

**MAPPING ORGANIZATIONAL UNITS IN THE STATE:
CHALLENGES AND CLASSIFICATIONS**

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Introduction

In attempts at mapping the pattern of state organizations, four questions arise: 1) What constitutes a *state* organization? 2) What constitutes *one* state *organization*? 3) What constitutes different *types of state organizations*? 4) What constitutes different *types of change* of state organizations? There are no clear and straightforward answers to these questions on state boundaries, units of analysis and classifications. The answers provided have to be well-founded, as well as take into consideration the availability of relevant information.

In this paper we will discuss the first three questions, while the last one is discussed in a separate paper (Rolland and Roness 2009). The main focus is on structural relations within and between organizational units, but we will also draw upon other classifications of units from organization theory and public administration. The structure of state administration can be described in terms of a vertical and a horizontal dimension (Christensen and Egeberg 1997, Egeberg 1989, Lægreid et al. forthcoming, Lægreid and Roness 1998, Roness 2007). The vertical dimension concerns centralization and decentralization (Pollitt 2005), in other words, how responsibility for political and administrative tasks is allocated among organizations at different levels of the hierarchy. The horizontal dimension focuses on how tasks and responsibility are allocated among different organizations at the same hierarchical level.

We start by examining state boundaries and the somewhat broader question on distinctions between public and private (sector) organizations. Then, different aspects of clarifying the unit of analysis are examined. However, the emphasis will be on the third question on types of state organizations. If the answer on the first two questions goes beyond a mere yes or no, they may also form the basis for classifying types of state organizations. A basic distinction between state organizations is according to formal-legal status, but the existing classifications may empirically vary a lot across states. In the literature on organization theory and public administration several analytical frameworks have been launched, and some of them have also been utilized in practice. Based on the discussion on these three questions, finally we will explain how the classifications and challenges have been handled in the Norwegian State Administration Database (NSA). This database is covering the formal structure of the

Norwegian ministries, civil service organizations outside the ministries, state-owned companies and governmental foundations from 1947 onwards (cf. Rolland and Roness 2009).

What constitutes a *state* organization?

In a recent review of the literature on the boundaries of the state, Flinders (2006) argues against what he calls ‘the restricted view of state topography’, creating ‘a fairly homogeneous, fixed and stable entity’: “The opposite is true. In fact the boundaries of the state are far from clear, either by nature, role or direction.” (p. 223) The central argument of his review is that developments during the last quarter of the 20th century where now ‘the state consists of a highly heterogeneous network of organizations’ is ‘the primary challenge of modern governance’.

Flinders (2006) relates his discussion to the more general public-private distinction, where the literature is also quite large and several dimensions and classifications have been launched. The two most basic criteria seem to be (public vs. private) ownership and funding (cf. Wamsley and Zald 1973), but others have added a third criterion, such as mode of social control (e.g. Perry and Rainey 1988, Rainey 2003) and accountability (e.g. Hardiman and Scott forthcoming). In a quite comprehensive review of the literature on regulatory governance, Scott (2008) discusses six aspects: 1) ownership, 2) legal form, 3) funding, 4) function, 5) powers and organizational form, and 6) governance level. According to Dijkstra and van der Meer (2003), these multiple dichotomies, and the multidimensional character of the public/private distinction, is to a large extent based on the use of different perspectives on organizations: 1) a political control and institutional perspective, 2) a legal status perspective, 3) a legal and regulatory power perspective, 4) a legal-economic ownership perspective, and 5) an economic funding perspective.

Mappings of organizational units in the state must consider which criteria to be used to decide ‘who is in and who is out’. As noted above, this is not an easy and straightforward task. In addition to the most common distinctions between public and private organizations (e.g. ownership, legal form and funding), one also has to distinguish the state as a governance level separate from regional/local and supranational levels (cf. Scott 2003). Like for the structure of state administration, the

multi-level governance concept also contains both vertical and horizontal dimensions (Bache and Flinders 2004: 3). State organizations constitute part of what may be considered public organizations, related to certain governance levels. Which organizations and levels are relevant will to some extent depend on whether the state is unitary or federal. Thus, what constitute a *state* organization may also empirically vary according to wider characteristics of the state for which the mapping is done.

What constitutes *one state organization*?

The first aspect here is to decide what should count as an *organization*. Should the mapping be restricted to permanent organizations with full-time employees, or should other units also be included? Like for these units in general, they may be created on a temporary basis or have no defined time limits, and they may have personnel employed on a part-time or full-time basis. For example, *task forces and working groups* within the state will normally have a limited life period, with members representing permanent organizations (on leave from this organization or having participation in these temporary units as part of their tasks). *Public committees and commissions* with members from permanent state organizations as well as from interest groups and experts may be created on a temporary basis or more permanently, but the members will normally participate on a part-time basis. To some extent, the answer on the question of what to include will depend on the availability of relevant information: it is easier to collect data on permanent organizations with full-time employees than on units that are temporary and/or with only part-time members.

As noted above, in the last decades there has been an increase in the number of *networks* of organizations. Should networks be regarded as separate organizational units, on top of or across other organizations, or should participation in networks be regarded as a characteristic of organizations? Here, too, what to include will probably depend on the availability of relevant information, and whether or not the networks are non-temporary and involve full-time participation of some persons.

Decisions on what should count as *one* organization involve the vertical as well as the horizontal dimension. With regard to the vertical dimension, Peters (1988) has a rather thorough description of the choice of units of analysis in his study of US federal agencies, based partly on the availability of information:

“Within larger organizations we needed some rules as to what constituted an organization and what did not. In general, we worked by exclusion. First, we did not include the field structure of organizations or installations as separate organizations. Also, in general we did not go more than three levels down in an organization (for example, department, agency, bureau). The data below that level are extremely inconsistent, and since very few, if any, organizations below that level would have any sort of basis in public law, it seemed reasonable to halt our investigation at the third tier. Finally, entries on organization charts which were personalized (for example, assistant secretary for something or the other) had to be investigated quite thoroughly. Some such entries do have definite and important organizational manifestations, while others appear to consist of the individual and a very small personal staff.” (p. 86)

This example also shows that state organizations often are composed of a set of positions and subordinated units and can themselves fall under larger units (cf. Christensen et al. 2007: 21). This is emphasized by Meyer (1985) in his study of US municipal financial organizations, where he has a rather extensive discussion on ‘the concept of organization’:

“Most organizing takes place within existing organizations. (..) Much organizing activity, then, constructs, reorganizes, or dissolves organizations that are parts of larger organizations, or, in some instances, organizations of which other organizations are parts. The outcome of such organizing activity is organizations within organizations.” (p. 61)

He also provides a relevant definition of what constitute *one* organization:

“Organizations are those entities understood to be organizational units. Organizations are departments, *and* divisions or bureaus within departments, *and* sections within divisions or bureaus. And in some instances, the set of departments responsible for municipal finance functions is treated as a single organization.” (p. 80)

Thus, in general, mappings of state organizations should include organizations at different vertical levels, and also make clear how they are related to each other through the hierarchy. Moreover, along the horizontal dimension, at a certain level each organizational unit may be treated separately or as part of a single organization.

What constitutes different *types of state organizations*?

As noted above, the mapping of state administration involves a vertical and a horizontal dimension. An answer on the first question on state boundaries beyond deciding who is in and who is out implies an interest in what may be called the form and extent of stateness, and is related to the vertical dimension. Moreover, an answer on the second question on the unit of analysis implies an interest in what may be called the form and extent of uniqueness, and may be related to the vertical as well as the horizontal dimension.

Attempts to explore different types of public-sector organisations using the *vertical dimension* have been many and various (e.g. Thynne 2003, Wettenhall 2003). A distinction between different formal-legal types is often regarded as essential, but classifications based on analytical frameworks from organization theory, public administration and political science have also been used. With regard to the *horizontal dimension*, many discussions take the distinction between different principles of specialization from Gulick (1937) as the point of departure.

Form and extent of stateness

In his discussion on the boundaries of the state, Flinders (2006) also distinguishes between different types of organizations according to how close they are to the central political authorities:

”The structure of the modern state at the national level can be viewed as a series of concentric circles or ripples on a pond with departments of state at the centre and a number of organizational forms, each enjoying a greater degree of autonomy as they radiate out from the centre.” (p. 226)

He also presents an overview of the structure of the British state at the national level, with examples of (types of) organizations in each circle. In a later publication (Flinders 2009), he uses the metaphor of ‘russian dolls’ in mainly the same way as ‘concentric circles’. However, with regard to delegated governance, this image is too simple, and existing forms may ‘more appropriately be described as involving a series of vertical and horizontal linkages resembling a spider’s web.’

Wettenhall (1986) proposes a 'wheel' or a 'dartboard' as metaphors for distinguishing between different types of state organizations. In the wheel model, the hub represents the cabinet and spokes the various ministries. Moreover, the location of organizations on the spokes indicates their extent of subjection to ministerial control, while the units 'which enjoyed virtually complete autonomy' are 'placed at the rim' (p. 85). He also presents examples from government administration in Tasmania and New South Wales on what the wheel model implies.

Likewise, taking the dimensions for distinguishing between public and private organizations as the point of departure, placement on a continuum on these dimensions, or combinations of several dimensions, may constitute different forms and extents of stateness (or publicness). Thus, in addition to pure state (or public) organizations according to e.g. ownership and funding, several hybrid forms may be of interest.

Form and extent of uniqueness

As noted above, state organizations may be distinguished according to their stability and scope. While some organizations are permanent and have full-time personnel, others are less stable and with less staff capacity. Moreover, while some are fully separate organizations, others are part of or consist of other units through the hierarchy. Likewise, within state administration there may be a unique organization for performing a certain task, or many organizations for the same task. This also implies that mappings of state administration may involve different forms and extents of detail and aggregation.

Formal-legal type

What constitutes different formal-legal types of state organizations varies a lot across states (see e.g. Roness 2004, 2007). Particularly for states having a common law tradition associated with a Westminster/Whitehall system it is also quite difficult to distinguish between different types of organizations. For example, in their mapping of

British central government agencies, Hood and Dunsire (1981) discuss extensively the question of 'what is a department' without being able to give a clear and agreed-upon answer:

“Every public administration student, it might innocently be thought, ought to know precisely what a government department is in Britain. But we came to realise that the question is a deep legal (indeed a philosophical) one, and there is certainly no single and all-encompassing definition of such a thing - only a variety of lists of agencies called 'departments', compiled for a number of different purposes, with a considerable degree of difference between them.” (Hood and Dunsire 1981: 40)

They end up with a rather inclusive set of organizations (69 units in 1977) that may be called a department, but where only a minority is headed by a minister. In his study of the changes of the machinery of government in the 1960-1983 period, Pollitt (1984: 11) estimates that there is about 'two dozens or so' organizations that he terms 'ministerial departments'. Likewise, Rose (1987) finds that there are about 20 ministries in the United Kingdom, based on the following definition: “The term 'ministry' is here defined as those organizations headed by a member of Cabinet or in the sole charge of a minister of Cabinet rank.” (p. 22)

Wettenhall (1986) provides perhaps the most comprehensive discussion of the relationships between what may be called *ministries* and *departments*, using mainly (but not exclusively) examples from Westminster-based political systems. He distinguishes between several ways in which these concepts may be linked:

- 1) Ministry = department (i.e. use ministry and department synonymously).
- 2) Ministry = a minister's total jurisdiction when that field contains several departments in the public service sense.
- 3) Ministry = coordinating secretariat assisting the minister to supervise other agencies within his jurisdiction.
- 4) Ministry = part of a department (e.g. a branch).
- 5) Ministry = a small non-executive department.

The two last ones are quite uncommon. His own preference is to restrict the concept of ministry to the second usage, while for the first usage one should revert back to department and for the third usage seek to standardize on 'ministerial secretariats'.

In recent years the concept 'agency' has become quite popular. There are various descriptions internationally of *agencies* as non-departmental public bodies, hybrids, quangos, fringe bodies, non-majoritarian institutions, quasi-autonomous

public organizations, and distributed public governance (see e.g. Wettenhall 2005, Christensen and Lægreid 2006, Roness 2007). How an agency is defined and what it does varies considerably across national and organizational cultures, legal systems, and political systems (Smullen 2004). One common definition is that agencies are those organizations which have the following features (cf. Pollitt et al. 2004, Talbot 2004): 1) They are public law bodies, 2) They are structurally disaggregated from other organizations or from units within core ministries, 3) they have some capacity for autonomous decision making with regard to management or policy, 4) they are formally under at least some control of ministers and ministries, 5) they have some expectation of continuity over time, and 6) they have some resources (financial and personnel) on their own. This definition is also the point of departure for several comparative studies of state agencies (e.g. Pollitt et al. 2004, Verhoest et al. forthcoming). Thus, in these studies some types of state organizations are excluded: a) units within core ministries, b) companies and corporations with a commercial focus which have to closely observe the laws regulating private companies or which are registered under company law as a company, and c) governmental foundations, trusts and charities.

How can we then handle the challenge of varying classifications of formal-legal types of state organizations across states in comparative studies? One option might be to use quite broad categories, like the ones presented by OCED in a report on ‘distributed public governance’ (OECD 2002: 17-19):

- 1) Departmental Agencies: They are part of ministries, and do not have their own separate legal identity from the state.
- 2) Public Law Administrations: They function mostly under public law, but they are partially or completely institutionally separate from the ministries and/or can be partially separate or fully separate legal bodies.
- 3) Private Law Bodies: They are not companies, but function mostly under private law, usually with a full separate identity from the state.

However, for many research purposes these categories may be too inclusive. Another option is to use more detailed state-specific classifications in mappings and then afterwards decide which ones may be regarded as mainly equivalent across states. This is done in a comparative study of agency autonomy and control in Norway, Ireland and Flanders (Verhoest et al. forthcoming).

Principle of (horizontal) specialization

With regard to the *horizontal dimension*, probably the most famous categorization based on *specialization* is the one provided by Gulick (1937). He presents his four principles of purpose, process, people and place in a section on ‘aggregating the work unit’. With regard to later applications of this classification it may be noted that the first two principles does not contain any mentioning of function. Moreover, he emphasizes that ordering based on one principle at one level is often combined with ordering based on another principle among sub-units at a lower level. He also discusses quite comprehensively the advantages and disadvantages to be expected from the application of one or another of the principles. His conclusion is that there is no best solution and that all the principles are interrelated within an organization. However, these four principles of specialization do not cover all relevant questions. In practical organizational design the question, for example, of which purposes should be linked or kept apart arises just as often as the question of choosing between the principle of purpose and other principles, such as area (Egeberg 1984, 2003).

In his discussion of the organization of government, Self (1972) takes Gulick’s typology as his point of departure. He asserts that ‘.. there is little difficulty in showing that three of Gulick’s principles cannot be assigned a dominant status’ (p. 55). After eliminating area, persons and process as relevant principles, ‘major function or purpose’ remains as the only alternative. However, he says that this principle ‘unfortunately .. is also obscure and inadequate’, ia. since ‘purpose is not the same as function’ (p. 57). Even if this may be true for the way Self defines the concepts of purpose and function, this critique does not apply fully to Gulick, who has a more narrow definition of this principle.

Peters (1995) also takes this typology as his point of departure in his discussion of problems of administrative structure. In contrast to Self, Peters does not reject any of the four principles, and he links function to process (e.g. staff functions like budgeting and accounting) rather than to purpose. Moreover, he recognizes the problems of distinguishing purpose from the other principles:

“This mode of organization is not always distinguishable from the others discussed. For example, is a Ministry of Agriculture organized on the basis of its major purpose - the promotion of agriculture - or is it organized around a ready-made clientele group - farmers? Organization by purpose, perhaps more

than the other criteria mentioned, points up the lack of exclusiveness of this set of categories.” (p. 158)

Hogwood (1992: 165-68) also starts by Gulick’s classification in his discussion of organizational change and policy change in Britain. Like Self (1972), Hogwood links function to purpose, and points at ambiguous aspects of this principle. In addition, he launches a possible fifth principle: “responsibility for certain stages in the policy process relating to particular functions. This form of allocation could perhaps be a fifth criterion of allocation overlooked in the traditional classification by function (that is, policy area).” (p. 166)

Summing up, even if it has been subjected to some critique, Gulick’s classification may still be relevant for mapping state administration. However, like Gulick himself points at, there may be combinations of principles across levels, for example by organizing according to purpose, process and people at one level and according to area at a lower level. Moreover, like for example Egeberg points at, it is not enough to determine that the principle of purpose is being used – identifying the type of purpose is also relevant.

Analytical frameworks

Based on ideas and concepts from organization theory, public administration and political science, several analytical frameworks that may be relevant for mapping state administration have been launched. We will briefly assess some of them..

Thompson and Tuden (1959) focus on *decision issues*, which they categorize along two dimensions: preferences about possible outcomes, and beliefs about causation. For both dimensions they distinguish between agreement and disagreement, thus forming the basis for four types of decision issues and corresponding appropriate strategies for handling them: computation for agreement on both, majority judgment for agreement on preferences and disagreement on causation, compromise for disagreement on preferences and agreement on causation, and finally inspiration for disagreement on both. The four types of strategies are also related to four types of structures: computation in bureaucratic structures, majority judgment in

collegial structures, compromise in representative structures, and inspiration in 'anomic' structures (p. 196-205).

Hult and Walcott (1990) develop this typology in their discussion of *governance structures*. According to them, the two dimensions of decision setting can be split into three categories: preferences about possible outcomes in uncertainty, consensus and controversy; and beliefs about causation in uncertainty, certainty and controversy. Like Thompson and Tuden, they argue that certain structures (seven types all together) are most appropriate for certain combinations of preferences and causation (p. 49-80). Even if neither of them explicitly relates different types of structures to different types of organizations, this follows naturally from their way of reasoning.

Wilson (1989: 158-59) takes as his point of departure the tasks or *activities* of public agencies, and distinguishes between two dimensions: Can the activities of their operators be observed? Can the results of those activities be observed? The first factor involves outputs, while the second involves outcomes. For outputs (work) as well as for outcomes, the extent to which this can be observed will vary. By combining the two dimensions, Wilson identifies four types of organizations: *Production* organizations have both observable outputs and observable outcomes; *procedural* organizations are characterized by observable work but unobservable outcomes; *craft* organizations produce observable outcomes through unobservable work; and in *coping* organizations neither the work nor the outcomes is observable (cf. Gregory 1995: 172). Several recent studies of state organizations have also drawn upon the ideas of Wilson, assessing the tangibility and measurability of the activities they perform (e.g. Van Thiel 2001, Pollitt et al. 2004, Verhoest et al. forthcoming). However, in those studies these ideas are often combined with other ideas concerning the activities of state organizations, like political salience.

In her analysis of UK 'next steps agencies', Greer (1994) launches a typology of agencies based on *transaction cost analysis*. Thus, the agencies may vary according to two dimensions: the extent to which they have a monopoly on service delivery in their area, and the extent to which they depend on revenue from the Treasury (p. 18-19). She relates the conditions identified as increasing transaction costs to the two dimensions. The categorization into four main types is exemplified by a discussion of next steps agencies in the Department of Social Services (p. 40).

A common characteristic for these classifications is that they are quite difficult to operationalize, i.e. there are challenges related to identifying them empirically in state organizations. Moreover, specific units may have several decision issues, governance structures, activities and tasks, implying that they may fall into more than one category. In other words, applied to state organizations the categories are not mutually exclusive. It is a bit difficult to assess whether the classifications are exhaustive (i.e. covering all possible instances), since they only to a limited extent have been used in practice for mapping state administration. This has been done for other classifications from organization theory as well as public administration and political science, to which we now turn.

Tasks

In the academic literature, several classifications of agencies based on what may be called tasks, state activities and functions or roles have been launched (cf. Roness 2004, 2007). Looking first at what may be defined as the task of state organizations, several recent contributions relates to the study by Dunleavy (1991). The point of departure for his 'bureau-shaping model' is the different types of budgets (i.e. expenditures) that agencies have (see also James 2003). He distinguishes between five basic agency types: 1) delivery agencies, 2) regulatory agencies, 3) transfer agencies, 4) contract agencies, and 5) control agencies. Moreover, he includes some additional categories to achieve comprehensive coverage: 6) taxing agencies, 7) trading agencies, and 8) service agencies. Hardiman and Scott (forthcoming) and Scott (2008) develop this classification of what they call 'function' of state organization, distinguishing between ten types of organizations: 1) adjudicatory, 2) advisory/consultative, c) contracting, 4) delivery, 5) information-providing, 6) ministries, 7) regulatory, 8) taxing, 9) trading, and 10) transfer. Based on an Irish database on state organizations, they also provide information of the number of organizations (and examples of specific organizations) within each category.

Focusing on autonomous agencies, Bouckaert and Peters (2004) distinguish between different types of activities and functions that these types of organizations may perform: 1) implementation (direct service delivery or transfer of funds), 2) regulation, 3) advice and policy development, 4) information, 5) research, 6) tribunals

and public enquiries, and 7) representation. A similar classification has been launched by some Swedish political scientists (Premfors et al. 2003: 96-111): 1) exercising authority, 2) regulation and control, 3) information and advice, 4) production of goods and services, 5) production of knowledge, 6) planning, steering and co-ordination, and 7) policy-formulation. They provide some examples of Swedish state organizations that may fall into the various categories, but without any full coverage.

In a recent comparative study of state agencies in Norway, Ireland and Flanders, a somewhat simpler classification has been used, distinguishing between four types of task: policy formulation, service delivery, regulation and exercising other forms of public authority (Verhoest et al. forthcoming). Here, the challenge of organizations performing multiple tasks has been handled by mapping primary tasks as well as (one or more) secondary tasks.

Functions and policy areas

Classifying agencies according to functions or policy area has been undertaken by academics as well as by practitioners. Recently, the United Nations *Classification of Functions of Government* (COFOG) has emerged as an international standard (cf. Roness 2007). This classification lists ten main types of functions (each having between five and nine sub-types): 1) general public services, 2) defence, 3) public order and safety, 4) economic affairs, 5) environmental protection, 6) housing and community amenities, 7) health, 8) recreation, culture and religion, 9) education, and 10) social protection. It has been used for classifying all Swedish state organizations (Statskontoret 2005). In the comparative study of state agencies (Verhoest et al. forthcoming) a somewhat simplified classification is used, distinguishing between three types of policy areas: a) welfare and social policy (categories 6-10), b) economic policy (category 4), and c) others (categories 1, 2, 3, 5). On the other hand, in the mapping of Irish state organizations, an even more detailed classification (16 categories) of what is called 'policy domains' has been employed by subdividing some of the COFOG categories (cf. Scott 2008).

State activities

In political science, a distinction between different types of state activities has been used to describe and analyse the development of the state. For example, Rose (1976: 257-58) argues that state activities have developed in three stages: securing its own existence, mobilizing physical resources, and providing social benefits. Based on this classification, Premfors (1999) has distinguished between the night watch state, the infrastructure state and the welfare state in an analysis of the pattern of change related to the various ministerial areas in Sweden in the 1945-1995 period. According to both studies, organizations related to a new stage don't replace the ones from a previous stage, but is mainly created in addition to the existing ones. The same applies to other discussions based on a distinction between different state activities. For example, in the Irish database a classification is also made according to four modes of state action: 1) the developmental state, 2) the regulatory state, 3) the adjudicatory state, and 4) the moral advocacy state (Hardiman and Scott forthcoming). The distinction by Olsen (1988) between four state models may also be of relevance: 1) the sovereign rationality-bounded state model, 2) the corporate-pluralist state model, 3) the institutional state model, and 4) the supermarket state model. However, this model is primarily aimed at analysing developments at an aggregate level, and not for classifying specific organizations.

Empirical classifications

The use of theoretically based categorizations, or what is often called *typologies*, like the ones reviewed above, has been quite widespread in the study of organizations, including state organizations. On the other hand, in the study of state organizations, there are not many examples of empirically based classifications, or what is often called *taxonomies*. One of the few of this type is constructed in the study by Hood and Dunsire (1981) of British (government) departments. According to them, what they call 'bureaumerics' constitutes an attempt to develop technique rather than theory. They did not set out with a very specific set of hypotheses to operationalize and test, although they were well aware of the main findings of organizational analysts in other fields. Their primary purpose was to 'search for pattern' by systematically classifying

government organizations in a number of ways, exploring how individual items grouped together into related characteristics and also the extent to which departments grouped into ‘families’, or units which were similar on a number of dimensions at once.

The Norwegian State Administration Database (NSA)

The Norwegian State Administration Database has been developed from 1992 onwards through collaboration between the Norwegian Research Centre in Organization and Management (later the Stein Rokkan Centre for Social Studies) and the Norwegian Social Science Data Services (NSD). The purpose of the database is to provide systematic information on the organizational structure and administrative resources in the Norwegian state administration. It covers all non-temporary state organizations with full-time employees from 1947 until present, maps their organizational structure at any time as well as changes in the organizational structure throughout this period. Moreover, it is accessible through the NSD website (English version on <http://www.nsd.uib.no/civilservice/>).

Mapped organizations

The units in the NSA database consist of state organizations of different formal-legal types. In Norway, the concept of *form of affiliation* is used, indicating how the organizations are related to the central political authorities. The main forms are as follows:

- ministries
- civil service organizations outside the ministries
- state-owned companies
- governmental foundations

Until present, the NSA covers these main forms of affiliation, which also are used to determine what is a *state* organization. By adding new affiliation criteria the database can be expanded to other organizations, for instance units in local government and public-private partnerships.

Different types of state organizations

The main forms of affiliation in the NSA are further differentiated. This is outlined in the list below, starting closest to the central political authorities on the top and increasing degrees of formal autonomy towards the bottom (see the website of the database for more information on the various types and the Appendix for the exact codes being used).

Ministries:

- Internal structure: divisions, sections, offices etc.

Civil service organizations outside the ministries (part of the state as legal entity):

- Central agencies/directorates
- Other ordinary civil service organizations
- Civil service organizations with special extended authority
- Government administrative enterprises
- Financial institutions (bank, fund)

State-owned companies (separate legal entity):

- Hybrid companies established by special laws
- Government owned companies
- Government limited companies (100% state owned)
- Limited companies with the state as majority owner
- Regional health trusts

Governmental foundations (separate legal entity):

- Central foundations (founded by a ministry alone or in cooperation with other organization(s))
- Fringe foundations (founded by other civil service organizations alone or in cooperation with other organization(s))

What are counted and how

Like in most states, the Norwegian state administration is very complex, along the vertical as well as the horizontal dimension. This sometimes makes it difficult to tell what constitutes *one* state organization.

In the database, we have tried to attend to the hierarchy problem by describing the basic type of organization in question. The organizations in the database are divided into three different main categories, based on whether and how a principle of specialization according to area is combined with principles according to purpose, process or people:

1. *National single civil service organizations without subordinated units.*
The database covers all units in this category. Moreover, for practical reasons, all state-owned companies and all governmental foundations are recorded as a national single organization, although several of them are organized as complex hierarchies.
2. *Services that consist of a central (national) unit and regional/local offices (integrated civil service organizations).*

All central units in services are mapped but not all of their regional and local offices. The offices that are reporting to a central national unit may be registered in the database in two different ways:

- Detailed:
Every single unit is registered in the database under their respective integrated civil service organization.
- Aggregated:
Groups are shown as aggregated numbers in the in the database under their

respective integrated civil service organization. Groups registered in this way are usually large, complex groups like tax offices, post offices etc.

3. *Group of similar organizations.*

Units with similar tasks reporting directly to a ministry are grouped together and counted as one, However, in some instances units that make up a group are also registered individually in the database (e.g. higher education organizations). Thus, units included in a group may be registered in the database in two different ways:

- Detailed:
Every single unit is registered in the database under their respective group.
- Aggregated:
Units in groups are shown as aggregated numbers in the database under their respective group. Groups registered in this way are usually large, complex groups like embassies, special schools etc.

This means that the database is quite flexible and allows for different levels of detail and aggregation. By using various search filters it is possible to include or exclude different forms of affiliation, different types of organization, regional/local offices and units within groups from statistical analysis and reports. See also Rolland and Roness (2009) for a more comprehensive presentation of the mapping of organizational change in the database.

Data sources and recording

Compared to most other countries, the formal structure of the Norwegian state administration is quite well documented. Some yearly publications covering the whole civil service go back to the 19th century, like the Norwegian Government Yearbook ('Norges Statskalender') and the annual state budget (St. prp. no 1). Other propositions and reports to the Storting may also contain information on the formal structure for (parts of) the state administration. The same applies to reports from public commissions and working groups, published in the series Official Norwegian Reports (NOU). Moreover, the National Archival Services of Norway has published a

handbook (Johannessen, Kolsrud and Mangset 1992) as well as comprehensive books describing the development of the ministries in different time periods (Kolsrud 2001, 2004, 2008). In addition, for the ministries, special phone books have been updated and published (at least) since the early 1970s.

Our main data source has been the Norwegian Government Yearbook. In developing the database we have also supplemented and cross-checked this information with information provided through the state budget, other propositions and reports to the Storting, reports from public commissions and the publications from the National Archival Services of Norway. For state-owned companies and governmental foundations the information is somewhat more incomplete, particularly for governmental foundations in the first decades of the period. However, we have had access to some comprehensive mappings undertaken by the ministries, and also consulted public registers of business enterprises and foundations in general.

From the start and to the present, the development of the database (and the recording of the formal structure) has been undertaken by the same person(s). This should provide for high consistency in recording over time and across the whole state administration.

Conclusion

The mapping of organizational units in the state involves several challenges, including the availability of relevant information. Firstly, one has to decide what is a state organization. As noted above, the boundaries of the state seem to have become increasingly blurred. One option might be to restrict the mapping to what is commonly regarded as a state organization. However, this may imply that we will be missing some interesting developments related to governance. Another option might be to be more inclusive, provided that relevant information is available, and afterwards restrict the population of state organizations based on certain criteria within or across states. Secondly, one has to decide what is one state organization. The limitation of the Norwegian State Administration Database to non-temporary organizations with full-time employees is based partly on regarding these organizations as most important, and partly on the lack of systematic information on temporary organizations like task forces and public commissions. Similar arguments

were used for handling integrated civil service organizations and groups of similar organizations. The question of what constitutes one organization also involves how the organization is related to other organizations along the vertical and the horizontal dimension. A mapping of state administration should make it possible to clarify these relationships.

With regard to different types of state organizations many classifications have been launched. A mapping of state administration should always include a classification according to formal-legal status. Even if the exact classifications may vary across states, it may to some extent be possible afterwards to decide which types may be regarded as similar. Which of the other typologies reviewed above should be added is primarily a matter of capacity and availability of data: there are no major technical problems using several classifications for the same population of state organizations. In addition to the Norwegian database, the one under construction in Ireland is probably the most comprehensive one so far. Here, the use of several analytical frameworks is emphasized:

“The identification of agencies is itself a contentious activity. Categorization according to competing conceptions, and animated by varied theoretical purposes, will capture different ranges of observations and indeed will generate conflict over the total number of bodies that are deemed to qualify for inclusion. Among the objectives of our database as a research tool is to deploy a range of identifying features into the coding of agencies. This will facilitate comparison of different schemata, and will make progress toward creating a schema with real comparative utility.” (Hardiman and Scott forthcoming)

The Irish research team are also ‘seeking to combine parsimony with completeness’, based on the academic literature and availability of relevant data. In general, to avoid problems related to the fact that state organizations often have several tasks, purposes and activities and are operating in several policy areas, it may be an idea to distinguish between primary task (or purpose, activity and policy area) and secondary tasks (or purposes, activities and policy areas). However, whether one or more categories are used, recording of organizations according to these analytical frameworks will always involve some elements of judgements. Using multiple classifications, and also adding other information on the units (such as information on staff and budget from public documents, and information on contact patterns and perceptions of autonomy and control from other academic studies) through separate

variables, may also form the basis for developing taxonomies of state organizations, like the one constructed by Hood and Dunsire (1981) almost three decades ago.

A final and crucial challenge is to be able to update mappings through databases. For example, as part of the ESRC Whitehall Programme, a comprehensive mapping of British central government departments in the 1964-1992 period was undertaken (cf. Marsh, Clifford and McMillan 2000). However, so far this database has not been extended beyond that date, reducing its utility for analysing developments of state administration over time and across states.

Appendix: Classification of organizational units in the NSA database

The variables and codes listed below are the tools we have used to answer the three first questions being posed at the beginning of this paper: 1) What constitutes a *state* organization? 2) What constitutes *one* state organization? 3) What constitutes different *types of state organizations*? The concepts of *hierarchy* and *formal structure* are central in the way the NSA database has been constructed.

Below, the different codes used to classify different types of state organizations, organizational levels and formal structure are listed. All codes are listed here, but some of them (explained in parenthesis and *italics*) are of a more technical character necessary to place the unit in question in its right hierarchical position in the formal structure.

Variable: Form of affiliation (hierarchy):

- 10 = Ministry
- 15 = Integrated civil service organization
- 20 = Central agency/directorate
- 31 = Civil service organization with special extended authority
- 32 = Government administrative enterprise
- 33 = Other ordinary civil service organization
- 35 = Financial institution
- 41 = Fully state-owned limited company
- 42 = State company organized under special law
- 43 = State corporation
- 44 = State corporation organized by special law (1965)
- 45 = Limited company with private
- 46 = Regional Health Authority
- 50 = Central foundation
- 51 = Fringe foundation

Variable: Superior (other types of organizations are added to be able to map where state organizations may come from or are moving to):

- -1400 = Voluntary sector (*basically used to identify (superior) sector*)
- -1300 = Private sector (*basically used to identify (superior) sector*)
- -1200 = Municipality (*basically used to identify (superior) administrative level*)
- -1100 = County municipality (*basically used to identify (superior) administrative level*)
- -550 = Advisory Committee (*also used to identify superior unit*)
- -500 = Government (*basically used to identify (superior) administrative level*)
- -1 = State (*basically used to identify (superior) administrative level*)

Variable: Administrative level for units inside a ministry.

- 0 = Highest level
- 5 = Directorate in dual role (inside and outside a ministry simultaneously)

- 10 = Division
- 15 = Division in dual role (inside and outside a ministry simultaneously)
- 20 = Quasi Division
- 30 = Section
- 40 = Quasi section
- 50 = Office
- 55 = Office in division in dual role
- 60 = Quasi office
- 70 = Secretariat
- 80 = Group
- 90 = Staff unit

Variable: Basic type of organization

- 0 = National single organization (without subordinated units). (*All units inside a ministry are given this code.*)
- 10 = Integrated civil service organization
- 11 = Central unit in integrated civil service organization
- 20 = Group of units subordinated ministry
- 21 = Unit as part of group subordinated ministry
- 30 = Group of units subordinated integrated civil service organization
- 31 = Unit as part of group subordinated integrated civil service organization

For all units with code 11, 21 and 31 on this variable, information about superior organization or group is added in a separate variable (*superior group unit*).

In addition, there is also a separate code to specify units that are part of an organization, but located at another place and sometimes organized as a division or special unit within this organization:

- 41 = Unit organized as ‘satellite’ under an organization or as part of another organization. Always located at another place.

Given these different variables and codes it is possible to determine whether an organization is a *state* organization, whether it is to be counted as *one* state organization and what *type* of organization it is. We will here provide some examples on how this is done in practice

Example 1: Ministry

Description:	Form of affiliation	Administrative level	Superior	Basic type	Superior group unit
Code:	10	0	-500	0	0

According to the codes described above, this identifies a ministry.

Example 2: Division within ministry

Description:	Form of affiliation	Administrative level	Superior	Basic type	Superior group unit
Code:	10	10	1000	0	0

According to the codes described above, this identifies a division within the Ministry of Finance (1000 = the ID for this ministry)

Example 3: Directorate; central unit in integrated civil service

Description:	Form of affiliation	Administrative level	Superior	Basic type	Superior group unit
Code:	20	0	1000	11	55100

According to the codes described above, this identifies a directorate (20) subordinated the Ministry of Finance (1000). This specific directorate is organized as a central unit within an integrated civil service organization (11).

Example 4: Unit as part of group subordinated an integrated civil service organization

Description:	Form of affiliation	Administrative level	Superior	Basic type	Superior group unit
Code:	33	0	-1000	31	55101

According to the codes described above, this coding identifies an ‘other ordinary civil service organization’ (code 33) subordinated the Ministry of Finance (1000) and organized as ‘unit as part of group subordinated integrated civil service organization’ (code 31). Superior group unit is 55101 (in this case: Central tax offices).

*Example 5: Organizational structure of the **National Archives of Norway**, an integrated civil service organization under the Ministry of Culture and Church Affairs (ID=34000)*

	Affiliation, type	Level	Superior	Basic type	Superior group unit	Location
National Archives of Norway (ID=55009)	15	0	34000	10	0	
National Archives of Norway (ID=21629)	33	0	34000	11	55009	301
Regional state archives: (ID=55008)	33	0	21629	30	0	
Regional State Archives in Bergen (ID=21633)	33	0	21629	31	55008	1201
Regional State Archives in Hamar (ID=21631)	33	0	21629	31	55008	403
Regional State Archives in Kongsberg (ID=26612)	33	0	21629	31	55008	604
Regional State Archives in Kristiansand (ID=21632)	33	0	21629	31	55008	1001
Regional State Archives in Oslo (ID=21630)	33	0	21629	31	55008	301
Regional State Archives in Stavanger (ID=21717)	33	0	21629	31	55008	1103
Regional State Archives in Tromsø (ID=21748)	33	0	21629	31	55008	1902
Regional State Archives in Trondheim (ID=21634)	33	0	21629	31	55008	1601

Location: Code referring to the municipality where the unit is located (The capital Oslo is 301).

*Example 6: Organizational structure of the **Division of Personnel and General Services**, a division under the Ministry of Defence (ID=5000)*

	Affiliation, type	Level	Superior	Basic type	Superior group unit	Location
Division of Personnel and General Services (ID=5095)	10	10	5000	0	0	301
Joint Legal Services (ID=5113)	10	30	5095	0	0	301
Legal Issues (ID=5114)	10	60	5113	0	0	301
Organizational Renewal and Documentation (ID=5158)	10	30	5095	0	0	301
Documentation (ID=5115)	10	60	5158	0	0	301
Section for Personnel Policy (ID=5157)	10	30	5095	0	0	301
Section for Security and Administration (ID=5009)	10	30	5095	0	0	301

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