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Public Opinion on Education Policy in Germany

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Abstract

To better understand the political economy constraints of education policy, we have conducted the annual ifo Education Survey in Germany since 2014. This paper summarizes selected key findings on the German public's preferences for education policies ranging from early childhood education and schools to the apprenticeship system, universities, and lifelong learning. While the emerging picture is complex and multifaceted, some general patterns emerge. The majority of Germans is surprisingly open to education reform and favors clear performance orientation. Survey experiments indicate that information can have substantial effects on public policy preferences. Overall, education policies seem important for respondents' voting behavior.

JEL-Codes: I280, D720, H520.

Keywords: education policy, public opinion, political economy, survey experiments, Germany.

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1. Introduction

Ample anecdotal evidence suggests that the public's opinion has been important for the enactment or absence of many education reforms in Germany. A leading example is the proposed reform of the school system in the city state of Hamburg in 2010. The reform would have postponed the start of the tracking of students into different types of schools from grade 5 to grade 7. The proposal was unanimously supported by all four parties in the state parliament. But fierce public opposition against the proposal emerged, and a public referendum was ultimately successful in preventing its implementation. What the German public thinks about education policy is thus not only interesting by itself, but also from a political-economy perspective.

The political economy of education policy offers a potential explanation for the discrepancy between political awareness and action. Politicians face elections and thus have to be responsive to public opinion if they want to be (re)elected. But voters have their own opinions, interests, and policy preferences, which might also vary considerably across subgroups of the population. This often impedes attempts of policymakers to implement policies, even those that according to scientific evidence may be expected to positively affect public welfare. As shown by the example of the failed Hamburg reform, (self-)interests of voters, politicians, and administrators make education governance a highly complex decision-making process.¹

A better understanding of the public's opinion on education policy may thus help to understand which educational reforms would be accepted by German voters. Most of the detailed empirical evidence on public opinion on education policy that has been available until recently comes from the United States (e.g., Peterson, Henderson, and West (2014)). But many aspects of an education system are very specific to a country, not least in comparison between Germany and the United States. Henderson et al. (2015) have shown that some of these differences lend themselves well to comparative research on how opinions on education policy do or do not differ across the two countries. But there are also many aspects that are genuinely country-specific, requiring a focus of opinion research on the specific country under study. For example, Germany's system of early tracking or the emphasis on apprenticeship education raise topics of

¹ For work on the political economy of educational funding in general, see, for instance, Gradstein, Justman, and Meier (2005) and Glomm, Ravikumar, and Schioppa (2011).

public opinion that do not exist in the same way in other countries, and they may also imply that Germans' opinions differ on many other topics.

To better understand the public opinion on education policy in Germany, the ifo Center for the Economics of Education has carried out the ifo Education Survey in Germany annually since 2014. The survey asks representative samples of the German voting-age population about their opinion on a broad array of general and German-specific education topics, ranging from early childhood education and school policies to the apprenticeship system, tertiary education, and lifelong learning.²

This paper summarizes selected key findings on Germans' opinion on education policy from the first three waves of the ifo Education Survey.³ As topics studied in a comparative setting with the United States have already been covered in Henderson et al. (2015), this paper focusses solely on German-specific education topics. After a brief introduction of the ifo Education Survey in the next section, the following five sections summarize public preferences on topics specific to each stage of the education system, covering early childhood education policies, school policies, the apprenticeship system, higher education, and adult education, respectively. The subsequent section covers topics that relate to the education system in general. In the final section, we draw some general conclusions from the set of results on the role of public opinion in the political economy of education policy in Germany, on the willingness of the German public to reform, on its preference for clear performance orientation, and on the importance of informing citizens.

2. The ifo Education Survey

The ifo Center for the Economics of Education has carried out the ifo Education Survey in Germany annually since 2014.⁴ Each year, the representative survey includes more than 30 questions on general and German-specific topics of education policy, ranging from early childhood education and school policies to the apprenticeship system, tertiary education, and

² Henderson et al. (2015) provide a description of the institutional and cultural context of the German education system in comparison to the U.S. system.

³ For detailed summaries of all results in German, see Woessmann et al. (2014, 2015, 2016a, 2016b).

⁴ The three survey waves covered here were funded by the Leibniz Competition under the project "The Political Economy of Education Policy: Insights from a Public Opinion Survey" (SAW-2014-ifo-2).

lifelong learning.⁵ The German opinion survey was set up so that it can be analyzed jointly with the EdNext-PEPG Survey in the United States, a representative public opinion survey on education issues conducted annually by the Program of Education Policy and Governance (PEPG) at the Kennedy School of Government at Harvard University since 2007.⁶

Each year, the ifo Education Survey covers nationally representative samples of the German voting-age population (18 years and older). The surveys have been conducted by the polling firm TNS Infratest Sozialforschung (now called Kantar Public).⁷ To account for the fact that a sizeable share of German citizens does not use the internet (the share of “offliners” decreased from 25 percent in 2014 to 19 percent in 2016), the samples were drawn in two strata. First, respondents who use the internet were recruited via an online panel and answered the survey online. Second, participants of a household survey who previously stated that they do not use the internet were asked to answer the survey on a tablet device that was provided to them. The trained interviewers who conducted the household survey were instructed to assist respondents in case they had difficulties using the tablet device.

The large sample sizes of over 4,000 observations in each wave (N=4,171 in 2014, N=4,203 in 2015, and N=4,015 in 2016) ensure that the margins of error for responses are low at about 1 to 1.5 percentage points for the full sample (for questions on which opinion is evenly split). To assess the policy preferences of groups with special interest in education policies, the 2015 and 2016 surveys comprised oversamples of 1,042 parents of school-age children and 713 active teachers, respectively. For all results presented here, we employ survey weights to ensure representativeness.

For some questions in the opinion surveys, we administered survey experiments in which a randomly selected subgroup of respondents was provided with certain information before answering the same question as the control group which did not receive any information. For instance, in one such experiment, we investigate how information about current spending levels

⁵ For most questions of the ifo Education Survey, respondents were asked to pick one of the following five answer categories: “strongly favor”, “somewhat favor”, “neither favor nor oppose”, “somewhat oppose”, and “strongly oppose”. The shares of respondents who favor (oppose) a policy proposal reported below correspond to the sum of those who answered “strongly favor” and “somewhat favor” (“strongly oppose” and “somewhat oppose”).

⁶ In a collaborative project, the ifo Education Survey and the EdNext-PEPG Survey harmonized a number of questions for a comparative assessment of public opinion in both countries. The results of this research are summarized in Henderson et al. (2015).

⁷ The surveys were conducted from April to July in 2014, in May in 2015, and from April to June in 2016.

affects preferences for increased spending at different education levels. To this end, we informed a randomly selected treatment group about current public spending levels at the different education levels before eliciting preferences for increasing spending in the same way as in the uninformed control group. Independent randomization in each experiment ensures that a comparison between treatment and control groups yields the causal effect of the provided information on stated preferences.

3. Early Childhood Education

Since compulsory education in Germany starts in primary school, parents are free to choose whether to send their children to preschool prior to first grade. In contrast to current practice, the Ifo Education Survey 2014 reveals that a majority of the German public (68 percent) advocates making preschool compulsory (see Figure 1). Only 21 percent oppose this proposal. Most of those who favor compulsory preschool state that it should be compulsory for children starting at age three.⁸

The salary of preschool educators has received considerable attention in the German public debate. After an unsuccessful wage dispute in 2015, preschool educators throughout the country went on strike for several weeks. The 2015 survey finds that the majority of the German population (79 percent) supports the demands for higher salaries, only 20 percent state that the salaries of preschool educators should stay about the same.

In contrast to school teachers, preschool educators in Germany are not required to hold a tertiary education degree. This practice is supported by the majority of the German population: 55 percent oppose the proposal to require preschool educators to hold a tertiary degree.

Quality assurance in the preschool system is an important issue for the German public. As the 2015 survey shows, a proposal to introduce nationwide compulsory quality standards for early childhood education, which, for instance, would regulate the training of preschool educators or the educator-pupil ratio, is supported by the vast majority of respondents: 86 percent favor it, only 7 percent oppose it.

Another topic in early childhood education which was highly debated among the public is the so-called *Betreuungsgeld*. The *Betreuungsgeld* was a subsidy paid to parents of children

⁸ See Henderson et al. (2015) for evidence on public opinion on state financing of preschools for all and for low-income families.

between the ages of one and three years who did not take advantage of public child care. The 2014 (2015) survey shows that 51 percent (57 percent) oppose it, while only 39 percent (34 percent) support it. The Constitutional Court abolished the *Betreuungsgeld* in July 2015 because this federal subsidy interfered with the constitutionally guaranteed autonomy of the German states (*Länder*) concerning family policy. This finding shows that the Constitutional Court's decision to abolish the *Betreuungsgeld* happens to be in line with the preferences of the majority of Germans.

4. Schools

4.1 Structure of the School System

There are many structural elements of the German school system that partly differ across the German states. For example, the introduction of whole-day schooling is a hotly debated reform proposal in Germany. The ifo Education Survey 2014 shows that the majority of Germans (60 percent) favors the introduction of whole-day schools until 3 pm, only 28 percent oppose it. This share is similar among a randomly selected subgroup of respondents who were informed that providing nationwide whole-day schooling would cost about 9 billion Euro each year (55 percent in favor, 35 percent oppose). Two further random subgroups were asked for their preferences for compulsory and optional whole-day schooling, respectively. While the share of respondents who favor optional whole-day schools is significantly higher (70 percent in favor, 20 percent oppose), compulsory whole-day schools also have majority appeal (57 percent in favor, 29 percent oppose). Results from the 2015 survey show that the operating hours of whole-day schools are decisive for whether or not the majority supports them. While 61 percent of the German public would favor the introduction of whole-day schools where all children attend school until 3 pm, the share of supporters in another subgroup asked about attendance until 4 pm is lower at 56 percent, and only 47 percent until 5 pm (see Figure 2).

Another set of questions in the ifo Education Survey 2015 concerns the freedom of choice of parents of primary-school-aged children. A majority of 64 percent is in favor of allowing parents to freely choose an elementary school for their children instead of basing school assignment on the area of residence. Similarly, 63 percent favor making the starting age at elementary school more flexible to match parents' preferences. In contrast, the majority of

respondents (64 percent) supports the proposal that grades determine which school track a child is assigned to after elementary school instead of letting parents decide.

Secondary schools in Germany are divided into several tracks, and the highest-track *Gymnasium* is the only track that exists in all states. While most federal states assign students to these different tracks after grade 4, almost half of the respondents of the 2014 survey (48 percent) would prefer to track students only after grade 6. While the number of tracks in secondary schools has been reduced to two in several federal states over the past years, the majority of respondents (67 percent) prefers that more than one alternative track to the *Gymnasium* should exist.

One of the most salient policy topics regarding secondary schools over past years was the question whether the duration of the *Gymnasium* should be decreased from nine to eight school years, so that students graduate from the top-track high school after spending twelve rather than thirteen years in school. While most German states decreased the length, the majority of respondents of the ifo Education Survey 2014 opposes this reduction: 55 percent oppose a duration of the *Gymnasium* of only eight years, only 30 percent favor it.

The Germans broadly support the performance-oriented nature of the German school system. A proposed abolishment of grade retention for low-performing students is not backed by the majority in the 2014 survey: 79 percent favor the current practice that children who perform poorly have to repeat the grade.

Another widely discussed policy topic is the introduction of joint teaching for students with and without disabilities. The majority of respondents of the 2014 survey (59 percent) thinks that students with and without disabilities should be taught together in the same classes. However, when asked about the share of students with disabilities who should be taught in inclusive classes in the ifo Education Survey 2015, 43 percent think that the current share is about right while 40 percent think that the share should increase.

The school system in Germany does not only comprise public schools, but also private schools such as religious schools or Waldorf schools. Currently, the government generally covers about 60 to 70 percent of the operating costs of private schools. In the 2015 survey, the plurality of Germans (41 percent) is satisfied with this share. 27 percent think that public funding for private schools should increase to the level of public schools, 19 percent think it should increase

but remain below the level of public schools. Only 13 percent favor decreasing public funds for private schools.

4.2 Assessment Systems

The ifo Education Survey also asked respondents about the grading of children in school. The performance orientation of the German public is also reflected in their preferences towards school grades. In the 2014 survey, the majority of respondents dismissed a recently discussed proposal to abolish school grades: 77 percent oppose the proposal, with 50 percent “strongly” opposing it (see Figure 3). While primary-school grades have been abolished in the state of Schleswig-Holstein only recently and advocates of this reform even considered expanding the no-grades policy to secondary schools, this proposal clearly falls short of majority appeal. In sum, the German public’s attitudes towards school grades and grade retention policies show that the German population favors a school system in which students are held accountable for their performance.

Another aspect related to testing student achievement concerns the extent to which student assessments should be standardized across the country. The current obstacle to the comparability of students’ achievement across the German states is that, according to constitutional law, schooling is under the control of the states. The consequence is that each state decides de facto independently about education policies, which includes setting appropriate standards of student achievement. In contrast to this current practice, the ifo Education Survey 2015 shows that the German public favors the introduction of nationwide standardized exams which foster comparability: 68 percent would support introducing German-wide high-stakes tests in German and math.

Similarly, more than 80 percent support introducing nationwide standardized exit exams for each secondary school degree (*Hauptschulabschluss*, *Realschulabschluss*, and *Abitur*). Already in the 2014 survey, 85 percent of respondents favored nationwide standardized exit exams for the *Abitur*, and this share even increased to 89 percent for a nationwide harmonization of the *Abitur* in the core-subjects math, German, and English.

4.3 Teachers and Technologies

Teachers and new technologies are two key inputs in the school system. Due to decreasing birth rates, the number of school students is expected to decrease by 10 percent over the next ten years in Germany (see Kultusministerkonferenz (2013)). Despite this demographic change, the majority of Germans opposes reducing the number of teachers. In the ifo Education Survey 2014, only 33 percent are in favor of reducing the number of teachers in response to a decreasing student numbers. In contrast, the majority (57 percent) favors the status-quo number of teachers and 11 percent even think that the number of teachers should increase over the next ten years.

Teachers play an important role in the school system. On the one hand, they are experts in educating children and therefore key for student achievement (see, for instance, Jackson, Rockoff, and Staiger (2014)). On the other hand, just as any other occupational group, they favor policies which are advantageous for their own situation (see Peterson, Henderson, and West (2014)). To investigate the opinions of this special interest group, the ifo Education Survey 2016 oversampled school teachers. This makes it possible for the first time to compare the opinions of teachers and the general public on various education policies in Germany.

In several areas, absolute majorities among both teachers and the general public support structural education reforms (see Figure 4). For instance, clear majorities of both groups support the introduction of qualifying examinations for future teachers before they enter a teacher program at university, compulsory professional development courses for teachers, nationwide comparative tests, autonomy for school principals in recruiting teachers, and a postponed tracking of students into different school tracks from grade 5 to grade 7. There are, however, also differences in the opinions between teachers and the general public, in particular in areas that relate to teachers themselves, such as their remuneration and work load. For example, unlike the general public, the majority of teachers supports the civil-servant status for teachers and a proposal to increase teacher salaries. Teachers also oppose merit pay schemes which reward high-performers for good learning gains of their students, whereas the general public is indecisive. Teachers oppose recruiting career-changers as teachers, whereas the general public is in favor. In contrast to the general public, teachers also tend to oppose a whole-day school system and the inclusion of children with learning difficulties in normal schools.

The rise of new technologies in many areas of everyday life also triggered the discussion on the extent to which new technologies should be used in schools. The 2015 survey asked

respondents which share of instruction time in secondary schools should be used for independent computer-based learning. 16 percent of respondents think that at least half of total class time should be used for this purpose. More than half (52 percent), however, think that the share should be at most 20 percent. Only 8 percent of the Germans think that no class time should be used for computer-based independent learning. Support for the use of computers during class time increases in the random groups of respondents who were informed (i) that computer usage in German schools is low as compared to other countries and (ii) that, according to international comparisons, the computer skills of German students are only mediocre (see Bos et al. (2014)). With these pieces of information, the share of respondents who thinks that at least half of the class time should be used for computer-based instructions increases to 28 percent and 24 percent, respectively.

4.4 Tasks of the School System

An important role of government is to define the objectives of the public school system. In particular, the public debate has focused on the question to what extent schools are responsible for aspects of educating children that go beyond the transfer of knowledge. In the ifo Education Survey 2015, we asked respondents whether schools or parents should take responsibility for teaching primary-school children discipline and values, organizing afternoon activities like music lessons, sports, or theater classes, helping children with their homework, tutoring, and preparing for tests or presentations in class.

As it turns out, the overwhelming majority of respondents (69 percent) thinks that parents should be exclusively or mainly responsible for teaching children discipline and values (see Figure 5). In contrast, about half of respondents want parents and schools to share responsibility equally for organizing afternoon activities (music, sports, theater), helping with homework, tutoring, and preparing for tests or presentations in class. Among these, respondents are more likely to assign responsibility for tutoring and preparing for tests or presentations to schools, whereas parents are more often seen to be responsible for organizing afternoon activities and helping with homework.

A related question is which competencies children should acquire in school. We asked respondents how important they think certain competencies are for the future success of children. The results show that respondents consider reading and writing competencies the most important

skills for children, with 79 percent saying they are very important for future success (see Figure 6). Other competencies are also valued highly: mathematical competency, computer competency, and foreign language competency are all seen as very important by the majority of respondents (56, 54, and 52 percent, respectively). Competency in natural sciences, economics, and politics, society, and history are considered very important by about a third of respondents (33, 32, and 28 percent, respectively), while only a smaller share of respondents considers competency in sports and music as very important (18 and 15 percent, respectively). However, all competencies are rated as very or somewhat important by a clear majority of respondents.

5. Apprenticeships

The ifo Education Survey also covers topics beyond the school system. A crucial role in the German education system is played by the apprenticeship system: 55 percent of people aged 25 to 64 years hold a vocational degree (see OECD (2014)). One criticism of the German apprenticeship system is that it leaves a high share of students behind. About one out of four apprentices drops out of the program and almost one fifth of each cohort never obtains any professional degree (see Autorengruppe Bildungsberichterstattung (2012)). One reform proposal to reduce dropout rates and increase participation and completion among low-achieving students is to introduce less demanding two-year apprenticeship programs in addition to the usual three-year programs. The ifo Education Survey 2014 shows that 49 percent of the German public support this proposal, 37 percent oppose it (see Figure 7).

A related issue regarding the German labor market is the poor matching between vacant apprenticeship positions and suitable candidates for these positions. In 2014, about 37,000 positions could not be filled, while 21,000 young candidates did not get an apprenticeship contract (see Bundesagentur für Arbeit (2014)). Therefore, the ifo Education Survey 2015 asked the German public whether the firms' willingness to train or the youths' readiness to be trained should be the main starting point to ensure that unsuccessful candidates get an apprenticeship position. 48 percent of all respondents think that the focus should be similarly on the firms and the candidates. At the same time, about one third of respondents (37 percent) thinks that the main target should be the ability of the candidates.

One potential solution to resolve the mismatch between prospective apprentices and firms is to provide firms with incentives to offer training contracts to adolescents who would be unfit for

employment otherwise. 66 percent of the German public support the proposal that the government covers the training costs of firms who employ candidates who have been unsuccessful in their search for an adequate apprenticeship position for at least one year.

The German apprenticeship system offers apprenticeships in over 350 separate occupations, including for instance 30 specific commercial degrees. One concern about this high degree of specialization is that the occupation-specific skills that the specialized apprenticeships convey may become obsolete in times of rapid technological and structural change on the labor market (Hanushek et al. (2017)). One reform proposal to simplify the apprenticeship system and increase the flexibility of its graduates is to combine similar apprenticeships so that graduates are more flexible across occupations later on. A strong majority of 72 percent of the German public in the 2016 survey supports this proposal and only 16 percent oppose it.

6. Higher Education

6.1 Access

In Germany, the share of persons aged between 25 and 64 who have attained tertiary education is below the OECD average (28 versus 33 percent; see OECD (2014)). Still, the majority of respondents of the ifo Education Survey 2014 (55 percent) states that too many persons take up university studies in Germany, while only 12 percent think that the number is too low (see Figure 8). Based on these results, the 2015 survey asked respondents what they think about the number of persons who obtain the *Abitur*, which is the usual prerequisite for admission to university. Quite surprisingly, the majority of respondents (51 percent) thinks that the current number of high-school graduates who obtain the *Abitur* is about right. Taken together, these two results indicate that, while the Germans are by and large satisfied with the number of students passing the *Abitur* when leaving school, they do not want them to continue their education at universities.

To increase the permeability of the education system, all federal states have in principle introduced the possibility for apprenticeship graduates to enter higher education, even if they do not hold the *Abitur* or an equivalent degree. Currently, 2.5 percent of all university students do not hold an *Abitur* or equivalent (see Duong and Püttmann (2014)). The 2015 survey shows that about half of all respondents (48 percent) are satisfied with this current share, while 38 percent

(14 percent) think that it is too low (too high). This finding is consistent with the finding from the 2014 survey that Germans are generally skeptical towards increasing the number of university students.

Apart from questions regarding the number of students, the ifo Education Survey 2015 also elicited opinions on the design of Germany's public student aid program (*BAföG*). Currently, the *BAföG* is needs-based, which means that the eligibility and the extent of financial support are partly determined by the income of the students' parents. A proposal to offer this financial support to all students independent of their parents' income does not have majority appeal: 47 percent of the German public favor such a proposal, 45 percent oppose it.

In light of increasing numbers of students at German universities, online lectures might be a cost-effective solution to counteract space shortages at universities. The German population remains skeptical about these new developments: 23 percent say that none of the traditional in-person university lectures should be replaced by online lectures. Only 7 percent think that more than half of the traditional lectures should be replaced. In contrast to the international trend towards online higher education, these results show that the German public is not enthusiastic about these new developments.

In the so-called *Exzellenzinitiative*, the federal and state governments have started to provide additional resources to specifically selected universities. Asked in the 2016 survey whether additional financial means should be targeted to a few top universities or rather spread evenly across many universities, only 22 percent of the German public favor the former, whereas a majority of 61 percent is against it.

6.2 Tuition Fees

A topic of particular interest in Germany is the public's opinion on the extent to which universities should charge tuition fees and how they should be paid. Therefore, all waves of the ifo Education Survey included survey experiments to investigate how responsive preferences for tuition fees are to information about relevant underlying facts, to making the fees contingent on income levels, and to the amount of tuition fees (see Lergetporer and Woessmann (2017) for details). The ifo Education Survey 2014 included a survey experiment in which the first treatment group was informed about the relative income of university graduates as compared to those with vocational education. The second treatment group was informed about the current

annual public spending level per university student, and the third treatment group was informed about the relative access to universities for different socioeconomic groups before eliciting preferences for university tuition fees. The control group did not receive any information.

The information that university graduates earn 40 percent more than apprenticeship graduates shifts the plurality of the German public from opposing tuition fees in the control group (40 percent in favor, 46 percent oppose) to supporting them (48 percent in favor, 37 percent oppose) (see Figure 9). The robustness of this result is corroborated by the fact that, instead of presenting the earnings difference in relative terms, we presented net average monthly income levels in the 2015 survey and observe an almost identical shift in plurality support. By contrast, informing respondents that the annual public cost per university student is 8,600 Euro or that three quarters of children from university-educated backgrounds attend university, but only one quarter of children from non-university-educated backgrounds does so, has no effects on public preferences for tuition fees.

In addition, the ifo Education Survey 2014 investigated whether preferences for tuition fees depend on whether tuition fees have to be paid immediately or whether they are income contingent fees that have to be paid after graduation once the former student's income exceeds a certain threshold. The majority of the German population favors this alternative form of tuition fees (63 percent favor, 22 percent oppose).

Finally, the ifo Education Survey 2016 investigated how responsive public preferences for tuition fees are to the amount charged. While there is no majority opposing tuition fees of 500 Euro per semester, which is the maximum amount which was charged before tuition fees were abolished in Germany, a majority of 56 percent opposes tuition fees of 1,500 Euro per semester.

Since tuition fees were re-abolished by 2014 in all federal states who introduced them after 2005 due to severe public opposition, it is particularly relevant that information provision can shift the plurality of the public from opposing tuition fees to favoring them. Most importantly, the finding that a majority of Germans favors income-contingent tuition fees indicates leeway for reforming higher education finance in Germany if finance schemes are adequately designed.

7. Adult Education

Lifelong learning and on-the-job training enable employees to adapt to increasing complexities and changing requirements in the labor market. In some cases, such educational

measures are government financed, while in other cases, the employee or the employer bears the cost. The 2014 survey reveals that the majority of the German public thinks that both employers (59 percent) and the government (58 percent) should spend more money on on-the-job training initiatives for employees (see Figure 10). By contrast, 49 percent think that spending by the employees should stay about the same and 25 percent even state that they should spend less. Thus, while the German public wants to see more education spending from the government and from employers, only a minority thinks that employees should spend more.

In this context, a new proposal, called *Bildungsteilzeit*, has been discussed in Germany. According to this proposal, full-time employees should be able to reduce their working hours in order to participate in additional training programs while being guaranteed a return to full-time employment after completing the training. Germany's largest labor union has pushed for this proposal. The majority of German citizens supports the proposal: 65 percent of respondents of the ifo Education Survey 2015 are in favor of the *Bildungsteilzeit*, only 17 percent oppose it.

The ifo Education Survey 2016 asks the German public about the specific proposal that employees should have the right and the obligation to participate in further education for five days each year, with the employer deciding on the content of the further education courses and covering their costs. Nearly three quarters of respondents (74 percent) favor such a compulsory annual further education that is steered and financed by employers, only 11 percent are opposed.

8. General Education Topics

After focusing on education issues that are salient at different levels of the education system, we now cover a number of topics that pertain to the education system more generally.

8.1 Financing of Education

A key aspect of an education system is how countries organize its financing. The opinion of the German public on several general topics of the financing of education, such as preferences for increased school spending in general and support for spending on smaller classes, higher teacher salaries, and teaching material, have already been covered in a comparative setting in Henderson et al. (2015).

In addition, the 2014 ifo Education Survey asked respondents to state preferences for increased public spending on some of the biggest spending items of the German public budget:

social security, education, public safety, defense, and culture. Results show that respondents are more likely to support increases in public spending in education than they are to support spending increases in other public spending areas (for more details, see Lergetporer et al. (2016)). 71 percent of respondents agree that spending on education should increase compared to spending today. About half would prefer increased spending on social security and public safety (52 and 50 percent, respectively), but only 21 percent support more public spending for culture and even fewer respondents think defense spending should increase (10 percent).

Before answering the same question, a randomly selected subset of respondents was informed that Germany spends roughly 95 billion Euro on education, 227 billion on social security, 38 billion on public security, 27 billion on defense, and 10 billion on culture (Statistisches Bundesamt (2014b)). Support for increased spending in this subgroup fell for all five spending categories, to 58 percent for education, 47 percent for social security, 43 percent for public safety, 18 percent for culture, and 6 percent for defense. After receiving information on current spending levels, only an increase in spending for education still has majority support. Another randomly selected subgroup was told that education spending constitutes a lower share of total public spending in Germany than in other industrialized countries. This information did not change the answers of respondents.

While a majority of respondents favors increases in education spending, it remains unclear how the education budget should be allocated between different sectors of the education system. To make the implied trade-offs directly salient, the 2014 survey asked respondents whether spending should increase for preschools, elementary schools, secondary schools, vocational schools, or universities. Both spending on preschools and on secondary schools are favored by 31 percent of respondents, and a quarter of respondents prefers increases in spending on elementary schools (26 percent). In contrast, only 6 percent of respondents support spending increases for vocational schools and universities, respectively.

A random subgroup of respondents was informed that Germany currently spends about 6,100 Euro per child in preschools, 5,200 Euro per student in elementary schools, 7,000 Euro per student in secondary schools, 4,000 Euro per student in vocational schools, and 8,300 Euro per student in universities (Statistisches Bundesamt (2013, 2014a)). This information treatment increased support for higher spending on elementary schools to 33 percent, while decreasing support for spending on preschools and secondary schools to 26 percent. Support for vocational

schools also increased marginally by 3 percentage points. Overall, information on the current spending levels seems to lead preferences towards equalizing per-capita spending across different education stages. Stages with relatively low per-capita spending benefit from the information treatment, while stages with relatively high spending gather less support in the treatment condition compared to the control group.

In the 2015 survey, we also informed a randomly selected treatment group that according to academic studies, the returns for increased spending are higher for investments in early education areas (as an example see Cunha et al. (2006)). In the subgroup of respondents who received this information, the share favoring preschool and elementary school spending significantly increases from 15 to 31 percent and from 30 to 35 percent, respectively. At the same time, the share of respondents who favor secondary school spending decreases from 41 to 26 percent. The results show that information on research findings shifts a majority of respondents towards preferences for investments in earlier education stages (for details, see Werner (2017)).

8.2 Federal Structure

Education policy in Germany is largely the responsibility of the 16 state governments. This responsibility is enshrined in the constitution, which outlaws federal involvement in education and the financing of non-temporary education projects. In 2014, this *Kooperationsverbot* was abolished for universities. To document public opinion on the issue, the 2015 survey asked respondents whether they support or oppose also abolishing the *Kooperationsverbot* for elementary and secondary schools. As it turns out, the majority of respondents (59 percent) are in favor of this proposal, only 20 percent are opposed. Hence, the German public shows clear support for a greater federal influence in education.

The preference for a more meaningful federal role is also borne out by preferences for the financing of education. When asked about the share of spending on education that should be provided by the federal government, the respondents in the 2015 survey on average answered 48 percent. This deviates drastically from the current actual level of federal spending, which totaled 3 percent of public spending on education in 2011 (Statistisches Bundesamt (2014a)). According to respondents, 33 percent of spending should come from the German states (compared to 79 percent actual spending) and the remaining 18 percent from local municipalities (currently also

at 18 percent). Overall, the respondents seem to support a reduction of state-level involvement in education in favor of a stronger role of the federal government.

8.3 Political Parties

One central motivation for investigating the public opinion on education topics is that politicians are well-advised to be responsive to the preferences of the public if they want to be (re-)elected. From a political-economy perspective, it is therefore important to understand whether education policy affects the voting decisions of the German public. The ifo Education Survey 2015 asked respondents how important education policy is for their voting decision at state elections (as the legislative and executive power over public education is vested with the states in Germany). The results show that almost three quarters (73 percent) of respondents say that school and education policy is important for their voting decision, 24 percent even state that it is very important. These results underline the notion that public preferences are an important component of the politics of education policy.

A related question is how responsive citizens' opinion on specific education policies is to information on what stance different political parties take on these policies. To investigate this, the ifo Education Survey 2015 incorporated three survey experiments in which randomly selected treatment groups were informed about the positions of the six largest political parties in Germany on specific education policies before eliciting the respondents' preferences for these policies (see Grewenig et al. (2017) for details).⁹ Respondents in the control group stated their policy preference without any additional information. This experimental design allows us to investigate whether supporters of different political parties use their party's positions as an anchor for their own preferences.

The first survey experiment focused on preferences for the aforementioned *Betreuungsgeld*, a subsidy for parents who do not utilize public child care services. The information provided to the treatment group was that CDU/CSU is in favor of this subsidy while SPD, Linke, Grüne, and AfD oppose it, and FDP takes a neutral position. Interestingly, in the control group, the majority of CDU/CSU supporters opposes the policy (34 percent in favor, 57 percent oppose). Informing these partisans about their party's position significantly increases (reduces) the share of those

⁹ These parties are CDU/CSU (the cooperation between Christian Democratic Union and Christian Social Union), SPD (Social Democratic Party), Linke (Left Party), Grüne (Green Party), AfD (Alternative for Germany), and FDP (Free Democratic Party).

who support (oppose) it to 42 percent (47 percent). The information on party positions did not have a significant effect on supporters of parties who oppose the proposal (30 percent in favor, 64 percent oppose in the control group).

In the second experiment, respondents in the treatment group were informed that Linke, Grüne, and FDP favor the above-mentioned proposal to offer student aid (*BAföG*) independent of parental income, CDU/CSU and AfD oppose it, and SPD takes a neutral position. For supporters of parties who oppose this proposal, the information significantly reduces their support (from 51 percent in favor in the control group to 43 percent in the treatment group). The information treatment did not significantly affect the preferences of supporters of the other parties.

A third experiment concerned the abovementioned reform proposal to remove the constitutional regulation that prohibits the federal government to engage in the education sector (*Kooperationsverbot*). In contrast to the other two experiments, information on party positions did not significantly affect partisans' preferences on this issue.

In sum, these results show that information on party preferences can indeed shift opinion on education policy. In all three cases, opinions did not differ significantly across supporters of different parties in the control group. When informed about the party positions, especially voters of conservative parties used their party's position as an anchor for their own expressed opinion.

8.4 Parents and their Aspirations

Parents play a fundamental role in the education system. They tutor, teach values, engage with education institutions, and help their children succeed. To improve our understanding of the political economy of education, the 2015 survey focused on documenting the differences in public opinion between parents of children below the age of 18 and the German public.¹⁰ Results show that parents generally share many of the views held by the broader public, even in areas where parents themselves are directly involved. For example, parents and the general public agree on the role schools should play in the upbringing of children and in the importance of certain competencies for the future success of students. Parents and the public are also similarly in favor of using school grades – rather than parental preferences – when deciding which secondary school track a child can attend.

¹⁰ The ifo Education Survey 2015 oversampled more than 1,000 parents of children between the ages of 6 and 15 years. Survey weights were used to assure representativeness.

Despite the general consensus, preferences of parents differ from those of the public on a number of important issues. In early childhood education, 35 percent of parents support introducing a college-degree requirement for preschool educators, a proposal that is only supported by 26 percent of the general public. Parents are also more in favor of giving families greater flexibility in choosing the year of school entry for their children, with two thirds (67 percent) supporting the notion that parents should be allowed to postpone their child's enrollment in elementary school. In the general public, this proposal is supported by 61 percent of respondents. Similarly, parents are stronger advocates for greater school choice: 67 percent of parents and 62 percent of the general public oppose a residential school system.

A majority of parents (52 percent) also favors increased subsidies for private schools in Germany, while only 44 percent of the general public support this proposal. On the other hand, while 71 percent of respondents favor the introduction of nationwide standardized testing in certain grades, this is true for only 60 percent of parents. Parents are also more skeptical of the introduction of whole-day schooling until 3pm, with 55 percent in support compared to 63 percent of the general public. Parents seem less supportive of change in at least two other areas: Only 37 percent of parents but 42 percent of the general public think that more students with disabilities should attend the same schools as students without disabilities; and 59 percent of parents think that at most 20 percent of time in schools should be spent independently working on a computer, compared to 50 percent of the general public.

When grading schools, parents give slightly worse grades to schools in Germany and in their state. Only 25 percent (33 percent) of parents give one of the best two grades to schools in Germany (their state), compared to 29 percent (39 percent) of the general public. Consistent with this finding, the overwhelming majority of parents (85 percent) favors increases in school spending. This proportion is 10 percentage points larger than in the public. In the subgroup of respondents that received information on the current level of school spending, the difference between parents and the general public disappears.

Parents would also distribute spending across different levels of the education system differently than the public. Almost half of the parents (48 percent) would invest additional education spending in secondary schools, compared to only 37 percent of the general public. At the same time, they are significantly less likely to favor increased spending on elementary schools. Related to the financing of education, a majority of parents (54 percent) support

introducing grants to all university students, not only those with low parental incomes. In the general public, this proposal does not have majority support.

Another key role of parents is to help their children navigate the education system. In the 2016 survey, we asked all respondents, regardless of whether they had children or what education outcomes their children might currently be likely to achieve, to indicate whether an apprenticeship or a higher-education degree would be their personal ideal for their child. On average, 57 percent preferred an apprenticeship degree and 43 percent a higher-education degree for their child. But responses differ tremendously by the education level that the adults have obtained themselves: 36 percent of non-academics but 74 percent academics prefer a higher-education degree for their child. These shares increase in the subgroup of respondents who are informed about earnings differences between the different degrees, but this increase was larger among academics than among non-academics, thus increasing the educational aspiration gap (see Lergtporer, Werner, and Woessmann (2017a) for details).

8.5 Equality of Opportunity

Inequality is an important topic in many current public debates in Germany. In the ifo Education Survey 2016, we investigate whether the German public thinks that inequality of opportunity is a problem in the German education system. 57 percent of respondents say that inequality of opportunity for children from different social backgrounds is a serious or very serious problem in the German education system, whereas only 3 percent say that it is no problem at all. A random subgroup of respondents was informed that the math achievement of 15-year-olds from difficult social backgrounds (lowest 10 percent) lags four school years behind that of their counterparts from good social backgrounds (highest 10 percent). Among the thus informed respondents, the share who thinks that inequality of opportunity is a serious problem is significantly higher at 68 percent, which is consistent with the additional finding that the public severely underestimates the extent to which social background is related to children's educational achievement.

In contrast to the effect on the perception of educational inequality as a problem, however, the information treatment hardly affected preferences for a menu of eight education policies aimed at reducing educational inequality. The only significant effect on policy preferences is that the public's support for compulsory preschools increases from 64 to 69 percent. By contrast, the

information treatment does not significantly change public support for tuition-free preschools for disadvantaged children, increased spending for disadvantaged schools, bonuses for teachers who teach in disadvantaged schools, whole-day schooling, postponed tracking, coeducation of children with and without learning disabilities, and means-tested scholarships for disadvantaged university students. We show that the small treatment effects cannot be rationalized by respondents' failure to connect educational inequality with these policies. Instead, the lack of treatment effects is likely related to high support for many reforms in the control group, which also indicates political leeway for equity-enhancing policies (see Lergetporer, Werner, and Woessmann (2017c) for details).

8.6 The Education of Refugees

Since 2014, Germany has been facing an unprecedented influx of refugees. More than a million people were registered as asylum seekers in 2015 and early 2016, mostly from Syria. Ever since the start of this refugee inflow, immigration policy has been one of the most salient issues in the German media and the political debate. Since the number of new entries has decreased since early 2016, the public discourse has shifted focus from the admittance of new refugees to strategies for integrating those who are already in the country into the German society. The 2016 wave of the ifo Education Survey elicited the German public's opinion on different education policies which are intended to foster the integration of refugees.

The majority of the German public estimates that the refugees are poorly educated on average: 78 percent think that their education level is low. Consequently, most Germans do not agree that refugees will help to alleviate the current shortage of skilled labor in the German economy (33 percent agree, 53 percent disagree). Given these findings, it is notable that most Germans are satisfied with the current level of public education spending for refugees: 49 percent of the respondents think that the level of education spending per refugee should stay about the same, whereas only about one quarter thinks it should increase or decrease, respectively.

With respect to specific education policies to foster the integration of adult refugees, the majority of Germans (75 percent) supports the regulation that refugees have the right and the obligation to attend publically financed German language courses. Similarly, the majority favors the proposal to extend compulsory schooling age from the usual maximum age of 18 years to a

maximum age of 21 years for all individuals (including refugees) who lack a professional degree or are unemployed (58 percent in favor, 26 percent oppose). Another current regulation aims at increasing refugees' employability by providing legal certainty. The regulation determines that they are granted residency rights during their apprenticeship period and, if they find adequate employment, until two years after graduation. 50 percent of the German population favor this regulation, 37 percent oppose it.

In contrast, the German public is split on two additional policy proposals to help integrate refugees. These include providing public financial incentives for companies who offer refugees an apprenticeship (45 percent in favor, 41 percent opposed) and introducing less demanding two-year apprenticeship programs in addition to the usual three-year programs to ease the labor-market integration of refugees (38 percent in favor, 44 percent opposed).

Besides the integration of adult refugees, integrating refugee children into the education system is particularly important, not least because early promotion of children's educational development lays the foundation for subsequent educational success. Several policy proposals for the educational integration of refugee children are broadly supported by the German public. Thus, 56 percent favor the introduction of compulsory preschool for refugee children aged three years and older, only 30 percent oppose it. 81 percent think that refugee families with school-aged children should be assigned residence in order to distribute children geographically evenly across German schools. Furthermore, the German population favors fast integration of refugee children into regular school classes rather than keeping them separate from native children (72 and 62 percent in favor for primary- and secondary-school children, respectively). Finally, 61 percent favor that the federal government increases funding for support staff such as social workers, language teachers, and psychologists which look after refugee children in schools.

In sum, the ifo Education Survey 2016 shows that Germans support many educational reforms aimed at the integration of refugees, in particular policies that target refugee children. Thus, policymakers in Germany are equipped with the public support needed to reform key aspects of the education system to foster integration.

The media play a key role in informing citizens about developments of the refugee situation. At the same time, in particular in the early phases, there was a lack of reliable data and scientific studies about the characteristics of the refugees who entered Germany. This lack of information has been associated with ambiguous media coverage on refugees. A case in point is the presumed

education level of refugees. On the one hand, the media has reported that refugees are relatively poorly educated, since 65 percent of Syrian students lack basic skills according to an international study (see Woessmann (2015)). On the other hand, media reports have claimed that refugees are well educated, citing a study that shows that 43 percent of Syrian refugees have attended university (see UNHCR (2015)). These studies do not necessarily contradict each other, as they have quite different foci and measurement. Still, the media reports about these studies delivered contradicting assessments of the general education level of refugees.

To assess the effects of this contradictory media coverage on the public opinion, the Ifo Education Survey 2016 incorporated a survey experiment in which respondents were randomly assigned to one of four experimental groups. While the control group did not receive any information, two treatment groups were informed about media reports which claim that the refugees' education level is low or high, respectively. The fourth group was informed about both types of media coverage. This information treatment had marked effects on expressed public opinion. Compared to the control group, mentioning reports about high education levels increased the share of those who think that refugees can help counteract the current shortage of skilled labor in Germany from 33 percent to 42 percent. Similarly, reports about low education levels increase support for increased education spending per refugee by 5 percentage points to 30 percent. The treatments had no significant effects on public preferences for introducing less demanding apprenticeship programs. These results indicate that the tonality of the media coverage of the refugee crisis can be relevant for shaping public preferences (see Lergetporer, Werner, and Woessmann (2017b) for details).

9. Conclusions

9.1 Public Opinion and the Political Economy of Education Policy in Germany

The political feasibility of educational reforms likely depends on whether voters accept these reforms. Since politicians face elections, they have incentives not to pursue an educational reform that is dismissed by the public. This is true even if scientific evidence on a particular reform suggests that it would improve student outcomes. Therefore, a better understanding of public preferences towards education policies is a helpful step to understand the potential for welfare-enhancing reforms.

The picture of the German publics' opinion on a broad range of education policies that emerges from the ifo Education Survey is complex and multifaceted. While it is hard to draw general conclusions, we find clear support for the notion that education policies are important for respondents' voting behavior. Furthermore, the majority of Germans is surprisingly open to many reform proposals. It is encouraging that, according to scientific evidence, a considerable subset of reform proposals with majority appeal such as the implementation of nationwide standardized tests, the expansion of school choice, or tuition-free preschools has the potential to improve student outcomes. Thus, politicians have leeway for enacting a range of potentially beneficial educational reforms.

Apart from these general observations, the evidence thus far allows us to draw three specific conclusions that are discussed in more detail below. First, Germans exhibit a pronounced willingness to reform the education system. Second, performance orientation in the education system is important for the majority of the German population. Third, information provision can have substantial effects on public preferences towards education policies.

9.2 Willingness to Reform

The first pattern of results is that Germans are in favor of many fundamental reforms of the education system. A majority of respondents supports proposals to change the status quo in more than a dozen areas, ranging from early childhood to university education. In particular, Germans favor 1) tuition-free preschools, 2) national quality standards in preschools, 3) the abolishment of subsidies for at-home child care, 4) the abolishment of basing primary-school assignment on catchment areas, 5) the introduction of a whole-day school system, 6) national comparative tests in schools, 7) national exit exams in all school tracks, 8) autonomy for school leaderships in recruiting teachers, 9) entrance exams for teacher training courses, 10) compulsory professional development for teachers, 11) the abolishment of the cooperation ban between federal and state governments in schools, 12) public funding of apprenticeships for unsuccessful applicants, and 13) income-contingent university tuition fees.

The majority of the German public also favors fundamental changes of how the education system is funded. An unusual characteristic of the German education system is that parents face significant preschool fees for their children while university studies are basically tuition-free. The ifo Education Survey documents a clear preference for change in this domain: There is

majority support for tuition-free preschools and for introducing income-contingent tuition fees in higher education. Since scientific studies tend to show that public investments in early childhood education dominate later investments in terms of equity and efficiency, policymakers have the publics' support for reforming education finance in a welfare-enhancing way.

Another area with a clear will of the majority to reform is the enhancement of nationwide standardization of the education system. While the constitution grants the German states autonomy in the design of their education systems, the majority of respondents favors the introduction of regular nationwide standardized tests as well as nationwide standardized exit exams for each secondary school degree. The demand for nationwide compulsory quality standards is likewise present in the preschool sector. These demands for standardization are also reflected in the public's willingness to assign competencies in the education sector to the national level, as reflected in majority support for ending the cooperation ban between federal and state governments and for increased spending at the federal level.

9.3 Favoring Clear Performance Orientation

The second broad conclusion from the ifo Education Survey is that Germans have a clear preference for a performance-oriented education system. The majority dismisses proposals to abolish school grades or to abolish the requirement that underperforming students have to repeat the grade. Similarly, the majority favors the introduction of nationwide standardized exit exams for secondary school degrees which will foster the comparability of degrees across states.

The performance orientation is not restricted to students, as indicated by the evidence contained in Henderson et al. (2015). The German public favors basing part of the salaries of teachers on whether or not they teach in schools with many disadvantaged students. Looking at the overall performance of the education system, the overwhelming majority of respondents considers it important that German students perform well on international student achievement tests such as PISA. Taken together, there is substantial leeway for policymakers to implement policies which aim at increasing the performance of the German school system.

9.4 Importance of Informing Citizens

A final central finding of the ifo Education Survey is that information about underlying facts and specifics of reform designs can affect public preferences towards education policies. While

experts often regard underlying facts as self-evident, our results show that many key aspects related to certain policies are not known by most people in the general public. In a series of survey experiments in which the opinions of an uninformed control group are compared to those of a randomly selected treatment group that receives relevant pieces of information, the 2015 Education Survey documents that information can change policy preferences substantially.

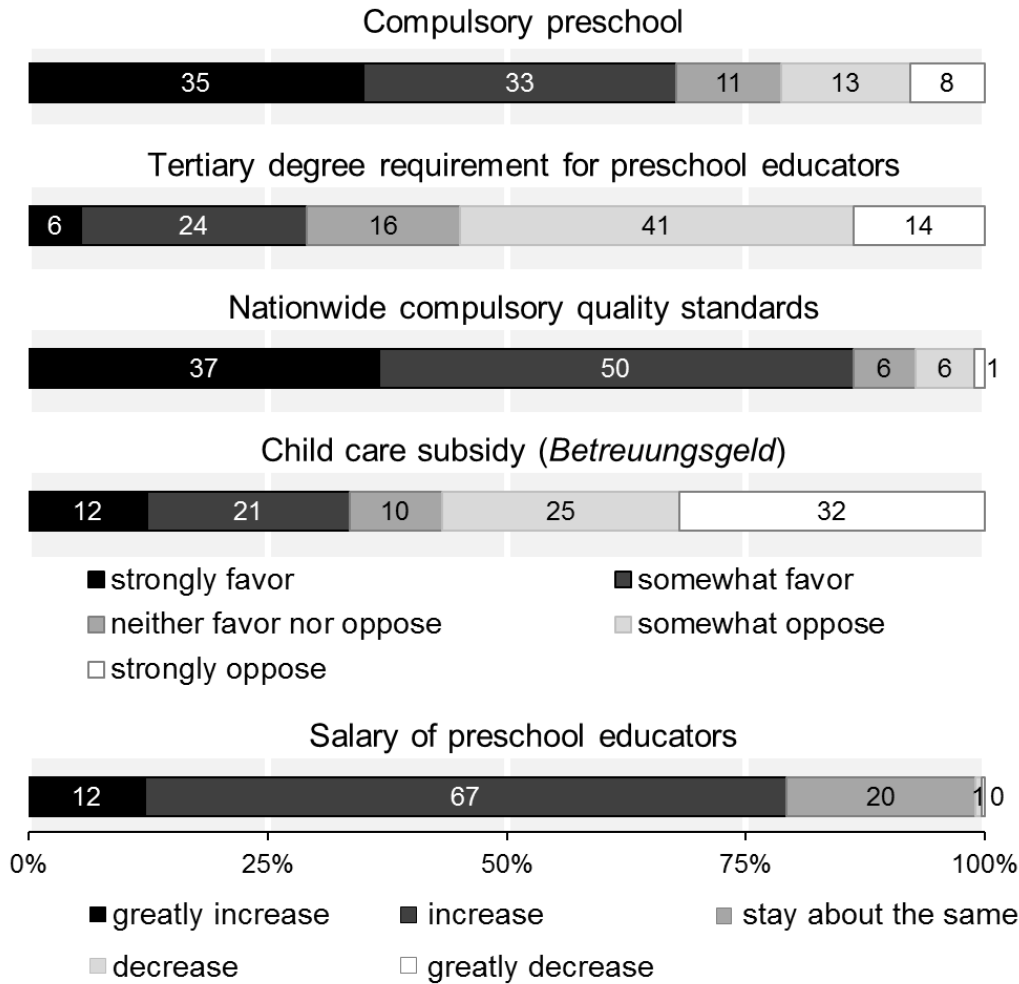
This finding suggests that alleviating information deficits through information provision could have important repercussions for the public policy debate. Certainly, the extent to which information provision affects public opinion varies markedly across topics and the type of information provided. For instance, several experiments in the 2015 survey find that whether information is provided at the national or at the regional level has no differential effects on answering behavior. Still, the general finding that information provision can affect policy preferences carries particular policy relevance: This insight can inform policymakers about information deficits among the public and hence about how information campaigns might affect support for potential education reforms.

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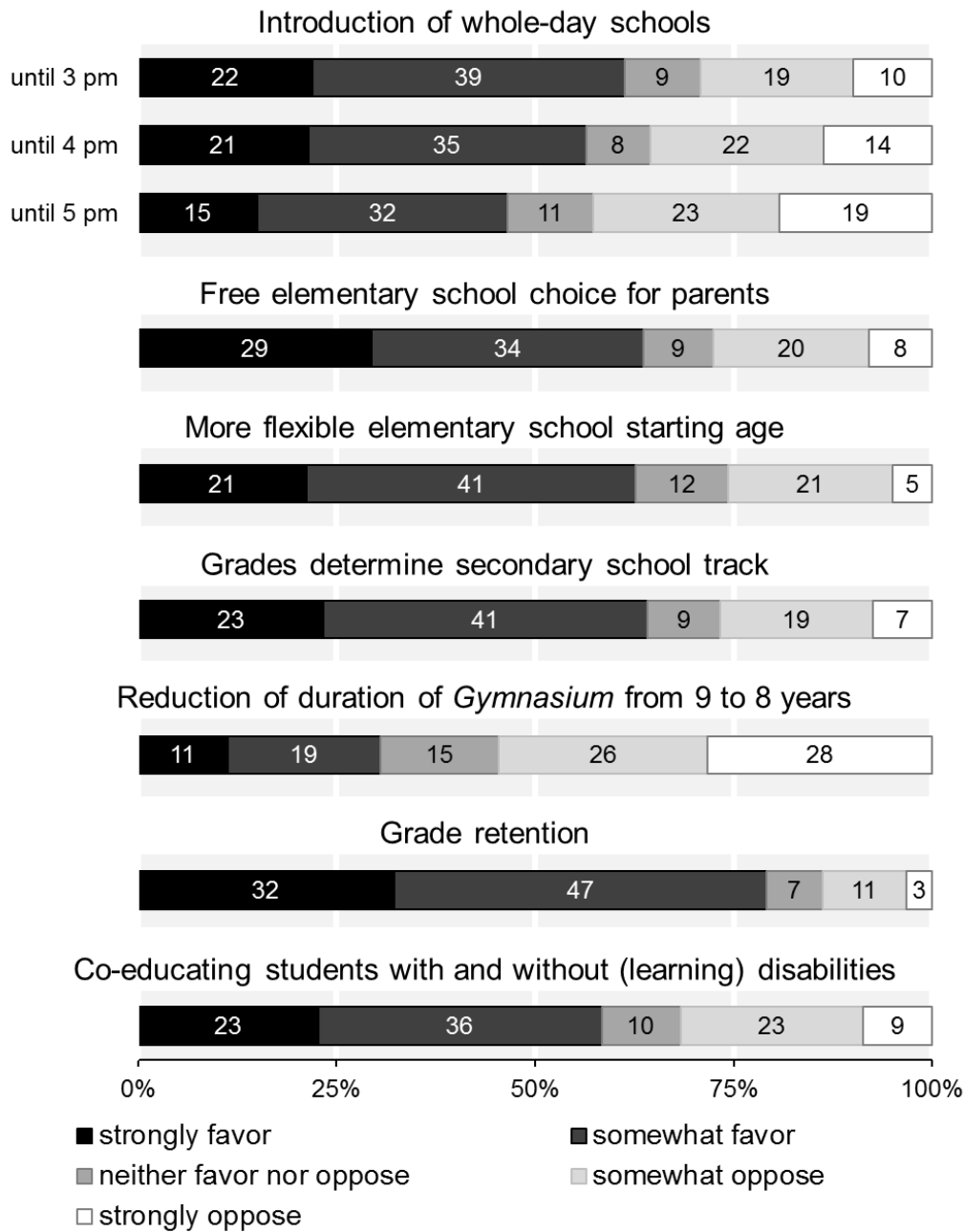
Figure 1: What Germans Think about Aspects of Early Childhood Education



Notes: Wording of questions (year of survey in brackets): *Compulsory preschool*: Currently, parents in Germany are free to choose whether their children attend a preschool program. Do you favor or oppose making participation compulsory as of a certain age? [2014] *Tertiary degree requirement for preschool educators*: Do you favor or oppose requiring preschool educators to hold a tertiary degree? [2015] *Nationwide compulsory quality standards*: Do you favor or oppose introducing compulsory quality standards into preschool which prescribe nationwide uniform standards, for instance regarding educator training or maximum group size? [2015] *Child care subsidy (Betreuungsgeld)*: The government pays parents who do not enroll their children aged between 1 and 3 years in a childcare facility, but instead provide private homecare, a child care subsidy in addition to the child benefits. Do you favor or oppose parents receiving a child care subsidy in addition to the child benefits? [2015] *Salary of preschool educators*: Do you think that preschool educator salaries in Germany should increase, decrease, or stay about the same? [2015]

Source: ifo Education Survey.

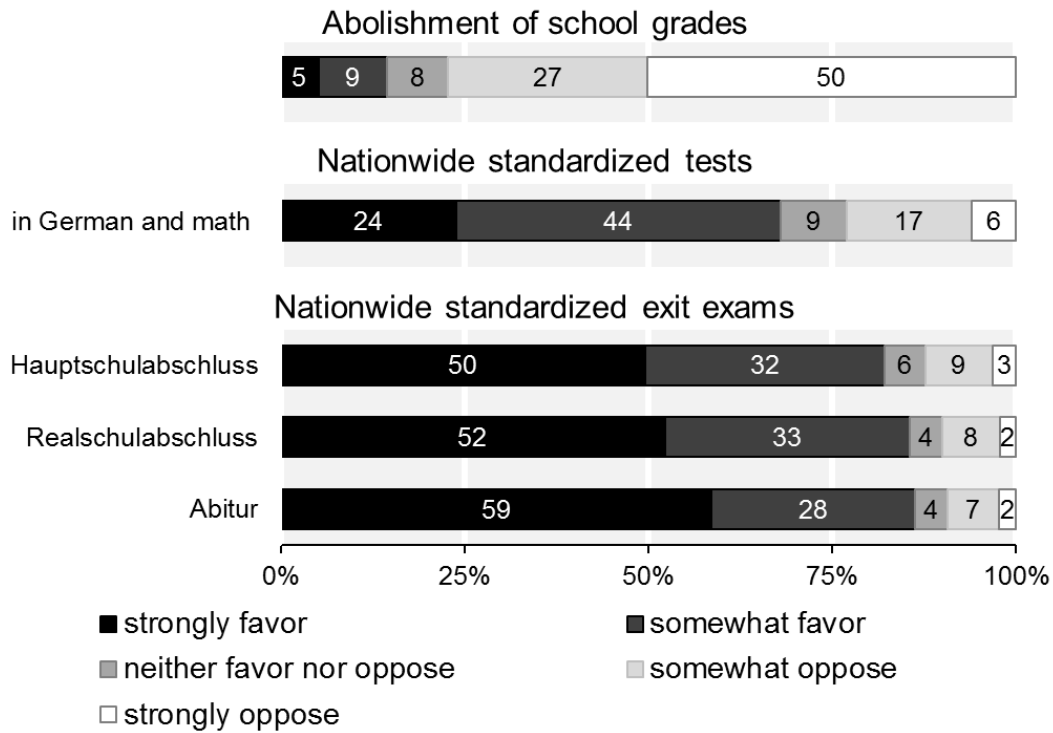
Figure 2: What Germans Think about Structural Aspects of the School System



Notes: Wording of questions (year of survey in brackets): *Introduction of whole-day schools – until 3 [4] [5] pm*: Do you favor or oppose Germany introducing a whole-day school system in which all children attend school until 3 [4] [5] pm? [2015] *Free elementary school choice for parents*: In most federal states, the family's place of residence determines a child's primary school. Usually, parents cannot choose which school their child attends. Do you favor or oppose free primary school choice for parents? [2015] *More flexible elementary school starting age*: Usually, the school starting age is determined by whether a child is six years old at a certain cutoff date. Do you favor or oppose that parents can instead decide upon a later school starting age? [2015] *Grades determine secondary school track*: In some federal states, the grade point average at the end of primary school determines what secondary school type children may attend. In other states, parents decide. Do you favor or oppose that school grades determine which secondary school type children attend? [2015] *Reduction of duration of *Gymnasium* from 9 to 8 years*: Do you favor or oppose that students usually graduate from *Gymnasium* after eight instead of nine years? [2014] *Grade retention*: Do you favor or oppose that students with bad performance have to repeat a grade? [2014] *Co-educating students with and without (learning) disabilities*: Do you favor or oppose that children with and without disabilities or learning disabilities are educated together in one class? [2014]

Source: ifo Education Survey.

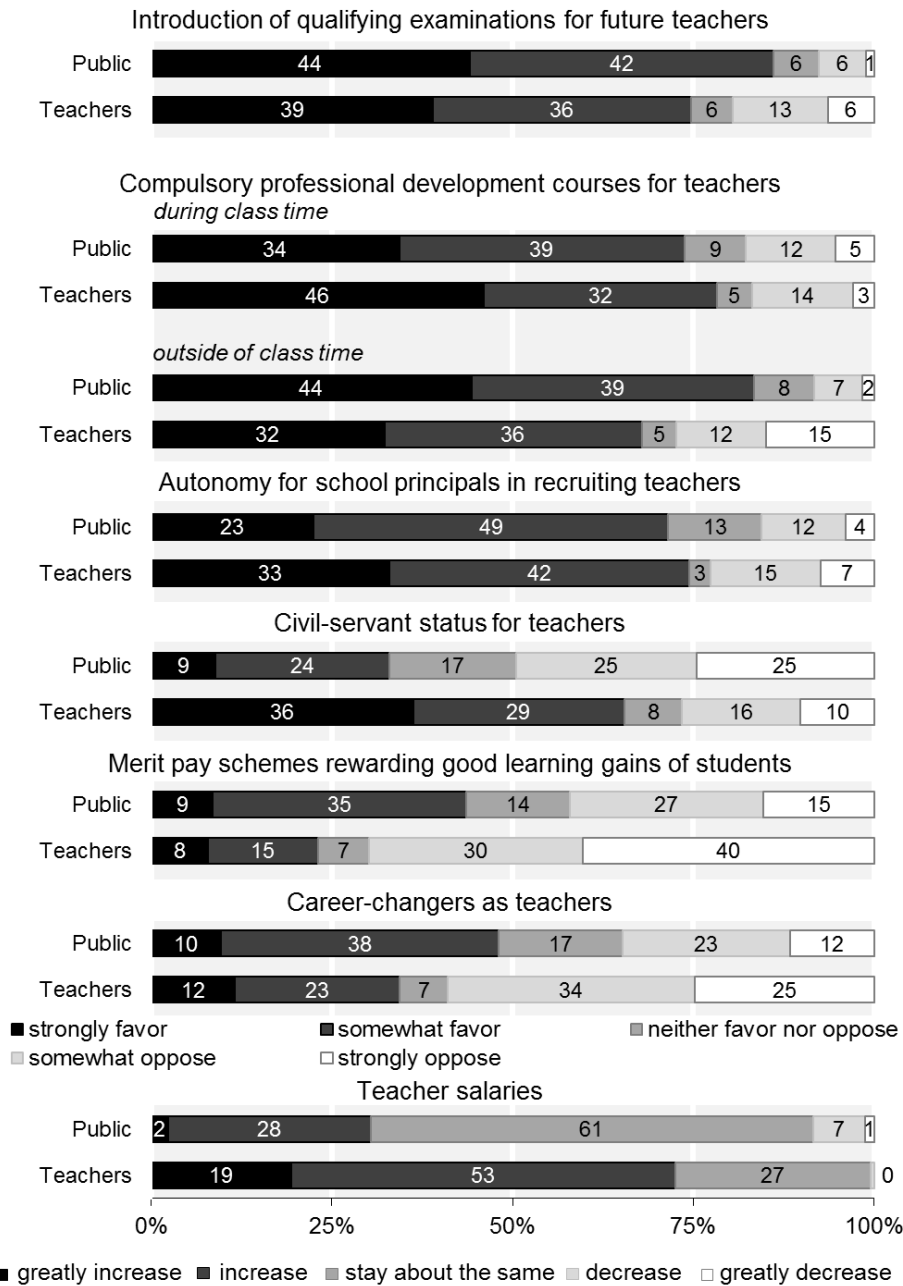
Figure 3: What Germans Think about Assessment Systems in Schools



Notes: Wording of questions (year of survey in brackets): *Abolishment of school grades*: Do you favor or oppose abolishing school grades? [2014] *Nationwide standardized tests – in German and math*: Do you favor or oppose substituting one test in German and mathematics in certain grades – for instance, in grades 3, 7, and 10 – with a nationwide standardized test each that enters students’ grades? [2015] *Nationwide standardized exit exams*: Do you favor or oppose introducing nationwide standardized exit exams for the following secondary school degrees? [2015]

Source: ifo Education Survey.

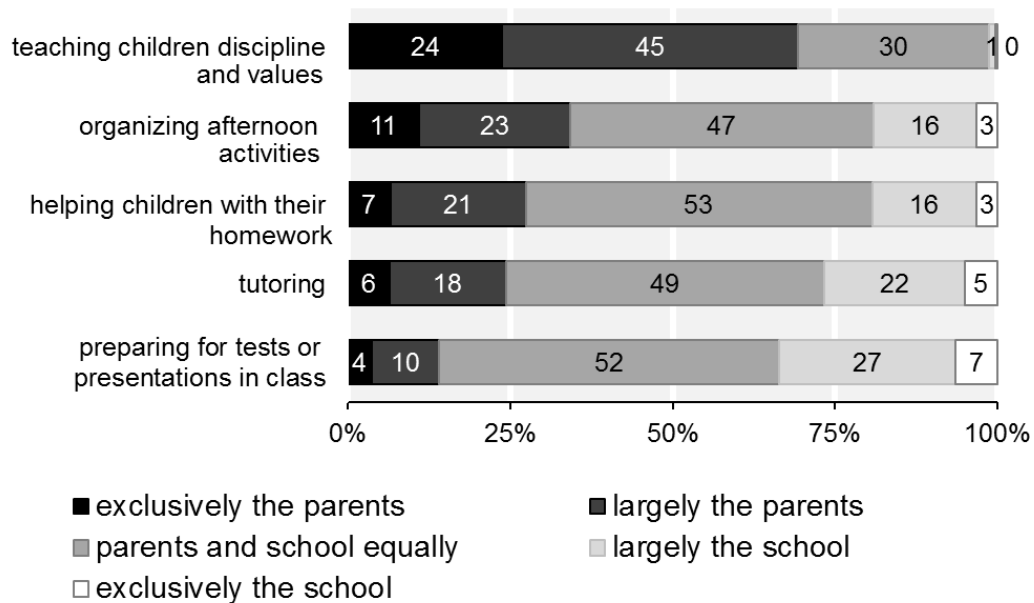
Figure 4: How Opinions on Teacher-Related Topics Compare between Teachers and the General Public



Notes: Wording of questions: *Introduction of qualifying examinations for future teachers*: Do you favor or oppose requiring high school graduates to sit a qualifying examination that determines their pedagogical and professional qualification before entering a teacher program at university? *Compulsory professional development courses for teachers – during class time [outside of class time]*: Do you favor or oppose obligating teachers to participate in school-financed professional development courses which take place during [outside of] regular class time? *Autonomy for school principals in recruiting teachers*: Do you favor or oppose letting school principals decide upon recruiting teachers? *Civil-servant status for teachers*: The majority of teachers in most federal states currently hold civil-servant status, while the majority of teachers in other federal states are employees. Do you favor or oppose granting teachers civil-servant status? *Merit pay schemes rewarding good learning gains of students*: Do you favor or oppose introducing merit pay schemes which reward teachers for good learning gains of their students? *Career-changers as teachers*: Do you favor or oppose allowing university graduates without teacher training to work in schools as teachers? *Teacher salaries*: In Germany, full-time teachers are paid an average monthly net salary of 2,750 Euro per month. Do you think that teacher salaries should increase, decrease, or stay about the same?

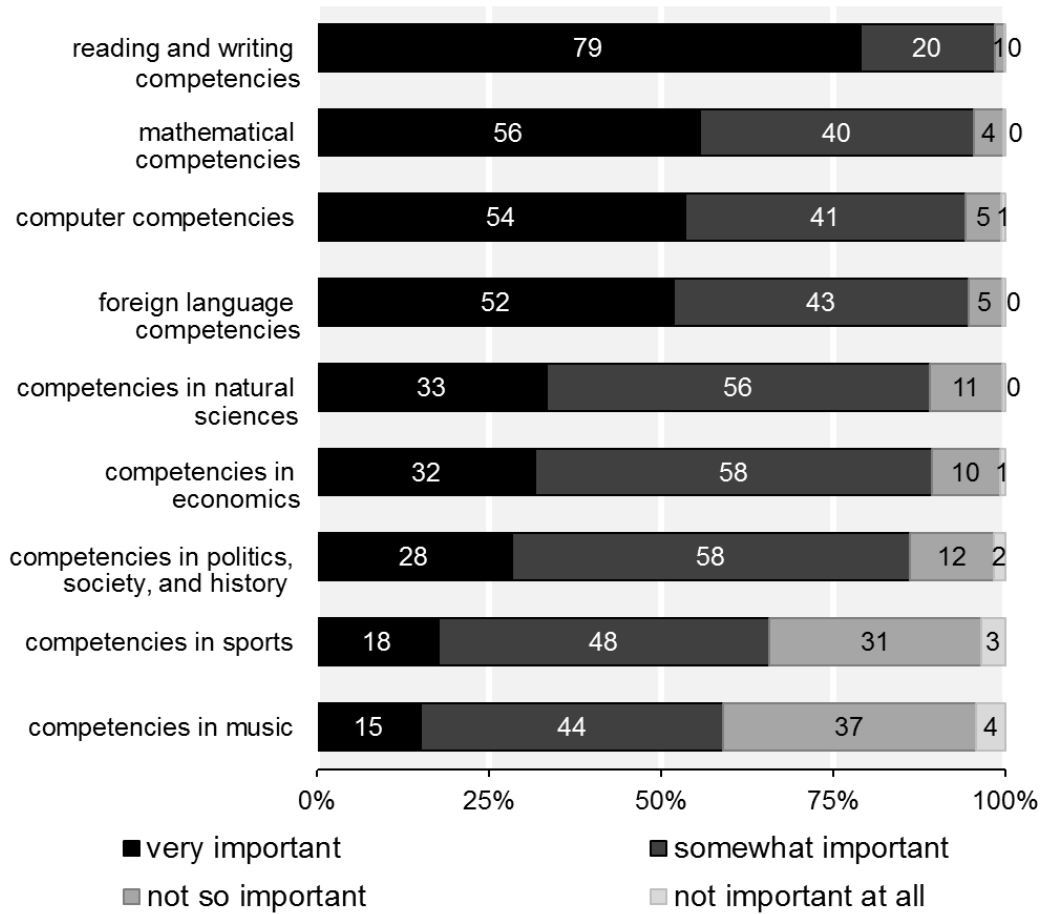
Source: ifo Education Survey 2016.

Figure 5: What Germans Think about Which Tasks the School System Should Pursue



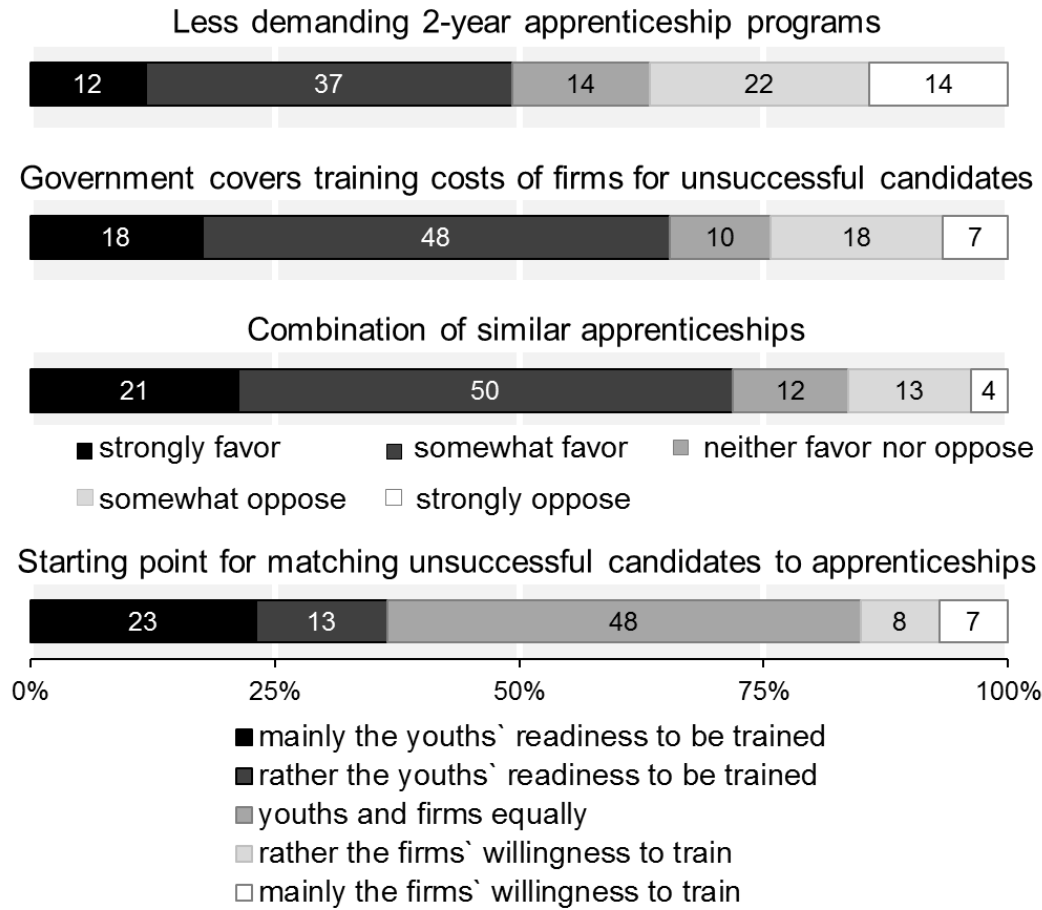
Notes: Wording of question: It has been discussed what tasks schools should fulfill, apart from knowledge transfer in class. What do you think, who should take responsibility in organizing the following tasks during primary school years?
 Source: ifo Education Survey 2015.

Figure 6: What Germans Think about Which Competencies are Important for the Future of Students



Notes: Wording of question: What do you think, how important are the following competencies for the students' future?
 Source: ifo Education Survey 2015.

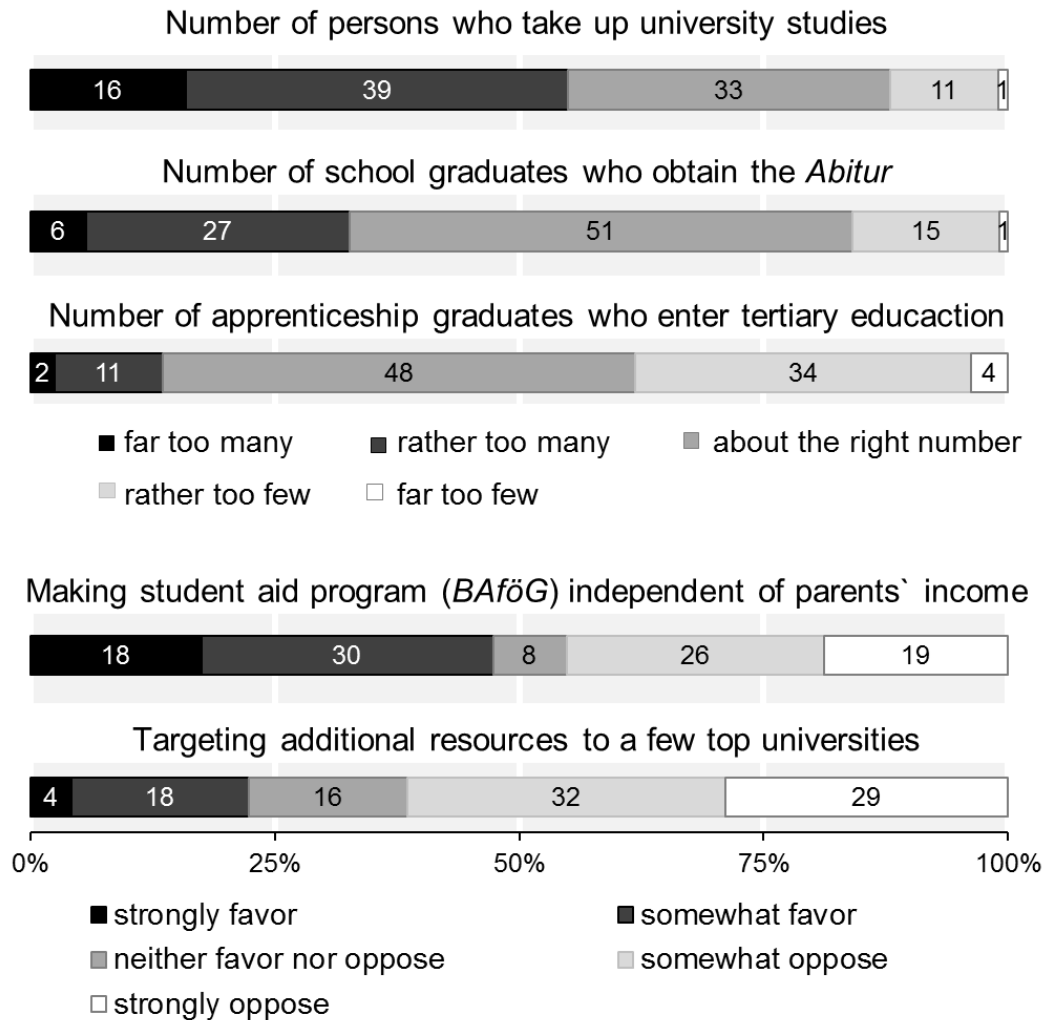
Figure 7: What Germans Think about Aspects of Apprenticeship Education



Notes: Wording of questions (year of survey in brackets): *Less demanding 2-year apprenticeship programs*: In Germany, the usual duration of an apprenticeship is three years. Do you favor or oppose introducing additional less demanding two-year apprenticeship programs for adolescents with poor apprenticeship prospects? [2014] *Government covers training costs of firms for unsuccessful candidates*: Do you favor or oppose that the government covers part of the training costs of firms that employ candidates who have unsuccessfully looked for an apprenticeship for at least one year? [2015] *Combination of similar apprenticeships*: In Germany, there is a vast number of highly specialized apprenticeships, including for instance 30 specific commercial degrees. Do you favor or oppose combining different apprenticeships so that graduates are more flexible across occupations later? [2016] *Starting point for matching unsuccessful candidates to apprenticeships*: Many young people do not find an apprenticeship position after finishing school. What do you think, what should be the main starting point to ensure that these candidates get an apprenticeship position? [2015]

Source: ifo Education Survey.

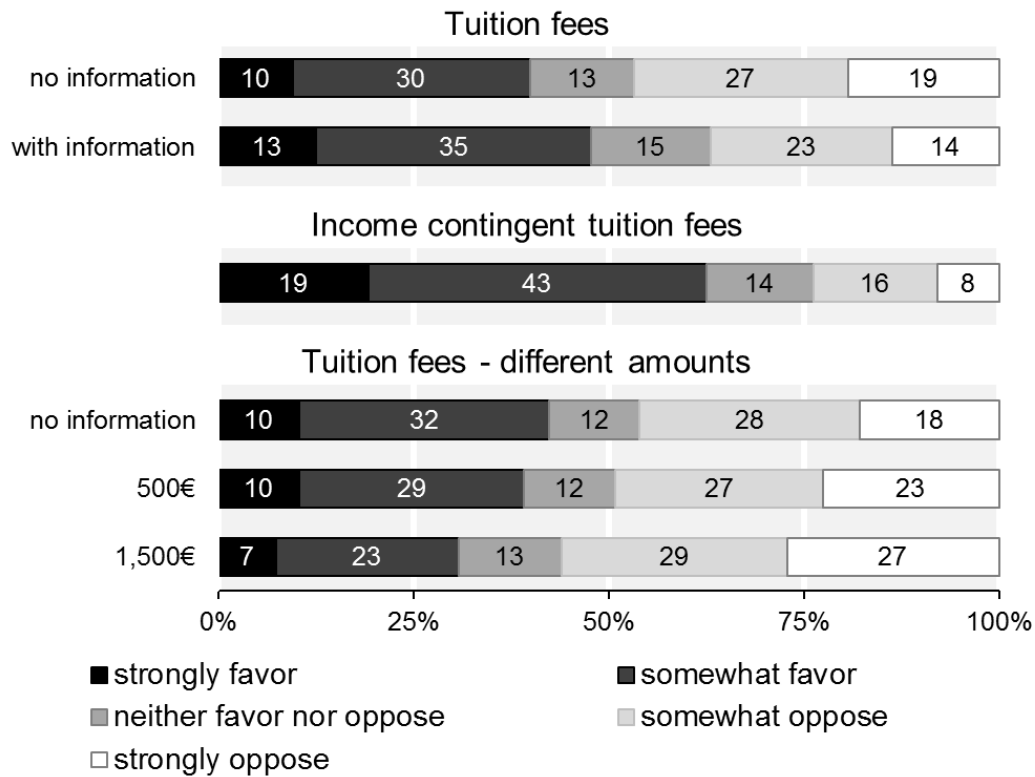
Figure 8: What Germans Think about Aspects of Access to Higher Education



Notes: Wording of questions (year of survey in brackets): *Number of persons who take up university studies*: What do you think about the number of persons who currently take up university studies in Germany? [2014] *Number of school graduates who obtain the Abitur*: What do you think about the number of school graduates who obtain the Abitur in your area of residence? [2015] *Number of apprenticeship graduates who enter tertiary education*: Under certain circumstances, apprenticeship graduates can enter higher education. What do you think about the number of apprenticeship graduates in Germany who later take up university studies? [2015] *Making student aid program (BAföG) independent of parents' income*: "BAföG" is a government student aid program which is contingent on the income of the students' parents. Do you favor or oppose offering "BAföG" to all students independent of their parents' income? [2015] *Targeting additional resources to a few top universities*: In course of the "Exzellenzinitiative", the federal government provides additional resources for research to universities. Some say that a few top universities should profit from the additional financial means. Others say that resources should be spread equally across many universities. Do you favor or oppose a few top universities profiting from the additional resources? [2015]

Source: ifo Education Survey.

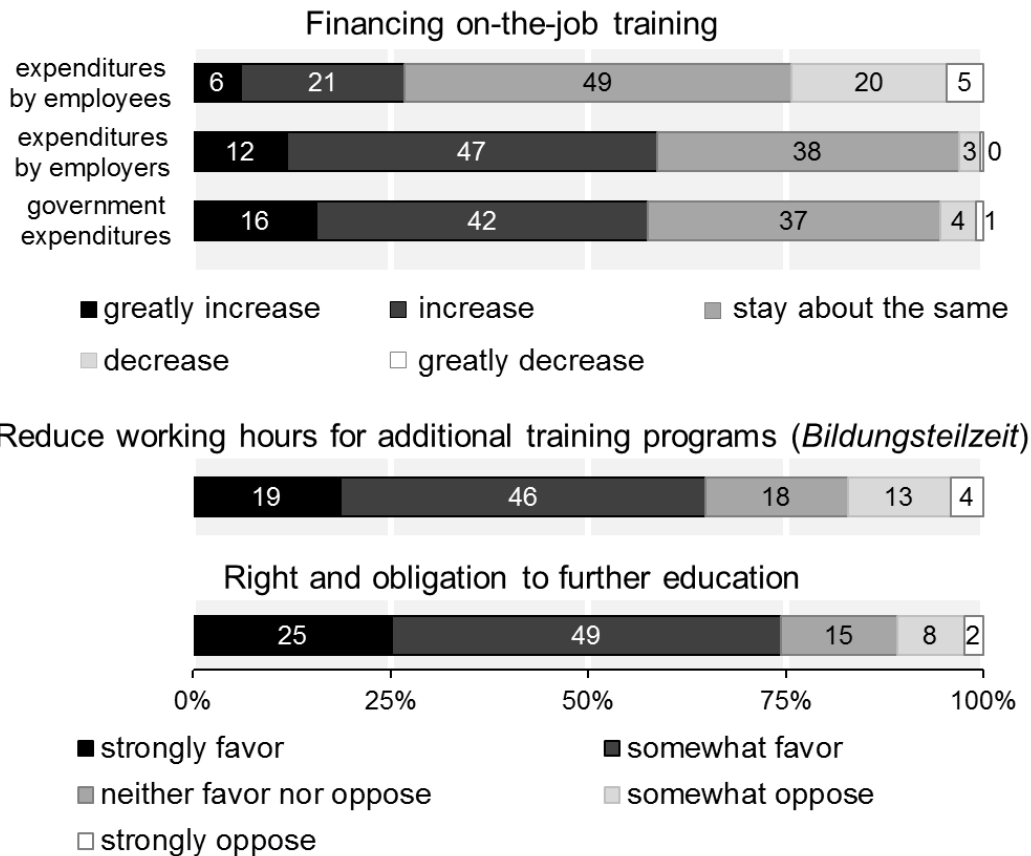
Figure 9: What Germans Think about Tuition Fees in Higher Education



Notes: Wording of questions (year of survey in brackets): *Tuition fees – no information [with information]*: [University graduates earn about 40 percent more each year than persons with vocational degrees.] Do you favor or oppose that students at German universities or universities of applied sciences cover a part of the costs of their studies themselves by tuition fees? [2014] *Income contingent tuition fees*: Other countries allow tuition fees that are due after graduation, when the former students earn income. The fees have to be paid only if their annual income exceeds a certain threshold. Do you favor or oppose that students at German universities or universities of applied sciences cover a part of the costs of their studies themselves by this alternative form of tuition fees? [2014] *Tuition fees – different amounts – no information [500€] [1,500€]*: Do you favor or oppose that students at German universities or universities of applied sciences cover a part of the costs of their studies themselves by tuition fees [of 500 {1,500} Euro per semester (half year)]? [2016]

Source: ifo Education Survey.

Figure 10: What Germans Think about Aspects of Adult Education



Notes: Wording of questions (year of survey in brackets): *Financing on-the-job training*: On-the-job training is partly financed by the employee, by the employer, and by the government. Do you think that spending on on-the-job training from these three sources should increase, decrease, or stay about the same? [2014] *Reduce working hours for additional training programs (Bildungsteilzeit)*: Do you favor or oppose that employees have a union-agreed entitlement to reduce their working hours in order to participate in additional training programs with a return option to full-time employment after completion and cost splitting for reduced working hours between employer and employee? [2015] *Right and obligation to further education*: Do you favor or oppose that employees have the right and the obligation to participate in further education for five days each year, with the employer deciding on the content of the courses and covering their costs? [2016]

Source: ifo Education Survey.