in more economically advanced nations. Strong clusters potentially lead to synergies in which new start-up firms are created in the intersection between the public sectors and private sectors.

The argument that new public sector jobs, especially those involving high levels of human capital, could be beneficial for the public and private sectors by generating synergies and a larger pool of workforce builds on cluster and human capital theories (Berry & Glaeser 2005; Hoyman & Faricy 2009). Both in the service economies and knowledge economies, human capital has been proven to correlate with urban growth (Black and Lynch 1996; Barro 2001). If there is already a local cluster either in the same field in which a public agency is working or in a similar field, the situation could lead to an enlargement of the local cluster and, hence, local development. Eriksson et al. (2008) find that the concentration of similar activities may be useful for small regions. A positive relationship between government and industry is seen as one of the keys in the triple-helix theory of innovation (Etzkowitz & Leydesdorff 2000; Leydesdorff 2012). Furthermore, new public employees are skilled workers who may also bring in partners who often tend to have high levels of human capital. Growth in the number of state employees could therefore have positive economic repercussions and stimulate local development and business creation. Thus, there are theoretical arguments for why higher numbers of state employees could

stimulate local development, as formulated in the following hypothesis:

H1: The percentage of public sector workers has a positive effect on the number of start-up firms.

### Counter-theories

There are counterarguments regarding the positive effects of increased public employment. Burdett (2012) shows that public sector employment crowds out private sector employment in regions where the pay for public sector jobs is higher than the pay for private sector jobs outside the region. Contrastingly, in regions where private employers pay the same or better as public sector employers, an increase in public sector workers raises total employment, leading to a multiplier effect.

Despite concepts and theories about the effect of increasing the number of public sector workers, other factors influence the creation of new firms. In contrast to theories about self-determination and exogenous growth theories, there are other – more general – theories of growth (for a broader review, see Pike et al. 2007). Geography and physical nature place important restrictions on local development (Sheppard 2011). New economic geography theories focus on core economic agglomerations and urban regions, ‘spatial spikes’, as dominant factors in regional development, thus indicating that city size and urbanization are much more important factors for local development (Scott & Storper 2005; Brakman et al. 2009). The above-discussed more general theories and trends could render the local effects of more state employees insignificant. More recent studies have emphasized the need also for regional development strategies to be specifically tailored to the conditions of every territory through the implementation of place-sensitive policies (Iammarino et al. 2018; Rodríguez-Pose & Ketterer 2019).

Additionally, there is the possibility that the effect of state employees is confounded with other effects. Many state employees in Norway are employed by large universities and this potential confounding effect should be controlled for in model-building. The impact of universities on regional development has been investigated in theoretical studies (for reviews, see Arbo & Benneworth 2007; Drucker & Goldstein 2007) and in empirical studies (Goddard & Chatterton 1999; Drucker & Goldstein 2007; Mellander & Florida 2011). University activities, particularly knowledge-based activities, such as teaching and basic research, have been found to have substantial positive effects on a variety of measures of regional economic progress (Drucker & Goldstein 2007). Mellander & Florida (2011) show that universities play the most important role for regional wages and

development, a finding that is in line with the findings of Berry & Glaeser (2005) and Florida (2005).

Benneworth & Nieth (2018) summarize the main theoretical arguments on the role of universities in regional development from an institutional perspective, as follows. First, universities can be actively involved in defining the parameters of regional strategies due to their detailed knowledge of gaps and opportunities. Second, they can be important contributors to regional capacities regarding institutional and social attributes. A third argument is that universities also contribute to smart specialization policies (Foray et al. 2009; McCann & Ortega-Argilés 2011) through the creation of external connections outside the immediate innovation system. Moreover, some studies have shown that start-up firms tend to be more geographically localized than are other outcomes of university knowledge production (Candell & Jaffe 1999). Other studies have explored the relationship between universities and the emerging number of spin-off firms from universities (Smilor et al. 1990; Brett et al. 1991; Steffensen et al. 2000; Feller et al. 2002).

Furthermore, it is possible that despite the political rhetoric concerning the relocation of state employees as a tool for stimulating local and regional development, the development it is motivated more by other political goals, such as curbing political tensions in the society. Jennings & Stoker (2016) reveal how many countries are experiencing uneven development and their citizens are increasingly split between those who can access high-skill jobs and those who cannot. Consequently, some citizens are living in cosmopolitan areas of growth and others in backwater areas of decline. This divide between different parts of the country can have significant political effects (Lee et al. 2018; Rodríguez-Pose 2018), which in turn could explain to some extent the political motivation to relocate and create state employment in peripheral regions. Economic redistribution, in this case through public sector workers, is another tool for generating cohesion and loyalty from peripheral territories to the capital and the state; it is a necessary means for guaranteeing the continued supremacy of the political centre and hence for maintaining political stability (Rokkan & Urwin 1983, 173). Given that public sector and university employees are a necessary cost for the state, the *relative* cost of locating some of them in peripheral regions is not very high for policymakers. Creating new jobs that deal with new government tasks is not much more expensive outside the centre and is a political win among the actors in the periphery.

Instead of understanding the relocation of public sector workers as a tool for generating regional *economic* development, it may be more useful to approach it as a *political* solution for a political problem in the aim to

address the centre–periphery tension within the political system (Lipset & Rokkan 1967; Rokkan & Urwin 1983; Rokkan 1987). Moving public sector workers allows politicians to provide a specific and visible solution to the centre–periphery tension at a relatively small net cost.

### Relocation – the Norwegian case

As argued by Eckstein (2000), finding crucial cases is essential in social science. According to George & Bennett (2005), Eckstein's notion of a crucial case is similar to what Lijphart (1979) describes as a theory-confirming or theory-infirming case study. In Norway, both the relocation of public sector workers and the establishment of universities and university colleges in cities in certain municipalities have been utilized, partly to promote local and regional development. If there are any local or regional effects of relocating state employees or of establishing universities, they should be distinguishable in Norway.

Although much of the public debate in Norway has been about relocating public sector workers (Sætren 2011), the ability of the government to choose between establishing new agencies and creating new public sector work in lagging regions is worth considering. The creation of *new* public sector jobs in peripheral regions is much less controversial than the relocation of existing '*old*' jobs. In the latter case, someone must pay the price, namely already existing state employees, which can be rather steep at the personal level in some cases (Sjøstedt Landén 2012). In particular, resistance from within the state bureaucracy is the major reason for the failure of the first two Norwegian relocation programmes (1960–1972, 1973–1981), according to Sætren (1983; 2011). After the last failure, the new government strategy for 1981–2002 consisted of mainly establishing *new* public sector jobs in regions outside Oslo. Large state agencies (e.g. the National Registry) were established in Brønnøysund in 1980, and the National Collection Agency was established in Rana in 1990.

In 2003, the Norwegian government launched its third relocation programme, which proved successful: c.1000 jobs in seven different agencies were moved from Oslo to five other regions (St.meld. nr. 17 (2002–2003)). It was the first time a Norwegian government was able to pass legislation in Parliament that resulted in the transfer of substantial numbers of state employees from Oslo to other parts of Norway. Two particular factors contributed to the success of the policy: first, an unusual political process in which the internal and external opponents of relocation were held at arm's length (Kiland & Trondal 2010); second, all Norwegian regions benefitted from the relocation programme,<sup>1</sup> thus putting



local and regional pressure on Member of Parliaments on opposing sides to pass the legislation (Saba 2011).

The three main arguments for relocation were increased agency independence, reduced expenditure, and the development of regional centres (St.meld. nr. 17 (2002–2003)). As shown by Egeberg & Trondal (2011), location seems to matter little for Norwegian government agencies, and the evaluation after the relocation programme concludes that expenditure had not been reduced (Fornyingsdepartementet 2009). The concern, then, is determining the regional effects of relocation. The minister responsible for the relocation programme in Norway was a former economics professor known for his enthusiasm for cluster theories (Norman & Venables 2004). As I have shown in the theoretical section ('Conceptual framework'), in cluster theory there are arguments for using the relocation of state employees to strengthen and develop regional and local clusters. In a report (Fornyingsdepartementet 2009) and a White Paper (Meld. St. 18 (2016–2017)) on Norwegian relocation plans, regional development is seen as a key argument for relocation.

The expansion of higher education has been one of the major factors for establishing new state jobs outside the capital; establishing new universities and new student places has been motivated by the need for a higher skilled workforce as well as regional development (Fulsås 1993; Skodvin 1997; Wikhall 2001; Elenius et al. 2015). Furthermore, the establishment of Norwegian universities and their geographical dispersion has partly been the result of regional policies inspired by the Swedish university sector (for further discussion on regional effects in Sweden, see Wikhall 2001; Westlund 2004). This is especially true in the case of the University of Tromsø, which was established in 1968 partly to stimulate regional development in the lagging region of Northern Norway (Fulsås 1993). In addition, university colleges have been dispersed throughout the country, particularly aimed at facilitating cooperation with local and regional businesses to stimulate growth through innovation and skilled personnel (Skodvin 1997). Overall, Norway is a good case for examining the local effects of state employees in general and of highly skilled state employees in particular.

## Methods and data

For their analysis of the effects of public sector workers in the UK, Faggio & Overman (2014) and Faggio (2019) chose the local authority level (i.e. councils). For the study of Norway, the municipality level is more appropriate. There are more than 400 municipalities in Norway, which allows for a sufficient number of level-2 units in multilevel models (for a discussion, see

Stegmueller 2013). It is possible to assume that each municipality is not only a competitive economic unit, using labour to produce goods in the national market, but also a political entity, wherein the city council and mayor lobby the national and regional governments for the relocation of public sector workers (Trondal 2011). Some municipalities have been more successful than others in this respect (Fig. 1). There is therefore variation in public sector workers in Norwegian municipalities influenced by local and national policies.

The dependent variable in the multilevel model is the number of start-up firms from 2006 to 2014 in Statistics Norway's data. Statistics Norway defines start-up firms as all newly registered firms in all fields of business, except those in public administration, agriculture, forestry, and fishing (Statistisk Sentralbyrå 2019). Using the number of start-up firms per 1000 inhabitants in each municipality has two main advantages. First, the number of new firms is a good proxy variable for economic activity, as well as local development; if a municipality is developing, more entrepreneurs will create new companies to meet the expected future demand for all kinds of goods and services. Studies such as those conducted by Kane (2010) and Audretsch & Fritsch (1994) have shown start-up firms to be a good proxy for local job creation and local economic development. A second advantage of using the number of start-up firms per 1000 inhabitants in each municipality is that it is possible to create a relative measure for each municipality by dividing the number of new firms by the number of inhabitants.

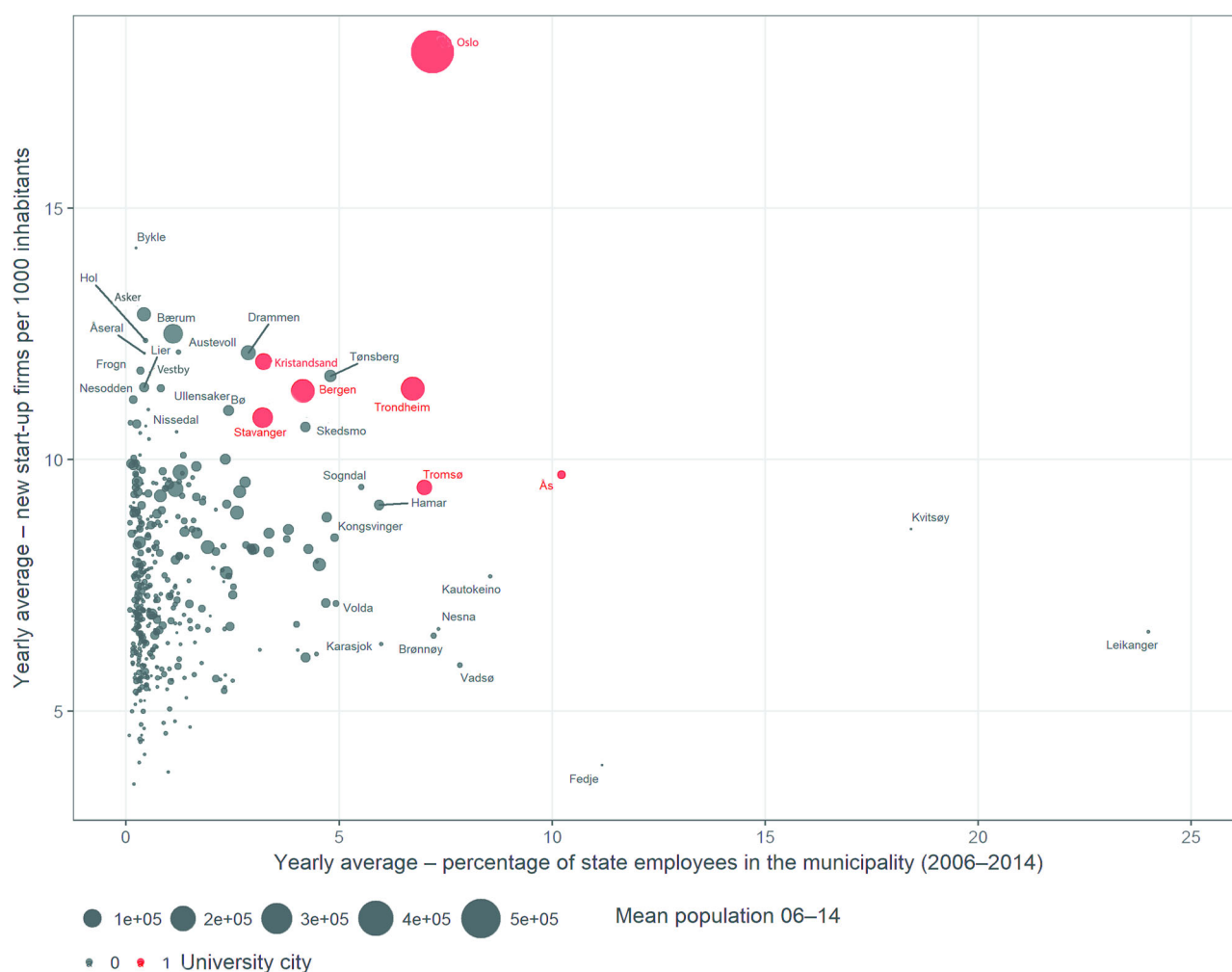
To create a balanced panel, the analysis was restricted to the period 2006–2014, which is also close the period when Norway implemented its relocation programme (while the decision to start the relocation programme was passed in 2003, much of the relocation was first effectuated in the years 2006–2007 (Fornyingsdepartementet 2009, 22–29)). To control for differences in relative municipality size and relative impact, the dependent variable was measured as *start-up firms per 1000 inhabitants*.

To assess the hypothesis, a panel data set was created and a multilevel time-series analysis applied. All eight models were run using the program R and the nlme package for multilevel modelling (Pinheiro et al. 2013). Each municipality  $i$  was measured in every year  $t$ . The base model contained a control for trend with the variable trend:

$$\text{Level 1: } \gamma \text{startup}_{ti} = \pi_{0i} + \pi_{1i} \text{trend}_{ti} + e_{ti}$$

$$\text{Level 2: } \pi_{0i} = \beta_{00} + u_{0i}$$

$$\pi_{1i} \text{trend}_{ti} = \beta_{10} + u_{1i}$$



**Fig. 1.** Relationship between start-up firms and number of state employees in Norway, 2006–2014 (Source: Statistisk Sentralbyrå 2019; NSD n.d.,a)

To operationalize the independent variable of public sector workers, data were used from The Norwegian State Administration Database (NSD n.d.,a), and the municipal localization of 1,152,909 employees in the Norwegian state in the period 2006–2014 was used to create an independent variable.<sup>2</sup> Once again, to evaluate the relative impact, the number of state employees was operationalized as the percentage of the number of inhabitants in each municipality for each year. To assess the relative importance of universities, a dummy variable for university cities (Oslo, Bergen, Trondheim, Tromsø, Stavanger, Ås, and Kristiansand) was used to control for the effects of universities on local economic growth.

If city growth is correlated with city size, controlling for city size would be important to avoid a misleading inference about the true impact of the public sector on start-up firms. In the context of cities, the existence of a correlation between city growth and size remains contentious (Gabaix & Ioannides 2004). However, there is a new idea in economic geography and theories about the

creative class (Florida 2005), namely that urbanization toward larger cities is a major driver for growth and business creation. To control for city size, the municipality population was transformed logarithmically as an independent variable.

The second set of controls included the municipality share of the working-age population (aged 25–66 years) and its unemployment rate. For both variables, the annual values were based on counts at the end of each month. The unemployed were categorized as people registered as jobseekers at employment offices and who had been unemployed for two weeks. Finally, the effects of the global financial crisis were considered as a dummy variable for the years 2008 and 2009 (for a more detailed description of all variables, see the Supplementary Appendix).

Although the reported models were run without lagged variables, models with lagged variables of both *percentage of state employees in the municipality* and *percentage of university and university college employees in*

**Table 1.** Multilevel regression analysis of the effect of state employees on start-ups, 2006–2014

Independent variables	Start-up firms per 1000 inhabitants (dependent variable)				
	(1)	(2)	(3)	(4)	(5)
Trend	0.02* (0.01)	0.02* (0.01)	0.02* (0.01)	0.01 (0.01)	0.01 (0.01)
Percentage of state employees in municipality		0.09** (0.04)	0.03 (0.04)	0.02 (0.04)	-0.33 (0.23)
University city (dummy)			4.17*** (0.69)	2.26*** (0.65)	1.59** (0.79)
Financial crisis				-0.69*** (0.08)	-0.69*** (0.08)
Municipality population (log)				0.45*** (0.08)	0.38*** (0.09)
Unemployment rate				-0.57*** (0.10)	-0.58*** (0.10)
Percentage of municipality inhabitants, age range 25–66 years				0.17*** (0.03)	0.17*** (0.03)
Percentage of state employees × Population (log)					0.04 (0.03)
Constant	7.47*** (0.11)	7.36*** (0.12)	7.37*** (0.11)	-4.61*** (1.68)	-3.89** (1.75)
Observations	3,748	3,748	3,748	3,748	3,748
Log likelihood	-8,001.60	-7,998.81	-7,981.31	-7,899.22	-7,898.07
Akaike information criterion	16,017.21	16,013.62	15,980.61	15,824.43	15,824.15
Bayesian information criterion	16,060.81	16,063.45	16,036.68	15,905.41	15,911.35

Notes: \*p < 0.1; \*\*p < 0.05; \*\*\*p < 0.01; Standard errors in parenthesis

the municipality were run too, and showed similar results to those reported in the next section. Finally, there are arguments for using other dependent variables for regional development. In addition to running the models on start-up firms, the models were run on another popular variable for local development: population growth (for more details on the data, see the Supplementary Appendix).

## Results

### Descriptive statistics

Figure 1 shows the yearly average number of new start-up firms per 1000 inhabitants in each municipality in Norway for the period 2006–2014. The x-axis indicates the percentage of state employees in the municipality.

### Regression model

The regression analysis started with the base model described in the preceding section ('Methods and data'), and showed a small positive trend toward greater business creation. In Model 2 (Table 1), the effects of

state employees in a municipality and university were added to the analysis. The effect of state employees was generally positive. Model 3 (Table 1) controlled for university cities. There was a large, significant effect of universities, but the control variable also rendered the effect of state employees insignificant. In Model 4 (Table 1), more control variables were added to the analysis. As expected, the financial crisis, city size, unemployment rate, and the percentage of inhabitants in the municipality in the age range 25–66 years all had a significant effect on the number of new firms per 1000 inhabitants. It is also worth noting how the effect of state employees in the model was close to zero. In the final model, Model 5 (Table 1), there was a small positive effect of the interaction term between the percentage of state employees and the city population, indicating that there could be some positive interaction effects between larger city size and more state employees. However the effect was not statistically significant.

All of the reported models were estimated by the maximum likelihood (ML) procedure. They were also run using the restricted maximum likelihood procedure (REML), which produced the same results. In the model-building, the decreasing Akaike information criterion

**Table 2.** Multilevel regression analysis of the effect state employees on population growth 2007–2014

Independent variable	Dependent variable		
	Municipal population growth (percentage)		
	(6)	(7)	(8)
Trend	0.08*** (0.01)	0.08*** (0.01)	
Percentage of state employees in municipality	0.01 (0.02)	-0.01 (0.02)	
University city (dummy)		1.28*** (0.37)	
Unemployment rate		0.10* (0.06)	
Start-up firms per 1000 inhabitant			0.03** (0.01)
Constant	0.07 (0.07)	-0.02 (0.09)	0.33*** (0.09)
Observations	3,335	3,335	3,331
Log likelihood	-5,337.16	-5,329.89	-5,359.72
Akaike information criterion	10,688.32	10,677.78	10,731.43
Bayesian information criterion	10,731.11	10,732.79	10,768.10

Notes: \*p < 0.1; \*\*p < 0.05; \*\*\*p < 0.01; Standard errors in parenthesis

(AIC) and Bayesian information criterion (BIC) showed that all of the models were a better fit for the data. As always with the panel data, there was a potential autocorrelation problem. To deal with this possibility, all of the error terms of the models were corrected with an AR1 structure (i.e. a first-order autoregressive process), which more or less removed the autocorrelation. There was a small autocorrelation of .06 for the first lag in the final model, which could have led to the slight overestimation of the results.

To control for the results shown in Table 1, the base model was run on population growth. As seen in Models 6 and 7 (Table 2), there was no effect on having more state employees in a municipality and the population growth of the municipality. Model 8 merely revealed a significant relationship between the percentage of start-up firms in a municipality and population growth. As seen in the conceptual framework, this indicates that the number of start-ups is a relevant indicator of growth.

## Discussion

Based on the regression models (Tables 1 and 2), hypothesis H1, which suggests there is a positive effect of increased public sector workers on local development, must be rejected (regardless of whether local development is measured as the relative percentage of start-up

firms or in terms of population growth). While there seemed to be a small positive effect of state employees in Model 2, the effect of state employees in the municipality was even less significant when relevant controls were added, and the coefficient was close to zero (Model 4). As shown in the presentation of the conceptual framework, there was a theoretical argument explaining how an increase in public sector employees could crowd out the private sector (Burdett 2012). Although it may be tempting to conclude that the effect is negative, a cautious conclusion would be that the effect of increased public sector employees is neutral.

Cluster theories emphasize that public sector workers might have a positive effect on local development if the municipality is large enough to build either larger clusters around it (Porter 1998; 2000; Maskell 2001) or a concentration of similar activities (Eriksson et al. 2008). The results of the regression analysis (Model 5) showed that the interaction variable between state employees and the municipality population was positive, meaning that state employees could have a positive effect on the development of municipalities that manage to create real cluster synergies. However, the positive effect was not significant at the .05 level ( $p = 0.13$ ). This suggests that if there are cluster effects, they are not very strong in the case of Norway or that the relocation of state employees or creation of state jobs has not necessarily been used to create local clusters or local concentration.

As discussed by Sætren (2011) and Saba (2011), one of the reasons for the success of the 2003 Norwegian relocation programme was that all of the regions benefitted from it. The decisive argument seems to be the centre-periphery tension, where all of the peripheral regions could forge a broad peripheral alliance against the centre to gain concessions (Rokkan & Urwin 1983). Consequently, not all relocations have been designed to build strong clusters. The Norwegian government's assessment report on the relocation of state-owned enterprises (Forningsdepartementet 2009) asserts that the relocations were easier in some of the larger municipalities, where agencies could recruit from a broader base and create synergies within the municipalities. The relocation of the Norwegian Competition Authority to Bergen and the relocation of the Norwegian Maritime Authority to Haugesund stand out as the only examples of successful relocations; these agencies had the same qualifications to solve their assignments subsequent to relocation. In the other cases, 'relocation has to lead to partial paralysis of critical social infrastructure and in all cases no reduced overall costs for the government' (Forningsdepartementet 2009, 84; my translation).

The general models (Table 1) bear important similarities to the findings in the more specific case

studies of earlier Norwegian relocation programmes (Trondal 2011). If there is a case for creating or relocating state employees, it requires a certain municipality size and preferably academic institutions to educate a relevant supply of employees. However, newer relocalizations in Norway seem to be motivated more by what Rokkan (1987) describes as the centre–periphery political tension than by ideas of creating regional development through stronger clusters.

As shown in the conceptual framework, the political dimension could illustrate some of the challenges involved in the relocation of state employees. Although politicians may speak about the benefit for local development, there might be other motives behind relocation programmes. Instead of understanding the relocation of public sector workers as a tool for generating regional economic development, it might be more useful to approach it as a *political* solution to a political problem, aimed at addressing the centre–periphery tension within the political system (Lipset & Rokkan 1967; Rokkan & Urwin 1983; Rokkan 1987), a tension that is clear in many studies of contemporary political issues (Jennings & Stoker 2016; Lee et al. 2018; Rodríguez-Pose 2018). Moving public sector workers allows politicians to provide a specific concrete solution to the centre–periphery tension at relatively little net cost. Although previous studies have not found that relocation reduced public spending, spending has not increased. The workers who must relocate shoulder the greatest cost. As observed by Sjöstedt Landén (2012), the individual cost of relocation could mean being forced to rethink life and work and having to re-identify with professional positions. Studies have found that only 10–15% workers chose to relocate (Fornyingdepartementet 2009); in many cases, they were highly qualified workers who were able to find alternative employment in the capital.

There were some limitations in my analysis. It was limited to Norway, and a more thorough analysis would have added more countries to provide a comparative perspective. As with all analyses performed at the municipality level, there is the risk of ecological fallacy. A study at the individual level might be useful to explore this issue and to identify potential success stories and failures. Finally, another way to conduct the study could have been to use the synthetic control method proposed by Abadie et al. (2015). Based on a donor pool of comparable cases, they used statistical inferential techniques to construct a synthetic version of the unit of study based on the weighted average of most similar cases, chosen by statistical data. The method allowed for a synthetic version of the cases in question, which could be compared with the original case. This alternative method could be used in

future studies of the effects of relocating state employees.

## Conclusions

I aimed to determine whether the effect of state employees was positive for local and regional development. Based on the models, a relationship between a high percentage of public sector employees in a municipality and the number of new start-up firms seems to be non-significant. This finding is similar to that when using population growth as an alternative measurement for local development. However, even when controlled for city size, unemployment rate, demographic characteristics, and larger national and global trends (financial crisis), university cities have a significant positive effect on the number of start-ups.

The relocation of public sector workers seems to be a rather popular policy for promoting place-based and regional development. Some of the arguments used for this kind of policy seem questionable. In the case of Norway, there is no indication of reduced public spending (Fornyingdepartementet 2009) or increased agency independence (Egeberg & Trondal 2011). The results of my study also show that the extended local and regional economic effects are relatively limited. National policymakers should at least reconsider their arguments for relocation programmes. They should also carefully consider how these types of programmes are conducted and implemented. There might be a positive effect of an increased percentage of state employees when combined with a larger municipality size, which could be explained by the ability of larger municipalities to create synergies through larger clusters (Porter 1998; 2000), often based on other knowledge-based institutions (Florida 2005; Mellander & Florida 2011). At least in the case of Norway, relocation programmes and the establishment of new state jobs seem to be conceived as a compromise between the centre and the periphery rather than as a thought-through strategy for local and regional development.

Finally, without wanting to dismiss the value of attracting more state employees to a municipality, which could have other advantages than purely economic ones, local actors should at least be conscious about the limited effects of the strategy for local development, at least if the strategy is not supported by thought-through, place-sensitive policies (Iammarino et al. 2018; Rodríguez-Pose & Ketterer 2019). However, there are some success stories. The quantitative data collected for my study could be used in a qualitative perspective to analyse why some municipalities have been able to use a high percentage of state employees to stimulate

more business creation and to explore further the mechanisms that explain why there are more start-ups in university cities in some municipalities than in other municipalities.

## Notes

1. Eastern Norway (Norwegian Media Authority and Norwegian Directorate for Civil Protection and Emergency Planning), Southern Norway (Norwegian Communications Authority), Western Norway (Norwegian Competition Authority and Norwegian Maritime Authority), Central Norway (Norwegian Labour Inspection Authority), and Northern Norway (Civil Aviation Authority).
2. In 2014, 2.97% of the Norwegian population were state employees (NSD n.d,b).

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## References

- Abadie, A., Diamond, A. & Hainmueller, J. 2015. Comparative politics and the synthetic control method. *American Journal of Political Science* 59(2), 495–510.
- Acs, Z. & Armington, C. 2004. Employment growth and entrepreneurial activity in cities. *Regional studies* 38(8), 911–927.
- Arbo, P. & Bennenworth, P. 2007. *Understanding the Regional Contribution of Higher Education Institutions: A Literature Review*. OECD Education Working Papers 9. doi:10.1787/161208155312
- Audretsch, D.B. 1995. *Innovation and Industry Evolution*. Cambridge, MA: MIT Press.
- Audretsch, D.B. & Fritsch, M. 1994. The geography of firm births in Germany. *Regional Studies* 28(4), 359–365.
- Audretsch, D.B. & Fritsch, M.J.R.S. 2002. Growth regimes over time and space 36(2), 113–124.
- Barro, R. J. 2001. Human capital and growth. *American Economic Review* 91(2), 12–17.
- Bennenworth, P. & Nieth, L. 2018. *The Persistent Problems of Universities' Contributions to Regional Development*. RSA Regions. doi:10.1080/13673882.2018.00001007
- Berry, C.R. & Glaeser, E.L. 2005. The divergence of human capital levels across cities. *Papers in Regional Science* 84(3), 407–444.
- Black, S.E. & Lynch, L.M. 1996. Human-capital investments and productivity. *American Economic Review* 86(2), 263–267.
- Brakman, S., Garretsen, H. & van Marrewijk, C. 2009. *The New Introduction to Geographical Economics*. Cambridge: Cambridge University Press.
- Brett, A.M., Gibson, D.V. & Smilor, R.W. 1991. *University Spin-off Companies*. Savage, MD: Rowman & Littlefield.
- Burdett, K. 2012. Towards a theory of the labor market with a public sector. *Labour Economics* 19(1), 68–75. <https://doi.org/10.1016/j.labeco.2011.07.006>
- Candell, A.B. & Jaffe, A.B. 1999. The regional economic impact of public research funding: A case study of Massachusetts. Branscomb, L.M. & Kodama, F. (eds.) *Industrializing Knowledge: University-Industry Linkages in Japan and the United States*, 510–530. Cambridge, MA: MIT Press.
- Carree, M.A. & Thurik, A.R. 2010. The impact of entrepreneurship on economic growth. Acs, Z.J. & Audretsch, D.B. (eds.) *Handbook of Entrepreneurship Research: In Interdisciplinary Survey and Introduction*, 2nd ed., 557–594. New York: Springer.
- Caves, R. 1998. Industrial organization and new findings on the turnover and mobility of firms. *Journal of Economic Literature* 36(4), 1947–1982.
- Davidsson, P., Delmar, F. & Wiklund, J. 2006. *Entrepreneurship and the Growth of Firms*. Cheltenham: Edward Elgar.
- Diener, E. & Suh, E. 1997. Measuring quality of life: Economic, social, and subjective indicators. *Social Indicators Research* 40(1–2), 189–216.
- Drucker, J. & Goldstein, H. 2007. Assessing the regional economic development impacts of universities: A review of current approaches. *International Regional Science Review* 30(1), 20–46.
- Eckstein, H. 2000. Case study and theory in political science. Hammersley, M., Floster, P. & Gomm, R. (eds.) *Case Study Method*, 119–164. London: SAGE.
- Egeberg, M. & Trondal, J. 2011. Agencification and location: Does agency site matter? *Public Organization Review* 11(2), 97–108.
- Elenius, L., Tjelmeland, H., Lähteenmäki, M. & Golubev, A. 2015. *The Barents Region: A Transnational History of Subarctic Northern Europe*. Oslo: Pax Forlag.
- Eriksson, R., Lindgren, U. & Malmberg, G. 2008. Agglomeration mobility: Effects of localisation, urbanisation, and scale on job changes. *Environment and Planning A*, 40(10), 2419–2434.
- Etzkowitz, H. & Leydesdorff, L. 2000. The dynamics of innovation: From national systems and 'Mode 2' to a triple helix of university–industry–government relations. *Research Policy* 29(2), 109–123.
- Faggio, G. 2019. Relocation of public sector workers: Evaluating a place-based policy. *Journal of Urban Economics* 111, 53–75.
- Faggio, G. & Overman, H. 2014. The effect of public sector employment on local labour markets. *Journal of Urban Economics* 79, 91–107.
- Feller, I., Ailes, C.P. & Roessner, J.D. 2002. Impacts of research universities on technological innovation in industry: Evidence from engineering research centers. *Research Policy* 31(3), 457–474.
- Florida, R. 2005. *Cities and the Creative Class*. Brooklyn, NY: Routledge.
- Foray, D., David, P.A. & Hall, B. 2009. Smart specialisation – the concept. *Knowledge Economists Policy Brief* 9. [http://ec.europa.eu/invest-in-research/pdf/download\\_en/kfg\\_policy\\_brief\\_no9.pdf](http://ec.europa.eu/invest-in-research/pdf/download_en/kfg_policy_brief_no9.pdf) (accessed July 2019).
- Forningsdepartementet. 2009. *Evaluering av utflytting av statlig virksomhet*. <https://www.regjeringen.no/no/dokumenter/evaluering-av-utflytting-av-statlig-virk/id566795/> (accessed July 2019).
- Fulsås, N. 1993. *Universitetet i Tromsø 25 år*. Tromsø: Universitetet i Tromsø.

- Gabaix, X. & Ioannides, Y.M. 2004. The evolution of city size distributions. Henderson, J.V. & Thisse, J. (eds.) *Handbook of Regional and Urban Economics* 4, 2341–2378. Amsterdam: Elsevier.
- George, A.L. & Bennett, A. 2005. *Case Studies and Theory Development in the Social Sciences*. Cambridge, MA: MIT Press.
- Gerring, J. 2004. What is a case study and what is it good for? *American Political Science Review* 98(2), 341–354.
- Goddard, J. & Chatterton, P. 1999. Regional development agencies and the knowledge economy: Harnessing the potential of universities. *Environment and Planning C: Government and Policy* 17(6), 685–699.
- Hoyman, M. & Faricy, C. 2009. It takes a village: A test of the creative class, social capital, and human capital theories. *Urban Affairs Review* 44(3), 311–333.
- Iammarino, S., Rodriguez-Pose, A. & Storper, M. 2018. Regional inequality in Europe: Evidence, theory and policy implications. *Journal of Economic Geography* 19(2), 273–298. doi:10.1093/jeg/lby021
- Jennings, W. & Stoker, G. 2016. The bifurcation of politics: Two Englands. *The Political Quarterly* 87(3), 372–382.
- Kane, T.J. 2010. The importance of startups in job creation and job destruction. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1646934](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1646934) (accessed July 2019).
- Kiland, C. & Trondal, J. 2010. Byråkrati og geografi – Geografisk relokalisering av norsk sentralforvaltning. *Norsk statsvitenskapelig tidsskrift* 25(4), 331–355.
- Lee, N., Morris, K. & Kemeny, T. 2018. Immobility and the Brexit vote. *Cambridge Journal of Regions, Economy and Society* 11(1), 143–163.
- Leydesdorff, L. 2012. The triple helix, quadruple helix, ... , and an *N*-tuple of helices: Explanatory models for analyzing the knowledge-based economy? *Journal of the Knowledge Economy* 3(1), 25–35.
- Lijphart, A. 1979. Religious vs. linguistic vs. class voting: The ‘crucial experiment’ of comparing Belgium, Canada, South Africa, and Switzerland. *American Political Science Review* 73(2), 442–458.
- Lipset, S. & Rokkan, S. 1967. *Cleavage Structures, Party Systems, and Voter Alignments: An Introduction*. New York: Free Press.
- Lyons, S.M. 2004. *Well Placed to Deliver? Shaping the Pattern of Government Service: Independent Review of Public Sector Relocation*. London: HM Stationery Office.
- Maskell, P. 2001. Towards a knowledge-based theory of the geographical cluster. *Industrial and Corporate Change* 10(4), 921–943.
- McCann, P. & Ortega-Argilés, R. 2011. Smart specialisation, regional growth and applications to EU cohesion policy. *IEB Working Paper* 2011/14. [https://danube-inco.net/object/document/1517/attach/s3\\_mccann\\_ortega.pdf](https://danube-inco.net/object/document/1517/attach/s3_mccann_ortega.pdf) (accessed July 2019).
- Mellander, C. & Florida, R. 2011. Creativity, talent, and regional wages in Sweden. *The Annals of Regional Science* 46(3), 637–660.
- Meld. St. 18 (2016–2017). *Bekreftede byar og sterke distrikt. Kommunal- og moderniseringsdepartementet*. <https://www.regjeringen.no/no/dokumenter/meld.-st.-18-20162017/id2539348> (accessed July 2019).
- Moretti, E. 2010. Local multipliers. *American Economic Review* 100(2), 373–377. doi:10.1257/aer.100.2.373
- Moretti, E. & Thulin, P. 2013. Local multipliers and human capital in the United States and Sweden. *Industrial and Corporate Change* 22(1), 339–362.
- Norman, V.D. & Venables, A.J. 2004. Industrial clusters: Equilibrium, welfare and policy. *Economica* 71(284), 543–558.
- NSD. n.d.,a. *Forvaltningsdatabasen*. <http://www.nsd.uib.no/polsys/forvaltning/> (accessed 1 September 2018).
- NSD. n.d.,b. *Forvaltningsdatabasen: Landoversikt – statsansatte*. <http://www.nsd.uib.no/polsys/data/forvaltning/ansatte/land> (accessed July 2019).
- Pike, A., Rodríguez-Pose, A. & Tomaney, J. 2007. What kind of local and regional development and for whom? *Regional Studies* 41(9), 1253–1269.
- Pinheiro, J., Bates, D., DebRoy, S., Sarkar, D. & Team, R.C. 2013. nlme: Linear and nonlinear mixed effects models. *R Package Version* 3(1), 111. <https://cran.r-project.org/web/packages/nlme/index.html> (accessed July 2019).
- Porter, M.E. 1998. Clusters and the new economics of competition. *Harvard Business Review* 76(6), 77–90.
- Porter, M.E. 2000. Location, competition, and economic development: Local clusters in a global economy. *Economic Development Quarterly* 14(1), 15–34.
- Reve, T. 2009. *Norway – a Global Maritime Knowledge Hub*. Research Report 5/2009. Oslo: BI Norwegian School of Management & Centre for Maritime Competitiveness.
- Rodríguez-Pose, A. 2018. The revenge of the places that don’t matter (and what to do about it). *Cambridge Journal of Regions, Economy and Society* 11(1), 189–209.
- Rodríguez-Pose, A. & Ketterer, T. 2019. Institutional change and the development of lagging regions in Europe. *Regional Studies*. doi:10.1080/00343404.2019.1608356
- Rokkan, S. 1987. *Centre-periphery Structures in Europe: An ISSC Workbook in Comparative Analysis*. Frankfurt Am Main: Campus Verlag.
- Rokkan, S. & Urwin, D.W. 1983. *Economy, Territory, Identity: Politics of West European Peripheries*. London: SAGE.
- Saba, K. 2011. Koste hva det koste vil? Oppsummering av to relokaliseringsprosesser. Trondal, J. (ed.) *Byråkrati og geografi: geografisk relokalisering av norsk sentraladministrasjon*, 27–58. Oslo: Universitetsforlaget.
- Scott, A. J. & Storper, M. 2005. *Pathways to Industrialization and Regional Development*. London: Routledge.
- Sheppard, E. 2011. Geography, nature, and the question of development. *Dialogues in Human Geography* 1(1), 46–75.
- Sjöstedt Landén, A. 2012. *Moved by Relocation: Professional Identification in the Decentralization of Public Sector Jobs in Sweden*. PhD Thesis. Umeå: Umeå universitet.
- Skodvin, O.-J. 1997. The reorganisation of non-university higher education in Norway: Problems and potentials. *Tertiary Education and Management* 3(4), 317–324.
- Smilor, R.W., Gibson, D.V. & Dietrich, G.B. 1990. University spin-out companies: Technology start-ups from UT-Austin. *Journal of Business Venturing* 5(1), 63–76.
- St.meld. nr. 17 (2002–2003). *Om statlige tilsyn. Arbeidsdepartementet*. <https://www.regjeringen.no/no/dokumenter/stmeld-nr-17-2002-2003/-id134860> (accessed July 2019).
- Statistisk Sentralbyrå. 2019. *Enterprises*. <https://www.ssb.no/en/statbank/table/06104/?rxid=97ff0130-0c29-43be-93bc-3da7011cb804> (accessed 1 September 2018).

- Steffensen, M., Rogers, E. M. & Speakman, K. 2000. Spin-offs from research centers at a research university. *Journal of Business Venturing* 15(1), 93–111.
- Stegmueller, D. 2013. How many countries for multilevel modeling? A comparison of frequentist and Bayesian approaches. *American Journal of Political Science* 57(3), 748–761.
- Stein, J. (2019). The striking similarities between Northern Norway and Northern Sweden. *Arctic Review on Law and Politics* 10, 79–102. doi:10.23865/arctic.v10.1247
- Sætren, H. 1983. *Iverksetting av offentlig politikk: En studie av utflytting av statsinstitusjoner fra Oslo 1960–1981*. Oslo: Universitetsforlaget.
- Sætren, H. 2011. Fra ord til handling. Trondal, J. (ed.) *Byråkrati og geografi: geografisk relokalisering av norsk sentraladministrasjon*, 27–58. Oslo: Universitetsforlaget.
- Teigen, H. 2011. Distriktpolitikken historie: Frå nasjonal strategi til regional fragmentering? *Plan* 43(6), 48–54. <http://www.idunn.no/plan/2011/06/art08> (accessed July 2019).
- Trondal, J. 2011. *Byråkrati og geografi: geografisk relokalisering av norsk sentraladministrasjon*. Oslo: Universitetsforlaget.
- Westlund, H. 2004. *Regional Effects of Universities and Higher Education: A Knowledge Overview of Swedish, Scandinavian and International Experiences*. Stockholm: E. Gotab.
- Wikhall, M. 2001. *Universiteten och kompetenslandskapet: Effekter av den högre utbildningens tillväxt och regionala spridning i Sverige*. Lund: Department of Social and Economic Geography, Lund University.



