



**European Expert Network on  
Economics of Education (EENEE)**

**Public Opinion and the Acceptance  
and Feasibility of Educational Reforms**

EENEE Analytical Report No. 28  
Prepared for the European Commission

Marius Busemeyer, Philipp Lergetporer  
and Ludger Woessmann

January 2017

**28**



**Erasmus+**

***Europe Direct is a service to help you find answers  
to your questions about the European Union.***

**Freephone number (\*):  
00 800 6 7 8 9 10 11**

(\* ) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

More information on the European Union is available on the Internet (<http://europa.eu>).

Luxembourg: Publications Office of the European Union, 2017

ISBN: 978-92-79-61971-7

doi: 10.2766/028567

© European Union, 2017

All rights reserved.

This document has been prepared for the European Commission. However, it reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

# Public Opinion and the Acceptance and Feasibility of Educational Reforms\*

Marius R. Busemeyer, Philipp Lergetporer, and Ludger Woessmann<sup>†</sup>

11 January 2017

## Content

List of Figures.....	ii
Executive Summary (English, German, French).....	iii
<b>1. Introduction.....</b>	<b>1</b>
<b>2. Public Acceptance and Feasibility of Educational Reforms .....</b>	<b>2</b>
<b>3. Public Preferences on Education Policies .....</b>	<b>4</b>
3.1 Support for Education Spending .....	5
3.1.1 <i>How Do Preferences for Education Spending Vary with Age.....</i>	6
3.1.2 <i>How Do Preferences for Education Spending Vary with Income .....</i>	8
3.1.3 <i>How Do Preferences for Education Spending Vary with Ideological Positions .....</i>	10
3.1.4 <i>Multivariate Analysis and Summing Up.....</i>	11
3.2 Policy Trade-offs: Where Should Public Funds Go To? .....	13
3.2.1 <i>Preferences for Spending on Education vs. other Policies.....</i>	13
3.2.2 <i>Preferences for Spending across Educational Sectors.....</i>	16
3.2.3 <i>Preferences for Vocational and Academic Education.....</i>	18
3.2.4 <i>Preferences towards Public and Private Education.....</i>	20
3.3 Support for Specific Education Policies and Structural Reforms .....	23
3.3.1 <i>Public Preferences for Decentralization and Comprehensive Schools across Countries .....</i>	23
3.3.2 <i>Evidence on Public Preferences on Education Policies from Germany.....</i>	26
3.3.3 <i>Evidence on Public Preferences on Education Policies from Switzerland.....</i>	31
3.3.4 <i>Evidence on Public Preferences on Education Policies from the United States .....</i>	32
<b>4. The Importance of Information for Education Preferences .....</b>	<b>34</b>
4.1 How Information Affects Support for Education Spending .....	35
4.2 How Information Affects Support for Different Education Spending Categories.....	38
4.3 How Information and Income Contingency Affect Support for University Tuition Fees	41
4.4 Does Information on Party Positions Affect Public Opinion on Education Policies? ..	42
4.5 The Effects of Information on Public Opinion in Real-World Settings.....	44
<b>5. Conclusions .....</b>	<b>45</b>
<b>References .....</b>	<b>47</b>

---

\* Analytical Report of the European Expert Network on Economics of Education (EENEE) prepared for the European Commission, Directorate General for Education and Culture. We would like to thank Susanne von Below, Torberg Falch, Ruth Schüler, Irina Sombré, and Stefan Wolter for constructive comments.

<sup>†</sup> Busemeyer: University of Konstanz ([Marius.Busemeyer@uni-konstanz.de](mailto:Marius.Busemeyer@uni-konstanz.de)). Lergetporer, Woessmann: Ifo Institute at the University of Munich ([lergetporer@ifo.de](mailto:lergetporer@ifo.de), [woessmann@ifo.de](mailto:woessmann@ifo.de)).

## List of Figures

Figure 1: Support for higher spending on education in eight European countries .....	6
Figure 2: Support for higher education spending by age cohort and country .....	8
Figure 3: Support for higher education spending by income quintile and country .....	9
Figure 4: Support for higher education spending by ideological orientation and country ....	11
Figure 5: Prioritized area of increased government spending .....	14
Figure 6: Support for public spending on different sectors of the education system .....	17
Figure 7: Support for different types of post-secondary education .....	19
Figure 8: Support for a strong role of private schools and universities.....	21
Figure 9: Support for various reforms in the governance of education.....	24
Figure 10: Support for all-day schools among the German public.....	28
Figure 11: The effects of informing about spending levels and referencing to taxes on support for higher education spending.....	36
Figure 12: The effect of informing about current teacher salaries on support for salary increases .....	37
Figure 13: The effect of information on support for spending on smaller classes, higher teacher salaries, and teaching material.....	40
Figure 14: The effect of information and income contingency on support for tuition fees ....	42

## **Executive Summary (English)**

In education policy, as in many other policy fields, well-designed policy reforms may fail to get enacted because policymakers may suddenly become confronted with a public backlash against their reform agenda. Thus, understanding the dynamics of public opinion is important in order to be able to assess the chances of successful reform. There is a large scholarly literature based on ample survey data about the public's attitudes towards the welfare state, but the policy field of education has until recently been neglected in this literature. This report summarizes the findings of a recent and growing literature studying the dynamics of public opinion on education policy, based on original and new survey data collected in various research projects in Europe and the United States.

First, the report discusses findings from the ERC-funded project “Investing in Education in Europe: Attitudes, Politics and Policies” (INVEDUC). One part of this project was to conduct a survey of public opinion on education policy in eight Western European countries (Sweden, Denmark, the UK, Ireland, Germany, France, Spain, and Italy). The survey data confirms that education – together with health care – ranks at the top regarding public support for more investments among European citizens. Disconfirming common preconceptions, the evidence for a generational or income-based cleavage in support for more education spending is mixed at best, indicating a strong across-the-board support for more educational investments. However, there are significant differences between left-wing and right-wing supports. There is also a significant degree of variation in support across countries depending on the particular institutional contexts, and there is a significant decline in support for education spending once citizens are reminded that additional investments may require tax increases, higher public debt, or cutbacks in other parts of the welfare state. Furthermore, in general there is strong support for public investments in vocational education and training (VET) and for promoting VET as an alternative to academic higher education, which is somewhat surprising given the strong attention paid to the latter in public debates. Finally, the survey also reveals strong support for various reforms in the governance of education, in particular school choice and the decentralization of governance structures, but also in promoting the comprehensive model of school education.

Second, the report summarizes survey evidence on public opinion on specific education topics in individual countries, namely Germany, Switzerland, and the United States. In Germany, the Ifo Center for the Economics of Education has carried out the Ifo Education Survey annually since 2014. This representative opinion survey highlights several areas in the

education system in which the majority of the German population supports fundamental reforms. These include the provision of tuition-free preschool, the introduction of a whole-day school system, national comparative tests in school, national exit exams, and income-contingent tuition fees in higher education. In Switzerland, policy proposals with majority appeal in representative public opinion surveys include increasing school expenditure, implementing free school choice, offering all-day care to all school children, introducing standardized tests, and determining admission to upper-track secondary schools by entrance exams. The evidence from Switzerland is interesting not least because of the Swiss system of direct democracy in which referenda are frequently used to decide upon the implementation of education policies. In U.S. opinion surveys, different accountability measures in the education system are highly popular among the American public. A comparison of public opinion between Germany and the United States shows that public opinion diverges across countries in some policy fields (e.g., teacher salary increases or certain forms of differential pay), but overlaps markedly in others (e.g., school spending increases or government-funded pre-school programs).

Public acceptance of educational reforms critically depends on the extent to which the public is informed about relevant facts regarding the respective reform proposal. Therefore, the final section of this report presents four examples of survey experiments which show that randomized information provision can have substantial effects on public preferences. First, providing information on current levels of education spending (teacher salaries) and reminders of tax financing requirements significantly reduce the share of respondents who support increases in education spending (teacher salary) in Germany and the United States. Second, public support for education spending across different education sectors – from pre-school to tertiary education – is affected by the provision of information on current spending levels and information on research results on the importance of investments in early education stages. Third, providing information on the relative earnings of university graduates turns a plurality against university tuition fees in Germany into a plurality favoring them. The experiment also reveals that a clear majority favors income-contingent tuition fees. Fourth, information on the stance that different political parties take can shift citizens' opinion on specific education policies. To put these experimental results into perspective, the report also discusses the extent to which information effects in survey experiments can be generalized towards real-world settings.

## **Executive Summary (German)**

### **Öffentliche Meinung und die Akzeptanz und Umsetzbarkeit von Bildungsreformen**

In der Bildungspolitik können, wie in anderen Politikbereichen auch, gut durchdachte Politikreformen bei der Umsetzung scheitern, weil sich die Reformagenda der Politiker einer öffentlichen Gegenreaktion gegenüber sieht. Deshalb ist es wichtig die Dynamik der öffentlichen Meinung zu verstehen, um die Chancen einer erfolgreichen Reform beurteilen zu können. Es gibt eine umfangreiche wissenschaftliche Literatur auf Basis von Umfragedaten über die öffentliche Meinung zum Sozialstaat, aber die Bildungspolitik wurde von dieser Literatur bisher weitgehend vernachlässigt. Der vorliegende Bericht fasst die Ergebnisse aktueller Forschung zur Dynamik der öffentlichen Meinung zur Bildungspolitik zusammen, wobei er sich auf neue Umfragedaten stützt, die in verschiedenen Forschungsprojekten in Europa und den USA gesammelt wurden.

Zunächst werden Erkenntnisse aus dem ERC-Projekt „Investing in Education in Europe: Attitudes, Politics and Policies“ (INVEDUC) vorgestellt. Ein Teil dieses Projektes bestand darin, in acht westeuropäischen Ländern eine Befragung zur öffentlichen Meinung zur Bildungspolitik durchzuführen (Schweden, Dänemark, Großbritannien, Irland, Deutschland, Frankreich, Spanien und Italien). Die Studie zeigt, dass Bildung – zusammen mit Gesundheitsversorgung – bei den europäischen Bürgern bei der Zustimmung zu zusätzlichen Investitionen an der Spitze steht. Im Gegensatz zu gängigen Erwartungen ist die Evidenz zu generationen- oder einkommensabhängigen Meinungsunterschieden in der Befürwortung höherer Bildungsausgaben bestenfalls gemischt. Allerdings unterscheidet sich die Befürwortung zwischen politisch linken und rechten Vertretern sowie zwischen den Ländern in Abhängigkeit des spezifischen institutionellen Kontextes. Die Befürwortung zusätzlicher Bildungsausgaben geht deutlich zurück, wenn Bürger darauf hingewiesen werden, dass zusätzliche Investitionen Steuererhöhungen, höhere Staatsverschuldung oder Ausgabenkürzungen in anderen Bereichen erfordern. Darüber hinaus gibt es starken Zuspruch für öffentliche Investitionen in berufliche Aus- und Weiterbildung und für deren Stärkung als Alternative zur akademischen Hochschulbildung, was angesichts des starken Augenmerks öffentlicher Debatten auf Letztere etwas überrascht. Schließlich zeigt die Umfrage auch starke Zustimmung zu verschiedenen Reformen der Steuerung des Bildungssystems, insbesondere bezüglich schulischer Wahlfreiheit und der Dezentralisierung von Entscheidungsstrukturen, aber auch bezüglich gemeinsamer Unterrichtsmodelle.

Im Anschluss fasst der Bericht Umfrageergebnisse zur öffentlichen Meinung zu spezifischen Bildungsthemen in einzelnen Ländern – Deutschland, Schweiz und USA – zusammen.

In Deutschland führt das ifo Zentrum für Bildungsökonomik seit 2014 jährlich das ifo Bildungsbarometer durch. Diese repräsentative Meinungsumfrage zeigt mehrere Bereiche des Bildungssystems, in denen die Mehrheit der deutschen Bevölkerung grundlegende Reformen befürwortet. Dazu gehören ein gebührenfreier Kindergarten, ein Ganztagsschulsystem, national vergleichbare Prüfungen in den Schulen, nationale Abschlussprüfungen und einkommensabhängige Studiengebühren an Hochschulen. Zu Politikvorschlägen, die in öffentlichen Meinungsumfragen in der Schweiz mehrheitlich befürwortet werden, gehören höhere Ausgaben für Schulen, freie Schulwahl, Ganztagsbetreuung, standardisierte Tests und Eingangsprüfungen für weiterführende Schulen. Die Schweizer Ergebnisse sind nicht zuletzt wegen der direkten Demokratie interessant, in der häufig Volkentscheide über die Umsetzung von bildungspolitischen Maßnahmen entscheiden. In US-amerikanischen Meinungsumfragen sind verschiedene Verantwortungsmaßnahmen im Bildungssystem sehr beliebt. Ein Vergleich der öffentlichen Meinung zwischen Deutschland und den USA zeigt, dass sich die Meinungen in einigen Bereichen (z.B. höhere Lehrergehälter oder differenzierte Bezahlung) unterscheiden, während sie sich in anderen Bereichen sehr ähnlich sind (z.B. höhere Ausgaben für Schulen oder staatlich finanzierte vorschulische Programme).

Die öffentliche Akzeptanz von Bildungsreformen hängt stark davon ab, inwieweit die Bürger über relevante Fakten zum jeweiligen Reformvorschlag informiert sind. Deshalb stellt der letzte Abschnitt dieses Berichts vier Beispiele von Umfrageexperimenten vor, die zeigen, dass einer zufälligen Teilgruppe bereitgestellte Informationen erhebliche Auswirkungen auf die öffentlichen Präferenzen haben können. Erstens sinkt der Anteil der Befragten, die höhere Bildungsausgaben oder Lehrergehälter befürworten, in Deutschland und den USA deutlich, wenn sie über das derzeitige Niveau der Bildungsausgaben oder Lehrergehälter informiert und an den steuerlichen Finanzierungsbedarf erinnert werden. Zweitens hängt die öffentliche Meinung zu Bildungsausgaben in verschiedenen Bildungsbereichen – von der Vorschul- bis zur Hochschulbildung – von der Bereitstellung von Informationen über derzeitige Ausgaben-niveaus und über Forschungsergebnisse zur Bedeutung frühkindlicher Investitionen ab. Drittens verwandeln Informationen über das relative Einkommen von Hochschulabsolventen in Deutschland eine relative Mehrheit gegen Studiengebühren in eine relative Mehrheit für Studiengebühren. Das Experiment zeigt auch, dass einkommensabhängige Studiengebühren von einer deutlichen Mehrheit befürwortet werden. Viertens können Informationen über die Positionen verschiedener politischer Parteien die Meinung der Befragten zu bestimmten bildungspolitischen Maßnahme verändern. Um diese experimentellen Erkenntnisse einzuordnen, wird auch erörtert, inwieweit Informationseffekte aus Umfrageexperimenten für den alltäglichen Kontext verallgemeinert werden können.



## **Executive Summary (French)**

### **Opinion publique, acceptabilité et faisabilité des réformes éducatives**

En matière de politique éducative, comme dans beaucoup d'autres champs, des politiques pourtant bien conçues peuvent finalement ne pas être menées car les décideurs se voient confrontés à un revirement de l'opinion publique contre leur programme de réforme. Il est donc important de comprendre les dynamiques de l'opinion publique pour être capable d'évaluer les chances de succès d'une réforme. S'il existe une riche littérature académique exploitant les nombreuses enquêtes sur l'attitude du public vis-à-vis de l'Etat providence, le champ éducatif a quant à lui été négligé jusqu'à récemment. Ce rapport reprend les résultats de la littérature récente et croissante étudiant les dynamiques de l'opinion publique en matière de politiques éducatives. Ces travaux se basent à la fois sur des données d'enquêtes, nouvelles ou préexistantes, collectées à l'occasion de divers projets de recherche en Europe et aux Etats-Unis.

Tout d'abord, le rapport s'intéresse aux résultats du projet « Investing in Education in Europe: Attitudes, Politics and Policies » (INVEDUC), financé par l'ERC. Une partie de ce projet consistait à conduire une enquête d'opinion sur les politiques éducatives menées dans huit pays d'Europe de l'Ouest (Suède, Danemark, Royaume-Uni, Irlande, Allemagne, France, Espagne et Italie). Les données récoltées confirment que l'éducation est, avec la santé, un des champs où l'opinion publique parmi les citoyens européens est la plus favorable à davantage d'investissement public. Infirmité certaines idées préconçues répandues, les données ne semblent pas indiquer de clivage clair entre générations ou entre niveaux de revenu concernant le niveau d'investissement dans l'éducation, mais montrent plutôt un soutien général pour davantage d'investissement dans ce domaine. Il y a néanmoins des différences marquées entre sympathisants de gauche et de droite et une grande variabilité entre pays, le soutien à davantage d'investissement public dans l'éducation dépendant du contexte institutionnel. On assiste également à un recul significatif du soutien à davantage de dépenses éducatives lorsqu'on rappelle aux citoyens interrogés que ces investissements supplémentaires pourraient requérir des augmentations d'impôts, un accroissement de la dette publique ou des coupes dans d'autres champs d'action de l'Etat providence. Par ailleurs, il existe en général une opinion très favorable à l'augmentation des investissements publics dans l'enseignement et la formation professionnels et à la promotion de ce type de cursus comme alternative à l'enseignement supérieur, ce qui peut sembler surprenant étant donné l'attention portée à ce dernier dans le débat public. Pour finir, l'enquête révèle l'existence d'une opinion très favorable à certaines réformes de la gouvernance du système éducatif, notamment concernant le choix de l'école ou la décentralisation des structures de gouvernance, mais aussi la promotion d'une approche globale de la scolarité.

Le rapport analyse ensuite les résultats d'enquêtes d'opinion sur des questions éducatives plus spécifiques dans différents pays (Allemagne, Suisse et Etats-Unis). En Allemagne, le

centre Ifo pour l'Economie de l'Education mène chaque année depuis 2014 l'Ifo Education Survey. Cette enquête d'opinion menée sur un panel représentatif souligne l'existence, dans la population allemande, d'une volonté de réforme radicale de certains aspects du système éducatif. Ceux-ci incluent une école maternelle gratuite, la mise en place de la journée d'école complète, des tests scolaires comparatifs à l'échelle nationale, des examens de fin d'études nationaux et des frais de scolarité dans le supérieur dépendant du revenu. En Suisse, les propositions recueillant le soutien de la majorité des interrogés lors d'enquête d'opinion représentatives comprennent l'augmentation des dépenses éducatives, le libre choix de l'école, l'accueil des enfants sur toute la journée, la mise en place de tests standardisés et le recours à des examens d'admission dans les filières générales du secondaire. Les résultats suisses sont d'autant plus intéressants que le système politique de démocratie directe implique un recours fréquent au référendum en matière de politique éducative. Dans les enquêtes menées aux Etats-Unis, la responsabilisation des acteurs du système éducatif semble très populaire dans l'opinion. Une comparaison des opinions publiques allemande et américaine montre qu'elles diffèrent dans certaines matières (par exemple, l'augmentation du salaire des enseignants ou une certaine forme de différenciation des salaires) mais se recoupent significativement dans d'autres (par exemple, l'augmentation de la dépense consacrée à l'éducation ou une école maternelle financée sur fonds publics).

L'acceptation des réformes éducatives par le public dépend crucialement de la mesure dans laquelle il est informé des faits pertinents concernant la réforme proposée. Par conséquent, la dernière partie de ce rapport présente quatre exemples d'expérimentations randomisées qui montrent qu'informer les personnes interrogées peut avoir des effets substantiels sur leurs préférences. Premièrement, donner des informations sur le niveau courant des dépenses éducatives (salaire des enseignants) et faire des rappels sur le besoin de financement via l'impôt réduit sensiblement la part de répondants qui se disent favorables à une augmentation des dépenses éducatives (salaire des enseignants) en Allemagne et aux Etats-Unis. Deuxièmement, le soutien de l'opinion publique à la dépense éducative dans différents niveaux – de la maternelle à l'éducation supérieure – est affecté par l'information fournie sur les niveaux actuels de dépense et sur la recherche montrant l'importance de l'investissement dans l'éducation dès le plus jeune âge. Troisièmement, informer le public sur les revenus relatifs des diplômés du supérieur fait passer d'une majorité hostile aux frais de scolarité à une majorité en faveur de ces mêmes frais. Cette expérience révèle également qu'une large majorité est en faveur de frais de scolarité dépendant du revenu. Quatrièmement, fournir des informations sur les positions des différents partis politiques peut changer l'opinion des citoyens sur des questions éducatives précises. Pour mettre en perspective ces résultats, le rapport aborde également le caractère généralisable de la fourniture d'information lors d'enquête d'opinion à des situations de la vie courante.

## 1. Introduction

Education policymakers increasingly focus on evidence-based answers on how education policy should be devised in order to improve students' educational achievement. While a lot of open questions remain, empirical research has produced many insights on important education policies.<sup>1</sup> But while policymakers are increasingly becoming aware of the existing evidence base, in many countries there has been limited actual headway on many reforms.

In an attempt to understand why this is so and what can be done to move forward, a strand of recent research is inspired by the hypothesis that interactions between policymakers and the forces of public opinion – the “political economy” of education policy – may be an important reason behind the discrepancy between political awareness and action. Rather than working to maximize social welfare, politicians have to face elections. Voters, in turn, have their own opinions and interests, which may be very heterogeneous across the population. This often makes it hard for policymakers, administrators, and other government officials to implement policies for which scientific evidence suggests positive effects on public welfare. A case in point may be the school reform that had been proposed in the German city state of Hamburg in 2010, which was unanimously supported by all four parties in the state parliament but was ultimately rejected in a public referendum. The specific (self-)interests of voters, politicians, and administrators make governance a highly complex decision-making process.<sup>2</sup>

Of course, public opinion is only one factor affecting the politics of education reform (see Busemeyer 2015 for an overview). For instance, political parties may represent the interests of electoral constituencies more narrowly defined rather than public opinion in general. Organized interest groups such as teacher unions or business associations try to influence policymaking and often succeed in doing so (e.g., Moe and Wiborg 2017). In spite of these constraints, there is mounting evidence that public opinion is indeed an important and independent determinant of policy outcomes in Western welfare states for the simple reason that politicians depend on general public support for their re-election. Hence, they are attentive to public demands, independent of and in addition to the actions of partisan constituencies and organized interest groups (Stimson, MacKuen, and Erikson 1995).

---

<sup>1</sup> See, for example, Brewer and McEwan (2010), Hanushek and Woessmann (2011, 2015), Murnane and Willett (2011), and Woessmann (2007).

<sup>2</sup> Considerable work on the political economy of educational funding provides important insights on the relative roles of state and market and on possible trade-offs between inequality and growth (e.g., Gradstein, Justman, and Meier 2005; Glomm, Ravikumar, and Schiopu 2011).

There is a large literature on public opinion on different aspects of the welfare state (e.g., Svallfors 2012), but so far, more specific research about the public's attitudes towards education policy has been lacking. Recently, research has started to investigate the actual opinions of the electorate on a broad array of specific issues of education policy, how they differ across population groups, and how they are formed. Such knowledge is crucial to understand education policies, and thus ultimately education outcomes. The situation is further complicated by the fact that on education topics, almost everyone considers her/himself as an "expert" because of own experiences with the education system which are, however, not "representative" for the entire population. Consequently, opinions based on personal experience may not necessarily lead to good judgments for the system as a whole. Thus, the extent to which the provision of information – about facts, research findings, or the views of specific entities such as political parties – may affect individual opinions is of critical interest for the political economy of education policies.

This report surveys what is currently known about public preferences for education policies in Europe, how they differ across sociodemographic subgroups, and how they change when citizens are informed about certain facts of the current status. A better understanding of these public opinions may help in understanding which educational reforms would be accepted by voters, how ready the population is for reforms, what obstacles to reform exist, and how they can be overcome. Such knowledge may ultimately make the implementation of welfare-enhancing education policy reforms more feasible.

After a brief discussion of the general framework in the next section, Section 3 surveys the available evidence on public preferences on different education policies, including support for education spending in different demographic groups, preferences for policy trade-offs, and support for specific education policies and reforms. Section 4 turns to the importance of information for public preferences for education policies, surveying four examples of how information affects support for education policies. Section 5 concludes.

## **2. Public Acceptance and Feasibility of Educational Reforms**

At least since the Organisation for Economic Co-operation and Development (OECD) first published results from its Programme for International Student Assessment (PISA) at the beginning of this century, the public debate in most participating countries has been revolving around how education policy should be designed to improve students' educational outcomes. In the past few decades, empirical research has produced many insights on how education

policies could improve student achievements. These studies provide guidance for policymakers on how to reform the education system for increasing student performance. Despite this solid and growing empirical basis, the extent to which such reforms were enacted has been very limited in many countries.

One likely candidate to explain this discrepancy lies in the interactions between political forces, which ultimately implement education policies, and public opinion. If they want to be (re-)elected, politicians are well-advised to be responsive to the preferences of the general public and of special-interest groups such as parents of school-aged children or teachers. Since these preferences do not necessarily reflect those policies, which would be most beneficial for students – due to self-interest, misinformation, or other reasons – the interdependency between public opinion and political action can be an obstacle to efficient education policies. Prototypical examples for the importance of public opinion to determine education policy include the proposed school reform in the city state of Hamburg mentioned above, which was rejected in a public referendum despite unanimous support by political parties, and recent attempts to introduce tuition fees at German universities. After seven of the sixteen *Länder* (states) in Germany introduced tuition fees after 2005 (mostly in the amount of €1,000 per year), public opposition led to the abolishment of university tuition fees in all German states only a few years after they were implemented (see Lergetporer and Woessmann 2017).

Existing scholarship on public attitudes and policy preferences has identified a number of factors that shape public opinion (see Busemeyer and Garritzmann 2017; Svallfors 2012). First of all, individuals form their preferences on the basis of self-interest. Richer individuals are more likely to oppose higher levels of public spending and redistribution, because they would most likely have to pay for these investments via higher taxes. Likewise, parents with children in school are more likely to demand higher levels of investment in education from the government, whereas the elderly might be more in favor of higher spending on pensions (Cattaneo and Wolter 2009). In addition to self-interest, individual preferences are also influenced by norms, values, and ideological orientations. For instance, individuals who identify with left-wing values are more likely to support a large state and more generous funding for public services. Besides micro-level factors such as self-interest and individual normative orientations, scholarship also found that the institutional context matters. Existing policies and institutions have “feedback” effects on attitudes, shaping both the rational incentives to support (or oppose) existing institutions as well as normative expectations towards the state. For example, once a generous social transfer program is in place, the

beneficiaries of this program have a strong incentive to support its continued existence, even if – from the perspective of society as a whole – it might not be “rational” to do so.

As indicated above, the bulk of research on individual attitudes and policy preferences is in the field of more traditional welfare state policies, such as pensions, labor market or health care policies. Furthermore, there is a lot of work on the public’s support for “redistribution” more generally conceived. Despite the decisive role of public opinion for how education systems can be organized, academic research has only recently started to systematically investigate the electorates’ preferences on a broad array of education policies. In what follows, we summarize key findings from this young literature, which are relevant for European countries.

### **3. Public Preferences on Education Policies**

This section provides a survey of the scientific evidence on what is known about public opinion on different topics of education policies, with a special focus on a cross-country perspective of European countries. There are a number of international comparative surveys such as the International Social Survey Programme (ISSP), the European Social Survey (ESS), the Eurobarometer, and the World/European Values Survey (WVS/EVS) which could be used for that purpose. However, these surveys rarely contain questions of relevance for the study of education policy since they are more focused on other parts of the welfare state (see Busemeyer et al. 2017 and Busemeyer and Garritzmann 2017 for a more detailed discussion). Furthermore, the most relevant survey (the ISSP Role of Government IV module) is rather outdated by now, having been conducted in 2005-06.

For these reasons, the cross-country analysis in Sections 3.1 to 3.3.1 relies on new and original survey data, which was collected in the context of an ERC-funded project.<sup>3</sup> These data provide detailed information on public attitudes about a large number of aspects in education policy for a set of eight (Western) European countries. The countries covered are chosen to represent different types of welfare capitalism: Sweden and Denmark for the Scandinavian welfare states, Germany and France as examples of “Bismarckian” central European welfare states, Italy and Spain as Southern European welfare states, and the United Kingdom and Ireland as Anglo-Saxon liberal welfare states. The different parts of this section will include discussions of the extent to which public opinion on education policy is similar

---

<sup>3</sup> The project is entitled “Investing in Education in Europe: Politics, Policies and Attitudes” (INVEDUC) and is financed by a Starting Grant from the European Research Council, Grant No. 311769 (PI: Marius R. Busemeyer).

or differs across the different European countries. The initial expectation is that attitudes should be congruent with existing welfare state regimes (Svallfors 2012), although the analyses below will reveal more complex patterns of cross-national variation. The fieldwork for the survey was conducted in the May-June 2014. The total number of observations is 8,905, and the samples are representative of the respective countries.<sup>4</sup>

While the cross-country analysis is restricted to issues of education policy that are reasonably common to all countries, in Sections 3.3.2 to 3.3.4 we turn to further education policies and reforms that are more specific to individual countries. In these investigations, we rely on a set of country-specific surveys of public opinion on education policy conducted in Germany, Switzerland, and the United States, respectively.

### **3.1 Support for Education Spending**

Public investments in education are an important component of education policy. The direct empirical association between education spending on the one hand and performance on the other is rather loose (see, e.g., Hanushek 2003; Hanushek and Woessmann 2011; Castles 2013), which indicates that increasing education spending by itself may not be sufficient to achieve better results. However, structural reforms of the governance of education can require significant investments in personnel or infrastructure. For policymakers, public support for additional spending can be an important political resource in promoting educational reform. In contrast, if the public would be reluctant to support additional spending on education, the leeway for deep structural reforms can be significantly reduced. Thus, support for additional education spending might not by itself indicate a commitment to particular education reforms (see section 3.3), but it can be interpreted as a general indicator of public support for more governmental action in the field of education.

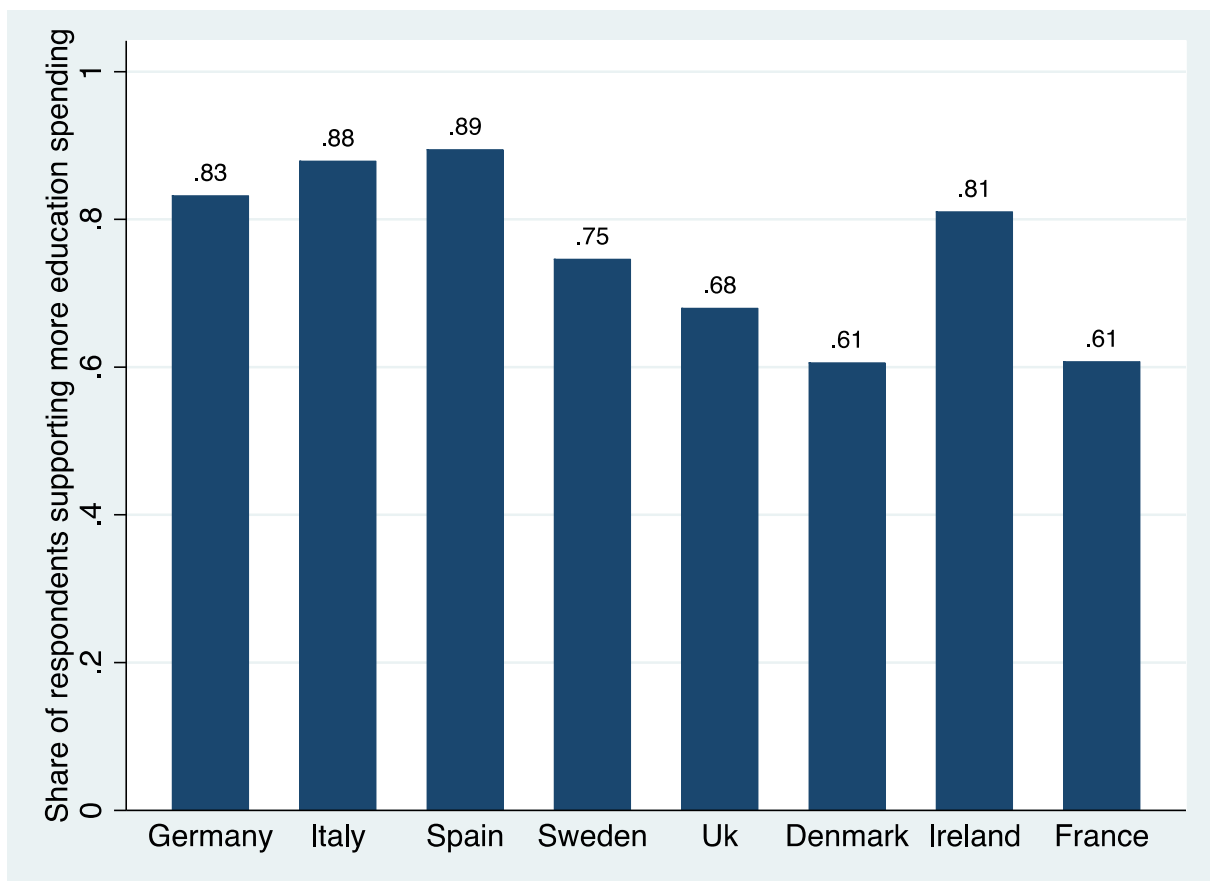
In general, it is widely believed that increasing spending on education is hugely popular with voters (Ansell 2010, p. 136, calls it an “archetypical crowd-pleaser”). Figure 1 by and large confirms this impression, although there are significant differences across countries. This figure captures responses to the question: “Please tell me whether you would like to see more or less government spending in education.” Respondents could express their opinion on a five-point scale: “spend much less, less, the same as now, more, or much more”. The bars in Figure 1 represent the percentage of the respondents in a particular country who express a preference for “more” or “much more” spending on education. The highest support for

---

<sup>4</sup> Survey weights are applied in the following figures to correct for remaining imbalances.

additional spending on education can be found in Spain (89 percent of respondents), closely followed by Italy (88 percent). Vice versa, French and Danish respondents express the lowest level of support (61 percent). Since the question is framed in relative terms (more or less spending), the existing status quo will likely influence public attitudes. This is why support for additional spending tends to be lower in countries which already spend a lot on education (e.g., Denmark and Sweden, maybe the UK) and higher in low-spending countries (e.g., Italy and Spain).<sup>5</sup> In spite of this logic, there is a significant degree of remaining variation, which might be explained by other factors such as the severity of economic problems. All in all, however, the figure clearly shows that in all European countries in the sample, there are large or even overwhelming majorities in favor of increasing spending on education. This is different for other policy areas, as we will explore in greater detail in Section 3.2.1 below.

**Figure 1: Support for higher spending on education in eight European countries**



Notes: Percentage of respondents who express a preference for “more” or “much more” government spending on education. Source: own calculations based on INVEDUC dataset.

<sup>5</sup> The level of public spending on educational institutions as a percentage of GDP in these countries is 7.5 percent in Denmark, 6.3 percent in the UK, 5.4 percent in Sweden, 4.3 percent in Spain, and 3.9 percent in Italy; the OECD average is 5.3 percent (OECD 2015, p. 235; data refer to 2012, except for 2011 in Denmark).



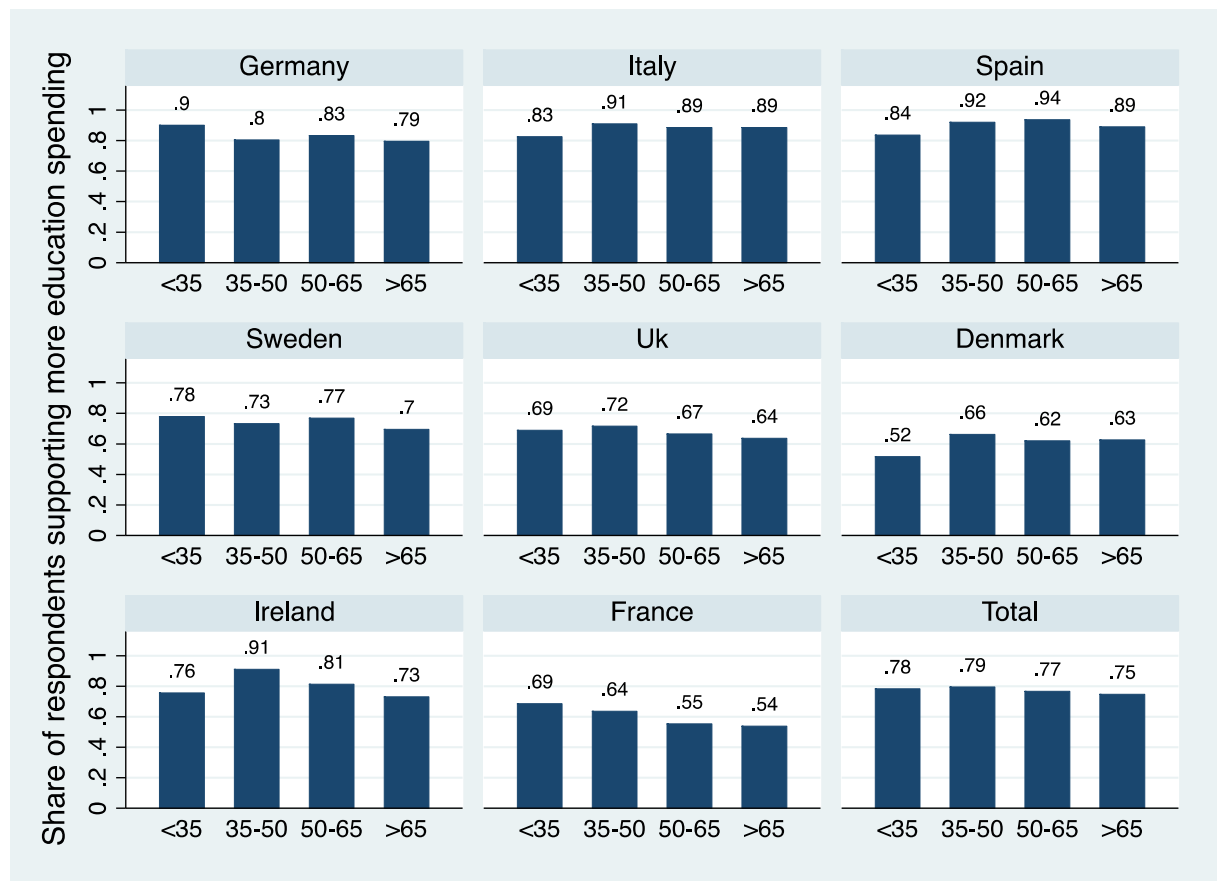
### ***3.1.1 How Do Preferences for Education Spending Vary with Age***

One topic that has been the subject of substantial analysis is whether support for education spending depends on the age of citizens (Busemeyer, Goerres, and Weschle 2009; Cattaneo and Wolter 2009). This topic has attracted particular attention in light of the demographic change of European societies. With population ageing proceeding in European societies, there are concerns of an “elderly bias” (Tepe and Vanhuysse 2010) in social policies as well as politics more generally. In this scenario, fiscal resources would be increasingly concentrated on social policies of relevance for the elderly, e.g. in health care policies and pensions, to the detriment of social investment policies such as education, which primarily benefit the young. Thus, elderly people might be opposed to increasing spending on education since it would detract resources from pro-elderly policies and would not provide immediate benefits to the elderly. The young, on the other hand, might be more concerned about social investment policies, but they could equally be reluctant to cut back spending on pensions and health care, since they expect to rely more on these policies in their own old age. These arguments presuppose the existence of a generational cleavage between the young and the old, which is an empirical question to be determined. Furthermore, the elderly could be less opposed to education spending as often assumed, because they value the indirect benefits of educational investments such as the education of their grandchildren (Goerres and Tepe 2010) or the positive effects of human capital investments on the economic development of their countries’ economies.

To address these questions, Figure 2 depicts the association between age and support for more education spending across the eight countries included in the sample. The box in the lower right corner shows the total for the whole sample. The survey includes only respondents aged 18 and above. These have been grouped into four categories: below the age of 35, between the ages of 35 and 50, between 50 and 65, as well as 65 and above (the latter category represents a relatively large share of all respondents: 30.6 percent). The data show that in general, the generational cleavage is not particularly strong: Across all countries, support for more education spending drops from 78 percent in the youngest age category to 75 percent in the highest category. However, the figure also shows that in some countries, age-related differences are more pronounced than in others (similar to the findings in Busemeyer, Goerres, and Weschle 2009). In France, for instance, support for more education spending drops from 69 percent among the young to 54 percent among the elderly (which is, however, still a majority of respondents). In Ireland, the maximum level of support for additional education spending (91 percent) can be found in the second-lowest age category

(35-50 years), maybe because these respondents are most likely to be parents of children in school. In contrast, support for additional education spending among the elderly in Ireland is more than 20 percentage points lower (73 percent). In other countries, the age-related cleavage is much weaker or non-existent, in particular in Denmark, Spain, and Italy. Sweden, Germany, and the UK are in between those extremes.

**Figure 2: Support for higher education spending by age cohort and country**



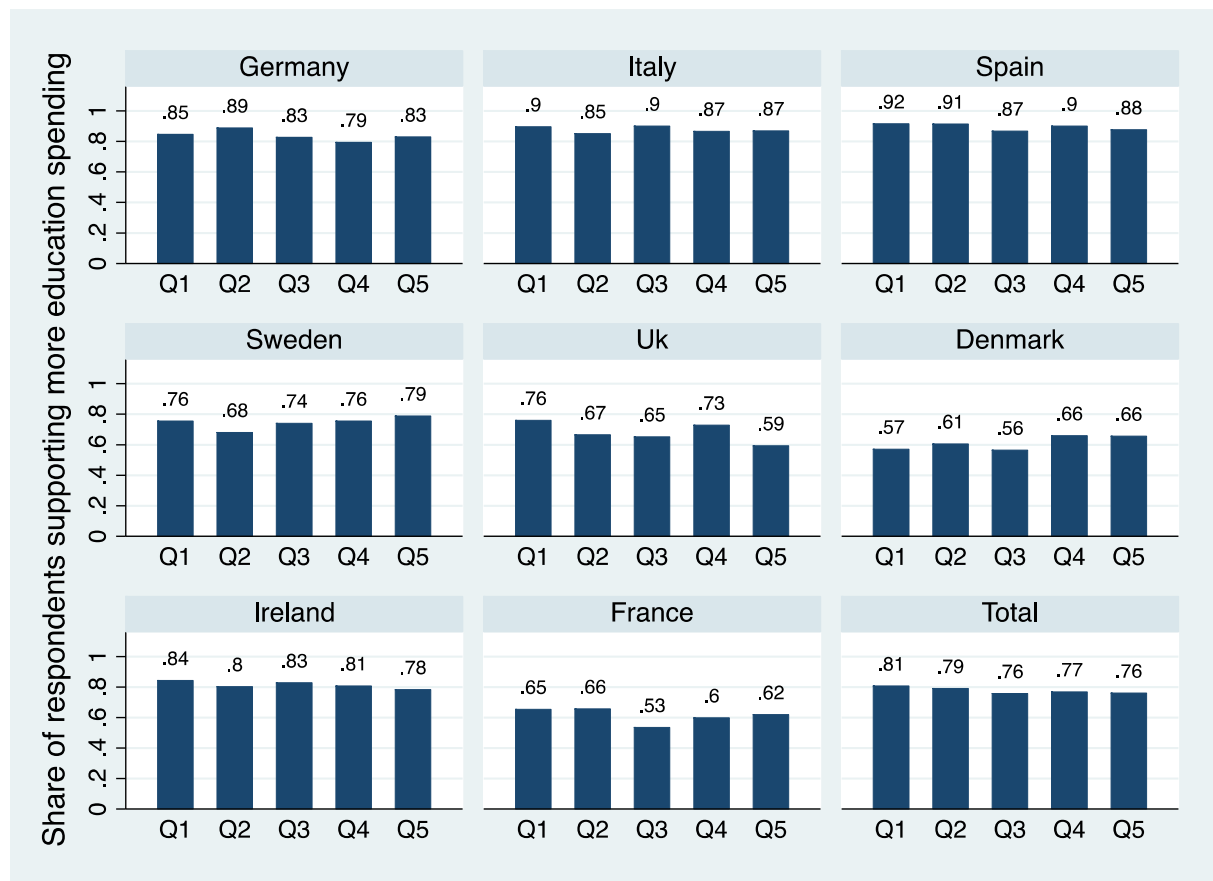
Notes: Percentage of respondents who express a preference for “more” or “much more” government spending on education. Source: own calculations based on INVEDUC dataset.

### 3.1.2 How Do Preferences for Education Spending Vary with Income

A second topic is the extent to which public opinion on education spending is related to the income and socioeconomic status of citizens and to the extent of inequality in society. A standard finding in comparative welfare state research going back to Meltzer and Richard (1981) is that high-income citizens are less likely to support the expansion of the welfare state (or redistribution more generally) compared to lower-income citizens for the simple reason that wealthy citizens would have to pay for increasing social spending via higher taxes

and would be less likely to benefit from social spending. The case of education is different from other social policies, however, because it is less redistributive and therefore more popular with middle-class and wealthier citizens (Ansell 2010; Busemeyer 2012, 2015; Garritzmann 2016). Depending on which sector of the education system spending is targeted on, wealthier citizens might be more willing to support additional spending if they believe that they will benefit directly. The institutional set-up of the education system is likely to matter as well. For instance, Busemeyer (2012) shows that richer individuals are more likely to support increases in education spending if access to higher levels of education is restricted, increasing the probability that their offspring will benefit from these additional investments.

**Figure 3: Support for higher education spending by income quintile and country**



Notes: Percentage of respondents who express a preference for “more” or “much more” government spending on education. Source: own calculations based on INVEDUC dataset.

Figure 3 groups individuals by (individual) income quintile, based on country-specific income distributions. Across all countries, we find a slightly negative association: individuals in the highest income quintile express a slightly lower level of support for additional

spending on education (76 percent) compared to individuals in the lowest quintile (81 percent, see box in the lower right-hand corner). As before, however, there is a considerable degree of variation across countries with regard to the strength of the association between income and spending support. Income-related differences are strongest in the United Kingdom (as well as in Ireland to a certain degree): 76 percent of lowest-income citizens in the UK support additional spending on education, compared to 59 percent among the rich. In most countries, the association is rather weak (Germany, Italy, and Spain again) and even positive in the case of Denmark, which means that in this country, the wealthy are actually more supportive of additional spending on education compared to poorer individuals. Hence, the data indicate that education – at least in some countries – is indeed associated with political dynamics that are reminiscent of classical redistributive welfare policies.

### ***3.1.3 How Do Preferences for Education Spending Vary with Ideological Positions***

Besides income and age, ideological orientations of citizens are often identified as important determinants of individual-level attitudes towards the welfare state. Of course, ideological orientations towards the left or the right are also correlated with socio-economic factors such as age, income, and educational background. Empirically, it is difficult to fully disentangle these complex associations. From a more descriptive perspective, which we adopt in this report, it is still interesting and meaningful to study the association between ideology and policy preferences. Ideological differences are rooted in normative predispositions towards the welfare state and the role of the state in the economy more broadly defined, which are usually formed in the early years of political socialization. While they are certainly correlated with other socio-economic variables, this association is not deterministic. For instance, wealthy individuals might be willing to support a more generous welfare state because they have sociotropic (altruistic) preferences or because they believe a generous welfare state is beneficial for society.

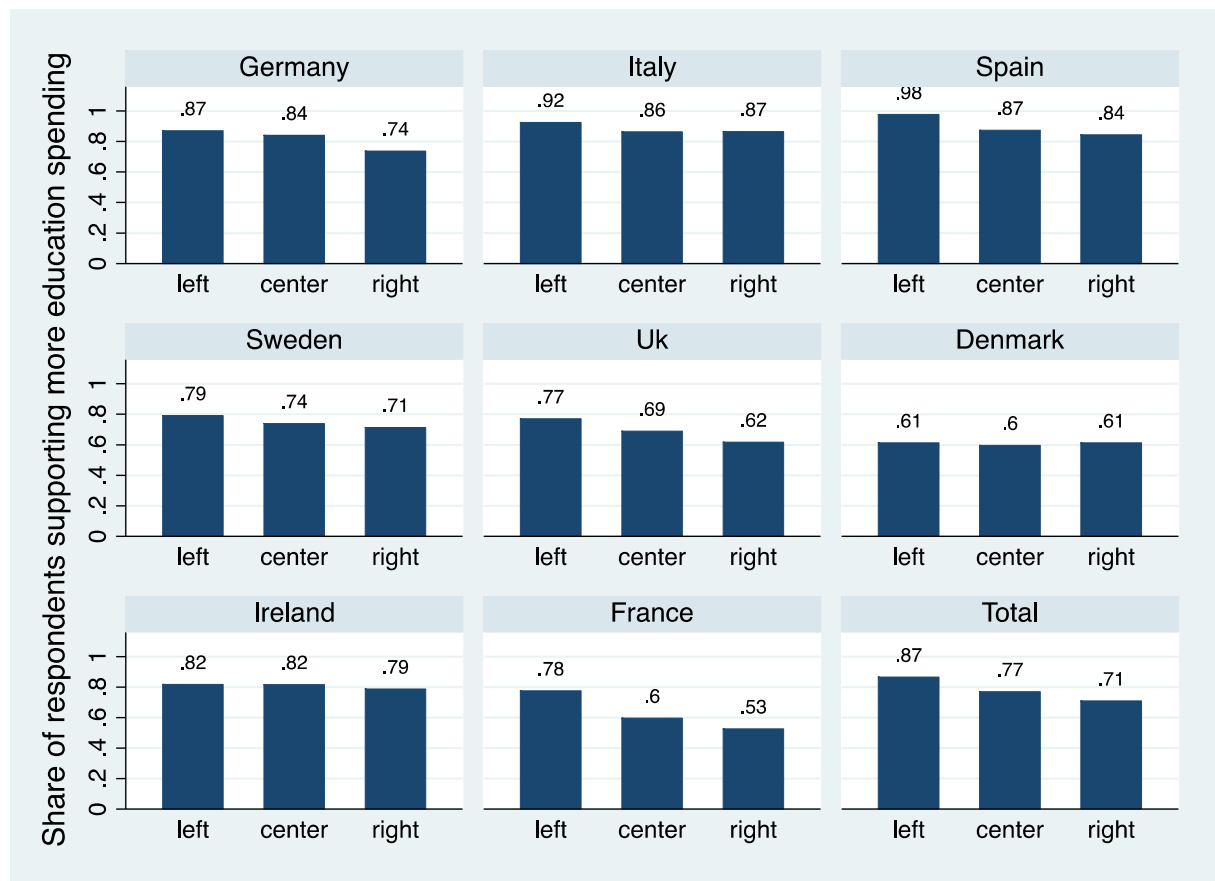
The most common finding in the existing literature is that left-leaning individuals are usually found to be more supportive of increased public spending on education and other social policies, while right-leaning individuals are more critical (see, e.g., Busemeyer, Cattaneo, and Wolter 2011; Busemeyer 2015; Garritzmann 2016). This association is also confirmed in the INVEDUC data. Across all countries, 87 percent of left-leaning individuals<sup>6</sup>

---

<sup>6</sup> Ideological orientations are based on self-perceived ideological orientation. Respondents were given the following question: “In politics people sometime talk of ‘left’ and ‘right’. Where would you place yourself on this scale, where 0 means the left and 10 means the right?” For the purpose of this report, we construct the following categories: “left”: 3 and below, “center”: 4 to 6, “right”: 7 and above.

express support for more education spending, compared to 77 percent for centrist individuals and 71 percent for right-leaning individuals. Above, the UK was identified as a case with stark income-related differences in preferences. In line with this observation, Figure 4 reveals a high degree of ideological differences with regard to education spending: Support for additional education spending is highest among left-leaning individuals (77 percent), dropping to 62 percent for right-leaning respondents. Ideological differences about education spending are even stronger in France (from 78 percent among left respondents to 53 percent among the right). We also find significant ideological differences in Germany and Spain as well as in Sweden to a certain degree. In contrast, there are few ideological differences between the left and the right about education spending in Italy, Denmark, and Ireland.

**Figure 4: Support for higher education spending by ideological orientation and country**



Notes: Percentage of respondents who express a preference for “more” or “much more” government spending on education. Self-reported ideological orientation. Source: own calculations based on INVEDUC dataset.

### *3.1.4 Multivariate Analysis and Summing Up*

Of course, the variables discussed in this section tend to be correlated to a certain extent. For instance, older people tend to be wealthier and potentially more conservative in their political orientation. Looking only at the bivariate association of support for more education spending with these variables might be misleading, since individual variables might pick up the explanatory contribution of other, correlated variables. Therefore, in order to verify the associations presented above, we ran a multivariate regression model with support for education spending as the dependent variable<sup>7</sup> and the following independent variables: age, individual income, and left-right political orientation (given in the categories as defined above), as well as educational background and gender as further controls. We also include a set of country dummies (binary variables indicating in which particular country respondents live) and calculate the standard errors of the regression coefficients in a more conservative, robust manner (country-clustered standard errors). This multivariate regression analysis largely confirms the findings from the bivariate analysis above: there is no strong association between age and support for education spending, and the association between income and support tends to be negative, but fails to reach standard levels of statistical significance. The most consistent and robust association is found in the case of individual political orientation with right-leaning individuals much less likely to support further increases of education spending.

To provide a preliminary conclusion, our mostly descriptive analyses of survey data from the INVEDUC project has confirmed that increasing education spending is a widely popular policy proposal – an issue which we will pursue further in the following section, when we compare support for education spending to support for other social policies. However, we also found a significant degree of variation across countries: There are indications that demands for more spending on education are strongest in countries in which actual spending for education is rather low and which have suffered from the aftershocks of the economic crisis the most. When looking at the association between support for education spending on the one hand and income, age, and ideological orientation on the other, we find indications that ideological orientations are more strongly related to preferences than either income or age. This might explain why conflicts about the reform of education systems are often accompanied by bitter ideological debates. However, the analysis also shows that when

---

<sup>7</sup> As above, support for education spending is operationalized as a binary variable, where 1 indicates the respondent expressing “more” or “much more” support for education spending, whereas 0 stands for “the same,” “less,” or “much less” spending compared to the status quo.

looking at the material substance of these ideological conflicts, there is actually a large degree of consensus about the necessity to increase education spending across different income levels and age groups.

### **3.2 Policy Trade-offs: Where Should Public Funds Go To?**

A major shortcoming of the existing international survey data mentioned above (e.g. the ISSP or the ESS) is that it does not ask citizens about their preferences with regard to the distribution of education spending across different sectors of the education system or the preferred division of labor between public and private providers and financiers of education. A second shortcoming is that budget constraints and other fiscal trade-offs are not taken into account when asking citizens for their preferred level of education spending. In the following section, we will present and discuss data from the INVEDUC project, which remedies these shortcomings to a certain extent. A key finding is that citizens strongly dislike policy trade-offs. From the perspective of policymakers, this is problematic, because they often face exactly these kinds of political and fiscal trade-offs due to increasingly binding limitations of public budgets.

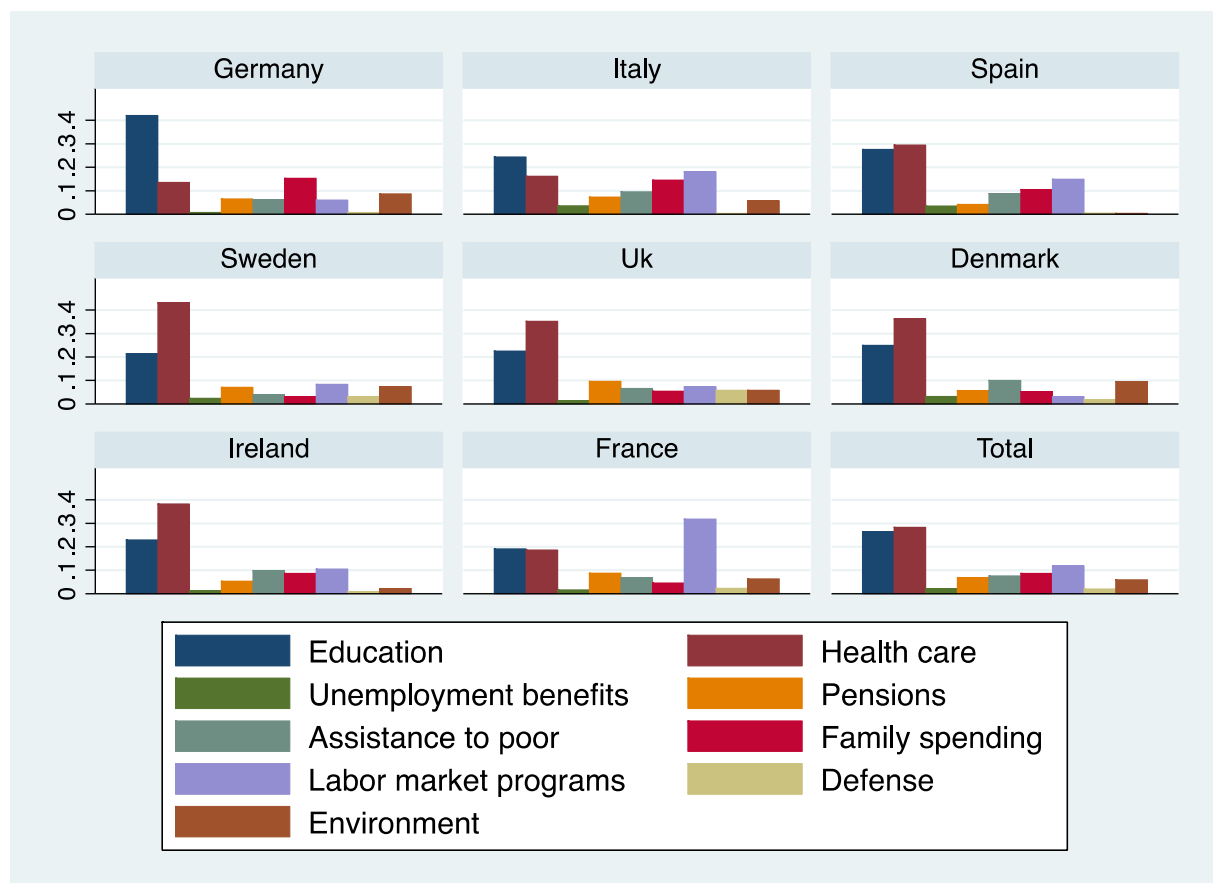
#### ***3.2.1 Preferences for Spending on Education vs. other Policies***

The first question we want to address is how strong support for additional spending on education is compared to support for other social policies, such as pensions, health care, labor market policies, environmental or defense policies. Figure 1 above showed that the average level of support for more or much more public spending is very high across the eight countries in the survey at almost 80 percent. In the INVEDUC data, we see that this is significantly higher than support for additional spending on health care (67 percent), pensions (58 percent), unemployment benefits (30 percent), or defense (20 percent), the latter being the policy field with the lowest level of support. The wording of the survey question does not force citizens to choose between different policy fields. Hence, respondents can (and usually do) express a general preference for more spending across multiple areas of government activity, which makes it difficult to estimate the intensity of support for a particular policy such as education.

Therefore, the survey contains a follow-up question: “If the government could increase spending for only one area, which of the following should it be?” In other words, respondents were forced to name the policy area, which the government should prioritize. Figure 5 presents the variation of responses to this question across countries. As can be seen, there is a

significant degree of variation with citizens in different countries prioritizing different areas. Education is the policy chosen by a relative majority in Germany (41 percent) and Italy (24 percent). Health care is prioritized by majorities in Spain (29 percent vs. 27 percent for education), Sweden (42 percent vs. 21 percent for education), the UK (35 percent vs. 22 percent for education), Denmark (35 percent vs. 24 percent for education), and Ireland (38 percent vs. 23 percent for education). In France, a majority of citizens chose labor market and public employment programs (31 percent) – presumably reflecting high levels of unemployment in this country (although the same can be said for Southern European countries).

**Figure 5: Prioritized area of increased government spending**



Notes: Responses to the question, “If the government could increase spending for only one area, which of the following should it be?” Source: own calculations based on INVEDUC dataset.

All in all, education and health care tend to compete for the top spot on the public’s ranking of policy fields on which the government should focus. Compared to other social policies as well as non-social policies such as environmental or defense policy, education and



health care are significantly more popular. Furthermore, it can be seen that forcing citizen to choose makes them more likely to pick a policy, which directly benefits the population as a whole such as health care. Given the fact that education is immediately relevant only for a minority (i.e. mostly parents with children in school or students and workers still benefiting from university education or other forms of post-secondary continuous education), public support for additional investments in education is indeed significant.

Cross-national differences in citizen's attention to different policy fields reflect differences in the institutional status quo in these countries. With some simplification, it is possible to detect indications of a negative feedback dynamic (Soroka and Wlezien 2010) at work: citizens tend to demand more public investment in areas in which their home countries exhibit below average levels of spending and/or where there is particular need responding to urgent policy challenges. For instance, support for labor market programs is particularly high in crisis-struck countries such as France or Italy. German citizens exhibit above average levels of support for education, reflecting that on some measures, actual levels of education spending in Germany are below the OECD average.

We further explored citizens' reactions to trade-offs by confronting them with different scenarios involving different kinds of trade-offs.<sup>8</sup> When citizens were simply asked for their support for education spending without any additional constraints, we find an absolute majority of about 74 percent of respondents supporting spending increases (this is similar to the average in Figure 1). When citizens are confronted with the fact that additional spending would require a tax increase, support drops to about 53 percent. It further decreases to 42 percent when citizens would have to accept higher levels of public debt in exchange for additional spending on education. The largest effect, however, can be observed if respondents are confronted with the scenario that spending increases for education would imply "cutting back spending in other areas such as pensions". In this case, support for additional spending on education drops to just 27 percent. More detailed analysis of these data reveals more substantial evidence for the existence of a generational cleavage (Busemeyer and Garritzmann 2016): In the unconstrained setting (see also Section 3.1 above), the association between age and support for education spending is rather weak or even non-existent. But when faced with the possibility of cutbacks in pensions, this changes considerably:

---

<sup>8</sup> For this purpose, the sample was divided into four equally sized groups of respondents. Respondents were assigned randomly to these groups so that differences in group averages can be attributed to differences in the question framing. Here, we present findings for the whole sample only, neglecting the analysis of cross-country differences, because the number of cases per country per trade-off gets too small to provide reliable estimates due to the split-sample procedure.

Respondents with young children at home are still in favor of more education spending, despite cutbacks in pensions, while the elderly are strongly opposed.

A similar finding can be observed when using different questions contained in the INVEDUC survey. For example, only 11 percent of respondents would agree or agree strongly with the following statement: “To be able to finance more spending on education and on families, the government should cut back spending on old age pensions and unemployment benefits.” Similarly, only 21 percent would agree (or strongly agree) with a proposal to increase education spending by 10 percent if this is to be financed with cutbacks in unemployment spending. Even less (8 percent) would agree to this if education spending increases would require cutbacks in pensions.

These findings show that citizens are strongly opposed to fiscal trade-offs, i.e. if spending increases in one area of government activity require cutbacks in another area. This even concerns education, which is – as seen above – a hugely popular topic with citizens in general. The policy implication of this finding is somewhat problematic: In times of fiscal austerity, there is limited leeway for policymakers to raise new revenues or to increase levels of public debt in order to finance additional investments in education, so that spending increases in one policy area might indeed require cutbacks elsewhere. There seems to be an apparent mismatch between public demand for higher spending (without cutbacks) and policymakers’ ability to deliver and respond to these demands.

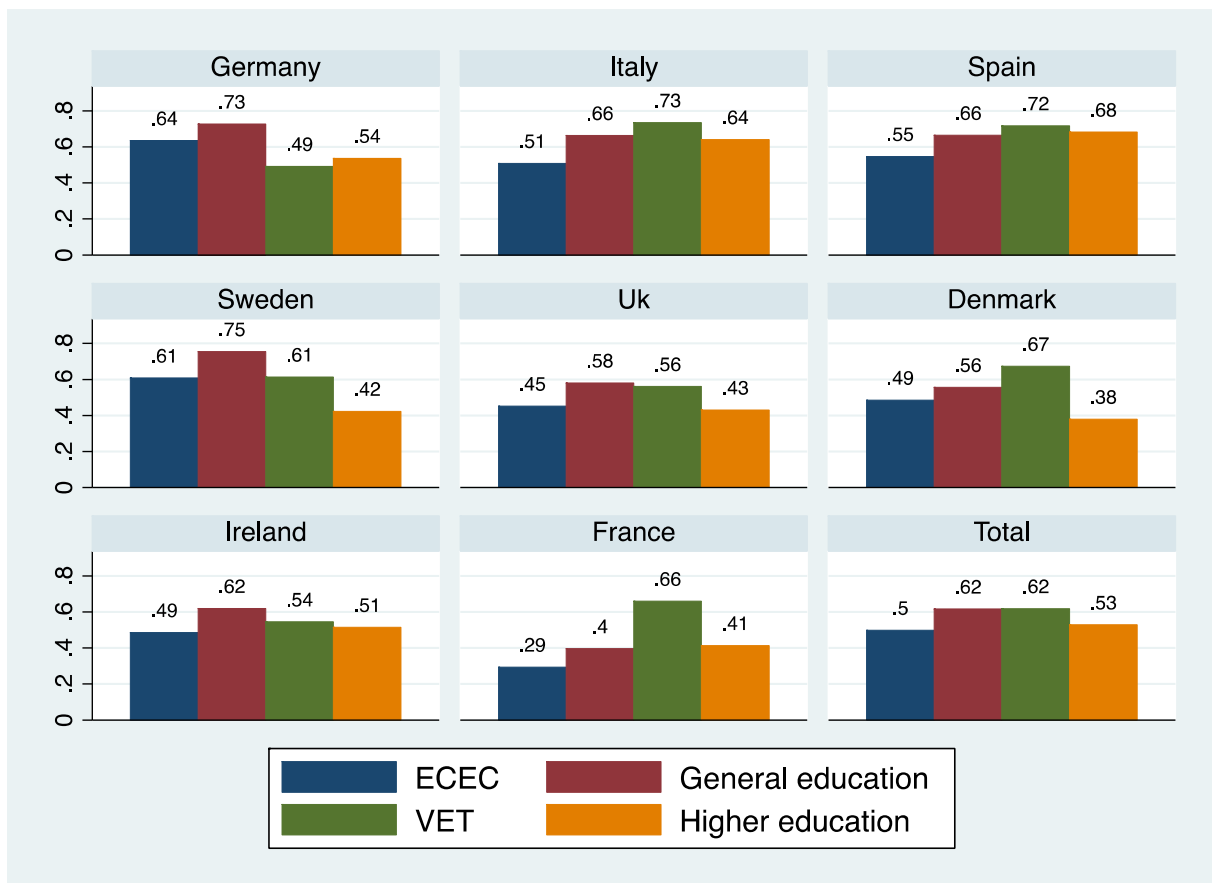
In fact, our survey data show that raising tax levels would even be more accepted by the population than cutbacks in other parts of the welfare state (although it needs to be kept in mind that the question wording does not specify the kind of taxes that would be involved). In another question, respondents were directly asked if they would be willing to pay higher taxes in order to finance additional spending on education. Keeping in mind that this is a survey of public opinion, not an observation of actual behavior, the level of support for additional taxes is significant and on a similar level as in the trade-off question discussed above: Across all countries in the sample, 48 percent of respondents state that they would be willing to accept a new tax in order to finance additional spending on at least one sector of the education system (early childhood, general, vocational, or academic higher education; see Bussemeyer et al. 2017).

### ***3.2.2 Preferences for Spending across Educational Sectors***

As mentioned above, another shortcoming of existing international survey data is the lack of information on the public’s preferences for different kinds of education. The

INVEDUC survey provides this kind of data, showing how popular support for spending varies across different educational sectors from early childhood education and care through general schooling and vocational education and training (VET) to higher education. A general finding here is that public investments in general schools as well as vocational education and training are more popular than spending on higher education and early childhood education and care. This is a surprising finding since the public debate focuses on the latter rather than the former and since numerous empirical studies find that earlier investments in education are more efficient than later investments (see, e.g., Cunha et al. 2006).

**Figure 6: Support for public spending on different sectors of the education system**



Source: own calculations based on INVEDUC dataset.

Figure 6 depicts the variation of spending support for different sectors of the education system. Taking the average of spending support across all countries in the sample (see box on the lower right-hand side), we find that 62 percent of respondents support additional spending on general schools and vocational education, respectively. Support for additional spending is

lower in the case of higher education (53 percent) and early childhood education and care (50 percent). Again, there are significant differences across countries. Support for additional spending on early childhood education is particularly high in Germany (64 percent), which mirrors the recent expansion of this sector of the education system in this country. However, support for more spending on early childhood education is also above average in Sweden (61 percent), although this country already invests significant resources in this field. In contrast and in line with the notion of a negative feedback process at work, support for additional spending on childcare is rather low in France (29 percent), where public childcare is also well-institutionalized.

In countries with high levels of youth unemployment, we find above-average levels of support for more spending on vocational education and training, in particular in France (66 percent), Spain (72 percent), and Italy (73 percent), but also in Denmark (67 percent) even though this country is less affected by the economic crisis. Support for additional spending on higher education is above average in Southern Europe, Germany, and Ireland. These figures suggest that public demands for educational investments are significantly influenced by the national contexts in which citizens form their opinions. The findings also show that VET is perceived as a viable and important sector of the education system and particularly valued in the context of high (youth) unemployment.

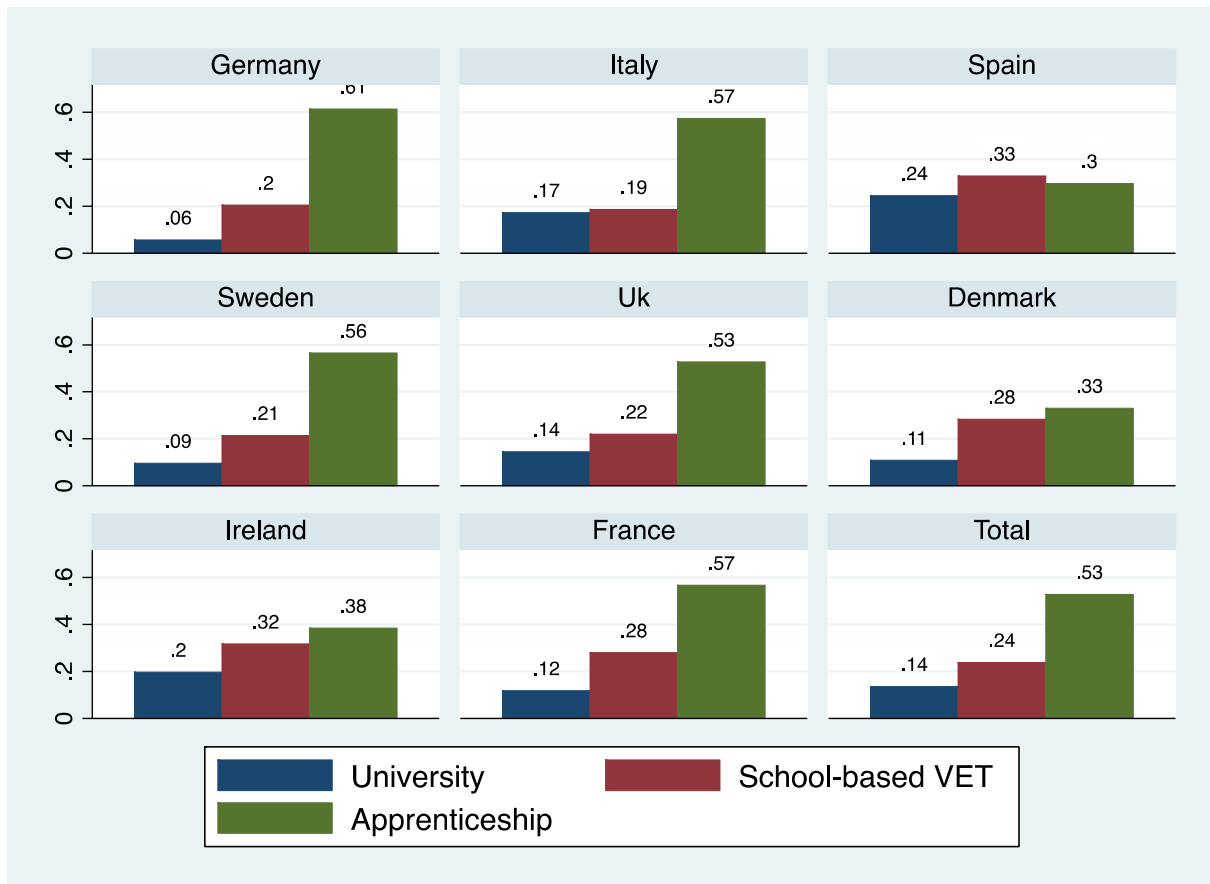
### ***3.2.3 Preferences for Vocational and Academic Education***

This impression is confirmed when citizens are asked directly for their perception of the value of different educational alternatives for young school leavers. More specifically, respondents were asked: “[P]lease think of a young person with average grades in school. According to you, which type of education and training is best suited to prepare this young person for the labour market?”<sup>9</sup> Note that in this case, respondents were not asked which type of education they would choose themselves, but which education they would recommend to others, which is most probably also related to different policy preferences.

---

<sup>9</sup> One aspect that goes beyond the framing of this question is that the effect of vocational education on the labor market may change over the life-cycle, being advantageous at labor-market entry but disadvantageous at older ages (Hanushek et al. 2017; Hampf and Woessmann 2016).

**Figure 7: Support for different types of post-secondary education**



Source: own calculations based on INVEDUC dataset.

Across all countries (see box in the lower right-hand corner of Figure 7), 53 percent of respondents would recommend the average young school leaver to pursue a firm-based apprenticeship training, 24 percent would recommend school-based VET, and only 14 percent opted for academic (university) education. Of course, this reflects the fact that the question wording mentioned that the imaginary school leaver had “average grades”, but the strong support for different types of VET is surprising given the prominence of higher (university) education in public debates. It is also striking to see that respondents recommended apprenticeship training not only in countries in which this type of VET is well-developed (Germany with 61 percent), but also in countries that are characterized by a weakly developed apprenticeship system, where VET is supposedly believed to be an inferior alternative to higher education (Italy and France with 57 percent recommending apprenticeship training, Sweden with 56 percent and the UK with 53 percent). An obvious explanation for this variation would be that support for VET is higher in countries suffering from high levels of youth unemployment. But contrary to these expectations, support for

apprenticeship training is also relatively low in countries suffering from high levels of youth unemployment (30 percent in Spain recommend firm-based apprenticeship training, but 33 percent would recommend school-based VET). This can be brought together with the previous findings by arguing that even though relatively few people would recommend VET to school leavers in Spain, a large majority sees the need to increase investments in this sector (see Figure 6 above). A similar logic might be at work in Denmark and to some extent in Ireland.

Furthermore, 54 percent of respondents agree (or strongly agree) with the statement that the government “should encourage young persons to pursue vocational education and training rather than university and academic higher education”. Support for this statement is particularly high in France (71 percent), the UK (63 percent), and Italy (60 percent), even though educational pathways in VET are less developed in these countries compared to Germany or Denmark. Even more (80 percent) agree or strongly agree with the statement that the government should “put pressure on employers to provide opportunities for vocational education and training”. In this case, Southern European countries exhibit the highest degree of agreement with this statement (92 percent in Italy, 89 percent in Spain). German respondents tend to agree less (67 percent), presumably because German employers are already strongly committed to providing apprenticeship training in this country.

#### ***3.2.4 Preferences towards Public and Private Education***

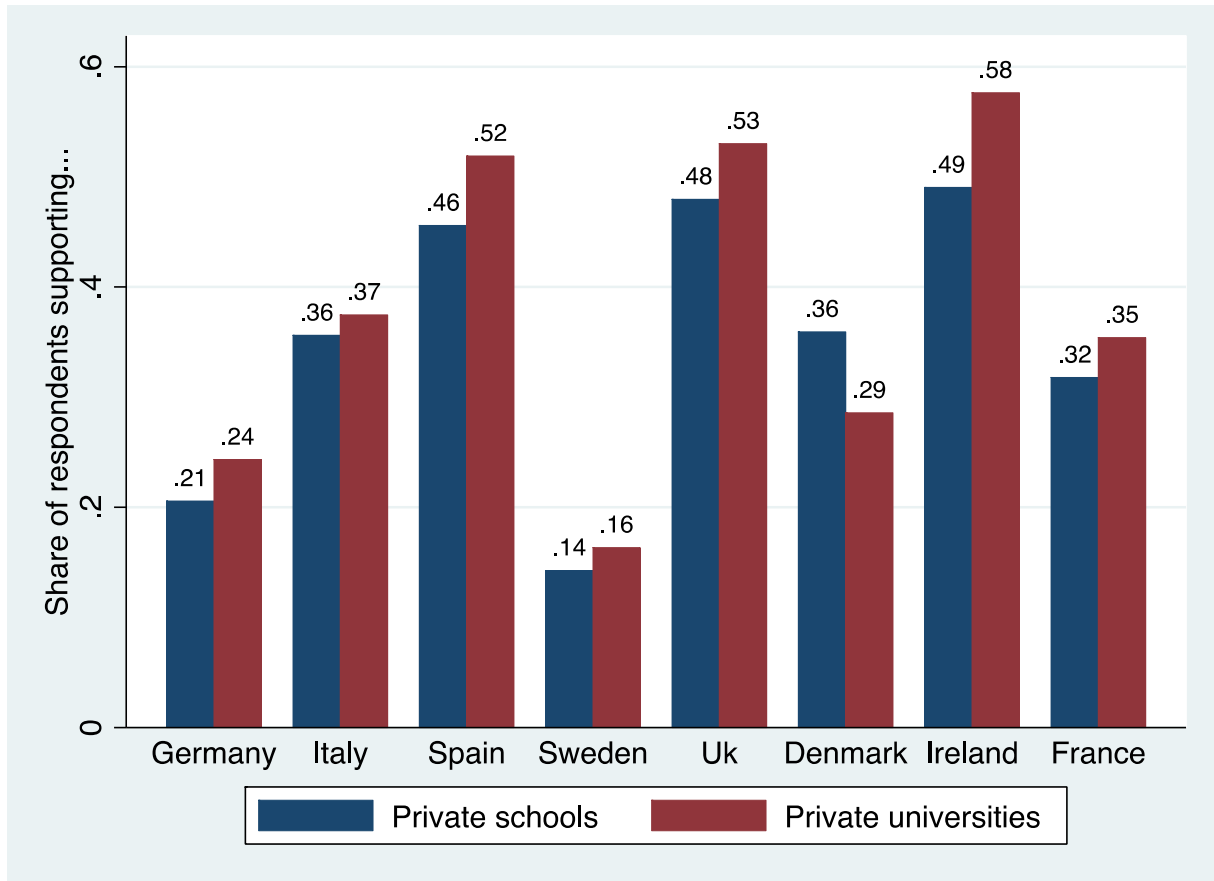
Some studies have also looked into the question to what extent citizens support public vs. private spending on education (Busemeyer and Iversen 2014). In some European countries, the private component in providing and financing education has been expanded significantly in recent years.<sup>10</sup> The INVEDUC survey evidence helps to understand whether this development was driven by a genuine public desire to do so or whether it is an outcome of other factors such as desires of specific groups of the population or budget consolidation efforts. Of course, a significant limitation here is that the survey was conducted in 2014 and can therefore not be used to measure public opinion for past waves of privatization. It might well be the case that support for privatization decreases once a particular country has undertaken a significant privatization effort. The question wording partly compensates for this problem by asking respondents for their general support for the involvement of private

---

<sup>10</sup> Note that the private provision as opposed to private funding of education may have very different effects on outcomes; see West and Woessmann (2010) for evidence on conducive effects of private provision and detrimental effects of private funding of schools on student achievement.

schools and universities and not whether they want to see a stronger or weaker role of private institutions relative to the status quo.

**Figure 8: Support for a strong role of private schools and universities**



Notes: Percentage of respondents who agree or strongly agree with the statement, “Private schools/private universities should play an important role in the education system of [country].” Source: own calculations based on INVEDUC dataset.

More specifically, the survey contains the following statement: “Private schools/private universities should play an important role in the education system of [the particular country].” Figure 8 displays the share of respondents who agree or strongly agree with this statement. Support for a strong role of private institutions is above the 50 percent mark only in the cases of private universities in Spain (52 percent), the UK (53 percent), and Ireland (58 percent), partly reflecting the fact that private institutions are also quite important in these countries. It is particularly low in Sweden and Germany and on an intermediate level in Italy, Denmark, and France. Except for the case of Denmark, support for a strong role of private universities is always higher than support for a strong role of private schools. One possible notion behind this result could be that people associate private schooling with fears of segregation and

selection at an earlier stage of educational careers, whereas this is more accepted in later stages of the life-course, although this claim would need to be assessed in further research.

Across all countries, about a third (35 percent) of respondents support a strong role for private schools and about 36 percent support a strong role for private universities. This is at best a mediocre level of support for private educational institutions, in particular when keeping in mind that the question wording did not suggest that private educational institutions should become the only providers of education. A “strong role” for private educational institutions might well go along with a strong role of public institutions. The fact that support for private institutions is well below the 50 percent threshold suggests that privatization efforts are not necessarily reflected in preferences of the general public. This is confirmed in a related question, where respondents were asked for their support for government (public) funding for private schools. Only 22 percent of respondents agree or strongly agree with this statement across all countries.<sup>11</sup>

Cross-country differences in support for private educational institutions might be related to the (perceived) quality of public education, but the association might be more complex than initially assumed. On the one hand, citizens expressing a high degree of satisfaction with publicly provided services could be more supportive of further government action based on their positive experiences. On the other hand, the association might also be the reverse in the sense that citizens most dissatisfied with the quality of education should be more supportive of increasing spending on public education in order to remedy these deficiencies. The same logic could apply in the case of academic versus vocational education: Positive experiences with one type of education could bolster the support for that particular type, or it could reduce demand for further investment in this type because there is less need to do so. Most likely, the impact of perceived quality concerns depends on the general level of satisfaction with government services: When people generally trust the government to do a good job, a higher degree of dissatisfaction with one particular service such as education is likely to be associated with higher support for additional public spending to deal with perceived quality problems. The opposite effect should be observed in the case of low levels of trust in government as in this case, citizens may be more likely to support private provision instead.

---

<sup>11</sup> However, in the Ifo Education Survey 2015 in Germany (see Section 3.3.2 below), only 13 percent of respondents say that privately operated schools (*Schulen in freier Trägerschaft*), which currently receive about two thirds of the public funding per student that publicly operated schools receive, should receive less public funding than at the moment. 41 percent are in favor of the current situation, and 46 percent are in favor of increasing public funding for privately operated schools (if they refrain from raising additional tuition fees).



### **3.3 Support for Specific Education Policies and Structural Reforms**

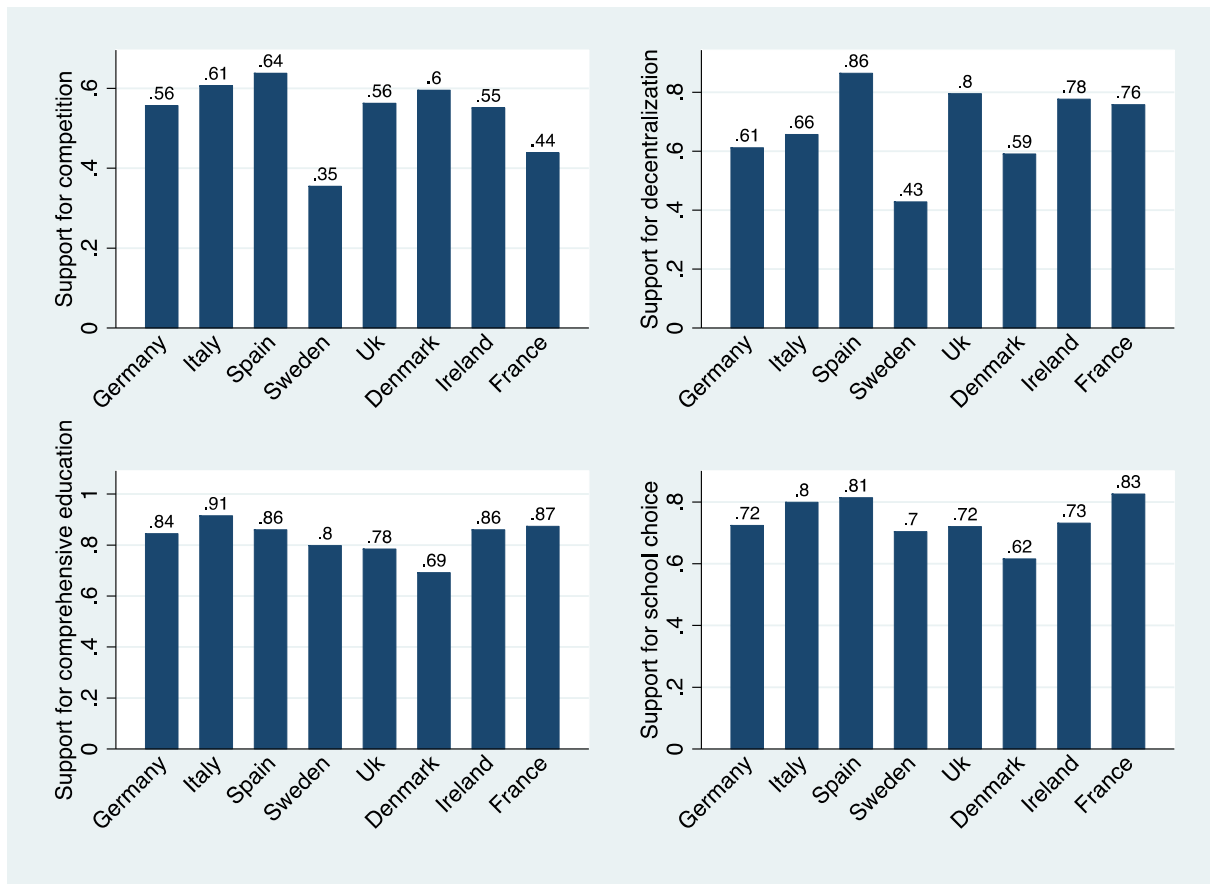
Apart from public opinion on different aspects of education spending, research has also investigated citizens' views on specific aspects of education policy and their preferences for specific education policy reforms. As most of these policy topics are rather country specific, this research can draw only in small part on the comparative datasets of different countries. The first part of this section presents evidence from the INVEDUC survey on support for governance reforms such as decentralization and the promotion of school choice as well as the model of comprehensive schooling. For the most part, however, this section relies on surveys that focus on public opinion on education policy and particular education topics in individual countries, namely Germany, Switzerland, and the United States. The general finding here is that several potentially beneficial education reforms would find majority support in the electorate. At the same time, available evidence on public opinion on non-spending related topics of education policy is limited and presents an important avenue for future research.

#### ***3.3.1 Public Preferences for Decentralization and Comprehensive Schools across Countries***

Some topics in specific education policy reform can be studied in an international comparative setting because similar reform proposals have been made across a wide range of countries. For example, there has been a wide-spread trend towards market-oriented reforms in education (Woessmann et al. 2009; Gingrich 2011), promoting the opportunities for school choice, fueling competition between schools for students and teachers, and pursuing a decentralized approach to the delivery of educational services. Even though there are some country-specific studies, there has been a lack of comparative survey data on public opinion on these reforms so far. Figure 9 present data from the INVEDUC on public attitudes towards some of these reform proposals.

First, respondents were asked to express their agreement or disagreement with the following statement: "Promoting competition between schools is beneficial for the education system as a whole." The second statement referred to decentralization of education and school autonomy: "Too many decisions about education are taken at the national level; more should be decided by parents and teachers at the local level." Third, we gauged support for the notion of school choice: "Families should be able to choose freely between public and private schools, independent of income and place or residence."

**Figure 9: Support for various reforms in the governance of education**



Notes: Percentage of respondents who say they “agree” or “strongly agree” to the following respective statements. Competition: “Promoting competition between schools is beneficial for the education system as a whole.” Decentralization: “Too many decisions about education are taken at the national level; more should be decided by parents and teachers at the local level.” Comprehensive education: “All children, regardless of their social backgrounds, should be taught in the same schools so that everyone can learn from each other.” School choice: “Families should be able to choose freely between public and private schools, independent of income and place or residence.” Source: own calculations based on INVEDUC dataset.

Across these three statements, we find the highest level of support for the latter statement about school choice, to which 71 percent would agree or even strongly agree. Support is also high for the notion of school autonomy and decentralization of provision (65 percent agree or strongly agree with this statement), whereas 52 percent think that promoting competition between schools is beneficial for the system as a whole. Figure 9 shows that support for school competition and decentralization is particularly low in Sweden (35 percent and 43 percent, respectively), which may be related to the fact that this country undertook a series of market-oriented reforms in the 1990s (Gingrich 2011). Interestingly, Swedish citizens are more inclined to support school choice, which can be implemented in different ways: either through full-scale privatization or by means of the creation of quasi-markets in the public sector. The Swedish education system now comes closer to the latter model, because the

newly established independent (“private”) schools are entirely funded with public subsidies (Bunar 2010). In contrast to the Swedish case, support for decentralization and school competition is particularly high in Spain. There are also large majorities supporting decentralization in France, Ireland, and the UK. In France, however, support for promoting school competition is significantly below average (44 percent), indicating that competition and decentralization are quite different concepts of education reform.

In addition to the three survey items related to market-oriented reforms, a fourth item measures support for the model of comprehensive schooling. More specifically, the survey presented citizens the following statement: “All children, regardless of their social backgrounds, should be taught in the same schools so that everyone can learn from each other.” Again, we find a high degree of support for this statement: Averaged across all countries, 82 percent of respondents agree or agree strongly with it. Support is particularly high in countries in which the secondary school systems tends to be rather stratified – in particular in Germany (84 percent), but also in Italy (91 percent), Spain (86 percent), and France (87 percent). Somewhat surprisingly, countries in which the comprehensive secondary school model has been implemented for a longer period of time exhibit lower levels of support: Denmark with 69 percent, the UK with 78 percent, and Sweden with 80 percent. Again, this could indicate a negative feedback effect in the sense that citizens in countries with comprehensive secondary education worry less about educational inequality and would rather support more opportunities for differentiation, whereas the support for the comprehensive model is growing in countries, which have traditionally been characterized by a high degree of educational stratification. In any case, all countries show an overwhelming support for comprehensive education as captured by this questionnaire item.

All in all, these findings have complex policy implications. First of all, the data show that public support for educational reform is high on average, which can be an important political resource for policymakers promoting reforms. Second, the findings also imply that the public does not generally consider market-oriented reforms to necessarily be at odds with social inclusion as reflected in the comprehensive model of schooling. For instance, citizens cherish the opportunity to pick and choose among different schools and support the notions of decentralization and school autonomy. At the same time, they are very attentive to issues of educational inequality, expressing a high degree of support for the underlying principles of comprehensive secondary schooling. Looking back at Figure 8 and taking into account the fact that promoting competition between schools is the least popular of the hypothetical policy reforms (although still favored by a majority of the population in most countries), a

preliminary conclusion might be that short of full-scale privatization, citizens are quite supportive of reforming the public sector in order to make it more responsive to citizens' needs, mirroring *some* aspects of a private system.

### ***3.3.2 Evidence on Public Preferences on Education Policies from Germany***

Turning to more country-specific topics of education policy, the Ifo Center for the Economics of Education has carried out the Ifo Education Survey in Germany annually since 2014.<sup>12</sup> Each year, the survey was administered to representative samples of more than 4,000 respondents and covered general and German-specific topics of education policy ranging from early childhood education and school policies to the apprenticeship system, lifelong learning, and tertiary education. This section summarizes selected findings from the first three survey waves.<sup>13</sup>

#### *Policies in Early Childhood Education*

For most children in Germany, pre-school constitutes the first contact to the formal education system. Since compulsory education in Germany only starts in primary school, parents are free to choose whether to send their children to pre-school. In contrast to current practice, the 2014 survey reveals that a majority of the German public (68 percent) favors the introduction of compulsory pre-school. Only 21 percent oppose this proposal.<sup>14</sup> Among those who favor compulsory pre-school, the majority states that it should be compulsory for children aged three years and older. While public schools and universities are generally free of tuition in Germany, most parents are charged fees for sending their children to pre-school. A large majority of the German population is dissatisfied with this current practice: 84 percent in the 2014 survey and 77 percent in the 2015 survey favor the proposal that the government pays for all 4-year old children to attend a pre-school program, only 10 percent respectively 17 percent oppose it.

At the same time, a clear majority opposes the *Betreuungsgeld*, a subsidy paid to parents who do 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. This finding

---

<sup>12</sup> The project is entitled "The Political Economy of Education Policy: Insights from a Public Opinion Survey" and is funded through the Leibniz Competition (SAW-2014-ifo-2).

<sup>13</sup> For detailed summaries of all results in German, see Woessmann et al. (2014, 2015, 2016a, 2016b).

<sup>14</sup> 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 reported shares of respondents who favor (oppose) a policy proposal correspond to the sum of those who answered "strongly favor" and "somewhat favor" ("strongly oppose" and "somewhat oppose").

shows that the ruling of the Constitutional Court which abolished the *Betreuungsgeld* in July 2015 is in line with the preferences of the majority of Germans.

Another central debate in the sector of early childhood education concerns the salaries of pre-school teachers. After an unsuccessful wage dispute, pre-school teachers throughout the country went on strike for several weeks in May 2015. The majority of the German population supports their demands for higher salaries: 79 percent favor salary increases for pre-school teachers, only 20 percent state that their salaries should stay about the same. In contrast to school teachers, pre-school teachers are not required to hold a tertiary education degree. This practice is in line with the German majority's preference: 55 percent oppose the proposal to require pre-school teachers to hold a tertiary degree. In contrast, another proposal to assure the quality of pre-school education is broadly supported by the German public: The introduction of nationwide compulsory quality standards for early childhood education is supported by 86 percent of all respondents, only 7 percent oppose it.

#### *Policies at the School Level*

The profound willingness of the German public to reform the education system is not restricted to pre-school education. Quite to the contrary, numerous current proposals to reform Germany's schools have majority appeal. The fact that schooling is under the control of the *Länder* (states) in Germany constitutes an obstacle to the comparability of students' achievement across states. The German public favors the introduction of nationwide standardized exams which foster comparability: 68 percent would support introducing such tests in German and mathematics which would become part of students' school marks. Similarly, more than 80 percent support introducing nationwide standardized final exams for each high-school leaving degree (*Hauptschulabschluss*, *Realschulabschluss*, and *Abitur*).

The state's legislative and executive authority over public education is anchored in the constitution which prohibits the federal government to engage in the education sector.<sup>15</sup> In 2014, this prohibition was alleviated for the tertiary education sector. The majority of Germans (59 percent) would favor an expansion of this alleviation to the school sector as well. Only 20 percent oppose this proposal.

German secondary schools are divided among several tiers. Despite the fact that most federal states assign students to these different tracks after grade 4, almost half of the German public (48 percent) prefers to track students only after grade 6. While the number of tracks in

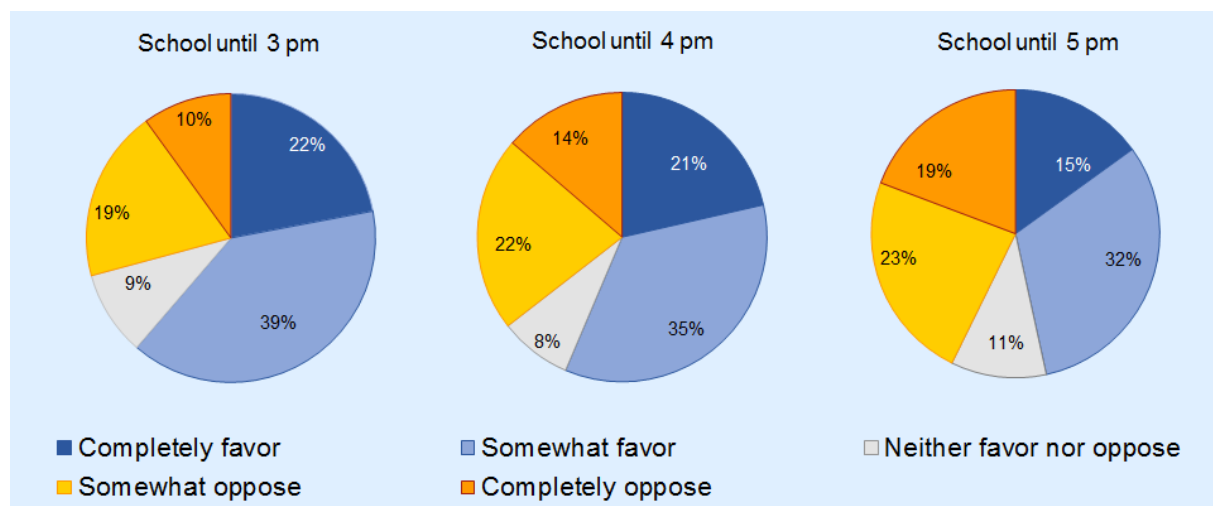
---

<sup>15</sup> The federal government is merely granted power over framework legislation concerning the general principles of education.

German 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 in addition to the *Gymnasium* should exist.

Another hotly debated reform proposal in Germany is the introduction of all-day schools. As shown in Figure 10, 61 percent of the German public would favor the introduction of all-day schools where all children attend school until 3 pm, 56 percent until 4 pm, and 47 percent until 5 pm. For this question, respondents were randomly assigned to one of three groups: The first experimental group was asked for all-day school until 3 pm, the second until 4 pm, and the third until 5 pm.

**Figure 10: Support for all-day schools among the German public**



Notes: Survey question: Would you favor or oppose Germany introducing all-day schools where all children attend school until “XXX”? Three randomized experimental groups with “XXX” = “3 pm”, “4 pm”, and “5 pm”, respectively. Source: Ifo Education Survey 2015; see Woessmann et al. (2015).

Further proposals to restructure the current school system with majority appeal include: introducing inclusive teaching of students with and without disabilities (59 percent in favor); introducing extra compensations for teachers who work in schools with many disadvantaged students (55 percent in favor); allowing parents to freely choose an elementary school for their children (64 percent in favor) instead of school assignment based on the area of residence; using grades to determine which school track a child is assigned to after elementary school (64 percent in favor) instead of letting parents decide; and making elementary-school starting age more flexible to match parents’ preferences (63 percent in favor).

On the other hand, some reforms face strong political headwinds with respect to public opinion: The proposal to abolish school grades is dismissed by the German public (77 percent oppose). While the duration of upper-track secondary schools (*Gymnasium*) has been reduced from 9 to 8 years in most federal states in the past years, the majority of the public opposes this reform (55 percent oppose). Finally, the suggested abolishment of grade retentions are not backed by the will of the majority: 79 percent favor the current practice that children who perform poorly have to repeat the grade.

In the 2016 survey, the Ifo Education Survey oversampled school teachers, allowing for the first time to compare the opinions of teachers and the general public. In a number of areas, there are absolute majorities both among teachers and among the general public supporting fundamental structural education reforms. Thus, 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 leaderships in recruiting teachers, and a postponed tracking of students into different school types from grade 5 to grade 7. By contrast, there are also differences in the opinions of teachers and the general public, in particular in areas that relate to teachers themselves, their remuneration and work load. For example, unlike the general public, the majority of teachers supports the civil-servant status for teachers and higher teacher salaries. Teachers oppose bonuses for teachers whose students show good learning gains, whereas the general public is split. 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.<sup>16</sup>

### *Policies beyond the School Level*

The Ifo Education Survey also covers topics beyond schooling, namely vocational education, training programs, and university studies. The apprenticeship system plays a central role in the German education system. One reform proposal in this sector is to introduce additional, less demanding, two-year apprenticeship programs in addition to the usual three-year programs in order to reduce drop-out rates in the apprenticeship system. 49

---

<sup>16</sup> In addition, the Ifo Education Survey 2016 had a focus on educational measures to support the integration of refugees (see Woessmann et al. 2016b). For example, majorities of the German public are in favor of publicly funded obligatory language courses for refugees, extending compulsory schooling to the age of 21 years, a two-year right of residence upon completion of an apprenticeship, an even regional distribution of refugee children across schools, additional federal funding for social school workers, and tax-funded obligatory attendance of early childhood education for refugee children starting at age 3.

percent of the German public support this proposal, 37 percent oppose it. Another proposal in this direction is to provide incentives for firms to offer training contracts to adolescents who are otherwise difficult to place. 66 percent of the German public supports the idea that the government covers the training costs of these firms. In the adult education sector, Germany's largest labor union has pushed for the possibility for full-time employees to reduce their working hours in order to participate in additional training programs while offering them a return option to full-time employment after completing the training. This proposal, known as *Bildungsteilzeit*, is broadly supported by the public (65 percent in favor).

In the higher education system, the opinion of the German population is split about tuition fees that have to be paid directly when in university. However, a strong majority of 69 percent favor income-contingent tuition fees that have to be paid after graduation and only if the former students' future income exceeds a certain threshold (see Section 4.3 for more detailed discussion). Since Germany's public student aid program (*BAföG*) is needs-based, 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 favor it, 45 percent oppose it.

In sum, the Ifo Education Survey shows that in many areas, the majority of the German population supports quite fundamental reforms in different sectors of the education system. Among others, the majority of Germans favors tuition-free preschool, national quality standards in preschool, the abolishment of the child care subsidy and of catchment areas in primary school, the introduction of a whole-day school system, national comparative tests in schools, national exit exams in all school tracks, autonomy for school leaderships in recruiting teachers, entrance exams for teacher training courses, compulsory professional development for teachers, an end to the cooperation ban for federal and state governments in schools, public funding of apprenticeships for unsuccessful applicants, and income-contingent tuition fees in higher education. In many regards, it is also evident that most Germans favor a clear performance orientation in schools. Thus, a clear majority of Germans is against abolishment of marks and favors grade repetition for low-performing students, national exit exams, and bonuses for teachers who teach in schools with many disadvantaged students; a clear majority also thinks that it is important that Germany does well on the PISA test.<sup>17</sup>

---

<sup>17</sup> For discussion of additional results from the Ifo Education Survey, see Sections 3.3.4 to 4.1 below.



### **3.3.3 Evidence on Public Preferences on Education Policies from Switzerland**

The Swiss Coordination Centre for Research in Education and the Centre for Research in Economics of Education at the University of Bern have conducted three representative public opinion surveys on education in Switzerland in 2007, 2012, and 2015 (see Cattaneo and Wolter 2017). The results provide interesting additional aspects not least because of the Swiss system of direct democracy in which referenda are frequently used to decide upon policies. In this section, we summarize selected findings from each of the three survey waves.

The 2007 survey was administered to more than 2,000 respondents and focused on the financing of education and school choice. The results show that a majority of the Swiss public (71 percent) would support an initiative to increase school expenditure by 10 percent. Interestingly, respondents aged 50 years and older are significantly less likely to favor education spending (Cattaneo and Wolter 2009). This age pattern is consistent with the observation that cantons with higher shares of elderly citizens spend less on education. School choice in Switzerland is limited: Usually, the area of residence determines the public school a child may attend. The majority of the Swiss population (64 percent) is willing to reform this current practice by implementing free school choice in the public school sector (Diem and Wolter 2013).

The 2012 survey was completed by more than 2,800 respondents and identifies further policy proposals with majority appeal (Cattaneo and Wolter 2013). While the extent to which Swiss schools offer all-day care varies widely across cantons, the majority of respondents (73 percent) would prefer all-day care to be offered to all school children. Thus far, the establishment of an accountability system for Swiss schools has been undermined by a lack of standardized testing of student achievements. The finding that more than three quarters of the respondents would support the introduction of regular, canton-wide standardized tests of student achievements indicates that there is political leeway for accountability reforms in Switzerland. The Swiss citizens' wish to foster comparability within the education system is also apparent from the finding that 66 percent agree that admission to upper-track secondary schools (*Gymnasium*) should be determined by entrance exams. This is at odds with the current practice that access to these schools is partly based on teachers' recommendations and parents' preferences.

The latest Swiss survey, which was administered to a representative sample of more than 6,000 respondents in 2015, also covered topics beyond schooling. While individuals with a high-school diploma generally enjoy free choice of their field of university study, the introduction of entry barriers entered the political debate recently. In this context, the public

is divided on whether or not to introduce minimum grade requirements for humanities and social sciences: 44 percent are in favor of this proposal. University tuition fees are relatively low in Switzerland.<sup>18</sup> In contrast, individuals who pursue an advanced federal professional diploma have to fund the cost of education mainly themselves (in most cases, these private costs are covered to some extent by the employer). A proposal to increase public financial support for professional education is supported by 66 percent of respondents who hold a university degree and by about 50 percent of the rest of the population.

To sum up, the Swiss opinion surveys have revealed that several proposed education reforms in Switzerland would be supported by the majority of citizens. These results are particularly important in the light of the Swiss system of direct democracy in which referenda are frequently used to decide upon the implementation of education policies.

### ***3.3.4 Evidence on Public Preferences on Education Policies from the United States***

While not a main focus of this report, there has been longer experience with opinion surveys on education policy in the United States. In particular, since 2007 the Program on Education Policy and Governance (PEPG) at Harvard University has conducted annual opinion surveys in the United States (see, e.g., Peterson, Henderson, and West 2014). This section briefly reviews the results to the extent that they provide relevant information for European societies.<sup>19</sup>

Most topics from the PEPG surveys which bear relevance for the European context are related to accountability in the education system. As it turns out, the most popular school reforms in the U.S. seem to be those that aim at holding students and schools accountable for their performances. For instance, throughout the survey years, a solid majority of Americans support the No Child Left Behind Act. This law requires states to set standards in math and reading, to test all students in grades 3-8 to determine whether the standards are met and to sanction schools which do not meet these standards. Similarly, large shares of the population support the use of nationwide standards to hold public schools accountable (the “Common Core”). Interestingly, however, support for the Common Core fell from 65 percent in 2013 to only 49 percent in 2015 in the course of fiery public debates. Apart from accountability measures for schools, Americans also support reforms designed to hold individual students

---

<sup>18</sup> The OECD (2014) estimates that average annual tuition fees charged by public or government-dependent institutions of tertiary education for national full-time students in first degree programs in the academic year 2010/11 was 863 dollars in Switzerland as compared to 4,980 dollars in the United Kingdom and 5,402 dollars in the United States, for instance.

<sup>19</sup> See <http://educationnext.org/edfacts/> for detailed results of all survey waves.

accountable for their performance. For instance, vast majorities of respondents support to require students in certain grades to pass an exam before proceeding to the next grade and to require students to pass an exam before graduating from high school. Both policies are currently not common practice in many states.

The PEPG surveys covered two further topics relevant for the European context: inclusive teaching of children with and without disabilities and online education. In contrast to the results of the Ifo Education Survey for Germany, the majority of Americans (72 percent) advocates to educate students with emotional and behavioral disabilities in separate classrooms rather than teaching them in the same classrooms as children without disabilities. While most discussion in Europe surrounding online learning is restricted to the higher education system, a sizable share of American high-school and middle-school students are taking courses online. In the 2010 PEPG survey, 52 percent (43 percent) of Americans thought that high-school (middle-school) students should receive credits for state-approved courses taken over the Internet.

While most of the PEPG results discussed so far are rather U.S.-specific, there are several policy issues which are equally relevant for Germany and the United States. Therefore, the Ifo Education Survey in Germany and the PEPG survey in the U.S. have included a number of coordinated questionnaire items in their 2014 surveys that allow for detailed comparative work across the two countries (for details, see Henderson et al. 2015; West et al. 2016).<sup>20</sup> In both countries, education spending makes up a sizable share of government budgets. When asked whether government funding for public schools should increase, decrease, or stay about the same, 60 percent of Americans and 71 percent of Germans say that funding should increase.

Despite these similarities, Americans and Germans are somewhat more divided about how additional funds should be used. When deciding between spending additional funds on reducing class sizes, increasing teacher salaries, or purchasing new books and technologies, 46 percent of Americans choose reductions in class sizes, 24 percent opt for increasing teacher pay, and 30 percent favor purchasing new instructional materials. In contrast, 64 percent of the German population favors class-size reduction, 32 percent prefer purchases of new instructional materials, and only 4 percent want to raise teacher salaries. The German opposition against teacher salary increases is also prevalent when respondents are directly asked whether teacher salaries should increase, decrease, or stay about the same: Only 29

---

<sup>20</sup> In addition, some questionnaire items have also been coordinated with the Swiss opinion survey; see Cattaneo and Wolter (2017) for a discussion of selected comparative results for these three countries.

percent of Germans favor salary increases, whereas 62 percent of the Americans do. This finding is consistent with the fact that teacher salaries are markedly higher in Germany than in the U.S. (OECD 2014, pp. 467-471).

Apart from being more supportive of increasing teacher salaries, Americans are also more favorable towards differential teacher pay: 62 percent of the public in the U.S. support the proposal that teachers who work in schools with many disadvantaged students should receive extra compensation, the corresponding share in Germany is 55 percent. Similarly, 57 percent and 56 percent of Americans favor merit pay respectively higher salaries for teachers of subjects with shortages of qualified teachers. Only 45 percent respectively 43 percent of Germans favor these proposals. The public in both countries objects the contemporary practice to afford teachers protection against dismissal: Only 32 percent of Americans and 26 percent of Germans favor giving tenure to teachers. Finally, both surveys elicited the public's opinion on government-funded pre-school education. In both countries, the majority of citizens (62 percent in the U.S., 83 percent in Germany) advocate that the government should pay for all 4-year old children to attend a pre-school program.

Consistent with the fact that there are important structural differences between the American and the German education systems, this comparative exercise shows that public opinion diverges between countries on several issues. At the same time, the comparison reveals a non-negligible overlap of public preferences between both countries.

#### **4. The Importance of Information for Education Preferences**

When thinking about the acceptance and feasibility of educational reforms, an important aspect is whether the opinions of the public depend on the extent to which the public is well-informed about current policies and situations. Thus, a particular aspect of some of the opinion surveys on education – in particular, the PEPG survey in the United States and the Ifo Education Survey in Germany<sup>21</sup> – is to investigate how the provision of information might influence public opinion. This topic carries particular policy relevance, as it can inform policymakers and administrators about what information deficits exist within the public and how their alleviation through the provision of information might affect support for potential educational reforms. Such an analysis is achieved by survey experiments where participants are provided with different types of information on a specific topic and are then asked the

---

<sup>21</sup> Similarly, the Swiss survey has also incorporated survey experiments (see Cattaneo and Wolter 2016 for an example).

same question on the topic. Comparing the answers of the groups receiving different information on the topic allows measuring how providing the population with certain information can influence the public opinion. This allows taking information-based decisions. In this section, we present four examples in which information provision has substantial effects on public education preferences.

#### **4.1 How Information Affects Support for Education Spending**

A first topic investigated is how the provision of information on current levels of education spending and teacher salaries affects citizen's preferences for increases in education spending and in teacher salaries. In addition, it has been investigated how reference to tax financing requirements affects public preferences for education spending.

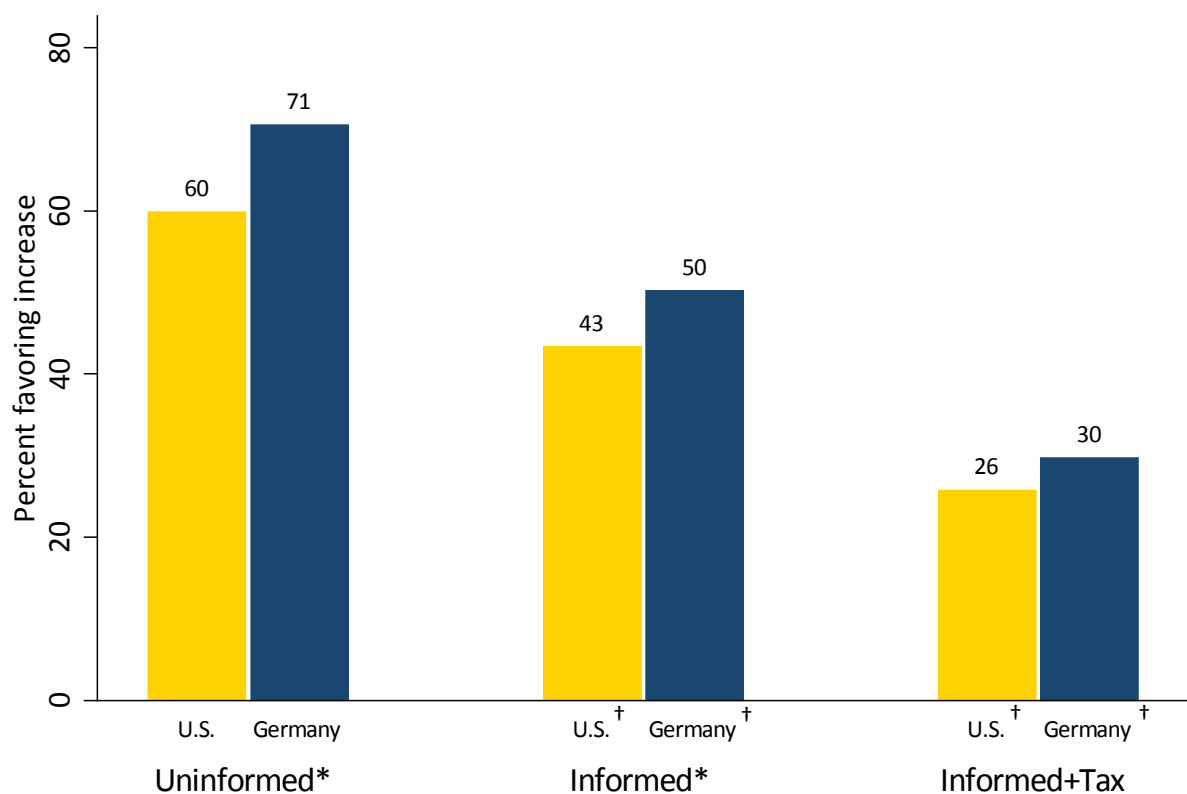
While the debate on the extent to which higher education spending levels are essential to improve school quality is ongoing (see, e.g., Hanushek 2003; Jackson, Johnson, and Persico 2016), citizens' support for education spending is certainly important for shaping public budgets. Therefore, it is important to understand whether public preferences for education spending are based on accurate information on current spending levels and whether citizens take the fact that spending increases need to be financed by taxes into account when stating their preferences.

To address these questions, recent opinion surveys have incorporated survey experiments with random information provision on current spending levels and reminders of tax financing requirements (see, e.g., Schueler and West 2015; Lergtporer et al. 2016; West et al. 2016). For Germany, a survey experiment within the Ifo Education Survey 2014 (see Section 3.3.2) consisted of informing a randomly selected treatment group that the German government currently spends € 6,400 per student and year on schools before eliciting preferences for increased spending. A second treatment group was provided with the same information, but was additionally told that increased public spending on education would be financed through higher levels of taxation. The control group stated preferences for increased spending without receiving any information. The same experimental design was implemented in the 2014 PEPG survey in the United States (see Section 3.3.4).

The main results of this experiment for both countries are depicted in Figure 11. On average, being informed about current spending levels reduces support for increased public spending on schools from 71 percent to 50 percent (from 60 percent to 43 percent) among the German (American) public. The treatment effect is strongest for those who underestimated

spending levels in a pre-experimental guessing question, indicating that the treatment effect is a genuine information effect rather than an artefact of priming. Stating that additional spending needs to be financed through taxes further reduces support for spending increases to 30 percent in Germany and 26 percent in the United States. This cross-country comparison reveals one important insight: While the levels of support for increased spending differ somewhat across countries, treatment effects are remarkably similar.

**Figure 11: The effects of informing about spending levels and referencing to taxes on support for higher education spending**



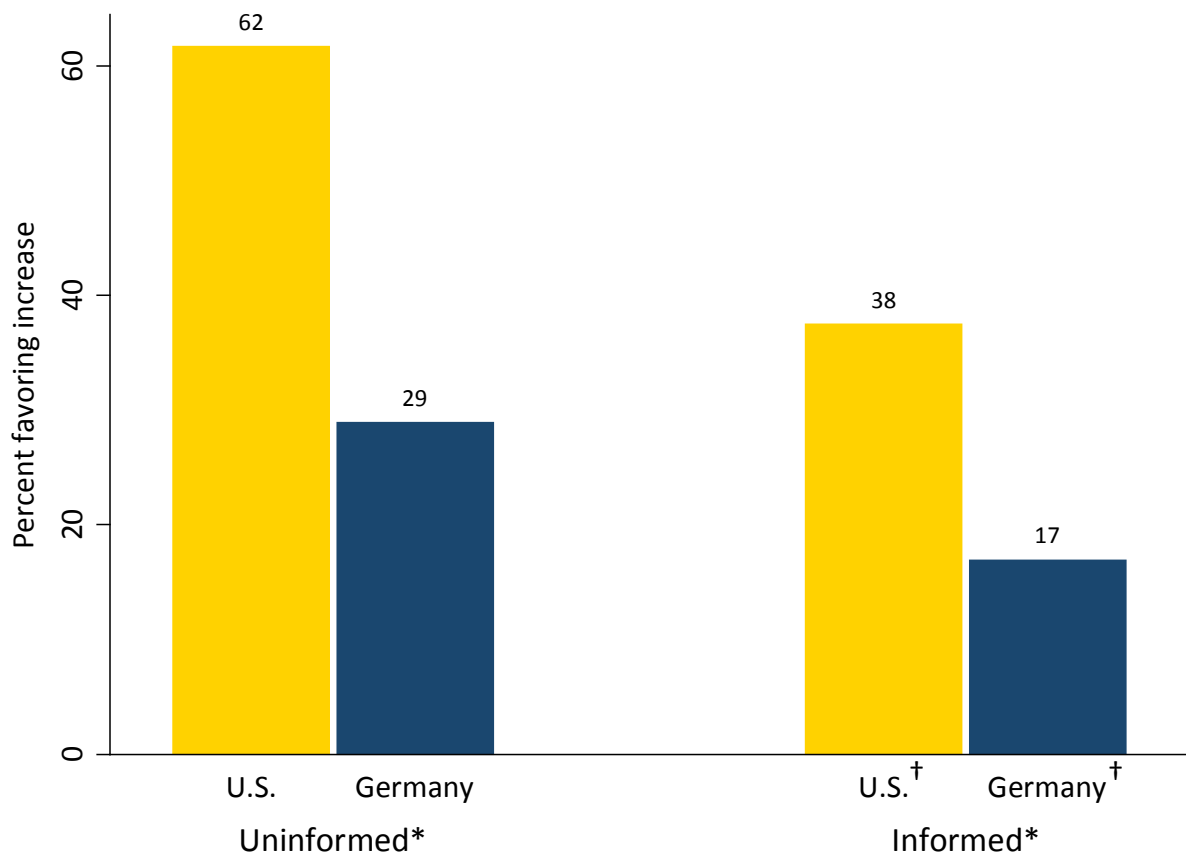
Notes: Share of respondents who favor government funding for public schools to either “greatly increase” or “increase”; other categories are “stay about the same,” “decrease,” and “greatly decrease”. Three randomized experimental groups. Control group (Uninformed) did not receive further information. First treatment group (Informed) was informed about current spending levels. Second treatment group (Informed+tax) was additionally referred to tax financing requirements. \* Difference between the two countries is statistically significant at the 5 percent level. † For the country, difference to the control group is statistically significant at the 5 percent level. Source: Henderson et al. (2015) based on the 2014 EdNext Survey and Ifo Education Survey 2014.

Since staff compensation makes up the largest part of total school spending in many countries (OECD 2014, p. 284), salary levels are a crucial component of overall education budgets. Therefore, the Ifo Education Survey 2014 implemented a second experiment in

which a randomly selected treatment group was informed that full-time teachers in Germany earn on average about €3,000 net of taxes per month before eliciting preferences for teacher salary increases. The control group did not receive such information. Again, the PEPG survey ran the same experiment in the United States.

In the control group, 29 percent of German respondents and 62 percent of American respondents favor salary increases (Figure 12). This support is reduced significantly to 17 percent respectively 38 percent when information on current levels of teacher salaries is provided. Again, treatment effects are strongest for those who initially underestimated salary levels.

**Figure 12: The effect of informing about current teacher salaries on support for salary increases**



Notes: Share of respondents who favor teacher salaries to either “greatly increase” or “increase”; other categories are “stay about the same,” “decrease,” and “greatly decrease”. Two randomized experimental groups. Control group (Uninformed) did not receive further information. Treatment group (Informed) was informed about current teacher salary levels. See Appendix B for wording of the question in the two countries. \* Difference between the two countries is statistically significant at the 5 percent level. † For the country, difference to the control group is statistically significant at the 5 percent level. Source: Henderson et al. (2015) based on the 2014 EdNext Survey and Ifo Education Survey 2014.

These results show that respondents in both countries are ill informed about actual education spending and teacher salary levels. Additionally, they do not take the necessity to increase taxes for financing additional public spending into account when stating spending preferences. Alleviating this lack of information through information provision significantly reduces preferences for increasing school spending and teacher salaries. On a practical level, these results indicate that improving citizens' information levels about education spending, for example through the biannual national education report in Germany, might reduce their willingness to accept additional education spending, unless similar information is provided for other public spending areas as well.

## **4.2 How Information Affects Support for Different Education Spending Categories**

Another topic for which effects of information provision have been studied is citizens' support for different types of spending within the education budget. Asking how education budgets should be allocated between different spending options makes the involved trade-offs between these different options directly salient.

One aspect is the extent to which public support for education spending across the different education sectors – from pre-school to tertiary education – is affected by the provision of information on current spending levels and information on research results on the importance of early education stages. The Ifo Education Survey 2014 comprised a survey experiment, which asked a randomly selected control group to choose one education sector which should benefit from increased education spending (see Lergepöcher et al. 2016 for details). Respondents in the treatment group were informed about the following current annual public spending levels per child or student in Germany: €6,100 in pre-schools, €5,200 in primary schools, €7,000 in secondary schools, €4,000 in vocational schools, and €8,300 in universities and colleges.

This information treatment changed preferences for how funds should be allocated across the different sectors considerably: On the one hand, support for spending on pre-schools and secondary schools fell significantly from 31 percent each in the control group to 26 percent each in the treatment group. On the other hand, preferences for primary school spending significantly increased from 26 percent to 33 percent and for vocational schools from 6 percent to 9 percent. The treatment had no effect on the share of those who prefer spending increases on universities (6 percent). These information effects suggest that respondents have a tendency to equalize spending per student across the different areas. That is, areas with

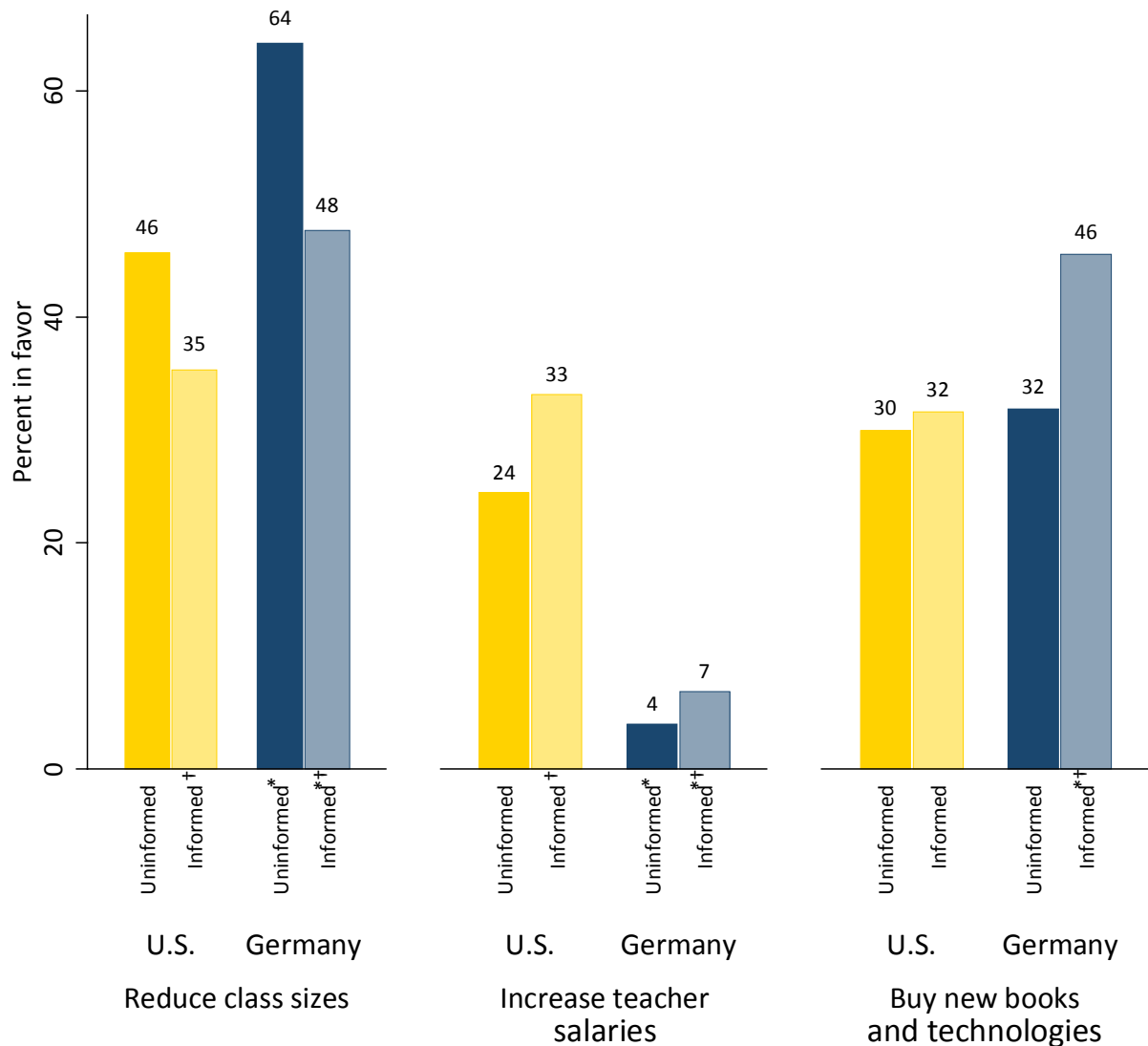


relatively low per-capita spending benefit from the information treatment, while areas with relatively high spending gather less support in the treatment condition compared to the control group.

A similar experiment in the Ifo Education Survey 2015 tested whether informing respondents about research results on the importance of early education investments shifts preferences for spending across the different education categories. While the control group was asked the same question as the control group in the 2014 survey, the treatment group was informed that numerous studies find that investments in early childhood education are more beneficial for the society's future prosperity than later investments (see, e.g., Cunha et al. 2006). This information does in fact shift spending preferences in favor of earlier education sectors: The share favoring pre-school (primary school) spending significantly increases from 15 percent to 31 percent (30 percent to 35 percent). At the same time, the share of respondents who favor secondary school spending decreases from 41 percent to 26 percent. In sum, these results show that the German public is quite responsive to information about research results. In the case of (re-)allocating spending across different sectors of the education system, information on research findings might help politicians to increase public support for allocating educational resources more efficiently.

A second aspect is the extent to which public preferences for different types of spending in the school sector – namely between class-size reductions, teacher salary increases, and purchases of new books and technologies – are affected by information on the relative costs of these spending categories. In another survey experiment that was implemented in the Ifo Education Survey 2014 in Germany and the PEPG survey 2014 in the United States, respondents in the control group were asked whether any additional government spending on the school system should go to one of these three categories (see West et al. 2016 for details). The treatment group in the German (U.S.) survey was informed that reducing average class sizes by 3 students would cost roughly the same amount as increasing teacher salaries by 15 (13) percent or buying €20,000 (\$10,000) in new books and technologies for each class every year before deciding between these three options. In the uninformed control group, 64 percent (46 percent) favor class-size reductions in Germany (the U.S.), 4 percent (24 percent) favor teacher salary increases, and 32 percent (30 percent) favor purchasing new books and technologies (Figure 13). The treatment reduces support for class-size reductions to 48 percent (35 percent) while increasing support for buying new books and technologies respectively increasing teacher salaries to 46 percent and 7 percent (32 percent and 33 percent).

**Figure 13: The effect of information on support for spending on smaller classes, higher teacher salaries, and teaching material**



Notes: Share of respondents favoring the specific spending option over the other two options. Two randomized experimental groups. Control group (Uninformed) did not receive further information. Treatment group (Informed) was informed that reducing average class sizes by 3 students would cost roughly the same amount as increasing teacher salaries by 13 (15) percent or buying \$10,000 (€20,000) in new books and technologies for each class every year in the U.S. and Germany, respectively. \* Difference to the same category in the U.S. is statistically significant at the 5 percent level. † For the country, difference to the control group is statistically significant at the 5 percent level. Source: Henderson et al. (2015) based on the 2014 EdNext Survey and Ifo Education Survey 2014.

Thus, once aware of the trade-offs involved, the public expresses far less enthusiasm for class-size reductions. At the same time, evidence suggests that investing more on non-teacher inputs (Pritchett and Fillmer 1999) and on teacher compensation (Dolton and Marcenaro-Gutierrez 2011) might be more efficient than investing in class-size reductions (Woessmann 2005; Woessmann and West 2006) to improve student outcomes. Taken together, our results

suggest that making trade-offs salient may equip policymakers with the public support necessary for shifting education spending where it is most useful. The fact that the public in Germany and the United States reacts similarly to the information provided is cause for some optimism with respect to the generalizability of these results across countries.

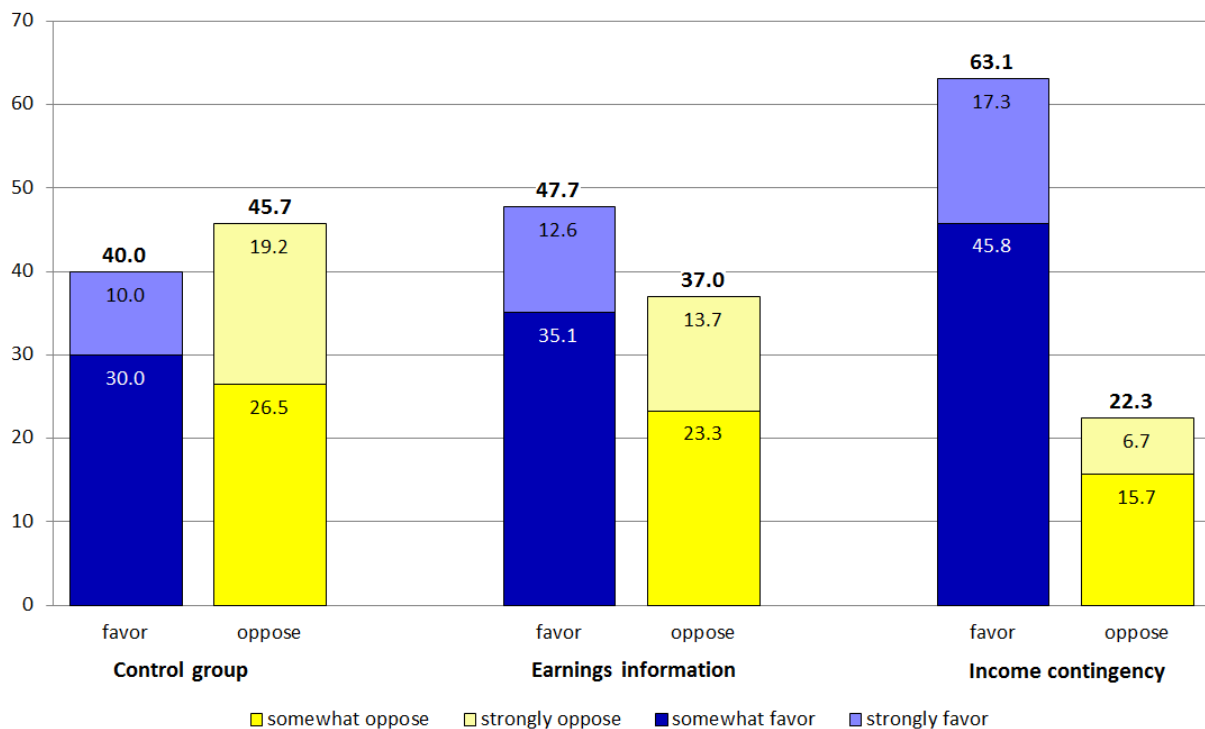
### **4.3 How Information and Income Contingency Affect Support for University Tuition Fees**

A topic of particular recent interest in Germany is the public's opinion on university tuition fees and how responsive these preferences are to informing about relevant underlying facts and to making the fees contingent on income levels (see Lergertporer and Woessmann 2017). 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 persons with vocational education. The second treatment group was informed about the current public spending level on universities, and the third treatment group was informed about the relative access to universities by different socioeconomic groups before eliciting preferences for university tuition fees. The control group did not receive any information.

Informing the German public that university graduates earn 40 percent more than apprenticeship graduates shifts the plurality of respondents 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) (Figure 14). By contrast, informing respondents that the annual public cost per university student is €8,600 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 effect on public preferences for tuition fees.

In addition, the Ifo Education Survey 2014 investigated whether public preferences for tuition fees differ between standard fees and fees that have to be paid contingent on students' future income. These income-contingent tuition fees, which are currently in place in Australia and in the UK, only have to be paid after graduation and only if 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).

**Figure 14: The effect of information and income contingency on support for tuition fees**



Notes: Share of the German population favoring and opposing tuition fees in higher education. “Favor” reports the share of respondents who either “strongly favor” or “somewhat favor” tuition fees. “Oppose” reports the share of respondents who either “somewhat oppose” or “strongly oppose” tuition fees. The remainder of respondents “neither favor nor oppose” tuition fees. Two randomized experimental groups. Control group did not receive further information. Treatment group (Earnings information) was informed about the relative income of university graduates as compared to persons with vocational education. Subsequently (Income contingency), all respondents were asked about their preferences for tuition fees that have to be paid contingent on students’ future income. Source: Lergetporer and Woessmann (2017) based on the Ifo Education Survey 2014.

Recent German history may be seen as a prototypical example for the political economy conflicts surrounding tuition fees because tuition fees were re-abolished by 2014 in all federal states who introduced them after 2005 due to severe public opposition. In this context, it is particularly encouraging that information provision can shift the plurality of the public from opposing tuition fees to favoring them. Most importantly, the finding that a solid majority of Germans favors income-contingent tuition fees reveals that there is substantial leeway for reforming higher education finance in Germany if tuition fee schemes are designed adequately.

#### 4.4 Does Information on Party Positions Affect Public Opinion on Education Policies?

A final aspect investigated is whether citizens’ opinion on specific education policies changes when they are informed about which 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.<sup>22</sup> Respondents in the control group stated their policy preference without any additional information. This experimental design allows investigating 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 *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 oppose the policy (34 percent in favor, 57 percent oppose). Informing these partisans about their party's position significantly increases (reduces) the share of those 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 a 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 (51 percent in favor in the control group, 43 percent in favor in the treatment group). The information treatment did not affect the preferences of supporters of the other parties.

A third experiment concerned a reform proposal to remove a constitutional regulation which prohibits the federal government to engage in the education sector in order to secure the *Länder's* dominant role in education governance. 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 the analyzed cases, opinions did not differ significantly across supporters of different parties when no information on party positions was provided. When informed about the party positions, especially voters of conservative parties used their party's position as an anchor for their own opinion.

---

<sup>22</sup> These parties were CDU/CSU (the cooperation between the Christian Democratic Union and the Christian Social Union), SPD (the Social Democratic Party), Linke (the Left Party), Grüne (the Green Party), AfD (the Alternative for Germany), and FDP (Free Democratic Party).

#### **4.5 The Effects of Information on Public Opinion in Real-World Settings**

Ultimately, the question of interest is whether providing information would also impact public opinion on education reforms in real-world settings. For example, could policymakers use information campaigns to increase the public's acceptance of certain education reforms, thereby increasing the feasibility of their implementation? Also, how do voters in real-world settings form their opinions, and how are they influenced by information and opinions that are floating around? These questions are hard to answer with certainty, but there is some indication that the evidence from survey experiments can at least provide a useful background for forming our understanding of opinion formation.

While survey experiments are certainly subject to some artificiality, two pieces of evidence suggest that experimental evidence on the effects of information provision contains relevance for and generalizability to political decision processes in the real world. First, investigating the generalizability of experimental survey evidence, Barabas and Jerit (2010) find that the information effects in their survey experiment are also found, to a somewhat smaller extent, in a natural experiment based on variation in the exposure to news that cover the same information. Relatedly, it has been argued that survey responses are a good proxy for actual voting behavior (Kemp 2002).

Second, Blinder and Krueger (2004) argue that the fact that politicians devote tremendous resources to assessing public opinion implies that public opinion surveys are important for the political process. Thus, even if survey experiments would not accurately simulate how information is acquired in the real world, their results are likely to influence politicians. In addition, the reported results refer to a representative sample of the voting-age population, allowing generalizable statements for the political economy process.

Beyond the evidence from survey experiments, in political science there is a large literature on the responsiveness of political parties and policymakers to changing public opinion. By and large, this literature confirms that policymakers indeed follow and implement public demands in order to avoid electoral losses in the next election (Stimson, MacKuen, and Erikson 1995). At the same time, policymakers also make use of public opinion surveys in order to craft political messages that resonate well with voters, while in fact actual policies may be determined by different factors such as interest group preferences (Jacobs and Shapiro 2002). There are studies that have tried to estimate the relative importance of these different channels (Hobolt and Klemmensen 2005), i.e. to what extent political parties and policymakers can shape public opinion to their will or to what extent

they have to comply with public demands. By and large, the finding is that the leeway for political parties to influence public opinion is limited and that the impact of public opinion on policymaking is the stronger effect.

Having said that, it needs to be emphasized that even when policymakers are willing and able to implement the wishes of the public, there is a lot of leeway in how *exactly* the broad signal of public opinion should be translated into real policies. Furthermore, as discussed above, the public at times may send out signals that might be perceived as contradicting, demanding, for instance, more choice as well as more inclusiveness in schools. Thus, public opinion may have a powerful influence on the broad direction of policy change, but policymakers continue to have a significant degree of autonomy in designing detailed policies. Providing more refined information on these details of policy design would – as the survey experiments show – contribute to a more critical and potentially more engaged public, which is an important corrective in democratic policymaking.

Within the policy field of education, one recent example for how providing information to the public can change policies is the publication of the results of the PISA study. For Germany, the comparative results of the first PISA study in 2001 revealed that, in contrast to public perception, Germany's education system was mediocre at best. This "PISA shock" changed the public's perception about the quality of education in Germany and thus urged policymakers to implement comprehensive reforms. According to Martens and Niemann (2013), the dissemination of internationally comparable student performance data affects policies under two conditions: First, the topic must be perceived as being crucial in the national discourse. Second, there needs to be a substantial gap between national self-perception and the empirical results observed. Since both conditions are likely to be met in many European countries, the dissemination of relevant information for the education sector might create public pressure on policymakers to implement policies that yield better student outcomes.

## **5. Conclusions**

Even if politicians are willing to implement an educational reform that is rooted in convincing evidence, such a reform will only be politically feasible if voters accept the reform. Therefore, public opinion and its determinants are a key factor in understanding whether and how educational reforms that improve the welfare of citizens can in fact be enacted.

The available evidence provides a colorful picture of the public's opinion on different education policies and reforms in European countries. While it is not easy to draw strong general conclusions, there is a clear indication that citizens have a strong priority for education as a leading policy focus of the government. The public is surprisingly open to many education reform proposals, with majorities supporting several fundamental structural changes in different sectors of the education system. These include reforms oriented at improved student performance such as comparative testing, decentralization, school choice, and promoting competition between schools, as well as reforms aimed more at social inclusion such as a comprehensive school system and tuition-free preschool.

Furthermore, there is clear evidence that public opinion reacts to the provision of specific information. The results suggest that when having to choose among different categories of education spending, people are not fully aware of the implied trade-offs. If policymakers succeed in making these trade-offs salient, they may reap the necessary public support for reforms that shift education spending into areas where it is most effective. In addition, public opinion is clearly responsive to the specifics of reform designs. For examples, support for tuition fees in higher education in Germany depends crucially on whether they are paid from and contingent on students' future incomes.

Policymakers interested in implementing education reforms in order to improve the welfare of citizens should thus be aware of the fact that the public often shows surprisingly large willingness to reform and that the extent to which they get majorities for their reforms depends on adequate design and on informing citizens about the underlying constraints and chances.



## References

- Ansell, Ben W. (2010). *From the Ballot to the Blackboard: The Redistributive Political Economy of Education*. Cambridge: Cambridge University Press.
- Barabas, Jason, Jennifer Jerit (2010). Are Survey Experiments Externally Valid? *American Political Science Review* 104 (2): 226-242.
- Blinder, Alan S., Alan B. Krueger (2004). What Does the Public Know About Economic Policy, and How Does It Know It? *Brookings Papers on Economic Activity* (1): 327-397.
- Brewer, Dominic J., Patrick J. McEwan, eds. (2010). *Economics of Education*. Amsterdam: Elsevier.
- Bunar, Nihad (2010). The Controlled School Market and Urban Schools in Sweden. *Journal of School Choice* 4: 47-73.
- Busemeyer, Marius R. (2012). Inequality and the Political Economy of Education: An Analysis of Individual Preferences in OECD Countries. *Journal of European Social Policy* 22: 219-40.
- Busemeyer, Marius R. (2015). *Skills and Inequality: The Political Economy of Education and Training Reforms in Western Welfare States*. Cambridge, New York: Cambridge University Press.
- Busemeyer, Marius R., M. Alejandra Cattaneo, Stefan C. Wolter (2011). Individual Preferences for Vocational Vs. Academic Education: Microlevel Evidence for the Case of Switzerland. *Journal of European Social Policy* 21: 253-73.
- Busemeyer, Marius R., Julian L. Garritzmann, Erik Neimanns, Roula Nezi (2017). Investing in Education in Europe: Evidence from a New Survey of Public Opinion. *Journal of European Social Policy*, forthcoming.
- Busemeyer, Marius R., Julian L. Garritzmann (2016). Public Opinion on Budgetary and Policy Trade-Offs in European Welfare States: Evidence from a New Comparative Survey. Working Paper, University of Konstanz.
- Busemeyer, Marius R., Julian L. Garritzmann (2017). Public Opinion on Education Policy: A Multi-country Perspective. In: Martin R. West, Ludger Woessmann (eds.), *Public Opinion and the Political Economy of Education Policy around the World*. Cambridge: MIT Press, forthcoming.
- Busemeyer, Marius R., Achim Goerres, Simon Weschle (2009). Attitudes Towards Redistributive Spending in an Era of Demographic Ageing: The Rival Pressures from Age and Income in 14 OECD Countries. *Journal of European Social Policy* 19: 195-212.
- Busemeyer, Marius R., Torben Iversen (2014). The Politics of Opting Out: Explaining Educational Financing and Popular Support for Public Spending. *Socio-Economic Review* 12: 299-328.
- Castles, Francis G. (2013). The Real Issue for Future Comparative Policy Research: Does Government Matter? In: Klaus Armingeo (ed.), *Staatstätigkeiten, Parteien und Demokratie: Festschrift für Manfred G. Schmidt*, pp. 185-204. Wiesbaden: VS Verlag für Sozialwissenschaften.
- Cattaneo, M. Alejandra, Stefan C. Wolter (2009). Are the Elderly a Threat to Educational Expenditures? *European Journal of Political Economy* 25: 225-236.

- Cattaneo, M. Alejandra, Stefan C. Wolter (2013). Nationale Eigenheit von Bildungssystemen in Zeiten der Globalisierung. SKBF Staffpaper No. 10. Aarau: SKBF.
- Cattaneo, M. Alejandra, Stefan C. Wolter (2016). Wie viel darf es kosten und wer soll es bezahlen? Einstellungen der Schweizer Bevölkerung zu Fragen der Finanzierung. SKBF Staffpaper No. 16. Aarau: SKBF.
- Cattaneo, M. Alejandra, Stefan C. Wolter (2017). Selected Findings from 10 Years of Public Opinion Surveys on Education in Switzerland. In: Martin R. West, Ludger Woessmann (eds.), *Public Opinion and the Political Economy of Education Policy around the World*. Cambridge: MIT Press, forthcoming.
- Cunha, Flavio, James J. Heckman, Lance Lochner, Dimitriy V. Masterov (2006). Interpreting the Evidence on Life Cycle Skill Formation. In: Eric A. Hanushek, Finis Welch (eds.), *Handbook of the Economics of Education, Vol. 1*, pp. 697-812. Amsterdam: North Holland.
- Dolton, Peter, Oscar D. Marcenaro-Gutierrez (2011). If You Pay Peanuts Do You Get Monkeys? A Cross-Country Analysis of Teacher Pay and Pupil Performance. *Economic Policy* 26 (65): 5-55.
- Diem, Andrea, Stefan C. Wolter (2013). Who is Afraid of School Choice? *Swiss Journal of Sociology* 39 (1): 57-80.
- Garrizmann, Julian L. (2016). *The Political Economy of Higher Education Finance: The Politics of Tuition Fees and Subsidies in OECD Countries, 1945-2015*. Basingstoke: Palgrave Macmillan.
- Gingrich, Jane R. (2011). *Making Markets in the Welfare State: The Politics of Varying Market Reforms*. Cambridge, New York: Cambridge University Press.
- Glomm, Gerhard, B. Ravikumar, Ioana C. Schiopu (2011). The Political Economy of Education Funding. In: Eric A. Hanushek, Stephen Machin, Ludger Woessmann (eds.), *Handbook of the Economics of Education, Vol. 4*, pp. 615-680. Amsterdam: North Holland.
- Goerres, Achim, Markus Tepe (2010). Age-Based Self-Interest, Intergenerational Solidarity and the Welfare State: A Comparative Analysis of Older People's Attitudes Towards Public Childcare in 12 OECD Countries. *European Journal of Political Research* 49: 818-51.
- Gradstein, Mark, Moshe Justman, Volker Meier (2005). *The Political Economy of Education: Implications for Growth and Inequality*. Cambridge, MA: MIT Press.
- Hampf, Franziska, Ludger Woessmann (2016). Vocational vs. General Education and Employment over the Life-Cycle: New Evidence from PIAAC. CESifo Working Paper 6116. Munich: CESifo.
- Hanushek, Eric A. (2003). The Failure of Input-Based Schooling Policies. *Economic Journal* 113 (485): F64-F98.
- Hanushek, Eric A., Guido Schwerdt, Ludger Woessmann, Lei Zhang (2017). General Education, Vocational Education, and Labor-Market Outcomes over the Life-Cycle. *Journal of Human Resources* 52 (1), forthcoming.
- Hanushek, Eric A., Ludger Woessmann (2011). The Economics of International Differences in Educational Achievement. In: Eric A. Hanushek, Stephen Machin, Ludger

- Woessmann (eds.), *Handbook of the Economics of Education*, Vol. 3, pp. 89-200. Amsterdam: North Holland.
- Hanushek, Eric A., Ludger Woessmann (2015). *The Knowledge Capital of Nations: Education and the Economics of Growth*. Cambridge, MA: MIT Press.
- Henderson, Michael B., Philipp Lergetporer, Paul E. Peterson, Katharina Werner, Martin R. West, Ludger Woessmann (2015). Is Seeing Believing? How Americans and Germans Think About Their Schools. PEPG Working Papers Series 15-02. Cambridge, MA: Harvard University, Program on Education Policy and Governance.
- Hobolt, Sara Binzer, Robert Klemmensen (2005). Responsive Government? Public Opinion and Government Policy Preferences in Britain and Denmark" *Political Studies* 53: 379-402.
- Jackson, C. Kirabo, Rucker C. Johnson, Claudia Persico (2016). The Effects of School Spending on Educational and Economic Outcomes: Evidence from School Finance Reforms. *Quarterly Journal of Economics* 131 (1): 157-218.
- Jacobs, Lawrence R., Robert Y. Shapiro (2002). Politics and Policymaking in the Real World: Crafted Talk and the Loss of Democratic Responsiveness. In: Jeff Manza, Fay Lomax Cook, Benjamin I. Page (eds.), *Navigating Public Opinion: Polls, Policy, and the Future of American Democracy*, pp. 54-75. Oxford, New York: Oxford University Press.
- Kemp, Simon (2002). *Public Goods and Private Wants: A Psychological Approach to Government Spending*. Northampton, MA: Edward Edgar.
- Lergetporer, Philipp, Guido Schwerdt, Katharina Werner, Ludger Woessmann (2016). Information and Preferences for Public Spending: Evidence from Representative Survey Experiments. CESifo Working Paper 5938. Munich: CESifo.
- Lergetporer, Philipp, Ludger Woessmann (2017). The Political Economy of University Tuition Fees: Information Provision and Income Contingency in Representative Survey Experiments. Ifo Institute at the University of Munich, Mimeo.
- Martens, Kerstin, Dennis Niemann (2013). When Do Numbers Count? The Differential Impact of the PISA Rating and Ranking on Education Policy in Germany and the US. *German Politics* 22 (3): 314-332.
- Meltzer, Allan H., Scott F. Richard (1981). A Rational Theory of the Size of Government. *Journal of Political Economy* 89: 914-927.
- Moe, Terry M., Susanne Wiborg, eds. (2017). *The Comparative Politics of Education: Teacher Unions and Education Systems around the World*. Cambridge: Cambridge University Press, forthcoming.
- Murnane, Richard J., John B. Willett (2011). *Methods Matter: Improving Causal Inference in Educational and Social Science Research*. New York: Oxford University Press.
- OECD (2014). *Education at a Glance 2014: OECD Indicators*. Paris: Organisation for Economic Co-operation and Development.
- OECD (2015). *Education at a Glance 2015: OECD Indicators*. Paris: Organisation for Economic Co-operation and Development.
- Peterson, Paul E., Michael Henderson, Martin R. West (2014). *Teachers versus the Public: What Americans Think about Their Schools and How to Fix Them*. Washington, DC: Brookings Institution Press.

- Pritchett, Lant, Deon Filmer (1999). What Education Production Functions *Really* Show: A Positive Theory of Education Expenditures. *Economics of Education Review* 18 (2): 223-239.
- Schueler, Beth E., Martin R. West (2016). Sticker Shock: How Information Affects Citizen Support for Public School Funding. *Public Opinion Quarterly* 80 (1): 90-113.
- Soroka, Stuart N. Christopher Wlezien (2010). *Degrees of Democracy: Politics, Public Opinion, and Policy*. Cambridge, New York: Cambridge University Press.
- Stimson, James A., Michael B. MacKuen, Robert S. Erikson (1995). Dynamic Representation. *American Political Science Review* 89: 543-565.
- Svallfors, Stefan (2012). Welfare States and Welfare Attitudes. In: Stefan Svallfors (ed.), *Contested Welfare States: Welfare Attitudes in Europe and Beyond*, pp. 1-24. Stanford: Stanford University Press.
- Tepe, Markus, Pieter Vanhuyse (2010). Elderly Bias, New Social Risks and Social Spending: Change and Timing in Eight Programmes across Four Worlds of Welfare, 1980-2003. *Journal of European Social Policy* 20: 217-34.
- West, Martin R., Ludger Woessmann (2010). 'Every Catholic Child in a Catholic School': Historical Resistance to State Schooling, Contemporary Private Competition and Student Achievement across Countries. *Economic Journal* 120 (546): F229-F255.
- West, Martin R., Ludger Woessmann, Philipp Lergetporer, Katharina Werner (2016). How Information Affects Support for Education Spending: Evidence from Survey Experiments in Germany and the United States. NBER Working Paper 22808. Cambridge, MA: National Bureau of Economic Research.
- Woessmann, Ludger (2005). Educational Production in Europe. *Economic Policy* 20 (43): 446-504.
- Woessmann, Ludger (2007). *Letzte Chance für gute Schulen: Die 12 großen Irrtümer und was wir wirklich ändern müssen*. München: ZS Verlag Zabert Sandmann.
- Woessmann, Ludger, Philipp Lergetporer, Franziska Kugler, Katharina Werner (2014). Was die Deutschen über die Bildungspolitik denken: Ergebnisse des ersten ifo Bildungsbarometers. *ifo Schnelldienst* 67 (18):16-33.
- Woessmann, Ludger, Philipp Lergetporer, Franziska Kugler, Laura Oestreich, Katharina Werner (2015). Deutsche sind zu grundlegenden Bildungsreformen bereit: Ergebnisse des ifo Bildungsbarometers 2015. *ifo Schnelldienst* 68 (17): 29-50.
- Woessmann, Ludger, Philipp Lergetporer, Franziska Kugler, Katharina Werner (2016a). Denken Lehrkräfte anders über die Bildungspolitik als die Gesamtbevölkerung? Ergebnisse des ifo Bildungsbarometers 2016. *ifo Schnelldienst* 69 (17): 19-34.
- Woessmann, Ludger, Philipp Lergetporer, Franziska Kugler, Katharina Werner (2016b). Bildungsmaßnahmen zur Integration der Flüchtlinge: Was die Deutschen befürworten. *ifo Schnelldienst* 69 (17): 35-43.
- Woessmann, Ludger, Elke Luedemann, Gabriela Schuetz, Martin R. West (2009). *School Accountability, Autonomy, and Choice around the World*. Cheltenham, UK: Edward Elgar.
- Woessmann, Ludger, Martin R. West (2006). Class-Size Effects in School Systems around the World: Evidence from between-Grade Variation in TIMSS. *European Economic Review* 50 (3): 695-736.

## EENEE Analytical Reports

28	Marius Busemeyer Philipp Lergetporer Ludger Woessmann	Public opinion and the acceptance and feasibility of educational reforms
27	Maria De Paola Giorgio Brunello	Education as a tool for the economic integration of migrants
26	Daniel Münich Steven Rivkin	Analysis of incentives to raise the quality of instruction
25	Elena Del Rey Ioana Schiopu	Student Debt in Selected Countries
24	Maria Knoth Humlum Nina Smith	The impact of school size and school consolidations on quality and equity in education
23	Torberg Falch Constantin Mang	Innovations in education for better skills and higher employability
22	Francis Kramarz Martina Viarengo	Using Education and Training to Prevent and Combat Youth Unemployment
21	Jo Blanden Sandra McNally	Reducing Inequality in Education and Skills: Implications for Economic Growth
20	Ludger Woessmann	The Economic Case for Education
19	Daniel Münich George Psacharopoulos	Mechanisms and methods for cost-benefit / cost-effectiveness analysis of specific education programmes
18	Reinhilde Veugelers Elena Del Rey	The contribution of universities to innovation, (regional) growth and employment
17	Giorgio Brunello Maria de Paola	The costs of early school leaving in Europe
16	Samuel Muehlemann Stefan C. Wolter	Return on investment of apprenticeship systems for enterprises: Evidence from cost-benefit analyses
15	Hessel Oosterbeek	The Financing of Adult Learning
14	Susanne Link	Developing key skills: What can we learn from various national approaches?
13	Marc Piopiunik Paul Ryan	Improving the transition between education/training and the labour market: What can we learn from various national approaches?

12	Daniel Münich Erik Plug George Psacharopoulos Martin Schlotter	Equity in and through Education and Training: Indicators and Priorities
11	Adrien Bouguen Marc Gurgand	Randomized Controlled Experiments in Education
10	Torberg Falch Hessel Oosterbeek	Financing lifelong learning: Funding mechanisms in education and training
9	Reinhilde Veugelers	A Policy Agenda for Improving Access to Higher Education in the EU
8	Giorgio Brunello Martin Schlotter	Non Cognitive Skills and Personality Traits: Labour Market Relevance and their Development in E&T Systems
7	Eric A. Hanushek Ludger Woessmann	The Cost of Low Educational Achievement in the European Union
6	George Psacharopoulos Martin Schlotter	Skills for Employability, Economic Growth and Innovation: Monitoring the Relevance of Education and Training Systems
5	Martin Schlotter Guido Schwerdt Ludger Woessmann	Methods for Causal Evaluation of Education Policies and Practices: An Econometric Toolbox
4	Martin Schlotter	Origins and Consequences of Changes in Labour Market Skill Needs
3	Martin Schlotter Guido Schwerdt Ludger Woessmann	The Future of European Education and Training Systems: Key Challenges and their Implications
2	George Psacharopoulos	The Costs of School Failure – A Feasibility Study
1	Ludger Woessmann Gabriela Schuetz	Efficiency and Equity in European Education and Training Systems

NC-02-16-998-EN-N



Publications Office

doi: 10.2766/028567  
ISBN : 978-92-79-61971-7