Is there an expressive function of Law?

An empirical analysis of voting laws with symbolic fines

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Abstract

I for the first time empirically investigate whether passing a law affects behavior even if it is not or hardly enforced ("expressive function of law"). With Swiss panel data, I find that the legal abolishment of the voting duty significantly decreased average turnout, even though the fines for not voting have only been minimal. As for the size of Cantonal turnout reduction, it widely differs between the Cantons and is highly correlated with voter participation before the abolishment of the voting duty. In contrast to the voting duty, the introduction of postal voting did not affect voter turnout in spite of the substantial decrease in transaction costs. Therefore, in public good areas such as voting, a law targeting at the civic duty (even if hardly enforced) might have a bigger impact on behavior than actions which affect the costs of provision for the public good.

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1 Introduction

The classic "Law & Economics"-approach focuses on "direct" effects of law: a law enforced by a sanction increases the costs of the regulated activity and thereby influences an individual's incentive to engage in that action (SCOTT (2000)). Since the early nineties, research has been directed towards an "indirect" effect of law: passing a law might affect social norms and influence behavior even in the absence of a sanction.[1]

Social norms are commonly defined as "informal social regularities that individuals feel obliged to follow because of an internalized sense of duty, because of a fear of external non-legal sanctions, or both" (MCADAMS (1997: 340)). The view that social norms might be affected by law has been advocated by the "Expressive Theorists": by prohibiting an action or declaring it as a duty, law can weaken the norm it condemns and strengthen the one it embodies.[2]

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[1]Important contributions are e.g. LESSIG (1995), POSNER (1996), MCADAMS (1997), LESSIG (1998), COOTER (1998) and POSNER (2000). A related study is BOHNET, FREY & HUCK (2001).

[2]Several channels are discussed in the literature: the so-called "preference shaping" effect of law captures the idea that law might affect the preferences for the regulated activity even in the absence of punishment (see LESSIG (1998), KAHAN (1996), PILDES

In the following, I loosely refer to these indirect effects of law as "expressive effects". In spite of their widespread attention in the literature, several authors have raised concerns about the existence of an expressive function of law (ADLER (1999), SCOTT (2000)).

Important policy implications would result if "expressive effects" of law existed. First of all, behavior might be changed at much lower costs than suggested by the classical "Law & Economics" literature. Merely by passing a law (even if unenforced), citizens might adhere to it because of a sense of civic duty, a fear of informal sanctions or "educational effects" (see DHARMAPALA (1998), SUNSTEIN (1987 & 1997)). In addition to preference-shaping, law might also affect the way, preferences are expressed ("preference expressing" effect). Assume that the government passes a non-enforced law according to which voting becomes a civic duty. While citizens might perceive voting differently (preference-shaping), law could also affect behavior because citizens start informally sanction non-voters. Since law gives them the right to do so, they might express their preferences more openly ("preference-expressing"). In MCADAMS' (2000a, 2000b) papers, a law must not directly affect *preferences*, but may alter behavior because it affects the citizens' *beliefs* about the value/esteem of certain actions in cooperation games or the focal equilibrium in coordination games. Finally, DHARMAPALA & MCADAMS (2003) posit that the passage of a law (e.g. a smoking ban) may reveal information about the regulated activity (e.g. health risks) and exert behavioral effects through this "informative effect of law".

& MCADAMS (2003)). Secondly, the effect of legalizing a certain act might be much higher than predicted from the abolishment of the sanction. Therefore, the frequently encountered argument that a law which is hardly enforced can equally be abandoned (without causing any change in the respective behavior) would prove to be wrong.[3]

Although there is not a single empirical study, which analyzes potential expressive effects of law, legal scholars start taking them for granted. For instance, HASEN (1996: 2167) writes in his analysis on mandatory voting laws: "[Next to its direct effect], law works in a more subtle way, by shaping preferences (or changing) tastes in much the same way as social norms."

In view of the growing faith in the expressive function of law, empirical research on this topic is urgently needed. Up so far, there has been only anecdotal evidence that "pooper-scooper laws", which were enacted in Berkeley and hardly enforced, apparently caused many owners to clean up after their dogs. Similarly, posting "no smoking" signs in U.S. airports supposedly has improved air quality with little or no legal enforcement (COOTER (2000)).

However, apart from the fact that these two examples bear the character

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[3]In Switzerland, abortions until 12 weeks pregnancy were legalized in June 2002 with the argument that the law was not enforced anymore anyway.

of story-telling rather than scientific analysis, there are no time-series data which allow for an assessment of whether the decrease in dogs dirt/airport smoke after enactment of the law reflects a trend which already started earlier or truly reflects the response to an exogenous law change. Furthermore, in order to convincingly distinguish the causal impact of law from common trends, a control group with no law change would be needed (maybe, a similar development of the cleanness of streets can be observed in San Francisco, where no pooper-scooper law has been enacted).

In this paper, I for the first time present an econometric analysis of a potential expressive function of law with a data set, which meets the data requirements discussed above.

The subject of investigation are mandatory voting laws in Switzerland. In five (out of twenty-six) Swiss Cantons (or "states"), there has been a legal requirement to vote, which was enforced with a "symbolic" fine (in most cases not exceeding 1 Dollar). With the exception of one Canton, the legal obligation to vote (together with the fine) has been abolished at different points of time. Using panel data on voter turnout from 1951 to 1999, I analyze whether voter-turnout decreased significantly after the (minimally enforced) voting duty has been abolished.

In order to compare homogeneous voting issues, national parliamentary elections are taken as the subject of investigation (called "Nationalratswahlen"; elections are held every four years).[4] In order to distinguish the effect of the voting duty from other factors affecting turnout, I include unemployment, education, population and age in the estimations. To control for Canton-specific heterogeneity (language, culture etc.) and common trends, Canton (state) and time fixed effects are further considered.

As a main result, I find a significant negative impact of the abolishment of the voting duty on voter turnout. However, disentangling the average effect of the abolishment of the voting duty into the different Cantonal effects reveals substantial differences between the Cantons. While turnout reduction ranges from 5 to nearly 20 percent in the Cantons Aargau, St. Gallen and Thurgau, an insignificant effect is found for the Canton Zuerich. As it turns out, the amount of turnout reduction is to 90 % correlated with the level of turnout prior to the abolishment of the voting duty. Therefore, in Cantons

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[4]Similar to the American House of Representatives, the "Nationalrat" is the one (of the two legislative chambers), where the number of seats assigned to each region (Canton) corresponds to the population of the region (Canton). The different parties weight is (roughly) determined by the proportion of votes received (proportional representation).

where citizens obeyed to the law very much, removal of the voting duty had a bigger effect.

In average, the abolishment of the voting duty seems to have caused a decrease in voter turnout between six and ten percentage points (depending on whether regressions were weighted or not). This finding is interpreted as support for a certain (or at least situational) "expressive effect of law".[5] The following arguments confirm this view:

1. The abolishment of the voting duty decreased the "monetary" incentive to vote by the amount of the fine and the costs associated with paying the fine (I refer to the costs (or transaction costs) of voting as "monetary" incentives in order to distinguish them from the "moral" incentives to vote (civic duty, fear of informal sanctions)). It is very unlikely that the abolishment of the voting duty caused the observed decrease in voter turnout by its change in the "monetary" incentive to

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[5]The twist of the paper is really the *minimally* enforced and later abandoned voting duty. This allows to make a statement concerning an expressive function of law, which is hardly possible with other studies on compulsory voting (which compare different countries or a country's abandonment of a (heavily fined) voting duty (see JACKMAN, 2003 for an overview)).

vote. Not only was the amount of the fine extremely low (in most cases less than 1 Dollar), but equally low were the transaction costs associated with the payment of the fine. While in very early times, "district police officers" came to the citizens' houses to collect the fines, the common applied enforcement devices were either writing a yearly bill, or just adding the (yearly) voting fines to the taxes. Therefore, the abolishment of the voting duty has most likely led to a decreased voter turnout because of a changed perception of the voting duty (reduced *moral* incentive) and not because of the dropped fine.

2. Although it seems implausible, it cannot be ruled out that voters react substantially to small changes in "monetary" incentives such as a 1 Dollar amount. However, if the propensity to vote was very elastic, we would expect a large reaction to a substantial change in voting costs. Fortunately, it is possible to test the effect of a big change in the voting costs on voter turnout, since the Swiss Cantons gradually introduced the *option* of postal voting.[6]

The regressions show that the introduction of postal voting did *not* lead

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[6]Postal voting in Switzerland never replaced the polls but was offered as a further option.

to a significant increase in voter turnout, in spite of the large decrease in transaction costs. Assuming therefore a subordinate role of voting costs in explaining voter turnout, the significant decrease in turnout after abolishment of the voting duty seems to reflect the elimination of the expressive function of law.

The major contribution of this paper consists of adding empirical evidence to the so-far purely theoretical debate about whether "expressive effects" of law exist. Therefore, new insights on the subject seem valuable even if the data set at hand is quite limited (only four law-changes). Overall, I find that the legal declaration of voting as a duty apparently caused certain citizens to go to the polls, which is consistent with the existence of a (at least situational)[7] expressive function of law.

However, important novel insights are also given to the literature on voting. Since voting is commonly perceived as a public good (necessary to maintain democracy), policy makers are concerned about decreasing voter turnout.[8] One possible remedy is seen in the introduction of postal vot-

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[7]Remember that the effect is much stronger in the Canton where the duty was abolished at a time of high voter participation.

[8]Most industrialized countries experienced a decrease in voter turnout over the past

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ing, since it reduces the transaction costs of voting considerably. Although there is no empirical evidence about its effectiveness, local governments in the Unites States start experimenting with this alternative organization of the voting process.[9] HASEN (1995), on the other hand discusses whether the legal declaration of voting as a duty might have a positive effect on voter turnout (due to its expressive effect).

The effect of both proposals are tested and compared in this paper. While in Switzerland, the effect of postal voting turned out to be negligible, the legal requirement to vote seemed to motivate certain citizens to go to the polls. In sum, the results suggest that a change in the moral message (abolishment

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several decades.

[9]As to my knowledge, the state of Oregon had one (exceptional) All-Mail election. Although there is one article about this All-Mail election (SOUTHWELL & BURCHETT (2000)), the focus of this study is on the composition of the electorate (characteristics of voters) of this mail election compared to the traditional election at the polls. Anyway, a comparison of voter turnout (from this All-Mail election versus poll elections) would be difficult to interpret, since there was only one All-Mail election, which completely replaced the polls. In contrast, postal voting was offered as an additional *option* in Switzerland, which facilitates the interpretation of its effect on voter turnout: voters who go to the polls due to consumption benefits (chatting with neighbors etc.) can still do so and hence, the "poll-lovers" are not crowded out by the introduction of postal voting.

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voting duty) together with a small change in the voting costs (drop fine) had a bigger effect on voter turnout than a big change in the voting costs with no moral message (option of postal voting).

The remainder of the article is structured as follows: section two describes the Cantonal changes in voting laws. Section three presents the econometric model and the estimation results. Some alternative specifications of the econometric model are outlined in Section four. The article concludes in Section five.

2   Voting Behavior in Switzerland and Changes in Cantonal Voting Laws

Switzerland is a small federalist country with roughly 7 million inhabitants. The country consists of 26 major districts (called "Cantons"), which are further divided into minor districts ("Bezirke"). The 26 Cantons have their own constitution and legislative power and are free to pass laws, as long as they do not contradict with federal law. As will be discussed in more detail, the Cantons differ with respect to legal regulations of the voting process.

Subsequently, I analyze voter participation in national parliamentary elec-

tions ("Nationalratswahlen") from 1951 to 1999.[10] Parliamentary elections are ideal for this study, because the voting subject is unchanged over time and random shocks on voter turnout (weather conditions etc.) are similar in every Canton, since the voting day(s) are determined on a national level. Focusing on the legislative chamber "Nationalrat" (where parties are chosen according to proportional representation) bears the advantage that supply-side shocks on voter participation occur on a national rather than Cantonal level; therefore, they can be controlled for by time-fixed-effects.[11] In contrast, in the other legislative chamber ("Staenderat"), where each Canton has the right to choose two representatives, the expected closeness of the race, the character of the candidates and other (hardly controllable) Canton-specific supply-side factors might influence voter turnout. Therefore, voter participation for the "Nationalrat" should not remarkably be driven by canton-specific

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[10]Although time series data on Cantonal Voter turnout are available since 1919, I start including data from 20 years or 5 data points before the first major law change in 1971 (national parliamentary elections are held every four years). As it turns out, results are very robust with respect to choosing different starting points; regression estimates are available upon request.

[11]For instance, if a party decides to engage in harder competition by increasing advertising expenditures, it affects the perception of this party in all Cantons.

supply-side factors. However, the voting *process* for the national elections is organized in the different Cantons and therefore subject to the "Cantonal rules".

To what extent might differences in Cantonal voter participation rates depend on different regulations of the voting duty? There exist three types of regulations: the strongest one entails a legally prescribed voting duty together with a minimal fine for non-voting (referred to as "minimal enforcement"). As can be seen from figure 1, there were five Cantons, which had such a type of regulation in 1951, and one Canton, which still enforces the voting duty today. 8 Cantons had a legal prescription to go to the polls (without any sanctions), and 13 Cantons did not legally prescribe to go to the polls at all (see the Appendix for a detailed description of the Cantonal institutional arrangements).

In this study, I will focus on the Cantons, which had a minimally enforced voting duty. As for the legal changes in these Cantons, substantial variation over time exists: four out of five Cantons abolished their duty to go to the polls. Focusing on Cantons with a minimally enforced voting duty further bears the advantage that its citizens were certainly aware of their duty to vote; in contrast, the voting duty might have been forgotten in Cantons,

where it was never enforced.

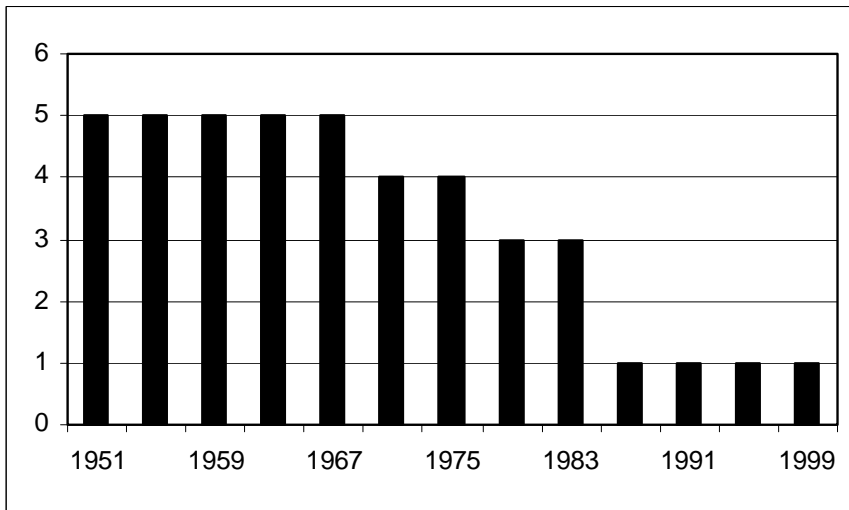**Figure 1**: Number of Cantons with minimally fined Voting Laws, by election
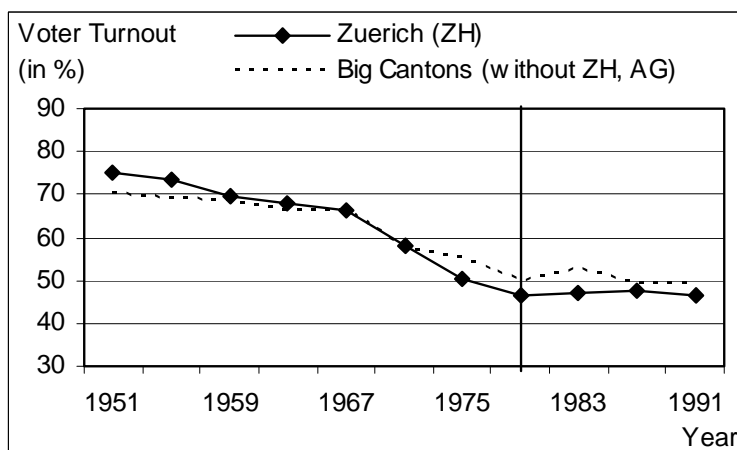

Figure 2 illustrates voter turnout before and after the abolishment of the voting duty for the Cantons Aargau (AG) and Zuerich (ZH); the vertical line indicates the last election under legal prescription to vote. Also depicted is the development of voter turnout for Schaffhausen (SH), the only Canton, where the voting duty still is enforced. As can be seen from figure 2, there was a general decline in turnout over the past 40 years. However, voter turnout remained comparatively high in the Canton Schaffhausen, where the voting duty has never been abolished.

Figure 2: Abolishment of the Voting Duty

Voter Turnout (in %) — Schaffhausen (SH), Small Cantons (without SH)

Voter Turnout (in %) — Aargau (AG), Big Cantons (without AG, ZH)

Voter Turnout (in %) — Zuerich (ZH), Big Cantons (without ZH, AG)

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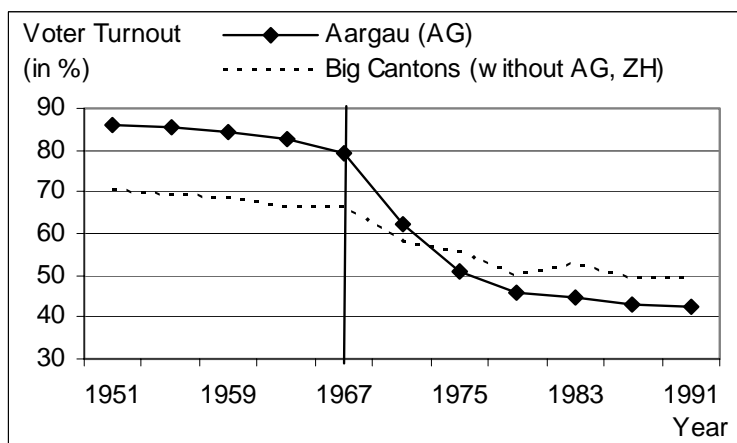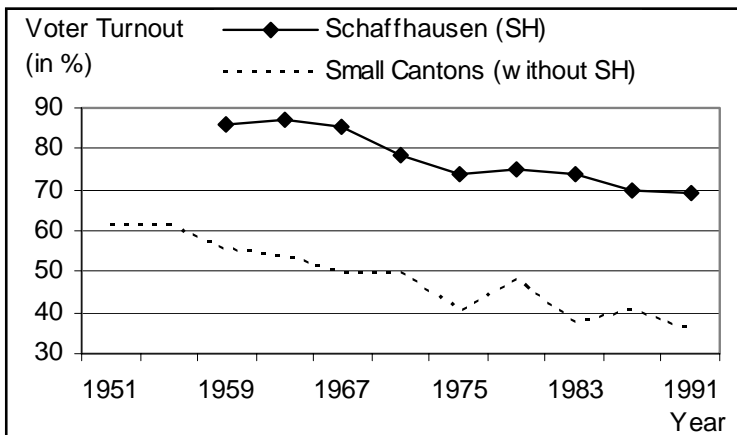
In contrast, the Canton Aargau experienced a substantial decrease in voter turnout, once the moral obligation to vote was suspended (middle picture). Since the development of voter turnout before the law change resembles the other Cantons' development very much, the law change in the Canton Aargau seems to be exogenous with respect to past voting behavior. In the Canton Zuerich, in contrast, it seems that the abolishment of the voting duty might have resulted endogenously out of an over-proportionally decreasing voter participation. There, no effect of the abolishment of the voting duty on voter turnout can be observed.

The Cantons St. Gallen (SG) and Thurgau (TG) abolished their voting duty as well. However, they introduced the option of postal voting at the same time, which makes it impossible to *graphically* (not statistically) separate these two effects.

The graphical analysis lets us suspect that an exogenous law change targeting at the moral obligation to vote might have altered voting behavior substantially. It would be interesting to compare the effect of this law change with the effect of an *institutional change*, which significantly reduced the voting costs: the introduction of postal voting.

A graphical analysis of the impact of postal voting seems best possible

for the Cantons Basel Land (BL), Appenzell Innerrhoden (AI) and Solothurn (SO), which introduced the option of postal voting already between 1978 and 1980. Focusing on these early introducers bears the advantage that there exists a large control group of Cantons, which did not have the option of postal voting at that time.

Figure 3 shows the development of voter turnout before and after the option of postal voting was introduced (again, the line is drawn so that after the line, the change is in effect).[12] As becomes evident, the introduction of postal voting does *not* seem to have increased voter turnout in spite of the considerable reduction in transaction costs.[13]

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[12]Cantons of similar size, also without an enforced voting duty, are the control group.

[13]I focus on the Cantons, which implemented the system of "automatic" postal voting. Under this system, a return envelope with the address is added to the documents for the election, so that the voter has only to put a stamp on the envelope and to drop it in the letter box. Obviously, this method brings a considerable reduction in transaction costs compared with going to the polls. Very few Canton had a system, where it was necessary to send an application first in order to be allowed to vote by mail. Since the reduction in the transaction costs is less evident under this system, these few Cantons were counted as if they didn't have the option of postal voting.

Figure 3: Introduction of Postal Voting
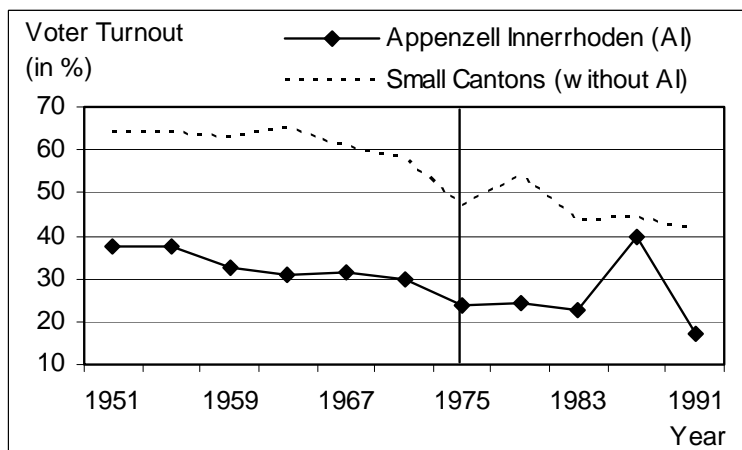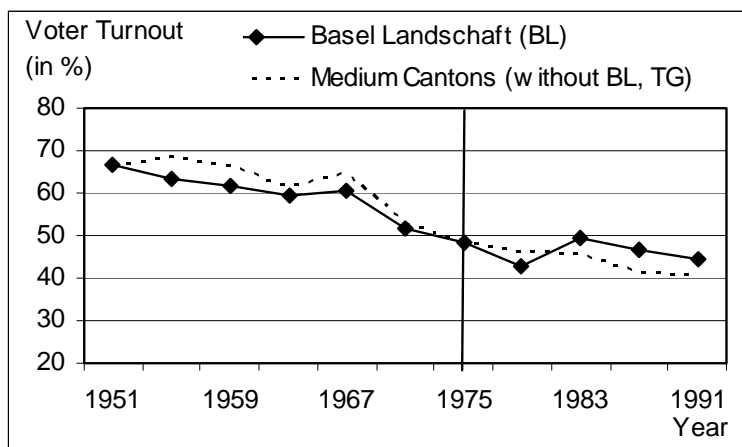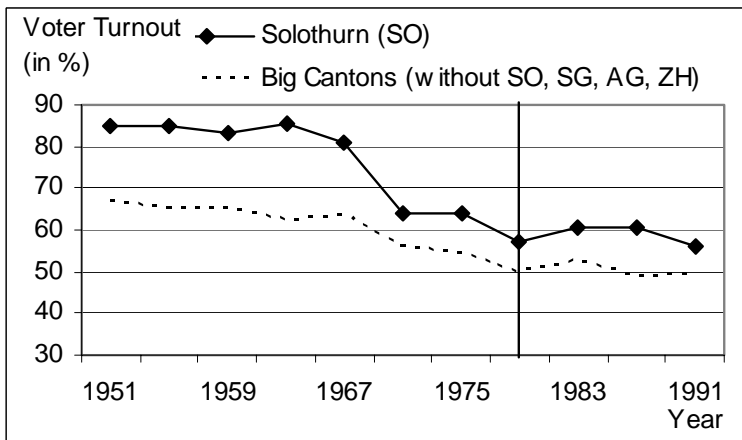
Since voter turnout might depend on many more factors than voting laws and the organization of the voting process, I proceed with a more careful econometric analysis.

3   Econometric Analysis

The focus of this study is on whether an individual's propensity to vote depends on the legal obligation to vote. Studies based on individual data suggest that an individual's propensity to vote depends on various other factors such as age, education, gender, income etc.[14] Including the institutional factors voting duty (legal obligation to vote) and postal voting into the standard estimation equation yields:

$$V_{it} = b_0 + b_1 * Duty_{st} + b_2 * Postal_{st} + b_3 * Z_{it} + \epsilon_{it} \qquad (1)$$

V_{it} takes a value of 1, if an individual i was voting in the election year t, and 0 otherwise. Duty is a dummy variable taking a value of 1 if the individual lives in a state s with a minimally enforced voting-duty. The

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[14]For instance, education, age, income and male sex have been found to have a positive impact on the probability to vote (SILVER (1973), ASHENFELTER & KELLEY (1975)). For an overview of the empirical studies on voting, see STRUTHERS & YOUNG (1989).

dummy variable Postal takes a value of 1 if the individual has the option of postal voting. Z_{it} refers to the individual's characteristics.

Aggregate data on voter turnout (VT) are obtained by summing up the number of individual votes in Canton ("state") s and dividing them by the population eligible to vote (referred to as "epop"). Since data on aggregate cantonal voter turnout are available, I estimate the following model:

$$VT_{st} = \alpha_s + \gamma_t + b_1 * Duty_{st} + b_2 * Postal_{st} + b_3 * Z_{st} + u_{st} \qquad (2)$$

VT_{st} denotes voter turnout (in percentage) and Duty and Postal are the Dummy variables described above. As control variables Z, I employ:

Population (Pop): number of inhabitants (per Canton and year), in millions.[15]

Age (Age): percentage of inhabitants in different age classes (per Canton and year). The following age classes are considered: 0-19, 20-39, 40-59, 60-64, 65-74, > 75.[16]

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[15]Cantonal data on population were collected in the population census, which was conducted roughly every ten years. Intermediary values were obtained by linear interpolation.

[16]The data stem from the population census as well. Missing data were obtained by linear interpolation.

Higher Education (Edu): number of "high-school degrees" per number of 15 to 19 year old people, in percentage.[17]

Unemployment Rate (UE): Number of unemployed persons per active population[18], in percentage.

Since I include time-fixed effects γ_t, it is not necessary to include dummies for nation-wide structural breaks.[19] The model is estimated with OLS and

[17]High-school is put in quotation marks, because the Swiss school system is different from the American one. After six years of primary school (commonly attended from 6 to 12 years), there are three options: the "Realschule" (lowest level), the "Sekundarschule" (intermediate level) and the "Gymnasium" (highest level, denoted as "high-school"). While completion of the first two types of education takes between two and three years, "high-school" lasts six years. Therefore, "high-school" is commonly completed at age 18 and the number of "high-school"-degrees per number of 15 to 19 year old teenagers represents an adequate indicator for the frequency of attendance of higher education. Data source: Statistical Yearbooks of Switzerland.

[18]The active population consists of individuals working more than 6 hours per week. Unemployment Rates in Switzerland are measured in relation to the active population. Data Source: State Secretariat for Economic Affairs (seco).

[19]In Switzerland, two institutional changes could have caused a structural break in voter turnout: the introduction of female suffrage in 1971 and and the decrease of the minimal voting age from 20 to 18 in 1991. However, if a dummy for a potential structural break is included, one of the time fixed effects needs to be dropped in order to avoid perfect

Weighted Least Squares. As weights, I use the population older than 19 as a proxy for the eligible population.

Table 1 and 2 depict the estimation results.[20] Column 1 shows the estimated coefficients of equation 2 without accounting for Canton- and Time-Fixed Effects. As can be seen therefrom, Cantons with a minimally enforced voting duty had a remarkably higher voter turnout (14 percent in the unweighted regressions and 9 percent in the weighted regressions). However, since the Cantons with a minimally enforced voting duty might be the ones with strong preferences for voting, Canton-Fixed Effects are included to account for this Canton-specific heterogeneity. The coefficient for the voting duty is slightly reduced as soon as Canton- and Time-Fixed Effects are added (see column 2). Since we are now looking at Cantonal variation over time, the estimated coefficient suggests that the abolishment of the voting duty decreased voter turnout by 6 to 10 percent.

collinearity. The coefficient of the structural break dummy then equals the dropped time fixed effect.

[20]Since Bertrand, Duflo and Mullainathan (2004) have shown that the failure to account for within-unit autocorrelation can lead to an underestimation of the standard errors in difference-in-difference estimations, standard errors clustered on Cantons are depicted in parantheses.

Table 1: Regression Results (Unweighted)

	Pooled Model	Two-Way FE	Two-Way FE_AG	Two-Way FE_ZH
Dummy Duty	**13.7***	**10.2***	**7.3**	**12.8***
	(4.7)	(3.5)	(2.8)	(3.5)
Dummy Postal	**-4.6**	**1.3**	**0.7**	**1.7**
	(3.4)	(1.8)	(1.9)	(1.9)
Age 0-19	0.32	2	2	2.4
	(1.3)	(1.9)	(2)	(2)
Age 20-39	-0.5	0.8	0.9	1.4
	(1.4)	(1.8)	(2)	(2)
Age 40-59	1.7	1.3	1.4	1.6
	(1.4)	(1.7)	(1.8)	(1.8)
Age 60-64	3.2	1.3	1.2	0.9
	(2)	(3)	(3)	(3.1)
Age 65-74	-4.2	0.6	0.6	1.2
	(2.7)	(3)	(3)	(3)
Population	-1.9	-19.4	-14.6	-24.4
	(4.7)	(17)	(17.2)	(32.7)
Unemployment	1.3	-0.4	-0.5	-0.5
	(0.8)	(1)	(1)	(1.1)
Education	-2.9**	0.5	0.5	0.9
	(1.4)	(0.9)	(0.8)	(0.9)
Canton-FE	No	Yes	Yes	Yes
Year-FE	No	Yes	Yes	Yes
Canton dropped	No	No	AG	ZH
Adj. R^2	0.54	0.99	0.99	0.99
Number of Observations	316	316	303	303

Dependent Variable: Voter Turnout per Canton and election year. In the Pooled Regression dummies for female voting (1 after 1967) and voting age (1 after 1987) are included. White standard errors accounting for serial correlation within Panels (cantons) are depicted in parantheses.

Table 2: Regression Results (Weighted Least Squares)

	Pooled Model	Two-Way FE	Two-Way FE_AG	Two-Way FE_ZH
Dummy Duty	**8.6***	**6.1***	**3.2**	**11.8***
	(2.7)	(3.2)	(2)	(3.9)
Dummy Postal	**-2**	**-0.1**	**-0.9**	**0.5**
	(3.2)	(1.4)	(1.5)	(1.7)
Age 0-19	1.2	0.33	0.7	0.5
	(1.3)	(1.2)	(1.4)	(1.4)
Age 20-39	-0.8	-1.5	-0.7	-0.7
	(1.3)	(1.4)	(1.4)	(1.5)
Age 40-59	1	-0.9	-0.07	-0.45
	(1.3)	(1.4)	(1.4)	(1.5)
Age 60-64	4.7**	1.3	1.3	-1.6
	(1.7)	(3.3)	(3.1)	(2.9)
Age 65-74	-2.5	-2.7	-1.5	-1.2
	(2.8)	(2.4)	(2.4)	(2.4)
Population	-1.1	-17*	-17	-3.3
	(2.6)	(9.5)	(12.7)	(26.9)
Unemployment	-0.7	-0.2	-0.2	-0.78
	(0.9)	(0.7)	(0.6)	(0.7)
Education	-0.53	1.1*	1.5**	2***
	(1.2)	(0.6)	(0.5)	(0.5)
Canton-FE	No	Yes	Yes	Yes
Year-FE	No	Yes	Yes	Yes
Canton dropped	No	No	AG	ZH
Adj. R^2	0.69	0.99	0.99	0.99
Number of Observations	316	316	303	303

Dependent Variable: Voter Turnout per Canton and election year. In the Pooled Regression dummies for female voting (1 after 1967) and voting age (1 after 1987) are included. White standard errors accounting for serial correlation within Panels (cantons) are depicted in parantheses.

This result is particularly strong in view of the fact that the inclusion of Canton- and Time-Fixed Effects captures a large part of the variance of the Dummy Duty. A simple regression of the Dummy Duty on Canton-

and Time-Fixed Effects shows that 77 percent of the variance of the Voting-Duty-Dummy can be explained by these Fixed Effects. Therefore, the finding that the coefficient of the Dummy Duty remains significant even with Fixed Effects underlines the statistical importance of the voting duty.

The natural interpretation of this result is that the abolishment of the voting duty decreased voter turnout due to a change in the perception of voting. Before the law change, it was a duty to go to the polls and afterwards, the duty was removed. Nevertheless, it could also be possible that the law change partly affected behavior due to the drop of the fine as well as the transaction costs related with the payment of the fine.

As for the transaction costs associated with the payment of the fine, it turns out that they were very close to zero. From telephone calls with people working for the Cantonal governments (in ZH, AG, TG, SG and SH), I learnt that the fines were (or still are) primarily collected by (yearly) bills or by adding the fines to the taxes/communal charges. In very recent times, where the districts were very small (the collection of the fine occurs on the district level), there even existed some district officers (called "Waechter"), which came to the defaulting citizens' houses to collect the fines.

Secondly, as can be seen from the Appendix, the amount of the fine has

always been very low. The most frequently employed fine was 1 Swiss Frank, which is less than 1 Dollar (the current exchange rate is roughly 0.7 Dollar per Swiss Frank). Therefore, it seems unlikely that the abolishment of the fine was responsible for the observed drop in voter turnout. Furthermore, if voters react to small changes in the voting costs such as a 1 Dollar amount (drop of the fine), then voters should react to a much larger extent to substantial changes in the voting costs. However, the sign of the Dummy Postal is insignificant (see column 2 tables 1 and 2). Therefore, the introduction of postal voting, which brought a substantial decrease in transaction costs, did not increase voter turnout.[21]

The analysis conducted thus far suggests that the abolishment of the voting duty decreased voter turnout significantly, and that it was not due to the elimination of the fine. Therefore, the legal statement that "citizens are

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[21]One might worry that the endogeneity of the introduction of postal voting caused the lack of a positive sign. However, at least for the Cantons, which introduced postal voting in the 90's (which is the majority), the timing of introduction was exogenous. The reason is that a federal law, which was enacted in 1995, prescribed the Cantons to introduce the option of postal voting in order to facilitate voting for the citizens. Therefore, there was only some variation left with respect to the time until the process of mail voting was organized.

supposed to vote" seemed to be effective.

However, since there were only five Cantons with a minimally enforced voting duty, our estimation results might be driven by "outliers". Two Cantons might be particularly influential for our estimation results: The Canton Aargau, because it experienced such a big decrease in voter turnout after abolishment of the voting duty (see figure 2), and the Canton Zuerich, because it is the biggest in terms of population and receives the most weight in the weighted regressions.

Columns three and four in table 1 and 2 depict the impact of the voting duty, once the Cantons Aargau and Zuerich are dropped. As expected, the estimated impact of the voting duty diminishes, as soon as the Canton Aargau is omitted. On the other hand, the coefficient increases if the Canton Zuerich is dropped from the sample.

4   Extensions

A. Cantonal reactions to the abolishment of the voting duty

The variability of the estimated coefficient of the voting duty (compare columns two, three and four, tables 1 and 2) indicates a differing effectiveness

of the voting duty between the Cantons. In order to asses the *Cantonal* reactions to the abolishment of the voting duty, I newly include Cantonal dummies for the voting duties and estimate Cantonal effects instead of a common effect.[22]

Columns 1 and 2 table 3 display the estimated coefficients for the Cantonal voting duty dummies. As can be seen therefrom, having a legal obligation to vote lead to a 16/18 percent higher voter turnout in the Canton Aargau, but had no significant effect in the Canton Zuerich - the effects in the Cantons Thurgau and St. Gallen lie between 5 and 10 percent.

Therefore, only for the Canton Zuerich, no significant positive coefficient can be observed.

Two explanations seem plausible for this "aberrant" Canton. First, the Canton Zuerich was the only Canton who increased the amount of the fine substantially (from 1 Swiss frank to 10 Swiss franks; see Appendix), as long as the duty was enforced. This conversion from a symbolic fine into a real fine might have allowed to "buy" not voting and removed the feelings of guilt of not voting. GNEEZY & RUSTICHINI (2000) found a very similar effect

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[22]For instance, the Dummy AG takes a value of 1, if the Canton is Aargau *and* the voting duty is enforced in this year, and 0 otherwise.

in a completely different context: introducing fines for parents, who picked up their children from school too late, *increased* the number of late-coming parents. Their interpretation for this result was that parents perceived the fine as a price, which allowed to "buy" being late. In my voting study, I tried to test this hypothesis by including a measure for the *amount* of the fine next to the dummy fine. Consistent with my conjecture, an increase in the amount of the fine decreased voter turnout.[23] However, since most of the variation in the variable "amount fine" comes from the Canton Zuerich, the results are a bit speculative and hence not reported.

Secondly, removal of the voting duty might have had the smallest effect in Zuerich since this Canton abandoned the voting duty as the latest, and turnout before abolishment was the lowest as well. Simple correlations between the size of the "expressive effect" (coefficient before Cantonal voting dummy, weighted and unweighted) and turnout before the abolishment are higher than *90 percent* in both specifications. As such, removal of an unenforced law seems to have a particularly strong effect if people adhere to the law to a high degree.

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[23]As soon as a variable "amount fine" is included next to a dummy fine, the dummy fine gets significantly positive also for the Canton Zuerich.

Table 3: Different Specifications

	Cantonal Dummies for *Voting Duty*		Test for Endogeneity Law-Change: *Lead*-Dummies indicate Law Change occurring next / in two elections (left / right column)		Cantonal Dummies for *Voting Duty* with linear Cantonal Trends	
	OLS	**WLS**	**OLS**	**WLS**	**OLS**	**WLS**
Dummy AG	**18.4***** (2.3)	**16.5***** (2)	**19.1***** (2.6)	**17.7***** (2.1)	**14.3***** (2.3)	**14.6***** (2.2)
Dummy TG	**7.9**** (3.4)	**4.7**** (2.2)	**8.8**** (3.5)	**5.6**** (2.1)	**4.2*** (2.4)	**1** (2.1)
Dummy SG	**10.7***** (2.5)	**7.4***** (1.6)	**13.4***** (2.7)	**10***** (1.7)	**0.5** (2.2)	**0.5** (1.4)
Dummy ZH	**1.5** (2.2)	**0.7** (1.5)	**1.9** (2.7)	**1.7** (1.7)	**-5.7*** (3.1)	**-5.2***** (1.7)
			Lead +1	Lead +1		
Lead-Dummy AG			**-1.4** (2.2)	**-2.1*** (1.1)		
Lead-Dummy TG			**-2.5** (2.7)	**-3.3*** (1.7)		
Lead-Dummy SG			**-16.2***** (2.9)	**-10.9***** (1.6)		
Lead-Dummy ZH			**-3** (3.3)	**-5.2**** (2)		
Canton-FE Year-FE	Yes Yes		Yes Yes		Yes Yes	
Adj. R^2	0.99	0.99	0.99	0.99	0.99	0.99
Number of Observations	316	316	316	316	316	316

Dependent Variable: Voter Turnout per Canton and election year. White standard errors accounting for serial correlation within Panels (cantons) are depicted in parantheses. Controls not listed.

B. Endogeneity

The decision to abolish the voting duty might be endogenous. If the Cantons chose to abolish the voting duty due to a particularly strong decrease in voter turnout, then a lower voter turnout after the abolishment of the voting duty might reflect a Cantonal trend, which already started before the law change.

One crude way for testing the endogeneity of law changes is to include lead dummies in the regressions.[24] Columns three and four in table 3 indicate that endogeneity might be a problem for the Canton St. Gallen, since a large drop in turnout preceded the law change.

A straightforward way to control for such Cantonal differences in the development of voter turnout is to include Canton-specific time trends. Unfortunately, the Canton-specific time trends (together with Canton- and Time-Fixed Effects) explain nearly the whole variance of the voting duty dummies. Therefore, insignificant effects of the voting duty are likely to be the result of insufficient variation.

Nevertheless, the results from the estimations with linear Cantonal trends are depicted in columns 5 and 6. Whereas the effect of the legal obligation

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[24]See Friedberg (1998) for a similar approach in her analysis on divorce laws.

to vote on voter turnout still is high and significant in the Canton Aargau, it may become insignificant in the other Cantons, depending on the econometric specification.

To be cautious, I observe that in the Canton Aargau, where the voting duty was abolished at a time of high voting participation, the law change lead to a significant and large drop in voter turnout.[25] In the other Cantons, where the voting duty was abolished (endogenously) after a substantial drop in voter turnout, the effect on voting behavior was much smaller.

From a theoretical perspective, it is not so surprising that the biggest drop in voter turnout occurred in the Canton Aargau. Since the abolishment of the voting duty may have changed the perception of the social value/esteem of voting,[26] it potentially affected all the law-adherents' behavior, which were 80 percent in the Canton Aargau, but only between 40 and 50 percent in the other Cantons. Additionally, the degree of change of the perceived value/esteem of voting (after abolishment of the voting duty) is expected to be bigger in a community where most of the people go to the

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[25]Note that the drop was much larger than in other Cantons and therefore has nothing to do with general trends in voting behavior; time-fixed effects control for such common trends.

[26]See McAdams' (2000a) attitudinal theory of expressive law.

polls than in a community where many people don't vote in spite of their duty to do so.

5   Conclusions

This paper empirically analyzes the effect of a hardly enforced law on behavior. Using panel data on voter turnout, I find that the legal abolishment of the (minimally enforced) voting duty significantly decreased voter turnout. Since the drop in voter turnout was very unlikely caused by the drop of the fine or the transaction costs associated with paying the fine, this result is consistent with the existence of a certain (or at least situational) expressive function of law.

As for the "size" of the expressive effect, it differed between the Cantons. The abolishment of the voting duty had the biggest impact on voter turnout in the Canton (Aargau), where voter turnout was the highest at the time of the law change (strong voting norm). In the other Cantons, where the voting duty was (maybe endogenously) abolished after a big drop in voter turnout, the effect was smaller. Therefore, removal of an unenforced law might have a particularly strong effect on behavior in a situation where people generally

adhere to the law.

Although it is implausible that the observed drop in voter turnout resulted due to the change in the "monetary" incentives (drop fine), we cannot rule out that the existence of minimal sanctions helped maintaining the social voting norm strong. Firstly, because not-voting was minimally sanctioned, the citizens were at least yearly reminded of their voting duty. Secondly, the amount of informal sanctioning might have been weakly connected to the enforcement of the sanction, since the persons responsible for collecting the fines knew the "sinners" for certain.

As such, even if passing a law affected behavior with no formal sanctions, a minimal or random enforcement (at the beginning) might strengthen its "expressive" effect.

However, since the data set is quite limited (I am basically looking at four law changes), it is too early to draw definite conclusions about the expressive function of law. Although (panel) data on unenforced (or hardly enforced) laws are hard to find, there is definite need for more research in this area. A panel with more law changes would allow to more carefully address the conditions, under which "expressive effects" of law exists. For instance, the present analysis on mandatory voting laws suggests that the impact of a

law change (abolishment voting duty) might depend on whether it is truly exogenous or results after a remarkable change in behavior.

Next to the effect of mandatory voting laws, I was able to test the effect of (optional) postal voting on voter turnout.[27] The regressions show that this institutional change did *not* lead to a significant increase in voter turnout in spite of the large reduction in transaction costs. Apparently, voters who didn't go to the polls couldn't be motivated by this "cheap" voting mechanism either.[28]

The results from this study are most likely applicable to other situations with public good character (blood donations, garbage removal etc.). In particular, the analysis suggests that governmental actions which appeal to the civic duty (i.e. by legally prescribing it) may have substantial effects. In contrast, as the example of postal voting shows, actions which target at reducing the costs of provision of the public good might be less effective.

While a legal prescription may motivate citizens to contribute to pub-

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[27]There was substantial Cantonal variation in the date, when the option of postal voting was introduced (see Appendix).

[28]However, since there is a substantial share of votes being handed in by the postal way, there must have been some kind of substitution, e.g. regular voters using the system of postal voting instead of going to the polls.

lic goods, a harsh enforcement of law might be counterproductive in this area. In Switzerland, there was one Canton (Zuerich) which raised the fine for non-voting from 1 Dollar to roughly 8 Dollars and therefore turned the "symbolic" fine into a "real" fine. Surprisingly, the data indicate a negative correlation between the amount of the fine and voter turnout. While the amount of the fine might be endogenous, the increase in the fine might also have "legitimated" non-voting in the eyes of certain citizens: while conscious citizens certainly experienced feelings of guilt for not voting under a fine as low as 1 Dollar, they might have no longer felt guilty under a substantial fine and chosen to "pay" for not going to the polls.[29]

At any rate, this study provided some interesting insights about how citizens reacted to changes in the (hardly enforced) legal obligation to vote (expressive function of law), an increase in the amount of the fine (monetary incentive) or a reduction in the transaction costs of voting. Since this is

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[29]See GNEEZY & RUSTICHINI (2000), who found a very similar effect: introducing fines for parents, who picked up their children from school too late, increased the number of delays. Still, it is probable that very large fines would be effective again. In our example, a fine of a very large amount would probably urge the citizens to go to the polls out of monetary considerations - however, this so-induced increase in voter turnout might not be desirable.

the first (Real World) Experiment, which studies the contribution to a public good under these varying "incentive schemes",[30] more research is highly warranted for gaining a broader understanding of this topic.

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[30]Most of the experimental research on public goods focuses on the strategic interactions between the players (see e.g. FEHR & GAECHTER (2000), FISCHBACHER, GAECHTER & FEHR (2001)). As to my best knowledge, there have been some experiments on the effect of monetary incentives on the provision of public goods (GNEEZY & RUSTICHINI (2000), FEHR & GAECHTER (2002)), but no experiments or studies which explored the impact of an unenforced law or a reduction in the transaction costs on cooperative behavior.

6 Appendix

Overview of the Cantons' institutional arrangements of Voting

Canton	Voting-Duty Enacted	Voting-Duty Abolished	Amount of Fine	Introduction Postal Voting
AG	1885	1971	2-4 Sfr.	1993
SG	1890	1979	2-5 Sfr.	1979
SH	1876	Still Enacted	Until 1973: 1 Sfr. After 1973: 3 Sfr.	1995
TG	1904	1985	1 Sfr.	1985
ZH	1869	1985	Until 1955: 1 Sfr. Until 1972: 1-3 Sfr. Until 1985: 5-10 Sfr.	1994
AR	1908	1996	-*	1988
BE	1921	1981	-	1991
UR	1888	Still Enacted	-	1995
OW	1902	Still Enacted	-	1995
NW	1913	Still Enacted	-	1994
GL	1887	Still Enacted	-	1995
AI	1847	Still Enacted	-	1979
TI	1830	Still Enacted	-	-
SZ	-	-	-	-
LU	-	-	-	1994
ZG	-	-	-	1995
FR	-	-	-	1995
SO	-	-	-	1980
BS	-	-	-	1995
BL	-	-	-	1978
GR	-	-	-	1995
VD	-	-	-	-
VS	-	-	-	-
NE	-	-	-	-
GE	-	-	-	1995
JU	-	-	-	1999

* Note: This Canton had a Voting Fine in early years, but not on the type of elections investigated in this study.

Data Source Voting-Duty: Cantonal Laws. Data Source Postal Voting: Survey of Postal Voting in Switzerland ("Umfrage über die briefliche Stimmabgabe").

7 Literature

Adler, Matthew (1999). Expressive Theories of Law. University of Pennsylvania Law School Working Paper No. 275.

Ashenfelter, Orley & Kelley, Stanley (1975). Determinants of Participation in Presidential Elections. Journal of Law & Economics, 18: 695-733.

Bertrand, Marianne, Duflo, Esther & Mullainathan, Sendil (2004). How much should we trust Differences-in-Differences Estimates? Quarterly Journal of Economics, 119(1): 249-275.

Bohnet, Iris, Frey, Bruno S. & Huck, Steffen (2001). More Order with less Law: On Contract Enforcement, Trust, and Crowding. American Political Science Review, 95: 131-144.

Cooter, Robert (1998). Expressive Law and Economics. Journal of Legal Studies, 27: 585-608.

Cooter, Robert (2000). Do Good Laws make good citizens? An Economic Analysis of Internalized Norms. Virginia Law Review, 86: 1577-1601.

Dhammika Dharmapala & McAdams, Richard (2003). The Condorcet Jury Theorem and the Expressive Function of Law: A Theory of

Informative Law. American Law and Economics Review, 5: 1-31.

Fehr, Ernst & Gaechter, Simon (2000). Cooperation and Punishment in Public Goods Experiments. The American Economic Review, 90: 980-994.

Fehr, Ernst & Gaechter, Simon (2002). Do Incentive Contracts undermine Voluntary Cooperation? Institute for Empirical Research in Economics (IEW) Working Paper Nr. 34.

Fischbacher, Urs, Gaechter, Simon & Fehr, Ernst (2001). Are people conditionally cooperative? Evidence from a public goods experiment. Economics Letters, 71: 397-404.

Friedberg, Leora (1998). Did Unilateral Divorce Rates Raise Divorce Rates? Evidence from Panel Data. American Economic Review, 88(3): 608-627.

Gneezy, Uri & Rustichini, Aldo (2000). A Fine is a Price. The Journal of Legal Studies, 29(1): 1-18.

Hasen, Richard L. (1996). Voting without Law? University of Pennsylvania Law Review, 144: 2135-2179.

Jackman, Simon (2003). Compulsory Voting. Forthcoming: Interna-

tional Encyclopedia of the Social and Behavioral Sciences.

Kahan, Dan M. (1996). What Do Alternative Sanctions Mean? University of Chicago Law Review, 63: 591-653.

Lessig, Lawrence (1995). The Regulation of Social Meaning. University of Chicago Law Review, 62: 943-1045.

Lessig, Lawrence (1998). The New Chicago School. Journal of Legal Studies, 27(2): 661-691.

McAdams, Richard (1997). The Origin, Development and Regulation of Norms. Michigan Law Review, 96: 338-433.

McAdams, Richard (2000a). An Attitudinal Theory of Expressive Law. Oregon Law Review, 79: 339-390.

McAdams, Richard (2000b). A Focal Point Theory of Expressive Law. Virginia Law Review, 86: 1649-1729.

Pildes, Richard H. (1998). Why Rights are not Trumps: Social Meanings, Expressive Harms and Constitutionalism. Journal of Legal Studies, 27(2): 725-763.

Posner, Eric A. (1996). The Regulation of Groups: The Influence of Legal and Nonlegal Sanctions on Collective Action. University of Chicago

Law Review, 63: 133-197.

Posner, Eric A. (2000). Law and Social Norms. Cambridge, Massachusetts: Harvard University Press.

Scott, Robert E. (2000). The Limits of Behavioral Theories of Law and Social Norms. Virginia Law Review, 86: 1603.

Silver, Morris (1973). A Demand Analysis of Voting Costs and Voting Participation. Social Science Research, 2: 111-124.

Southwell, Priscilla & Burchett, Justin (2000). Does Changing the Rules Change the Players? The Effect of All-Mail Elections on the Composition of the Electorate. Social Science Quarterly, 81: 837-845.

Struthers, John & Young, Alistair (1989). Economics of Voting: Theories and Evidence. Journal of Economic Studies, 16: 1-42.

Sunstein, Cass (1987). On the expressive function of law. University of Pennsylvania law review, 144: 2021-2053.

Sunstein, Cass (1997). Free Markets and Social Justice. New York, Oxford: Oxford University Press.