Working across boundaries: Collegial administration in central government – scope, variation and effects

Dag Arne Christensen · Tom Christensen · Per Lægreid · Tor Midtbø





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Uni Rokkan Centre Nygårdsgaten 5 5015 Bergen Phone +47 55 58 97 10 Fax +47 55 58 97 11 E-mail: rokkansenteret@uni.no http://rokkan.uni.no/

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DAG ARNE CHRISTENSEN

TOM CHRISTENSEN

PER LÆGREID

TOR MIDTBØ

STEIN ROKKAN CENTRE FOR SOCIAL STUDIES

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Preface

This is a revised version of a paper presented at the UNI-Rokkan seminar in Paris 18–20 March 2010 and the 2010 IRSPM Conference held in Bern, Switzerland 7–9. April. Panel on: Working Across Boundaries: Barriers, Enablers, Tensions and Puzzles. We wish to thank the participants on these events for useful suggestions and comments.

Sammendrag

I dette notatet rettes oppmerksomheten mot samarbeid på tvers av organisasjonsgrenser i norsk setralforvaltning. Følgende tre problemstillinger diskuteres: a) hvor utbredt er bruken av arbeidsgrupper og prosjektgrupper internt i deptartementene, mellom departement og mellom departement og underliggende enheter; b) hvilke endringar har skjedd over tid i bruken av slike kollegiale organ; c) i hvilken grad varierer deltakelsen i slike aktiviteter med individuelle og organisatoriske kjennetegn; d) i hvilken grad påvirker deltakelse i slike tverrgående grupper de ansattes holdninger til samordning. Et strukturelt-instrumentelt og et demografisk perspektiv benyttes for å forklare variasjoner i deltakelse i kollegiale organer og effekten av slik deltakelse. Det benyttes en flernivåanlyse for å undersøke effekter både av individuelle trekk og av organisatoriske kjennetegn ved departementene.

Summary

In this paper we address the problems of working across boundaries in central government by focusing on the case of Norway. The main research questions are: a) How common is the use of working or project groups inside the ministries, across ministries, and between ministries and central agencies? b) What changes have there been over time in the use of such cross-border collegial bodies? c) To what extent does participation in cross-boundary activities vary according to individual and organizational features? d) What is the relationship between participation in working and project groups and attitudes towards coordination? The main theoretical approach to explain variation in collegial participation and its effects will be a structural/instrumental perspective and a demographic perspective. We apply a multi-level analysis examining the effects of both individual features and organizational features of the ministries as a whole.

Introduction

The concept of working across boundaries is becoming increasingly important in public administration and in management theory and practice. It is a reflection of the increasing complexity and fragmentation that New Public Management (NPM) reforms have brought, which strain political and administrative leaders' capacity to solve societal problems (Christensen and Lægreid 2007a). As a result there is currently an enhanced focus on the notion of increased coordination. Such efforts are typically referred to as joined-up government, whole-of-government, holistic government, collaborative governance, networked government, connected government, cross-cutting policy, horizontal management, partnerships and collaborative public management (Gregory 2003). A common feature is the notion that working across organizational boundaries will enable more efficient and/or effective policy development and implementation and modes operating of are supposed «departmentalization» and existing fragmented modes of working; however, while they promise much, there is actually a number of challenges associated with using them in practice. Like NPM, post-NPM efforts aim to find «one size to fit all», which is rather unrealistic.

In post-NPM reform efforts both vertical and horizontal coordination problems have received a renewed focus (Christensen and Lægreid, 2006, 2007b). In the vertical dimension, channelling more central resources towards subordinate institutions and levels and using stronger instruments of central control have become increasingly important ways for political executives to regain political control and pursue consistent policies across levels. In the horizontal dimension, cross-sectoral bodies, programs or projects are increasingly being used to modify the «siloization» or «pillarization» of the central public administration (Pollitt 2003).

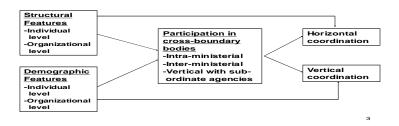
In this paper we will address the problems of working across boundaries in central government by focusing on the case of Norway. The main research questions are:

- a) How common is the use of working or project groups across ministerial departments (the internal horizontal dimension), across ministries (the horizontal inter-organizational dimension) and between ministries and central agencies (the vertical inter-organizational dimension)?
- b) What changes have there been over time in the use of such cross-boundary, collegial working and project groups?
- c) To what extent does participation in such collegial bodies vary according to individual and organizational features?
- d) What is the relationship between participation in working and project groups and attitudes towards coordination?

The main theoretical approach to explain variation in collegial participation and its effects will be a structural/instrumental perspective and a demographic perspective, looking into the importance of structural features and personnel characteristics, respectively (Christensen and Lægreid 2007a). We will apply a multi-level analysis

examining the effect of both individual features and organizational features of ministries as civil servants' working environment. The main explanatory variables at the individual levels are structural features such as position and main tasks, and demographic features such as gender, education and tenure. At the organizational level the structural variables include organizational size and demographic variables such as tenure. The main dependent variables are 1) civil servants' participation in different boundary-spanning working groups, task forces and project groups within their own ministry, between ministries and between their own ministry and subordinate agencies; and 2) their assessment of horizontal and vertical coordination.¹

Figure 1. Model of analysis



Given a small N at organizational level, we only consider a small set of explanatory variables at that level. More specifically, we will focus on the impact of size and institutional experience. The main empirical basis of the analysis is a survey of Norwegian ministries conducted in 2006 and answered by a total of 1,846 civil servants. We will also use similar surveys from 1996, 1986 and 1976.

Theoretical approaches to boundary-spanning and coordination

While previous Norwegian research has been concerned with civil servants' perceptions of coordination (Christensen and Lægreid 2008a), this paper also explores variation in actual participation in both vertical and horizontal collegial bodies across all eighteen ministries. So far research has focused on how individual resources affect the attitudes and behaviour of civil servants. The role played by aggregate organizational features has received less attention in the literature, even though civil servants' behaviour is likely to be influenced not only by who they are and what opinions they hold, but also where they work. Hence, hypotheses about how civil servants perform should be tested not only against individual-level data, but also against aggregate cross-ministerial data.

The basic assumption in organizational theory is that people are influenced by the organization to which they belong as well as by their individual socio-economic or career features. We are looking not only at windividuals in organizations» but also at

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¹ Concerning the assessment or perception of coordination, the three collegial participatory variables are used as independent variables, in line with research question d).

«organizations of individuals». The challenge is to examine the interplay between individual characteristics and organizational features to understand how civil servants behave and act (Lægreid and Olsen 1978). The early socialization and experiences related to gender, age and education that employees bring with them into the ministries make a difference, as does tenure as reflection of career experience in the civil service. The organizational factors are of two types: individual structural ones related to formal position and tasks; and relational or aggregate ones related to size and tenure profile. Indeed, it would make little sense to deny the importance of dependency and interdependency between people who work together. The idea is that individuals go through learning processes both outside and inside the civil service and are socialized by the norms, attitudes and behaviour they encounter in the contexts in which they operate (Eriksson 2007:57); these norms and attitudes, in turn, are modified and shaped by individual structural and collective organizational variables. The individual and organizational variables will be derived from an instrumental and a demographic perspective.

An instrumental-structural perspective.

According to an *instrumental-structural perspective*, decision-making processes in public organizations are characterized by political-administrative leaders controlling the activities of participants in the processes and scoring rather high on rational calculation or clear means-end thinking (Dahl and Lindblom 1953, Egeberg 2003). The influence of leaders over such processes involves both utilizing, in a bounded rational way, the frames and leeway a formal public structure provides, and influencing this structural context by controlling change, reorganizations or reform processes (Christensen et al. 2007). So the basic message is that «formal structure matters» and that leaders' design and rational use of the structural context channels decision-making behaviour. This perspective has two versions, according to which decision-making can either be the result of strong hierarchical steering or of negotiations among top political and administrative leaders (March and Olsen 1983).

We also have a multi-level governance system in which tasks are carried out at different levels of government, implying increased interdependence of public agencies operating at different territorial levels, often in a complex system of overlapping jurisdictions (Marks and Hooghe 2004, Bache and Flinders 2004). Tasks can rarely be treated independently of each other: different levels have to collaborate, and coordination between levels is as important as coordination between sectors. There are several approaches to analyzing coordination in such a multi-level system with overlapping principles of specialization (Lægreid and Serigstad 2006). One is the hierarchical view that assumes that work is divided by sector (Gulick 1937), often used synonymously with purpose or tasks, which makes them vertical in nature and characterized by strong sectors and weak horizontal coordinating mechanisms (Kettl 2003). This implies that vertical coordination within specific sectors may be good. Coordination is achieved by the use of hierarchy, legal authority and specialization of tasks and is a vertical internal process with clear lines of authority. Its strengths are

related to vertical accountability, role specifications and handling of routine tasks. This is a top-down approach based on the hierarchical model.

The idea of top-down coordination is derived from the notion that the organizations to be coordinated have already been identified by headquarters coordinators, that the relationship of these organizations to each other is well understood, that agreement has been reached about what objectives will be accomplished by altering certain of these inter-organizational relationships, and that the authority and means to alter these relationships exist. In other words, it assumes that having a hierarchy will facilitate implementation. The problem is that several of these assumptions are only partly fulfilled, and the problems of coordination do not always lend themselves well to hierarchical direction (Wise 2002:141). The tasks of the modern state, however, represent a complex and fragmented area of government, and a growing number of complex cases and problems do not fit into this traditional sectoral structure. In political-administrative structures solving such problems is a challenge, mainly because it implies horizontal coordination between different sectors.

Luther Gulick (1937) stressed the two important structural dimensions of specialization and coordination in public organizations, but also their dynamic relationship: the more specialization in a public organization, the more pressure for increased coordination, or vice versa. His two types of basic specialization are the vertical and horizontal ones. Vertical specialization says something about the number of hierarchical or leadership levels and how formal authority is divided between them. His four types of horizontal structural specialization are specialization by purpose, process, clientele or geography.

The challenges of coordination by organization also depend qualitatively on whether the structural specialization is based on either of these principles. If a public administration is based on the principle of purpose, the main coordinative challenge would be to get different sectoral administrations to work together on cross-sectoral problems; if process is the basic principle, on the other hand, getting different professions and experts to join forces would be a challenge. Specialization based on client groups requires coordinative efforts aimed at equal treatment of different groups, while geographic specialization requires spatial standardization.

Gulick's two main types of formal coordination are through hierarchy and collegial organization – i.e. when the participants are basically at the same hierarchical level – and both of these forms are relevant in our analysis. The potential for coordination, both horizontal and especially vertical, is largest in a hierarchically dominant leadership, while collegial coordination is more of a control issue and often brings a greater variety of solutions because of consultation and consensus-building. The three types of participation in the working and project groups on which we focus would probably engender different challenges and forms of coordination. Working and project group participation inside a ministry pose fewer coordination challenges, both horizontal and vertical, than between ministries, where more hierarchies and leaders are involved; while the challenges of coordinating between ministries and subordinate agencies are probably somewhere in between in terms of the challenges involved.

A supplementary take on collegial groups within the structural perspective would be to focus on network theory. Networks have recently been introduced in most western democracies as a way to increase the capacity of the public sector to deliver services. Governance networks can be seen as part of a process of transition from a hierarchical state government to a network form consisting of decentralized nodes of authority, but it can also be seen as a tool that powerful governmental actors use to increase their capacity to shape and deliver public policy in a complex world (Klijn and Skelcher 2007, 598). This last conjecture challenges the «governance without government» thesis of Rhodes (1996) that networks are self-organizing, that the government is only one of many players and that there is a strong horizontal component in the networks (Bache 2000). In contrast this instrumental conjecture implies that the central government is a powerful actor that creates networks in order to realize its projects (Skelcher et al. 2005).

For complex, unstructured and rapidly changing problems a network approach may be more suitable (Kettl 2003, Wise 2002). This approach understands coordination as the interaction between interdependent actors from different, traditionally hierarchical structures and from outside such structures. They pay less heed to formal top-down authority and rely more on negotiations and mutual adjustments and on bringing together organizations to pool resources and knowledge. This network model scores high on adaptability and flexibility, but accountability may be reduced and ambiguous, and steering may be more difficult. A third model, which can be labelled the hybrid model, combines the hierarchical and the network models. This hybrid model gives statutory power to the central ministry and some coordinating responsibility to collegial arrangements. We will claim that networks as a coordinating mechanism supplement the traditional hierarchy rather than replacing it (Verhoest, Bouckart and Peters 2007).

A main concern that arises when networks are used within the public sector is the problem of accountability. In a hierarchical model the concept of accountability is primarily related to upward accountability to political sovereigns (Christensen and Lægreid 2002). The network model will make a model of strictly hierarchical responsibility from the top less applicable. Collegial arrangements need some level of independence but at the same time should be accountable to their own home ministry, upwards to politicians, horizontally to other ministries and downwards to subordinate bodies.

The governance literature in general is in large part concerned with networks as a phenomenon in which private actors are a central feature (Rhodes 1996, Skelcher et al. 2005). But there is also a more state-centric approach to governance (Peters and Pierre 2003) in which a public-public network is a main component. In our case the network is explicitly public-public, but such networks also have to handle the problems of many hands (Thompson 1980) and situations in which hierarchical accountability is challenged by accountability to local actors as well as to different professional actors.

Networking and boundary-spanning competences imply having civil servants as gobetweens and brokers who have the ability to work across organizational boundaries both vertically and horizontally (Christensen and Lægreid 2008b). It is connected to governance approaches and post-NPM reforms and is about the ability to bring together civil servants from different policy areas and to trump hierarchy (Hood and Lodge 2006, 92). Here civil servants act as facilitators, negotiators and diplomats rather than exercising hierarchical authority. Individual, people-oriented skills, rather than technical skills, are central to this kind of competence, and may be especially important when

facing «wicked issues» that transcend traditional sectors and policy areas. The ability to further cooperation is also valued.

Empirical expectations. What kind of expectations might be formulated based on the structurally oriented theories discussed above? First, concerning the structural variables on the *individual level*, we would expect leaders to have a greater obligation to organize and further coordination, and also to see coordination differently to executive officers lower down in the hierarchy. This results in a general expectation that leaders will score highest on their participation in a broad range of coordination forms, especially along the external dimension. This perspective also offers insights into variations in how network participation varies between different policy areas and among officials performing different tasks, because these formal features determine how internally or externally directed their work is, how technical or non-technical the tasks are, the number and type of stakeholders, etc. Civil servants working with more general tasks, like coordination, policy development, planning, regulation, law-preparing activities, etc., would probably participate more in collegial groups than employees engaged in narrower functions.

Concerning the structural *organizational variables* the size of the ministries might make a difference. On the one hand, we would expect small ministries to involve a larger proportion of their civil servants in external boundary-spanning activities than bigger ministries. On the other hand, one might expect bigger ministries to have a greater need for internal boundary-spanning activities than smaller, because of complexity.

Regarding the effects on perceived coordination the main empirical expectation from the structural-instrumental perspective is that civil servants participating in interministrial collegial bodies will have a more positive assessment of horizontal coordination. Likewise, civil servants participating in collegial bodies with subordinate agencies will have a more positive assessment of vertical coordination within their own policy area. But other structural features may make a difference as well. Those holding leadership positions, for instance, are likely to have a more positive assessment of vertical and horizontal coordination overall (Christensen and Lægreid 2008a). One might also expect main tasks to make a difference, meaning that civil servants having coordination, planning and development as main tasks would tend to have a more positive view of coordination than those with other tasks.

Regarding the organizational variables, we would have mixed expectations concerning ministry size, meaning that belonging to large ministries might engender more positive attitudes towards inter-ministerial coordination, while belonging to small ministries might foster a more positive attitude towards inter-ministerial coordination.

A demographic perspective

The second theoretical perspective used is a *demographic perspective*, which has elements both from an instrumental-structural approach, concerning conscious recruitment and career organization, but also from a cultural perspective, related to the development of administrative and professional cultures (Christensen et al. 2007). Demography may also explain variety in boundary-spanning participation. The focus will be more on where civil servants come from and what they bring with them into ministries and central

agencies in the way of norms, values and competence – as well as what they experience during their careers there – than where they are located in the organizational structure. The general reasoning here is that civil servants, through their socio-economic background or their individual careers. have acquired certain norms and values that are relevant in their jobs (Lægreid and Olsen 1978, Meier 1973, Pfeffer 1983).

Individual demographic variables are of different kinds. Gender and type of higher education focus on early socialization and how the «baggage» of norms and values they bring with them into the civil service becomes relevant when they start their careers and in their subsequent career paths. One would expect rather clear effects on decision-making behaviour if these features are important for the identities and thought models of civil servants; one would also expect there to be factors inside the civil service that might also strengthen the importance of these. Higher education also means that people might be presocialized into their jobs in the civil service, i.e. their education has prepared them well for what awaits them. Moreover, some professions, such as jurists, probably have a more distinctive professional culture, heightening the effects of this mechanism.

Tenure is rather different to individual demographic variables, for age is also an indicator of belonging to a particular generation (Christensen and Lægreid 2009). People are born into a certain phase of history, distinguished by a certain economic, political, social and technological context, meaning that different generations of bureaucrats hold different sets of attitudes (Orren and Skowronek 1994, Pierson 2004). The theory is that they are «stuck in their generation», meaning that they are later heavily influenced by «path-dependency» - i.e. their norms and values are characterized by their formative years – or to put it another way, roots influence routes (Krasner 1988, Selznick 1957). One potentially problematic feature of this reasoning is how we are to judge how this influences their attitudes as civil servants later on. Tenure deals with the cumulative careers of civil servants (Christensen and Lægreid 2009) and thus encompasses a number of different stages - from initial career with socialization into basic politicaladministrative norms to mid-career when civil servants become more «mature» and acquire middle-level management positions, and finally the latter part of their career as top leaders or specialized, experienced advisors, who have gained a lot of experience and contacts. Just like the institutions themselves, one would expect civil servants to develop more and more complex models of thought and action as a result of their diverse layers of experience and contacts.

Demographic variables on an *organizational level*, i.e. cumulative or relational factors, may be important for the thoughts and actions of civil servants (Pfeffer 1983). One very general line of reasoning would be that more general aggregative features may both have an influence per se, and have a dynamic relationship with individual demographic features and structural factors. Having a ministry dominated by a cohort of very experienced civil servants may produce different norms and decisions than one dominated by a less experienced cohort or with a more even tenure distribution.

<u>Empirical expectations:</u> The more specific questions in this paper would be whether we can expect variation in boundary-spanning activities – participation in working and project groups – based on individual and organizational or aggregative demographic features. Concerning *individual demographic variables*, one general expectation would be that

women would be less involved in boundary-spanning activities, based on an expectation that women in organizational settings lack access to emergent interaction networks (O'Leary and Ickovics 1992). Concerning higher educational background, one would expect political scientists and economists to be more involved in working and project groups, a reflection of different types of education, while jurists would tend to handle «narrow» individual cases. Further, civil servants with long tenure would be expected to participate more in boundary-spanning activities, because their experience and contacts would give them the wherewithal to do so.

Concerning the *aggregative demographic variables* used, one would expect ministries with a large share of civil servants with more than five years of tenure to use boundary-spanning activities more extensively than ministries with generally less experienced civil servants, because the greater number of contacts associated with longer individual tenure would be reflected in a broader collective contact pattern.

Regarding the effects on perceived vertical and horizontal coordination our expectation is that people with long tenure would report more positive effects, that social scientists and economists would make more positive assessments than jurists, and that women would report less positive experiences with coordination than men. Concerning the aggregative variables, one would expect ministries with a large share of civil servants with a long tenure generally to have a more positive attitude towards coordination.

The reform context

NPM and post-NPM

NPM was a mixed bag of different reform measures (Hood 1991, Pollitt and Bouckaert 2004). The basic idea was to promote more efficient government, and the instruments expect to further this were intended to bring about strong vertical (devolution) and horizontal («role purity») specialization. NPM proved to be relatively good at putting the emphasis on efficiency, but at the same time fragmented the capacity of government to address «wicked problems» (Aucoin 2002).

The first generation of NPM reforms worked against an integrated approach by limiting the capacity for horizontal coordination and collaboration, especially at the central level (Kavanagh and Richards 2001, Weller et al. 1997). The fact that each individual state body was regarded as an autonomous organization contributed to this (Brunsson and Sahlin-Anderson 2000). The process of increased autonomy created new challenges for coordination since this normally takes place between administrative executives at different levels.

The central government apparatus increasingly experienced problems of intersectoral and inter-ministerial coordination as a result of NPM reforms. Executives tend to focus on their own sectors and organizations, thus contributing to horizontal fragmentation between policy areas. Many western countries are dominated by strongly specialized ministries, and administrative reforms are propelled within individual sectors by strong line ministers. In a period when problems increasingly traverse ministerial boundaries, this has contributed to problems of horizontal coordination and has triggered the need for post-NPM initiatives.

The main goal of post-NPM reforms has been to gradually move public-sector organizations back from the disintegration or fragmentation brought about under NPM to a situation of greater integration and coordination (Christensen and Lægreid 2007a). First, fragmentation under NPM increased pressure for more horizontal integration and coordination. Second, political executives have been reluctant to accept the undermining of political control that NPM has brought about. This has resulted in efforts to strengthen central capacity and control, particularly in sectors seen as politically salient (Gregory 2003, Halligan 2006 and 2007). There is an increasing striving for coordination and coherence in public policy, and one answer seems to be a return to the centre (Peters 2005). Third, confronted with an increasingly insecure world, whether the result of terrorism, bio-security concerns, tsunamis, pandemics, global financial or environmental crises, national states are seeking to strengthen central political control, but also seeing an increasing need for contingent coordination and network approaches (Christensen and Painter 2004, Kettl 2003, Wise 2002).

The second generation of reforms advocated a more holistic strategy (Bogdanor 2005). The slogans «joined-up-government» (JUG) and «whole-of-government» (WG) provided new labels for the old doctrine of coordination in the study of public administration (Hood 2005). In addition to the issue of coordination, the problem of integration was a main concern behind these reform initiatives (Mulgan 2005). The purpose was to work across portfolio boundaries and administrative levels to achieve a shared goal and an integrated government response to particularly complex issues. Attempts to coordinate government policy-making and service delivery across organizational boundaries are, however, not a new phenomenon (Ling 2002, Kavanagh and Richards 2001). The scope of whole-of-government is pretty broad. In this paper we focus on joining up at the top and we distinguish between horizontal linkages and vertical linkages.

The Norwegian context

Norway has a large public sector and there is a relatively high level of mutual trust between central actors and public-sector organizations (Christensen and Lægreid 2002). It is a unitary state with a combination of political and administrative decentralization. The central government in Norway is characterized by strong sectoral ministries and relatively weak super-ministries with coordination responsibilities across ministerial areas. The principle of ministerial responsibility is strong, meaning that the individual minister is responsible for all activities in his or her portfolio and in subordinate agencies and bodies. The only ministry with strong horizontal coordination power is the Ministry of Finance, but this power is mainly restricted to questions of budget and financial resources and not to more substantial policy issues. The Prime Minister's Office has traditionally been rather small and it has not been a strong coordination body, but it has become more important over the past decade. That said, some ministries, such as the Ministry of the Environment, the Ministry of Justice and the

Police, the Ministry of Government Administration, Reform and Church Affairs, the Ministry of Local Government and Regional Development and the Ministry of Foreign Affairs, do have some coordination tasks across ministerial areas.

The central government apparatus is generally characterized by strong hierarchy and strong specialization according to tasks, but these Weberian organizational forms have been supplemented by a variety of other features, changing the internal organization of the central public administration, such as introducing internal team work, or collegial network-based working or project groups working across hierarchical levels and sectoral boundaries, the focus of our analysis.

The Norwegian government has a decentralized tradition when it comes to personnel management. Responsibility for recruitment is delegated to the individual ministry and agency, and recruitment is based on merit and professional background. There is no civil service college, no senior executive service or senior civil service, and no central recruitment unit, something that potentially may create a lot of diversity concerning cultural norms and values, but societal homogeneity has been reflected in cultural homogeneity in the civil service.

Norway was a reluctant reformer and came late to NPM reforms (Olsen 1996), but over the past decade two development features in the Norwegian central government have affected the coordination pattern. First, the NPM reforms have increased vertical and horizontal specialization, while at the same time trying to balance this with a focus on vertical coordination, mainly within the government apparatus but also between central and local government. Management-by-objectives-and-results has mainly addressed how superior authorities can control their subordinate agencies and bodies via various forms of performance-management techniques and quasi-contractual arrangements. This is also linked to structural devolution efforts that have turned some more public administration bodies into state-owned companies and given central agencies enhanced autonomy, not to mention the increase in regulatory agencies with more leeway. The problems of horizontal coordination have not been addressed to the same extent, but this does not mean that this is not an important problem in the Norwegian political-administrative system. Typical post-NPM reform features in Norway over the last decade have been reflected in a police reform, which merged police districts, a hospital reform, strengthening control of central government, several efforts to control the immigration agencies, and - most typical of all - in a major welfare administration reform merging two agencies at the central level - the employment and national insurance administrations - and establishing a local partnership with social services based in the municipalities.

Data sources and method

The analysis draws on two types of data sets. The first is a comprehensive survey among civil servants with at least one year of tenure in all eighteen ministries. The survey was conducted in 2006, and included 1,846 respondents, ranging from 9 at the Prime Minister's Office to 284 in the Ministry of Foreign Affairs (see Christensen and Lægreid 2008a, 2008b, 2009). The response rate was 67 percent. The survey contains

information about individual demographic and structural variables and participation patterns, including participation in work and project groups and attitudes on a wide range of issues.

In order to examine how ministry-level variables affect participation in coordination initiatives, the data from the civil servant survey were linked to data on ministry characteristics. The latter include information about the size of each ministry, measured as the number of employees, and 'collective experience' measured as the share of employees who have been in the same institution for more than five years. All independent variables included for analysis together with their definitions are shown in Table 1.

Table 1: Independent variables and definitions

Variable	Definition
	Civil servant-Level
Gender	Dummy=1 for male candidates, 0 for female
Tenure	Dummy=1 less than 5 years tenure, 0 five years or more
Leadership position	Dummy=1 assistant director general and above, 0 other position
Jurists	Dummy=1 jurist, 0 other professional background
Social scientists	Dummy=1 social scientist, 0 other professional background
Economists	Dummy=1 economist, 0 other professional background
Coordination	Dummy=1 coordination as main task, 0 other main task
Planning and development	Dummy=1 for planning and development as main task, 0 other main task
	Ministry – level
Ministry size	The number of employees in each ministry
Ministry tenure	Percentage employed for more than 5 years in each ministry

The analysis distinguishes between three types of boundary-spanning activities. These three dependent variables are measured from a single survey question, which asked civil servants whether they had participated in various types of work-group/projects during the last twelve months (they were required to answer «yes» or «no»). The first variable deals with participation in project groups *within* ministries. The second variable deals with vertical coordination, and here the respondent was asked to identify participation in projects or groups with participants from the sub-ministry level. The last variable maps participation in work and project groups *between* ministries (participants from several ministries). This variable was intended as a rough indicator of horizontal coordination initiatives. For all three variables those who participated are coded 1, those who did not are coded 0.

In the survey we asked civil servants the following question about their assessment of coordination along different dimensions: 'How would you characterise coordination in your field of work along the following dimensions? a) coordination between different subordinate state bodies and agencies within your own ministerial area, and b) coordination with state units in other sectors'. The answers to these two questions serve as the basis for the two dependent variables in the analysis regarding the effects of boundary-spanning activities on coordination, i.e. research question d. These dependent variables, attitudes to vertical coordination and attitudes to inter-ministerial

coordination, ranged from one (avery good») to six (avery bad»). Vertical coordination attitudes had a mean of 2.26 and a standard deviation of 0.77, while the corresponding figures for inter-sectoral coordination attitudes were 2.62 and 0.75. There was not much variation on the two dependent variables, and they were both heavily skewed towards positive attitudes. The civil servants turned out to be generally positive towards both types of coordination, with 67 percent finding vertical coordination within their own policy area good or very good, 28 percent reporting mixed experiences, and 5 percent finding it bad or very bad. Their assessment of horizontal coordination between different policy areas or sectors was less enthusiastic. Only 44 percent found this kind of coordination good or very good, 47 percent had had mixed experiences, while 9 percent reported that it was bad or very bad.

Descriptive statistics for all the explanatory variables are presented in Table 2.

Table 2: Descriptive statistics. Independent variables.

Civil servant-level descriptive statistics					
Variable	N	Mean	SD	Minimum	Maximum
Leadership position	1531	0.20	0.40	0	1
Tenure	1531	0.32	0.46	0	1
Gender	1531	0.53	0.50	0	1
Jurists	1531	0.22	0.41	0	1
Political scientists	1531	0.24	0.43	0	1
Economists	1531	0.17	0.48	0	1
Coordination	1531	0.19	0.39	0	1
Planning and development	1531	0.30	0.49	0	1
Ministry-level descriptive statistics					
Variable	N	Mean	SD	Minimum	Maximum
Ministry size	18	228.06	155.69	60	768
Ministry tenure	18	69.34	8.17	43.40	78.90

The scope and trajectories of boundary-spanning activities

Table 3 shows, first, that boundary-spanning activities involving participating in interorganizational working groups in the Norwegian central government is high. The scope of such activity is significant. The hierarchy is to a great extent supplemented by such collegial bodies.

3	0			
	1976	1986	1996	2006
Within own ministry	58	71	75	75
Across ministries	40	53	58	54
With subordinate bodies and agencies	-	-	42	40
N (average)	759	1171	1393	1768

Table 3: Ministerial civil servants participating in different working groups and project groups during the last year. 1976, 1986, 1996, 2006. Percentage.

Second, this is not a new phenomenon. Collegial working groups seem to have existed for at least thirty years. These activities increased to a higher level between 1976 and 1986 and have since remained stable at a high level. Thus, our expectation that these kinds of networks and boundary-spanning activities would have increased in recent years owing to post-NPM reform initiatives is not supported by these data. It seems to be an organizational form and a participation pattern that is rather resilient to reform initiatives, whether NPM or post-NPM. This is also quite remarkable since one would have thought that increasing complexity of policies would lead to more collegial contact. On the other hand, there might also be increasing attention and capacity problems.

Third, internal groups working across the divisions and units within their own ministry along the horizontal dimension are the most common. Two-thirds of the civil servants surveyed had participated in such collegial bodies over the last year, but there was also a high level of boundary-spanning activities across ministries. More than half of the civil servants had participated in such activities, indicating that the strong siloization and departmentalization in the central government brought about by specialization by task or sector has been partly compensated for by high levels of activity in horizontal working groups and project groups crossing ministerial boundaries. There is also a rather high level of collegial bodies at the vertical level, bringing together ministerial civil servants and their colleagues in subordinate agencies and bodies.

Explaining boundary-spanning participation

The data on the civil servants are nested within the ministries, in the sense that we would expect the characteristics of the latter to influence the characteristics of the former. Among the many methods of analyzing such data structures, the so-called multilevel approach is preferred (Steenbergen and Jones 2002; Hox 2002, Snijders and Bosker 2004). Based on this approach, we performed our analysis in three steps.

First, we started out by estimating «empty» (also called «unconditional» or 'null) models to determine whether, and how much, variation there is *between* the ministries. To do so, we studied the size of the variance components, their significance (in terms of Likelihood Ratio tests) and the intra-class correlations (ICCs). We then added explanatory variables at both the civil servant and the ministerial level. All the independent variables listed in Table 2 were included in the analysis, but to save space, the tables only show the significant effects in the final models. In the modelling process

we postponed the (collective) testing of educational background to very last. Rather than focusing on the particular effects of each educational background we used a collective test (the LR-test, once again) to clarify whether such background as a general phenomenon affects participation. Significance testing of separate educational groups would make little sense, since the result would depend on an arbitrarily selected reference group. Four groups (and three dummies) were identified (economists, political scientists, lawyers and others, the last being the reference group).

Note that we tested for random slopes (random coefficient model) to see whether the effect of significant individual-level explanatory variables varied between ministries. The analysis (not shown) revealed that none of the civil servant explanatory variables had significant variance components between the ministries. Slopes are therefore treated as fixed in the empirical analysis below. Since observations are few, we decided against robust standard errors.

The first step in the analysis was to see whether the level of participation varied significantly across ministries. Table 4 depicts the result in the form of separate (unit-specific) multi-level logistic regression models for each of the three dependent variables. In multi-level logistic regression, the outcome is linear, based on log-odds (the natural log of the odds) and includes a random effect for the ministry level. The empty model includes no predictors at either level, but provides an overall estimate of the likelihood of participation in different project groups between ministries.

Table 4: multi-level empty logistic regressions: Participation in three types of ministry project groups

Ir	nternal project group participation	Sub-unit project group participation	Inter-ministry project group participation
Fixed effects			
Coefficient	1.228*	-0.404*	0.315*
Odds Ratio	3.42	0.67	1.37
Level-2 variance	0.168	0.213	0.243
Chi-square (p)	19.41*	53.03*	72.58*
Intra-class correlation	0.049	0.061	0.069
Plausible value range			
(95%)			
Lower	0.60	0.21	0.34
Mean	0.77	0.40	0.58
Upper	0.88	0.62	0.78
N-Level 1	1561	1539	1542
N-Level 2	18	18	18

Note: Radom-effects with odds ratios, intra-class correlations, LR-test and plausible value ranges. Table entries are full maximum likelihood estimates with non-robust standard errors * Significant at the 0.00 level.

As we can see from the first column of Table 4, the predicted logic for having participated in internal work groups for a typical ministry is 1.228. The estimated odds of such participation is $\exp(1.191) = 3.42$. Thus the estimated probability for participation for the respondents is 77 percent (i.e. 3.42/(1+3.42) * 100 = 77). This corresponds well with the overall proportion of civil servants in the survey who answered that they actually had participated in internal project groups (75 percent). We further estimate that 95 percent of the ministries have a plausible value range for

internal project group participation between 59 and 88 percent. Looking at the other two dependent variables we see that the estimated variation between ministries is even larger. Participation in project groups across ministries is estimated to vary between 35 and 78 percent. Hence, some ministries have a considerable percentage of respondents who did participate in internal project groups, while other ministries do not. Furthermore, the results show that we find significant variability around the intercept for the ministries on all the three dependent variables (Ministry-level variance for internal project group participation is 0.168, for sub-unit project group participation 0.213 and for cross-ministry project group participation 0.243.)

The intra-class correlation coefficient (ICC) estimates the proportion of variance at the department level relative to overall variance (see Snijders and Bosker 1999 for ICC's for dichotomous outcomes). Since the dependent variables are measured at individual level (civil servant level) this level should also have the highest ICC score (Steenbergen and Jones 2002: 231). Therefore, it comes as a surprise that most of the variation in project group participation is to be found at the lower level. Nonetheless, the ministries account for between 5 and 6.5 percent of the total variation in the three indicators. For participation in internal project groups the ICC is about 5 percent, for inter-ministerial project group participation it is 6.5 percent, and for participation in project groups that include participants from sub-units it is 6.2 percent. Even if the ICCs are not very high, ignoring them would lead to erroneous conclusions, both statistical and empirical.

Summing up the main findings of Table 4, we can say first, that the main variation in the boundary-spanning activity is due to individual-level variables rather than organizational-level variables. Second, there is also a significant part of the variation that is related to ministerial features which need to be included in the further analyses. Third, the importance of organizational level variables is largest for participating in interorganizational working groups and project groups that transcend ministerial boundaries both horizontally and vertically.

The subsequent step in the analysis is to include the explanatory variables in the model. Since there are only two such variables at Level 2, and in order to save space, we present the effects for all the explanatory variables simultaneously. As already mentioned, we present only the effects that, after an elaborate testing process, turned out to be significant. In the last model we tested for possible educational background effects. The entries in the tables are the full maximum likelihood estimates.

Three results stand out. First, at the civil servant level two explanatory variables turn out to be especially important for participation in all three types of project groups: male gender and policy development and planning as a main task. We found that male civil servants with this main task had a much higher probability than other civil servants of participating in project groups. The probability of participating in internal project groups was 48 percent (that is exp (0.39) =1.48, (1.48–1.00) * 100=48) higher for male civil servants than their female counterparts (among those not having reporting as their main task and in the educational group «others»).

Table 5: Multi-level regressions: Participation in three types of project groups.

	Internal project group Project groups with subordinate bodies		Inter-ministerial project groups			
City of Effects	Final model	Educational background effects	Final model	Educational background effects	Final model	Educational background effects
Fixed Effects Constant	0.86*	0.76**	-0.76*	-0.85*	-0.08	-0.26**
Constant	0.00	0.70	-0.70	-0.03	-0.08	-0.20
Civil-servant effects Structural features: Leadership position						
Coordination					0.49**	0.49***
Planning and development	0.59**	0.54**	0.66*	0.66*	0.69**	0.70**
Demographic features:						
Tenure Gender Jurists Economists Social scientists	0.39**	0.19*** -0.03 0.23 0.42	0.26**	0.26*** 0.16 0.13 0.11	0.27**	0.18 0.23 0.14 0.48
Ministry effects Ministry size Ministry tenure					-0.002* 0.03**	-0.002** 0.03**
Variance Components						
Ministry level	0.162*	0.159	0.191	0.201	0.014	0.016
Deviance compared	27.96*	8.09**	37.85*	1.43	64.53*	11.863**
to previous model						
N Civil servant	1561	1561	1539	1539	1542	1542
level						
N Ministry level	18	18	18	18	18	18

Note: Table entries are full maximum likelihood estimates

The probability of civil servants with policy development and planning as their main task participating in project groups is 80 percent higher than for those with other tasks. This group stands out as important participants in all three types of project groups. Apart from these two variables all others fail to reach significance for the first two types of project group participation. It should come as no surprise that civil servants engaged in coordination activities participate more in inter-ministry project groups than other civil servants. Coordinators have an odds ratio of 1.63 for participation in inter-ministry project groups. This means that there is a 63 percent (that is (1.63-1.00)*100) increase in the odds of participating in these groups for coordinators compared to civil servants with other job descriptions (where reporting is not their main task).

^{*} Significant at the .00 level. ** Significant at the .05 level. *** Significant at the .10 level.

Second, education makes a difference. The results from the analysis of the educational background effects are presented in the second column of the table. Here we see that such background has a significant effect for internal project group participation and for cross-ministry project groups, although not for participation in sub-unit project-groups. In the two former groups political scientists appear to be the most active participants.

Third, organizational level makes a difference. The two ministry-related explanatory variables in our model – ministry *size* and *institutional/ministry tenure* – are important for inter-ministry project-group participation, but not for the other two types of participation. The number of employees reduces the probability of individual civil servants participating in inter-ministry project groups, while institutional experience increases the odds of such participation.

Compared to the empty model, the ministry-level variance components show small reductions for internal and sub-unit project-group participation. This is as expected given the small degrees of freedom at Level 2. Hence, much of the variance at the ministry level is still unaccounted for when it comes to these two types of project group participation. However, looking at the ministry-level variance components for interministry project-group participation shows that the difference between the empty model and the model with the two ministry-level explanatory variables is 0.243–0.014=0.229. Relative to the size of the variance in the empty model this is a reduction of 0.229/0.243=0.942. This means that civil-servant and ministry-level variables combined explain about 94 percent of the ministry-level variance in inter-ministry project group participation. Thus, the model is significant (compared to the empty model) and seems to successfully explain variance at the ministry level.

Ministries do make a difference for participation in different types of work and project groups. Male civil servants working in the fields of planning and policy development are overrepresented in all three forms of project groups. At the ministry level, size and institutional experience seem to be important for inter-ministry project group participation. However, when it comes to ministry-based coordination (internal-and sub-unit project groups), the two ministry-level variables remain unimportant. The analysis also suggests that educational background plays a role for internal- and cross-ministry project group participation, although not for participation in project groups with sub-units.

Boundary-spanning participation and assessment of coordination

The last of our research questions is whether civil servants engaged in different types of boundary-spanning activities have more positive attitudes towards coordination, compared with those who are not. Here we use the three variables that were dependent variables in the above analysis as independent variables concerning perceived coordination or coordination practice. In order to test the argument we use the same modelling strategy as in the previous section. The independent variables tested for are identical, apart from the fact, as mentioned, that we include the three project group

participation indicators². We do not, however, show the results from the empty models. The ICC's are small and not significant. This means than we can ignore the clustering of the data and use standard OLS regression to explore civil servants' attitudes towards coordination. All variables shown in the first column have been included in the first tests, but again we only show significant effects. The (collective) test of educational background is (as in the previous section) postponed till last.

The results are presented in Table 6. The second column (final model) shows the results after introducing the civil servant explanatory variables. Turning to attitudes towards vertical coordination within own ministerial area the analysis reveals that being in a leadership position is associated with very positive attitudes, compared with civil servants who are not. This reflects formal role obligations and a different perspective on coordination compared with executive officers. Coordinators and civil servants who have participated in boundary-spanning project groups with sub-units and with other ministries also view internal coordination more positively. The coefficients for participants in the remaining type – intra-ministerial or boundary-spanning project groups – are not significant (not shown). Civil servants with short employment records (less than five years) are somewhat less positive compared to those with longer tenure.

Table 6: Civil servants' attitudes towards internal- and inter-sectoral coordination.

	Assessment of	vertical coordinatior	n within As	sessment of horizontal	
	0/	wn policy area	coordina	coordination between different policy	
				areas/sectors	
	Final model	Educational	Final model	Educational background	
		background		effects	
		effects			
Constant	2.36*	2.42*	2.59*	2.59*	
Civil-servant effects					
Structural features:					
Leadership position	-0.13**	-0.12**			
Coordination	-0.10***	-0.12**			
Planning and development					
Internal project groups					
Project groups with	-0.09**	-0.09**			
subordinate bodies					
Inter-ministerial project	-0.07***	-0.07	-0.12**	-0.12**	
groups					
Demographic features					
Tenure	0.09**	0.09**	0.14**	0.10**	
Gender			0.10**	0.13**	
Jurists		-0.12		-0.03	
Economists		-0.10		-0.02	
Political scientists		0.08		0.03	
F-test educational groups		1.76		0.30	
Adjusted R-square	0.02	0.02	0.02	0.01	
N	1346	1344	1207	1205	

Note: OLS regression with unstandardized coefficients.

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^{*} Significant at the .00 level. ** Significant at the .05 level. *** Significant at the .10 level.

² The three project group participation variables are all positively correlated, but none of them are above .30 (Pearson r).

When it comes to attitudes towards horizontal coordination between policy areas or sectors, fewer independent variables turn out to have significant coefficients. It is interesting, however, that those who have participated in inter-ministry project groups turn out to be among the most positive civil servants. Participating in the other two types of project groups (internal and with sub units) does not yield any significant coefficients (again, not shown).

As for attitudes towards internal coordination, less experienced civil servants also regard coordination between sectors and ministries less positively. Male employees are even somewhat less positive than civil servants with short employment records in their attitudes towards inter-sectoral coordination. Finally, the analysis of the educational background effects suggests that we have nothing to learn from including them in the analysis. According to the F-tests, educational background does not improve the models tested, neither for attitudes towards internal coordination nor for those towards intersectoral coordination.

Summing up, the main findings here are first, that there is no significant effect of organizational level variables. Among individual level variables there is a clear effect of structural variables, meaning that participation in project and working groups with subordinate bodies does indeed have a positive effect on perceived vertical coordination. In addition to participation in such collegial bodies, transcending sectoral boundaries tends to enhance a positive perception of horizontal coordination as well as vertical coordination. On the other hand, participation in internal ministerial projects and working groups does not affect vertical and horizontal coordination in any significant way. Position also makes a difference regarding vertical coordination. Civil servants in managerial positions tend to have a more positive assessment of this kind of coordination. Also civil servants who have coordination as a main task have more positive attitudes towards vertical coordination.

There are also some effects of individual demographic variables. Males and civil servants with long tenure tend to assess horizontal coordination more positively.

Expectations and main results

Table 7 sums up our main findings regarding the structural and demographic variables at the organizational as well as the individual level. We see that structural and demographic features are important both at the individual and at the organizational level.

Table 7: Summing up expectations and results of structural and demographic features at individual and organizational level.

	Individual level	Organizational level
	Participation in working and project groups	Participation in working and project groups
	Leadership position: more participation – no	Ministry size: either large or small more participation – larger ministries less for inter-ministerial participation
	Coordination: more participation – yes for inter-ministerial	
Structural variables	Planning/development: more participation – yes overall	
Variables	Perceived coordination	Perceived coordination
	Leadership position: more positive – yes for vertical coordination in own sector	Ministry size: smaller ministries more positive – no
	Coordination: more positive – yes for vertical coordination in own sector	·
	Planning/development: more positive – no	
	More participation: more positive – yes overall for inter-ministerial, yes for internal and vertical coordination	
	Participation in working and project groups	Participation in working and project groups
	Tenure: long gives more participation – no	Ministry tenure: long gives more participation – yes
	Gender: women less than men , yes	
	Jurists less than others – some tendency	
	Political scientists more than others – yes for internal and inter-ministerial	
Demographic variables	Economists more than others – some tendency	
	Perceived coordination	Perceived coordination
	Tenure: long leads to more positive perception – yes overall	Ministry tenure: long leads to more positive perception — no
	Gender: women less than men – no	
	Jurists less than others – no	
	Political scientists more than others - no	
	Economists more than others - no	

Going back to our theoretical approaches and the expectations we derived from them, we see a pretty varied picture. First, starting with participation in working and project groups and the effects of individual structural variables, it is rather surprising that the expectation of leaders participating more is not fulfilled. One explanation for this may be that there are many groups and they are of varying importance, so only some of them may attract leaders. One counter-argument to this would be that inter-ministerial groups would, relatively speaking, attract more leaders than other types, which is not the case. Another explanation is that administrative leaders increasingly have capacity problems, reflected in the finding of the surveys that the contact pattern of leaders has become more exclusive, meaning that executive officers are increasingly involved in such collegial participation.

Further we find, mostly as expected, that formal tasks matter, because having coordinative or planning/development tasks is connected with more participation. But

why should having planning/development tasks have more impact overall than having coordinative tasks? One reason may be that planning/development is in reality a broader task.

What about participation and structural organizational variables? Here the expectations were rather divided, but the finding was that civil servants from larger ministries participate less in inter-ministerial working and project groups. As indicated, this may have something to do with small ministries having to engage a relatively higher share of civil servants in collegial coordinative efforts, but large ministries may also be more specialized concerning boundary-spanning.

Second, what about demographic variables and participation? Concerning the individual variables, we did not find as expected that long tenure results in more participation, reflecting that a career factor where civil servants build up a close network of contact is of less importance than the type of tasks in which they are engaged. According to our expectations, men score higher than women on collegial participation. Since leadership position is not connected to participation, this probably does not have to do with men being overrepresented in leadership positions, but could be related to men overall accounting for a larger share of civil servants than women. Whether this also reflects a male-biased network and culture, indicating that men recruit men into these bodies, is not easy to find out from these data. Education had an overall effect on participation, with political scientists scoring highest, partly as expected. This may reflect differences in tasks between educational groups, with political scientists seen as more competent at performing boundary-spanning-related tasks, but it may also reflect differences in the content of their education.

Ministerial tenure, an organizational variable, showed, as expected, that ministries with an «older» tenure profile engage more in boundary-spanning activities. Since tenure as an individual variable did not lead to more participation, the share of civil servants is obviously more crucial. Interestingly, this would seem to indicate that a career approach is of less value for explaining participation than a generational one. We showed in Table 3 that boundary-spanning activities were less frequent in the civil service 20–30 years ago.

Third, if we turn to the second part of the analysis and perceptions of coordination, we see that our expectations about individual structural variables are mostly fulfilled. Even though leaders do not participate more, they have the most positive attitudes towards coordination, reflecting their overrepresentation among civil servants with coordinative tasks. They also seem to be relatively more preoccupied with internal vertical coordination, which may reflect attention and capacity problems. The results for tasks seem more difficult to explain. Civil servants with coordinative tasks participate more in inter-ministerial boundary-spanning activities, but are most positive towards vertical coordination in their own sector. Civil servants with planning/development tasks participate overall more but are not overall more positive towards coordination. Concerning ministry size, we expected small ministries to be more positive towards coordination, but we did not find that.

Fourth, what about demographic variables and the perception of coordination? Concerning tenure, we find the opposite results than for participation. Long individual tenure leads to more positive perceptions of coordination, but ministries with a large

share of civil servants with long tenure did not yield the same result. Individual tenure may reflect more representation in leadership positions, while ministerial tenure may reflect a generational factor and «coordination fatigue». Gender shows a different pattern than for participation, because women are expected to be more positive towards inter-sectoral coordination. If this reflects a gender difference in preferred type of interaction, one would eventually have expected to find an overall pattern. We find no differentiated pattern concerning higher education, even though political scientists score higher for participation.

Conclusion

In this paper we have shown first that the hierarchical organization of Norwegian ministries to a large extent has been supplemented by network-oriented, collegial boundary-spanning project and working groups. This phenomenon is not recent but goes back at least thirty years and does not seem to be significantly affected by the big NPM or post-NPM reform movements. It is most widespread within ministries, but more than half of the civil servants surveyed had also participated in inter-ministerial collegial bodies over the last year. Bodies spanning the boundary between the ministry and subordinate agencies and bodies are also numerous within the central government administration.

Different types of coordination problems have received a renewed focus in the form of wwhole-of-government» and wjoined-up government» programs (Christensen and Lægreid 2006, 2007, 2008a) but this paper has also revealed that different kinds of cross-boundary collegial bodies are definitely an old tool used to enhance coordination in central government. Vertically, supplementing hierarchy with collegial working and project groups with subordinate bodies is a popular and long-term strategy for political executives to regain political control and pursue consistent policies across levels. On the horizontal dimension, measures like cross-sectoral bodies, programs or projects have been used to a great extent and for a long time to modify the «siloization» or «pillarization» of the central public administration with a strong specialization by sector (Gregory 2003, Pollitt 2003).

Second, both individual and organizational features influence the degree of participation in such collegial bodies. One of the main contributions of this paper is the multi-level analysis which reveals the combined effects of individual and organizational features on boundary-spanning activities. The effects of organizational-level features are, however, more important for participation in inter-ministerial project groups than in internal or vertical sector-specific project groups. They are also more important for network participation than for attitudes and assessments of perceived effect on coordination. That said, individual features are more important than organizational. Especially individual demographic features such as gender seem to be important. Men are significantly more involved in such activities than women, which can indicate that the network of collegial bodies is male-dominated. But there are also significant effects of structural features such as tasks and demographic variables like education.

Third, when it comes to attitudes towards coordination there is not much variation among the civil servants, in general they turn out to be rather positive towards the two types of coordination analyzed in this paper. This being said, participation in project and working groups across ministerial level both vertically and horizontally tend to have a positive effect on perceived coordination among civil servants. Such networks definitely seem to enhance coordination both vertically and horizontally.

The conclusion is that participation in boundary-spanning activities and its effects on perceived coordination cannot only be traced back to either a structural-instrumental or to a demographic perspective. There is obviously no one-factor explanation and we need to use a mixed-perspective approach to understand these activities and their effects.

One lesson is that if one wants to encourage more collaborative working practices, one size does not fit all (Page 2005). Collegial working groups are not a panacea that will solve all problems everywhere and at all times. This organizational form is not appropriate in all circumstances or suitable for all public-sector activities but can, under specific conditions, be a useful supplement to traditional hierarchical organizations and thus represents a neo-Weberian feature of modern central government organizations (Pollitt and Bouckaert 2004).

There are contradictory structural and demographic forces pulling in different directions when it comes to engaging in boundary-spanning activities. On the one hand, NPM reforms have pushed central government to decentralize decision-making. On the other hand, the centre has been encouraged to strengthen its capacity to coordinate policy development and implementation. Several competing strategies have been advocated and implemented to enhance coordination, implying that the reform content has been fluid and contested. Rather than looking at hierarchy and collegial networks as alternative and competing organizational forms, we should understand them as supplementing and complementing other organizational modes (Olsen 2009). It is more a question of how they co-exist and how they may be traded-off and balanced against each other than of replacing one form with another.

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