

# Voter reaction to the planned toll ring (betalingsring) for car traffic around Copenhagen

Søren Risbjerg Thomsen

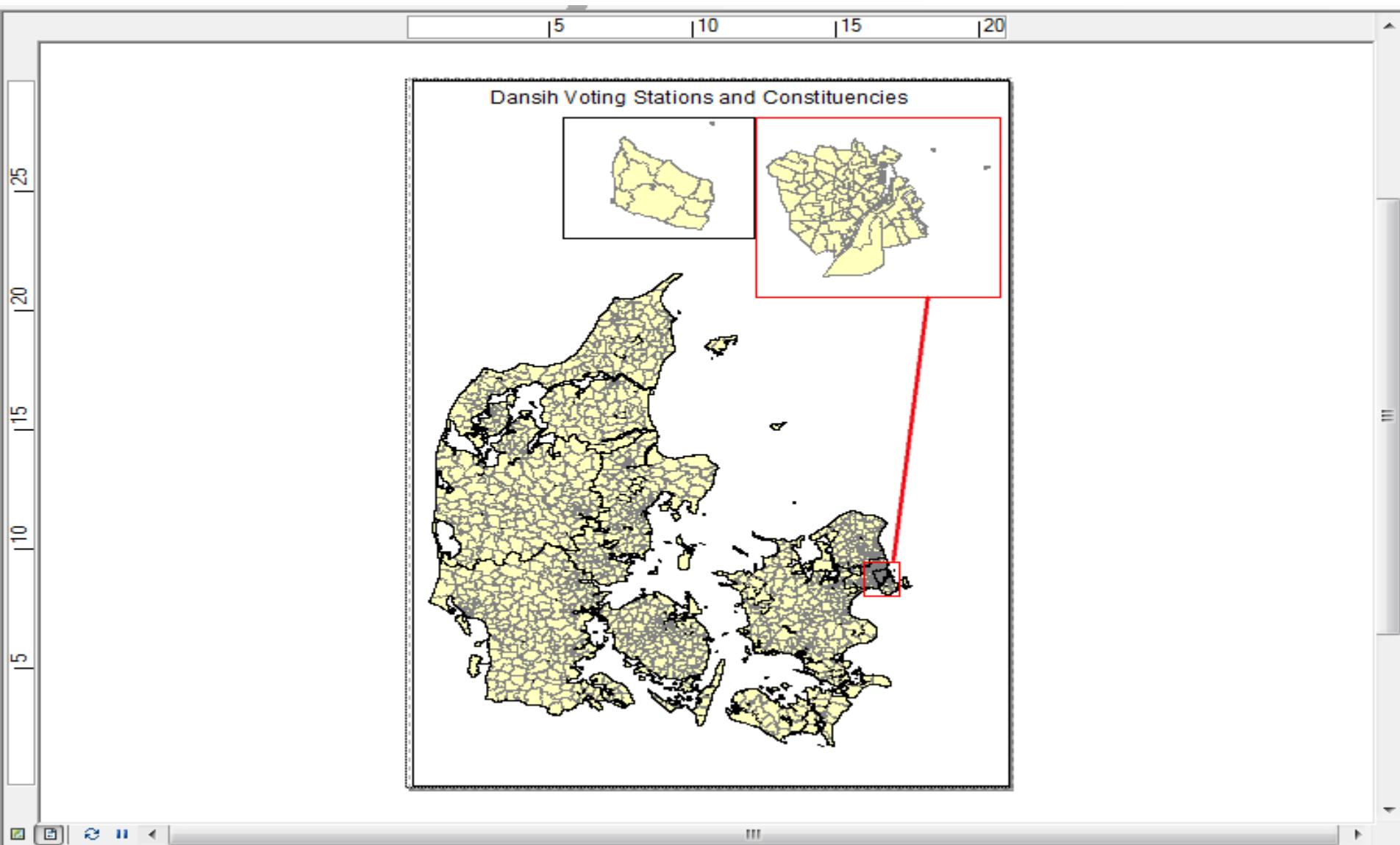
and

Emil Anker Jørgensen

Department of Political Science

Workshop on Political Behavior, 18-19 March, 2013

# The Political-Ecological Data Archive



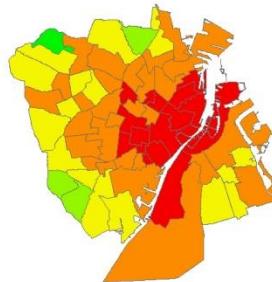
# Data Archive

- About 1.500 Polling station units 1979-2011
- Election data
  - National and local elections, referendums
- Populations data
  - Demography, vocation, education, income, etc.
- Algorithm for comparison of units over time
  - Based on composition of road-pieces within each polling station area

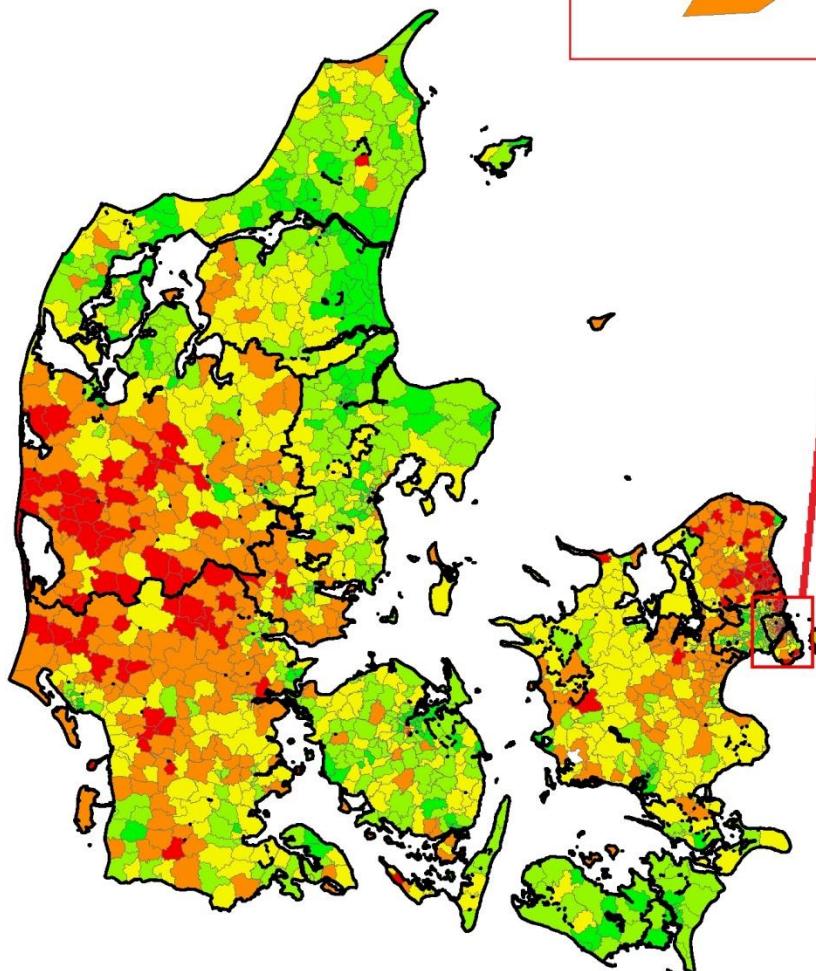
voter support for Social Democrats at the 2011 election

**share of total votes**

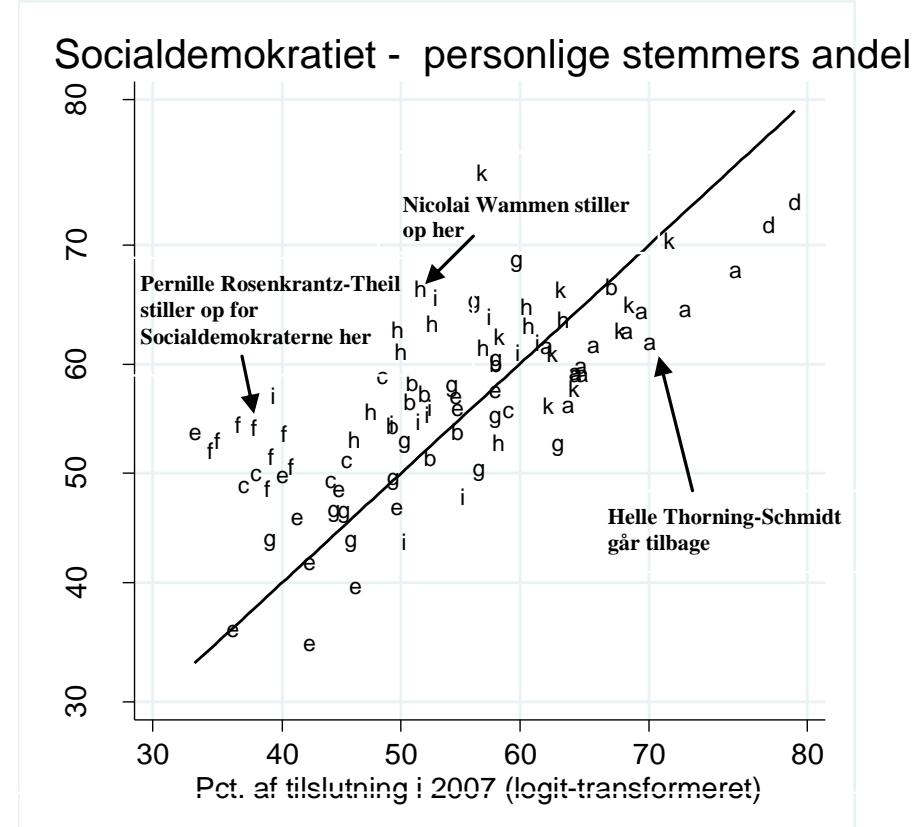
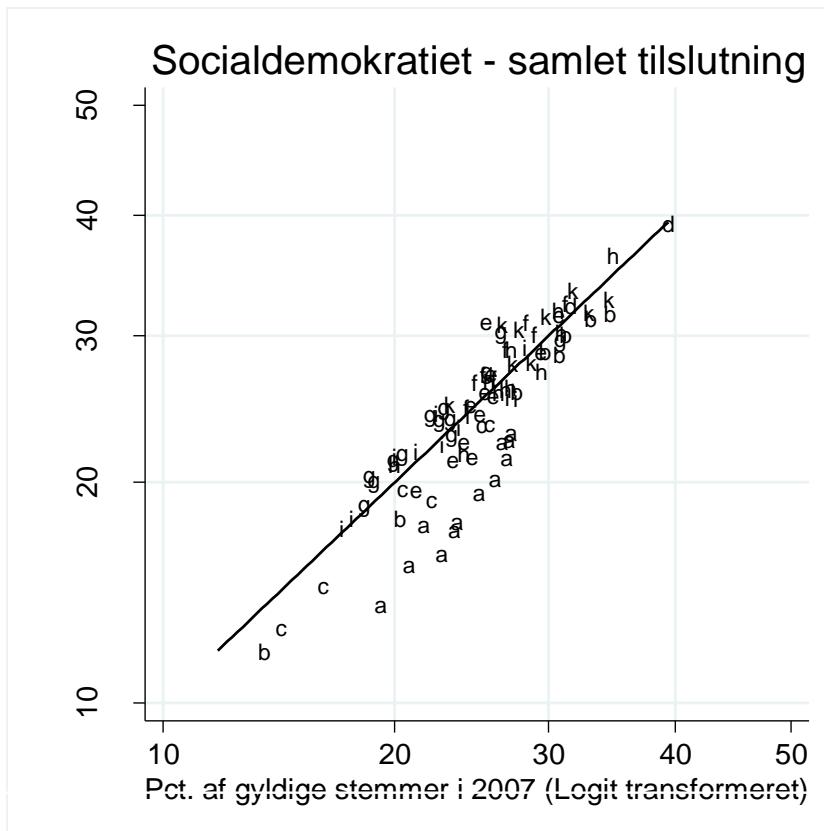
- 4,27% - 15,76%
- 15,76% - 20,99%
- 20,99% - 25,93%
- 25,93% - 31,76%
- 31,76% - 47,98%



2011 support



## Social Democrats - Change in support and in personal vote share



a. København  
b. Københavns Omegn

c. Nordsjælland  
d. Bornholm

e. Sjælland  
f. Fyn

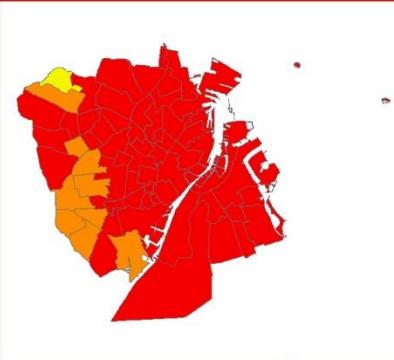
g. Syddjylland  
h. Østjylland

i. Vestjylland  
k. Nordjylland

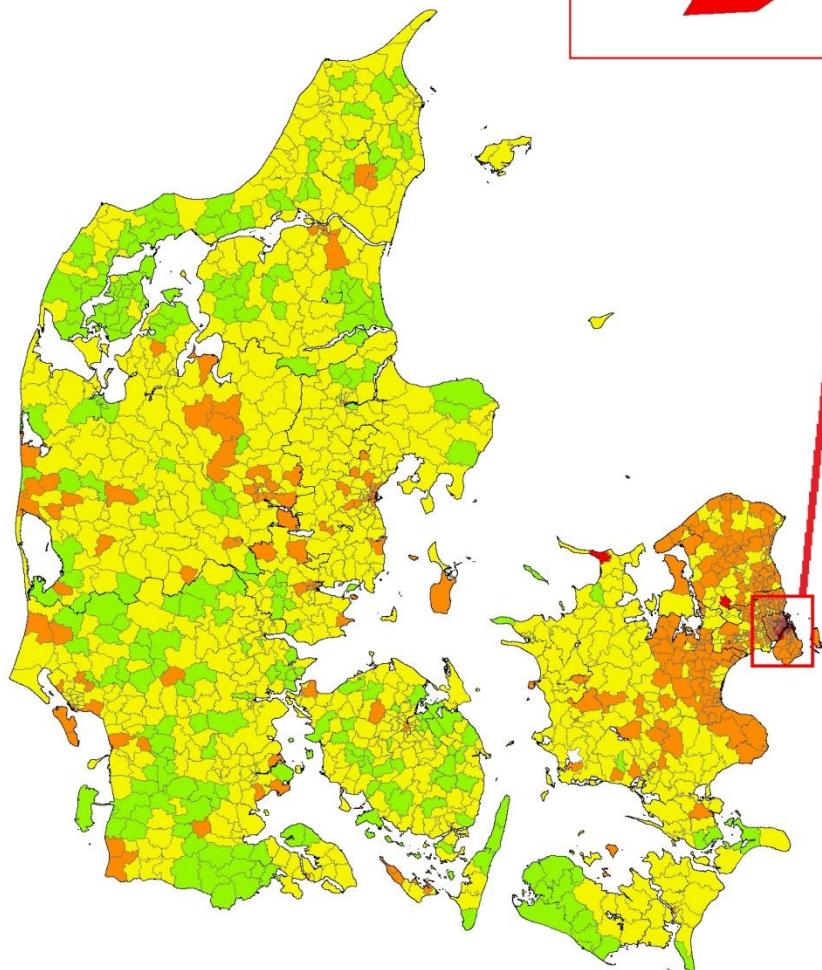
## Logit-voteshare changes for Social Democrats 2007-2011 elections

### Logit Changes

- -0,526143 - -0,364490
- -0,364489 - -0,085790
- -0,085789 - 0,152021
- 0,152022 - 0,743606
- 0,743607 - 6,645492



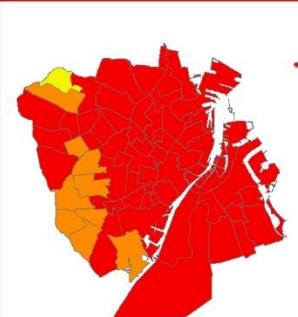
Actual change



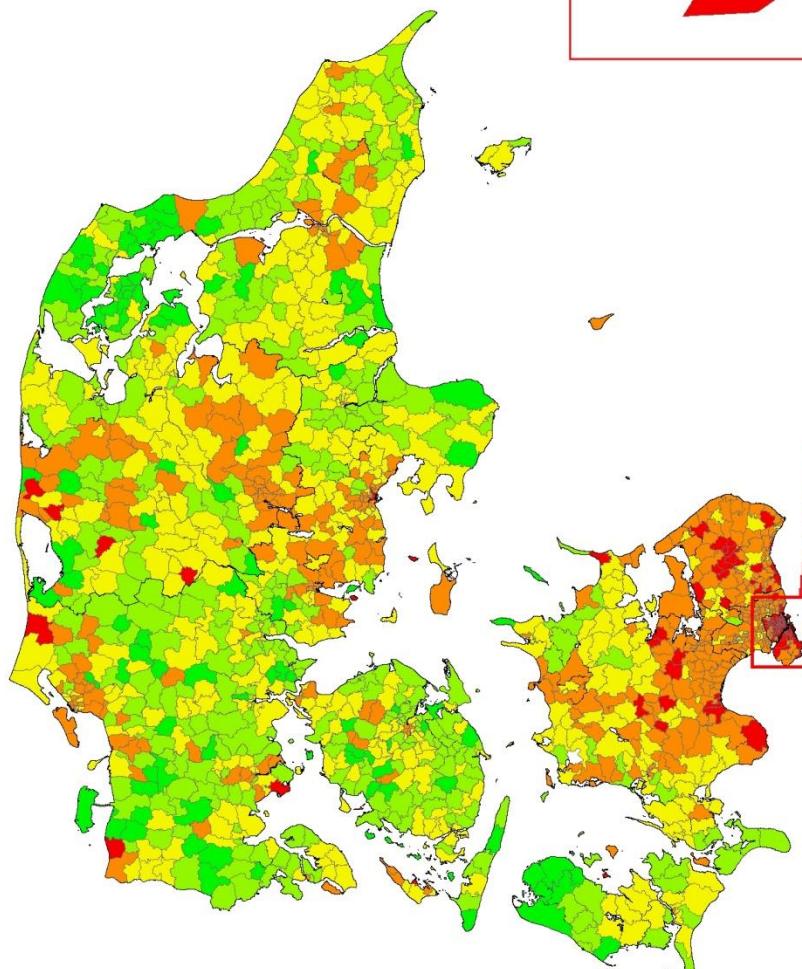
## Logit-voteshare changes for Social Democrats 2007-2011 elections

### Logit Changes

- -0,526143 - -0,204468
- -0,204467 - -0,035947
- -0,035946 - 0,088050
- 0,088051 - 0,233286
- 0,233287 - 0,699226



Centered change



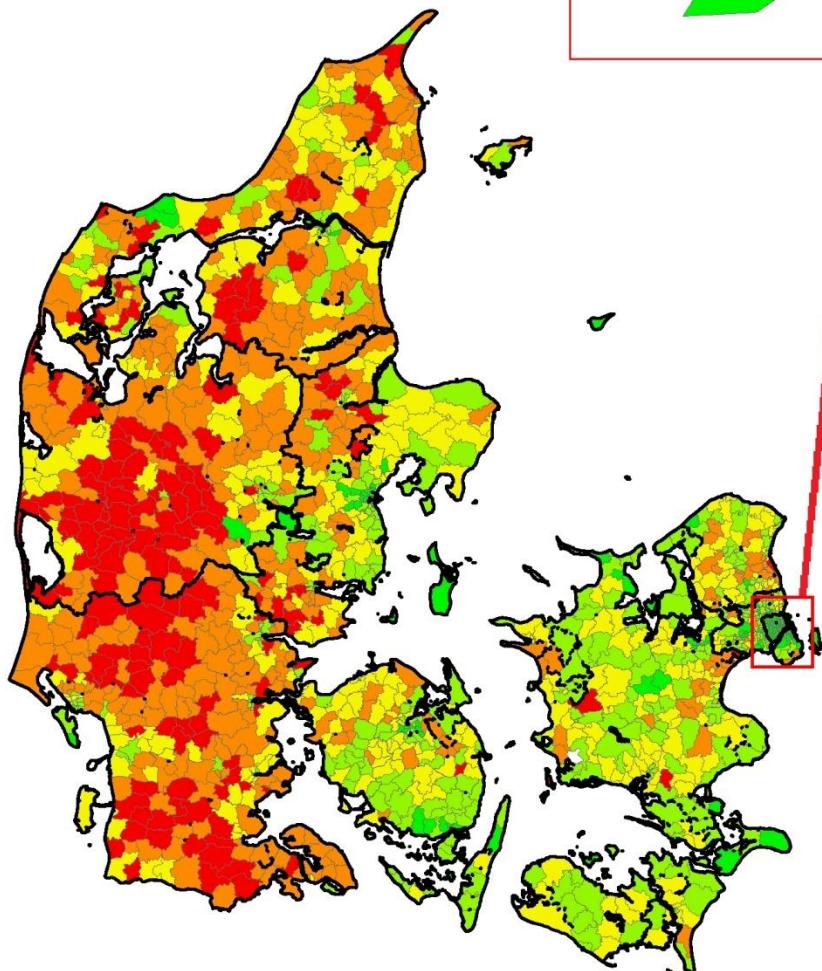
### Voter support for Red-Green Alliance at the 2011 election

#### share of total votes

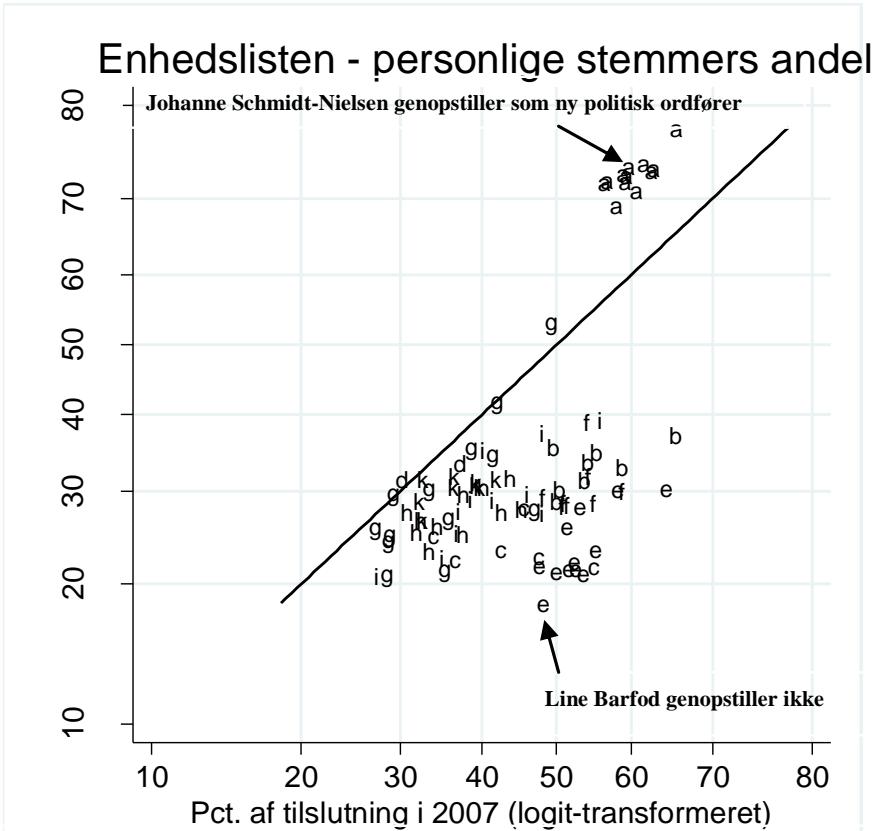
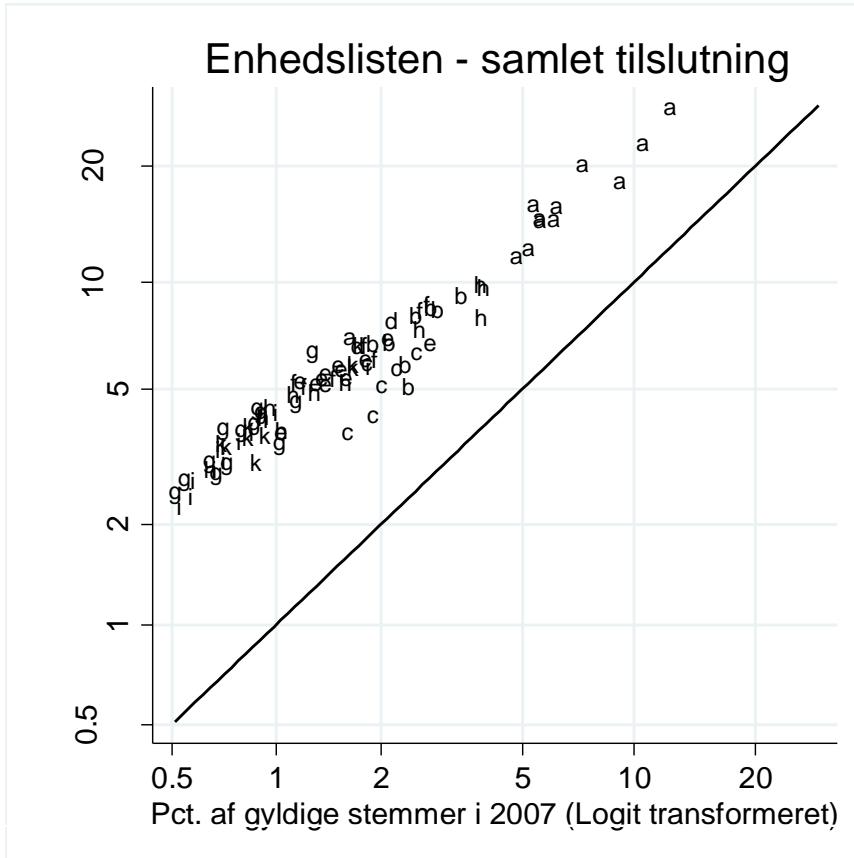
- 0,66% - 2,46%
- 2,46% - 3,74%
- 3,74% - 5,37%
- 5,37% - 8,81%
- 8,81% - 31,60%



2011 support



# Red-Green Alliance - Change in support and in personal vote share



a. København  
b. Københavns Omegn

c. Nordsjælland  
d. Bornholm

e. Sjælland  
f. Fyn

g. Syddjylland  
h. Østjylland

i. Vestjylland  
k. Nordjylland

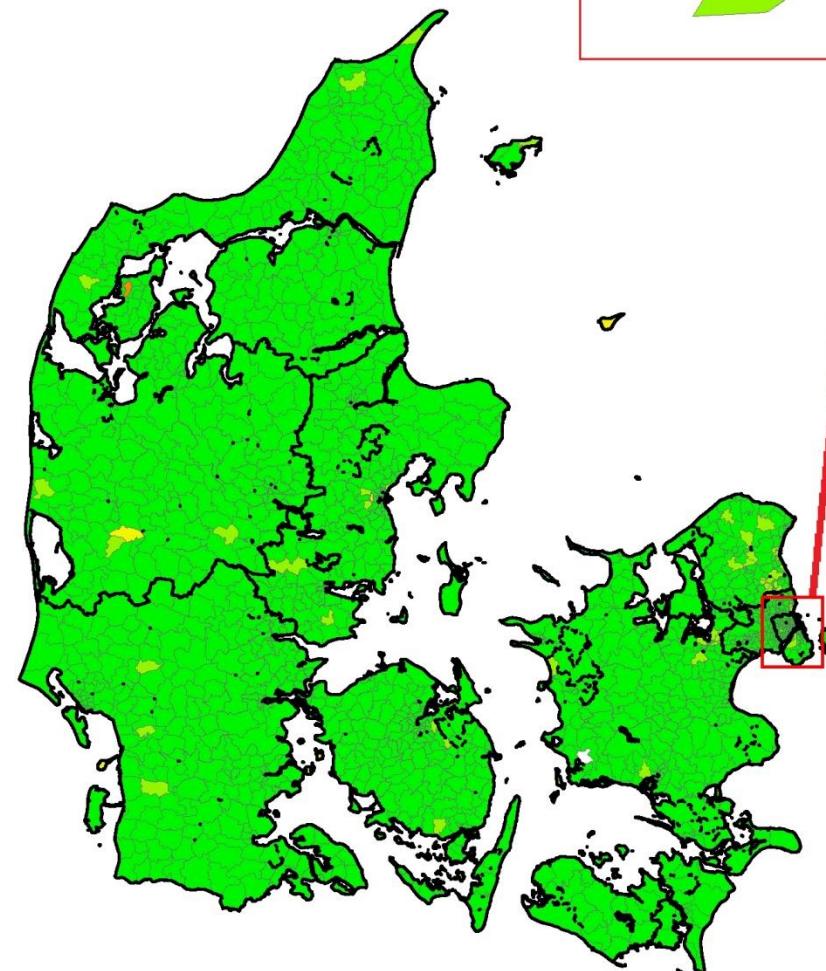
### Logit vote share changes for Red-Green Alliance 2007-2011 elections

#### Logit Changes

- -0,438988 - -0,364490
- -0,364489 - -0,085790
- -0,085789 - 0,152021
- 0,152022 - 0,743606
- 0,743607 - 6,645492



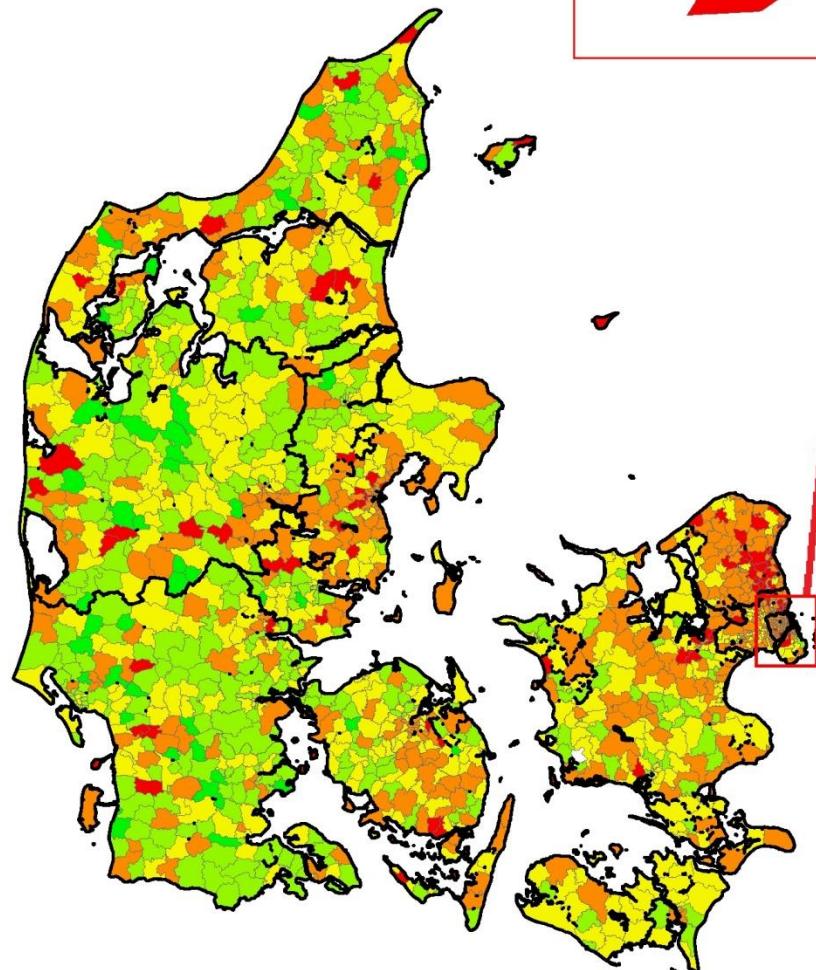
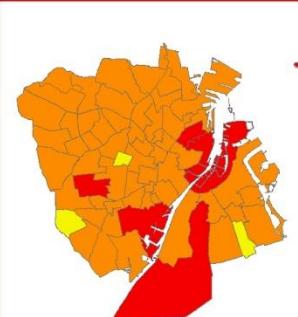
Actual change



### Logit vote share changes for Red-Green Alliance 2007-2011 elections

#### Logit Changes

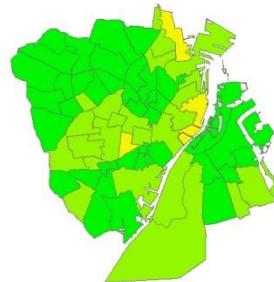
- -0,438988 - 0,823317
- 0,823318 - 1,274223
- 1,274224 - 1,668959
- 1,668960 - 2,555672
- 2,555673 - 6,175488



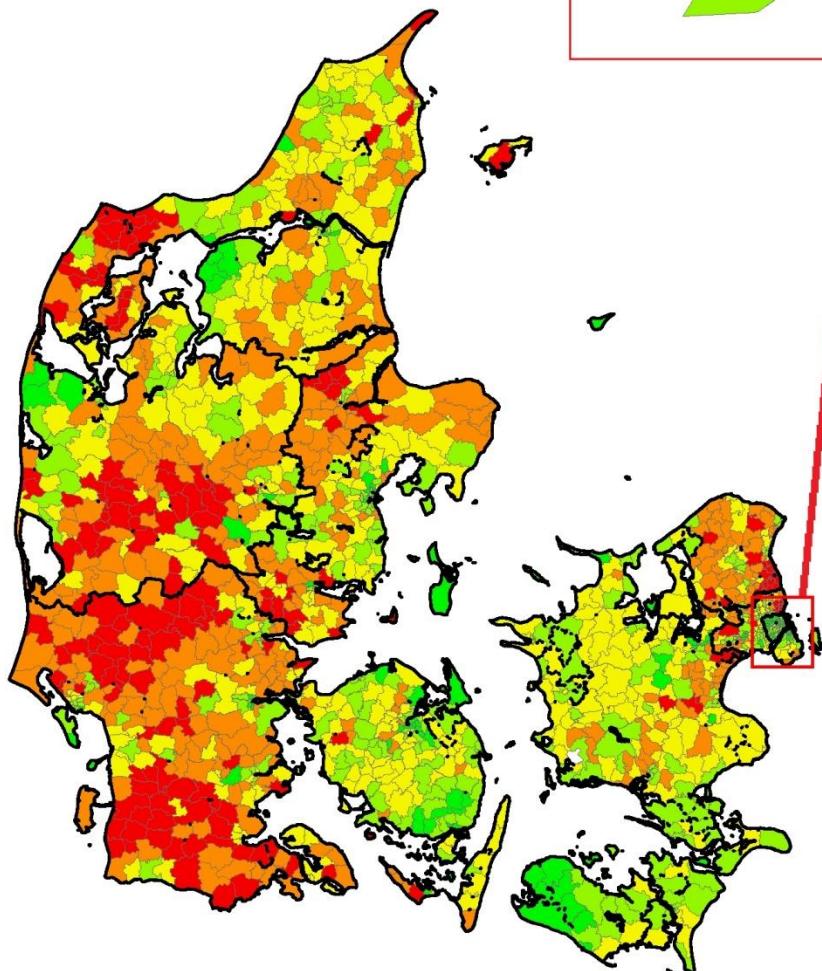
### Voter support for Socialist People's Party at the 2011 election

#### share of total votes

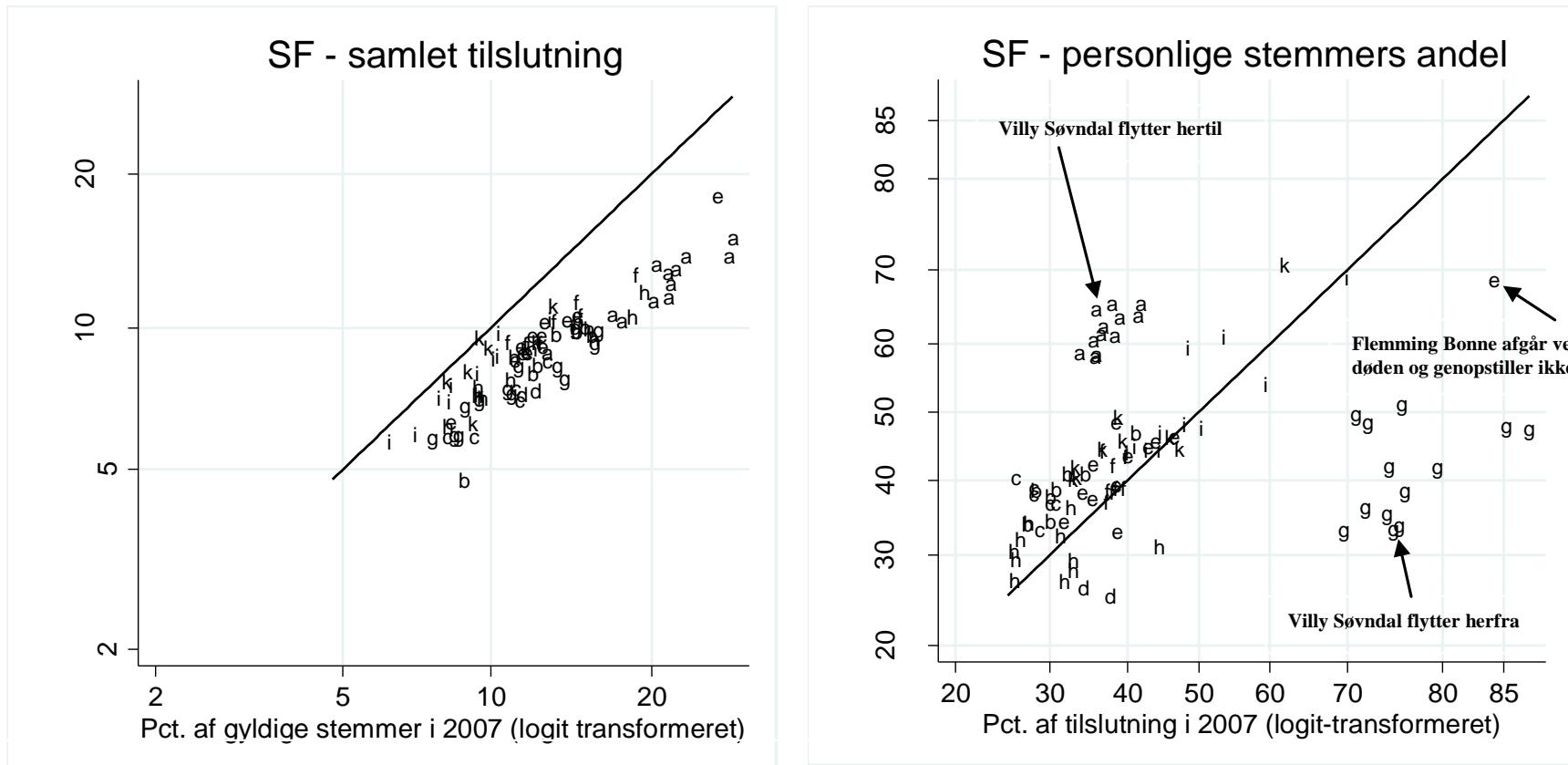
- 1,39% - 5,67%
- 5,67% - 7,49%
- 7,49% - 9,60%
- 9,60% - 12,63%
- 12,63% - 30,38%



2011 support



# Socialist People's Party - Change in support and in personal vote share



a. København  
b. Københavns Omegn

c. Nordsjælland  
d. Bornholm

e. Sjælland  
f. Fyn

g. Sydjylland  
h. Østjylland  
i. Vestjylland  
k. Nordjylland

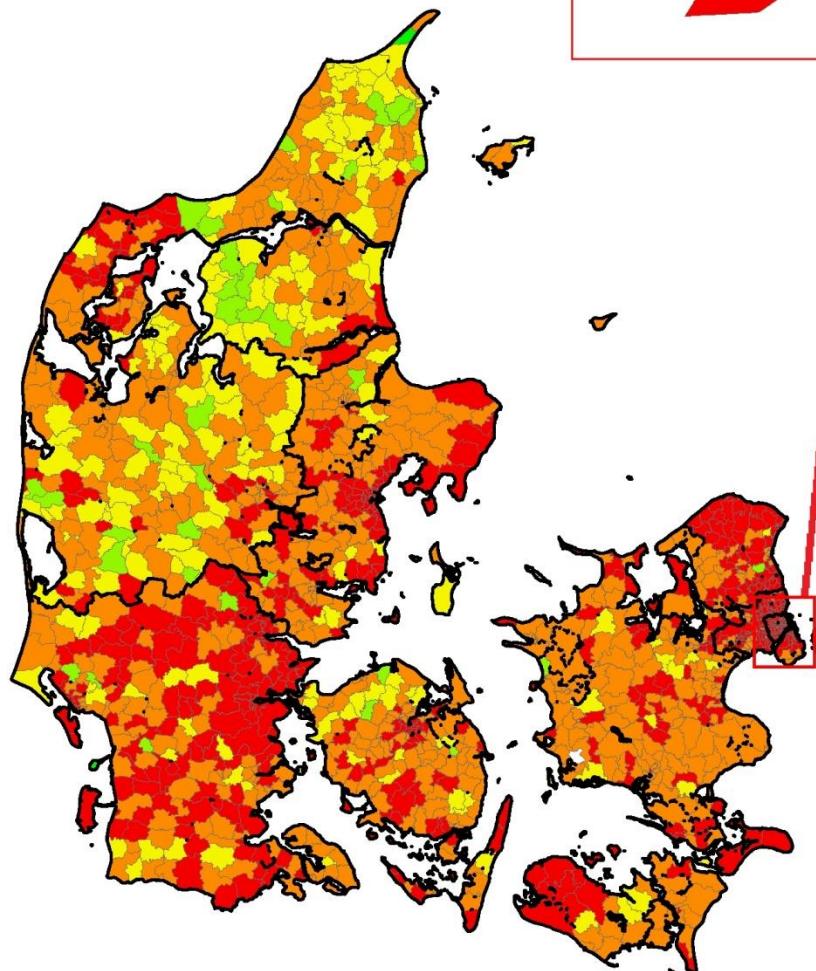
### Logit vote share changes for Socialist People's Party 2007-2011 elections

#### Logit Changes

- -5,776453 - -0,364490
- -0,364489 - -0,085790
- -0,085789 - 0,152021
- 0,152022 - 0,743606
- 0,743607 - 6,645492



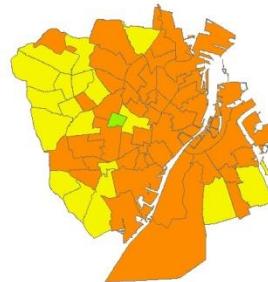
Actual change



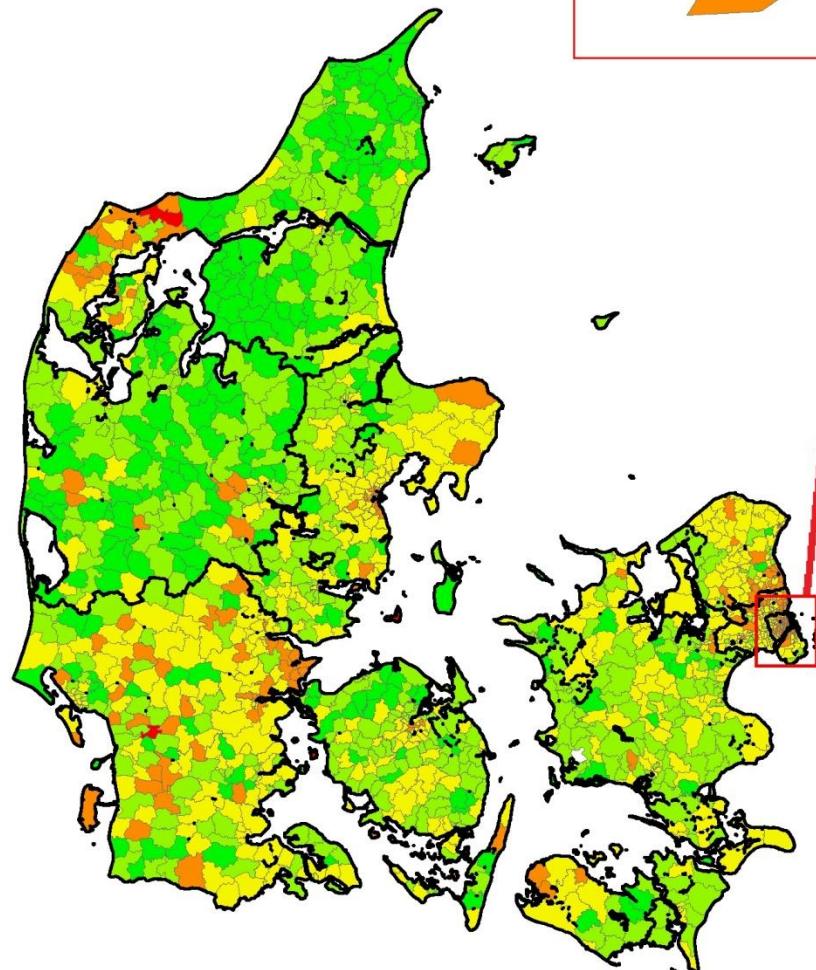
### Logit vote share changes for Socialist People's Party 2007-2011 elections

#### Logit Changes

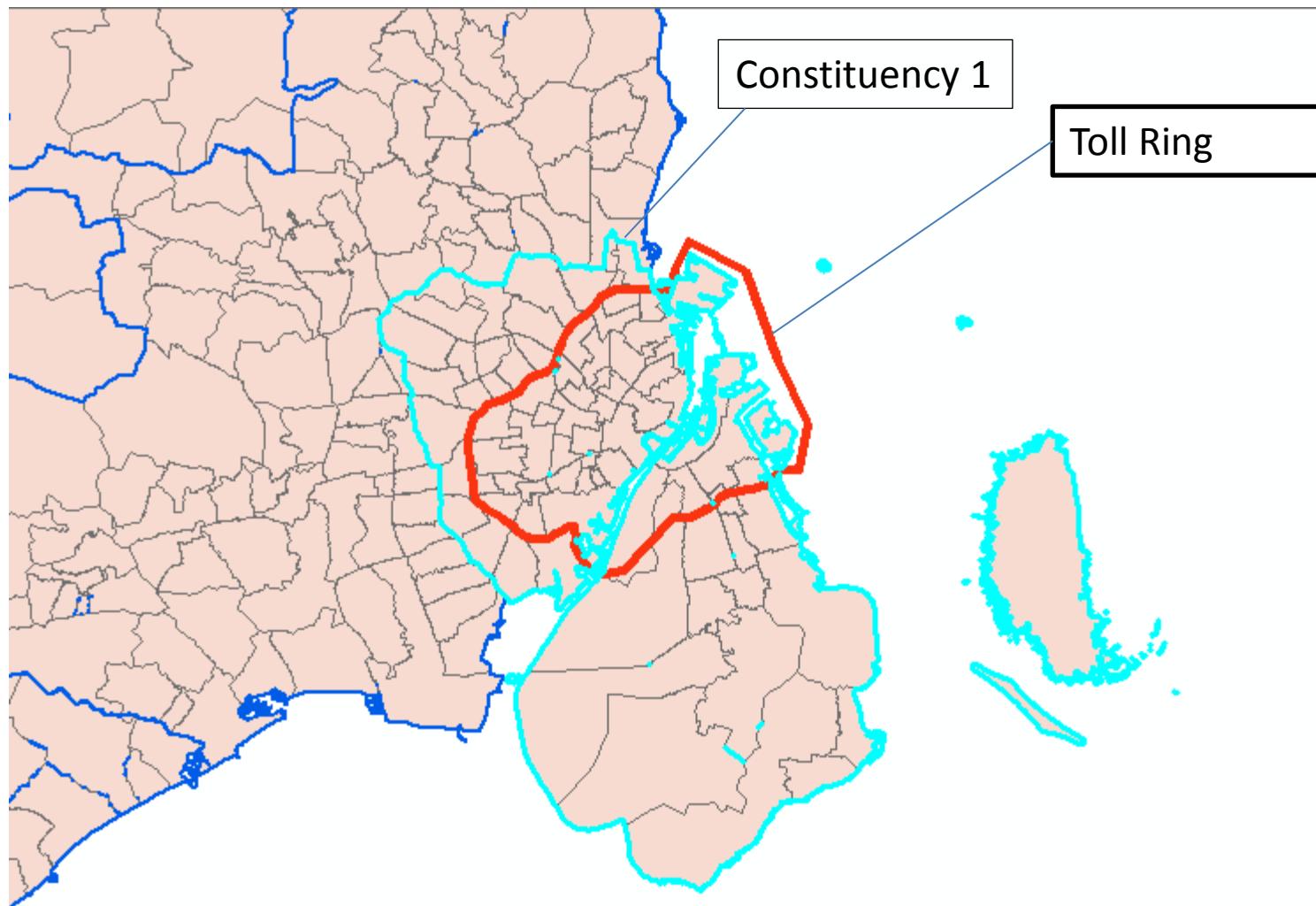
- -5,776453 - -1,011481
- -1,011480 - -0,580921
- -0,580920 - -0,318639
- -0,318638 - -0,093329
- -0,093328 - 1,540445



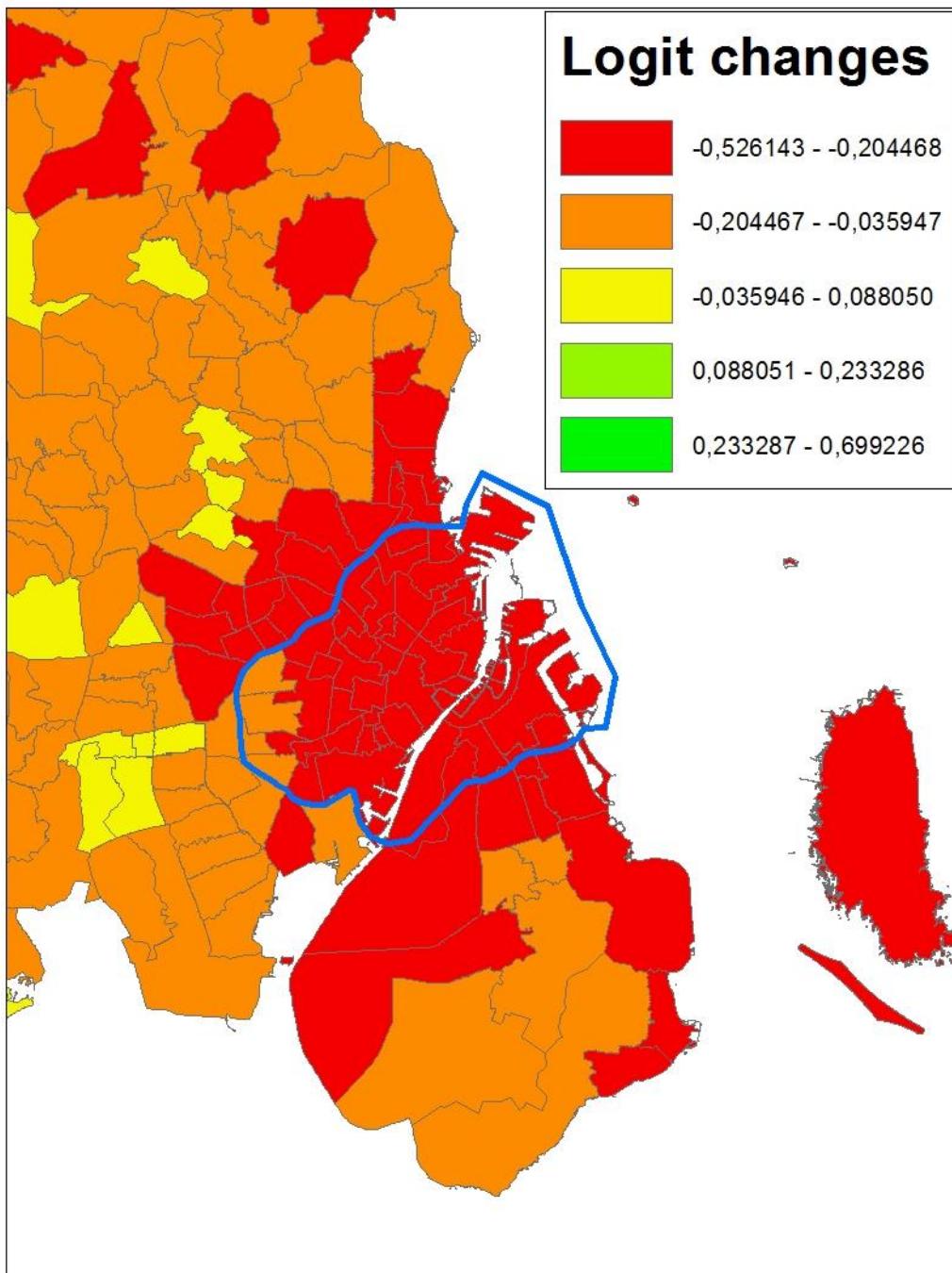
Centered change



# Toll Ring and Constituency 1

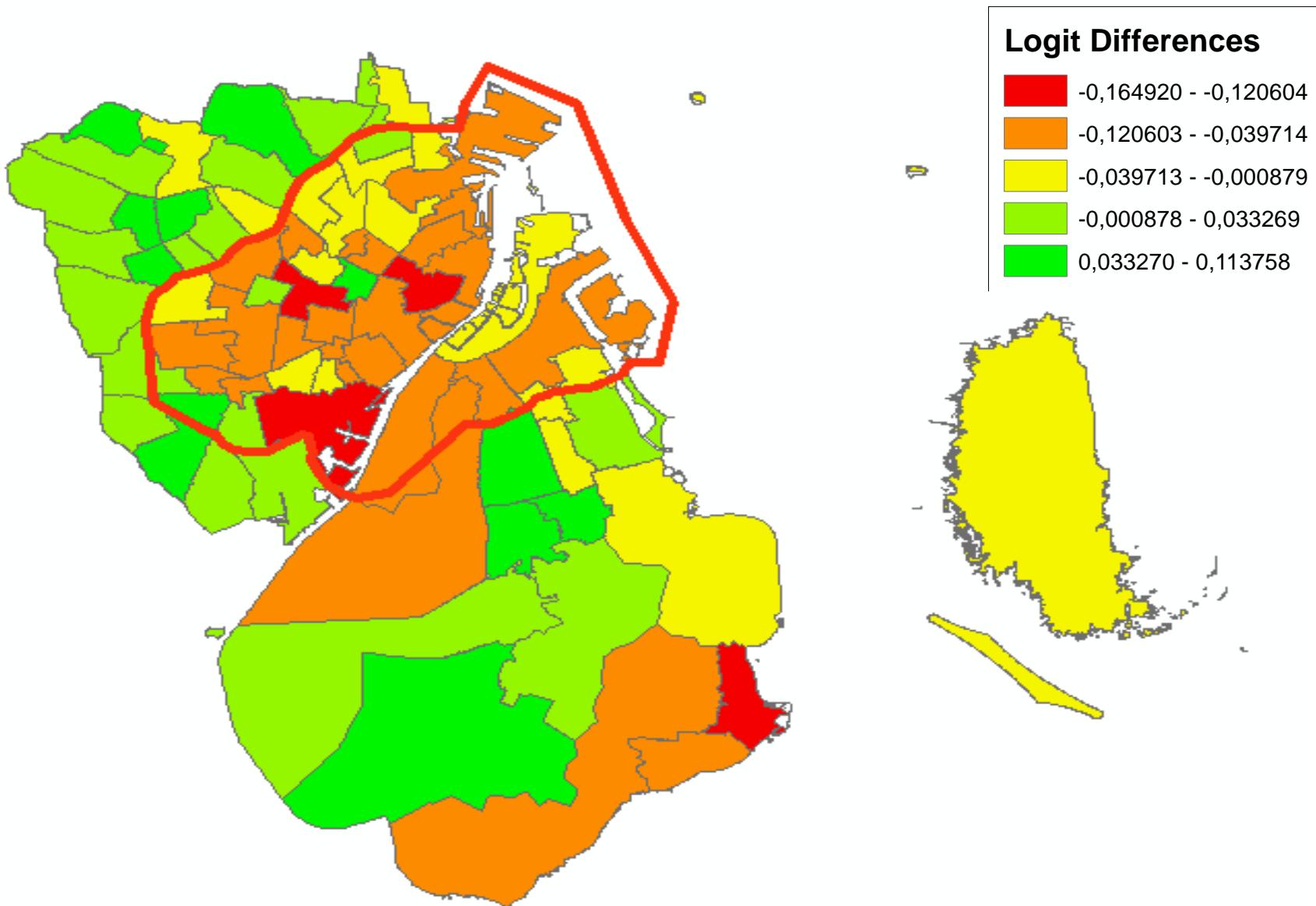


Logit vote share changes for Social Democrats 07-11



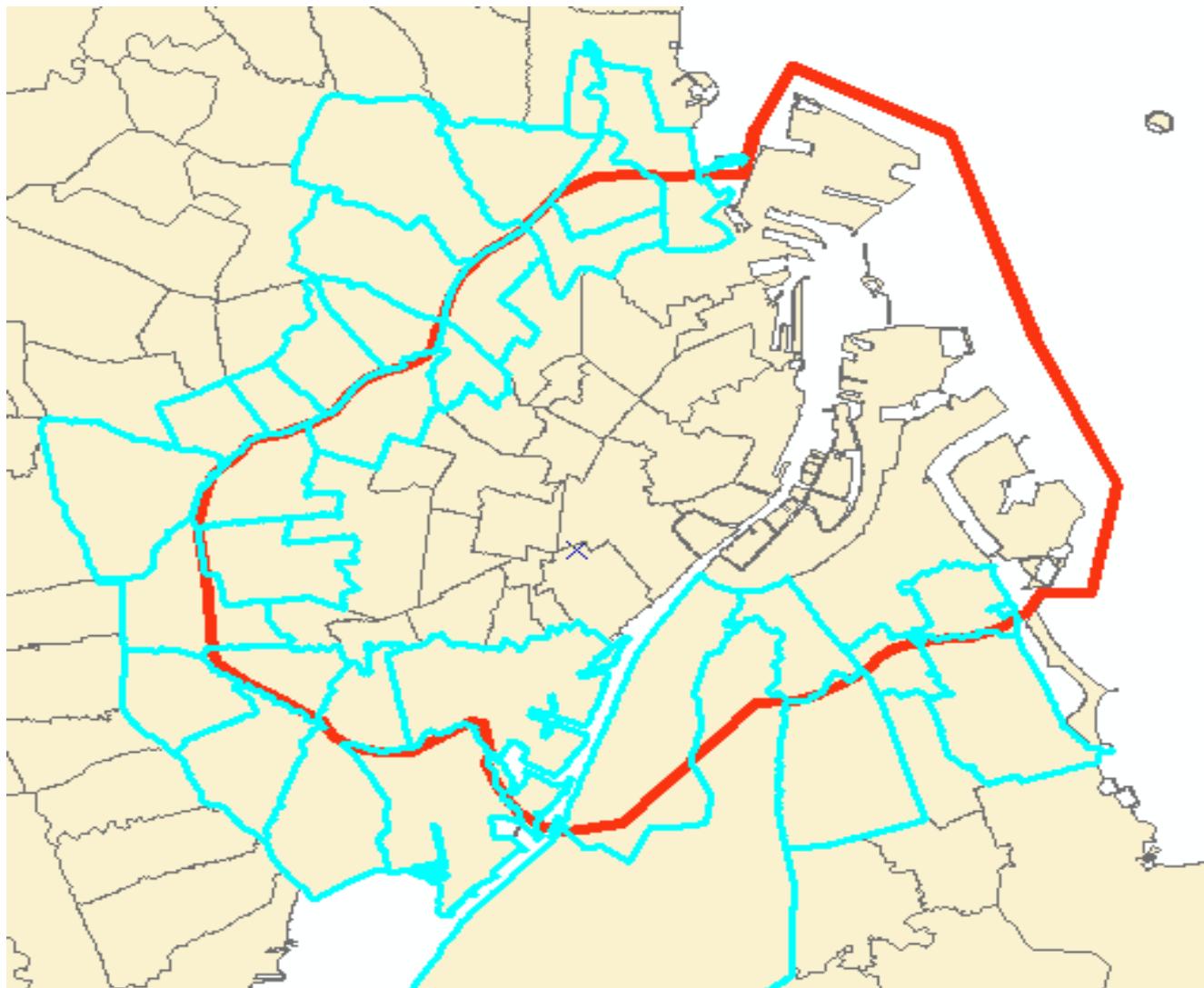
Centered change

# Toll Ring and change in Social Democratic vote share adjusted for effect of personal votes



# Potential area of toll ring impact

## Toll ring band



# No toll ring band effect on SD support

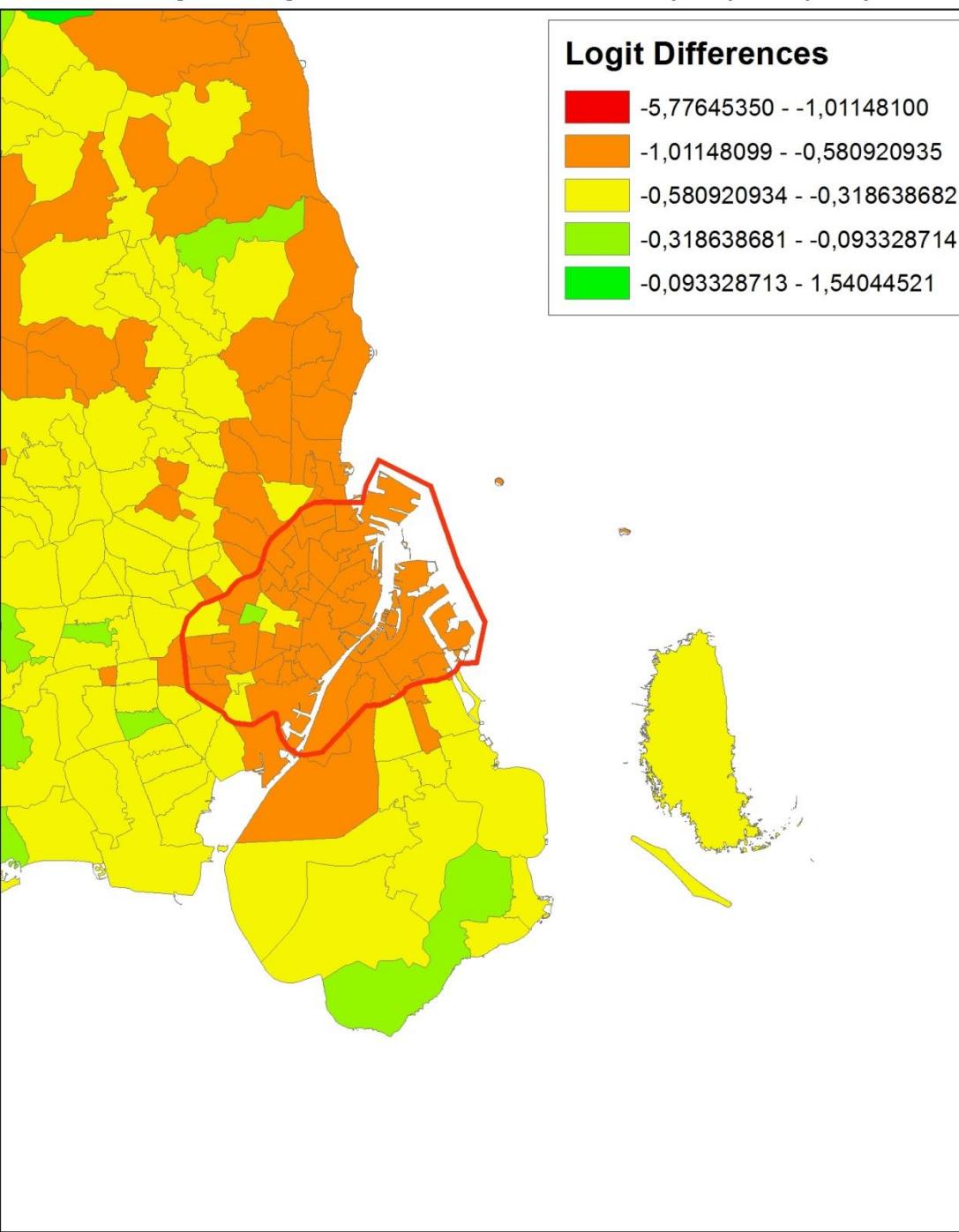
Regression analysis

Logit vote share Difference Social Democrats (07-11)	
Toll ring band	-0,0135 (0,0158)
Within band	-0,0625*** (0,0161)
Constant	0,00615 (0,0125)
<i>N</i>	71 Voting Stations
<i>R</i> <sup>2</sup>	0,215
Adj. <i>R</i> <sup>2</sup>	0,192

Standard errors in parentheses

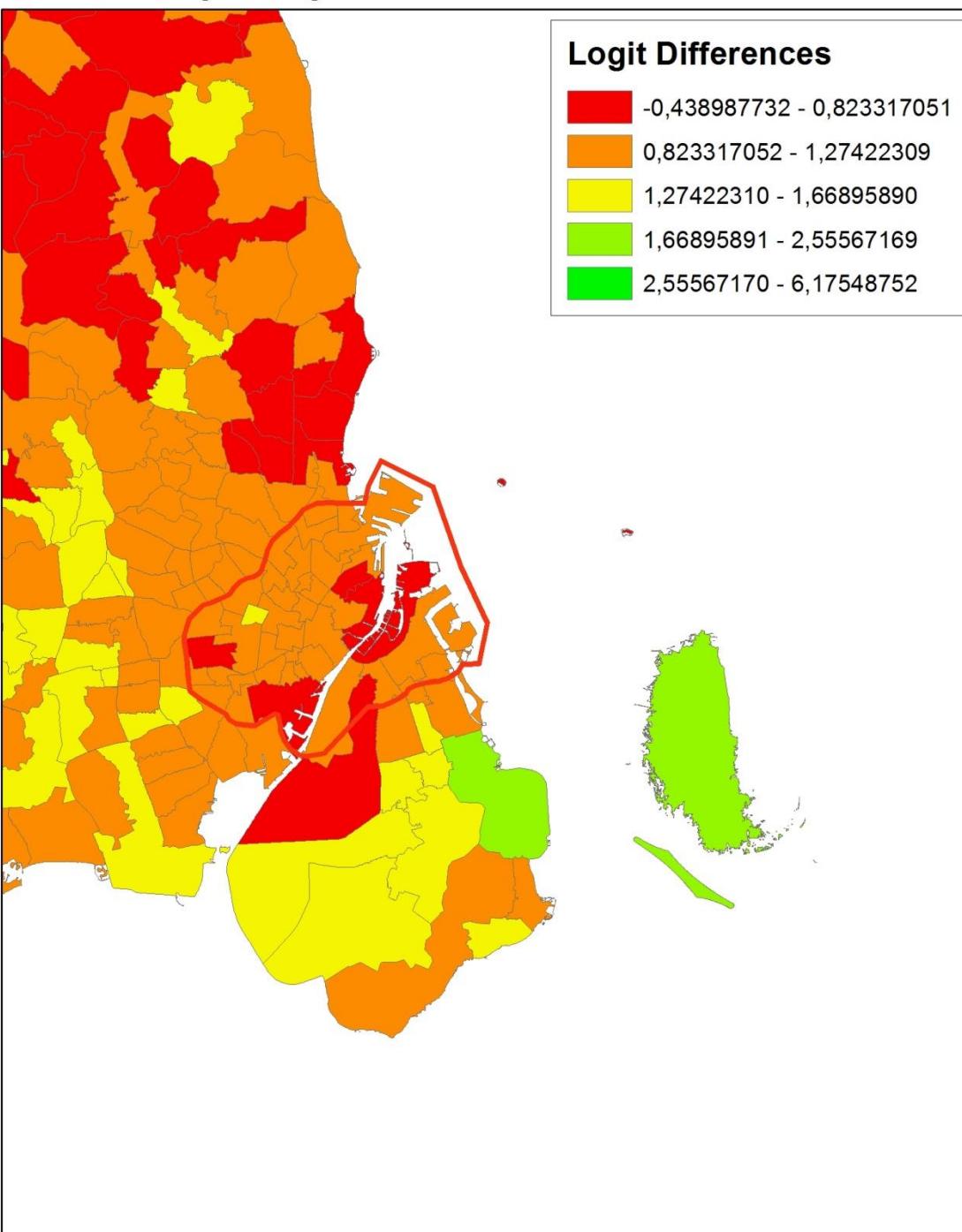
\*  $p < 0,05$ , \*\*  $p < 0,01$ , \*\*\*  $p < 0,001$

Change in logit vote share for socialist people's party



Centered change

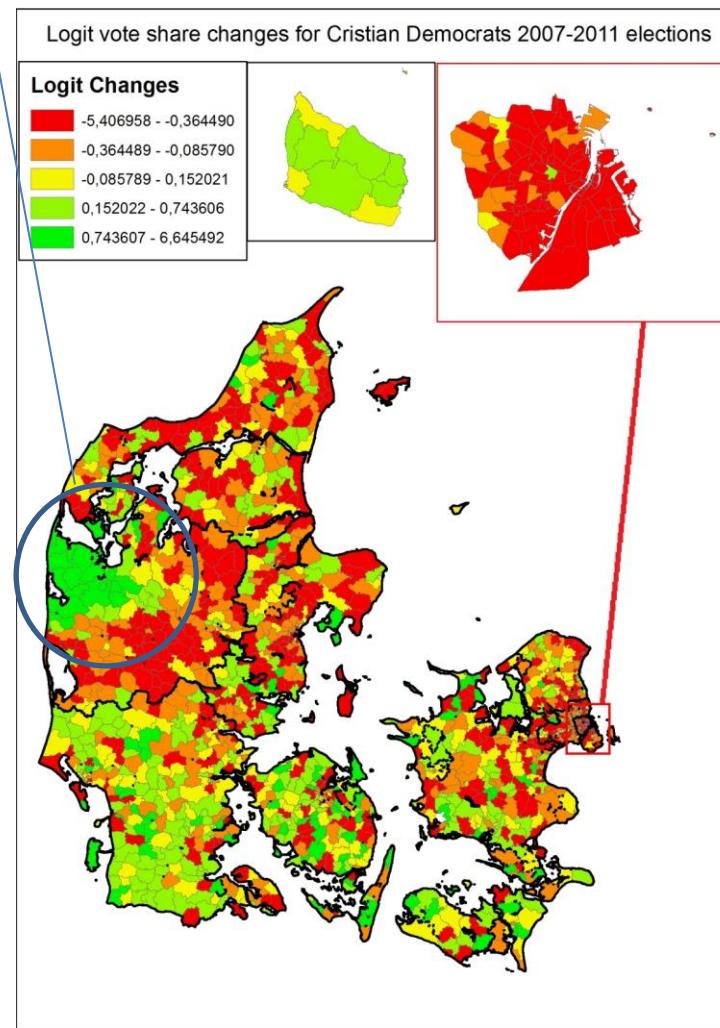
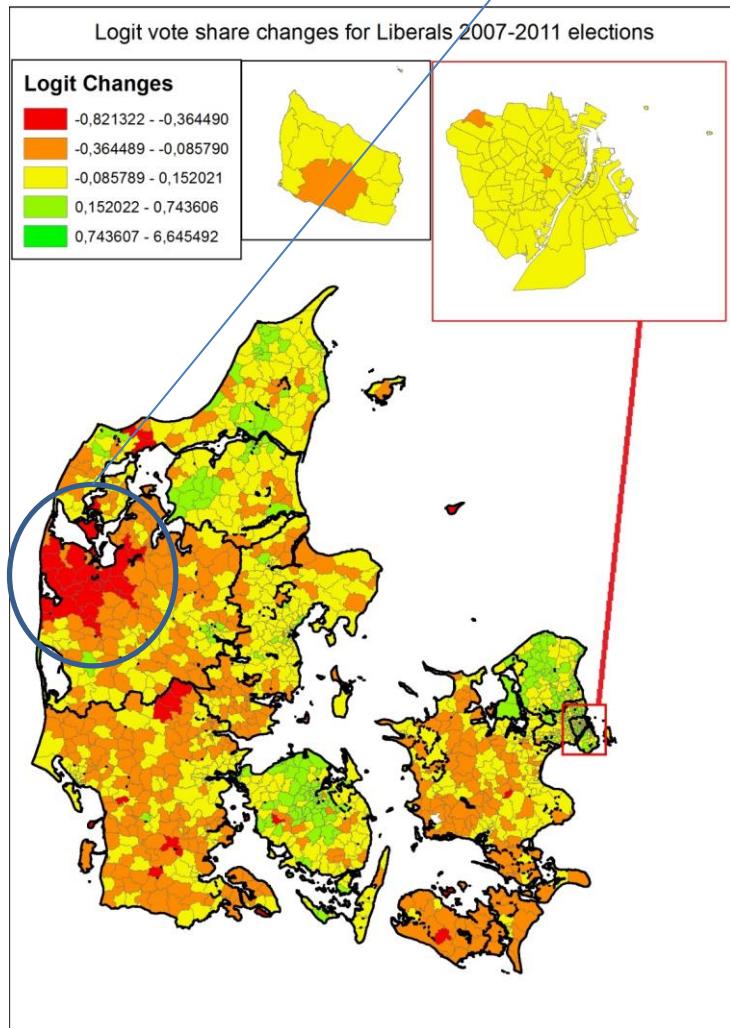
Change in logit vote share for Red-Green Alliance



# The hospital strife in Western Jutland

A more obvious example

# Transition of support from Liberals til Christian Democrats in Hospital strife



The end

Thank You