

# DEN

## Data Exchange Network

### The Danish Elite Network

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#### Abstract

This article presents the extensive Danish elite network. Collected during 2012 and 2013, the data comprises 56,536 positions within 5,079 affiliations, and connects 37,750 individuals. The network consists of the largest Danish corporations, state institutions, NGO's, and other integrative networks such as social clubs or royal events. Data were gathered through an inclusion principle, adding all potentially interesting affiliations. Procedures of name-matching and quality control are presented. Finally, the data are introduced: made available through a package for R, which enables the creation of subnetworks and weights.

*Keywords: Elite networks, Corporate interlocks, Policy networks*

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## 1. Introduction

Since C. W. Mills wrote his seminal work, *The Power Elite*, elite research has struggled to define elites empirically. In 1956, Mills offered a compelling definition of the power elite as: ‘...those political, economic and military circles which as an intricate set of overlapping cliques share decisions having at least national consequences’ (Mills 1956:18). Mills himself had to rely on the positional method (see Knoke, 1993) and could not map the overlapping circles directly.

By collecting a two-mode network of all nationally integrating publicly available and official affiliations in the small nation-state of Denmark, ‘The Danish Elite Network’ dataset permits the identification of the central individuals, affiliations and cross-cutting social circles that compose the power elite. (See Ellersgaard and Larsen 2014; 2015). The data can easily be split into parts according to sectors such as politics, business, organisations and state, allowing more detailed studies of sub-elites, but still with reference to the total structure. Because Denmark is a small society with strong traditions of transparency in decision-making processes and widespread use of websites for both public and private organisations, it was possible to attempt a complete registration of all official elite affiliations. Collected during 2012 and 2013, the data contain 56,536 positions

in 5,079 affiliations and connect 37,750 individuals. All nationally relevant official positions, such as company boards, committees, foundations, and advisory boards are included.

In the following sections we present the data collection process with its strengths and weaknesses, and we introduce the available data files. Finally, we present a table with the data details.

## 2. Data: The Extensive Elite Network

The data were collected in four fairly discrete phases:

1. The generation of lists of affiliations
2. Affiliation collection
3. Name-matching and quality control
4. Tagging

### 2.1 The generation of lists of affiliations

First, we created large initial lists of organisations and groups. The included groups are not affiliations themselves but lists of names of organisations and groups, their type, their addresses, and preferably their website. These initial lists provided the basis for a small snowball procedure for each organisation. Using self-reported organisational information, such as organisational

Table 1: Affiliation Networks Included in the Data

	From original sources	Excluded*	Added in snowball sample†	Final number of affiliation networks	No. of relations
State <sup>1</sup>	2,306	1,770	314	850	10,254
Parliament <sup>1</sup>	153	101	31	83	970
NGO <sup>1</sup>	749	181	922	1,490	16,434
Corporations <sup>2</sup>	1,136	85	40	1,091	7,476
Foundations <sup>2</sup>	1,380	69	83	1,394	8,181
VL Networks <sup>3</sup>	117	3	0	114	3,845
Commissions <sup>4</sup>	116	44	0	72	1,121
Events <sup>5</sup>	74	65	8	17	8253
<b>Total</b>	<b>6,031</b>	<b>2,350</b>	<b>1,398</b>	<b>5,079</b>	<b>56,536</b>

1 Source: Danish Public Administration Database ([www.foa.dk](http://www.foa.dk))

2 Source: The list of largest corporations according to turnover, and the list of all foundations in the Danish Central Business Register (obtained through [www.biq.dk](http://www.biq.dk))

3 Source: Homepage of VL networks ([www.vl.dk](http://www.vl.dk))

4 Source: Registration of political commissions from 2005-2011, made by Danish weekly newsletter A4.

5 Sources: Webpage of Danish Royal Family ([www.kongehuset.dk](http://www.kongehuset.dk)) and private archive of journalist.

\*Affiliation networks were excluded if: no board of extra-organisational members existed, no information on the board was available (either online or through personal contact), the board was included in other sources (i.e. data was not duplicated), or the board entirely overlapped with another board within the same organisation.

† Includes both sub-committees within the organisations on the original list and the 142 networks obtained by snowballing the affiliations of prominent agents.

diagrams, we identified all the relevant committees, boards, sub-committees, board of representatives, and other groups. The names of all members were collected, along with their affiliation, role (e.g. chairman, director), a long string with their description (if available), and the link to the website describing of the affiliation. The initial lists of organisations and groups were constructed according to the inclusion principle, which dictated that all possibly relevant organisations were included in the dataset. This was ensured by constructing the lists from exhaustive official databases.

In Table 1, the organisations in the initial lists are grouped according to their source. Organisations were excluded if they: 1) did not have affiliations, like a board or a committee, 2) only had affiliation members from within the organisation, like coordinating groups for employees, 3) were overlapped entirely with another affiliation, either in the form of a duplicate entry or a subsidiary. The final number of affiliations from each source is the number remaining after removing those that formed no ties between organisations and adding the snowball samples. The list of state organisations was drawn from a large public database of governmental and non-governmental entities, the – Danish Public Administration Database (FOA, [www.foa.dk](http://www.foa.dk)). The FOA contains a hierarchical database placing each of the ‘offices’ in the Danish state organised in a nested structure, with names of leading personnel, addresses and sub-offices. All offices working at the regional level or above were made into an initial list. This excludes ‘offices’ working at the local level, such as public schools, individual churches, police and fire departments, but includes high schools and large hospitals. The state offices are often governed only by the office one step higher in the structure and as a result, many do not form boards or committees. This seems to be reserved for more autonomous entities higher in the structure.

The list of commissions was produced by the weekly newspaper A4. The list contains all commissions from 2005 until 2011, and was supplemented by the authors to 2013.

The list of parliamentary committees was taken from the official parliamentary website along with other institutions tied to the parliament.

Corporate boards were from the top 1,000 corporations according to turnover. Furthermore, the boards of independent subsidiaries of the top 1,000 corporations were added to the data. Structurally important corporations such as media and financial institutions were then added to the list. Both corporations and a complete list of boards of foundation originated from The Central Business Register (CVR). Advisory

boards and sub-committees of the major foundations were added to the list of foundation boards.

The list of NGOs was drawn from the FOA database and includes all organisations with the right, given by the state, to be consulted on legislation. All unions, employers organisations, national sports associations, environmental groups, animal rights groups, and many more are included in this list. To the NGO list were added various organisations that did not fit with other lists, such as publicly known elite networks. The largest of these, the VL groups, is split into a separate list. The list of events includes all publicly listed balls and official dinners, and royal hunting parties held by the royal family from 2009 to 2013. The collected events differ considerably in size from the rest of the affiliations. The state affiliations have on average 11 members, whereas the events have around 200. Furthermore, three events have more than 1,000 participants.

## *2.2 The inclusion principle: Connecting Organisations at a National Level*

Three rules of inclusion guided the many small snowball samples:

1. All affiliations should be able to connect individuals across organisations. This excludes affiliations that are reserved to employees of an organisation or that are purely internal, see above.
2. All affiliations must meet physically at least once a year and therefore create face-to-face interaction between their members.
3. All affiliations must operate at a regional or national level. They operate at a regional or national level if they integrate individuals at a regional or national level, thereby excluding local affiliations such as environmental groups working for the preservation of a particular forest or a local shelter for the homeless.

All three rules can be ambiguous in their application, but this is resolved by the general inclusion principle: if two data collectors disagree as to whether an affiliation should be included in the data, it is included.

## *2.3 Name-matching and quality control*

Most individuals, 78%, in the dataset are only members of a single affiliation. The names of those with more than one membership were matched and confirmed from more than one source. These sources would often be

The relations matrix has the following variables:

NAME	The matched name of the individual. All names are unique.
AFFILIATION	The name of the affiliation with its function in parenthesis.
ROLE	The role of the individual within the affiliation. This information is not always included for the top 1,000 corporations.
GENDER	The gender of the individual. The gender is determined by the first name.
DESCRIPTION	The description of the individual taken from the affiliation website in relation to this position.
SOURCE	The source of each case and affiliation.
BIQ_LINK	If available it is the link to the BIQ.dk database. BIQ is a proprietary database with all present and past members of all corporations in Denmark along with annual reports.
CVR	The CVR number for each corporation and foundation. All Danish corporations have a CVR number. With the CVR number it is possible to match and collect a large variety of publicly available data.
TAG1-7	Each affiliation is coded with between one and seven of 278 thematic tags.

#### 4. Data Details

Response rate	N/A
Non-respondent bias	N/A
Theoretical grouping	No questionnaire was used
Publications using these data	Stahl and Henriksen (2014) Ellersgaard and Larsen (2013, 2014, 2015)
Data context	Database of a national elite
Respondents	
Longitudinal	No
Temporality	Most positions last several years, although individual careers end within days. Some data points are separated by up to 2 years, for events up to 4 years and commissions up to 8 years
Analytical or pedagogical utility	The data allow for analysis of inter- or cross-sectorial ties. As they are divided into many sectors, students can choose sectors that interest them.
Known issues	Underestimates the amount of connections due to the name-matching procedure.

the collected descriptions from the affiliation websites, but could also be addresses and official registers. But this procedure slightly underestimates the ties, erring on the side of caution. The name-matching process was performed by sorting the list according to first name, last name, and full name. When two people hold the same name their names were given a numerical suffix, like “Hans Jensen 1” and “Hans Jensen 2”.

In some instances, an individual may not use the same name in all affiliations; most commonly, a middle name was not used. The sorting procedure captures this practice but is very vulnerable to people changing their first name, such as using a middle name as a first name. If this practice was suspected, a search for possible

alternative first names was made; however, it is impossible to achieve perfect-name-matching quality and the data therefore underestimates the number of connections.

#### 2.4 Tagging: Ordering data

All affiliations in the data were tagged with up to seven tags. The tags are thematic: culture, music, science, education, social politics, and foreign relations. Tagging is different from categorising, because tags are non-exclusive and the number of tags for each affiliation varies. The tags were based on affiliation descriptions from the web-pages. All tags were controlled for consistency by two coders. The network can be split into sector by combining the relevant

tags into subjects and then extracting all affiliations with a relevant tag. The affiliations related to the Danish state can, for instance, be extracted with this collection of tags: ‘State administration’, ‘Ministry’, ‘State corporation’, ‘Military’, ‘Public leaders’.

### 3. Data Files and Formats

Data is provided in the `Danish_Elite_2013_Relations.csv` file separated with “|” and encoded in UTF-8 and as an excel file. It is organised as a case-affiliation edge list with attributes attached to each case.

The dataset is also made available via the R package `soc.elite`, currently available on Github: [github.com/antongrau/soc.elite](https://github.com/antongrau/soc.elite). The package is based on `igraph` and includes functions for sub-setting by tags, descriptive functions, and functions for cleaning, coding and plotting. Handling the particular structure of the tags is made considerably easier by the function in the package, such as `has.tags` and `tag.network`.

In the package there are datasets that can be merged with ‘The Danish Elite Network’, such as biographical data on a core of 423 individuals. A dataset with biographical data on a core of 171 core business leaders and a dataset with data on size, turnover, number of employees and the like, on the top 1,042 corporations. The package also serves as a valuable tool in courses on social network analysis or elite sociology. Researchers who analyse the data available in `soc.elite` are encouraged to send their code to the package maintainer and it will be published in the package along with proper citations.

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