

## Leemann & Baccini

- 1995 – 2010
- 8 Votes excl. Nuclear Votes
- Income: Fixed means
- Disaster: only medium and high
- Risk: flood, are etc.
- Education: Tert Sekund & Tertiary

## Keel

- 1995 – 2023
- 19 votes incl. 2x Nuclear votes
- Income: accurate, yearly
- Disaster: low, medium and high (updated data 1995-2010 and new 2011-2023 from provider)
- Risk: taken from leemann & baccini
- Education: taken from leemann & baccini (accurate data required from stats office)
- Age: accurate per year and municipality
- Religion: Was in the Age-Dataset so was taken into consideration
- Gender: Per Municipality in share and coded as 0(male), 1(female)

# Main finding: In comparison

The main finding of Leemann & Baccini was that if municipalities were affected by a natural disaster the yes vote share for environmental votes would go up by 20%. (actually 22.7%)

With the more accurate and expanded data, also by taking in the 2 nuclear votes and recoding them, I get a positive effect of 3.13%

more detailed data and more votes:

Average Effect of Treatment overall: 7.10% |  $(3.13/44.08) \times 100$  (44.08% average yes of the 19 votes)

# Leemann & Baccini 1995 – 2010

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[1] "#####"
[1] "#####"
[1] "Table 1"
[1] "#####"
[1] "#####"
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	Model 1	Model 2	Model 3
Flooded	0.86 ** (0.42)	1.28 *** (0.42)	1.19 *** (0.42)
Green Party %	0.12 *** (0.04)		0.01 (0.04)
Social Democrats %	0.21 *** (0.03)		0.23 *** (0.03)
Christian Democrats %	-0.12 *** (0.03)		-0.07 ** (0.03)
Liberal Democrats %	-0.02 (0.03)		0.06 ** (0.03)
Swiss People's Party %	0.06 *** (0.02)		0.13 *** (0.02)
Rainfall		0.33 (0.42)	0.68 (0.43)
No vegetation		-14.71 (64.97)	-23.48 (36.34)
Share of Water		-0.27 (15.10)	-0.33 (3.48)
Share of Gras		-0.18 (0.99)	-0.75 (1.20)
Artificial		0.85 (7.60)	1.51 (4.29)
Intercept	30.60 *** (3.31)	38.60 (52.91)	49.95 (86.33)
R^2	0.82	0.84	0.85
Adj. R^2	0.80	0.82	0.82
Num. obs.	21024	18320	17934

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# Keel 1995 – 2023

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	Model 1	Model 2	Model 3
Disaster	0.40 *** (0.14)	0.54 *** (0.14)	0.40 *** (0.14)
Green Party %	0.55 *** (0.02)		0.55 *** (0.02)
Social Democrats %	0.25 *** (0.01)		0.25 *** (0.01)
Christian Democrats %	-0.02 *** (0.01)		-0.02 *** (0.01)
Liberal Democrats %	0.73 *** (0.05)		0.73 *** (0.05)
Swiss People's Party %	-0.01 (0.01)		-0.01 (0.01)
Rainfall		-284.79 (348.24)	-141.74 (339.74)
No vegetation		-45.78 (50.08)	-23.04 (48.84)
Share of Water		3.06 (2.11)	1.31 (2.06)
Share of Gras		-1.68 (2.03)	-0.87 (1.98)
Artificial		0.45 (0.62)	0.18 (0.60)
Intercept	45.27 *** (1.96)	479.79 (521.54)	258.37 (508.76)
R^2	0.83	0.82	0.83
Adj. R^2	0.82	0.81	0.82
Num. obs.	40474	40455	40455

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# Interpretation

The summary is less effective than the one from leemann. The green party has more influence on average on the positive outcome.

## Leemann & Baccini 1995 – 2010

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[1] "#####"
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[1] "### Table 2 (ATT)"
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[1] "#####"
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[1] "#####"
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Call:  
`svyglm(formula = Yl ~ treatment, design = des1)`

Survey design:  
`svydesign(id = ~1, weights = ~weight.L, data = dat)`

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	25.2930	0.2394	105.639	< 2e-16 ***
treatment	2.3303	0.7229	3.224	0.00127 **

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Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for gaussian family taken to be 201.9706)

Number of Fisher Scoring iterations: 2

	[,1]	[,2]	[,3]	[,4]	[,5]
Flooding Risk	"0.68"	"0.29"	"0"	"0.68"	"0.68"
Surface: % No vegetation	"8.46"	"3.38"	"0"	"8.46"	"8.46"
Surface: % Water	"3.69"	"1.63"	"0"	"3.69"	"3.69"
Surface: % Gras	"31.72"	"44.68"	"0"	"31.72"	"31.72"
Surface: % Artificial	"17.51"	"13.16"	"0"	"17.51"	"17.51"
Altitude (in m)	"602.68"	"584.16"	"0.21"	"602.68"	"602.68"
Rainfall (per sqkm)	"1.31"	"2.43"	"0"	"1.31"	"1.31"
Steepness in %	"15.29"	"9.59"	"0"	"15.29"	"15.29"
Social Democrats (%)	"19.47"	"18.56"	"0.04"	"19.47"	"19.47"
Christian Democrats (%)	"23.64"	"16.68"	"0"	"23.64"	"23.64"
Greens (%)	"5.03"	"5.65"	"0.02"	"5.03"	"5.03"
Liberals (%)	"18.32"	"18.28"	"0.94"	"18.32"	"18.32"
Swiss People's Party (%)	"25.01"	"27.6"	"0"	"25.01"	"25.01"

## Keel 1995 – 2023

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[1] "#####"
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[1] "#####"
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[1] "### Table 2 (ATT)"
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[1] "#####"
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[1] "#####"
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Call:  
`svyglm(formula = Yl1 ~ treatment1, design = des1)`

Survey design:  
`svydesign(id = ~1, weights = ~weight.L1, data = dat1)`

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	38.1441	0.1495	255.122	< 2e-16 ***
treatment1	1.0343	0.2978	3.473	0.000515 ***

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Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for gaussian family taken to be 392.4548)

Number of Fisher Scoring iterations: 2

	[,1]	[,2]	[,3]	[,4]	[,5]
Flooding Risk	"0.58"	"0.31"	"0"	"0.58"	"0.58"
Surface: % No vegetation	"4.26"	"3.23"	"0"	"4.26"	"4.26"
Surface: % Water	"2.33"	"1.72"	"0"	"2.33"	"2.33"
Surface: % Gras	"38.63"	"45.32"	"0"	"38.63"	"38.63"
Surface: % Artificial	"17.6"	"13.79"	"0"	"17.6"	"17.6"
Altitude (in m)	"570.09"	"591.56"	"0"	"570.09"	"570.09"
Rainfall (per sqkm)	"1.71"	"2.13"	"0"	"1.71"	"1.71"
Steepness in %	"11.89"	"9.3"	"0"	"11.89"	"11.89"
Social Democrats (%)	"17.54"	"17.04"	"0"	"17.54"	"17.54"
Christian Democrats (%)	"16.19"	"15.2"	"0"	"16.19"	"16.19"
Greens (%)	"6.32"	"6.69"	"0"	"6.32"	"6.32"
Liberals (%)	"1.76"	"1.78"	"0.51"	"1.76"	"1.76"
Swiss People's Party (%)	"29.42"	"30.05"	"0"	"29.42"	"29.42"

# remarks

Balancing works

Leemann & Baccini 1995 – 2010

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[1] "#####"
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[1] "#####"
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[1] "Table 3 (Heterogeneity in Space)"
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[1] "#####"
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[1] "#####"
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	Model 1	Model 2	Model 3
(Intercept)	25.29 *** (0.24)	17.93 *** (0.84)	19.46 *** (0.57)
treatment	2.33 *** (0.72)	2.56 *** (0.70)	-0.96 (1.87)
vdata1.Tertiar		55.77 *** (6.11)	44.15 *** (3.69)
treatment:vdata1.Tertiar			27.11 * (14.34)
Deviance	3613859.29	3439086.06	3428969.89
Dispersion	201.97	192.20	191.64
Num. obs.	17894	17894	17894

Keel 1995 – 2023

	Model 1	Model 2	Model 3
(Intercept)	38.14 *** (0.15)	33.66 *** (0.41)	35.17 *** (0.41)
treatment1	1.03 *** (0.30)	1.27 *** (0.30)	-2.28 *** (0.86)
adata1.tert_share		30.44 *** (2.53)	20.19 *** (2.49)
treatment1:adata1.tert_share			24.85 *** (5.59)
Deviance	15876368.20	15743946.26	15722548.08
Dispersion	392.45	389.18	388.65
Num. obs.	40455	40455	40455

# Interpretation

Entropy balanced model shows that more educated people in municipalities have greater positive impact on yes vote share when the municipality was affected. Nevertheless, the effect is smaller than in the previous study.



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[1] "#####"
[1] "#####"
[1] "Table 4 (Heterogeneity in Time)"
[1] "#####"
[1] "#####"
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	Model V	Model VIII
Constant	25.29 *** (0.24)	25.29 *** (0.24)
Treatment	2.33 *** (0.72)	9.43 *** (2.19)
Time betw. Flood and Vote		-0.99 *** (0.26)
Deviance	3613859.29	3532603.57
Dispersion	201.97	197.43
Num. obs.	17894	17894

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[1] "#####"
[1] "#####"
[1] "Table 4 (Heterogeneity in Time)"
[1] "#####"
[1] "#####"
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	Model V	Model VIII
Constant	38.14 *** (0.15)	38.14 *** (0.15)
Treatment	1.03 *** (0.30)	3.13 *** (0.48)
Time betw. Flood and Vote		-0.32 *** (0.07)
Deviance	15876368.20	15853009.74
Dispersion	392.45	391.88
Num. obs.	40455	40455

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# Interpretation

The effect is smaller and not 20(22.7%) as claimed by Leemann and Baccini but rather:

7.10%

# New Variables

1995 – 2023

I am checking the new and/or more accurate variables within the disaster frame for the timerange 199%-2023

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[1] "#####"
[1] "#####"
[1] "Table 1 - Income"
[1] "#####"
[1] "#####"

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	Model 1	Model 2	Model 3
Intercept	51.69 *** (1.97)	258.37 (508.76)	272.99 (507.09)
Disaster	0.53 *** (0.14)	0.40 *** (0.14)	0.39 *** (0.14)
Inc. =<30	0.01 ** (0.00)		-0.01 (0.00)
Inc. 30-40	-0.20 *** (0.04)		-0.21 *** (0.04)
Inc. 40-50	-0.02 (0.03)		-0.01 (0.03)
Inc. 50-75	-0.01 (0.01)		-0.00 (0.01)
Inc. 75<	0.10 *** (0.00)		0.07 *** (0.00)
Green Party %		0.55 *** (0.02)	0.52 *** (0.02)
Social Democrats %		0.25 *** (0.01)	0.23 *** (0.01)
Christian Democrats %		-0.02 *** (0.01)	-0.04 *** (0.01)
Liberal Democrats %		0.73 *** (0.05)	0.69 *** (0.05)
Swiss People's Party %		-0.01 (0.01)	-0.01 (0.01)
Rainfall		-141.74 (339.74)	-146.96 (338.63)
No vegetation		-23.04 (48.84)	-26.47 (48.68)
Share of Water		1.31 (2.06)	0.32 (2.06)
Share of Gras		-0.87 (1.98)	-0.98 (1.97)
Artificial		0.18 (0.60)	0.17 (0.60)
R^2	0.83	0.83	0.83
Adj. R^2	0.82	0.82	0.83
Num. obs.	40474	40455	40455

# Interpretation

People with 30-40k gross net income tend to vote against pro environmental, even if affected.

People with 75k+ gross net income tend to vote pro environmental when affected.

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[1] "#####"
[1] "Table 2 - Age"
[1] "REFERENCE: AGE 0-17"
[1] "#####"
[1] "#####"

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	Model 1	Model 2	Model 3
Intercept	-53.17 *** (14.32)	258.37 (508.76)	175.95 (508.06)
Disaster	0.49 *** (0.14)	0.40 *** (0.14)	0.37 *** (0.14)
Age 18-30	1.35 *** (0.15)		1.13 *** (0.15)
Age 31-45	2.06 *** (0.15)		1.61 *** (0.15)
Age 46-65	1.28 *** (0.15)		0.99 *** (0.14)
Age 66-85	0.91 *** (0.15)		0.70 *** (0.15)
Age 86-100	0.50 *** (0.15)		0.37 *** (0.14)
Green Party %		0.55 *** (0.02)	0.52 *** (0.02)
Social Democrats %		0.25 *** (0.01)	0.22 *** (0.01)
Christian Democrats %		-0.02 *** (0.01)	-0.03 *** (0.01)
Liberal Democrats %		0.73 *** (0.05)	0.68 *** (0.05)
Swiss People's Party %		-0.01 (0.01)	-0.00 (0.01)
Rainfall		-141.74 (339.74)	-140.80 (338.67)
No vegetation		-23.04 (48.84)	-25.50 (48.65)
Share of Water		1.31 (2.06)	0.82 (2.06)
Share of Gras		-0.87 (1.98)	-0.91 (1.97)
Artificial		0.18 (0.60)	0.13 (0.60)
R^2	0.83	0.83	0.84
Adj. R^2	0.82	0.82	0.83
Num. obs.	40474	40455	40455

# Interpretation

All age groups tend to have an impact on yes vote % when affected. Especially 31-45 year olds. The effect diminishes afterwards the older the people get.

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[1] "#####"
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[1] "#####"
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[1] "Table 3 – EDUCATION"
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[1] "REFERENCE: Edu NULL"
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[1] "#####"
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[1] "#####"
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	Model 1	Model 2	Model 3
Intercept	-42.00 *** (7.06)	258.37 (508.76)	408.25 (501.57)
Disaster	0.45 *** (0.14)	0.40 *** (0.14)	0.36 *** (0.14)
Edu BASIC	2.15 *** (0.06)		1.70 *** (0.06)
Edu MATURA	1.20 *** (0.07)		0.97 *** (0.07)
Edu TERTIARY	0.53 *** (0.08)		0.44 *** (0.08)
Green Party %		0.55 *** (0.02)	0.39 *** (0.02)
Social Democrats %		0.25 *** (0.01)	0.24 *** (0.01)
Christian Democrats %		-0.02 *** (0.01)	-0.00 (0.01)
Liberal Democrats %		0.73 *** (0.05)	0.55 *** (0.05)
Swiss People's Party %		-0.01 (0.01)	-0.02 *** (0.01)
Rainfall		-141.74 (339.74)	-316.40 (334.93)
No vegetation		-23.04 (48.84)	-45.67 (48.15)
Share of Water		1.31 (2.06)	5.35 *** (2.04)
Share of Gras		-0.87 (1.98)	-1.67 (1.95)
Artificial		0.18 (0.60)	0.93 (0.60)
R^2	0.83	0.83	0.84
Adj. R^2	0.82	0.82	0.83
Num. obs.	40474	40455	40455



# INterpretation

Edu Basic has the biggest positive effect in comparison to edu Null.

It is debatable, whether that can be linked with income, as it is counterintuitive.

Question: How to really interpret this?

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[1] "#####"
[1] "#####"
[1] "Table 4 - Gender"
[1] "REFERENCE: 1 = Female / 0 = Male"
[1] "#####"
[1] "#####"

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	Model 1	Model 2	Model 3
Intercept	47.56 *** (1.96)	258.37 (508.76)	60.10 (65.98)
Disaster	0.54 *** (0.14)	0.40 *** (0.14)	0.40 *** (0.14)
Female Share	11.09 *** (2.77)		-37.55 (105.55)
Green Party %		0.55 *** (0.02)	0.55 *** (0.02)
Social Democrats %		0.25 *** (0.01)	0.25 *** (0.01)
Christian Democrats %		-0.02 *** (0.01)	-0.02 *** (0.01)
Liberal Democrats %		0.73 *** (0.05)	0.73 *** (0.05)
Swiss People's Party %		-0.01 (0.01)	-0.01 (0.01)
Rainfall		-141.74 (339.74)	13.11 (100.74)
No vegetation		-23.04 (48.84)	6.02 (34.86)
Share of Water		1.31 (2.06)	2.13 (4.32)
Share of Gras		-0.87 (1.98)	0.10 (0.79)
Artificial		0.18 (0.60)	-0.95 (2.61)
R^2	0.82	0.83	0.83
Adj. R^2	0.81	0.82	0.82
Num. obs.	40474	40455	40455

# Interpretation

- Gender has no effect

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[1] "Table 5 - Religion"
[1] "REFERENCE: Religion Undisclosed"
[1] "#####"
[1] "#####"

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	Model 1	Model 2	Model 3
Intercept	-39.95 (33.84)	258.37 (508.76)	49.28 (32.37)
Disaster	0.54 *** (0.14)	0.40 *** (0.14)	0.40 *** (0.14)
Protestant	0.49 *** (0.16)		-0.13 (0.13)
Catholic Roman	0.46 ** (0.20)		-0.01 (0.15)
Catholic Christian	10.88 (12.98)		-5.28 (5.22)
Catholic Orthodox	-6.93 (13.42)		1.93 (4.05)
Catholic Other	8.93 (6.19)		-0.69 (6.48)
Jewish	-1.96 (49.03)		34.05 (24.06)
Muslim	9.48 *** (3.65)		0.04 (2.31)
Religion Other	1.13 (8.02)		2.79 (3.70)
Atheist	0.15 (0.19)		-0.07 (0.19)
Green Party %		0.55 *** (0.02)	0.55 *** (0.02)
Social Democrats %		0.25 *** (0.01)	0.25 *** (0.01)
Christian Democrats %		-0.02 *** (0.01)	-0.02 *** (0.01)
Liberal Democrats %		0.73 *** (0.05)	0.73 *** (0.05)
Swiss People's Party %		-0.01 (0.01)	-0.01 (0.01)
Rainfall		-141.74 (339.74)	-3.38 (7.77)
No vegetation		-23.04 (48.84)	-0.39 (0.83)
Share of Water		1.31 (2.06)	2.01 * (1.21)
Share of Gras		-0.87 (1.98)	0.00 (0.12)
Artificial		0.18 (0.60)	0.00 (0.12)
R^2	0.82	0.83	0.83
Adj. R^2	0.81	0.82	0.82
Num. obs.	40474	40455	40455

# Religion

Religion has no effect

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[1] "#####"
[1] "#####"
[1] "Table 6 – Damage Extent"
[1] "REFERENCE: Damage Extent 1 (LOW)"
[1] "#####"
[1] "#####"

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	Model 1	Model 2	Model 3
Intercept	58.66 *** (1.97)	258.37 (508.76)	258.84 (508.76)
Disaster	0.50 *** (0.15)	0.40 *** (0.14)	0.40 *** (0.14)
Damage Extent 2	0.72 (0.44)		0.35 (0.43)
Damage Extent 3	-0.75 (0.70)		-0.77 (0.68)
Green Party %		0.55 *** (0.02)	0.55 *** (0.02)
Social Democrats %		0.25 *** (0.01)	0.25 *** (0.01)
Christian Democrats %		-0.02 *** (0.01)	-0.02 *** (0.01)
Liberal Democrats %		0.73 *** (0.05)	0.73 *** (0.05)
Swiss People's Party %		-0.01 (0.01)	-0.01 (0.01)
Rainfall		-141.74 (339.74)	-142.07 (339.74)
No vegetation		-23.04 (48.84)	-23.08 (48.84)
Share of Water		1.31 (2.06)	1.32 (2.06)
Share of Gras		-0.87 (1.98)	-0.87 (1.98)
Artificial		0.18 (0.60)	0.19 (0.60)
R^2	0.82	0.83	0.83
Adj. R^2	0.81	0.82	0.82
Num. obs.	40474	40455	40455

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1

# Interpretation

Damage extent Low, Medium, High has no effect – which supports my hypothesis, that not considering low damage events by Leemann & Baccini was not necessary.

# New Variables

1995 – 2018

2018 – 2023

Reason for cutoff date:

Greta Thunbergs first Climate-Strike 2018-08-20

Checking whether there is a change because of more sensitivity due to climate demonstrations.



[1] "Table 1 - Income: before 2018-08-20"

[1] "#####"

[1] "#####"

	Model 1	Model 2	Model 3
Intercept	56.27 *** (2.08)	196.03 (539.25)	201.30 (537.57)
Disaster	0.03 (0.15)	0.00 (0.15)	-0.01 (0.15)
Inc. =<30	-0.41 *** (0.06)		-0.44 *** (0.06)
Inc. 30-40	-0.12 *** (0.04)		-0.14 *** (0.04)
Inc. 40-50	-0.02 (0.03)		-0.00 (0.03)
Inc. 50-75	0.03 ** (0.02)		0.04 *** (0.02)
Inc. 75<	0.07 *** (0.01)		0.05 *** (0.01)
Green Party %		0.27 *** (0.02)	0.25 *** (0.02)
Social Democrats %		0.21 *** (0.01)	0.20 *** (0.01)
Christian Democrats %		-0.05 *** (0.01)	-0.06 *** (0.01)
Liberal Democrats %		0.64 *** (0.05)	0.62 *** (0.05)
Swiss People's Party %		0.03 *** (0.01)	0.03 *** (0.01)
Rainfall		-97.13 (360.11)	-97.06 (358.99)
No vegetation		-16.52 (51.76)	-19.27 (51.60)
Share of Water		1.33 (2.19)	0.38 (2.18)
Share of Gras		-0.60 (2.09)	-0.68 (2.09)
Artificial		0.11 (0.64)	0.13 (0.64)
R^2	0.86	0.86	0.86
Adj. R^2	0.85	0.85	0.85
Num. obs.	34078	34062	34062

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1

[1] "Table 1 - Income: after 2018-08-20"

[1] "#####"

[1] "#####"

	Model 1	Model 2	Model 3
Intercept	68.23 (65.81)	260.79 (294.95)	243.24 (304.52)
Disaster	0.93 ** (0.45)	0.93 ** (0.45)	0.93 ** (0.45)
Inc. =<30	-0.57 (0.80)		-0.57 (0.80)
Inc. 30-40	-0.49 (0.82)		-0.48 (0.82)
Inc. 40-50	-0.11 (0.81)		-0.12 (0.81)
Inc. 50-75	-0.71 (0.81)		-0.70 (0.81)
Inc. 75<	-0.02 (0.83)		-0.01 (0.83)
Green Party %		0.48 (1.34)	0.27 (1.60)
Social Democrats %		-1.65 (2.48)	-1.04 (2.69)
Christian Democrats %		-1.74 (2.76)	-2.21 (2.97)
Liberal Democrats %		-8.14 (11.45)	-13.70 (14.49)
Swiss People's Party %		0.14 (0.82)	3.20 (3.89)
Rainfall		-50.77 (54.89)	8.35 (91.28)
No vegetation		-5.17 (4.92)	-4.20 (6.27)
Share of Water		-9.58 (13.91)	-21.88 (22.99)
Share of Gras		-0.80 (1.29)	-1.79 (1.98)
Artificial		-0.92 (1.40)	-1.13 (1.77)
R^2	0.64	0.64	0.64
Adj. R^2	0.46	0.46	0.46
Num. obs.	6396	6393	6393

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1

# Interpretation

Before 2018 the Treatment/Disaster experience was not significant and green votes were solely dependable on income?

After 2018: only Treatment/Disaster experience is significant and affects yes vote share.

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[1] "Table 2 - Age: before 2018-08-20"
[1] "REFERENCE: AGE 0-17"
[1] "#####"
[1] "#####"

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	Model 1	Model 2	Model 3
Intercept	63.73 *** (7.66)	196.03 (539.25)	344.38 (541.45)
Disaster	0.06 (0.15)	0.00 (0.15)	0.02 (0.15)
Age 18-30	0.84 *** (0.09)		0.64 *** (0.09)
Age 31-45	0.34 *** (0.13)		0.22 * (0.13)
Age 46-65	-0.20 ** (0.09)		-0.26 *** (0.09)
Age 66-85	-0.67 *** (0.11)		-0.60 *** (0.11)
Age 86-100	-0.82 *** (0.22)		-0.74 *** (0.22)
Green Party %		0.27 *** (0.02)	0.25 *** (0.02)
Social Democrats %		0.21 *** (0.01)	0.19 *** (0.01)
Christian Democrats %		-0.05 *** (0.01)	-0.05 *** (0.01)
Liberal Democrats %		0.64 *** (0.05)	0.60 *** (0.05)
Swiss People's Party %		0.03 *** (0.01)	0.03 *** (0.01)
Rainfall		-97.13 (360.11)	-187.34 (361.87)
No vegetation		-16.52 (51.76)	-30.43 (51.93)
Share of Water		1.33 (2.19)	1.41 (2.22)
Share of Gras		-0.60 (2.09)	-1.17 (2.10)
Artificial		0.11 (0.64)	0.20 (0.64)
R^2	0.86	0.86	0.86
Adj. R^2	0.85	0.85	0.85
Num. obs.	34078	34062	34062

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1

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[1] "#####"
[1] "#####"
[1] "Table 2 - Age: after 2018-08-20"
[1] "REFERENCE: AGE 0-17"
[1] "#####"
[1] "#####"

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	Model 1	Model 2	Model 3
Intercept	18.78 (28.81)	260.79 (294.95)	270.40 (300.55)
Disaster	0.88 ** (0.45)	0.93 ** (0.45)	0.88 ** (0.45)
Age 18-30	0.19 (0.34)		0.19 (0.34)
Age 31-45	0.96 ** (0.47)		0.96 ** (0.47)
Age 46-65	0.02 (0.38)		0.02 (0.38)
Age 66-85	1.16 *** (0.40)		1.16 *** (0.40)
Age 86-100	-1.93 ** (0.80)		-1.93 ** (0.80)
Green Party %		0.48 (1.34)	0.01 (1.39)
Social Democrats %		-1.65 (2.48)	-2.12 (2.55)
Christian Democrats %		-1.74 (2.76)	-2.45 (2.83)
Liberal Democrats %		-8.14 (11.45)	-9.99 (11.72)
Swiss People's Party %		0.14 (0.82)	-0.47 (0.83)
Rainfall		-50.77 (54.89)	-45.13 (56.55)
No vegetation		-5.17 (4.92)	-5.47 (5.13)
Share of Water		-9.58 (13.91)	-11.59 (14.23)
Share of Gras		-0.80 (1.29)	-0.80 (1.32)
Artificial		-0.92 (1.40)	-1.12 (1.44)
R^2	0.64	0.64	0.64
Adj. R^2	0.46	0.46	0.46
Num. obs.	6396	6393	6393

# Interpretation

Before 2018 people in age groups would negatively affect the yes vote share.

After 2018: Most age groups would positively support yes vote share. Expect the oldest generation drastically increased the negative effect.

[1] "Table 3 - EDUCATION: before 2018-08-20"

[1] "REFERENCE: Edu BASIC"

[1] "#####"

[1] "#####"

	Model 1	Model 2	Model 3
Intercept	122.54 *** (5.43)	196.03 (539.25)	216.42 (537.81)
Disaster	-0.01 (0.15)	0.00 (0.15)	-0.03 (0.15)
Edu MATURA	-0.82 *** (0.05)		-0.61 *** (0.05)
Edu TERTIARY	-0.58 *** (0.07)		-0.36 *** (0.07)
Green Party %		0.27 *** (0.02)	0.23 *** (0.02)
Social Democrats %		0.21 *** (0.01)	0.19 *** (0.01)
Christian Democrats %		-0.05 *** (0.01)	-0.07 *** (0.01)
Liberal Democrats %		0.64 *** (0.05)	0.57 *** (0.05)
Swiss People's Party %		0.03 *** (0.01)	0.04 *** (0.01)
Rainfall		-97.13 (360.11)	-88.30 (359.11)
No vegetation		-16.52 (51.76)	-15.57 (51.62)
Share of Water		1.33 (2.19)	2.11 (2.19)
Share of Gras		-0.60 (2.09)	-0.49 (2.09)
Artificial		0.11 (0.64)	0.27 (0.64)
R^2	0.86	0.86	0.86
Adj. R^2	0.85	0.85	0.85
Num. obs.	34078	34062	34062

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1

[1] "Table 3 - EDUCATION: after 2018-08-20"

[1] "REFERENCE: Edu BASIC"

[1] "#####"

[1] "#####"

	Model 1	Model 2	Model 3
Intercept	54.55 *** (15.14)	260.79 (294.95)	289.34 (303.23)
Disaster	0.93 ** (0.45)	0.93 ** (0.45)	0.93 ** (0.45)
Edu MATURA	-0.61 (0.55)		-0.60 (0.55)
Edu TERTIARY	0.22 (0.26)		0.22 (0.26)
Green Party %		0.48 (1.34)	0.43 (1.35)
Social Democrats %		-1.65 (2.48)	-1.89 (2.53)
Christian Democrats %		-1.74 (2.76)	-2.00 (2.81)
Liberal Democrats %		-8.14 (11.45)	-9.15 (11.62)
Swiss People's Party %		0.14 (0.82)	0.02 (0.85)
Rainfall		-50.77 (54.89)	-53.09 (55.08)
No vegetation		-5.17 (4.92)	-5.29 (4.92)
Share of Water		-9.58 (13.91)	-11.37 (14.37)
Share of Gras		-0.80 (1.29)	-0.85 (1.29)
Artificial		-0.92 (1.40)	-1.08 (1.44)
R^2	0.64	0.64	0.64
Adj. R^2	0.46	0.46	0.46
Num. obs.	6396	6393	6393

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1

# Interpretation

Before 2018: Educated people in general would have a negative effect on yes vote share if affected.

- Stands in contradiction to findings with entropy balanced model...

After 2018: Education has no effect on yes vote share.

After 2018 reasoning makes sense, as obligatory education in Switzerland is quite thorough.

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[1] "Table 4 - Gender: before 2018-08-20"
[1] "REFERENCE: 1 = Female / 0 = Male"
[1] "#####"
[1] "#####"

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	Model 1	Model 2	Model 3
Intercept	49.25 *** (2.05)	196.03 (539.25)	61.65 (69.95)
Disaster	0.04 (0.15)	0.00 (0.15)	0.00 (0.15)
Female Share	13.19 *** (2.89)		-25.45 (111.88)
Green Party %		0.27 *** (0.02)	0.27 *** (0.02)
Social Democrats %		0.21 *** (0.01)	0.21 *** (0.01)
Christian Democrats %		-0.05 *** (0.01)	-0.05 *** (0.01)
Liberal Democrats %		0.64 *** (0.05)	0.64 *** (0.05)
Swiss People's Party %		0.03 *** (0.01)	0.03 *** (0.01)
Rainfall		-97.13 (360.11)	7.82 (106.79)
No vegetation		-16.52 (51.76)	3.17 (36.96)
Share of Water		1.33 (2.19)	1.88 (4.58)
Share of Gras		-0.60 (2.09)	0.06 (0.84)
Artificial		0.11 (0.64)	-0.66 (2.77)
R^2	0.85	0.86	0.86
Adj. R^2	0.84	0.85	0.85
Num. obs.	34078	34062	34062

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1

```
[1] "Table 4 - Gender: after 2018-08-20"
[1] "REFERENCE: 1 = Female / 0 = Male"
[1] "#####"
[1] "#####"

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	Model 1	Model 2	Model 3
Intercept	53.49 *** (5.08)	260.79 (294.95)	305.12 (430.72)
Disaster	0.93 ** (0.45)	0.93 ** (0.45)	0.93 ** (0.45)
Female Share	0.71 (7.19)		-7.70 (37.88)
Green Party %		0.48 (1.34)	0.35 (1.66)
Social Democrats %		-1.65 (2.48)	-2.03 (3.58)
Christian Democrats %		-1.74 (2.76)	-2.08 (3.75)
Liberal Democrats %		-8.14 (11.45)	-9.24 (14.64)
Swiss People's Party %		0.14 (0.82)	-0.15 (1.15)
Rainfall		-50.77 (54.89)	-58.26 (75.42)
No vegetation		-5.17 (4.92)	-5.45 (5.67)
Share of Water		-9.58 (13.91)	-10.67 (16.86)
Share of Gras		-0.80 (1.29)	-0.79 (1.24)
Artificial		-0.92 (1.40)	-1.12 (2.08)
R^2	0.64	0.64	0.64
Adj. R^2	0.46	0.46	0.46
Num. obs.	6396	6393	6393

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1

# Remar

Gender: No change here



[1] "Table 5 - Religion: before 2018-08-20"  
 [1] "REFERENCE: Religion Undisclosed"  
 [1] "#####"  
 [1] "#####"

	Model 1	Model 2	Model 3
Intercept	-42.25 (35.33)	196.03 (539.25)	67.12 * (34.31)
Disaster	0.04 (0.15)	0.00 (0.15)	0.00 (0.15)
Protestant	0.48 *** (0.17)		-0.19 (0.14)
Catholic Roman	0.49 ** (0.21)		-0.06 (0.16)
Catholic Christian	11.08 (13.55)		-6.70 (5.53)
Catholic Orthodox	-7.76 (14.01)		1.11 (4.29)
Catholic Other	12.16 * (6.46)		-3.07 (6.87)
Jewish	7.19 (51.18)		30.01 (25.51)
Muslim	9.93 *** (3.81)		-0.21 (2.45)
Religion Other	-2.85 (8.37)		3.86 (3.92)
Atheist	0.16 (0.20)		-0.05 (0.20)
Green Party %		0.27 *** (0.02)	0.27 *** (0.02)
Social Democrats %		0.21 *** (0.01)	0.21 *** (0.01)
Christian Democrats %		-0.05 *** (0.01)	-0.05 *** (0.01)
Liberal Democrats %		0.64 *** (0.05)	0.64 *** (0.05)
Swiss People's Party %		0.03 *** (0.01)	0.03 *** (0.01)
Rainfall		-97.13 (360.11)	-4.34 (8.24)
No vegetation		-16.52 (51.76)	-0.24 (0.89)
Share of Water		1.33 (2.19)	2.76 ** (1.29)
Share of Gras		-0.60 (2.09)	-0.02 (0.13)
Artificial		0.11 (0.64)	-0.04 (0.12)
R^2	0.85	0.86	0.86
Adj. R^2	0.84	0.85	0.85
Num. obs.	34078	34062	34062

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1

[1] "Table 5 - Religion: after 2018-08-20"  
 [1] "REFERENCE: Religion Undisclosed"  
 [1] "#####"  
 [1] "#####"

	Model 1	Model 2	Model 3
Intercept	-17.43 (87.91)	260.79 (294.95)	-74.14 (129.31)
Disaster	0.93 ** (0.45)	0.93 ** (0.45)	0.93 ** (0.45)
Protestant	0.56 (0.41)		-0.21 (0.51)
Catholic Roman	0.35 (0.53)		-0.11 (0.44)
Catholic Christian	10.51 (33.71)		7.91 (6.63)
Catholic Orthodox	-2.79 (34.85)		5.59 (6.54)
Catholic Other	-7.55 (16.08)		-7.91 (12.77)
Jewish	-51.13 (127.35)		16.26 (15.10)
Muslim	7.41 (9.47)		-1.06 (7.69)
Religion Other	21.99 (20.83)		-3.88 (11.01)
Atheist	0.08 (0.49)		0.08 (0.41)
Green Party %		0.48 (1.34)	2.75 ** (1.35)
Social Democrats %		-1.65 (2.48)	1.22 * (0.68)
Christian Democrats %		-1.74 (2.76)	0.88 (0.67)
Liberal Democrats %		-8.14 (11.45)	1.46 (2.65)
Swiss People's Party %		0.14 (0.82)	0.67 (0.71)
Rainfall		-50.77 (54.89)	14.65 (23.49)
No vegetation		-5.17 (4.92)	-1.32 (2.11)
Share of Water		-9.58 (13.91)	3.37 (3.63)
Share of Gras		-0.80 (1.29)	0.66 (0.65)
Artificial		-0.92 (1.40)	0.47 (0.67)
R^2	0.64	0.64	0.64
Adj. R^2	0.46	0.46	0.46
Num. obs.	6396	6393	6393

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1

# Remark

Religion: No change here

[1] "Table 6 - Damage Extent: before 2018-08-20"

[1] "REFERENCE: Damage Extent 1 (LOW)"

[1] "#####"

[1] "#####"

	Model 1	Model 2	Model 3
Intercept	62.46 *** (2.05)	196.03 (539.25)	196.48 (539.24)
Disaster	0.01 (0.16)	0.00 (0.15)	-0.01 (0.16)
Damage Extent 2	0.69 (0.44)		0.48 (0.44)
Damage Extent 3	-0.85 (0.68)		-0.80 (0.68)
Green Party %		0.27 *** (0.02)	0.27 *** (0.02)
Social Democrats %		0.21 *** (0.01)	0.21 *** (0.01)
Christian Democrats %		-0.05 *** (0.01)	-0.05 *** (0.01)
Liberal Democrats %		0.64 *** (0.05)	0.64 *** (0.05)
Swiss People's Party %		0.03 *** (0.01)	0.03 *** (0.01)
Rainfall		-97.13 (360.11)	-97.44 (360.10)
No vegetation		-16.52 (51.76)	-16.56 (51.76)
Share of Water		1.33 (2.19)	1.33 (2.19)
Share of Gras		-0.60 (2.09)	-0.60 (2.09)
Artificial		0.11 (0.64)	0.11 (0.64)
R^2	0.85	0.86	0.86
Adj. R^2	0.84	0.85	0.85
Num. obs.	34078	34062	34062

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1

[1] "Table 6 - Damage Extent: after 2018-08-20"

[1] "REFERENCE: Damage Extent 1 (LOW)"

[1] "#####"

[1] "#####"

	Model 1	Model 2	Model 3
Intercept	54.20 *** (5.08)	260.79 (294.95)	261.24 (294.92)
Disaster	1.03 ** (0.46)	0.93 ** (0.45)	1.03 ** (0.46)
Damage Extent 2	-3.03 (2.27)		-3.03 (2.27)
Damage Extent 3	-7.48 (7.64)		-7.48 (7.64)
Green Party %		0.48 (1.34)	0.48 (1.34)
Social Democrats %		-1.65 (2.48)	-1.65 (2.48)
Christian Democrats %		-1.74 (2.76)	-1.74 (2.76)
Liberal Democrats %		-8.14 (11.45)	-8.15 (11.45)
Swiss People's Party %		0.14 (0.82)	0.14 (0.82)
Rainfall		-50.77 (54.89)	-51.03 (54.89)
No vegetation		-5.17 (4.92)	-5.19 (4.92)
Share of Water		-9.58 (13.91)	-9.58 (13.91)
Share of Gras		-0.80 (1.29)	-0.81 (1.29)
Artificial		-0.92 (1.40)	-0.92 (1.40)
R^2	0.64	0.64	0.64
Adj. R^2	0.46	0.46	0.46
Num. obs.	6396	6393	6393

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1

# Remark

No change here