## Appendix 1 The developemnt of activ memberships in sports clubs the last 18 years.

Et bilde som inneholder kart, tekst

Automatisk generert beskrivelse

## Appendix 2 The developemnt of actual active share in sport clubs of the population

Et bilde som inneholder skjermbilde

Automatisk generert beskrivelse

## Appendix 3 Actual number of sports facilities per inhabitant in Norway form 2001 until 2018

Et bilde som inneholder skjermbilde

Automatisk generert beskrivelse

## Appendix 4 Desription of how the coplete dataset are created.

### Building the panel data

### With the provided data, a complete dataset with information on population, active sports members, and the number of sports facilities is built. A full description of how the dataset is built is found in the following chapters.

### NIF activity data matched with municipality numbers

The provided data from NIF was not specified with the "old" municipality numbers, because of the municipality change in January 2020. In that case, the dataset was constructed by combining several data sources. First of all, the address dataset of all sports clubs in Norway with the given zip code (NIF) matched with the zip codes with data from Bring (Bring, 2020). The zip code data from Bring contains zip codes and their related municipality number before and after the municipality merge in 2020. The file from Bring is not a complete overview of all new and old zip codes for the current period from 2001 to 2018. In addition, a have used information from Erik Bolstad's (Bolstad, u.d.) web site that gives a nearly complete overview of all new and old zip codes in Norway and their respective municipality numbers. The sports club address file from NIF is matched with the zip code list from Bring and leads to a complete sports club address overview where it is possible to identify with the municipality the sports clubs belong too.

### The complete address list of all sports clubs with municipality numbers is matched with the dataset from NIF with all active members per sports club. The merge gives a new dataset of all municipalities where all active sports members are divided into their respective sports federations, sports club, and age groups. This file contains of the following variables: year, municipality, Sports Federation, Sports club, age group, and activity. The purpose of this report is to look at the differences of all sports federations across all municipalities. In that case, I do not need all the information divided per sports club. The dataset is collapsed per municipality and sports federation. The collapsed dataset contains the variables: year, municipality, Sports Federation, activity for the different age groups.

### Merging sports facility data

To extend the dataset with data about sports facilities, the facility data from the Norwegian culture Ministry (Ministry Culture, u.d.), were analyzed. The dataset contains data from all cultural and sports facilities, form sanitary facilities and offices to the major national sports facilities. Since I lock into the area on how the number of sports facilities affects organized sports activity, several facilities have to be removed from the original dataset. Appendix XX provides a total overview of all the facilities removed from the original facility dataset. The facility data contains information on which municipality they belong, by the municipality name. The facility dataset has no information on the municipality number; the data are matched with an extracted file from the dataset "Local Government Dataset" (Fiva, Askill, & Natvik, 2017) with the features municipality name and number.

### The facility dataset contains multiple variables, and the most important once are facility class (four different classes), facility category, facility type, and year of construction. Some sports facilities are special facilities to be used in one specific sport and others are shared facilities that many different sports have the possibility to use. In my analysis, I want to see if there are some differences across the municipalities for the different sports federations. In that case, I have used the facility category and facility type to identify which facility belongs to which sports federations. Appendix table 6 gives an overview of which sports facilities are connected to each sports federation. Since not every facility it possible to connect to a specific sports federation, and some facilities can be used for many different sports, the facility data are categorized as common facilities and federation specific facilities. Both categories are summed up to the total number of sports facilities available for all sports activities. The facilities are counted after the construction year. The facilities are spread across all the municipalities for the current analyzing period from 2001 to 2018.

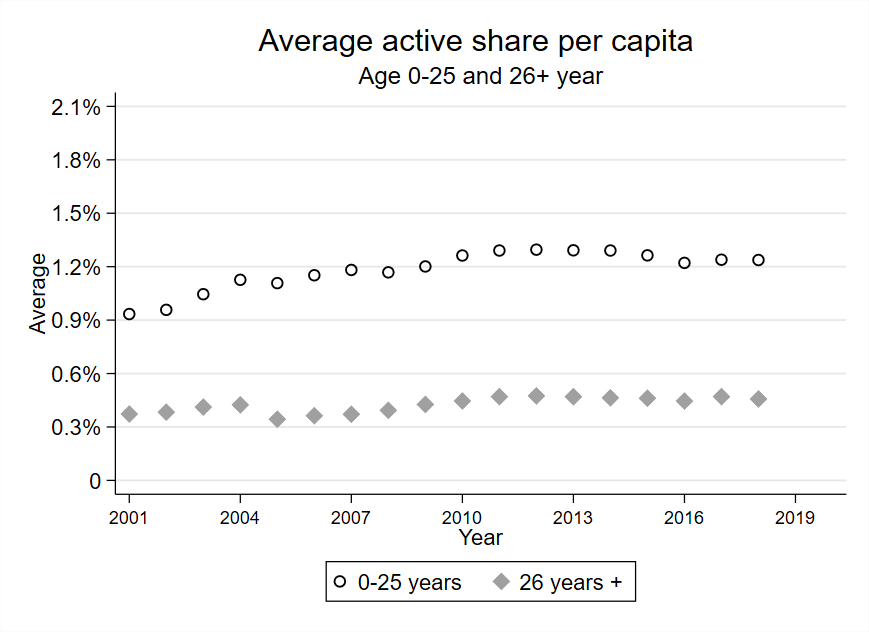
### The complete dataset

The two datasets described above are merged into one dataset with the municipality number as the link between two datasets. Further are population data from NSD for each municipality and age group merged into the dataset, and in the end, are data from the Local Government Dataset merge as a control for the total population in each municipality is correct. In addition, the population control from the Local Government Dataset I have used features for balancing the data and the variable unemployment in addition to the total population.

The final dataset contains the following features: year, municipality number, sports federation, active for the different age groups, the population for each age group and the total population, total number of sports facilities, the total number of federation specific sports facilities. All activity, facility, and population data are distributed across all municipalities and years.

## Appendix 4B Desription of how the coplete dataset are created

Figure shows the average active share of the population across all municipalities and federations by the age group 0-25 and for those 26 years and older. The y-axis shows the average active share of the population across all municipalities and federations, and the years is shown in the x-axis.



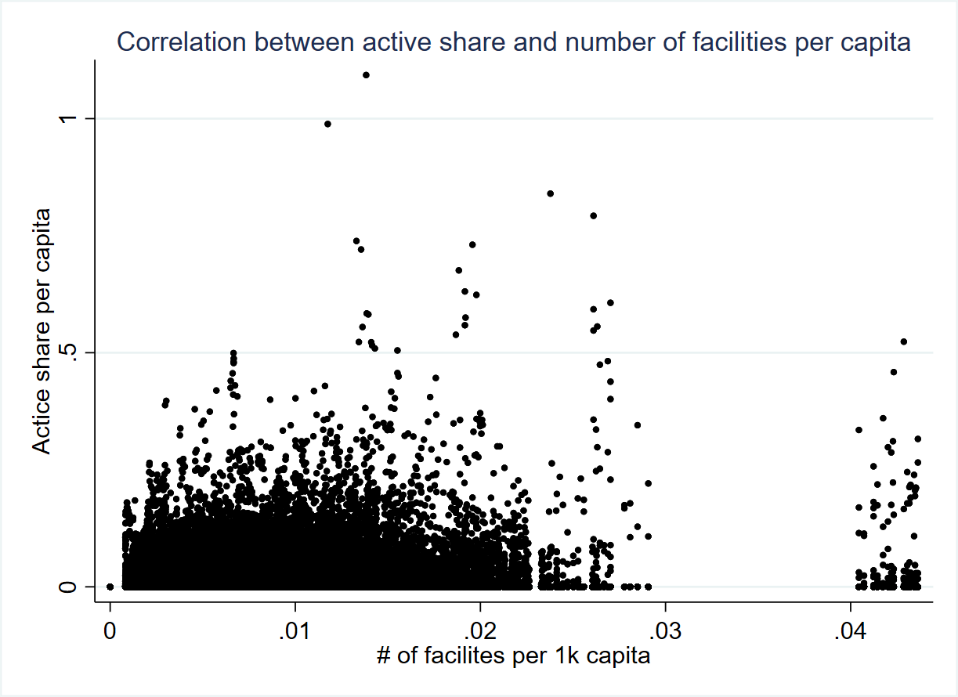
## Appendix 5 Removed facility categores form the facility register from the ministyr of culture.

|  |  |
| --- | --- |
| **Category 1** | **Category 2** |
| Anleggsklasse | Nærmiljøanlegg |
| Anleggskategori | Friluftslivsanlegg |
| Anleggstype | Badeplass |
| Anleggstype | Bibliotek |
| Anleggstype | Båthus |
| Anleggstype | Dagsturhytte |
| Anleggstype | Flerbrukslokale for kultur |
| Anleggstype | Flerbruksområde (Ute) |
| Anleggstype | Friluftsområde |
| Anleggstype | Friplassen |
| Anleggstype | Galleri |
| Anleggstype | Gapahuk |
| Anleggstype | Garderobebygg |
| Anleggstype | Kino Klubbhus |
| Anleggstype | Lager- og garasjebygg |
| Anleggstype | Museum |
| Anleggstype | Nærmiljøkart |
| Anleggstype | Orienteringskart |
| Anleggstype | overnattingshytte |
| Anleggstype | Parkouranlegg |
| Anleggstype | Produksjons og øvel lokaler |
| Anleggstype | Reionlat kulturanlegg |
| Anleggstype | Sanitærbygg |
| Anleggstype | Svenekunst lokale |
| Anleggstype | Sikkringshytte |
| Anleggstype | Skatepark |
| Anleggstype | Turkart |
| Anleggstype | Tursti |
| Anleggstype | Turvei |
| Anleggstype | Utendørs kulturarena |

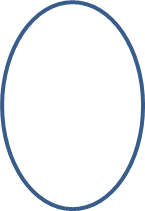
## Appendix 6 Complete list of how sports facilities matched with their sports federations.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | **Facility type / Facility category** | **Sports federations** | | Agilityhall / Hundesportanlegg | Norges Hundekjørerforbund | | Akebakke / Ski- og alpinanlegg | Norges Skiforbund | | Alpinbakke / Ski- og alpinanlegg | Norges Skiforbund | | Anlegg for radiostyrt motorsport / Motorsportanlegg | Norges Motorsportforbund | | Baneracing/roadracingbane / Motorsportanlegg | Norges Motorsportforbund | | Baseballpitch / Mindre utendørsanlegg | Norges Softball og Baseball Forbund | | Bilcross/rallycrossbane / Motorsportanlegg | Norges Motorsportforbund | | BMX-anlegg / Sykkelanlegg | Norges Cykleforbund | | Bordtennisbord (ute) / Racketsportsanlegg | Norges Bordtennisforbund | | Bordtennishall / Racketsportsanlegg | Norges Bordtennisforbund | | Bowlinghall / Idrettshaller og aktivitetssaler | Norges Bowlingforbund | | Bueskytterbane (ute) / Bueskytteranlegg | Norges Bueskytterforbund | | Bueskytterhall / Bueskytteranlegg | Norges Bueskytterforbund | | Castinganlegg / Vannsportanlegg | Norges Castingforbund | | Cricketpitch / Mindre utendørsanlegg | Norges Cricketforbund | | Curlinghall / Is- og skøyteanlegg | Norges Curlingforbund | | Danse-/cheerleadingssal / Idrettshaller og aktivitetssaler | Norges Danseforbund | | Diskgolfanlegg / Mindre utendørsanlegg | Norges Golfforbund | | Driving range / Golfanlegg | Norges Golfforbund | | Feltskytebane (ute) / Skyteanlegg | Norges Skytterforbund | | Fotball treningsfelt / Fotballanlegg | Norges Fotballforbund | | Fotballbane gress / Fotballanlegg | Norges Fotballforbund | | Fotballbane grus / Fotballanlegg | Norges Fotballforbund | | Fotballbane kunstgress / Fotballanlegg | Norges Fotballforbund | | Fotballhall / Fotballanlegg | Norges Fotballforbund | | Freestyle- og snowboardanlegg / Ski- og alpinanlegg | Norges Skiforbund | | Friidrett treningsanlegg (inne) / Friidrettsanlegg | Norges Friidrettsforbund | | Friidrett treningsanlegg (ute) / Friidrettsanlegg | Norges Friidrettsforbund | | Friidrettshall / Friidrettsanlegg | Norges Friidrettsforbund | | Friidrettsstadion grus / Friidrettsanlegg | Norges Friidrettsforbund | | Friidrettsstadion kunststoff / Friidrettsanlegg | Norges Friidrettsforbund | | Galoppbane / Hestesportanlegg | Norges Rytterforbund | | Gokartbane / Motorsportanlegg | Norges Motorsportforbund | | Golfbane / Golfanlegg | Norges Golfforbund | | Hoppbakke / Ski- og alpinanlegg | Norges Skiforbund | | Hundekjøringsanlegg / Hundesportanlegg | Norges Hundekjørerforbund | | Hurtigløpsbane (ute) / Is- og skøyteanlegg | Norges Skøyteforbund | | Hurtigløpshall / Is- og skøyteanlegg | Norges Skøyteforbund | | Ishockeybane (ute) / Is- og skøyteanlegg | Norges Ishockeyforbund | | Kampidrettsanlegg / Idrettshaller og aktivitetssaler | Norges Kampsportforbund | | Klatre/buldrevegg (inne) / Klatreanlegg | Norges Klatreforbund | | Klatre/buldrevegg (ute) / Klatreanlegg | Norges Klatreforbund | | Klatrehall / Klatreanlegg | Norges Klatreforbund | | Korthullsbane / Golfanlegg | Norges Golfforbund | | Langrennsanlegg / Ski- og alpinanlegg | Norges Skiforbund | | Lerduebane (ute) / Skyteanlegg | Norges Skytterforbund | | Minigolfbane / Golfanlegg | Norges Golfforbund | | Modellflyanlegg / Luftsportanlegg | Norges Luftsportforbund | | Motocrossbane / Motorsportanlegg | Norges Motorsportforbund | | Motorbåtanlegg / Vannsportanlegg | Norges Motorsportforbund | | Opplæringsbasseng (inne) / Svømme- og stupeanlegg | Norges Svømmeforbund | | Opplæringsbasseng (ute) / Svømme- og stupeanlegg | Norges Svømmeforbund | | Padeltennisbane / Racketsportsanlegg | Norges Tennisforbund | | Parkouranlegg / Mindre utendørsanlegg | Norges Gymnastikk- og Turnforbund | | Petanquebane / Mindre utendørsanlegg | Norges Friidrettsforbund | | Pistolbane (ute) / Skyteanlegg | Norges Skytterforbund | | Ridebane / Hestesportanlegg | Norges Rytterforbund | | Ridehall / Hestesportanlegg | Norges Rytterforbund | | Ridesti / Hestesportanlegg | Norges Rytterforbund | | Riflebane (ute) / Skyteanlegg | Norges Skytterforbund | | Ro-/padleanlegg / Vannsportanlegg | Norges Roforbund | | Rulleskøytebane / Is- og skøyteanlegg | Norges Skøyteforbund | | Sandhåndballbane / Mindre utendørsanlegg | Norges Håndballforbund | | Sandvolleyballbane / Mindre utendørsanlegg | Norges Volleyballforbund | | Sanitærbygg / Idrettshus og servicebygg | Skal ikke med | | Seilanlegg / Vannsportanlegg | Norges Seilforbund | | Skatehall / Skateanlegg | Brettforbundet | | Skatepark / Skateanlegg | Brettforbundet | | Skileikanlegg / Ski- og alpinanlegg | Norges Skiforbund | | Skiskytteranlegg / Ski- og alpinanlegg | Norges Skiskytterforbund | | Snøscooterbane / Motorsportanlegg | Norges Motorsportforbund | | Speedway/longtrackbane / Motorsportanlegg | Norges Motorsportforbund | | Squashanlegg / Racketsportsanlegg | Norges Squashforbund | | Stall / Hestesportanlegg | Norges Rytterforbund | | Stupebasseng (inne) / Svømme- og stupeanlegg | Norges Svømmeforbund | | Stupebasseng (ute) / Svømme- og stupeanlegg | Norges Svømmeforbund | | Tennisbane (ute) / Racketsportsanlegg | Norges Tennisforbund | | Tennishall / Racketsportsanlegg | Norges Tennisforbund | | Terrengsykkelløype / Sykkelanlegg | Norges Cykleforbund | | Travbane / Hestesportanlegg | Norges Rytterforbund | | Trenings-/konkurransebasseng (inne) / Svømme- og stupeanlegg | Norges Svømmeforbund | | Trenings-/konkurransebasseng (ute) / Svømme- og stupeanlegg | Norges Svømmeforbund | | Trial/enduroløype / Motorsportanlegg | Norges Motorsportforbund | | Turnhall / Idrettshaller og aktivitetssaler | Norges Gymnastikk- og Turnforbund | | UDEFINERT / Ski- og alpinanlegg | Norges Skiforbund | | UDEFINERT / Svømme- og stupeanlegg | Norges Svømmeforbund | | UDEFINERT / Sykkelanlegg | Norges Cykleforbund | | UDEFINERT / Vannsportanlegg | Norges Motorsportforbund | | Vannskianlegg / Vannsportanlegg | Norges Vannski- og Wakeboard Forbund | | Velodrom (ute) / Sykkelanlegg | Norges Cykleforbund | | Avgangs- og landingsanlegg / Luftsportanlegg | Norges Luftsportforbund | | Biljardhall / Idrettshaller og aktivitetssaler | Norges Biljardforbund | |  |

## Appendix 7 Scatter plot of all observations og the indipandent and the dependent variable.



The small cluster to right in the graph is the municipality Bykle. The cluster may indicate that there is some mismatch when the sports facilities are linked to the municipality number. The municipality are in the final model removed from the dataset



## Appendix 8 Statistical mean and standard error for the dependent variable and the independent variable sports specific facilites per capita level and sports common facilities per capita level.

**Summary statistics: mean sd N by(SFnewcat )   
Sfnew: Norges Amerikanske Idretters Forbund**

|  |  |  |  |
| --- | --- | --- | --- |
|  | mean | sd | N |
| activesharetot | 0 | .002 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Norges Badmintonforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .001 | .004 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Norges Bandyforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .002 | .006 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Norges Basketballforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | 0 | .001 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Norges Bokseforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | 0 | .001 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Norges Bordtennisforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .001 | .002 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Bryteforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .001 | .009 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Norges Bueskytterforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .001 | .005 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Cykleforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .006 | .022 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Norges Danseforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .001 | .018 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Norges Dykkeforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .001 | .003 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Norges Fleridrettsforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .002 | .007 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Norges Fotballforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .062 | .034 | 6586 |
| SFfac prtotCapita | .001 | .001 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Friidrettsforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .02 | .039 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Golfforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .021 | .054 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Gymnastikk- og Turnforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .01 | .015 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Håndballforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .015 | .016 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Norges Ishockeyforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | 0 | .002 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Kampsportforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .003 | .005 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Klatreforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .002 | .009 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Luftsportforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .002 | .012 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Norges Motorsportforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .006 | .021 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Orienteringsforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .005 | .01 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Norges Padleforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .001 | .003 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Norges Rytterforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .005 | .012 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Seilforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .001 | .004 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Skiforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .048 | .06 | 6586 |
| SFfac prtotCapita | .001 | .002 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Skiskytterforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .003 | .008 | 6586 |
| SFfac prtotCapita | 0 | .001 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Skytterforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .006 | .009 | 6586 |
| SFfac prtotCapita | .001 | .001 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Skøyteforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .001 | .005 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Squashforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | 0 | .001 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Styrkeløftforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .001 | .005 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Norges Svømmeforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .006 | .012 | 6586 |
| SFfac prtotCapita | .001 | .001 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Tennisforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .001 | .004 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | 0 | 0 | 6586 |

**Norges Triatlonforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | 0 | .003 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Norges Volleyballforbund**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .004 | .016 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

**Other**

|  |  |  |  |
| --- | --- | --- | --- |
| activesharetot | .004 | .01 | 6586 |
| SFfac prtotCapita | 0 | 0 | 6586 |
| ComfacuniqePerCapita | .001 | .001 | 6586 |

## Appendix 9 Coefficeints per sports federation for the fixed effects (SFfac\_prtotCapita)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (1)  Table Tennis | (2)  Archery | (3)  Football | (4)  Athletics |
|  | Active share capita level | Active share capita level | Active share capita level | Active share capita level |
| # of sports Facilities per capita level (SFfac\_prtotCapita) | 0.0008 (0.0005) | 0.0001 (0.0002) | 0.0054 (0.0029) | 0.0057 (0.0037) |
| *N* | 6586 | 6586 | 6586 | 6586 |
| *R*2  Within  Between  **Overall** | 0.0269  0.0008  0.0025 | 0.0056  0.0002  0.0016 | 0.0155  0.0211  0.0184 | 0.0579  0.1144  0.0817 |

Standard errors in parentheses

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

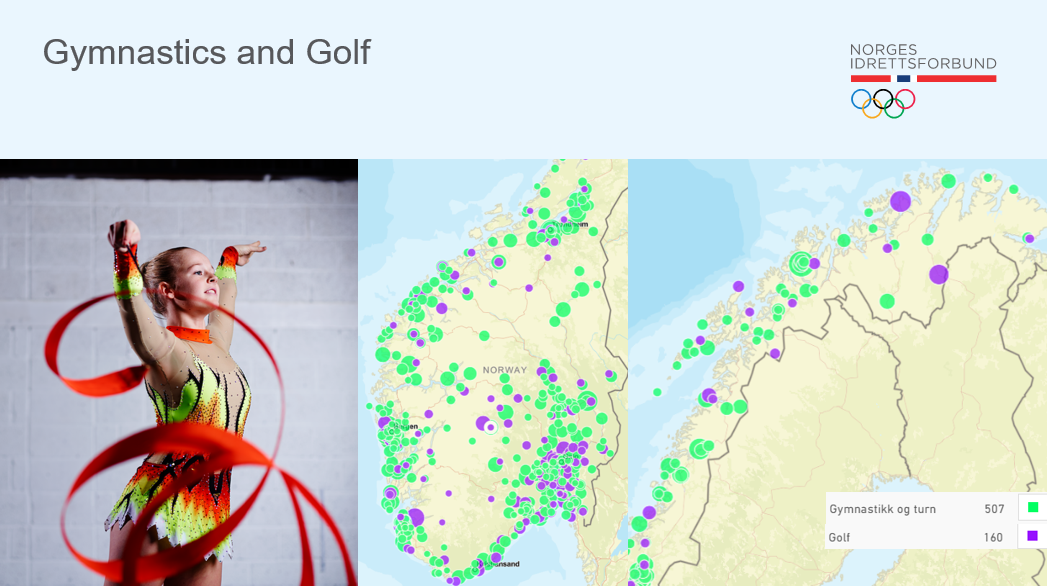
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (5)  Golf | (6)  Gymnastics | (7)  Ishockey | (8)  Martial Arts |
|  | Active share capita level | Active share capita level | Active share capita level | Active share capita level |
| # of sports Facilities per capita level (SFfac\_prtotCapita) | 0.0109\*\*\* (0.0033) | 0.0011\* (0.0005) | 0.0006 (0.0004) | 0.0003 (0.0002) |
| *N* | 6586 | 6586 | 6586 | 6586 |
| *R*2  Within  Between  **Overall** | 0.0258  0.2682  0.2153 | 0.0321  0.0969  0.0594 | 0.0183  0.0001  0.0000 | 0.0885  0.0438  0.0446 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (9)  Climbing | (10)  Motorsport | (11)  Riding | (12)  Sailing |
|  | Active share capita level | Active share capita level | Active share capita level | Active share capita level |
| # of sports Facilities per capita level (SFfac\_prtotCapita) | 0.0032\*\* (0.0010) | 0.0016 (0.0012) | 0.0016 (0.0017) | 0.0011\*\* (0.0004) |
| *N* | 6586 | 6586 | 6586 | 6586 |
| *R*2  Within  Between  **Overall** | 0.0718  0.0268  0.0361 | 0.0074  0.1574  0.0662 | 0.0051  0.0556  0.0344 | 0.0175  0.0782  0.0673 |

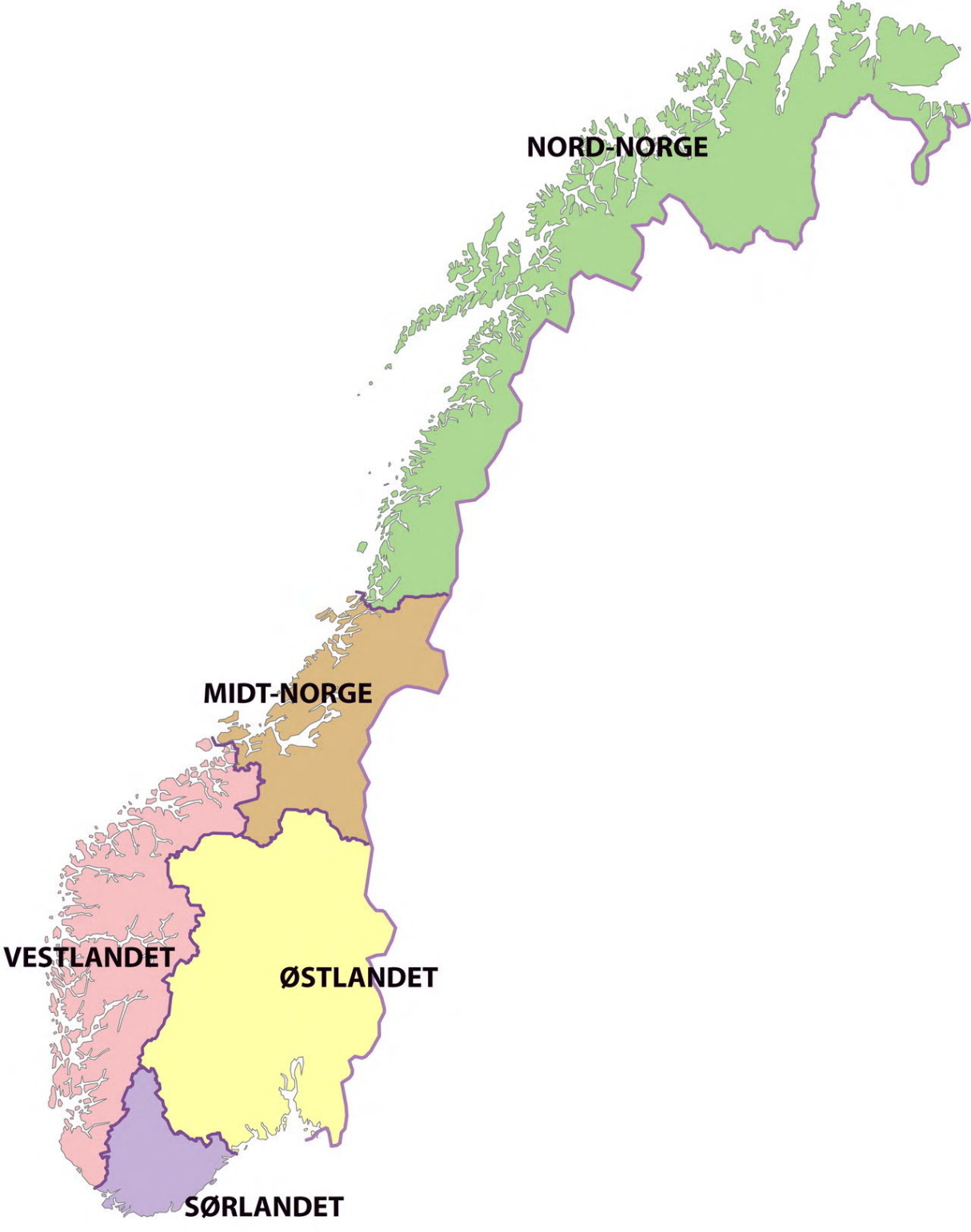
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (13)  Ski | (14)  Biathlon | (15)  Shooting | (16)  Skates |
|  | Active share capita level | Active share capita level | Active share capita level | Active share capita level |
| # of sports Facilities per capita level (SFfac\_prtotCapita) | 0.0034 (0.0115) | 0.0002 (0.0006) | -0.0006 (0.0009) | 0.0005\* (0.0002) |
| *N* | 6586 | 6586 | 6586 | 6586 |
| *R*2  Within  Between  **Overall** | 0.0298  0.3170  0.1316 | 0.0137  0.0910  0.0231 | 0.0201  0.0074  0.0001 | 0.0077  0.0741  0.0539 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | (17)  Squash | (18)  Swimming | (19)  Tennis |
|  | Active share capita level | Active share capita level | Active share capita level |
| # of sports Facilities per capita level (SFfac\_prtotCapita) | 0.0000 (0.0000) | -0.0001 (0.0004) | 0.0004 (0.0003) |
| *N* | 6586 | 6586 | 6586 |
| *R*2  Within  Between  **Overall** | 0.0067  0.0007  0.0032 | 0.0330  0.0013  0.0092 | 0.0061  0.0082  0.0079 |

## Appendix 10 Show where all sports clubs within golf and gymnastics are represented in Norway by size of the sports club.



## Appendix 11 The split of Norway into south and north.



**Northern Norway**

**Mid-Norway**

**West Norway**

**East Norway**

**South Norway**

North:

* Northern Norway
* Mid-Norway

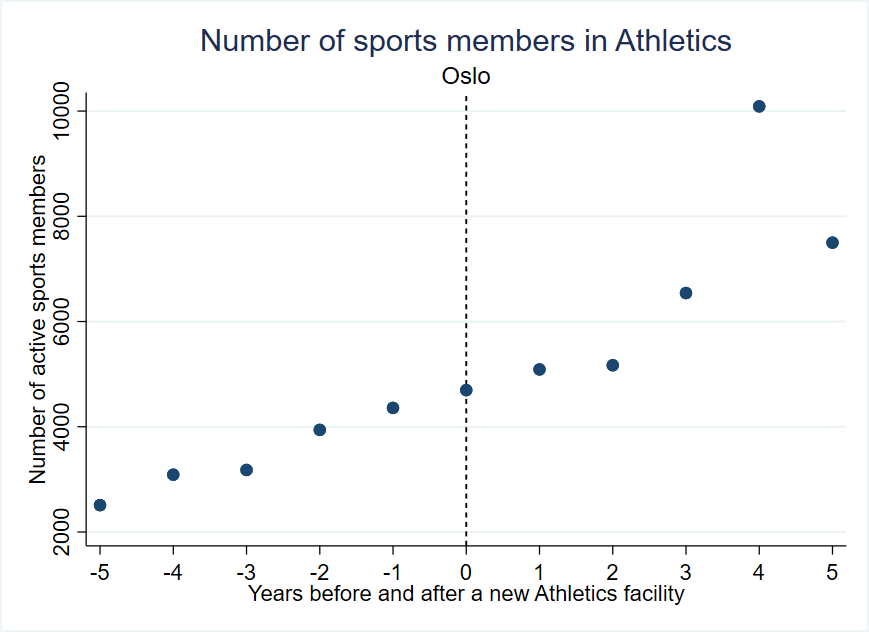
South

* West Norway
* East Norway
* South Norway

Illustrates a map of Norway where det different parts of Norway are shown in different colours and the list shows which parts of Norway are defined as North and South

## Appendix 12 Number of sports members in Athletics in Oslo

Figure The capital of Norway and built a new athletics facility within the period from 2003 to 2016. The graphs show how the actual activity in athletics had developed five years before and five years after the facility came. The x-axis represents years before and after a new facility were established in each municipality. The y-axis stands for the active sports members in the Norwegian athletics federation.



## Appendix 13 Number of sports members in Athletics in Arendal, Asker, Kristiansand, Lunner and Tønsberg.

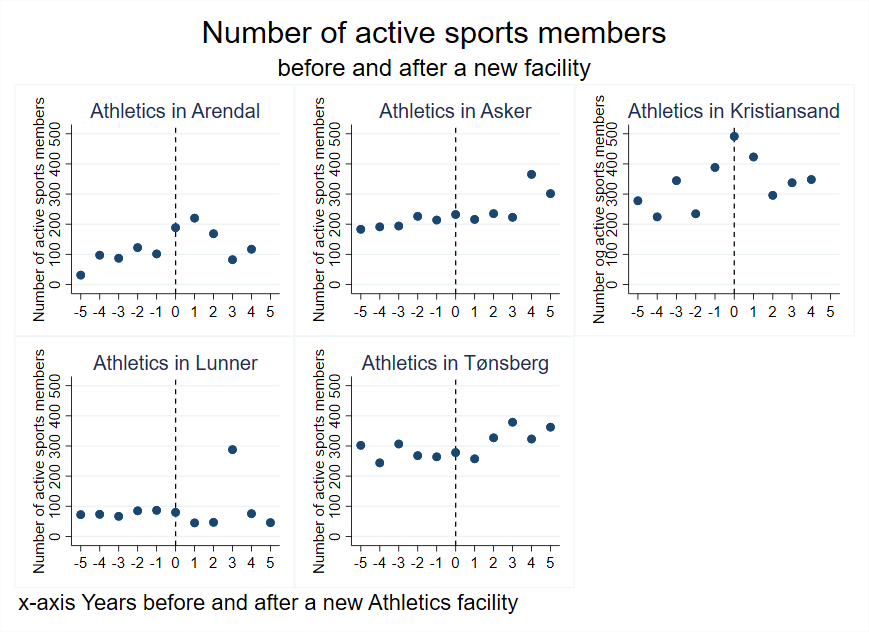


Figure The five graphs represents the municipalities Arendal, Asker, Kristiansand and Tønsberg which hare large municipalities in Norway and Lunner a medium sized municipality. These municipalities built new athletics facilities within the period from 2003 to 2016. The graphs show how the number of active sports members in athletics had developed five years before and five years after the facility came. The x-axis represents years before and after a new facility were established in each municipality. The y-axis stands for the number of active sports members in the Norwegian athletics federation.

## Appendix 14 Number of sports members in Gymnastics in Lunner and Ringerike

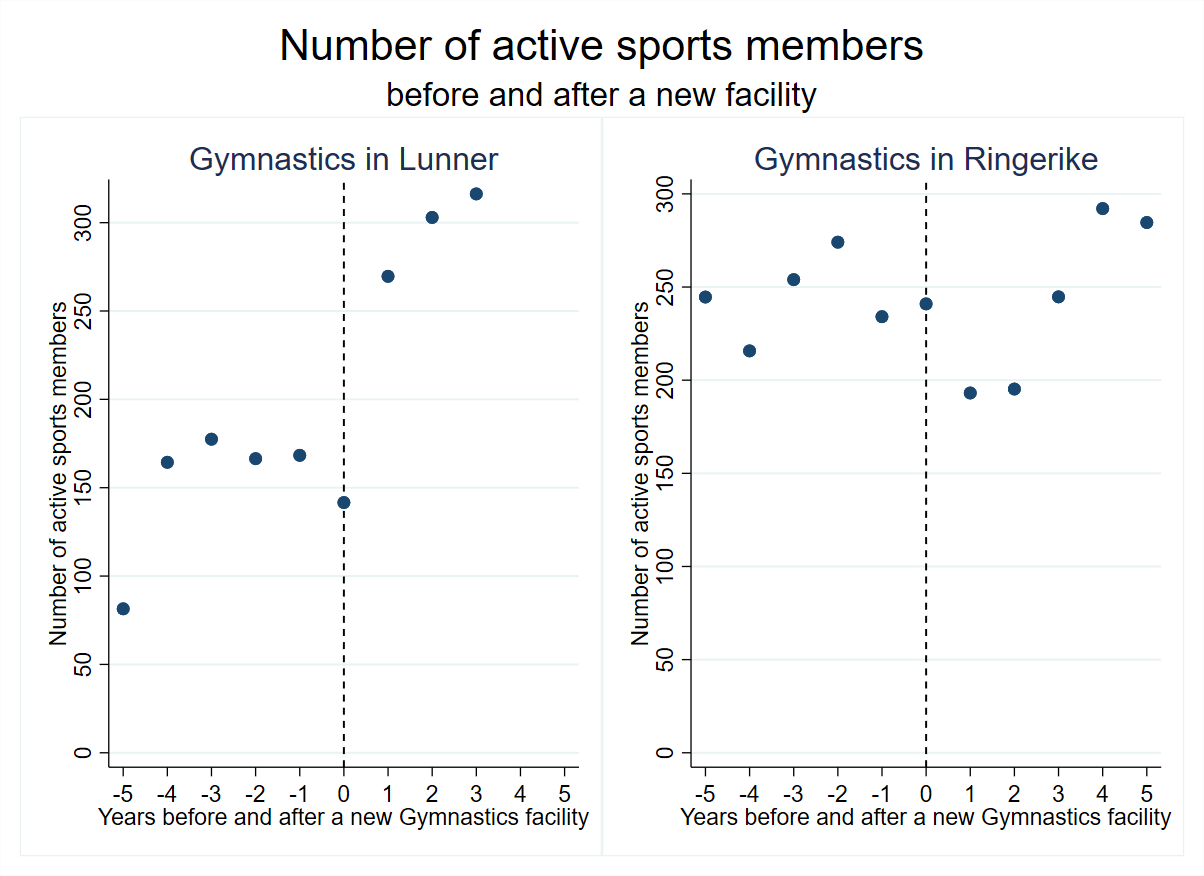
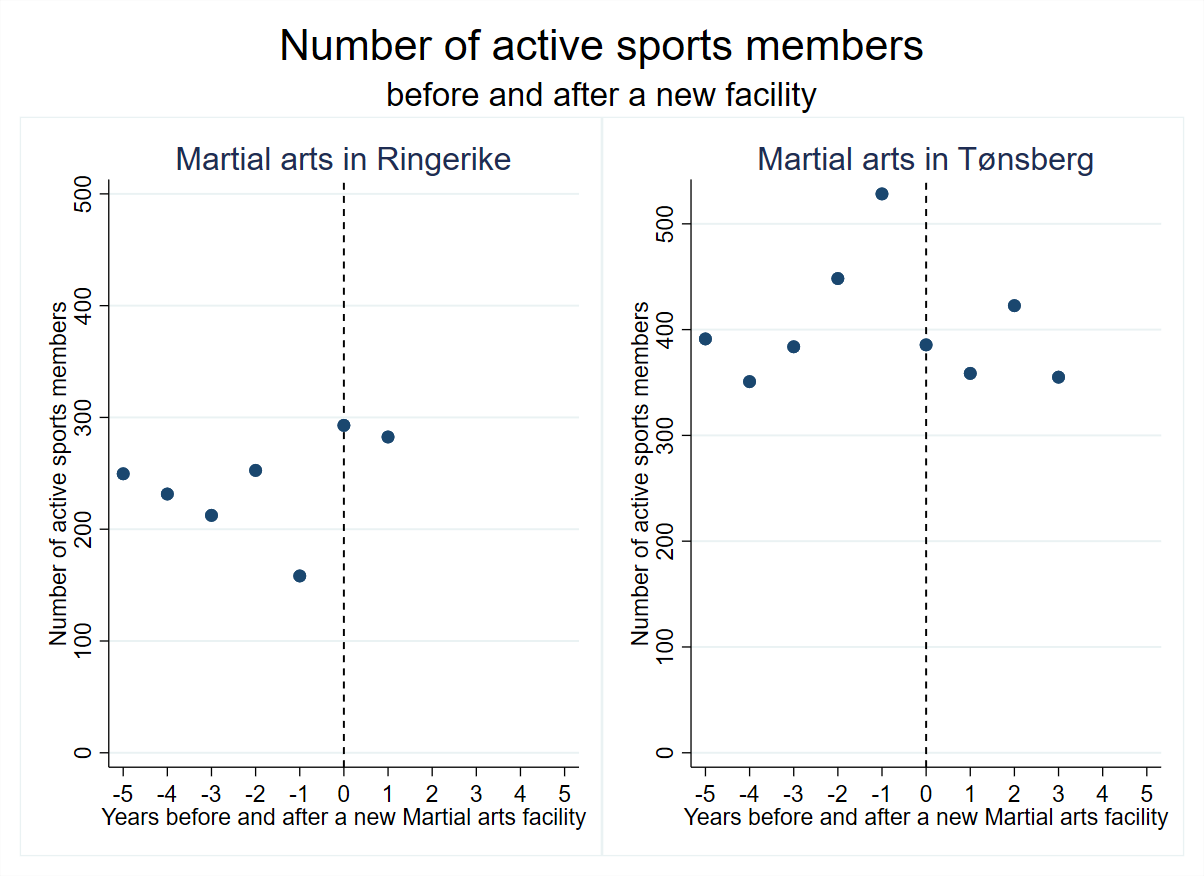


Figure 1 The two graphs represents the municipalities Lunner (medium municipality) and Ringerike (large municipality). These municipalities built new gymnastic facilities within the period from 2003 to 2016. The graphs show how the number of active members in gymnastic had developed five years before and five years after the facility came. The x-axis represents years before and after a new facility were established in each municipality. The y-axis stands for the number of active sports members in the Norwegian gymnastic federation.

## Appendix 15 Number of sports members in Martial arts in Ringerike and Tønsberg

Figure 2 The two graphs represents the two medium municipalities Ringrike and Tønsberg. These municipalities built new martial arts facilities within the period from 2003 to 2016. The graphs show how the number of active members in martial arts had developed five years before and five years after the facility came. The x-axis represents years before and after a new facility were established in each municipality. The y-axis stands for the number of active sports members in the Norwegian martial arts federation.



## Appendix 13 Activity in a large (Arendal) medium (Gjesdal) and small (Steigen) municipality all sports federations represented in that municipality.

Et bilde som inneholder skjermbilde

Automatisk generert beskrivelse

Et bilde som inneholder skjermbilde

Automatisk generert beskrivelse

Et bilde som inneholder skjermbilde

Automatisk generert beskrivelse

## Appendix 14 Estimated coefficients for the subsets in the robustness check.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Norway** | **South** | **North** |
|  | Active share per capita | Active share per capita | Active share per capita |
| # of sports specific Facilities per capita | 0.0019\*\*\* | 0.0026\*\*\* | 0.0012\* |
|  | (0.0004) | (0.0006) | (0.0005) |
| *N* | 243682 | 167425 | 76257 |
| *R*2  *Within*  *Between*  *Overall* | 0.0042  0.1142  0.0836 | 0.0041  0.1095  0.0860 | 0.0052  0.1281  0.0707 |
| *Time fixed effects* | Yes | Yes | Yes |

Standard errors in parentheses with clustered at mean level

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Small** | **Medium** | **Large** |
|  | Active share per capita | Active share per capita | Active share per capita |
| # of sports specific Facilities per capita | 0.0015\*\* | 0.0023\*\*\* | 0.0022\*\*\* |
|  | (0.0005) | (0.0007) | (0.0005) |
| *N* | 120805 | 87172 | 27787 |
| *R*2  *Within*  *Between*  *Overall* | 0.0037  0.1204  0.0796 | 0.0057 0.1136  0.0924 | 0.0153 0.1398  0.1044 |
| *Time fixed effects* | Yes | Yes | Yes |

Standard errors in parentheses with clustered at mean level

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001