



OECD Reviews of School Resources

The Funding of School Education

CONNECTING RESOURCES AND LEARNING

SUMMARY



THE FUNDING OF SCHOOL EDUCATION

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EXECUTIVE SUMMARY

This report constitutes the first in a series of thematic comparative reports bringing together the findings of the *OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools (School Resources Review)*. It provides analysis and policy options to assist governments in achieving their education policy objectives through the efficient and equitable use of financial resources. Following an introductory chapter explaining the importance of school funding policies, the report's remaining chapters focus on the following thematic areas:

- How responsibilities for raising and spending school funds can be effectively organised in increasingly complex education systems.
- How mechanisms for the distribution of funding to schools can be designed to efficiently support student learning, equity and related policy objectives.
- How planning procedures can inform the preparation of education budgets to ensure their long-term sustainability and alignment with policy priorities.
- How the effective use of school funding can be enhanced through monitoring, evaluation and reporting practices.

Chapter 1, *Why Look at School Funding Policies?*, sets the context for this report. It outlines the importance of school funding policies, describes major contextual developments that shape the funding of school education and explains the terms and concepts used throughout the report. Well-designed school funding policies are crucial to achieve quality, equity and efficiency objectives in school education. While the overall level of school funding matters, the strategies used to allocate it are at least as important. As countries seek to enhance the performance of all students while also providing more equitable learning opportunities for different groups, there has been greater focus on ensuring that resources are directed to the areas where improvements in teaching and learning outcomes can best be achieved. Developing an equitable distribution of school funding requires countries to take into account both horizontal equity (allocating similar levels of resources to similar types of provision) and vertical equity (allocating different levels of resources to student groups with different needs). It is also important to recognise that the pursuit of efficiency and equity can go hand in hand when it comes to the allocation of resources. Ensuring that students with different needs and from different backgrounds have access to high quality education from an early age, for example, can be an effective means to reduce systemic inefficiencies.

Chapter 2, *Governing School Funding*, describes the different bodies involved in raising, managing and allocating school funds across OECD review countries and analyses how the relationships between these bodies are organised. As school systems have become more complex and characterised by multi-level governance, a growing set of actors including different levels of the school administration, schools themselves and private providers are involved in school funding. While on average across OECD countries, central governments continue to provide the majority of financial resources for schools, the responsibility for spending these funds is shared among an increasingly wide range of actors. In many countries, the governance of school funding is characterised by increasing fiscal decentralisation,

considerable responsibility of schools over budgetary matters and growing public funding of private school providers. These developments generate new opportunities and challenges for school funding policies and need to be accompanied by adequate institutional arrangements. To support effective school funding and avoid adverse effects on equity in changing governance contexts, the chapter recommends that reforms should seek to: ensure that roles and responsibilities in decentralised funding systems are well aligned; provide the necessary conditions for effective budget management at the school level; and develop adequate regulatory frameworks for the public funding of private providers.

Chapter 3, *Distributing School Funding*, presents an overview of how OECD review countries distribute school funding between different levels of administration and to individual schools, focussing on the design of effective allocation mechanisms for the funding of both current and capital expenditure. The chapter discusses fundamental questions that need to be addressed when designing a funding allocation model. It finds that well-designed funding formulas are a particularly effective means to distribute funding for current expenditure in a transparent and efficient way. By including weights to distribute additional funds to particular categories, funding formulas can also play a critical role in aligning the distribution of resources with educational priorities such as promoting greater equity. Regardless of the allocation mechanism, the method used to identify differential resource needs should be subject to periodical reviews and based on national research, reliable data and transparent criteria. The chapter recommends that governments: ensure a stable and publicly known system to allocate public funding to schools; follow a set of guiding principles when designing funding formulas to distribute resources; and seek efficient ways to support the achievement of equity objectives through school funding mechanisms.

Chapter 4, *Planning the Use of School Funding*, examines the practices and procedures involved in planning the use of school funding in OECD review countries. It analyses how effective planning and budgeting can contribute to greater resource efficiency and the alignment of spending with policy objectives. The preparation of education budgets is increasingly embedded in multi-annual planning processes, which can assist spending authorities in making informed and sustainable budgeting choices and which provide them with additional security when engaging in longer-term investments. However, the chapter finds that multi-annual expenditure plans are not always sufficiently linked to strategic targets and priorities. From the central to the school level, the planning of education resources should be informed by research and evaluation results as well as strategic objectives to guide the planning process and employ resources as effectively and equitably as possible. Increasing the capacity to mobilise evaluation, monitoring and research results during the budget planning process is therefore central to promoting effective spending on education. The planning of education budgets should also be flexible enough to respond to new priorities and unforeseen circumstances as well as providing incentives for efficiency, for example through the transparent regulation of carry-over rights for unspent resources.

Chapter 5, *Evaluating the Use of School Funding*, analyses how the evaluation and monitoring of school funding can serve to hold decision makers accountable, make the use of resources transparent and ensure that available resources are used efficiently and equitably. Practices to evaluate the use of school funding include accounting, financial reporting, internal management and control, external audits and individual performance management. The effectiveness of these activities depends on reliable data and information management as well as adequate indicator frameworks and benchmarking systems. Rather than focussing on compliance alone, systems should also develop capacity to relate inputs to associated educational processes and outcomes while bearing in mind the challenges involved in evaluating efficiency and outcomes in the area of education. Policies and programmes should be subject to impact evaluations and their results should be used to inform strategic budget planning processes. Another concern in increasingly complex governance systems is to ensure adequate accountability and transparency and to balance accountability with trust. Particularly at the local and school level, measures

to provide information about the use of funding should be accompanied by steps to mitigate the administrative burden this entails. Complementing the vertical accountability generated through reporting and evaluation with horizontal and bottom-up forms of accountability through stakeholder involvement can be a successful strategy to address this challenge. The chapter also highlights the need to make inequities in the use of resources transparent and to monitor how they affect the educational outcomes of disadvantaged students.

THE FUNDING OF SCHOOL EDUCATION: MAIN FINDINGS AND POLICY POINTERS

The importance of school funding policies

This study on school funding policies was conducted for a number of reasons:

- The mechanisms through which school funding is governed, distributed and monitored play a key role in ensuring that resources are directed to where they can make the most difference. While the overall level of funding matters, the strategies used to allocate and match resources to learner needs are at least as important.
- As most school funding comes from public budgets, developing effective mechanisms to allocate this funding among competing priorities is an important policy concern for governments. School systems have limited resources with which to pursue their objectives and using these resources efficiently is a key aim for their activities.
- Efficiency alone is not the main concern of school systems but needs to be achieved alongside the quality and equity objectives that are at the heart of schooling. The report focuses on how school funding policies can best be designed so that available resources are directed to supporting high quality teaching and providing equitable learning opportunities for all students.
- As efficiency in school education has traditionally been considered from an economic perspective, this study aims to look at school funding questions from a more educational angle. It analyses school funding policies taking into account the complexity of educational processes, the diversity of educational goals, the range of different governance contexts across school systems and the importance of social and institutional arrangements in developing adequate school funding policies.

The report was prepared as part of a major OECD study on the effective use of school resources resulting in the publication series *OECD Reviews of School Resources*. Eighteen school systems (referred to as the “OECD review countries”) were actively engaged in the preparation of this report through participation in a qualitative data collection, preparation of detailed country background reports and/or participation in OECD-led country reviews. In addition, the analysis considers the broader research and policy literature bringing together findings from as many OECD and partner countries as possible.

Governing school funding

The governance of school funding across OECD review countries is characterised by complex relationships between the various actors involved in raising and spending funds for schooling.

While the majority of school funding originates at the central government level, other actors also increasingly contribute to raising funds for school services. Sub-central governments typically

complement central school funding from their own revenues and private spending on schools has increased considerably in recent years. International funding provides an important complement to national sources of school funding in a range of countries.

As the sources of funding are becoming more diverse, an increasing set of actors in the school system are also gaining influence on spending decisions. In many countries, sub-central governments have emerged as important actors in the allocation and management of school funding, individual schools have obtained greater responsibility over budgetary matters and private school providers have become important end users of public spending. In more centralised school systems, a range of different central-level agencies may contribute to managing and allocating funds for schooling.

Pointers for policy: Trends towards multi-level and multi-actor governance of school funding need to be accompanied by adequate institutional and regulatory frameworks to optimise the role of each actor in ensuring an effective and equitable allocation of funds. In designing these framework conditions, school systems need to take into account the important role of key stakeholder groups such as school boards, teacher and school leader professional organisations, student and parent associations, community organisations and employers. This report discusses three key governance aspects that have shaped school funding policies in many OECD countries: fiscal decentralisation, school autonomy over budgetary matters and the use of public funding by private providers. The related opportunities, challenges and policy pointers are explored below.

Clarifying roles and responsibilities in decentralised school funding systems

Across OECD countries, sub-central governments are responsible for distributing the largest share of public funding – almost 60% of final funds – among individual schools. They typically complement central school funding from their own revenues while also acting as an intermediary distributing central government funding to schools. While motivations vary across countries, fiscal decentralisation is typically expected to increase responsiveness to the demands of local communities, raise the potential for innovation and adapt resource management to local conditions. But achieving equitable expenditure outputs for students in decentralised funding systems requires well-designed fiscal relations, adequate coordination and capacity building across different levels of government.

If sub-central governments are responsible for funding school education mostly from their own revenues, there is a risk that the different spending capacities of richer and poorer jurisdictions exacerbate inequality of opportunity for students in different parts of a country. In such contexts, areas with more disadvantaged students are likely to have fewer resources available to meet student needs. Fiscal transfers are widely used across OECD countries to help provide adequate sub-central revenue levels and equalise spending capacity across jurisdictions, but there is a risk that strong reliance on such transfers may generate inefficiencies, mistrust and reduced accountability due to the split between funding and spending responsibilities between different levels of the system. Even where sub-central authorities have similar revenue levels, expenditure for students with similar needs may vary across jurisdictions due to differences in sub-central priorities and funding allocation mechanisms.

While fiscal decentralisation offers the potential for sub-central governments to adapt school funding to local needs, it also increases the complexity of education governance and funding arrangements. In a multi-level school funding approach, the roles and responsibilities of different administration levels need to be well aligned to avoid inefficiencies due to duplication of roles, overlapping responsibilities, competition between different tiers of government or a lack of transparency in resource flows. Fiscal decentralisation may also raise capacity challenges, especially

in small jurisdictions which may have limited staff and expertise to support schools in managing funds strategically.

Pointers for policy: In decentralised school funding systems, sub-central authorities need to have both adequate revenues to meet the needs of their students and relevant capacity to fulfil their funding responsibilities. In addition, it is key to ensure a clear distribution of roles and responsibilities across different levels of government and to develop well-defined lines of accountability. Sub-central responsibility for spending should be adequately aligned to responsibility for raising funds. Reliance on own tax revenue has a number of advantages in terms of local autonomy, accountability and responsiveness to local preferences. But it needs to be complemented by well-designed equalisation systems to provide sub-central authorities with the necessary revenue to offer equal opportunities for their students and capacity building to support effective local education management. Developing a whole-of-system approach to school funding that aligns roles and balances tensions should involve reflection about both governance structures (e.g. the most efficient number of governance levels involved in school funding) and governance processes (e.g. stakeholder involvement, open dialogue and use of evidence and research).

Supporting schools with their budgetary responsibilities

Since the 1980s, many school systems have granted school-level professionals greater responsibility for budgetary matters. Experience in some of the OECD review countries indicates that an absence of resource autonomy at the school level risks constraining schools' room for manoeuvre in developing and shaping their own profiles and may create inefficiencies in resource management. School autonomy over budgetary matters can provide schools with needed flexibility to use allocated resources in line with local needs and priorities. But it also needs to be accompanied with adequate transparency, leadership capacity and support, and mechanisms to avoid widening inequities.

While school autonomy in generating funds can help promote local efforts to complement school revenues, there are concerns about the inequities this creates. Schools in challenging socio-economic circumstances will be less able to complement their budget with parental or other local contributions. In some countries insufficient monitoring of school income leads to a lack of transparency regarding the real resource levels of individual schools, which makes it difficult to achieve equitable resource levels through school funding mechanisms.

Budget management responsibilities offer potential for more strategic management at the school level, but the effective use of funds requires well-functioning school leadership and management structures. Greater autonomy over funding decisions might increase existing inequities between schools, with some schools facing greater challenges in linking spending choices to improvement priorities. Administering and allocating funds effectively requires time, administrative capacity and adequate preparation of school leadership teams. Experience in OECD review countries indicates that delegating budgetary responsibilities to schools may create tensions between pedagogical and administrative school leadership. While budgetary autonomy allows aligning budget planning with pedagogical needs of schools, it may also place considerable administrative, managerial and accounting burdens on leaders, reducing their time for pedagogical leadership.

Pointers for policy: The effect of schools' budgetary autonomy on school processes and outcomes depends on their ability to make use of this autonomy in a constructive way and thus requires a strengthening of school leadership and management, as well as support for school leaders with budgeting tasks. Professional preparation and development programmes for school leaders should prepare them for their resource management responsibilities within a framework of pedagogical leadership. Furthermore, autonomous schools need to be embedded in adequate institutional

frameworks in order to avoid that increased autonomy results in widening inequities across schools. When school autonomy, school evaluation, accountability and support are intelligently combined, they have greater leverage to impact positively on teaching and learning. Considerations about schools' responsibility for budgetary matters should also go together with discussions about school size and school network policies. Providing the structures and support to help schools group together and share resources can help achieve economies of scale and a more effective use of funding.

Developing regulatory frameworks for the public funding of private schools

Over the past three decades, the public funding of private school providers has become more common across OECD countries. The public funding of private schools is typically combined with parental choice systems that are intended to encourage greater diversity and quality in the educational offer. However, a number of risks for equity need to be taken into account.

In some countries, publicly funded private schools do not only enjoy greater pedagogical freedom than public schools but also greater autonomy in admission and tuition fee policies. However, if publicly funded private schools are allowed to select students based on performance, there are risks that they “cream skim” high-ability students from the public sector, particularly if their public counterparts are required to operate open enrolment or use only non-academic criteria to select students. Further, if publicly funded private schools can demand parental contributions in addition to the public funds they receive, this risks reinforcing segregation along socio-economic lines, with students from more advantaged socio-economic backgrounds having more options to enrol in private schools.

This may lead to a situation where both high-ability and socio-economically advantaged students opt out of the public school system. In such contexts, diminished peer effects and greater resource needs of disadvantaged students are likely to make it ever more difficult for public schools to retain both students and funding. Research also indicates that even where private schools cannot select students or raise fees, families from disadvantaged backgrounds are less likely to make use of school choice and less frequently consider academic quality criteria when deciding which schools to attend.

Pointers for policy: To counteract adverse effects on equity related to the public funding of private schools, school systems should consider requiring all publicly funded providers to adhere to the same regulations regarding tuition and admission policies, and ensure that compliance with such regulations is effectively monitored. Admission procedures for oversubscribed schools should be homogenous and transparent. It is also important to ensure transparency and accountability for the use of public funding by private providers, and to provide families with adequate access to information and support so that they can make informed choices for their children.

Distributing school funding

School systems need to consider a series of guiding questions to design a funding model that best fits the established governance structure. These include the following:

- *Who is responsible for the final allocation of funding to schools?*

In many systems, there is a complex mix of responsibilities for funding allocations to schools. But the balance of these responsibilities is not set in stone and can be changed alongside the introduction of new funding allocation mechanisms, as has been the case in several OECD countries.

- *Which resource categories does this apply to?*

Different authorities may be responsible for current expenditures (staff, operational costs), capital expenditures (infrastructure) or a mix of these. It needs to be clear which authority is responsible for allocating which category. The type of allocation mechanism that is most suitable will depend on the resource category that is considered.

- *What conditions (if any) should be set for the funding allocation?*

Even if a sub-central authority is responsible for the final allocation to schools, central authorities may specify for what purpose the money should be spent. Equally, different conditions can be set by sub-central authorities when allocating final funds to individual schools. The various restrictions associated with transferred funds provide a good indication of the room for manoeuvre given to sub-central authorities and schools in a system.

- *How much of the funding will be distributed via the main allocation mechanism and how much via other mechanisms (such as targeted funds)?*

There is an argument that efficiency is improved if a greater share of funding is included in the main allocation mechanism. At the same time, there is a case for retaining a proportion of funding at the central level, e.g. for emergency expenditures or priority areas where it is judged that schools would not make adequate provision.

- *What basis will be used to fix the amount of funding allocated to schools?*

Broadly, among OECD review countries, there are four major bases for determining funding. These main types of funding allocation mechanisms are described in Box 1.

Box 1. How are the amounts allocated to schools determined?

Administrative discretion is based on an individual assessment of the resources that each school needs and **incremental costs** consider historical expenditure to calculate the allocation for the following year. These two approaches are often combined, and usually they are used in centralised systems.

Bidding and bargaining involve schools responding to open competitions for additional funding offered via a particular programme or making a case for additional resources.

Formula funding involves the use of objective criteria with a universally applied rule to establish the amount of resources each school is entitled to.

Pointers for policy: A general principle for a more effective funding distribution is to ensure that funds are allocated in a transparent and predictable way. Ensuring a stable and publicly known system to allocate public funding allows schools to plan their development in the coming years. This requires stability in the principles and technical details of the funding distribution system. Managing the effective implementation of new funding mechanisms is also key. When a decision is made to introduce a new funding allocation mechanism, an excellent design of the mechanism is not enough. It is important to have a realistic estimate of the implementation costs involved, to consult and bring on board the system's key stakeholder groups and to manage effectively the political economy of funding reform. Adequate stakeholder consultation is important to increase the perceived fairness of an allocation system and can help ensure that funding mechanisms respond to challenges that were not

anticipated. The OECD review has also highlighted the importance of conducting periodic reviews of funding allocation mechanisms to ensure they remain optimal.

Providing equity funding to schools

A key concern in designing funding allocation mechanisms is to ensure that funding is allocated equitably to schools that are most in need of additional resources. The following challenges and trade-offs need to be considered when choosing an allocation mechanism for equity funding.

There are two broad approaches when designing mechanisms to allocate funding that recognises different needs across schools: the inclusion of additional funding in the main allocation mechanisms for particular schools (e.g. by including weightings in the funding formula to systematically allocate additional resources to certain categories); or the provision of targeted funding in one or a series of different grants external to the main allocation mechanism. Typically, a mix of these funding mechanisms is found in many systems.

Targeted programmes will provide funding to be used by schools for specific purposes and thereby ensure responsiveness to emerging priorities and the identified needs of particular groups. However some countries have multiplied targeted programmes over time generating overlap, excessive bureaucracy and a lack of long-term sustainability for schools. Many countries provide targeted additional resources in kind, most typically additional teaching hours or positions. Another form of in-kind allocation is the provision of professional development opportunities for staff.

Other countries give more discretion to the school level in how to use equity funding. This gives school professionals more flexibility in allocating funds to address particular local challenges. In a context where schools have large discretion over the use of equity funding, strong accountability at the school level including with scrutiny by school boards on educational provision for different student needs and its impact on learning will play a key role. Funding mechanisms will need to manage tension between flexibility in using funds based on local judgements and accountability to maintain public confidence in the use of equity funds to the benefit of target groups. Accountability requirements need to be well-designed to avoid excessive administrative and reporting burdens on schools and other potential adverse effects.

Systems vary in whether they channel equity funding to certain geographical areas or to the actual population in each school. While allocating funding to the actual population allows better reaching the entire target group, such approaches do not account for the additional challenges created by a high concentration of disadvantage in a particular area. Area-based funding aims to address the additional negative effects that socio-economic disadvantage has when it is concentrated in a particular area. However, such approaches risk leaving out a proportion of the disadvantaged population in a system and include many individuals who are not disadvantaged. There is also evidence that the “target area” label can be stigmatising and encourage flight of middle class families from these areas.

Another major challenge in providing equity funding lies in estimating the different costs involved in providing adequate school education to student groups with different educational needs. Improving the financial distribution across students and schools requires regular and detailed analysis of the adequacy of funding and its effects on the quality of teaching, the efficiency of schools and the equity of educational opportunities. Evaluations of the actual costs should be based on evidence from regular audit work and academic research. Comprehensive and compelling analysis and empirical evidence on the exact cost differences would strengthen the basis for policy decisions to review or adjust parameters included in funding mechanisms.

Pointers for policy: Beyond a certain level of investment what matters most is how funding is allocated to schools and students that are most in need of additional resources. The OECD review has highlighted the importance in striking a balance between targeted and regular funding to more efficiently support greater equity within a school system. While the use of targeted programmes allows better steering and monitoring the use of public resources for equity purposes at the school level, there are risks that a multiplication of targeted programmes leads to piece-meal re-centralisation, a lack of co-ordination between different programmes, inefficiencies due to imposed restrictions on schools and greater administrative costs. There are, therefore, arguments to reduce transaction costs by limiting the number of different targeted programmes and including adjustments for equity within the major part of funding allocation via a formula. This can simplify the funding system overall, although it needs to be accompanied by adequate accountability for the use of equity funds to the benefit of identified target groups. Reliable evidence should be gathered on the adequacy of funding in general, and on specific elements that funding mechanisms aim to address, e.g. equity problems related to socio-economic disadvantages, concerns for a more equitable distribution of funding in rural locations and the education of students with special educational needs.

Choosing indicators to design funding allocation mechanisms

In designing funding allocation mechanisms, systems need to pay adequate attention to data requirements and the choice of indicators. For all indicators, there is a trade-off between simplicity and transparency on the one hand and accuracy and fairness on the other. Relatively simple indicators are likely to leave out some parts of the target population. For more precise targeting to local contexts, more complicated indicators need to be established, although a higher degree of complexity makes these less transparent and understandable to a wider public. In many countries there is an ongoing debate as to how many indicators of need can be included in funding allocation mechanisms. There are also examples where the use of simpler indicators did not make a large difference to schools' funding levels.

The availability and quality of data is a key concern when compiling indicators. In general, area-based measures may rely on data that is less up-to-date or sample-based, thus limiting the accuracy for targeting smaller areas. In recent years, many OECD countries have implemented electronic reporting systems for schools, which offer a wealth of data for indicators and can allow more accurate targeting of resources. However, there may be concerns about the reliability of school reports when there is incentive to inflate or deflate numbers in order to benefit from additional resources. For example, when funding is directly linked to the identification of individual students as having particular characteristics of disadvantage or special educational needs, this may lead to excessive labelling of students which is stigmatising for individuals and can lead to considerable cost inflation. A further problem is the misclassification and missing data on part of schools or students.

Pointers for policy: The OECD review has revealed that a wide range of different indicators are used across countries to distribute funding to schools. There is evidence of considerable refinement in indicators used over recent years and a policy consensus to use indices comprising multiple indicators in order to improve the targeting to socio-economic disadvantage. While the use of census-based data has been criticised in some systems for being out-of-date, it has the advantage that it cannot be manipulated by schools thus giving greater integrity to the funding allocation. Using census-based data as a proxy for data on individual student characteristics would be less accurate in targeting individual students, but authoritative national research can be used to choose the best proxy indicator or combination of indicators. This also holds the advantage of reducing reporting burden on schools. In seeking a good balance between census-based and school-based indicators, one option is to use individually targeted funding for students with more severe special educational needs, complemented

by a census-based funding approach for students with milder special educational needs or those linked to socio-economic disadvantage.

Designing funding formulas for current expenditure

The use of formula funding is well suited to the distribution of current expenditure and many countries have introduced this. There are three broad functions that funding formulas can aim to support. First, one of the most important functions of a funding formula is to promote equity by ensuring that similar funding levels are allocated to similar types of provision (horizontal equity) and that differential amounts can be added to the basic allocation according to the assessed degree of educational need (vertical equity). Second, funding formulas can have a directive function aiming to promote certain behaviour in funding recipients or to promote certain policies (for example, an additional amount can be added to the basic allocation to support schools with lower enrolment levels). Third, some countries use funding formulas to introduce market regulation or support broader school choice policies (see above). The greater the proportion of funding that is allocated on a simple per student basis, the more this function will be emphasised. While countries will emphasise these three functions to differing degrees, a major benefit of a funding formula is the transparency that it provides. The presentation of clear criteria that can be scrutinised and negotiated can help stimulate public debate and build general acceptance of a formula by major stakeholders as a fair method for school funding.

Within a funding formula, coefficients should adequately reflect different per student costs. This requires the introduction of different adjustment components. A balance needs to be struck between a simple formula, which might fail to capture school needs with full accuracy, and a sophisticated formula, which may be difficult to understand and discuss. As a guide for designing formulas to better meet differing needs, research has identified four main components: i) a basic allocation per student or per class that is differentiated according to the school year or stage of schooling; ii) an allocation for specific educational profiles or curriculum programmes, such as a focus on the arts, sports, different vocational fields or special educational needs programmes; iii) an allocation for students with supplementary educational needs adjusting for different student characteristics or elements of disadvantage; and iv) an allocation for specific needs related to school site and location, adjusting for structural differences in operational costs, such as for rural areas with lower class size.

In countries where sub-central authorities have responsibility for funding allocation, there is a great opportunity for system learning. While central authorities cannot directly influence funding allocation, more attention can be devoted to improving efficiency in different approaches used within the country. There will be many different funding formulas developed at the regional or local levels to distribute funding to schools. Many of these will share the aim of providing a more equitable funding allocation. There is, therefore, much potential for local authorities to learn from each other regarding the effective design of funding formulas. Some larger authorities with greater capacity may have developed funding formula with external expertise. Sharing knowledge across authorities can help to avoid duplication of efforts. At the central level there is room to identify and promote best practices in funding allocation.

Pointers for policy: Funding formulas are widely used for distributing current expenditure to schools. The introduction of a funding formula can help provide a clear framework for debates on the sufficiency and proper allocation of funding. Different parameters within the formula may be debated, which can help stakeholders to express their position clearly and make agreements that can be monitored. A well-designed funding formula can provide an efficient, equitable, stable and transparent method of distributing funding for current expenditures to schools. However, inadequate formulas may exacerbate inequities and also inefficiencies. While there is no single best practice funding formula,

there are a set of guiding principles that can help design effective formulas. These include: aligning formulas with school system priorities and establishing evaluation criteria accordingly; adequately reflecting different per student costs of providing education; promoting budgetary discipline; and ensuring the periodical review of formulas to assess the need for adjustments.

Planning the use of school funding

The process leading up to the formulation and implementation of funding plans is a key stage of the budgeting cycle. It provides an opportunity to reflect upon previous expenditure and future resource needs in order to develop financially sustainable budgets that support the provision of high quality education and effectively address policy priorities.

Linking budget planning to educational objectives

As policy objectives evolve, countries need to adapt their budget plans to best support these objectives. Developing linkages between budget and strategy frameworks can provide governments with a clearer picture of where public funding is spent, facilitate the allocation of funding according to policy priorities and make it easier to track spending against the achievement of policy objectives.

But this process is not always straightforward. Many countries face challenges in establishing a shared understanding of educational quality and priorities that would be suitable to guide the budgeting process. Even where goal-oriented budget planning procedures are in place at the central level, these are not always adopted at sub-central levels of the administration. Decentralising resource management responsibilities requires capacity building for strategic budget planning at levels of the system.

The effective planning of school funding strategies and reform initiatives also requires systematic mobilisation of knowledge generated through research, evaluation, monitoring and audit activities (more on this below). Evaluation results can be used to inform decisions throughout the budgeting cycle and serve as a basis for professional discussion among stakeholders concerning future reform initiatives. However, many countries lack effective mechanisms to strategically integrate data and educational research into a process of evidence-based resource planning.

Pointers for policy: Aligning funding strategies with policy objectives is crucial to ensure that school funding is effectively used to support educational improvement and reforms. Building a shared understanding of a country's strategic vision for educational improvement among stakeholder groups and levels of authority can increase the coherence of budget planning activities across the education system. In addition, evidence on the effectiveness of past spending decisions should be used to inform discussions among stakeholders and help responsible authorities in making informed decisions throughout the budget preparation process. To effectively inform evidence-based budget planning, the data generated by evaluation activities should focus on assessing the impact of programmes and policy initiatives, ideally relating it to previously established objectives and expenditure information. Education systems should also promote the creation of fora that foster co-operation between researchers, stakeholders, policy makers and institutions that can act as knowledge brokers in order to consolidate evidence and facilitate its integration into the budgeting processes.

Striking a balance between predictability and flexibility in budget planning

Strategic thinking and long-term planning are central to the successful governance of complex education systems. Forecasts and projections of future resource needs can be used throughout the different stages of the budgeting process, ensure the education system's long-term fiscal sustainability

and develop clear implementation paths for educational reforms. Forecasting resource needs in the education sector involves anticipating developments in the demand for services across different education levels and sectors as well as their implications for human, pedagogical, physical and financial resource needs. At the central level, baseline data on demographic changes in the school-age population and information on previous budget allocations may be combined with additional parameters of varying complexity, for example projected enrolment rates and student flows, different modalities of resource utilisation and macroeconomic or budgetary indicators.

Over the past decades, a growing number of OECD countries have adopted medium-term expenditure frameworks to carry out the budgeting process with a multi-year perspective. Such frameworks can help ensure that policy proposals and programmes are backed by a medium-term budget and that costs at different stages of their implementation are adequately accounted for. At the same time, the nature of the budget preparation schedule is often such that educational resource needs, particularly at the local level, are only imperfectly known by the time at which budgets need to be approved. A whole-of-system approach to education planning therefore needs to reconcile the importance of longer-term budgetary frameworks and the predictability they afford with a sufficient degree of flexibility to respond to changing conditions in the short term.

Since budgets are typically granted for a given fiscal year, carry-over rules regulate the extent to which actors at different levels of the education system can use unspent financial resources beyond this point. Prohibiting providers from retaining savings between budget years may lead to inefficient spending patterns towards the end of the fiscal year and rigid restrictions on carry-over practices can compound other sources of inefficiency such as shortcomings in national planning procedures. On the other hand, unrestricted carry-over rights may reduce transparency in the timing of expenditures and lead schools to accumulate excessive surpluses. This can cause spending fluctuations and the allocation of resources to student cohorts for whom they were not originally intended.

Pointers for policy: Adopting a multi-annual budgeting process can provide actors across a school system with a means to strategically plan their operations and to take into account potential trade-offs between alternative spending options as well as their longer-term expenditure implications. The development of multi-annual budgets should be guided by high-quality forecasting mechanisms to create the conditions necessary to commit to longer-term allocations. At the same time, introducing an appropriate degree of flexibility into the budgeting process will improve responsiveness to unforeseen circumstances and promote more efficient spending decisions at the sub-central level. Schools and local authorities should also be provided with some room to carry unused appropriations forward from one budget year to the next. This can discourage inefficient expenditures towards the end of the budget cycle and provide schools and local authorities with incentives to mobilise additional revenue or improve the efficiency of their operations, although regulations should prevent the accumulation of excessive surpluses.

Evaluating the use of school funding

Evaluation provides information on what a planned budget actually delivers beyond the intentions for the use of resources expressed in the budget allocation. An approach to the evaluation of funding that sets inputs in relation to the processes and outcomes of a school system will provide helpful information to improve decision making and make the use of resources more effective. However, evaluating the effectiveness of resource use is challenging due to the complex nature of education. Some countries do not have standardised national measures of student outcomes at all or only for particular stages of education or in discrete skill areas. Also, while national education goals are typically comprehensive and broad, evaluation systems are more limited in the information they can offer. In addition, as investments may take time to have an effect and many other factors also shape

outcomes, conclusions are difficult to draw even where both costs and outcomes can be realistically assessed.

In many systems, the important role played by sub-central and school level actors in using school funds introduces further complexities to evaluating the use of funding. There may be disagreements across actors on objectives, targets and indicators to be used in the evaluation of school funding as well as co-ordination challenges related to timely reporting and sharing of information. School evaluation approaches across OECD review countries consider the use of funding by schools to varying degrees and links between resource use and achievement of strategic goals of a school are not always established. In some contexts, evaluation of budgetary matters may be limited to monitoring compliance instead of a focus on the effective use of funding for improvements.

Pointers for policy: An approach to school system evaluation which involves analysis of both financial and educational data and aims to identify effective investments can help improve the future use of public funding in the school sector. To improve the information basis, system evaluation policies should seek to: develop indicator frameworks for the systematic mapping of available information against education system goals; design national strategies to monitor student learning standards; and collect qualitative information on the school system. It is also important to integrate existing databases and information systems which are often split across different levels of governance and different institutions. In contexts of school autonomy, approaches to school evaluation should consider how schools use their funds to promote the general goals of the school system, implement their school development plans and ultimately improve teaching and learning for all students based on a common vision of a good school. School evaluation should bring together both pedagogical and financial aspects of school operation, and review how resource use affects the achievement of strategic goals and the quality of teaching and learning. This requires building the evaluation capacity of external evaluators, school leaders and school boards so that they are able to collect and use data and information for improvement.

Evaluating the equity outcomes of school funding

Many countries invest considerable resources to improve the educational opportunities and outcomes for student groups at risk of underperformance. But this financial commitment is not always matched with a strategy for monitoring the progress and outcomes of these groups. Monitoring equity can inform school funding decisions to the benefit of disadvantaged groups, help to target financial support more effectively, and increase the overall focus on equity in resource use decisions across the system, including at the level of sub-central authorities and schools.

Monitoring the impact of school funding on priority groups is particularly important in complex governance systems where resources intended for disadvantaged groups are channelled through several authorities or providers. Local or school autonomy in spending decisions may mean that central equity funding strategies may be undermined at the local or school level if equity funding is shifted towards other student groups or allocated to purposes that have little effect on target groups. It is therefore crucial to ensure transparency about the distribution and use of funding and the actual expenditure outputs (the real cost of educating a student as opposed to the planned funding per student) within schools. At the same time, it is important to note that there is a tension between the benefits of transparency and reporting and the administrative burden this may entail at the local and school level.

Pointers for policy: Many countries show a considerable financial commitment to supporting students at risk of underperformance, and this focus on additional inputs needs to be matched with sufficient attention to monitoring the outcomes of different student groups. This would help to

determine the extent to which the school system meets their needs. Countries should set clear equity goals for the system and develop related indicators to monitor their achievement. This should entail the collection and analysis of data on the demographic characteristics of schools and students and the learning and other outcomes of groups at risk of underperformance. Key data on learning outcomes should be sufficiently broken down for different student groups to facilitate analysis of the challenges they face. Disaggregated data can also help to facilitate peer-learning among schools with a similar student intake and similar challenges. Commissioning thematic studies on the use of resources for equity is another option for monitoring the equity of the school system. Where multiple equity programmes serving similar goals are in place, it is important to approach evaluation from a whole-of-government perspective and avoid inefficiencies through regular monitoring, sharing of relevant data, co-ordination and potential consolidation of programmes.

Promoting transparency in the use of school funding

Evaluating the use of school funding gives a fuller picture of the educational experience that is actually provided to students in relation to what was planned. In practice, budgets are rarely implemented exactly as approved. This can be for legitimate reasons, such as adjustments in policies in response to emerging challenges. But the effective implementation and execution of a budget may also be hindered by a lack of capacity, mismanagement or unauthorised expenditures. Ensuring integrity has gained increasing relevance in a context in which levels of public trust in government have decreased in the wake of the financial and economic crisis in many countries. Budget transparency, i.e. the disclosure of relevant fiscal information in a timely and systematic manner, is important for accountability and participation throughout the budgeting process.

In some countries, there has been a trend towards more explicit multiple accountability designs that involve a broad range of stakeholders in decision making and accountability. School boards, which usually comprise representatives of parents, teachers, the local community and sometimes students, can play a key role in monitoring the use of funding at the school level and in providing horizontal accountability of school-based resource management. Bottom-up accountability through the direct engagement of citizens can play an important role in complementing vertical and horizontal accountability of public authorities, although it also increases the complexity of education governance. Multiple accountability is still a fairly new concept and the amount of available research on how to make it work is modest. While it provides opportunities, such as new sources of information to learn, improve and steer, it also carries a risk of information overload, and it can be difficult to involve less powerful voices in multiple accountability processes.

Pointers for policy: Budgetary reporting can provide decision makers and stakeholders with clear information about resource use and enhance the quality of policy decisions via robust analysis of financial and non-financial data. To this end, budgetary reporting should be presented alongside reporting about the quality and equity of a school system in relation to established policy objectives and targets. This can help communicate the goals of investments in the school system and build social consensus about fiscal efforts for schooling. Countries with a large degree of school autonomy should also encourage the dissemination of information about school budgets together with information about school development plans and other activities at the school. But reporting of school-level information needs to be weighed against the administrative burden involved and it needs to be ensured that schools have sufficient administrative support and access to national data sufficiently disaggregated for use at the school level. Broader strategies to build evaluation capacity in school systems should also focus on skills to use the resulting information for improvement. Education authorities can support school boards by providing guidance and relevant information for them to play a key role in monitoring schools' use of funds. Accountability measures that involve multiple stakeholders can usefully complement traditional measures of vertical accountability.

OECD Reviews of School Resources

The Funding of School Education

CONNECTING RESOURCES AND LEARNING

SUMMARY

The effective use of school resources is a policy priority across OECD countries. The OECD Reviews of School Resources explore how resources can be governed, distributed, utilised and managed to improve the quality, equity and efficiency of school education. The series considers four types of resources: financial resources, such as public funding of individual schools; human resources, such as teachers, school leaders and education administrators; physical resources, such as location, buildings and equipment; and other resources, such as learning time. This series offers timely policy advice to both governments and the education community. It includes both country reports and thematic studies.

This report on the funding of school education constitutes the first in a series of thematic comparative reports bringing together findings from the OECD School Resources Review. School systems have limited financial resources with which to pursue their objectives and the design of school funding policies plays a key role in ensuring that resources are directed to where they can make the most difference. As OECD school systems have become more complex and characterised by multi-level governance, a growing set of actors are increasingly involved in financial decision-making. This requires designing funding allocation models that are aligned to a school system's governance structures, linking budget planning procedures at different levels to shared educational goals and evaluating the use of school funding to hold decision makers accountable and ensure that resources are used effectively and equitably.

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