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of teachers just a reflection of their
occupational concerns?**

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Are the education policy preferences of teachers just a reflection of their occupational concerns?

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Education policy opinions and preferences of teachers are important not only in shaping public opinion, they also play a key role in ensuring the acceptance, and hence the implementation, of education reforms. While media communicates a great deal about the education policy preferences of the organised teaching body, we know little to nothing about how much these preferences coincide with or differ from those of the rest of the population. On the basis of two representative opinion polls on education policy issues in Switzerland (2007, 2012), we analysed the differences in preferences between those who have completed teacher training and the rest of the population. This shows that preferences differ statistically significantly if the topic has a direct relation to teachers' working conditions. By contrast, in all other topics which relate to teachers' working conditions only indirectly or not at all, there are no differences in preferences. Alongside their specialist knowledge, therefore, vested interests of teachers must undoubtedly be considered as an explanation of different education policy preferences.

1. Introduction

Free choice of school, the introduction of external student assessment or educational expenditure are, like other education policy topics, often the subject of controversial debate in which unionised teachers effectively advocate their interests and communicate their concerns and attitudes through the media. It is obvious that teachers are perceived by the public as experts on the education system whose views also have an impact on shaping the opinions of the rest of the population. Teachers' opinions therefore play a very important role in the education system, because their attitudes and their acceptance of education reforms represent one of the key conditions for the success of education in general and of reforms in particular (see, for instance, *Oelkers & Reusser, 2008*).

But do teachers always represent positions which are shared by the rest of the population, and is it really their specialist knowledge which explains any differences in preferences, or could it also be their own interests because, unlike the rest of the population, teachers' working conditions may be directly affected by reforms and changes in the education system?

Thus, even though the education policy preferences of teachers are very important to the education system, little to nothing is known about whether and how these preferences potentially differ from those of the rest of the population. Even in other countries, such questions have so far been investigated only occasionally (see, for instance, as a notable exception *West et al., 2012*, for a similar analysis in the US), and Switzerland has lacked a close analysis of this question also.

To close this gap, two Swiss surveys on different education topics from 2007 and 2012 are used in this study. These were carried out by the research institute *gfs.bern* on behalf of the University of Bern¹ Centre for Research in Economics of Education. The basic population surveyed consists of Switzerland's eligible voters on the one hand (2007), and the resident population in Switzerland on the other (2012). The aim of the survey was to find out how different population groups feel about topics relevant to education policy, and what educational preferences they have. Detailed information on socioeconomic and demographic characteristics, like details about the family situation and other factors were also collected. These allow differences in preferences to be investigated controlling for many characteristics of different population groups.

The paper is structured as follows: section two discusses the theoretical explanations and existing empirical literature. Section 3 describes the data, section 4 contains a comparison of people who have trained as teachers and the rest of the population with regard to numerous socioeconomic and demographic characteristics and other criteria, section 5 describes the survey design, and section 6 the empirical results. Section 7 presents the conclusions.

2. Theoretical considerations and empirical findings

A first explanation as to why teachers' preferences regarding educational topics may differ from the attitudes of people with a different educational background is supplied by theoretical considerations of teaching as a profession² and of expert knowledge which, since the 1980s in particular, have also found their way into teacher research (see, for instance, *Pajares, 1992, or Reusser et al., 2011*). Based on the criteria defining a specific profession, such as regulated access to the profession, coupled with specific training on content and method, which goes hand in hand with the knowledge of the specific professional language, an advanced decision-making ability, and profession-relevant research, teachers can be defined as their own professional group (*Köck, 2008*).

1 These surveys were carried out by the Leading House «Economics of Education» of the universities of Zürich and Bern thanks to financial support from the Federal Office for Professional Education and Technology (OPET)/State Secretariat for Education, Research and Innovation (SERI). The authors thank Maria A. Cattaneo for the establishment of the surveys used in this study.

2 The term «profession» is used here in a general manner to describe the occupational group. The classic sociological professional theory definition is narrower (see *Parsons, 1968, Abbott, 1988, Stichweh, 1994*).

Connected to this is the assumption that teachers have specific, profession-related knowledge, which means «learned facts, theories and rules, as well as experiences and attitudes» (*Bromme, 1992, p. 10*). This produces a possible asymmetry of information between the teaching body and the rest of the population, as observed in other occupational fields also. On the basis of this unequal knowledge, it can therefore be assumed that the assessment and evaluation of certain situations may also be different.

Empirical findings about the expert knowledge of teachers are based mostly on qualitative investigations of the professional convictions of teachers in general regarding teaching and learning processes (*Woolfolk Hoy et al., 2006, Reusser et al., 2011*), or on specific questions about teaching and learning processes (e.g. *Crawford, 1998, Vacc & Bright, 1999, Staub & Stern, 2002*), and less on education policy or education system topics. Another research area is the investigation of teachers' attitudes to reforms and their experiences with them. More recent papers on this are concerned, for instance, with the introduction of standardised performance tests (overview in *Wood et al., 2006*, further studies *Dass, 2001, Seashore Louis et al., 2005, Donnelly & Sadler, 2009*). A comparison between teachers and people who do not work in the education system is, however, largely lacking from these analyses, which is why, based on these studies, it is impossible to say whether there are differences in assessments or preferences between teachers and the rest of the population and, if so, whether these might be due to an asymmetry of knowledge between the groups.

A second approach to explain different preferences in educational questions between teachers and other people is provided by the Rational Choice Theory (*Becker, 1976*).³ Differences in preferences might occur if thoughts on the expected individual costs and benefits of different options appear to be different for teachers and other people. In forming preferences, both groups act in a way which maximises benefit, but for teachers this leads to different cost-benefit analyses than for non-teachers. Analyses of voting patterns show, for instance, that voters in referendums act to maximise individual utility (cf. *Bonoli & Häusermann, 2009*). In comparing the preferences of teachers and of other people this could mean that differences in preferences appear above all in issues which are directly related to teachers' everyday working life and working conditions. Investigations of the topics of free choice of school and competition between schools point towards this direction. These investigations show that teachers tend to be negative towards such competition, which directly impacts on their working conditions, in comparison to parents who hope for a better fit between the school and child (cf., for instance, *Sandy, 1992, Belfield, 2003, and Diem & Wolter, 2013*).

Naturally this raises the question why we are at all interested in differences in preferences on education policy and education system issues between teachers and non-teachers, when the teaching profession (compulsory education) makes up only around 2.3% of the population. The importance of teachers' preferences, and thus also of potential divergences of these preferences from those of the rest of the population, stems from two things. First, it is difficult to implement changes or reforms in the education system against the opposition of teachers, as the latter are of course responsible for a large part of their implementation and can therefore block unwanted changes. Secondly, the organised teaching body can also act against their employer (the State) if their interests differ from the interests of the numerically much larger group of non-teachers, because they, as «insiders», unlike «outsiders» (non-teachers), have a higher bargaining power (see *Lindbeck & Snower, 1988, 2001*, on the insider-outsider theory). They can therefore prevent the employer from implementing changes which could (potentially) have a negative impact on their working conditions, even if the same changes would promise more benefit to the vast majority of outsiders (students and parents). The bargaining power of the «insiders» also increases through the fact that «outsiders» are more poorly organised and are only temporarily interested in education issues, i.e. limited to the period in which they themselves or their own children make use of education (see also *Moe, 2011*).

Public opinion polls on education issues are carried out regularly in some countries, for instance in Germany by the Institut für Schulentwicklungsforschung (IFS) [Institute for School Development Research] (*Kanders, 2004*), in Austria as part of the education monitoring process (*IFES, 2011*), in Canada (Ontario, see, for instance, *Hart, 2012*) or in the United States (see the Harvard University's PEPG Survey, *West et al., 2012*). In some cases, these studies indicate similarities between the preferences and assessments of teachers and the rest of the population or even just parents of school-age children. With the exception of the study

3 Similarly the theory on «vested interests» (see, e.g., *Sivacek & Crano, 1982*) predicts differences in preferences depending on the differences in perceived personal consequences of the policy.

by *West et al. (2012)*, for which an additional sample of teachers was taken, these differences are, however, not analysed in further detail, i.e. it is often unclear whether preferences and opinions differ because it is a case of teachers on the one hand and non-teachers on the other, or whether the differences can be put down to the fact that these two groups also differ in other sociodemographic and socioeconomic characteristics.

3. Data

Two different data sets from the pool of data used to answer the question of whether teachers' preferences differ from the preferences of the rest of the population in relation to different education issues. These opinion polls on education issues were carried out in 2007 and 2012 respectively by the practical social research institute Gesellschaft für praktische Sozialforschung (gfs.Bern) on behalf of the University of Bern's Centre for Research in Economics of Education. The latter drafted the questionnaires and carried out the evaluations on the different topics (see *Cattaneo & Wolter, 2009, Busemeyer et al., 2012, Cattaneo & Wolter, 2013, Diem & Wolter, 2013*). These already published evaluations contain also more detailed information on the samples used.

The polls were carried out through a telephone interview and were conducted in German, French or Italian depending on the language region. The samples taken are representative for Switzerland. Alongside the attitude to various questions on the education system, a range of individual socioeconomic characteristics, and details of political orientation and family situation were collected in each case. The basic population of the 2007 data set was Swiss electors aged 25 and above, and comprised 2,025 people. The basic population of the 2012 sample was the Swiss resident population aged between 18 and 99. Of the 2,828 interviews, 2,060 were with Swiss citizens, and 768 with non-citizens. To guarantee the comparability of the two data sets, people who were not Swiss citizens (2012 data set) were excluded from this analysis.

As regards the representativeness of the survey, it can be stated that the number of people in the sample who have trained as teachers is around the number expected, based on the share of training contracts (3.3% in 2007 and 3.7% in 2012). The «teacher» group refers to those who indicated that they had trained as teachers (generally a teaching qualification for the compulsory education sector). Since the survey did not contain any indication of current employment, this group also included people who had completed teaching training but at the time of the survey worked in a different profession or did not work at all.⁴ Based on socialisation theory concepts it can, however, be assumed that training is an important stage in professional socialisation, and the requirements of learning and later carrying out the profession produce «actors with the same habitus, i.e. shared thinking and evaluation patterns and patterns of action» (*Heinz, 1991, p. 402*). However, it should be assumed that, in questions on issues which (could) impact on the specific working conditions of teachers, people who trained as teachers but no longer work as teachers (might) entertain different views from active teachers. This would potentially increase the variance of opinions in the «teacher» group on the one hand, and reduce the difference between the «teacher» group and the non-teacher group on the other. This means that any distortions which might exist as a result of the group set-up would make it impossible to empirically determine differences between active teachers and non-teachers, or that these would be statistically insignificant, and that the actual differences between teachers and the rest of the population, taking into account only professionally active teachers, would be greater than shown here.

The absolute number of observations is, however, too small to analyse in depth any differences within the group of people who have trained as teachers, which is why we are limiting ourselves to comparisons between the groups. For comparisons between the groups the small sample size may be a problem if it exaggerates the heterogeneity within the group of people who have trained as teachers, which increases the standard errors of the estimates so that the differences to the other groups are therefore statistically no longer

4 Based on Swiss census data (2012), 2.3% of the Swiss population was employed in the teaching workforce (compulsory education sector). Therefore we can estimate an upper bound of one third of the respondents to our surveys that had initially trained as teachers but were working in another occupation at the time of the survey.

significant. However, where statistically significant effects are found, a potential heterogeneity of opinions within the group of people who have trained as teachers should not present a problem even with a small sample size of observations.

4. Descriptive comparison between groups

The attitudes and preferences of teachers could, as mentioned already, be down to the attitude of a specific professional group or to preferences shaped by self-interest, which therefore differ from those of the rest of the population. It could, however, also be that teachers differ from the rest of the population in their socio-demographic and socioeconomic characteristics, which impact on preferences and attitudes, and thus that the differences between teachers and non-teachers are a result of these differences and not of the fact that they are teachers or not. To avoid such misinterpretations, the differences in preferences between teachers and non-teachers are analysed below in multivariate analyses, which also take into account a range of socio-demographic and socioeconomic factors. That this is essential in a comparison is demonstrated already by a simple comparison of mean values of the key individual characteristics of people who have trained as teachers (with TT/teacher training) and those who have not (without TT) and of people who have trained as teachers with people who have not trained as teachers but have another tertiary qualification (UAS/U, i.e. universities of applied sciences/universities) (Table 4, see Appendix).

Not surprisingly, women are much more strongly represented in the teacher group. What is also remarkable is that people who have trained as teachers and those who have not differ in terms of their political orientation. Those in the category «With teacher training» are more often on the left of the political spectrum than other people. The share of people in part-time employment also differs significantly in the two groups. The latter is mostly to be put down to the link between gender and the probability of being employed part-time. Moreover, people who have trained as teachers are more rarely in the lowest category of «Household income below CHF 4,000» than people who have not trained as teachers (the categories for recording the household incomes for the two data sets are not identical, and so overlapping categories were chosen for the comparison of mean values). In addition, people who have not trained as teachers are more likely to have no children than people who have trained as teachers.

The comparison of mean values of people who have trained as teachers only with people with another tertiary qualification (university of applied sciences or university) shows some other significant differences in individual characteristics, although not many. In other words some individual differences between people who have trained as teachers and the rest of the population are due more to the level of education than specifically to training as a teacher. The tendency of people who have trained as teachers to be more on the left of the political spectrum appears only in comparison to the overall population but not in comparison to people with another tertiary training. People who have trained as teachers are, however, less likely to be on the right of the political spectrum than people with another tertiary qualification. The share of those in part-time employment is, in people who have trained as teachers, statistically also significantly higher compared to other people with tertiary training.

5. Study design

Based on the theoretical considerations, the statistical evaluation concentrates on two differently oriented subject areas. First are questions which may have a direct influence on the working conditions of compulsory school teachers, and second questions on education issues which can be assumed to affect teachers only indirectly in their everyday work – if at all. Should expert knowledge more than anything else explain differences in opinions between teachers and the rest of the population, then we would expect different

opinions in both subject areas. However, if it is self-interest which explains the differences in opinions, then we would instead tend to find differences, or only find differences, in questions which directly affect teachers' working conditions.

Since different studies (for instance *Zarifa & Davies, 2007*) prove that satisfaction with the education system influences the attitude to educational topics, before evaluating the survey questions on the two subject areas we analyse the question of satisfaction with the quality of the state education system. This serves as a primary control question to determine whether differences in opinion on other education issues might be explained by the fact that teachers and other people have a different assessment of educational quality and therefore feel different degrees of pressure to support changes in the education system. The question was: «Are you happy with the quality of the state education system?» For the multivariate evaluation a dummy variable are set up, coded 1 if the answer was positive. As it turned out that in the assessment of the quality of the education system teachers did not differ from other people (see Table 2), this question was no longer used as an additional control variable in the subsequent appraisals. As this question was used only in the 2007 survey, moreover, in the questions from the 2012 questionnaire it could not be considered as a control variable.

Differences in the preferences of teachers and the rest of the population as regards the funding of education were analysed first. To see whether being directly affected leads to differences between teachers and the rest of the population, two different questions but both on educational funding were analysed, one of which affected people who had trained as teachers directly in their everyday working life, while the second would have no influence on it. The first question involved increasing funding for the compulsory education sector in order to improve student-teacher ratios, which at the same time would lead to a reduction in teacher workloads, while the second question involved increasing state funding for tertiary level B professional education and training, which would have reduced the private training costs (questions 1 and 2, see Appendix 1). Since, in the present data set, most of the people who have trained as teachers are primary and lower secondary school teachers, increasing funding for compulsory education would have a direct impact on their workload, while raising state funding for tertiary level B professional education and training would not have any impact on it.

This is followed by analysis of three further questions on subjects which directly involve teachers with regard to their everyday working conditions (questions 3–5, Appendix). These are whether to support private schools with public money, and to introduce a free choice of public school, on the one hand, and the introduction of uniform cantonal tests to assess pupil abilities on the other hand. With the first two questions it can be assumed that teachers would feel exposed to increased pressure in their work as a result of increased competition between private and state schools, or between public schools, and in the third question that they would feel exposed to greater control over their work, and would therefore support such reforms less than the rest of the population, who would tend to support those reforms as extending their freedom of choice in the education system and providing more transparent information about pupil performance.

Finally, two more questions are analysed which involve the education system, but should not have a direct impact on the working conditions of teachers in compulsory education (questions 6 and 7, see Appendix) and in which accordingly no difference in preferences between teachers and other respondents is expected, if such differences in preferences are explained only by a direct impact on work and not by different opinions on education questions in general. The first question relates to the care of children under the age of 3 and whether these should primarily be cared for by the family or whether there is also support for care outside the family. The second question involves the assessment of the average baccalaureate rate in Switzerland, currently 20%, and whether this rate is regarded as too high, appropriate or too low.

To compare the attitude to selected education issues of people who have trained as teachers or people with a different qualification, logistical regressions are calculated. Two comparison groups are formed in each case. The first comparison group (Model 1) compares teachers with everyone else, while in the second comparison group (Model 2), other people are considered differently depending on their level of education. The comparison of teachers with other people differentiated by level of education indicates how far, if at all, teachers have similar preferences to other people with a tertiary qualification and differ from the average preferences of the population not because they have trained as teachers but because they have a tertiary qualification, or people with a tertiary qualification tend to have similar preferences to teachers. Gender,

age, employment status, political orientation, family situation (children, household income) and place of residence (type of settlement: city, country, agglomeration and language region) are taken into account as control variables. In the question asking for views on the baccalaureate rate, the cantonal baccalaureate rate of the canton of residence of respondents is also taken into account.

6. Results

6.1 Satisfaction with the quality of the education system

Most respondents are positive about the quality of the state education system in their canton of residence. Around 80% of respondents are either very or fairly satisfied. Between people who have trained as teachers and those who have not, no significant difference is observed in the degree of satisfaction with the quality of the education system (Table 5, Model 1, see Appendix). Satisfaction with the quality of the education system falls as the level of education of respondents rises. In comparison with people who have completed compulsory schooling only, therefore, those who have trained as teachers view the quality of the education system as statistically significantly less positive, but the judgment of people with another tertiary qualification does not deviate significantly statistically from that of teachers (Table 5, Model 2, see Appendix).

6.2 Education funding

In the two questions on education financing there is a statistically significant higher approval. In the two questions on education financing there is a statistically significant higher approval (Table 6, see Appendix) of an increase in expenditure on compulsory education by people who have trained as teachers (88%) compared to the average population (70%). Compared to people with a tertiary qualification (77%) the difference is still large (an odds ratio of 2), but is no longer statistically significant, which leads to the conclusion that people with a tertiary education have replied quite heterogeneously to the question.

Although most respondents would also support an increase in state funding for tertiary level B professional education and training, the differences between people who have trained as teachers and those who have not are very small and not statistically significant. In other words, much greater support for educational expenditure among those who have trained as teachers in comparison to the rest of the population is found only when the education funding is for an education sector and a purpose in and from which the teachers can benefit directly.

6.3 Subjects which would affect teachers' everyday working life

Regarding the choice of school and standardised cantonal pupil tests, approval among people who have trained as teachers is consistently smaller and statistically significantly lower even when controlling for many other factors (Table 7, see Appendix). Only with regard to standardised pupil testing, the difference to other people with a tertiary education is statistically insignificant. The latter shows a strong education-dependent preference; the lower the level of education, the higher the approval of standardised cantonal tests. In total around 80% of respondents who had not trained as teachers would welcome such tests, compared to 62% of people who have trained as teachers.

In all questions which directly concern teachers' everyday working life, gender is also a relevant variable which influences preferences. Women tend to support freedom of choice, but tend to reject the introduction of standardised cantonal tests. Although those who have trained as teachers are predominantly female, the effect of the «teacher training» variable is hardly reduced after controlling for gender.

6.4 Subjects which do not directly affect teachers' everyday working life

The descriptive assessment reveals that 81% of respondents who have not trained as teachers are in favour of children under the age of 3 being cared for by the family or a caregiver close to the family. 75% of people who have trained as teachers are in favour of this, and 70% of graduates of universities or universities of applied sciences. The differences between people who have trained as teachers (Table 8, see Appendix) and all other groups are, however, not statistically significant. In the assessment of the baccalaureate rate a multinomial regression model was used, with the base category that the rate has been assessed as just right. 27% of interviewees who had not trained as teachers regard the rate as too low, 58% of this group regard the rate as just right and 15% as too high. Of people who have trained as teachers 30% found the rate too low, 52% just right and 18% too high. Those with a tertiary education were slightly more likely to regard the rate as too low, but the differences between people who have trained as teachers is not statistically significant whether compared to the average population or compared to people with a tertiary education.

7. Conclusions

The opinions and education policy preferences of teachers are important to the design of the education system in two ways. First, teacher opinions have a considerable influence on public debate on education issues, and second, the successful implementation of education policy decisions is dependent on acceptance by teachers. Despite this dual importance of the education policy preferences of teachers, little is known about how far these preferences coincide with or differ from those of the rest of the population. Moreover, it is difficult to assess whether any differences are due to the fact that teachers are experts and therefore have a specialist knowledge of educational issues which sets itself apart from the level of knowledge of the average population, or whether it is the direct impact on working conditions which explains the differences in preferences.

To examine these questions in detail, data was analysed from two representative surveys of the adult population in Switzerland on different education topics from the years 2007 and 2012. The detailed data first enabled comparisons of preferences between people who have trained as teachers and other people who have not, taking into account a wide range of sociodemographic and socioeconomic factors, as teachers differ from the rest of the population in many of these characteristics, which can also have an impact on education policy preferences. Secondly a general question regarding the assessment of the quality of the education system helped to clarify whether any differences in opinions and preferences might be put down to the fact that people do not agree with regard to the status quo in educational quality. We would expect people who consider the quality of the education system to be very good to be more critical of changes and reforms, and vice versa. Thirdly, the broad range of education policy questions allowed a comparison of preferences on issues which can be assumed to have a direct influence on teacher's working conditions, and on those where this relationship does not exist or exists only indirectly. If the different specialist knowledge of the persons surveyed explains differences in preferences then it should be expected that these appear irrespective of whether the question is geared directly towards the working conditions of teachers or not. If, by contrast, the impact on everyday working life explains differences in preferences, then such differences are expected only in questions which relate to working conditions.

The findings show that people who have trained as teachers are positioned differently from people who have not exclusively on issues which directly affect teachers in their everyday working life. Thus, for instance, the improvement of working conditions through more financial resources meets with a significantly higher approval, whereas the improvement of the financial resources of students in tertiary level B professional education and training does not meet with higher approval than in the rest of the population. Similarly, all changes which might negatively influence teachers' everyday working life, such as greater competition (free choice of school) or greater transparency as to the performance of the education system (cantonal standardised student assessments), meet with significantly lower approval from people who have trained as teachers

than the rest of the population. Finally, on education issues which do not have a direct connection to the everyday working life of teachers in compulsory education, such as childcare in early childhood or the baccalaureate rate, no differences in opinions and preferences can be seen between the groups.

Even if the question as to how far attitudes might be connected to specific expert knowledge, which leads people to evaluate changes differently due to their teacher training and professional experience, cannot ultimately be clarified, it is evident that differences in preferences and opinions emerge only in those issues which directly affect teachers in their everyday working lives. In the interpretation of the media-dominated education policy debate it should, therefore, definitely be considered that teachers, in regard to individual topics, form a quite specific interest group whose opinions may not coincide with those of the rest of the population, only out of self-interest.

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Appendix

Questions

1. Imagine an initiative is launched in the canton where you live to increase spending on education for primary and secondary schools by 10% to improve pupil-teacher ratios. Would you vote Yes or No?
2. Do you think that the State should also pay tertiary level B professional education and training costs? Yes/No?
3. Do you agree that private schools should be supported with public funding? Yes/No?
4. Do you agree with the idea that parents should have a free choice between public schools for their children? Yes/No?
5. Should pupils' knowledge be periodically tested through standardised cantonal school tests? Yes/No?
6. Should children under 3 be cared for primarily by their parents or another caregiver close to the family? Yes/No?
7. In Switzerland around 20% of pupils graduate from an academic baccalaureate school. Do you think this rate is too low, just right, or too high?

Table 1: Descriptive representation of variables (data set 2007)

	mean	sd
Satisfaction with the quality of the state education system	0.791	0.407
Preference for increasing expenditure for compulsory education	0.710	0.454
Preference for increasing state funding for tertiary level B professional education and training	0.625	0.484
Supporting public funding of private schools	0.274	0.446
Supporting the choice between public schools	0.640	0.480
People who have trained as teacher	0.033	0.180
Lower secondary education	0.240	0.430
Upper secondary education	0.510	0.500
College of professional education and training (PET college) degree	0.090	0.290
University of applied sciences/university degree	0.130	0.330
Female	0.500	0.500
Age 25–39	0.260	0.440
Age 40–64	0.490	0.500
Age 65+	0.250	0.430
Employed	0.570	0.500
Unemployed	0.160	0.360
Retired	0.270	0.450
Left wing	0.175	0.380
Centre	0.546	0.498
Right wing	0.146	0.353
Not significant	0.133	0.340
No children	0.280	0.450
School-age children	0.240	0.430
Non school-age children	0.480	0.500
Household income below CHF 3,000	0.107	0.309
CHF 3,000–5,000	0.246	0.431
CHF 5,000–7,000	0.308	0.462
CHF 7,000–9,000	0.184	0.388
Above CHF 9,000	0.144	0.351
City	0.250	0.430
Agglomeration	0.410	0.490
Rural community	0.340	0.480
German-speaking Switzerland	0.690	0.460
French-speaking Switzerland	0.250	0.430
Italian-speaking Switzerland	0.060	0.240

N = 2525

Table 2: Descriptive representation of variables (data set 2012)

	mean	sd
Supporting standardised cantonal school tests	0.796	0.403
Supporting family care of children under 3	0.807	0.395
Regards the baccalaurate rate	1.885	0.640
People who have trained as teacher	0.037	0.189
Lower secondary education	0.145	0.352
Upper secondary education	0.535	0.499
College of professional education and training (PET college)	0.100	0.299
Universities of applied sciences/universities	0.184	0.388
Female	0.528	0.499
Age 25–39	0.311	0.463
Age 40–64	0.442	0.497
Age 65+	0.247	0.431
Employed	0.602	0.490
Unemployed	0.156	0.363
Retired	0.242	0.428
Left wing	0.180	0.384
Centre	0.529	0.499
Right wing	0.167	0.373
Not significant	0.124	0.329
No children	0.345	0.476
School-age children	0.179	0.383
Non school-age children	0.474	0.499
Household income below CHF 4,000	0.137	0.344
CHF 4,000–6,000	0.246	0.431
CHF 6,000–8,000	0.304	0.460
CHF 8,000–10,000	0.172	0.377
CHF 10,000–20,000	0.125	0.331
Above CHF 20,000	0.016	0.126
City	0.229	0.420
Agglomeration	0.448	0.497
Rural community	0.323	0.468
German-speaking Switzerland	0.717	0.451
French-speaking Switzerland	0.238	0.426
Italian-speaking Switzerland	0.044	0.207
Cantons with a low baccalaurate rate	0.253	0.435
Cantons with an average baccalaurate rate	0.428	0.495
Cantons with a high baccalaurate rate	0.317	0.466

N= 2060

Table 3: Bivariate statistics (in percent)

		Total	People without teacher training (TT)	People with teacher training (TT)	People with a university (U) or a university of applied sciences (UAS) degree
Satisfaction with the quality of the state education system	Completely satisfied	19.5	19.5	18.6	16.8
	Somewhat satisfied	59.6	59.7	57.8	52.9
	Somewhat dissatisfied	15.8	15.7	17.2	22.3
	Completely dissatisfied	5.2	5.1	6.6	8.0
Increasing expenditure for compulsory education	Yes	71.0	70.4	88.7	76.8
Increase state funding for tertiary level B professional education and training	Yes	62.5	62.4	66.7	67.5
Supporting public funding of private schools	Completely favour	6.9	7.0	5.0	9.6
	Somewhat favour	20.4	20.7	11.7	20.3
	Somewhat oppose	34.6	34.5	38.3	33.9
	Completely oppose	38.0	37.8	45.0	36.3
Supporting the choice between the public schools	Completely favour	29.9	30.2	21.5	27.8
	Somewhat favour	34.1	34.3	27.7	37.6
	Somewhat oppose	20.6	20.7	16.9	21.2
	Completely oppose	15.4	14.8	33.6	13.5
Supporting standardised cantonal school tests	Completely favour	44.4	45.2	23.0	36.1
	Somewhat favour	35.2	35.0	39.2	33.9
	Somewhat oppose	13.0	12.8	17.6	20.0
	Completely oppose	7.4	6.9	20.3	10.1
Supporting family care of children under 3	Completely favour	55.3	55.9	41.1	39.3
	Somewhat favour	25.4	25.1	34.3	31.2
	Somewhat oppose	11.9	11.9	12.3	18.4
	Completely oppose	7.3	7.2	12.3	11.1
Regards the baccalaureate rate as	Too low	26.8	26.7	29.9	30.8
	Appropriate	57.8	58.0	52.2	55.4
	Too high	15.4	15.3	17.9	13.8

Table 4: Comparison of mean values

	Without TT	With TT		UAS/U	With TT	
	mean	mean		mean	mean	
<i>Gender</i>						
Female	0.505	0.782	**	0.448	0.782	**
<i>Age</i>						
25–39	0.248	0.191		0.283	0.191	*
39–64	0.487	0.596	*	0.529	0.596	
65+	0.265	0.213		0.188	0.213	
<i>Political orientation</i> ⁵						
Left	0.172	0.338	**	0.309	0.338	
Centre	0.536	0.563		0.484	0.563	+
Right	0.160	0.056	**	0.153	0.056	**
<i>Employment status</i>						
Full-time	0.585	0.641		0.686	0.641	
Part-time	0.201	0.381	**	0.249	0.381	**
Unemployed	0.157	0.134		0.141	0.134	
Retired	0.258	0.225		0.173	0.225	
<i>Household income</i> ⁶						
Below CHF 4,000	0.126	0.007	**	0.057	0.007	**
CHF 3,000–6,000	0.246	0.239		0.098	0.239	**
CHF 5,000–8,000	0.303	0.380	+	0.186	0.380	**
CHF 7,000–10,000	0.178	0.190		0.360	0.190	**
Above CHF 9,000	0.141	0.183		0.300	0.183	**
<i>Children</i>						
No children	0.317	0.209	**	0.370	0.209	**
School-age children	0.202	0.239		0.264	0.239	
Non school-age children	0.475	0.551	+	0.366	0.551	**
<i>Language</i>						
German	0.702	0.789	*	0.669	0.789	**
French	0.244	0.169	*	0.271	0.169	**
Italian	0.054	0.042		0.060	0.042	
<i>Type of settlement</i>						
Rural community	0.334	0.296		0.229	0.296	
Agglomeration	0.428	0.479		0.435	0.479	
City	0.238	0.225		0.336	0.225	**
N	3943	142		634	142	

+ p < 0.1, * p < 0.05, ** p < 0.01

⁵ Missing information refers to non-responses, or people who did not attach importance to a left/right split.

⁶ The categories for recording the household incomes for the two data sets are not identical, and so overlapping categories were chosen for the comparison of mean values.

Table 5: Satisfaction with the quality of the state education system

Logistical regression indicating odds ratios

	M1	M2
Reference group	Without TT	UAS/U
People who have trained as teachers	0.949	1.398
Lower secondary level		2.286 **
Upper secondary level		1.497 *
College of professional education and training (PET college)		1.775 *
Female	0.741 *	0.781 *
Age 25–39	Ref.	Ref.
Age 40–64	0.605 **	0.615 **
Age 65+	0.706	0.777
Employed	Ref.	Ref.
Unemployed	1.073	1.041
Retired	1.411	1.381
Left wing	Ref.	Ref.
Centre	1.307 +	1.230 *
Right wing	1.071	1.008
Not significant	1.013	0.918
No children	Ref.	Ref.
School-age children	0.805	0.828
Non school-age children	1.280	1.235
Household income CHF 3,000–5,000	Ref.	Ref.
Below CHF 3,000	0.929	0.919
CHF 5,000–7,000	1.062	1.158
CHF 7,000–9,000	0.867	0.986
Above CHF 9,000	0.742	0.903
City	Ref.	Ref.
Agglomeration	0.973	0.940
Rural community	0.949	0.898
German-speaking Switzerland	Ref.	Ref.
French-speaking Switzerland	0.687 **	0.695 **
Italian-Speaking Switzerland	1.229	1.310
Pseudo R ²	0.03	0.04
N	1721	1721

+ p < 0.1, * p < 0.05, ** p < 0.01

Table 6: Attitude to education funding for different education sectors

Logistical regression indicating odds ratios

	Increasing expenditure for compulsory education		Increase in state funding for tertiary level B professional education and training	
	M1	M2	M1	M2
Reference group	Without TT	UAS/U	Without TT	UAS/U
People who have trained as teachers	2.587 *	2.023	1.025	0.842
Lower secondary level		0.713		0.864
Upper secondary level		0.800		0.747 +
College of professional education and training (PET college)		0.573 *		0.910
Female	1.651 **	1.642 **	1.106	1.110
Age 25–39	Ref.	Ref.	Ref.	Ref.
Age 40–64	0.751 *	0.748 *	0.937	0.932
Age 65+	0.879	0.853	0.838	0.813
Employed	Ref.	Ref.	Ref.	Ref.
Unemployed	1.016	1.007	1.497 *	1.512 **
Retired	0.990	0.989	1.188	1.205
Left wing	Ref.	Ref.	Ref.	Ref.
Centre	0.571 **	0.578 **	0.571 **	0.578 **
Right wing	0.306 **	0.311 **	0.372 **	0.372 **
Not significant	0.529 **	0.540 **	0.450 **	0.456 **
No children	Ref.	Ref.	Ref.	Ref.
School-age children	1.588 **	1.562 **	1.026	1.037
Non school-age children	1.010	1.005	1.101	1.127
Household income CHF 3,000–5,000	Ref.	Ref.	Ref.	Ref.
Below CHF 3,000	1.118	1.115	0.776	0.774
CHF 5,000–7,000	0.817	0.796	0.827	0.834
CHF 7,000–9,000	1.119	1.067	0.933	0.897
Above CHF 9,000	1.087	1.031	0.774	0.747
City	Ref.	Ref.	Ref.	Ref.
Agglomeration	0.883	0.895	1.036	1.049
Rural community	0.700 *	0.717 *	0.742 *	0.753 *
German-speaking Switzerland	Ref.	Ref.	Ref.	Ref.
French-speaking Switzerland	1.376 *	1.371 *	2.498 **	2.519 *
Italian-speaking Switzerland	0.765	0.755	1.537 +	1.530 +
Pseudo R ²	0.06	0.06	0.05	0.05
N	1751	1751	1769	1769

+ p < 0.1, * p < 0.05, ** p < 0.01

Table 7: Attitude to subjects which would affect/involve teachers' everyday working life

Logistical regressions indicating the odds ratios

	Supporting private schools with public funding		Choice between public schools		Attitude to standardised cantonal school tests	
	M1	M2	M1	M2	M1	M2
Reference group	Without TT	UAS/U	Without TT	UAS/U	Without TT	UAS/U
People who have trained as teachers	0.513 +	0.470 *	0.424 **	0.438 *	0.459 **	0.795
Lower secondary level		0.818		0.827		2.009 **
Upper secondary level		0.888		1.021		2.127 **
College of professional education and training (PET College)		1.062		0.921		1.698 *
Female	1.245 +	1.225 +	1.690 **	1.662 **	0.764 **	0.722 **
Age 25–39	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Age 40–64	1.282 +	1.273 +	0.704 **	0.700 **	1.210 **	1.209 **
Age 65+	1.923 **	1.869 **	0.855	0.838	0.713 **	0.710 **
Employed	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Unemployed	0.926	0.943	0.910	0.914	0.928	0.924
Retired	0.777	0.780	0.949	0.945	2.115	2.152
Left wing	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Centre	1.059	1.082	1.059	1.082	1.856 **	1.699 **
Right wing	1.176	1.201	1.176	1.201	1.889 **	1.651 *
Non significant	1.088	1.121	1.088	1.121	1.760 **	1.507 +
No children	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
School-age children	1.322 +	1.321 +	0.930	0.913	0.875	0.883
Non school-age children	0.882	0.899	0.736 *	0.734 *	1.039	0.988
Household income	Yes	Yes	Yes	Yes	Yes	Yes
City	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Agglomeration	0.918	0.925	0.999	0.998	1.049	0.985
Rural community	0.909	0.919	0.803	0.809	0.916	0.838
German-speaking Switzerland	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
French-speaking Switzerland	0.506 **	0.5065 **	0.830	0.874 +	1.498 **	1.589 **
Italian-speaking Switzerland	0.846	0.832	1.683 *	1.644 *	0.673	0.731
Pseudo R ²	0.03	0.03	0.03	0.03	0.05	0.04
N	1848	1848	1821	1821	1959	1959

+ p < 0.1, * p < 0.05, ** p < 0.01

Table 8: Attitude to subjects which do not directly affect teachers' everyday working life

Attitude to childcare: logistical regressions indicating the odds ratio
 Assessment of the bacculaureate rate: multinomial logistical regressions

	Attitude to family care of children under 3		Regards the bacculaureate rate as too low		Regards the bacculaureate as too high	
	M1	M2	M1	M2	M1	M2
Reference group	Without TT	UAS/U	Without TT	UAS/U	Without TT	UAS/U
People who have trained as teachers	0.901	1.238	0.210	0.080	0.335	0.267
Lower secondary level		1.158		-0.184		0.183
Upper secondary level		1.705 **		-0.136		-1.123
College of professional education and training (PET college)		1.103		-0.316		-0.103
Female	0.643 **	0.620 **	0.235 *	0.240 *	-0.223	-0.229
Age 25–39	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Age 40–64	1.120	1.108	0.373 *	0.372 *	0.348 +	0.349 +
Age 65+	1.069	1.083	0.977 **	0.991 **	0.198	0.173
Employed	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Unemployed	1.434 *	1.433 *	0.037	0.033	-0.237	-0.244
Retired	1.249	1.260	-0.417	-0.427 +	-0.226	-0.223
Left wing	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Centre	2.123 **	2.030 **	-0.386 **	-0.364 *	0.352	0.361 +
Right wing	2.668 **	2.493 **	-0.722 **	-0.693 **	0.628 *	0.643 **
Not significant	2.710 **	2.505 **	-0.070	-0.037	0.252	0.250
No children	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
School-age children	0.952	0.951	-0.044	-0.039	-0.301	-0.279
Non school-age children	1.257	1.212	0.003	0.017	-0.010	-0.006
Household income	Yes	Yes	Yes	Yes	Yes	Yes
City	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Agglomeration	1.133	1.094	-0.023	-0.014	0.108	0.117
Rural community	1.447 *	1.370 +	-0.448 **	-0.434 **	0.198	0.208
German-speaking Switzerland	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
French-speaking Switzerland	0.553 **	0.580 **	0.635 **	0.630 **	-0.471	-0.521 +
Italian-speaking Switzerland	1.429	1.562	0.730 *	0.730 *	0.690 +	0.664
Cantons with a low bacculaureate rate				Ref.		Ref.
Cantons with an average bacculaureate rate			-0.010	-0.022	0.373 *	0.371 *
Cantons with a high bacculaureate rate			0.138	0.124	0.045	0.031
Pseudo R ²	0.06	0.06	0.05	0.05	0.05	0.05
N	1983	1983	1788	1788	1788	1788

+ p < 0.1, * p < 0.05, ** p < 0.01