Codebook of the data on Dutch municipalities (Version: November 2019)

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This file describes the dataset containing characteristics of Dutch municipalities between 2007 and 2016: *municipality.dta*. Most data come from Statline, the open-access database of Statistics Netherlands (SN, in Dutch: Centraal Bureau voor de Statistiek). I used the Dutch version of the website because it contains more data than the English version. Because SN has recently fully updated its database, I list below the names of the datasets I downloaded from the "old" Statline and a link to the corresponding datasets in the "new" Statline.

Municipal reforms

Municipal reforms occur almost annually in the Netherlands and the data from Statistics Netherlands reflect the municipal boundaries at the time of measurement. For example, the dataset on population size contains information for 2014 for all 403 municipalities that existed on January 1, 2014; for 2015 for all 393 municipalities that existed on January 1, 2015; and so on. To enable longitudinal analysis of the respondents in the LISS, which provided a regional identifier with the municipal boundaries of 2017, I aggregated all municipal-level datasets up to the municipal boundaries of January 1, 2017 when the Netherlands had 388 municipalities. For an overview of all municipal reforms, see (in Dutch only): https://www.cbs.nl/nl-nl/onze-diensten/methoden/classificaties/overig/gemeentelijke-indelingen-per-jaar

Linking the LISS to municipality dataset

The regional identifier in the LISS (i.e. variable "municipality") did not come with municipal codes and the names of some municipalities were spelled differently. The municipality dataset therefore matches this variable to municipal codes (i.e. variable "muncode").

Shapefiles

To graph data onto maps, I downloaded shapefiles (.shp and .dbf files) from Statistics Netherlands and translated those files into .dta datasets using the Stata package shp2dta: *nldb.dta* and *nlcoord.dta*.

Table 1. Overview of the data on Dutch municipalities

Variable	Description	Period	Source
rfg_sh	Percentage of vacant social housing allocated to refugees	2009-2015	SN, NL, Aedes*, Aw*
fb_pct	Foreign-born as a percentage of the total population	2007-2016	SN
asc	Dummy variable for the presence of an asylum seekers' center	2007-2016	COA*
sh_pct	Social housing as a percentage of the total housing stock	2009-2016	SN
leduc_pct	Percentage of low-educated population	2007-2016	SN
decline	Dummy variable for a municipality that experiences, or is anticipated to experience, a severe decline in population size, the number of households, or both	2007-2016	NL
stu	The ratio of single-person households to rental units	2007-2016	SN
low_stu	Dummy variable for a ratio of single-person households to rental units below the median of the distribution	2007-2016	SN
pop	Population size	2007-2016	SN
density	Population density	2007-2016	SN
g4	Dummy variable for the four largest municipalities	2007-2016	-
pr_pct	Private rental housing as a percentage of the total housing stock	2009-2016	SN
ahv_cpi	Average housing value in euros, adjusted for inflation	2007-2016	SN
vrpr	Vacancy rates of the private rental sector	2012-2016	SN
vroo	Vacancy rates of the owner-occupied sector	2012-2016	SN
vrsh	Vacancy rates of the social housing sector	2007-2015	Aedes*, Aw*
yng_pct	Young adults as a percentage of the total population	2007-2016	SN
ur	Unemployment rate	2007-2016	SN
ind_pct	The percentage of workers employed in the industrial sector	2010-2016	SN
bnft_pct	Benefit recipients as a percentage of the total population	2007-2016	SN
mainbloc	Categorical variable for the largest party bloc in local elections: 1=left-wing, 2=center, 3=right-wing, 4=local	2007-2016	EC

Notes: SN – Statistics Netherlands, NL – the Dutch Government, COA - Central Agency for the Reception of Asylum Seekers, Aedes – Confederation of housing associations, Aw – Authority for Housing Associations, EC – the Electoral Council. *: Obtained through personal communication.

rfg_sh – Percentage of vacant social housing allocated to refugees

To calculate the percentage of vacant social housing allocated to newly dispersed refugees, I combine three types of data sources:

1) Data on the number of newly dispersed refugees in each municipal-year
   I use publicly available data on the number of dispersed refugees between 2007 and 2015 and on the number of dispersed regularized asylum seekers between 2007 and 2010 from the Dutch Ministry of Security and Justice (in Dutch: Ministerie van Veiligheid en Justitie). These data are stored in PDFs on the website of the Dutch government: www.rijksoverheid.nl, and they can be found by using the following search terms: "Overzicht huisvesting vergunninghouders" (in English: overview housing recognized refugees).
2) Data on the number of social housing in each municipal-year
   See description of "sh_pct" below.
3) Data on the vacancy rates of social housing in each municipal-year
   See description of "vrsh" below.

I describe the construction of this variable in more detail in the Online Supplement (pp.3-5).

fb_pct – Foreign-born as a percentage of the total population

To calculate the number of foreign-born individuals as a percentage of the total population in each municipal-year, I downloaded the following data from Statistics Netherlands:

- SN Table:
  "Bevolking op 1 januari; leeftijd, geboorteland en regio"
- Link in "new" Statline:
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/70648ned/table?fromstatweb

asc – The presence of an asylum seekers' center (ASC)

I create a dummy variable for the presence of an asylum seekers' center (ASC) from data provided by the Central Agency for the Reception of Asylum Seekers (in Dutch: Centraal Orgaan voor Asielopvang [COA], https://www.coa.nl/en). These data report the municipalities in which asylum seekers' centers exist between 2007 and 2015.

sh_pct – Social housing as a percentage of the total housing stock

I use data on the total housing stock and the number of rental dwellings owned by housing associations, as a proxy for the social housing stock, to calculate the percentage of social housing in each municipal-year. These data are available through Statistics Netherlands:

- SN Tables used:
  "Woningvoorraad naar eigendom; region, 2006-2012"
  "Voorraad woningen; eigendom, type verhuurder, bewoning, regio"
- Links in "new" Statline:
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/71446ned/table?fromstatweb
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/82900NED/table?ts=1581696644474

leduc_pct – Low-educated as a percentage of the population

I calculate the percentage of the population (aged between 15 and 75 years) with low levels of education, whereby low is defined as having completed primary education, preparatory secondary vocational education, or the first three years of upper secondary education. I downloaded the following data here:

- SN Table used:
  "Arbeidsdeelname; regionale indeling 2017"
- Link in "new" Statline:
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/83933NED/table?ts=1581700292582

decline – Municipalities with (expected) severe population decline

This is a dummy variable that equals '1' if a municipality experiences, or is anticipated to experience, a severe decline in population size, the number of households, or both, and '0' otherwise. I rely on the Government's classification of municipalities into shrinking and anticipated-to-shrink municipalities. This document (in Dutch: "Indeling gemeenten krimpregio's en anticipeerregio's", 29 June 2015) can be downloaded here:

- https://www.rijksoverheid.nl/documenten/publicaties/2015/06/29/indeling-gemeenten-krimpregio-s-en-anticipeerregio-s

stu – The ratio of single-person households to rental units

To calculate the ratio of single-person households to the total number of rental units, I downloaded data from Statistics Netherlands:

- SN Tables used:
  "Huishoudens; samenstelling, grootte, regio, 1 januari"
  "Voorraad woningen; eigendom, type verhuurder, bewoning, regio"
- Links in "new" Statline:
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/71486ned/table?ts=1581698694028
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/82900NED/table?ts=1581696644474

I use the same data to create a dummy, **low_stu**, that equals '1' for municipalities with a ratio of single-person households to rental units below the median of the distribution, and '0' otherwise.

pop – Population size

I downloaded data on the population size from Statistics Netherlands:

- SN Table:
  "Bevolking op 1 januari; leeftijd, geboorteland en regio"
- Link in "new" Statline:
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/70648ned/table?fromstatweb

density – Population density

I measure population density, defined as the number of inhabitants per square kilometer, by combining data on population size (see above) and data on the total surface area of municipalities. I downloaded the latter here:

- SN Table:
  "Regionale kerncijfers Nederland"
- Link in "new" Statline:
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/70072NED/table?fromstatweb

g4 – Large municipalities

This is a dummy variable that equals '1' if the municipality is one of the four largest municipalities (>250,000 inhabitants): Amsterdam, Rotterdam, The Hague, or Utrecht, and '0' otherwise.

pr_pct – Private rental housing as a percentage of the total housing stock

I use data on the total housing stock (see above) and the number of rental dwellings owned by private actors to calculate the percentage of private rental housing in each municipal-year. These data are available here:

- SN Tables used:
  "Woningvoorraad naar eigendom; region, 2006-2012"
  "Voorraad woningen; eigendom, type verhuurder, bewoning, regio"
- Links in "new" Statline:
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/71446ned/table?fromstatweb
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/82900NED/table?ts=1581696644474

vrpr – Vacancy rates of the private rental sector

I use data on the total private rental stock (see above) and the number of vacant private rental dwellings to calculate the percentage of vacant private rental housing in each municipal-year. These data can be found here:

- SN Table used:
  "Voorraad woningen; eigendom, type verhuurder, bewoning, regio"
- Link in "new" Statline:
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/82900NED/table?ts=1581696644474

vroo – Vacancy rates of the owner-occupied sector

I use the same data source as above to calculate the percentage of vacant owner-occupied housing in each municipal-year.

vrsh – Vacancy rates of the social housing sector

I obtained annual data on the vacancy rates of the rental housing stock owned by housing associations through personal communication with Aedes, the confederation of housing associations, for 2011 to 2015 and the Authority for Housing Associations (*Autoriteit woningcorporaties*, Aw) for 2007 to 2010. I match the vacancy rates of each housing association to the municipality in which they had their headquarters and take a weighted average by housing stock if a municipality is the headquarter of multiple housing associations. For municipalities without a headquarter, I replace the missing values for each year with the average vacancy rate of that year. Contact details for both organizations can be found here:

- Aedes: https://www.aedes.nl/algemeen/header-en-footer/contact
- Authority for Housing Associations: https://www.rijksoverheid.nl/contact/contactgids/autoriteit-woningcorporaties-aw

ahv_cpi – Average housing value in euros, adjusted for inflation

I use data on the average housing value of residential buildings (on 1 January of each year) in each municipal-year. I rescale the values into units of 100,000 euros and adjust them for inflation using the CPI Price index and 2015 as the base year.

- SN Table used:
  "Waarde onroerende zaken van woningen en niet-woningen"
- Link in "new" Statline:
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/37610/table?ts=1581698188008

yng_pct – Young adults (aged 20-35 years) as a percentage of the total population

To calculate young adults, defined as those individuals aged between 20 and 35 years, as a percentage of the total population, I downloaded the following data from Statistics Netherlands:

- SN Table used:
  "Bevolking; geslacht, leeftijd, burgerlijke staat en regio, 1 januari"
- Link in "new" Statline:
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/03759ned/table?fromstatweb

ur – Unemployment rate

This variable measures the unemployed (defined as those without paid employment who recently searched for work and are directly available to work) as a percentage of the working population (defined as all individuals between 15 and 75 years, except those living in institutions, looking for a job or having a job). These data were available for those municipalities that existed in 2016. I calculated a weighted average for one municipality that was formed in 2017 (i.e. Meierijstad).

- SN Table used:
  "Arbeidsdeelname; regionale indeling 2016"
- Link in "new" Statline:
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/83524ned/table?fromstatweb

ind_pct – The percentage of workers employed in the industrial sector

I measure the percentage of all workers employed in the industrial sector using a Dutch sector classification scheme (i.e. Standaard Bedrijfsindeling 2008) and I define 'industrial' as one of the following sectors: mining and quarrying, manufacturing, electricity, gas, steam and air conditioning supply, and construction.

- SN Table used:
  "Banen van werknemers in December; economische activiteit (SBI2008), regio"
- Link in "new" Statline:
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/83582NED/table?fromstatweb

bnft_pct – Benefit recipients as a percentage of the total population

I calculate the total number of benefit recipients (before the pensionable age, in January of each year) as a percentage of the total population. Benefit recipients include those receiving unemployment benefits, social assistance, social assistance related benefits, disability benefits, or pension benefits.

- SN Tables used:
  "Personen met een uitkering; uitkeringsontvangers per regio"
  "Bevolking op 1 januari; leeftijd, geboorteland en regio"
- Links in "new" Statline:
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/80794ned/table?ts=1581699223480
  https://opendata.cbs.nl/statline/#/CBS/nl/dataset/70648ned/table?fromstatweb

mainbloc – Largest party bloc in local elections

I create a categorical variable that measures the largest group of parties using data from the local elections held in 2006, 2010, and 2014. The variable equals '1' if left-wing parties (i.e. Labor Party, Socialist Party, and Green Party) are the largest, '2' for center parties (i.e. Christian Democrats, Social-Liberal Party, and the Christian Union), '3' for right-wing parties (i.e. the Liberal Party, the Reformed Political Party, the Party for Freedom, List Pim Fortuyn, and Proud of the Netherlands), and '4' for local parties. Data on local elections (in Dutch: Gemeenteraadsverkiezingen) can be downloaded from the Electoral Council's Election Database:

- https://www.verkiezingsuitslagen.nl/