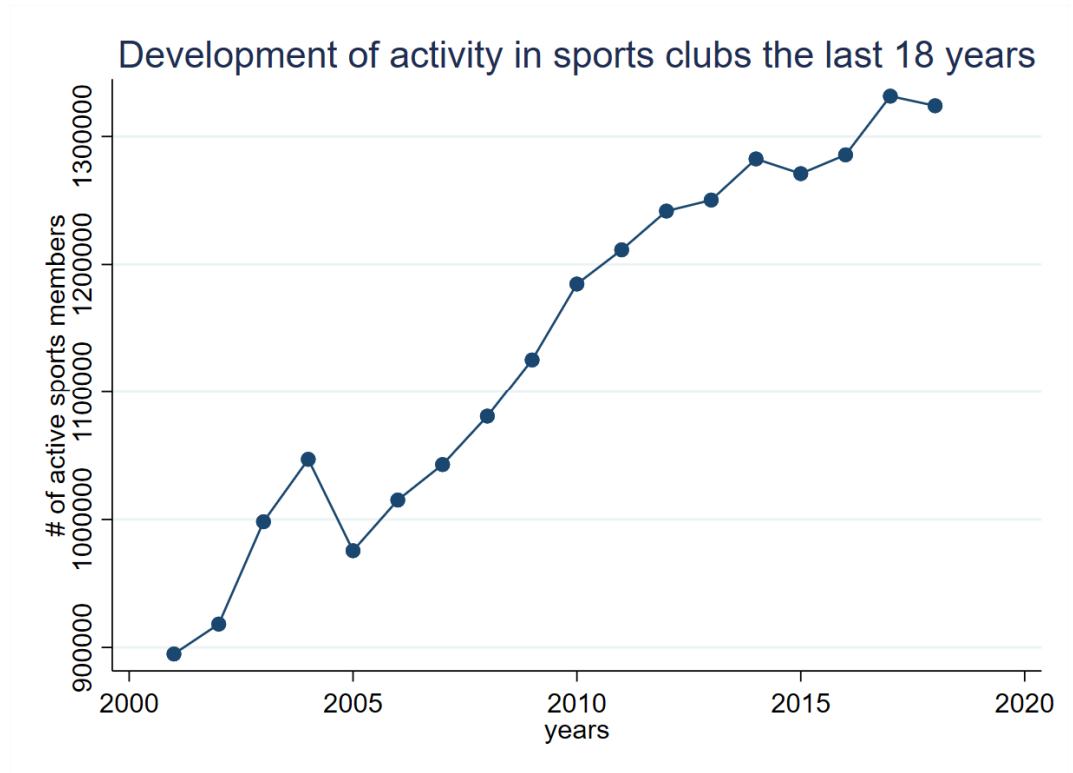
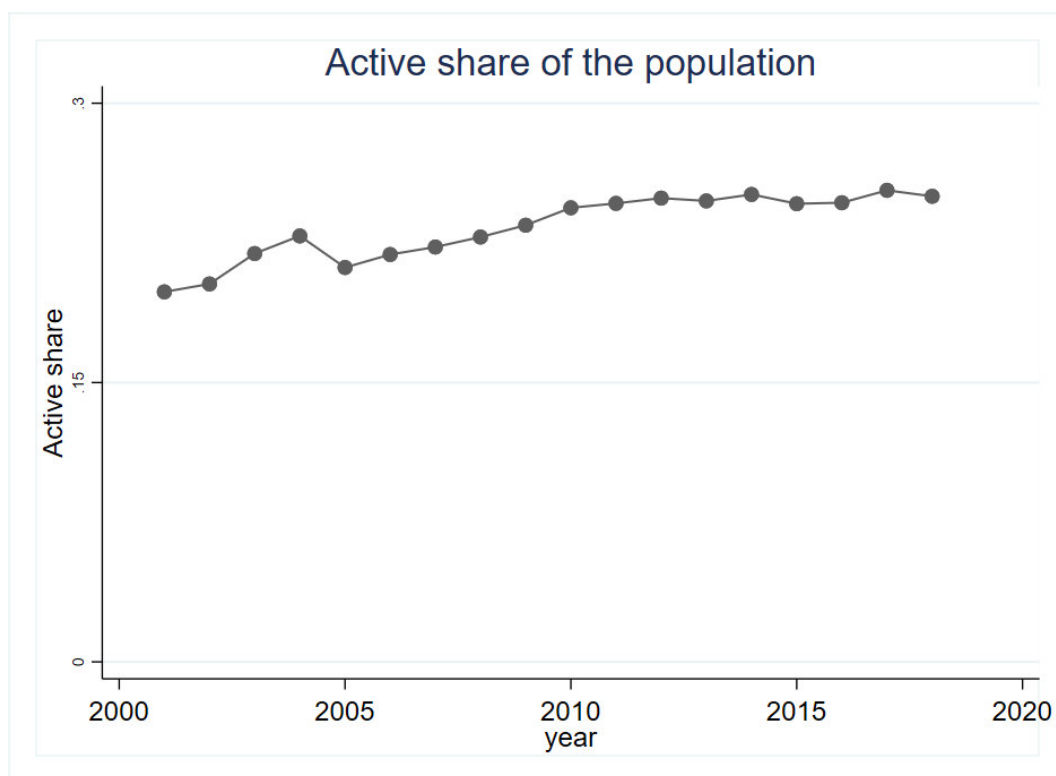


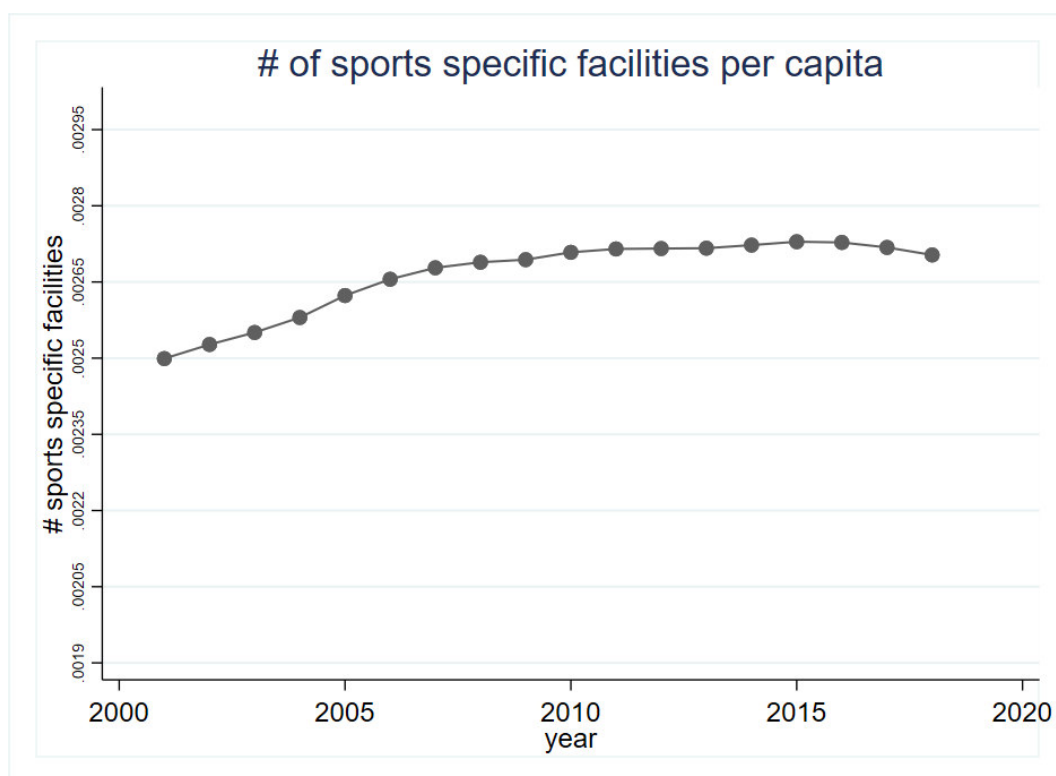
*Appendix 1 The developemnt of activ memberships in sports clubs the last 18 years.*



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



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



#### ***Appendix 4 Description of how the complete 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, I 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 to.

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 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, from sanitary facilities and offices to the major national sports facilities. Since I look 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 ones 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 is 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.

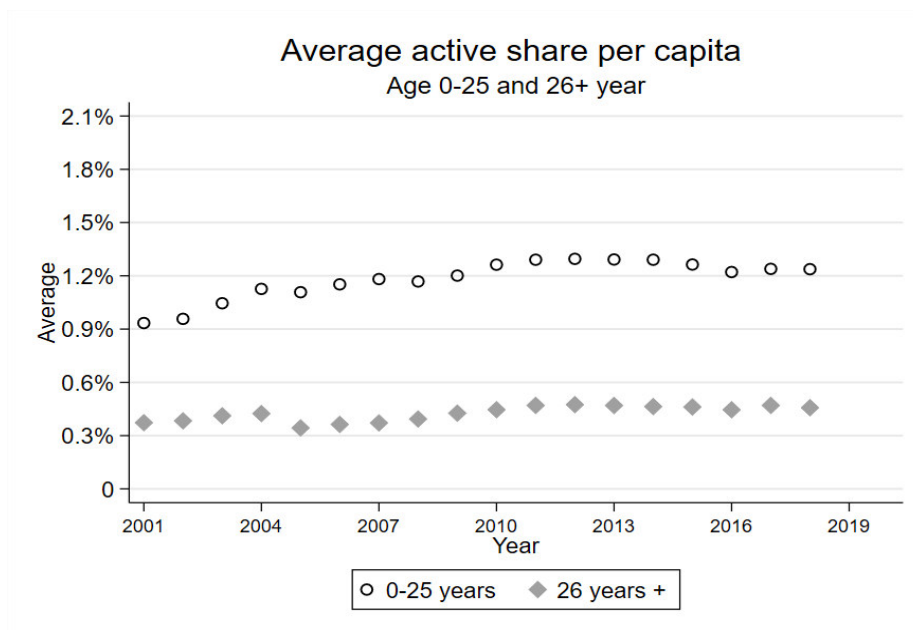
#### *The complete dataset*

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 Description of how the complete 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 categories from the facility register from the ministry of culture.*

<b>Category 1</b>	<b>Category 2</b>
Anleggsklasse	Nærmiljøanlegg
Anleggskategori	Friluftslivsanlegg
Anleggstype	Badeplass
Anleggstype	Bibliotek
Anleggstype	Båthus
Anleggstype	Dagsturhytte
	Flerbrukslokale for
Anleggstype	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
	Produksjons og øvel
Anleggstype	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.***

<b>Facility type / Facility category</b>	<b>Sports federations</b>
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 Norges Softball og Baseball Forbund
Baseballpitch / Mindre utendørsanlegg	Norges Motorsportforbund
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

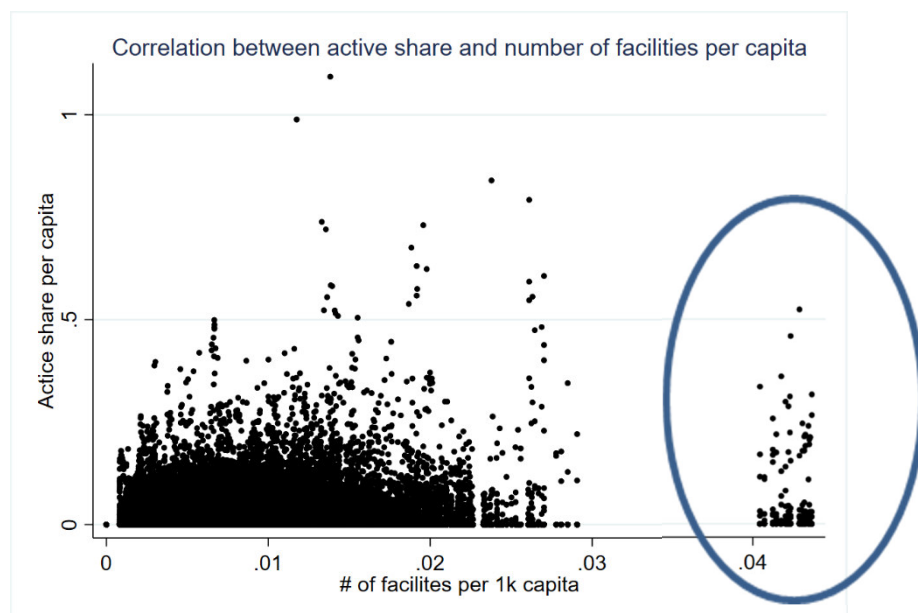
Kampidrettsanlegg / Idrettshaller og aktivitetssaler	Norges Kampsportforbund
Klatre/buldrevegg (inne) / Klatreanlegg	Norges Klatreforbund
Klatre/buldrevegg (ute) / Klatreanlegg	Norges Klatreforbund
Klatrehall / Klatreanlegg	Norges Klatreforbund
Korthullsbane / Golfanlegg	Norges Golfforbund
Langrennsanlegg / 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
	Norges Gymnastikk- og Turnforbund
Parkouranlegg / Mindre utendørsanlegg	Norges Friidrettsforbund
Petanquebane / Mindre utendørsanlegg	Norges Skytterforbund
Pistolbane (ute) / Skyteanlegg	Norges Rytterforbund
Ridebane / Hestesportanlegg	Norges Rytterforbund
Ridehall / Hestesportanlegg	Norges Rytterforbund
Ridesti / Hestesportanlegg	Norges Skytterforbund
Riflebane (ute) / Skyteanlegg	Norges Roforbund
Ro-/padleanlegg / Vannsportanlegg	Norges Skøyteforbund
Rulleskøytebane / Is- og skøyteanlegg	Norges Håndballforbund
Sandhåndballbane / Mindre utendørsanlegg	Norges Volleyballforbund
Sandvolleyballbane / Mindre utendørsanlegg	Skal ikke med
Sanitærbygg / Idrettshus og servicebygg	Norges Seilforbund
Seilanlegg / Vannsportanlegg	Brettforbundet
Skatehall / Skateanlegg	Brettforbundet
Skatepark / Skateanlegg	Norges Skiforbund
Skileikanlegg / Ski- og alpinanlegg	Norges Skiskytterforbund
Skiskytteranlegg / Ski- og alpinanlegg	Norges Motorsportforbund
Snøscooterbane / Motorsportanlegg	Norges Motorsportforbund
Speedway/longtrackbane / Motorsportanlegg	Norges Squashforbund
Squashanlegg / Racketsportsanlegg	Norges Rytterforbund
Stall / Hestesportanlegg	Norges Svømmeforbund
Stupebasseng (inne) / Svømme- og stupeanlegg	Norges Svømmeforbund
Stupebasseng (ute) / Svømme- og stupeanlegg	Norges Tennisforbund
Tennisbane (ute) / Racketsportsanlegg	Norges Tennisforbund
Tennishall / Racketsportsanlegg	Norges Cykleforbund
Terrensykkelløype / Sykkelanlegg	Norges Rytterforbund
Travbane / Hestesportanlegg	
Trenings-/konkurranserbasseng (inne) / Svømme- og stupeanlegg	Norges Svømmeforbund
Trenings-/konkurranserbasseng (ute) / Svømme- og stupeanlegg	Norges Svømmeforbund
Trial/enduroløype / Motorsportanlegg	Norges Motorsportforbund
	Norges Gymnastikk- og Turnforbund
Turnhall / Idrettshaller og aktivitetssaler	Norges Skiforbund
UDEFINERT / Ski- og alpinanlegg	

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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 facilities 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
<b>Norges Badmintonforbund</b>			
activesharetot	.001	.004	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	.001	.001	6586
<b>Norges Bandyforbund</b>			
activesharetot	.002	.006	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	.001	.001	6586
<b>Norges Basketballforbund</b>			
activesharetot	0	.001	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	.001	.001	6586
<b>Norges Bokseforbund</b>			
activesharetot	0	.001	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	.001	.001	6586
<b>Norges Bordtennisforbund</b>			
activesharetot	.001	.002	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Bryteforbund</b>			
activesharetot	.001	.009	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	.001	.001	6586
<b>Norges Bueskytterforbund</b>			
activesharetot	.001	.005	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Cykleforbund</b>			
activesharetot	.006	.022	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	.001	.001	6586
<b>Norges Danseforbund</b>			
activesharetot	.001	.018	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	.001	.001	6586
<b>Norges Dykkeforbund</b>			
activesharetot	.001	.003	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	.001	.001	6586

<b>Norges Fleridrettsforbund</b>			
activesharetot	.002	.007	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	.001	.001	6586
<b>Norges Fotballforbund</b>			
activesharetot	.062	.034	6586
SFfac prtotCapita	.001	.001	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Friidrettsforbund</b>			
activesharetot	.02	.039	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Golfforbund</b>			
activesharetot	.021	.054	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Gymnastikk- og Turnforbund</b>			
activesharetot	.01	.015	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Håndballforbund</b>			
activesharetot	.015	.016	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	.001	.001	6586
<b>Norges Ishockeyforbund</b>			
activesharetot	0	.002	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Kampsportforbund</b>			
activesharetot	.003	.005	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Klatreforbund</b>			
activesharetot	.002	.009	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Luftsportforbund</b>			
activesharetot	.002	.012	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	.001	.001	6586
<b>Norges Motorsportforbund</b>			
activesharetot	.006	.021	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Orienteringsforbund</b>			
activesharetot	.005	.01	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	.001	.001	6586
<b>Norges Padleforbund</b>			
activesharetot	.001	.003	6586
SFfac prtotCapita	0	0	6586

ComfacuniqePerCapita	.001	.001	6586
<b>Norges Rytterforbund</b>			
activesharetot	.005	.012	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Seilforbund</b>			
activesharetot	.001	.004	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Skiforbund</b>			
activesharetot	.048	.06	6586
SFfac prtotCapita	.001	.002	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Skiskytterforbund</b>			
activesharetot	.003	.008	6586
SFfac prtotCapita	0	.001	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Skytterforbund</b>			
activesharetot	.006	.009	6586
SFfac prtotCapita	.001	.001	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Skøyteforbund</b>			
activesharetot	.001	.005	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Squashforbund</b>			
activesharetot	0	.001	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Styrkeløftforbund</b>			
activesharetot	.001	.005	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	.001	.001	6586
<b>Norges Svømmeforbund</b>			
activesharetot	.006	.012	6586
SFfac prtotCapita	.001	.001	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Tennisforbund</b>			
activesharetot	.001	.004	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	0	0	6586
<b>Norges Triatlonforbund</b>			
activesharetot	0	.003	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	.001	.001	6586
<b>Norges Volleyballforbund</b>			
activesharetot	.004	.016	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	.001	.001	6586

<b>Other</b>			
activesharetot	.004	.01	6586
SFfac prtotCapita	0	0	6586
ComfacuniqePerCapita	.001	.001	6586

**Appendix 9 Coefficients per sports federation for the fixed effects (SFfac\_prtotCapita)**

	(1) Table Tennis Active share capita level	(2) Archery Active share capita level	(3) Football Active share capita level	(4) Athletics 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)
<i>N</i>	6586	6586	6586	6586
<i>R</i> <sup>2</sup>				
Within	0.0269	0.0056	0.0155	0.0579
Between	0.0008	0.0002	0.0211	0.1144
<b>Overall</b>	0.0025	0.0016	0.0184	0.0817

Standard errors in parentheses  
\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

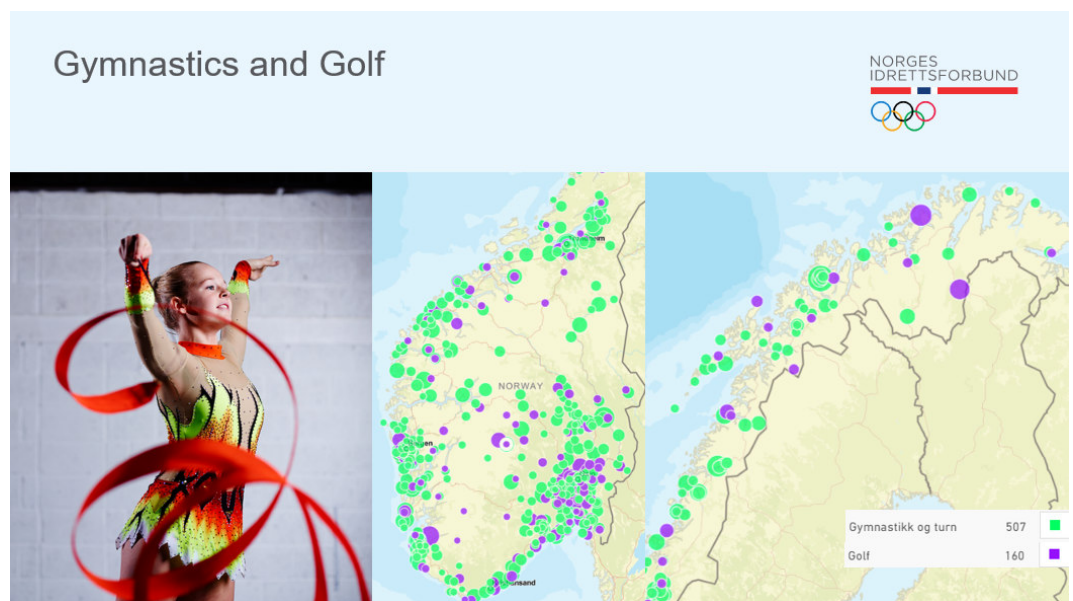
	(5) Golf Active share capita level	(6) Gymnastics Active share capita level	(7) Ishockey Active share capita level	(8) Martial Arts Active share capita level
# of sports Facilities per capita level (SFfac_prtotCapita)	0.0109*** (0.0033)	0.0011* (0.0005)	0.0006 (0.0004)	0.0003 (0.0002)
<i>N</i>	6586	6586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

	(9) Climbing Active share capita level	(10) Motorsport Active share capita level	(11) Riding Active share capita level	(12) Sailing 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)
<i>N</i>	6586	6586	6586	6586
<i>R</i> <sup>2</sup>				
Within	0.0718	0.0074	0.0051	0.0175
Between	0.0268	0.1574	0.0556	0.0782
<b>Overall</b>	0.0361	0.0662	0.0344	0.0673

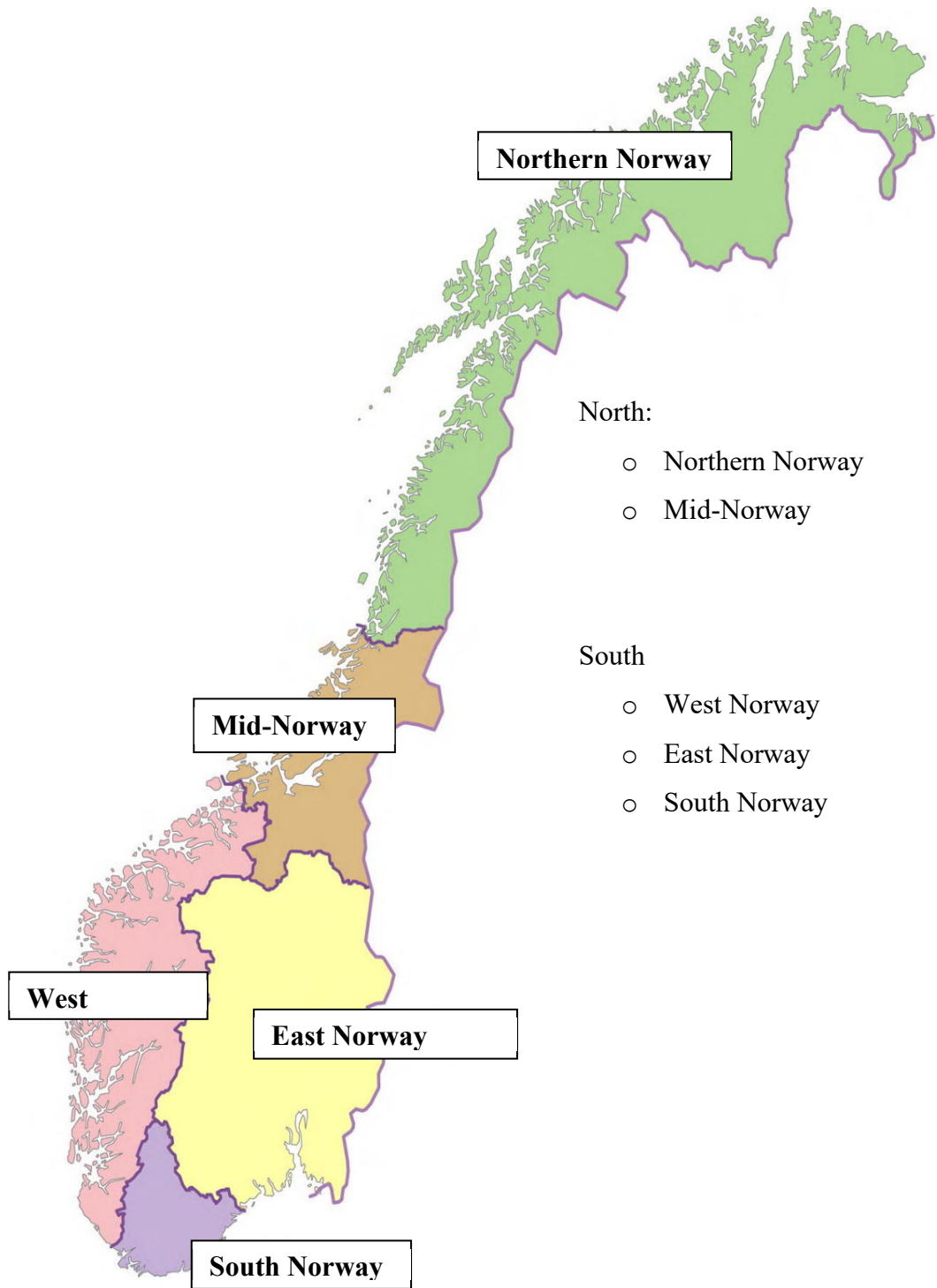
	(13) Ski Active share capita level	(14) Biathlon Active share capita level	(15) Shooting Active share capita level	(16) Skates Active share capita level
# of sports Facilities per capita level (SFfac prtotCapita)	0.0034 (0.0115)	0.0002 (0.0006)	-0.0006 (0.0009)	0.0005* (0.0002)
<i>N</i>	6586	6586	6586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

	(17) Squash Active share capita level	(18) Swimming Active share capita level	(19) Tennis Active share capita level
# of sports Facilities per capita level (SFfac prtotCapita)	0.0000 (0.0000)	-0.0001 (0.0004)	0.0004 (0.0003)
<i>N</i>	6586	6586	6586
<i>R</i> <sup>2</sup>			
Within	0.0067	0.0330	0.0061
Between	0.0007	0.0013	0.0082
<b>Overall</b>	0.0032	0.0092	0.0079

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



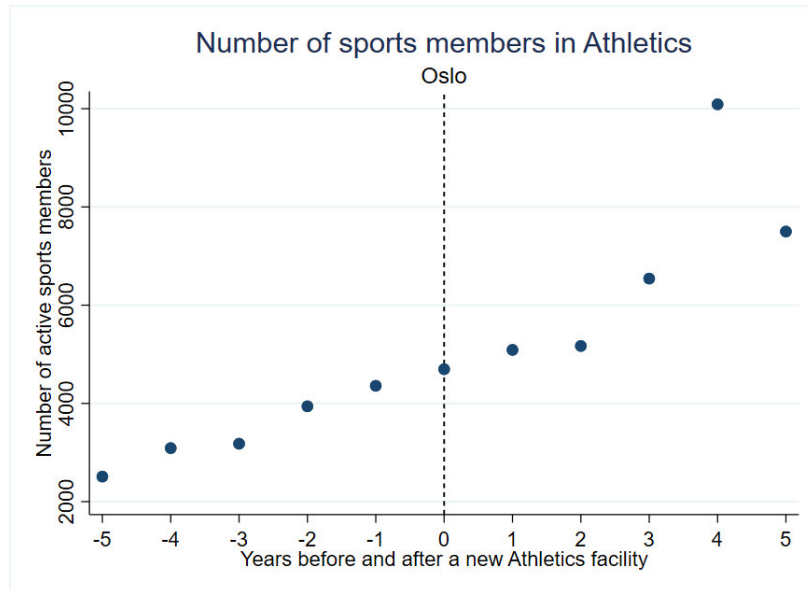
*Appendix 11 The split of Norway into south and north.*



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

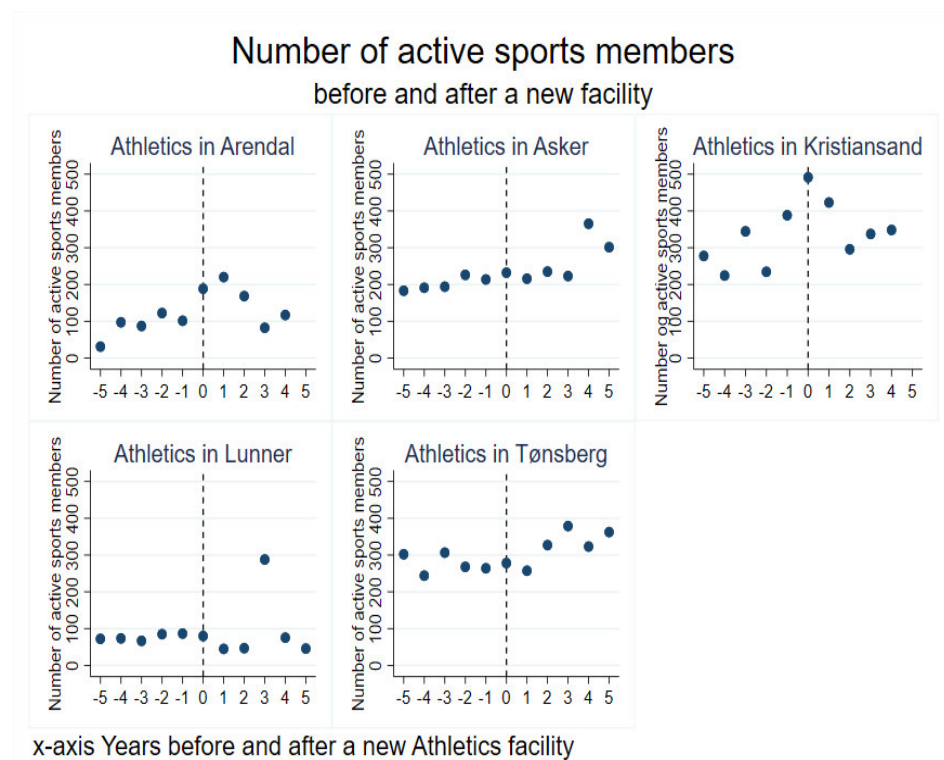


*Appendix 12 Number of sports members in Athletics in Oslo*



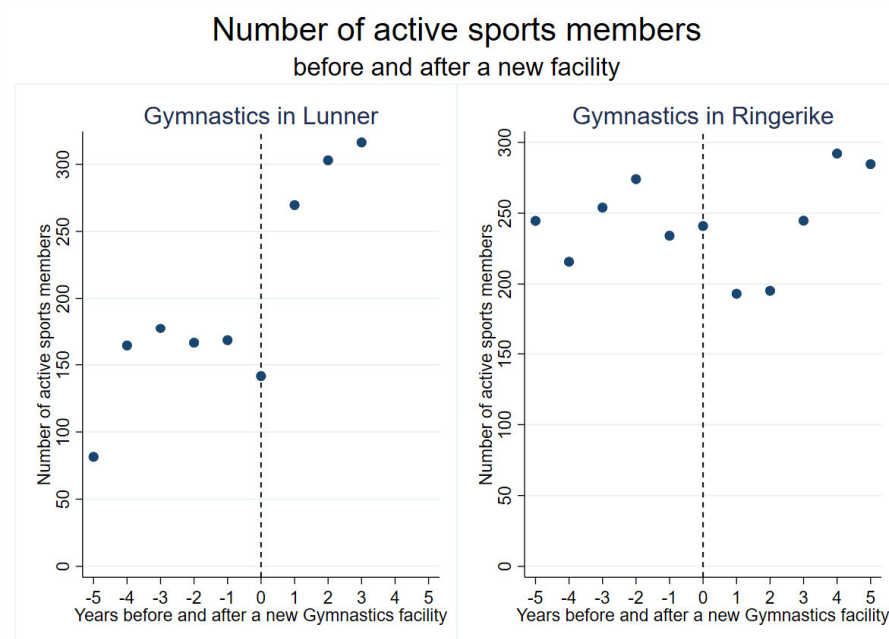
*Figure The capital of Norway and built a new athletics facility within the period from 2003 to 2016. The graphs show how the actual activity in athletics had developed five years before and five years after the facility came. The x-axis represents years before and after a new facility were established 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.**



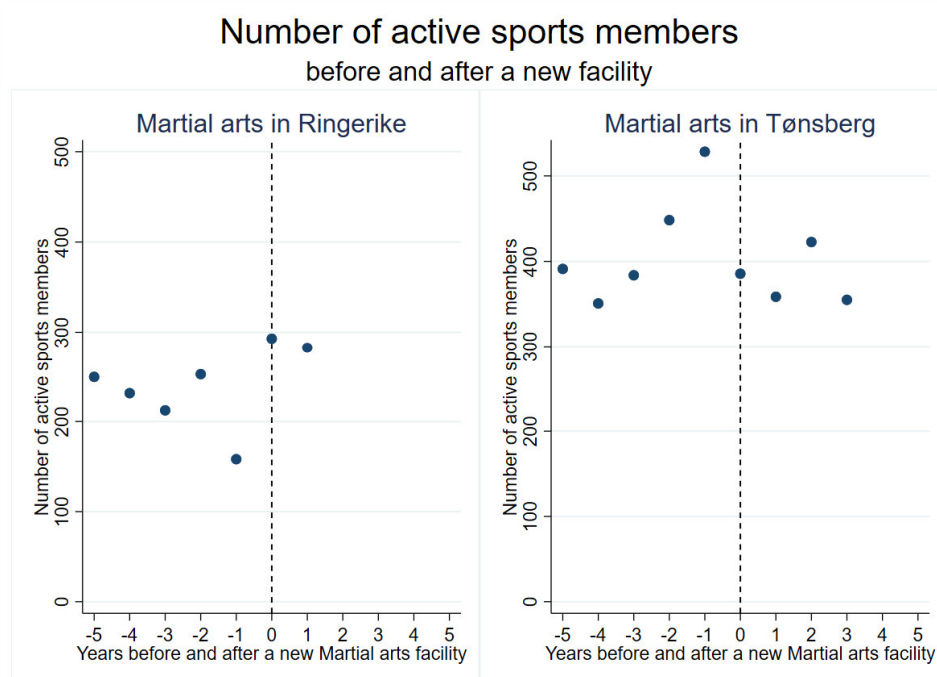
*Figure The five graphs represents the municipalities Arendal, Asker, Kristiansand and Tønsberg which have large municipalities in Norway and Lunner a medium sized municipality. These municipalities built new athletics facilities within the period from 2003 to 2016. The graphs show how the number of 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**



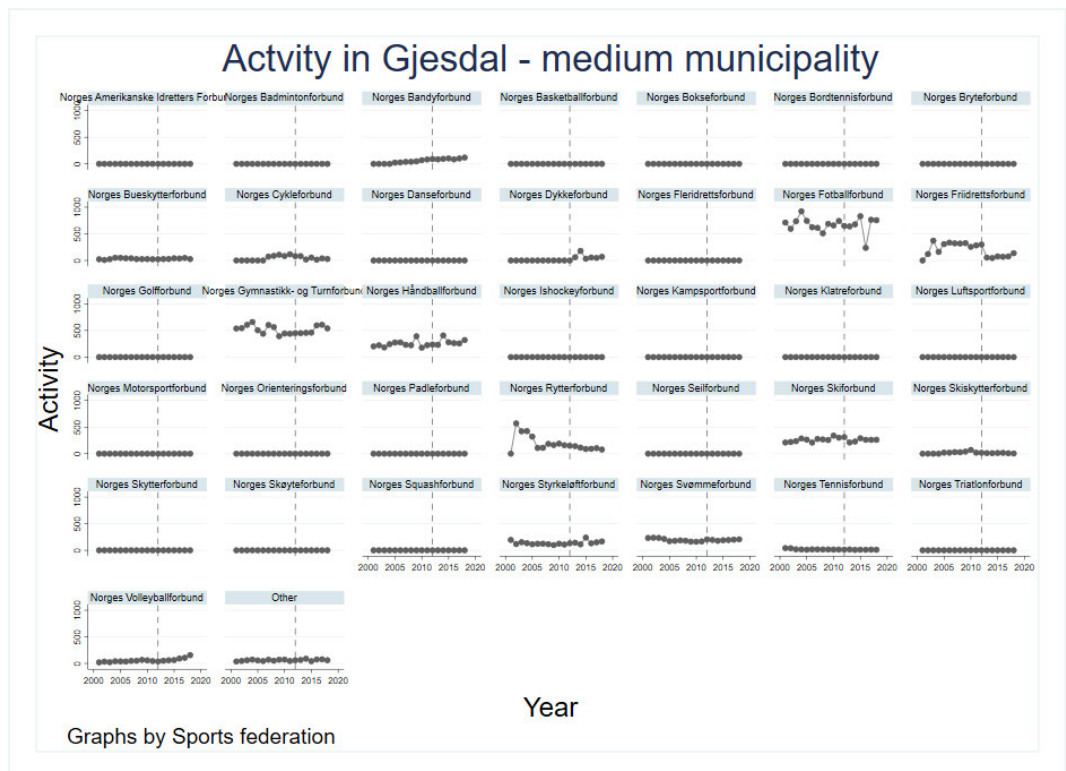
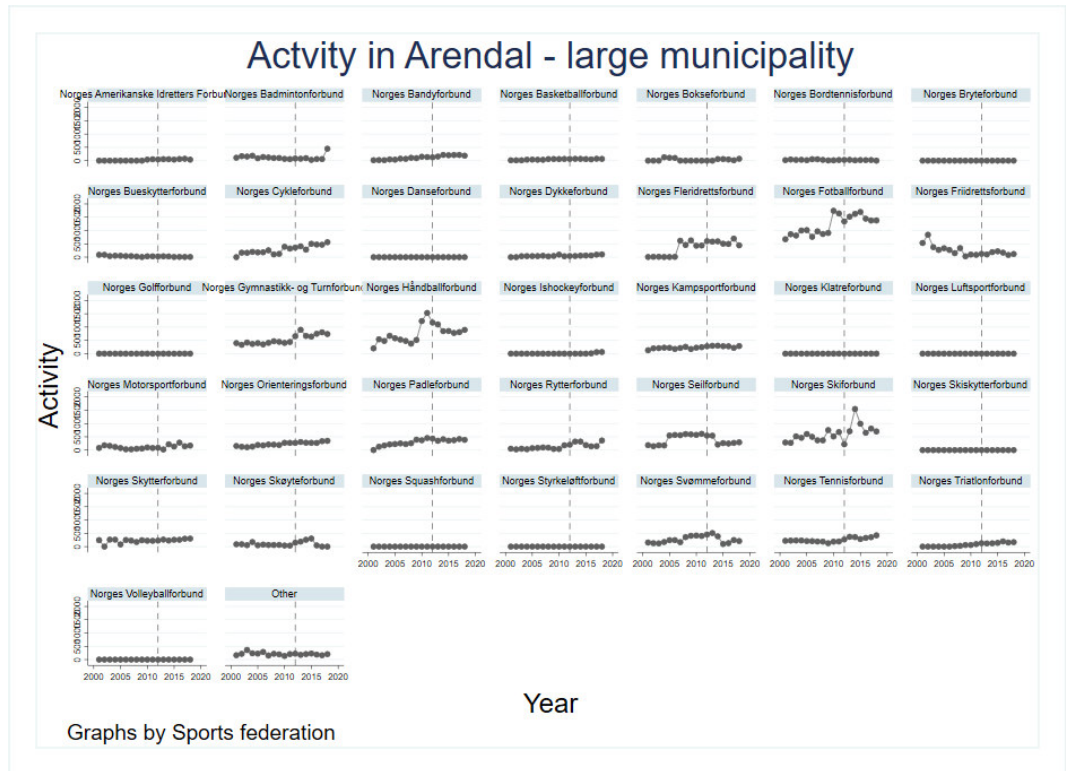
*Figure 1 The two graphs represents the municipalities Lunner (medium municipality) and Ringerike (large municipality). These municipalities built new gymnastic facilities within the period from 2003 to 2016. The graphs show how the number of active members in gymnastic had developed five years before 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.*

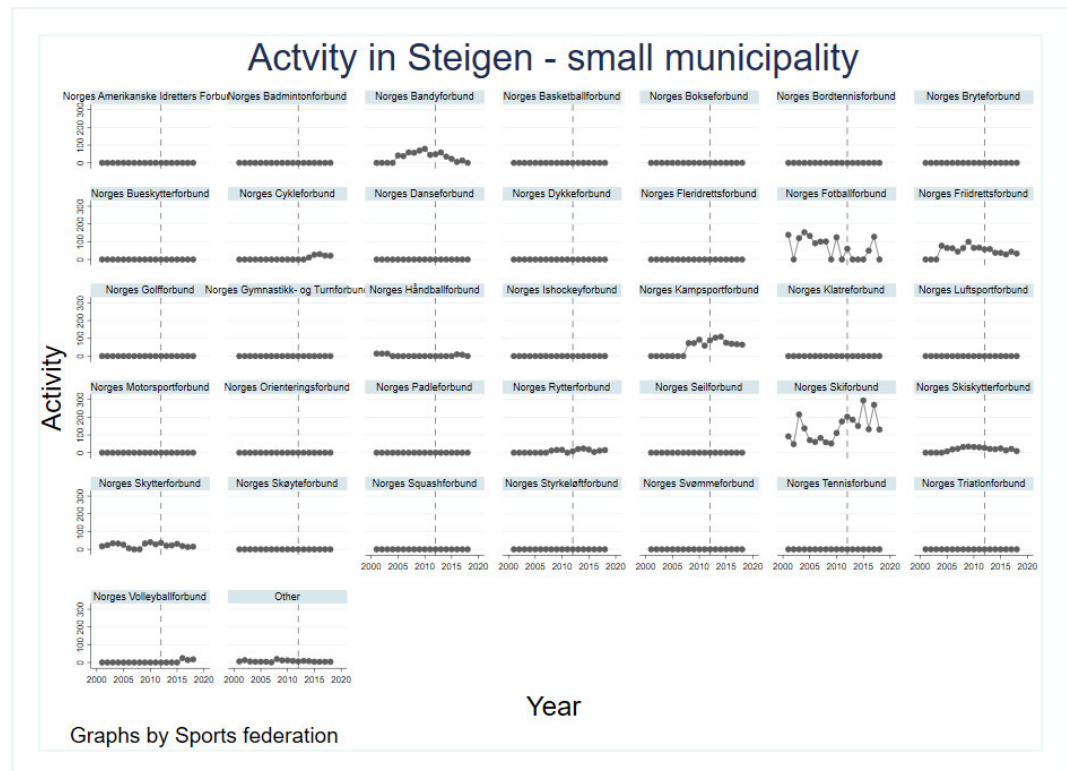
**Appendix 15 Number of sports members in Martial arts in Ringerike and Tønsberg**



*Figure 2 The two graphs represents the two medium municipalities Ringerike 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.**





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

	<b>Norway</b>	<b>South</b>	<b>North</b>
	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)
<i>N</i>	243682	167425	76257
<i>R</i> <sup>2</sup>			
<i>Within</i>	0.0042	0.0041	0.0052
<i>Between</i>	0.1142	0.1095	0.1281
<i>Overall</i>	0.0836	0.0860	0.0707
<i>Time fixed effects</i>	Yes	Yes	Yes

Standard errors in parentheses with clustered at mean level

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

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

Standard errors in parentheses with clustered at mean level

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