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WORKING PAPER
No. 21/08
September 2021

University of Antwerp
Herman Deleeck Centre for Social Policy
https://www.uantwerpen.be/en/research-groups/csb/.

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Introduction[1]

This project aims to contribute to the development of indicators that assess the accessibility of publicly provided or subsidized services. Studies have shown that government spending on essential goods and services (such as health care and education) has an important impact on the living standard of households (Aaberge et al., 2017; Verbist & Matsaganis, 2014). However, the majority of social policy and poverty research focuses mainly on levels and distribution of cash income, whilst disregarding variations in the accessibility of publicly provided or subsidized services across EU member states. As a result, critical comparative information on this dimension is currently lacking, creating a blind spot for policy makers and researchers across Europe. Therefore, with this pilot study we add new information on the accessibility of compulsory education in Europe, a topic that stands out for lacking comparable accessibility indicators.

Accessibility is usually defined as a multi-dimensional concept comprising different aspects such as availability, (spatial) accessibility, affordability, usefulness, comprehensibility and quality (see e.g. Eurofound, 2017; Gambaro & Stewart, 2014; Peters et al., 2008; Roose & De Bie, 2003; Vandenbroeck & Lazzari, 2014). In this study, we focus on the affordability dimension of accessibility. Education is a key institution to enhance human development and social cohesion. If organised in an inclusive, high-quality and equitable manner, it has the potential to reduce poverty and foster equal opportunities (OECD, 2019; UNESCO, 2020). In studies looking at the distribution of benefits in-kind, compulsory education seems to reach low-income households relatively more compared to other public services (Verbist & Matsaganis, 2014). However, these studies usually focus just on the level of government spending on education, which depends among others also on the demographic structure of the population. While these studies reveal how public expenditures are distributed across the population, they do not directly provide information about the affordability of education

[1] We are grateful to all national experts who filled out the questionnaires and provided data and information on the cost of compulsory education in their country (See Annex 1). These include Jolien De Norre and Nele Havermans (Belgium), Eva Abramuszkinová Pavlíková (Czech Republic), Zsuzsanna Soós-Vercseg (Hungary), Lauri Mäkinen (Finland), Paolo Barabanti (Italy), Paul van der Werve (the Netherlands), Jolanta Perek-Białas and Natalia Gromek (Poland), José António Pereirinha and Elvira Pereira (Portugal), Maria Forslund (Sweden) and Kate Anstey (UK). Furthermore, we would like to thank Karen Hermans for computing the indicators for Figure 4. In addition, we are grateful to Anne-Catherine Guio for sharing the results of their study on the burden of school costs and related policies within the framework of the EU Feasibility Study for a Child Guarantee (FSCG) (see Guio et al., 2021). This study has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 730998. We are solely responsible for any remaining errors.

for households. Therefore, there is a need for more direct comparable indicators which assess the cost of accessing education for households with varying characteristics and needs.

There are a few comparable datasets on education in Europe, besides public expenditures, they give insight into *availability* and *quality* through indicators on enrolment (e.g. UNESCO-UIS, OECD) and educational outcomes (e.g. PISA). Eurydice, a network which brings together evidence on education in Europe, collects information on different structural and organizational aspects of educational systems across Europe. However, there is a lack of cross-nationally comparable information on the *affordability* of compulsory education for households. We define affordability of essential goods and services as 'the ability of households to afford a specific good or service without being forced to under-consume other essential goods and services' (cf. Heylen & Haffner, 2013; Vanhille et al., 2018). The key ingredients that determine affordability then are: (1) the cost of accessing the good or service under consideration; (2) the cost of accessing other essential goods and services; (3) the financial means available to individuals and households. In this report, we focus only on the first ingredient with regard to education. At the same time, we take a broad perspective on the out-of-pocket costs of education, including not only registration fees, but also other costs that are directly associated with participating in primary and secondary education. This is important, given that while access to compulsory education is free of charge in most European countries, participating in primary and secondary education is associated with various other school-related costs (see also Frazer et al., 2020; Guio et al., 2021). As a result on average, about one fifth of households with dependent children living in the EU report having great or moderate difficulties with paying for formal education (Eurostat, 2016). The greatest difficulties are reported in Southern and Eastern European countries, with up to 65.2% of households in Greece reporting difficulties with meeting the cost of formal education. Although the problem is smaller in Western and Northern Europe, a sizeable share of households mention struggling greatly or moderately with the costs of education, reaching 16.5% in Belgium and 24.8% in the UK (Eurostat, 2016).

Only very few countries collect systematically and in a sufficiently detailed manner the cost of accessing education, and comparable indicators are lacking. Hence, more research is required in order to understand the determinants driving these affordability problems. In this article we provide a framework which categorizes the types of education-related costs that households often have to face, making a tentative distinction between costs that can be considered 'compulsory', 'hardly avoidable' and 'optional'. This framework can be used to collect information on the cost of education in a more systematic manner both within individual countries, and across countries. Furthermore, we provide an overview of the variation in policy, school, and socio-demographic factors that determine these costs. While doing so, we pay particular attention to cost-compensations and cost reductions to which low-income households may be eligible. This helps to gain more insight into the relevant dimensions to take into account when measuring the cost of education in a comparable

manner, and also provides a toolkit on which governments and educational institutions could draw for designing a more accessible school system.

We illustrate the relevance of our framework for a selection of 10 European countries, for which we collected new data in 2020. The data presented in this paper come primarily from three types of sources: the EU-SILC data are used to provide some contextual information, reference budgets data on the cost of education collected in a previous study (Goedemé, Storms, Stockman, et al., 2015) and a new expert survey carried out in 2020, which is the main source for this study. Apart from providing a new classification of school-related costs, the main determinants of these costs, and an overview of policies that are put in place to lower these costs for low-income households, we also evaluate the effectiveness of using an expert survey to collect information on these issues, as well as to create comparable indicators of school-related costs.

We find significant gaps in the literature and both national and comparative datasets on the cost and affordability of compulsory education in Europe. In particular, there is a lack of transparency on actual school bills and their variability between and within countries. Focusing only on legal cost regulations neglects the large share of costs that might not be compulsory but are nevertheless essential to participate adequately in primary and secondary education. In this paper, we suggest a normative approach consulting experts, official guidelines and citizens to develop a comparable framework that classifies types and determinants of school costs and related policies. In order to assess the actual level of costs and how these differ between and within countries, we strongly argue in favour of complementing this normative approach with a high-quality European school cost monitor survey.

The paper is structured as follows: we start with describing the method we have used in order to assess the classification and determinants of school costs. In the results section, we will first explore existing comparative data on the cost of compulsory education in Europe as well as give an overview of data availability within the countries under study. In a next step we will provide an overview of the main components that determine the cost of participating in primary and secondary education in the ten different countries, while distinguishing between compulsory, hardly avoidable and optional costs. Subsequently, we look at the factors that determine within-country variation in the out-of-pocket costs that households face. Finally, we map the policies that exist to reduce school costs in the different countries. We end this paper with lessons learned for future data collection and conclusions.

1. Method

In this paper, we aim to gain more insight into the direct necessary out-of-pocket costs that households face to let their children access primary and secondary education. Rather than providing a detailed comparative analysis of the level of education-related expenses, this paper aims to gain more insight into the relevant dimensions to take into account when measuring and monitoring the affordability of education across Europe. More in particular, the objective of this study is fourfold:

1. Exploring the availability of high quality data regarding school-related costs and expenditures, and identifying key data gaps.
2. Documenting key determinants of school-related out-of-of pocket costs, in particular for low-income families, and gaining more insight into how these determinants vary within and between countries.
3. Assessing the possibilities and requirements for developing comparable indicators of the out-of-pocket costs for accessing primary and secondary education.
4. Evaluating the usefulness and limitations of an expert survey to collect more information on these issues.

As regards the third objective, in contrast to traditional expenditure-based indicators of affordability, we also take a normative approach to affordability by focusing on what children need at the minimum to be able to participate adequately in compulsory education. Although they have their own limitations, needs-based indicators have the advantage of not being determined by individual preferences, while the threshold of what is considered essential is not defined by budget constraints (Heylen & Haffner, 2013; Vanhille et al., 2018). This normative approach is inspired by reference budgets research. Reference budgets are priced baskets of goods and services that illustrate what specific household types need in order to attain a certain living standard (Goedemé, Storms, Penne, et al., 2015). In previous research, reference budgets were used to develop needs-based indicators in order to measure the affordability of housing (Haffner & Heylen, 2011; Winters et al., 2018), water (Vanhille et al., 2018), a healthy diet (Penne & Goedemé, 2021), and child-specific needs (Penne, Hufkens, et al., 2020). In an attempt to develop cross-nationally comparable reference budgets in six European countries, we included a first approximation of the essential costs to attend primary and secondary education (Goedemé, Storms, Stockman, et al., 2015). By means of expert consultations in 10 European Welfare states, we explore options for identifying more detailed patterns of the private expenses that households have to make to provide their children with compulsory education across Europe.

First, we explore the available data for gaining more insight into the cost of compulsory education in Europe, and highlight the limitations of these data. More in particular, we build on the 2016 ad-hoc module on services in EU-SILC, the 2010 Household Budget Survey data (the latest year available) and previous reference budgets research (Goedemé, Storms, Penne, et al., 2015) to explore the possibilities provided by currently available data. In the

subsequent parts of the analysis, we build on the expert survey that was carried out in the context of InGRID2.

From April to October 2020, we have organised an expert survey on the (determinants of) out-of-pocket costs for compulsory education, based on detailed questionnaires (see Annex 2). The questionnaires have been completed by experts in 10 different European countries: Belgium (Flanders), Czech-Republic, Finland, Hungary, Italy, Netherlands, Poland, Portugal, Sweden and the UK (Great Britain) (see Annex 1 for a list of national experts and their affiliations). The national experts have been recruited mainly through the European Platform on Reference Budgets, and were selected based on their knowledge of the national education system and related policies, or more broadly on their experience with studying the cost to access essential goods and services in their country. The experts were asked to involve the ministry of Education if possible, referring to a report by Eurydice for a list of contact persons (Eurydice, 2020). Throughout the questionnaire, we requested to provide full details on the sources consulted. After analysis, the national experts were asked to double check the results and comparisons as they are presented in this paper. Findings were also reviewed in the light of the parallel study on school costs as part of the European Feasibility Study for a Child Guarantee (Guio et al., 2021).

In this study, we did not specifically focus on the impact of the COVID-crisis on essential school costs. In the expert questionnaires we did not ask about potentially new or exceptional costs in relation to forced home-schooling, and we do not expect them to be reflected in the data included in this study. Nevertheless, based on a recent report of Eurochild (2020), we can assume that home schooling increased in particular the need for computers, access to internet (see section 2.3.) and technical skills. It would be interesting to study this in more detail in the future. Regarding the course of our project, the COVID-crisis did affect the timing of our survey. In various countries, schools temporarily had to close their doors, which is why we extended our first deadline of June 2020 to October 2020. In this way, all national experts were able to consult the necessary public servants and school boards.

The set-up of the expert questionnaire can be found in Annex 2 of this report. The questionnaire consists of two main parts:

(1) The first part contains seven open-ended questions that focus primarily on data availability, legal regulations and general determinants of the within-country variations in out-of-pocket costs to attend primary and secondary public education. Additionally, this part explores the existing policy programs to reduce school-related expenses for particular groups and to enhance the accessibility of education for vulnerable families. Furthermore, some contextual information is collected regarding out-of-school-care and the most common means of transportation to school.

(2) The second part makes use of the hypothetical household simulation technique to gauge the out-of-pocket costs of school-related items in public schools[2]. The hypothetical types and the related assumptions were described in detail in an instructional part provided to the experts (cf. Annex 2). The cases concern a child of about 10 years old attending primary education and a child of about 14 years old attending (presumably) general secondary education. They have no specific health problems or disabilities, live in the capital city and are only child, hence with no ability to re-use materials of their siblings. Furthermore, we assumed that both children are attending a *publicly funded* school, which we defined as 'schools that are fully or partly subsidized by the government and subject to government regulation'. The experts were asked to describe the type of school that this would typically be in their capital city.

In order to estimate the different school-related out-of-pocket costs, the use of survey data was stimulated whenever possible. If no such data were available, the experts were instructed to contact five schools to ask for the typical amounts that someone would pay and calculate the average. This method was followed by Hungary, Italy and Poland. When documenting the out-of-pocket costs, the experts aimed to focus on what is minimally required to participate adequately in society, i.e. what schools expect their pupils to pay for. Annex 3 shows the level of out-of-pocket costs for various categories of necessities as filled out by the national experts in the 10 different countries. Prices refer to school year 2019-2020 (or most recent available). Due to a lack of high-quality data in most countries, the differences in types of information sources consulted (e.g. legal documents vs. representative survey data vs. own small-scale survey) and the variety of interpretations of what is covered by certain expense categories (e.g. compulsory school and text books excluding vs. including exercise books and additional copies), the exact levels of costs are not cross-nationally comparable. Hence, in the analysis, we do not use this information to compare school bills across countries, but rather to identify the most important categories and determinants of the cost of education and to make a distinction between items that are free, compulsory, hardly avoidable, and optional.

[2] Please note that with public schools we refer to schools organized and subsidized by state actors (i.e. state schools in a UK context), not to the fee-charging 'public schools' in the UK.

2. Results

In what follows, we organize our findings across the following topics: (1) existing comparative data; (2) data availability in individual countries; (3) a categorization of components that together comprise relevant school-related costs; (4) determinants of within-country variations in school-related costs; (5) policies that aim to increase the affordability of compulsory education for low-income families.

2.1. Existing comparative data on the cost of compulsory education

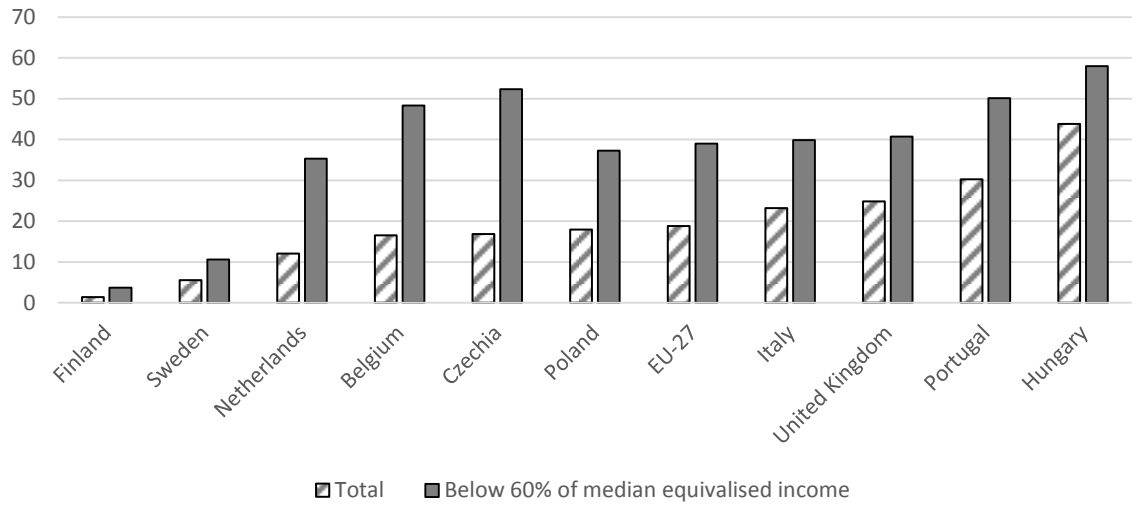
We discuss first EU-SILC, then Household Budget Survey data and subsequently reference budgets research.

EU-SILC 2016

The European Statistics on Income and Living Conditions (EU-SILC) is a yearly household survey which contains detailed information on disposable incomes and living conditions for representative samples of private households in each EU member state (See Atkinson et al., 2017 for an introduction to the survey data). EU-SILC 2016 includes an ad-hoc module on the access to services complementing the permanent variables with specific information on the access to childcare, health care and education (Eurostat, 2018). For the purpose of this paper, this section takes a closer look at a few variables focusing on the cost and affordability of formal education in Europe.

We start with *difficulties to pay for formal education* which is used as an indicator to assess the affordability of education in the different member states. Figure 1 shows the percentage of households having great or moderate difficulties to pay for formal education in the countries under study. In 2016, on average, almost 1 out of 5 households with dependent children in the EU has great or moderate difficulties to pay for formal education. The indicator shows that great differences exist between countries. While the percentage of households facing affordability problems is highest in Hungary (more than 40%), in Finland less than 2% of the households faces difficulties to pay for formal education. Secondly, we observe that households with an income below the poverty line (i.e. lower than 60% of median disposable household income) are substantially more confronted with affordability problems than other households. This is despite the existence of various policies supporting low-income families for bearing the cost of education, as will be shown in section 2.5.

Figure 1: Households with dependent children with great or moderate difficulties to pay for formal education, EU-SILC 2016

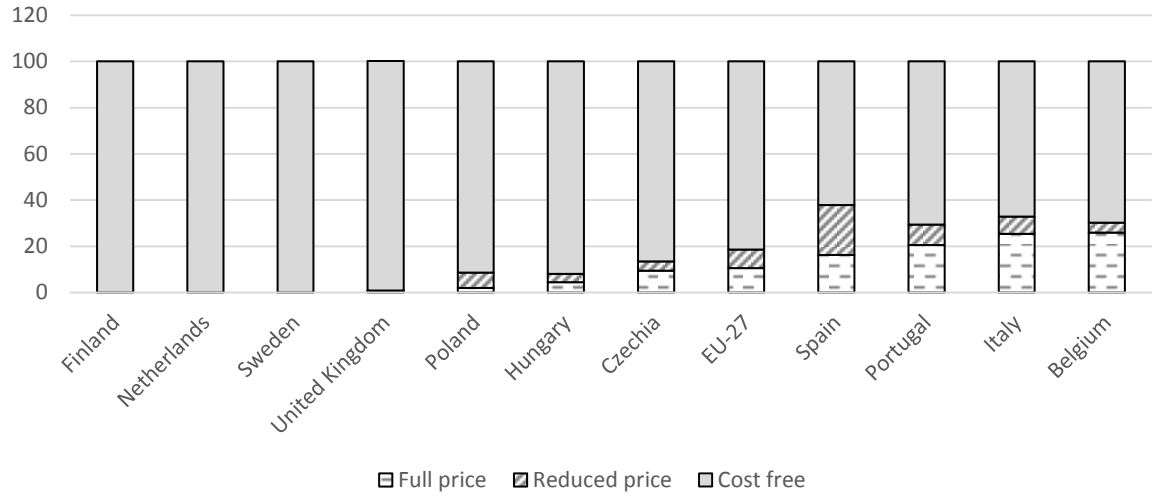


Source: Eurostat online database, ILC_ATS07.

The ad-hoc module also includes an indicator that directly measures the percentage of persons paying tuition fees. The figures below show the results of this indicator for the ten countries under study for the age group 6 to 12 years old, generally representing children in primary school (Figure 2), and for the age group 13 to 16 years old, usually corresponding to lower secondary education (Figure 3). Across Europe, the majority of persons indicates that tuition fees are absent. In Finland, Sweden and the Netherlands nobody pays tuition fees. However, according to this indicator, in Spain, Portugal, Italy and Belgium a significant part of pupils in compulsory education pays full or reduced tuition fees. In the age group 6 to 12 years old, one fourth of the persons in Italy and Belgium seems to pay a full price for tuition fees. For children between 13 and 16 years old, the percentages of persons paying a full price even climb to 38% and 47% in Belgium, respectively Italy. This is remarkable since we know from our study that formal attendance or registration in public compulsory education is free of charge in all countries included in this study. In other words, it is not clear what is understood by *tuition fees* in the different countries: what type of contributions are included? Furthermore, the concept of *formal education*[3] remains somewhat ambiguous, potentially including some specific types of private institutions. This lack of transparency is problematic for analysing and comparing actual fees across and within countries. For policy makers, this type of indicator is insufficiently informative to develop and monitor policies aimed to increase accessibility and affordability of compulsory education.

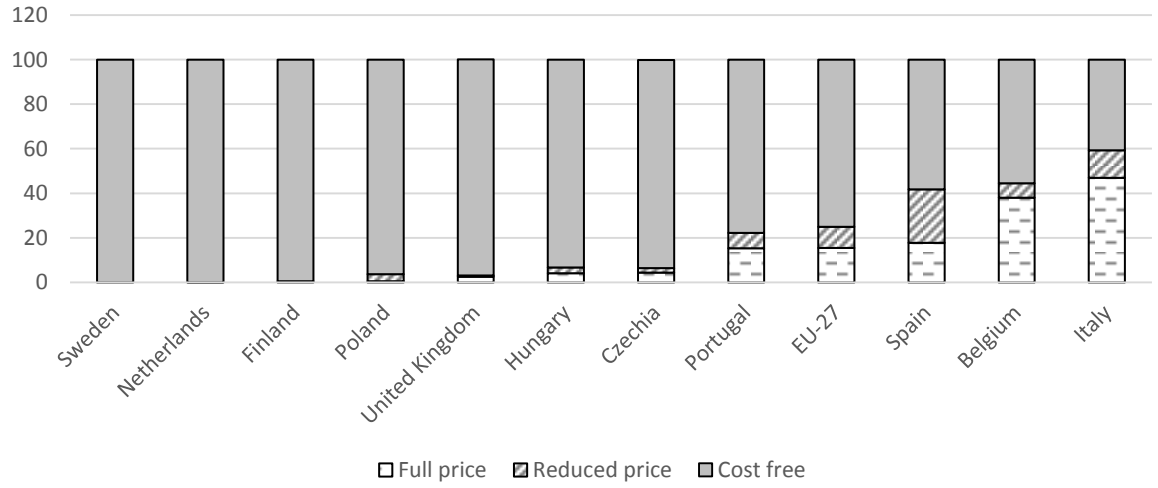
[3] Formal education is defined as "education provided in the system of schools, colleges, universities and other formal educational institutions. Education that is institutionalised, intentional and planned through public organizations and recognised private bodies and – in their totality – constitute the formal education system of a country." (cf. Eurostat, 2017: 353)

Figure 2: Percentage of persons paying tuition fees from 6 to 12 years old, EU-SILC 2016



Source: Eurostat database, ILC_ATS05. EU-SILC, 2016.

Figure 3: Percentage of persons paying tuition fees from 13 to 16 years old, EU-SILC 2016

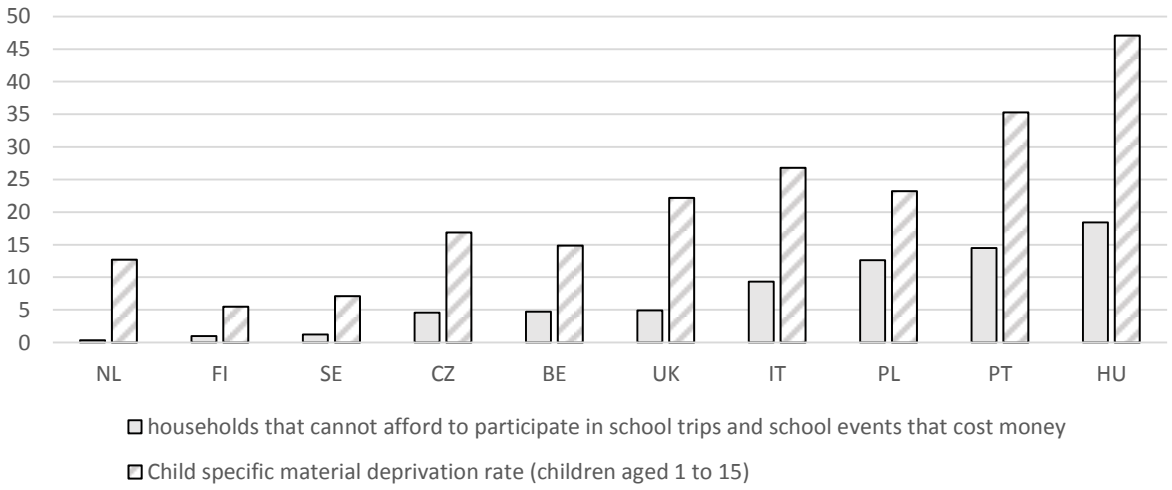


Source: Eurostat database, ILC_ATS05. EU-SILC 2016.

Finally, we zoom in on the affordability of school trips. In the ad-hoc thematic deprivation module in EU-SILC 2014, 13 child-specific items were included to assess the child-specific material deprivation rate (for more information see Guio et al., 2018). It includes one specific item that is of particular interest for the purpose of this paper, namely the affordability of paid school trips. We find that on average 14% of the households in the EU with at least one dependent child (aged 1 to 15) indicates that the child(ren) in the household cannot participate in paid school trips and events due to financial reasons. Figure 4 shows the indicator for the ten countries under study. Again the highest percentage of households with affordability problems can be found in Hungary (about 18%), followed by Poland and Portugal, while in Netherlands, Finland and Sweden less than 1.5% cannot afford paid school trips or activities. As the figure shows, overall, the ranking of countries

corresponds to the general child-specific material deprivation rate, being the lowest in Finland and the highest in Hungary. Although the indicator does not allow us to identify the root of the problem, it shows that financial barriers for low-income families to participate in school trips and activities are a reality in many countries.

Figure 4: The percentage of households with at least one child (aged 1 to 15 years) who cannot afford participation in school trips and school events that cost money, EU-SILC 2014.



***Source**: EU-SILC 2014 UDB, computations by Karen Hermans.*

The above indicators reveal that, despite being heavily subsidized or provided by the government, parents generally have to bear part of the school bill and there is a clear risk of affordability problems to access education in various member states. However, these indicators do not inform us about the level of costs nor about the potential reasons for affordability problems in the different countries. For instance, affordability problems could be determined by general income levels, but also by the price, type and number of school necessities and by the extent to which these are compulsory or socially expected, as well as by other excessive costs of essential goods and services (e.g. housing).

Household Budget Survey

An obvious source for information on the cost of education would be the Household Budget Survey. This survey collects for a random sample of households extensive information on consumption expenditures. Although Household Budget Surveys are carried out in all EU Member States, they are made available only every five years. The latest microdata files available for academic research date back to 2010. Furthermore, the Household Budget Survey data have a very low degree of harmonisation.

There is a separate COICOP code for education (code 10). This category of expenses covers education services, making a distinction between various stages of formal education (e.g. early childhood, primary, secondary, …) that lead to a formal degree, certificate or diploma. The types of expenses explicitly included are (Department of Economic and Social Affairs,

2018): admission, registration, and tuition fees as well as capital assessment fees; camps and field trips that are part of the normal school programme (including transport and accommodation); course fees, diploma fees, examination fees, graduation fees; and laboratory fees and physical education fees.

This category of expenditures also explicitly excludes several types of school-related expenses: school uniforms (classified under code 03.1.2.4); education support services, such as health-care services (classified under code 06); transport services (e.g. to and from school), except in the case of excursions which are part of the normal school programme (classified under 07.3.2.3); text books and academic journals (classified under 09.7.1.1); stationery (classified under 09.7.4.0); catering services by canteens, cafeterias of universities, schools, and kindergartens (classified under 11.1.2.1); and accommodation services (classified under 11.2.0.3). Other items that may be school-related, such as pocket calculators and IT materials are generally classified under broader headings without reference to education. If expenses are correctly classified, and the data are available at a sufficiently detailed level, this could go some way in identifying school-related expenses.

Yet, there are some important limitations to the use of Household Budget Survey data for our purposes:

1. The purpose of expenses or purchases is not always clearly requested in the questionnaire, and it may be difficult to assign each purchase correctly to detailed categories by those processing the data. While some expenses are clearly school-related (e.g. school uniforms, text books) others may or may not be related to school (e.g. the purchase of stationary). This makes it difficult to judge which expenditures are directly related to participation in compulsory education.
2. The expenditures cannot be traced back to individual persons. While it may be possible to 'guess' for whom expenditures were made, or use statistical modelling, there are strong limitations to evaluating the education-related expenses at a detailed level for individual household members, given the uncertainties surrounding assigning detailed expenses to individual household members.
3. There is usually no information on the type of education and school that children attend, let alone an (anonymous) identifier which would allow to assess between-school variation in school-related costs (sample designs may also not be fit for the latter purpose). This limits the possibilities for assessing the determinants of school-related costs, including the type of education that children attend, even if purchases could be traced back to individual persons.
4. There is no information about the necessity of items for participation in compulsory education. Although this may again be obvious for some expenses, this is far from obvious for others. The level of expenses by households is not only a function of need, but also of preference and the budget constraints that households face.

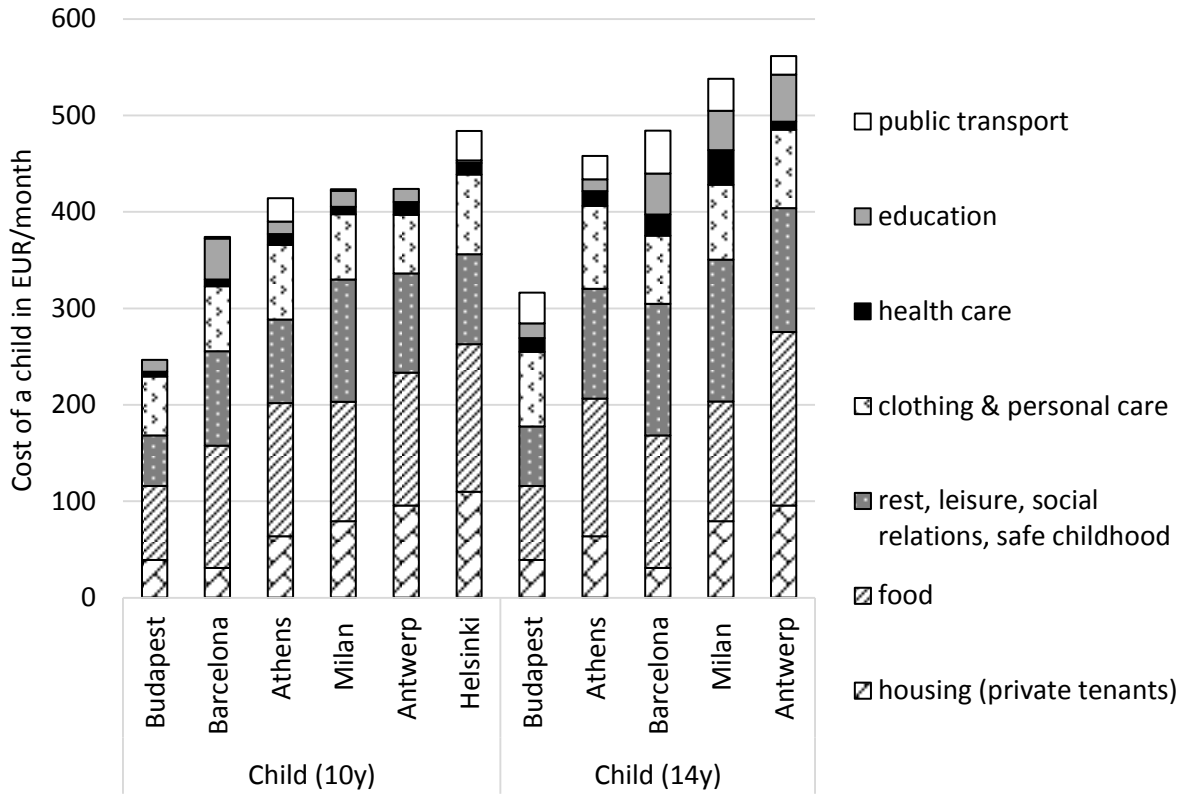
In other words, while household budget survey data may provide some information on school-related household expenses, they are strongly limited for generating comparable indicators of the affordability of education across countries.

Previous reference budgets research

As discussed in the method section, in the past, we did an attempt to develop cross-nationally comparable reference budgets to illustrate what specific family types need at the minimum to participate adequately in six large European cities (Antwerp, Athens, Barcelona, Budapest, Helsinki, Milan) (Goedemé, Storms, Stockman, et al., 2015). Based on a common theoretical and methodological framework, needs or 'baskets' were identified (cf. Doyal & Gough, 1991): adequate food, clothing, housing, personal care and health care, safety in childhood, mobility, rest and leisure and maintaining social relations. These needs were translated into concrete lists of goods and services based on a variety of information sources including (inter)national guidelines, national and domain experts, scientific literature, focus group discussions and survey data. In 2014, these lists of goods and services were priced at low but acceptable prices in well-spread retailers in each city. Because needs vary widely across households, the reference budgets are developed for a limited number of well-defined household types: a single person or couple without or with one or two children of which the adults are at working age while the children are 6-11 years old and 12-17 years old. The aim was to illustrate a reference bottom line for social participation, assuming that all household members are well-informed, self-reliant, in good health and making use of accessible public services. In other words, in real-life many families will need additional resources in order to be able to participate adequately in society (Goedemé, Storms, Stockman, et al., 2015).

By subtracting the budget of a family without children from the budget of a family with children while adhering to similar 'preferences' (e.g. in terms of a healthy lifestyle, use of public transport, types of products bought), we were able to calculate the needs-based cost of a child of about 10 or 14 years old in six different EU cities (see Penne, Hufkens, et al., 2020). Figure 5 shows the result of this exercise expressed in EUR/month. Firstly, we can see that the cost that parents need to make to fulfil the essential needs of a child differ across ages and countries. Costs are the lowest in Budapest and the highest in Helsinki and in Antwerp, while increasing with age in all countries.

Figure 5 The essential cost of a child of 10 or 14 years old, renting a dwelling at the private market, EUR per month, 2014



***Source**:* Penne et al. 2020

Note: for Budapest, the exchange rate used is 300 HUF to the euro. Data on a child of 14 years old are missing for Finland

Secondly, this exercise includes a first approximation of the essential out-of-pocket costs that parents have to make to allow their children (of 6 to 17 years old, in a good health) to access publicly provided or subsidized services such as health care, public transport and education services. From this we learn two important lessons: (1) The relative costs to access public services are in all countries rather low compared to other child-specific costs, reflecting large public efforts. Moreover, the figure does not take the additional means-tested cost reductions for low income families into account (see section 2.5.) ; (2) The out-of-pocket costs to access public services vary largely across countries depending on the institutional context. For instance, in Helsinki, the out-of-pocket cost to access primary education is significantly lower compared to the other cities. This partly reflects high government spending on education in Finland, but the story is more complex than that. For instance, Finland and Belgium show both high levels of public expenditure on education, while the direct school costs for families seem to be considerably higher in Belgium compared to Finland (see Penne, Hufkens, et al., 2020).

Despite interesting insights in the cost of public compulsory education in these countries, the reference budget approach has several limitations. School costs were calculated for a

limited number of family types living in the capital city based on limited and not comparable data sources. Except for Belgium (the Flemish region), there is no large-scale survey data on school costs available. Hence, the level of out-of-pocket costs to access compulsory education in the six cities should be rather seen as illustrative, especially given the large variation of costs across regions and households as we discuss in the following sections. In this paper we elaborate on this by exploring options for identifying more detailed patterns of the private expenses that households have to make to provide their children with compulsory education across Europe. In what follows, we will show the results from the expert consultations in 10 European welfare states, starting with mapping national data availability.

2.2. Data availability by country

This explorative study confirms the major lack of high-quality and comparable data on the out-of-pocket costs to access compulsory education across as well as within European countries. Within many countries, the only available information sources are household budget survey data, legislation and government documents. However, from the expert consultations we learn that there is often a big gap between legislation and actual practices. Legal documents always leave room for interpretation, providing a great deal of discretion to local policy makers, school groups and school boards when implementing the rules. Hence, in order to get more insight into the actual costs that parents face, there is a need for representative and regularly collected survey data.

In all European countries there is national Household Budget Survey data available, which provides some insight into the average household expenses on education. However, as mentioned above, this type of data faces several limitations (Department of Economic and Social Affairs, 2018).

In some countries these data are exploited to generate some insight in school-related costs, sometimes by adding information from other surveys. For instance, in Hungary, the Central Statistical Office reports yearly on the average expenses by the start of the school year, including the share of several cost components. In Portugal, there is in addition to the Household Budget Survey data an annual representative survey conducted by the Observatório Cetelem (2019) inquiring the total expected costs to be paid by the pupils´ parents each academic year. Also in Poland there exist various studies (Santander Consumer Bank, 2019; CBOS, 2018; Kłobuszewska et al., 2013) conducting some household level analyses on actual school expenditures. Nevertheless, these data sources still lack structural and detailed information on the minimum level of and variation in out-of-pocket costs for different school-related necessities.

In the Czech Republic and Great Britain there are a few more detailed surveys available. In the Czech Republic there is the one-time study by Provident Financial (2018) and the

research by economist Lukáš Kovada (2020) looking at the out-of-pocket costs of a list of school necessities for children in primary school. However, the methods used in these studies are not clear and the results differ largely between both. In Great Britain there are two small-scale studies based on survey data collected at a single point in time: the local study by Dosa (2019) on the expenses of parents for different education-related necessities in secondary schools in Oxford, and the study of The Children's Society (2020) on the out-of-pocket cost of school uniforms. In contrast, in the Netherlands (Suijkerbuijk et al., 2019) and Belgium (Flanders) (De Leebeeck et al., 2020; De Norre et al., 2019; Havermans et al., 2019) there exist survey data on the level and determinants of school costs. They both conduct a so-called 'School costs monitor' on the out-of-pocket costs of compulsory education, by interviewing a random sample of parents as well as headteachers or school directors. More details about the available data and studies for each of the participating countries is provided in the table below.

Table 1 National data sources related to the out-of-pocket costs of compulsory education

BE (FL)	• *Studiekostenmonitor (De Leebeeck et al., 2020; De Norre et al., 2019; Havermans et al., 2019):* survey data for Flanders (2006-2007 and 2017-2018) carried out by Steunpunt Onderwijsonderzoek (HIVA-KUL) based on a two-stage sample including school directors and parents. • *Reference budget research (see e.g. Penne, Cornelis, et al., 2020; Storms, 2020; Storms & Bogaerts, 2012; Storms & Van den Bosch, 2009)*
CZ	• *Provident Financial (2018):* Survey on costs of school equipment for children in primary school. • *Study by Lukáš Kovada (2020):* Study on school expenses in the first year of primary school.
FI	• *Reference budget research (Lehtinen & Aalto, 2018)* • *Finnish National Agency for Education (Opetushallitus, 2018):* Report on school costs in higher secondary education.
HU	• *Hungarian Central Statistical Office (HCSO, 2019):* Yearly infographic showing the total average HH spending per pupil on the start of the school year with the relative share of the different components. The latest detailed publication dates from 2015 with average school expenditures per component (HCSO, 2016).
IT	*No data available (besides HBS data)*
NL	• *'Schoolkostenmonitor' (Suijkerbuijk et al., 2019):* Regularly conducted survey data about cost of compulsory education consulting parents and schools (Most recent report 2018/2019, next in 2021/2022). • *Reference budget research (Nibud, 1982-2021)*

PL	• *CBOS Report (2018)* Public Opinion Research Centre's report that yearly publishes expenditures on primary and secondary education • *Santander Consumer Bank's Report (2019)* Study on (the burden of) average private school expenses. • *Educational Research Institute Warsaw (Kłobuszewska et al., 2013)* Report on average private school expenses from preschool to secondary school. • *Study by Patryk Obarski (2020)* Small-scale price survey on the out-of-pocket cost of school books in 4 different stores.
PT	• *Observador Cetelem (2019):* Yearly study showing the type of items and average expected costs that parents with pupils (>5y) plan to pay each academic year • *Reference budget research (Pereirinha et al., 2020)*
SE	*No data available (besides HBS data)*
UK (GB)	• *'Cost of the school day' - Child Poverty Action Group (CPAG, 2020):* Project on financial barriers to education and good practices to reduce them. • *'Poverty proofing the school day' - Children North East (2021):* Project on financial barriers to education and good practices to reduce them. • *Annual Parent survey (Parentkind, 2019):* Yearly survey including parents' attitudes towards school costs and the most important out-of-pocket cost components. • *Study by Mariann Dosa (2019)* A small-scale, local study on private expenses for parents on different necessities in secondary schools (Oxford) • *The Wrong Blazer report - The Children's Society (2020):* Survey on the cost of school uniforms for parents. • *Reference budget research (Davis et al., 2020; Hirsch, 2020)*

Finally, in Belgium (Penne, Cornelis, et al., 2020; Storms, 2020; Storms & Bogaerts, 2012), Finland (Lehtinen & Aalto, 2018), the Netherlands (Nibud, 1982-2021), Portugal (Pereirinha et al., 2020) and the UK (Davis et al., 2020; Hirsch, 2020), there is up to date reference budgets research available, revealing the minimum costs that different household types have to pay in order to be able to participate adequately in society. As explained in the previous section, these reference budgets data allow to separate the minimum necessary cost of a child of different ages, including the out-of-pocket costs to access education. However, the results are not comparable across countries, since different methods are used. In Belgium and the Netherlands the education costs included in the reference budgets are largely based on the survey data mentioned above.

2.3. What components do the out-of-pocket costs of compulsory education consist of?

Based on the results from the questionnaires, this section and the next aim to give an overview of the determinants of the cost of education across European welfare states. As explained in method section 1, the exact level of out-of-pocket costs cannot be compared across countries (see Annex 3). However, this information has been used to identify the most important determinants of the cost of participating in primary and lower secondary education and to distinguish between items that are free, compulsory, hardly avoidable and optional. In this section we focus on the various cost components that can be distinguished across countries. In the next section, we will look at the factors that determine how these costs vary within countries.

Inspired by the school cost monitor studies in Flanders (De Leebeeck et al., 2020; De Norre et al., 2019; Havermans et al., 2019) and the Netherlands (Suijkerbuijk et al., 2019) we first identified the main categories of necessities that determine the out-of-pocket cost to access compulsory education for children without health problems or disabilities. Based on the results of our own data collection through the expert questionnaires, we validated and re-grouped these categories in order to provide an overview of items that are provided by the government and items that are charged to the parents in the different countries. This is shown in Table 2 were we made a distinction between costs that are 'free', 'compulsory', 'hardly avoidable' and 'optional'. Using this distinction allows us to uncover the so-called *hidden* school costs. Despite the fact that many education-related materials and activities are formally free of charge or not compulsory, parents can still be confronted with significant costs that they are expected to pay. The category 'hardly avoidable' costs aims to capture these kind of expenses. The underlying question is whether the children or parents are socially expected to have or to pay for a certain item and whether not having it prevents adequate educational participation. In contrast, the 'optional' category refers to two types of non-compulsory costs: costs related to *nice-to-haves* that are not minimally necessary for adequate educational participation, and, costs for goods and services that are for some hard-to-avoid while for others optional, depending on the situational context, such as the parents' working status and the home-to-school distance. The distinction between these categories was made by the authors of this report, and submitted to the national experts for confirmation. Ideally, this would be subject to more extensive research in all countries under consideration (e.g. by making use of focus group discussions). However, we are convinced that the discussion below offers a useful first attempt for further research in the future.

Formal attendance or registration in primary and secondary public schools is free of charge in all countries included in this study. In the Netherlands and Italy, a voluntary contribution system is in place depending on the budget capacity of the parents[4]. While registration fees

[4] Note from the Italian national expert, Paolo Barabanti, on the system of voluntary contributions in Italy: "During compulsory education, schools can ask parents for a non-mandatory contribution. It is up to the

may be zero, families are confronted with various education-related costs that are obligatory or hardly avoidable. We discuss first the costs related to primary education, and subsequently those related to secondary education.

In the 10 participating countries, compulsory school books are not charged in primary public education. In many cases, primary schools are even legally obliged to provide the necessary books free of charge. However, in Belgium, Czech Republic, Hungary and Italy, the experts reveal that fees can be asked for additional non-compulsory text books. In most countries, the exercise books, notebooks and additional prints are hardly avoidable (or even compulsory) costs that should be made for educational participation. Other course-related materials (e.g. writing material, ruler, glue, scissors, calculator,…) are compulsory out-of-pocket costs, except for Finland, Sweden and the Netherlands where these are (partly) provided by the school. In all countries, the necessary personal school equipment such as a case holder, school and gym bag as well as suitable sports clothing to participate in gym classes, are hardly avoidable items fully paid for by the parents. Additionally, in Great Britain, parents are in many schools faced with the cost of a compulsory school uniform. In Poland we have identified it as an optional cost since only 10% of the schools require a uniform.

IT material can be generally considered as an optional cost in primary education. In most countries, computers are available at school and pupils at this age are usually not expected yet to have their own computer or tablet at home in order to participate in education. However, the COVID-19 crisis introduced periods of part- or full-time home-schooling in many countries, which had an impact on the need for the appropriate IT-equipment at home. In this project, we cannot draw conclusions on the nature and extent of this pandemic-effect (see section 1), but it would be definitely worthwhile to study the long-term consequences on changing norms and expectations in this regard.

A cost component that largely determines the required school costs, although not always being mandatory, is the cost of extramuros school activities and trips. In all countries, except in Finland and Sweden, school trips are an additional cost to be covered by the pupil's family. In Great Britain and the Netherlands, schools usually work with voluntary contributions. In most countries, charged schooltrips are not compulsory but participation is in many cases socially expected, and obviously have a high social and educational value. The latter implies that from the normative perspective of 'adequate social participation', there is a strong case for considering these trips as essential or hardly avoidable rather than

autonomy of each school to propose a level of contribution, but parents remain free to give what they want. Despite not being mandatory, the voluntary fees provided by families are important to enrich school facilities. Moreover, many schools tend to use part of these resources to foster solidarity, to help vulnerable families who have difficulties to afford some school activities. For this reason, especially in upper secondary school, it is considered as an economic effort with a strong ethical and moral value. Families are expected to contribute, if they can afford it. School-principals usually highlight the importance of this contribution, but they can't oblige anyone and should emphasize that the fees are not mandatory. There can be no type of discrimination based on who pays these fees. Parents and teachers don't know who contributes or not."

optional. Children staying at home due to financial difficulties are partly excluded from educational activities, having not just educational, but also social and psychological implications.

The cost of school lunches is nowhere compulsory and can be considered optional for children that have the possibility to have lunch at home. However, in most countries, it is common to buy lunch at the school cantine making it rather a hard-to-avoid cost. In Belgium (Flanders) and the Netherlands it is more common to bring a home-prepared lunch box, but a fee is often asked for lunchtime supervision. In Sweden and Finland school lunch is fully subsidised by the government and provided for free for all primary school children. Also out-of-school care and transport to school are generally not freely available, but are not required by the school and depend largely on the household situation, hence we consider them as optional. Depending among others on the home-to-school distance and the parents' labour market position, for many parents these are in reality hardly avoidable costs.

Table 2 Identification of free, compulsory, hardly avoidable and optional out-of-pocket costs for goods and services that are essential to participate in primary education (child 10y) and lower general secondary education (child 14y) in 10 EU countries.

	registration	school books	exercise books & additional prints[(a)]	course material[(b)]	school equipment[(c)]	uniform	IT material	extramuros activities	supervision[(d)]	school lunch	out-of-school-care	transport to school
BE (FL)	0	3 - 1	2	1	2	n/a	3 - 2	2	3	3	3 - n/a	3
CZ	0	3	2	1	2	n/a	3 - 2	2	3	3	3 - n/a	3
FI	0	0	0	0	2	n/a	3 - 2	0	0	0	3 - n/a	3
HU	0	3	2	1	2	n/a	3 - 2	2	0	3	3 - n/a	3
IT	3	3 - 1	2	1	2	n/a	3 - 2	2	0	3	3 - n/a	3
NL	3	0	2	0	2	n/a	3 - 2	2	3	3	3 - n/a	3
PL	0	0 - 1	2	1	2	3	3 - 2	2	0	3	3 - n/a	3
PT	0	0	2	1	2	n/a	3 - 2	2	0	3	3 - n/a	3
SE	0	0	0	0	2	n/a	3 - 2	0	0	0	3 - n/a	3
UK (GB)	0	0	2	1	2	1	3 - 2	2	0	3	3 - n/a	3

Source: own interpretation of results from national expert questionnaires

Note: (0) free - (1) compulsory - (2) hardly avoidable - (3) optional – (n/a) not necessary or applicable for the majority of pupils. The grey numbers after the dashes indicate the value for lower secondary education when this differs from primary education.

(a) activity books to write in (for one-time use), including additional prints & copies

(b) writing material and stationery (e.g. files, ruler, glue, scissors, calculator,…)

(c) school bag, case holder, gym bag and gym clothes

(d) supervision during school hours (lunch or play time)

With respect to lower secondary education, we can identify similar cost components. The most important differences concern out-of-school care, IT equipment and school books. This is indicated in Table 2 using light grey numbering after the dashes. For the hypothetical case used in the expert questionnaire (about 14 years old), out-of-school care is usually no longer considered as a necessity. In contrast, the need for IT equipment increases with the age. National experts indicate that computers are usually available at schools, but in secondary education we would rather identify this as a hardly avoidable cost. More so than in primary education, not having access to a computer and internet at home can exclude students from adequate participation in education. As we discussed above, during the months of distance learning due to the COVID-19 crisis, the problem of digital exclusion and related inequalities became more than ever visible and pressing (Eurochild, 2020). A final difference is that in some countries (BE, IT and PL) the experts indicate that secondary schools ask formal payments for compulsory school books. In general, based on the results from the questionnaire (see Annex 3), we see that access to secondary school requires higher levels of out-of-pocket costs compared to primary schools, especially for categories such as school books, school trips and activities and IT material. The differences in type and level of costs become more apparent in upper secondary education, especially since in the majority of the countries under study (CZ, FI, HU, IT, SE, GB) upper secondary after the age of 15/16 is no longer (full-time) mandatory. However, costs required to participate in upper secondary education are not the focus of this study.

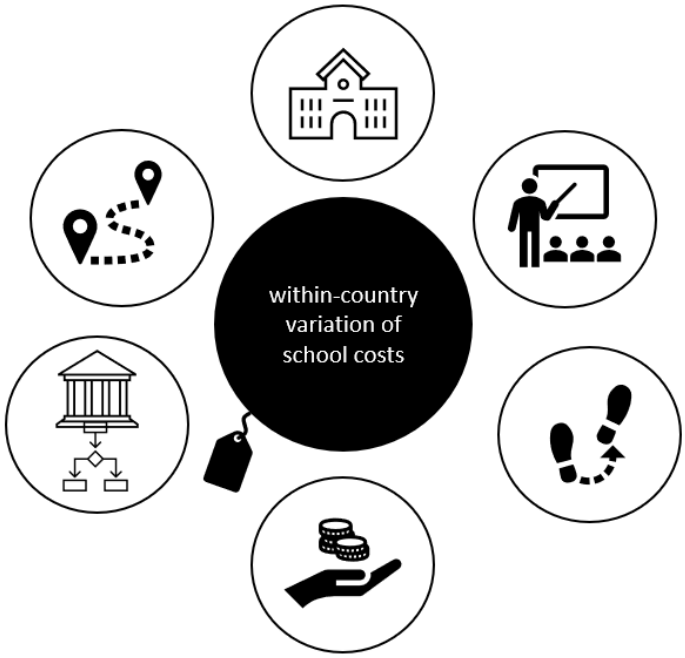
The results of this explorative study indicate that there are many school-related necessities apart from formal registration. It is not surprising to see that across countries similar items are considered essential or hardly avoidable to participate in education. However, we do notice differences in the degree to which some of these items are provided for by the school or government. While in nearly all countries registration fees are zero, 'voluntary' contributions are requested in Italy and the Netherlands. Also in relation to the other items, we observed differences between countries in the degree to which those were subsidised or provided for free by the school. Most notably, in Finland and Sweden a much broader group of items is provided for free by the government. Despite the fact that free participation in compulsory education is guaranteed by law in several other member states, our study shows that, especially with respect to extramuros school activities, and additional required materials such as IT, exercise books and school equipment, there is a widespread practice of 'hidden' school costs across Europe. Finally, it is noteworthy to say that, at least in principle, some costs can be avoided by parents, based on school choice. However, this choice is often restricted. For instance, in primary education in England some public schools require school uniforms while others do not, but often children can not register in a school outside their 'catchment area' (i.e. the neighbourhood a certain school serves). Similarly, in several cities in Belgium with a too high demand for some schools, distance to the school is an automatic determinant of school choice, as an algorithm defines the school in which parents should register their child, while school costs (e.g. for extramural activities) are known to vary

across schools. Also for practical reasons, parents are often constrained to a school in a certain location.

2.4. Which factors determine within-country variations in education costs?

In the previous section we have seen that overall similar components determine the out-of-pocket costs of compulsory education across European countries, although the extent to which they are freely provided shows cross-national differences. However, as we discussed in the first section, there is a lack of data on the exact amounts that parents are expected to pay. One of the reasons why this is very difficult to study, are the large differences in level of costs that exist within countries. Despite the universal free access to compulsory education across Europe, parents face different education-related costs within the same country depending on a variety of factors. In this section we describe the most important determinants of the within-country variation in the out-of-pocket cost of compulsory education for children without health problems or disabilities. Based on the information provided by the national experts, complemented by own research (e.g. on the structure of education in the different countries), we identify six determinants that matter in most of the countries: the extent of public funding, the region/municipality, the school (group), the type of educational programme, the year or grade of schooling and household income (see Figure 6).

Figure 6 The determinants of within-country variations in private school costs



The first important determinant of the within-country variation is the extent of **public versus private funding**. In Europe, compulsory education is generally publicly provided, with the exception of Belgium and the Netherlands where the majority of pupils goes to publicly subsidised

private schools (see also Eurydice, 2000). These schools are organised by private institutions but are equally subsidised by the government, hence, there are no significant differences in out-of-pocket costs. Private schools that receive no public funding generally charge tuition fees and are associated with higher out-of-pocket costs. However, in most EU member states only a very limited number of pupils attend private compulsory education. Of the countries under study, Italy and the UK have the largest share of non-grant-aided private schools (Eurydice, 2000). Especially in the UK there is a strong tradition of private education.

In the majority of the countries under study, there are large **regional and local differences** in the out-of-pocket costs of compulsory education. The education systems are often organised with a great degree of autonomy for the local authorities and school boards, especially concerning the 'non-compulsory' school costs such as school activities and trips. A few national experts (IT, PL) indicate that out-of-pocket costs are usually higher in the more well-off and urbanised areas.

Even within municipalities there can be a great variation in actual school bills depending on the **type of school or school cluster**. Schools may apply additional fees for items other than the formal 'free items', resulting in disparities in out-of-pocket costs. Only Finland, Sweden, the Czech Republic and Hungary have a single-structured centralised system for primary and lower secondary education. In Finland and Sweden local differences in out-of-pocket costs are negligible due to the largely free access. However, in the Czech Republic and Hungary municipalities and schools still have a level of discretion in what they charge to the parents for non-compulsory school necessities and activities (similar to the other countries).

The out-of-pocket costs to attend education in the different countries also vary with the **type of educational programme** that is followed. Most national experts identify this as an important factor that determines the variation in costs in secondary education, particularly across vocational programs. Depending on the specialization of the curriculum, particular compulsory and non-compulsory items can be required such as specific kinds of clothing, equipment, material and activities. The variation in costs usually increases in the final years of secondary schooling. In Finland, Sweden, the Czech Republic and Hungary, the type of educational programme matters only from (non-compulsory) upper secondary education.

Also the **school year or grade** in which the pupil is enrolled, affects the level of private school costs. In general, out-of-pocket costs are the highest in the first and final years of school attendance. When first-year pupils start in primary as well as in secondary school, they need to buy

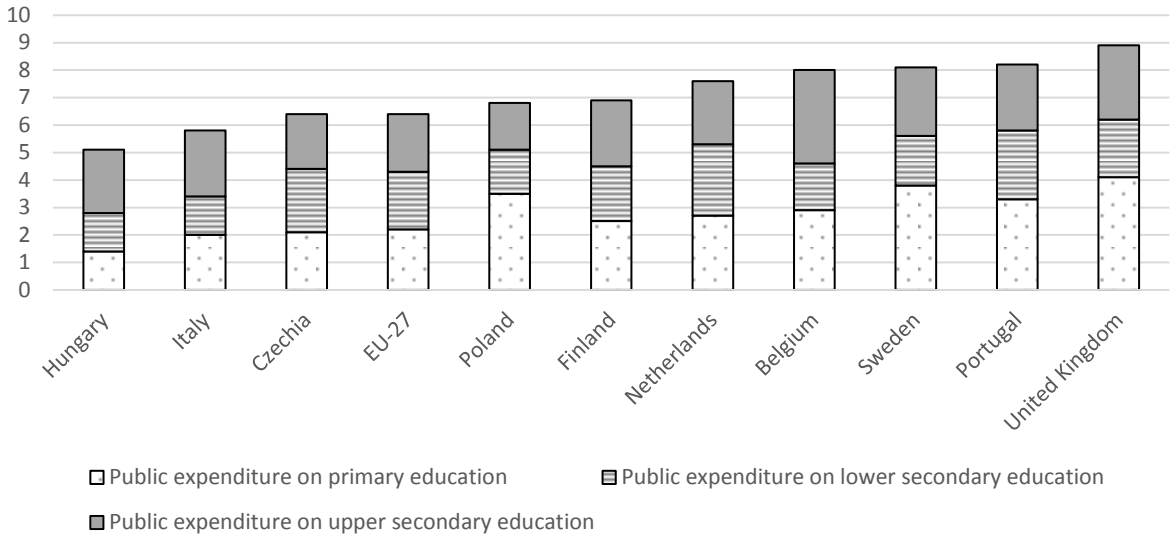
general school equipment and material (e.g. school bag, writing material, clothing) that they (at least partly) will be able to use across the different school years. The following years, costs usually decrease. However, in all European countries under study, costs seem to increase again at later stages of education. As indicated by the national experts in all countries, the level of out-of-pocket costs is higher in secondary compared to primary schools. Especially in upper secondary education, costs are likely to increase due to school activities and IT material. In Finland and Sweden compulsory basic education is (nearly) free of charge (till the age of 16), but in upper secondary education (some) materials are to be paid by the students.

Finally, the socio-economic status of the household, in particular the household income, often influences the final total school cost a family is facing. In all countries, except for Finland and Sweden, there exist various forms of means-tested local or national financial support for families who cannot afford the cost of schooling. This can be in the form of specific cost reductions such as discounted school lunches, material and uniforms, or in the form of targeted income support such as school allowances. In the next section we give more information on these different types of policies designed to increase the affordability of education.

2.5. Policies to increase affordability

In order to get a first impression of general policy efforts related to compulsory education, we start this section with exploring the financial indicators on education included in the UOE database (Eurostat, 2021). Figure 7 shows government spending on primary and secondary education as a percentage of total public spending (Eurostat, 2021). In this case, public expenditure on education includes direct spending on educational institutions as well as financial support to households (e.g. scholarships) and public subsidies to private or non-profit organisations. We can see that public spending on primary and secondary education takes a considerable share of total government expenditure, ranging from about 5% in Hungary to about 9% in the UK. Generally speaking, except for Poland, public spending on (lower + upper) secondary education is higher compared to spending on primary education. However, the data conceal how these government efforts directly affect different types of households.

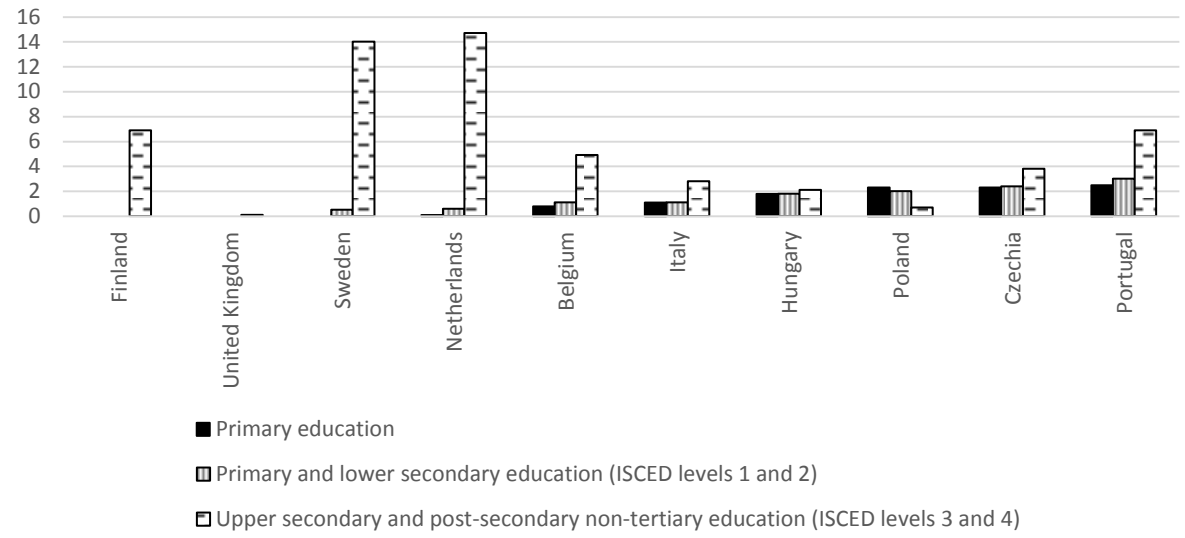
Figure 7 Public expenditure on education as % of total public expenditure 2017



Source: UOE database, educ_uoe_fine08, Eurostat online database (last accessed 29 March 2021).

Figure 8 below takes a closer look at one specific part of public spending on education, namely the financial support allocated to households. Financial aid to students is referring here only to direct public assistance in the form of scholarships, public loans and family allowances contingent on student status. The figure shows the financial aid to pupils by education level in the ten countries under study, as a percentage of total public expenditures on education for each educational level. This shows that, at least for primary and lower secondary education, the share of public education expenditures that flow to financial aid to households is relatively low, nowhere reaching more than 3% of public expenditures on education. Yet, the numbers are considerably higher for upper secondary and non-tertiary post-secondary education, reaching about 14% in Sweden and the Netherlands. Although financial aid accounts for a relatively small share of government spending in primary and lower secondary education everywhere, it is clear that this strategy for keeping education affordable is virtually absent in Finland, the United Kingdom and Sweden, while it is much more prominent in Portugal, the Czech Republic, Poland and Hungary. This may not be surprising given the previous finding that in primary and lower-secondary education in Finland and Sweden there are only very limited school-related costs. In contrast, we found that a much broader set of items should be purchased by parents in other countries.

Figure 8 Financial aid to students by education level as % of total public expenditure on education, 2017



Source: UOE database, educ_uoe_fina01, Eurostat online database (last accessed 29 March 2021).
Note: countries ordered by share of financial aid to households as a percentage of public expenditures on primary and lower secondary education.

Through the expert questionnaires, we have investigated further what types of financial aid are available to households to keep education affordable. More in particular, we asked about the availability of school allowances, scholarships, targeted support programmes and discount fees for pupils attending primary or secondary education. If information was available, the experts were also asked to inform us about the eligibility conditions and the prevalence of these types of targeted financial support. Table 3 shows that in all countries under study, except for the Netherlands, there are policies to support families with children in bearing the out-of-pocket cost of education.

To start with a rather uncommon but important policy, in Belgium, the Flemish primary school system is characterized by a legally regulated maximum bill. This means that there is a maximum threshold for education-related costs that are not strictly necessary to meet the official educational objectives such as activities, school trips and certain school materials. This system protects families, in particular vulnerable parents, against excessive school costs that might not be compulsory but are in reality hard to avoid (see section 2.3). In the Netherlands and Italy, the system of voluntary contributions inherently includes a kind of solidarity, since the idea is that the most well-off parents carry the heaviest burden.

In Belgium (Flemish Community), Hungary and Poland, families with children can receive a cash school allowance. In Flanders there is a universal school premium for all children (<24y) as part of the child benefit. Similarly, in Hungary and Poland ('the good start benefit') there is universal cash support for all children attending compulsory education. In addition to the

universal support, the Flemish as well as the Polish government allocate a targeted allowance for low-income families. Both Polish benefits are one-off payments at the beginning of the school year that should be applied for, while in Hungary and Belgium the respective school allowances are automatically allocated by the public administration. Also in Sweden there exists a study allowance, but this is actually an extension of the child benefit for all teenagers (>16y) attending upper secondary education.

Table 3 Policies aimed to financially support children's participation in primary and secondary education in 10 EU countries

	National support[5]	**Local support**
BE (FL)	(1) maximum bill in primary school • universal (2) school premium: • universal • automatic allocation (3) school allowance: • targeted: low income • automatic allocation	support by Public Welfare offices: • targeted: low income • reductions/support school-related costs
CZ	part of 'exceptional immediate assistance' allowance: • targeted: low income, material need, exhaustion of other support options • one-off payment • by application	
FI	in kind support - free school meals: • universal	
HU	(1) school allowance: • universal • automatic allocation (2) 'Útravaló' Scholarship Programme: • targeted: low income or disadvantage (esp. Roma), good academic results • cash or in kind support to successfully complete compulsory education • by application (3) specific vocational education scholarship: • targeted: first 2 years in VET programme with shortage of professionals, good academic results, good behaviour • by application	

[5] For Belgium we only include policies of the Flemish region, for the UK only of Great Britain.

	National support[5]	Local support
IT	(1) tax deduction: • targeted: low income • voluntary fees and other school costs are partly tax deductible	Financial support by regions/provinces/municipalities: • targeted: low income • reductions/support school-related costs + sometimes additional support based on pupils' merit and socioeconomic status
NL		
PL	(1) 'good start benefit': • universal • one-off payment at start of school year • by application (2) supplement to family allowance: • targeted: low income • one-off payment at start of school year	(1) local ('gmina') scholarships: • targeted: low income + achievements • reductions/support school-related costs (2) local temporarily school allowance: • targeted: cash or in kind support to compensate for financial difficulties due to unexpected event (e.g. job loss or death parents, disease, natural disaster)
PT	(1) 'school social action': • targeted: low income • reductions/support school-related costs (2) scholarships secondary education: • targeted: low income, passed previous year, not working • almost automatic allocation • + additional 'merit scholarship' for pupils with good school performance by application	support municipalities: • reductions/support school-related costs
SE	(1) study allowance (part of child benefit): • universal: all pupils in upper secondary education (2) In kind support - free school meals: • universal	

	National support[5]	Local support
UK (GB)	(1) in kind support - free school meals: • all children in the first three years of primary school (England and Scotland), in later years income test (or through eligibility universal credit)[6] (2) national 'school clothing' grant in Scotland • targeted: low income (3) national grant in Scotland • targeted: low income • for starting school • + for continuing upper secondary education (4) national grant in Wales • targeted: low income • support school-related costs	support Local Education Authority (LEA): (5) targeted: low income (6) reductions/support school-related costs (7) + sometimes free or reduced transport for children who don't live near school or are unable to walk

There are also other forms of targeted policy support that can help to reduce the out-of-pocket costs of school attendance. In Portugal, 'School social action' supports low-income families with children through in-kind support or cost reductions, e.g. for school trips, school meals and school material. In the Czech Republic, families in material need can apply for an exceptional immediate assistance allowance as a one-off payment. One of the social situations specified by law is having insufficient means to cover essential education-related costs. The Italian government, on the other hand, helps low-income families with school-related costs through the tax system. Voluntary fees and other school costs are tax deductible up to 19% (with an upper limit). Some financial support is, in addition to income conditions, tied to school performance and/or behaviour. For instance, in Hungary and Portugal, the state allocates specific scholarships to support children in successfully completing secondary education with a low socio-economic status. Finally, a few countries offer in-kind support through subsidising or providing school meals. In parts of the UK (England and Scotland), school lunches are free for all children in the first three years of primary school, but in later years eligibility is determined through an income test. In Finland and Sweden, school lunches are free of charge for all children in compulsory education.

In addition, in various EU member states, local authorities have discretionary power to allocate additional financial or material assistance for families in need. In half of the countries under study (Belgium, Italy, Poland, Portugal, UK), the national experts identify means-tested local policy measures to financially support vulnerable families with school-age children. Generally speaking, these policies take the form of one-off specific cost

[6] In England and Scotland, there are free school meals for all children in the first three years of primary school (due to be extended in Scotland to all primary children in August 2022). In the later years in England and Scotland and across schooling in other UK nations there is an income test.

reductions or in-kind support conditional on the families' proven economic need. The extent and scope of the support can vary largely across municipalities.

In the table above we have only included direct government support for families with children, but governments can also support vulnerable families rather indirectly through school support. This type of support is often called 'equity funding' aimed to increase educational opportunities for disadvantaged pupils. For instance in Belgium, Italy and Poland, governments attribute specific school support measures for pupils with disabilities, learning/developmental disorders and special educational needs due to socio-economic or cultural disadvantages. This financial support can be used for necessary extra material, teaching staff and other types of psychological and pedagogical support. Similarly, in Great Britain schools receive additional funding for every pupil who claims free school meals. In some UK nations, schools also continue to receive additional funding for pupils who previously claimed free school meals within a set time period e.g. within the last 6 years in England. Schools receive the premium funding and choose how to spend it.

Besides this equity funding, there exist also various types of non-governmental support to help vulnerable children with school participation and achievement. An example is the Study Hall (Tanoda) programme initiated by NGOs that became quite popular in Hungary. The programme offers in-kind community support through extracurricular educational services with the aim to enhance social integration and prevent early school leaving of vulnerable children (up to 18y). Another example is 'Achievement for All', a charity organisation in the UK that helps schools, early years settings and colleges to improve outcomes for all children and young people regardless of their background, challenge or need. These governmental and non-governmental measures aimed to close the socio-economic gap in educational achievements may have a significant effect on the opportunities of vulnerable families with children, but will generally not have a direct effect on the school-related out-of-pocket costs these families face.

In sum, the results of the expert questionnaires in the ten countries show that there are a variety of national, regional and local policy measures to reduce the burden of private school costs for vulnerable families across Europe. A comparison reveals that there is a wide variation in types of measures, eligibility criteria, scope and impact between as well as within countries. It is important to stress that, at least in our understanding, the majority of these policy measures are rather limited in scope and not automatically allocated. Hence, there is a severe risk that these allowances, scholarships and cost-reductions suffer from high levels of non-take-up.

3. Discussion: lessons learned

With this paper we have tried to contribute to the development of knowledge and indicators on the accessibility of publicly subsidised compulsory education in Europe. More specifically, the aim was to get more insight in the affordability dimension by assessing the main determinants of the out-of-pocket costs of primary and secondary education across and within European welfare states. In doing this, this pilot study seeks to provide a methodological framework that can be used to collect information on the affordability of education in a more systematic manner. In general, the following types of information would be useful from a policy perspective:

1. The level, distribution and variation in actual school-related expenditures by households, and how they relate to: (1) expenditure-related characteristics (e.g. what items are bought/paid for in relation to children's education, what types of expenses are considered essential or optional, what is the price level and life span of these items, and which items were bought second-hand (e.g. school uniform, text books, gym clothes); (2) school-related characteristics (e.g. (anonymised) municipality[7], type of school, type of funding and extent of public funding); (3) programme-related characteristics (e.g. the type of educational programme attended, and the year or grade of schooling; (4) household and individual characteristics (age of the child, household composition (in particular presence, age and gender of siblings, household income, and take-up of school-related allowances and cost reductions). Preferably, it would also be possible to study the relation with attitudes towards which expenses are considered essential, the acceptability of using second-hand items, and what types of school-related expenses were not made because the household could not afford them. In an ideal world, a purpose-designed survey based on a sizeable random sample of schools and pupils within schools would be used, with a questionnaire both for school teachers (or administration) and parents.
2. A list of school-related items, subdivided by whether they are provided for free, compulsory, hardly avoidable and optional. Ideally, the categorisation of these items into these groups should be based on legal guidelines and (preferably representative) discussions with children, parents, (head)teachers and experts in each country and at the EU level (cf. the reference budgets method, e.g. Goedemé et al., 2015). Specific attention should be paid to social expectations towards children and parents regarding the participation in 'non-compulsory' activities and 'voluntary' contributions requested from parents.
3. An overview of the policy initiatives that are in place to reduce school-related costs, and, insofar as this concerns financial aid and cost-reductions, hypothetical household simulations which show, for all items listed under 2/, the level of school-

[7] The purpose would be to assess variations between municipalities and the determinants of these variations. From a research perspective, there is not necessarily a need for evaluating school-related costs for individual schools. Therefore, it is more important to be able to identify which persons attend the same school and the characteristics of this school, rather than being able to identify the school itself.

related costs with and without the presence of this financial aid for a well-selected number of hypothetical situations.

Taken together, these data would allow for constructing comparable indicators that would provide more insight into (1) which items are considered essential for a successful educational participation of children; (2) the level and composition of school-related expenses; (3) how these expenses and essential costs vary, including as a result of public policies; (4) evaluating the effectiveness of strategies to reduce school-related costs for households, and increase the affordability of compulsory education.

The findings of this study are based on existing and newly collected data through expert questionnaires in a selection of 10 European countries. In what follows we sum up three key lessons learned related to the measurement and comparability of the out-of-pocket cost of compulsory education.

First of all, we can conclude that there is a major lack of structural data and indicators on the out-of-pocket costs to access compulsory education. Within countries, the most common available information sources are household budget survey data, legislation and government documents. In cross-national comparative approaches, indicators are often based on the level of government spending on education. Although these contribute relevant information, at the moment they allow for sketching only a very partial picture. In order to get more insight into the actual out-of-pocket school-related costs and the factors that determine variation in these costs, we need harmonised and representative survey data within and across countries. The current lack of data is partly due to the complexity and large variance of costs within countries. The total school bill depends on a wide range of factors across and within countries, resulting in a large variation between households, municipalities, regions and countries.

In order to be able to compare within and across countries, it is important to start from a uniform conceptual and methodological framework that considers the relevant determinants and dimensions of the cost that families with children face for adequate educational participation. The 'school costs monitors' in the Netherlands (Suijkerbuijk et al., 2019) and Belgium (Flanders) (De Leebeeck et al., 2020; De Norre et al., 2019; Havermans et al., 2019) can serve as good practices, which show how school-related costs can be monitored in a systematic manner based on random samples of schools and pupils in schools. However, one could also think of refining household budget surveys to fill some of the data gaps, for instance by asking explicitly whether expenses were school-related or not, and for which person these expenses were made, and adding some questions about the type of school and educational programme children attend. Alternatively, such questions could also be asked every few years in a special module of, for instance, the EU-SILC survey.

With our study, we confirm the importance of defining and delineating the scope and type of school-related costs faced by households and the relevant determinants that should be included. Similar to the Flemish and Dutch examples, we recommend to make a distinction between categories of school necessities in order to allow for meaningful comparisons between different levels and programmes of education and to reveal the share of these different categories in the total cost. Based on our explorative research, we have identified the following relevant categories of costs across European countries: registration fee, school books, exercise books and additional prints, course material, school equipment, school uniform, ICT products, extramuros activities, school lunch, (after)noon supervision, out-of-school-care and transport to school. To understand which factors determine variations in these costs, a high-quality survey should allow to differentiate between years, types, levels and programmes of education on the one hand and between a variety of socio-economic household characteristics and school and policy-related characteristics on the other hand. More in particular, the results from our 10 national expert questionnaires reveal six key determinants of within-country variation in school bills: the extent of public funding, the region/municipality, the school (group), the type of educational program, the year or grade of schooling and the household income. Finally, the Dutch (Suijkerbuijk et al., 2019) and Flemish (De Leebeeck et al., 2020; De Norre et al., 2019; Havermans et al., 2019) school cost monitor surveys show the importance of following a two-stage sampling method that includes the viewpoint from parents as well as from school directors (or teachers), since there can be a large discrepancy in their responses regarding what school-related items can be considered essential and how much they cost.

Second, collecting representative survey data is essential but will not be sufficient. Some specific types of information cannot be gathered through questioning parents and school directors or headteachers only. More specifically, when conducting surveys on actual school bills, it is difficult to distinguish essential from optional expenses. Focusing on actual expenditures only, includes a risk of circular reasoning. Low-income families might reduce their expenses because of budget constraints, while high income families might spend money on materials and activities that are not necessary for adequate educational participation. Therefore, we argue that survey data need to be complemented with a normative approach on the extent to which the various costs are necessary for educational participation, starting from a discussion about what we should understand by adequate educational participation. Consulting people (including both parents and pupils) in focus groups or through other methods that allow for a more representative approach, experts (including teachers), legislation and government documents can be useful in this regard. In addition, experts and formal documents can help to map the different national and local policy measures that exist to reduce the costs that households face and to support vulnerable families in paying school bills.

Third and last, although access to compulsory education is free of charge in most European countries, in reality participating in primary and secondary education entails various out-of-pocket costs. This study highlights that there can be a large gap between formal and actual practices. On the one hand, from a legal perspective, access to compulsory education is free of charge in all European countries under study (enrolment and at least for primary/basic education also essential supplies for educational attendance). On the other hand, from actual spending data and household surveys, we observe that in various member states parents are confronted with significant school bills to pay. This gap between formal guidelines and actual practices in combination with a lack of survey data is problematic for monitoring the out-of-pocket costs of education and assessing the affordability of education. The problem is that legal documents leave generally much room for interpretation, providing a great deal of discretion to local policy makers, school groups and school boards when implementing the rules. Furthermore, various school activities and materials may not be compulsory but are in reality hard to avoid, or could be considered essential for children's social and education participation and development. Several studies (De Leebeeck et al., 2020; Dosa, 2019; Parentkind, 2019; Suijkerbuijk et al., 2019) indicate that parents often feel obliged to contribute financially for additional material and activities such as school trips, events and extra-curricular activities in primary and secondary schools. Insofar that we are aware, of the 10 countries under study, only the Flemish government in Belgium has introduced a maximum threshold to limit these non-compulsory private contributions in primary schools. Both survey data, and hypothetical household simulations, as outlined above, could provide more insights into these issues, and form the basis for comparable indicators across the EU.

In addition, although our focus is on compulsory education, the role of so-called 'shadow education' seems to grow across Europe (Bray, 2020). Private supplementary tutoring is becoming more and more 'a new norm' in some countries, which might in the longer term have implications for what can be considered essential or hard-to-avoid out-of-pocket costs of education and related socio-economic inequalities.

The expert survey that we did clearly has some shortcomings for developing a robust basis for comparable indicators on the cost of education. However, based on the responses that we received, the questionnaire proved useful for exploring the types of factors that are important for determining the cost of education and how it varies both within and between countries. Some questions appeared to be interpreted in different ways by different experts, while the addition of some cost categories or cost-reducing policies by experts from some countries made us wonder whether the same factors would also apply to other countries. A new, more refined, expert questionnaire including experts from all EU Member States could build on this experience, and provide a firmer basis for collecting the necessary data for developing comparable surveys and indicators on the cost of education in Europe.

4. Conclusions

To conclude, we would recommend to set up a common normative and methodological framework to assess the gaps in access to affordable educational participation in Europe. By consulting the broader population, experts and official guidelines, relevant types and determinants of school costs and related policies can be defined across European countries. Based on this, clear and well-defined questions should be developed to conduct a high-quality school cost monitor survey across Europe, following good practices from the Netherlands and Flanders. In combining a normative with an actual expenditure approach, the aim is to estimate levels and variations in school costs parents face as well as relevant determinants of these costs within and across countries. In addition, this method gives more insight in hidden, non-compulsory but expected school costs. Increasing the transparency of school bills across Europe would not only support budget management of vulnerable families but would also engage national and local policy makers as well as schools themselves to improve the affordability of compulsory education. The data could also feed into indicators which show the impact of policies that are aimed at reducing school-related costs, in particular for low-income families.

The lessons learned in this pilot study could also be relevant for the development of indicators to assess the affordability of public services more broadly. Other public provisions such as health care services also have to deal with large variations in household needs as well as differences in costs across regions, municipalities and institutions depending on many factors. A well-structured normative framework nourished with high-quality survey data is key to assessing the out-of-pocket costs families face to access public services in Europe.

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Annex

Annex 1. List of national experts consulted

Country	National expert	Affiliation
BE	Tess Penne Jolien De Norre Nele Havermans	University of Antwerp HIVA-KU Leuven
CZ	Eva Abramuszkinová Pavlíková	Mendel University in Brno
FI	Lauri Mäkinen	University of Turku
HU	Zsuzsanna Soós-Vercseg	United Way Hungary
IT	Paolo Barabanti	Catholic University of the Sacred Heart
NL	Paul van der Werve	Ministry of Education, Culture and Science
PL	Jolanta Perek-Białas Natalia Gromek	Jagiellonian University, Cracow and Warsaw School of Economics
PT	José António Pereirinha Elvira Pereira	University of Lisbon
SE	Maria Forslund	University of Stockholm
UK	Kate Anstey	Child Poverty Action Group

Annex 2. Questionnaire on the affordability of primary and secondary education

Overall aim and research question

Explorative study on how to gather cross-nationally comparable information on the affordability of attending primary and secondary public education. A questionnaire will be used to identify data availability and existing studies as well as the most important determinants of the out-of-pocket costs to access education. The aim is to assess a method that can contribute to the development of indicators to assess the accessibility of public services.

For whom? National experts in a selection of EU Member States. Try to involve ministries of Education in each country (see report Eurydice list of contact persons).

Target population:

- Children and household members without health problems or disabilities
- Age of child: 6-18 years old, for the hypothetical case the focus will be on a child of 10 years and child of 14 years old
- Region: capital city
- Reference period: academic year 2019-2020 (or most recent available)

Type of education:

- Public education: i.e. the school is fully or partly subsidized by the government and subject to government regulation.
- Primary education
- General secondary education:

⇨ Check your country schematic diagram showing the structure of the educational system to indicate where your target population is situated (Source: Eurydice, The structure of the European education systems 2019/20)

General instructions:

The first part of the questionnaire will be on the determinants of the out-of-pocket costs to attend primary and secondary education.

In addition, for a relatively simple case ('hypothetical household') the out-of-pocket cost will be documented.
=> When documenting the out-of-pocket costs, the focus is on what is minimally required to participate adequately in society, i.e. what schools expect their pupils to pay for.

Throughout the questionnaire, please provide always full details on the sources consulted (provide full bibliographic details as well as contact details in case that experts were consulted).

Please use as much space as you need to respond to the questions.

PART 1: Questions on the determinants of the out-of-pocket costs of education

Throughout the questionnaire, please provide always full details on the sources consulted (provide full bibliographic details as well as contact details in case that experts were consulted). Please use as much space as you need to respond to the questions.

1. Is there administrative or survey data available on the out-of-pocket cost of education in your country? ……..
    - If yes, please list the data sources and describe the type of data, the timing and frequency, data provider and background reports
      ……..

2. Is there any kind of registration fee to access primary education or secondary education?
   ……
   If yes, are registration fees tax deductible?
   ……

3. Which legal regulations exist to determine the registration fees or other school costs? Please describe briefly.
   ……..
   Should some schools respect a maximum threshold of school costs that they can bill to / expect from households? If this is only applicable to specific groups of pupils, please specify. (e.g. in Flanders primary schools cannot charge parents more than 60 EUR / year for education-related costs such as school trips)
   ……..

4. What would you identify as the main determinants for the variation in out-of-pocket costs of households with children in primary and secondary education in your country? In other words, we are looking for a list of variables which determine the out-of-pocket costs, examples include:
    - Region (e.g. cheap in Flanders, more expensive in Brussels)
    - Public education vs. private education
    - Age of child – year of school attendance (e.g. costs may increase with age / grade)
    - Type of educational programme (e.g. vocational vs. general education + type of education program)
    - Mean school size – class size
    - Household income (e.g. in case of means-tested cost reductions)
    - Having a scholarship or not
    - Other? ….

Please list the relevant variables by making a distinction between primary education, general and vocational secondary education.

- Relevant determinants for primary education ……
  ……..
- Relevant determinants for general secondary education ……
  ……..
- Relevant determinants for vocational secondary education ……

……..

5. Is there free pre/after school care available?

   ……

   Which public regulations exist to determine the pre/after school care fees? Does the fee depend on income, region or other characteristics? Please describe briefly.

   ……

   If there is data available, please report the average rate (in national currency per hour) of pre/after school care for a 10-year old in the capital city.

   ……

6. Are there study allowances and/or scholarships available? If yes, what are the eligibility conditions in terms of income or socio-economic characteristics?

   ……

   Are there targeted programmes to provide or subsidise student support for disadvantaged children (e.g. tutoring)? If yes, please explain briefly.

   ……

   Can pupils in primary and/or secondary education make use of discount fees? What are the eligibility conditions?

   ……

   What is the percentage of children in public education making use of subsidized support for education?

   ……

7. If information is available, please indicate the most common means of transport to school in the capital city.

   ……

PART 2: The out-of-pocket costs for primary and secondary education, a hypothetical case

Instructions:

In what follows, we would like to collect information on three specific hypothetical cases for a child of 10 years old and a child of 14 years old, both living in the capital city of your country. We assume that these children are in the typical grade for their age and attend (presumably) primary education (child of 10), respectively general secondary education (child of 14). They are an only child, and cannot make use of materials of their siblings. If these are unrealistic assumptions, please indicate this below.

Furthermore, we assume that both children are attending a publicly funded school. Please describe here the type of school that this would typically be in the capital city: …….. (e.g. primary: school funded and organised by city council; secondary: school funded by regional government).

If you have access to survey data on the out-of-pocket costs, please make use of these data to estimate the median amount that households would pay; if not, please contact five schools (of the same type) to ask for the typical amount that someone would pay and calculate the average. Please clearly list the sources used (including a list of contacted schools, if that is applicable).

Please provide here more information on the type of school / education selected, and any additional assumptions that you had to make. You can use the Eurydice report of the educational system in your country to indicate your choice.

……

……

PRIMARY PUBLIC EDUCATION, for one child of 10 years old, year 2019-2020 (total cost for 1 year)

	Yearly cost in national currency	**Is there a discount for specific groups? If yes, what are the eligibility conditions?**	**If there is a discount, what is the rate?**	**Other remarks that could help us with interpreting the amount?**
Yearly registration fee				

	Is this provided by the school?	**Are pupils expected to (1) bring this item to school for educational purposes; (2) buy specific items or types; (3) buy them in a specific shop?**	**Estimated yearly out-of-pocket cost in national currency**	**Is there a discount or subsidy for specific groups? If yes, what is the rate and what are the eligibility conditions?**
Compulsory school and text books				
Specific clothing (compulsory uniform, sport clothing)				
Computer, tablet or smartphone			only if specific types are requested	
Extramuros activities e.g. school trips, sport, culture,… that are part of the curriculum				
School lunch (only if common)				
Other essentials				

SECONDARY GENERAL PUBLIC EDUCATION, for one child of 14 years old, year 2019-2020 (total cost for 1 year)

	Yearly cost in national currency	**Is there a discount for specific groups? If yes, what are the eligibility conditions?**	**If there is a discount, what is the rate?**	**Other remarks that could help us with interpreting the amount?**
Yearly registration fee				

	Is this provided by the school?	**Are pupils expected to (1) bring this item to school for educational purposes; (2) buy specific items or types; (3) buy them in a specific shop?**	**Estimated yearly out-of-pocket cost in national currency**	**Is there a discount or subsidy for specific groups? If yes, what is the rate and what are the eligibility conditions?**
Compulsory school and text books				
Specific clothing (compulsory uniform, sport clothing)				
Computer, tablet or smartphone			only if specific types are requested	
Extramuros activities e.g. school trips, sport, culture,… that are part of the curriculum				
School lunch (only if common)				
Other essentials				

Annex 3 The level of out-of-pocket costs to participate in compulsory education

Table 1. The level of out-of-pocket costs to participate in primary education in 10 different countries, child 10y, 2019-2020

	BE (Flanders)	CZ	FI	HU	IT	NL	PL	PT	SE	UK (England)
Registration	0	0	0	0	0[8]	0[9]	0	0	0	0
School books[10]	0	1600 - 3000 CZK	0	1500 HUF	€ 18.2	0	0	?	0	0
Clothing[11]	?	?	€ 36.42	4000 HUF	€ 60.2	€ 23	60.8PLN gym 61.4PLN uniform	?	1010 SEK	£315
IT [12]	0	0	0	0	0	€ 14	0	0	0	0
Extramuros activities[13]	€ 73 multi-daytrips	300CZK daytrip/ 2000CZK 4-day trip (all years)	Yes	20000 HUF	€ 107	€ 16	500PLN 2-day trip	€ 30	200 SEK	?
School lunch	(€4.3 lunchbox)	30 CZK/lunch	Yes	350 HUF/day (84000/year)	€ 4/lunch		254.2 PLN/month	€1.5/meal, €248.2/year	Yes	£2.30/day, £448.5/year
School equipment[14]	€ 31.3	2300 CZK	€ 17.21	?	€ 152.2	€ 8	67 PLN	?	?	?
Estimated yearly cost	€90/yearly + €73/all years (max bill) € 448.6/ 626.3 median expenses incl./excl. transport					€ 129 (average parent costs, group 6)		355€ (average for 'back to school')		

Source: Results national expert questionnaires in 10 EU countries.
Note: Due to differences in interpretations and in methods and data consulted, the amounts in the table cannot be compared across countries.

[8] Registration is free but parents can support the school with a voluntary contribution which is not mandatory. Average estimated level of 20 EUR in Italy.
[9] Registration is free but parents can support the school with a voluntary contribution which is not mandatory. Average estimated level of 64 EUR in the Netherlands.
[10] Compulsory books are usually free in all countries. But a fee can be asked for exercise books, notebooks or non-compulsory (but necessary) textbooks, in CZ, PT, HU and IT. Also in BE and PL national experts/studies show that in reality fees can be asked for additional prints and books.
[11] In all countries sport/gym clothes need to be bought and brought by the pupils. Only in the UK, a compulsory uniform is usually required. For PL this is the average yearly expense on gym clothes, uniform are usually optional but in 10% of the schools there is a compulsory uniform with an average price of 61.4PLN/year.
[12] Usually computers are freely available at school. In NL schools can ask for voluntary contributions. However based on the expert survey we cannot draw conclusions on the need for IT equipment at home and how this might have changed during the COVID-19 pandemic.
[13] In all countries except FI and SE (nearly free), participating in school activities or trips is not free, but is generally not obliged. In NL and UK voluntary contributions can be asked.
[14] In none off the countries all the equipment is free. This category is too broadly defined, and was interpreted differently by the national experts. The costs refer to: BE & FI (school & gym bag, case holder, writing, cover paper and files), CZ (school & gym bag), IT includes exercise books (school bag, exercise books, pencil-case, stationary …), NL (school equipment & bag), PL (bag/knapsack, shoes bag and stationery)

Table 2. The level of out-of-pocket costs to participate in lower secondary education in 10 different countries, child 14y, 2019-2020

	BE (Flanders)	CZ	FI[15]	HU	IT[16]	NL	PL	PT	SE	UK (England)
Registration	0	0	0	0	0[17]	0[18]	0	0	0	0
School books[19]	€ 279.2	2500 CZK	0	10000HUF	€310 compulsory €187 not compulsory	0	450PLN	?	0	0
Clothing[20]	€ 65	?	€ 36.42	4000HUF	€ 42.9	?	64PLN	?	1010 SEK	£337
IT [21]	€ 143.8	0	0	0	0	€ 184	0	0	0	0
Extramuros activities[22]	€187(activities) €40 (support actions)	300CZK daytrip/ 2000CZK 4-day trip (all years)	Yes	21000HUF	€342 (school-trip) + €22 (activities)	€ 113	92PLN daytrip	€ 30	200 SEK	?
School lunch	(€4.3 lunchbox)	30 CZK/lunch	Yes	350 HUF/day (84000/year)	n.a.		192PLN/ month[23]	€1.5/meal, €248.2/year	Yes	£2.4/ day, £468/ year
School equipment[24]	€111(across all years) + €50/year	3800 CZK	€ 24.69	?	€136.2	?	67 PLN	?	?	?
Estimated yearly cost	€1145.9 (median expenses incl. transport)					€456 (vmbo), €550 (Havo), €578 (vwo)		450€ (average for 'back to school')		

Source: Results national expert questionnaires in 10 EU countries.
Note: Due to differences in interpretations and in methods and data consulted, the amounts in the table cannot be compared across countries.

[15] In FI the national expert indicated the average estimated cost of upper secondary education (>15y) for 3 years: €2500 (general) and €334 (vocational)
[16] In IT the amounts refers to the first year of upper secondary education (15y). There is a mandatory fee in the 4th and 5th grade of upper secondary education (>16y): Enrolment(€ 6.04), Exam (€ 12.09), Attendance (€ 15.13), Diploma (€ 15.13).
[17] Registration is free but parents can support the school with a voluntary contribution which is not mandatory. Average estimated level of 107.6 EUR in Italy.
[18] Registration is free but parents can support the school with a voluntary contribution which is not mandatory. Average estimated level of 92 EUR in the Netherlands.
[19] In CZ/HU/PT compulsory books are free but fees are asked for some specific working/activity books (CZ & PT), or for alternative and additional books (HU). Large differences with primary school, in more than half of the countries some expenses need to be made, compulsory costs in BE, IT, PL.
[20] Idem primary school (see foot note 11)
[21] Usually computers are freely available at school. In NL schools can ask voluntary contributions. In secondary education a computer at school is not always sufficient for adequate educational participation. In practice many pupils have and need a computer at home. Based on the expert survey we cannot draw conclusions on the need for IT equipment at home and how this might have changed during the COVID-19 pandemic.
[22] Idem primary school (see foot note 13)
[23] School lunch is cheaper than for primary school as only the meal is included, while in primary the fee includes additional options like dessert and drink.
[24] Idem primary. The costs refer to: BE (school bag, case holder, calculator, USB, stationary,…) + (e.g. paper, writing material, cover paper, files, diary), FI (calculator, school & gym bag, case holder, stationary), CZ (school & gym bag, stationary, files, copy card), IT (school bag, exercise books, pencil-case, stationary …), NL (44 + 48 + 93 = 185 euro (tools and materials, one-off costs and other), PL (bag/knapsack, shoes bag and stationery), HU not mentioned (depends on specialisation).