LONGITUDINAL EDUCATIONAL ACHIEVEMENTS: REDUCING INEQUALITIES

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What Counts as Evidence Report

Table of Contents

What Counts as Evidence Report 2

1. Executive Summary 3

2. Introduction 5

2.1. Evidence & Evidence-informed policymaking: definitions, conceptual framework, and actors 6

2.2. Scope, structure, and methodology of the report 7

3. Understanding Evidence: use, definitions, and forms 9

3.1. Sources of evidence from a multi-level perspective and their limitations 9

3.2. The Typology of policymakers' motivation to use evidence 11

4. Case Studies 14

4.1. Case Study: Estonia 15

4.2. Case Study: Finland 31

4.3. Case Study: Germany 43

4.4. Case Study: Ireland 54

4.5. Case Study: Italy 70

4.6. Case Study: Romania 85

4.7. Case Study: The UK (England) 98

5. Contextual factors that may lead to selection bias 113

5.1 Country-Specific Evidence Challenges 113

5.2. Comparative Analysis of Shared Drivers and Blind Spots 114

5.3. A Taxonomy of Contextual Factors Shaping Evidence Selection 116

6. Future Directions in Education Research and Evidence-Informed Policies 118

7. Policy Implications for the European Union 120

References 122

Appendix A 125

Country tables 126

1. Executive Summary

This report- Deliverable D4.3 of the EU-funded LEARN project-maps how evidence is generated, mobilized, and used to tackle educational inequalities across seven partner countries (Estonia, Finland, Germany, Ireland, Italy, Romania, and the UK). Work Package 4 (Policy & Impact) strengthens the European evidence-informed policy agenda by tracing longitudinal equity gaps in each system and distilling lessons for stronger policy design, evaluation, and implementation. The report draws on European Commission's latest attempts towards evidence-informed policy initiatives as well as a three-tiered evidence framework-macro (international/regional datasets and discourse), meso (national/institutional data, policies, evaluations), and micro (practitioner knowledge, stakeholder input) and Weiss's four modes of research use-instrumental, conceptual, symbolic, and imposed.

Our seven case studies reveal both promise and peril. In the UK, the Pupil Premium targeted-funding scheme has helped narrow attainment gaps in some contexts but faltered where schools lack capacity or where transient and marginalized learners fall outside data systems. In Germany, academy and school-autonomy reforms have spurred local innovation yet risk deepening socioeconomic segregation absent robust equity safeguards. Ireland's mixed-methods pilots-combining randomized trials with ethnographic case studies-have surfaced critical lessons on implementation fidelity, though few national registers extend beyond attainment to capture socio-emotional or civic competencies. Italy's community-driven citizen-science initiatives have democratized evidence production but struggle with standardization and scaling. Romania's new digital student registers have enhanced longitudinal tracking yet risk exacerbating local-capacity disparities and data-quality issues. Finally, AI-powered dashboards piloted in Finland and Estonia offer real-time insights into student engagement and well-being but expose ethical vulnerabilities in algorithmic bias and data privacy.

The link between evidence and policy is anything but straightforward. The key findings of the report indicate that political priorities usually set the reform agenda first, with data-collection mandates added later and PISA-style benchmarks shaping public debate. In the process, key groups-home-educated children, Gypsy/Roma/Traveller pupils, and young carers-slip through the cracks of fragmented data systems. Which evidence rises to the top depends heavily on ideological leanings (market versus social-democratic), fiscal pressures, and whether governance is centralized or decentralized-factors that also dictate whose voices are heard. And because few countries maintain longitudinal cohorts or routinely incorporate qualitative insights from practitioners, accountability suffers and the sector struggles to learn systematically from past initiatives.

To address these challenges, we propose five interlocking EU-level actions:

1. A GDPR-compliant, pan-European data portal combining anonymized longitudinal registers, cohort studies, and evaluation results.
2. Equity-weighted funding mechanisms that tie new grants to demonstrable reductions in within- and between-school disparities.

3. Mandatory participatory mixed-methods pilot phases for major cross-border initiatives, complete with open-access registries of both quantitative and qualitative findings.
4. A professional network of "evidence liaisons" in every member-state ministry to translate research into practice.
5. A composite Equity Index in the annual Education and Training Monitor to spotlight lagging regions and populations.

Target Audience: National and EU policymakers, education ministry officials, research funders, and stakeholders in the European Education Area.

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2. Introduction

Educational policymaking- a complex process situated at the intersection of social, political, and economic forces- necessitates a careful consideration of the types of evidence used to inform policy decisions. While there is no straightforward relation between educational policymaking and the use and forms of evidence, a global *evidence agenda* has been set forth to "lower the political cost of taking action by backing difficult decisions with evidence" (OECD 2023). The increasing global prevalence of evidence-based educational policymaking is partly due to the spread of new public management and accountability policies in education systems worldwide (Hall, 2005); (Wittman, 2008). This "evidence agenda" (Schuller & Burns, 2007) is a call to policymakers to draw on scientific evidence as they navigate the complexities of the expanded education systems, respond to the shifting demographics and rapid societal and technological changes, and as they endeavour to conform with the basics of the *right to education* i.e., *availability, accessibility, affordability, and adaptability* (the 4As), (Tomasevski 2006).

Underpinning the evidence agenda are two beliefs that hold "school knowledge is abstract and universal" and that "empirical evidence is an efficient indicator of knowledge and learning" (Wiseman 2010). The fusion of these two assumptions has given rise to another assumption, i.e., The universal transferability of policies and consequent discourses of "what works" and "best practices" that seek to identify successful practices in one setting and seamlessly lend and borrow these policies as solutions across time, spaces, and learning settings (ibid). Critics of these assumptions question the reliance on empirical evidence as the sole arbiter of effective policy, advocating for a more nuanced approach that considers qualitative data, practitioner knowledge, and stakeholder perspectives (McAleavy, Riggall et Naylor 2021); (Rickinson 2017); (Spiel et Schwartzma 2018). In a similar vein, it has been argued that evidence regarding inclusive education overlooks the importance of context and cultural relevance in education. In effect, (Ainscow 2020) argues that the success of inclusive practices hinges on various contextual elements, such as a system's guiding principles, school evaluation criteria, and community perspectives. Using generic solutions without acknowledging the unique cultural and contextual aspects of a specific educational setting can impede genuine inclusion and equity. He champions a more nuanced approach that recognizes the interplay of evidence, context, and culture in developing effective inclusive practices

The evidence agenda for educational policymaking, while presumed as a linear pathway toward more effective and equitable education systems, remains a non-linear complex process due not only to its initial assumptions, but also the intricacies of policymaking actors and sources of evidence. Indeed, the evidence-policy design nexus operates within socio-political and economic landscapes that can shape the production, interpretation, and utilisation of evidence (Torres 2006). The influence of international organizations, political ideologies, and funding priorities can all impact the types of evidence deemed valuable and how that evidence is ultimately translated into policy action (Ferguson 2017); (UNESCO 2024). According to the European Commission (2007), three challenges persist in evidence-informed policy making, including knowledge creation, mediation, and application. At creation level, scientific language, timeliness and relevance of datasets, as well as different perspectives of different fields of academic research and their impact on the type of evidence created can affect the availability and use of evidence to inform policies. In regard to mediation, knowledge brokers' approaches and their mediating role between the scientific

community and policymakers can be affected by different values, trust, and openness (EuropeanCommission 2019) while in each context policymakers' competencies to use available evidence also vary (Commission 2007). At the level of use and application, several intricacies can be pointed out, including policy makers' desire for standardised, measurable outcomes and the need to address the diverse and evolving needs of learners (Gough, et al. 2011). As well as shifting political structures, processes and policymakers' selection bias that encompass cherry-picking favourable studies, mischaracterising findings, ignoring discomforting evidence (Brown 2016) and their "appeals to evidence as a purely rhetorical strategy to gain support" (Parkhurst 2017).

To decode the complexities of the evidence agenda, a common definition of evidence, evidence-informed policy, as well as a conceptual framework are discussed here below.

2.1. Evidence & Evidence-informed policymaking: definitions, conceptual framework, and actors

Evidence-informed policy is an (or a widely accepted) approach that integrates evidence including data, research findings, expert analysis, and real-world observations into policy design. A primary definition of evidence-informed policy by (Davies 1999) suggests it as an approach that "helps people make well-informed decisions about policies, programmes and projects by putting the best available evidence at the heart of policy development and implementation". Akin to this definition, (Langer, Tripney, & Gough, 2016) consider evidence-informed decision-making (EIDM) as "a process whereby multiple sources of information, including the best available data and research evidence, are consulted before making a decision to plan, implement, and alter policies". As such, evidence-informed policymaking stands in contrast to the opinion-based version that may heavily rely on selective use of evidence or on the untested views of individuals and groups inspired by their ideological standpoints, prejudices, and speculative conjecture (Segone et Pron 2008).

The conceptual framework for evidence-informed policymaking is based on a substantial body of inquiry all drawing on the typology proposed by (Weiss et Bucuvalas 1980). Their foundational work on research use in public policy has underpinned research on the access, perception, and the difficult choice to use research by education policymakers, e.g., (Sharkey et Murane 2006); (penuel, et al. 2017). According to this typology, policymakers use evidence in four forms-which are not mutually exclusive and can be used simultaneously. A first type is an *instrumental use* in the service of filling a gap in knowledge and to inform a particular decision based on relative costs and benefits of that decision; *conceptual use* occurs when research evidence shifts the way a policymaker views a problem or the possible solutions to it; *symbolic or political use* is when research is drawn upon simply to justify a decision already made; and finally the *imposed use* occurs when the use of evidence is mandated by policy or law (e.g., national policy, global initiative).

The evidence-informed policy agenda that has been pursued by international organisations as an alternative to *opinion-based policy* seems to operate, at least initially, as an *imposed use* as education systems operate at multi-levels (global, regional, and national). Among international actors, for instance, the OECD and the evidence from its Programme for International Student Assessment (PISA) have brought the mode of "governing by numbers" (Grek, 2008) across Europe and many other countries, see e.g., (Takayama 2012) as a benchmarking tool (Breakspear, 2012) leading to education system reforms while also increasing OECD's organisational legitimacy to forge

a world order based on its PISA results (Li et Morris 2022). Within the frame of this global evidence agenda, a "political production model" may take place in which references to elsewhere- as evidence for policymaking- could come in the form of "legitimisation, caution, scandalisation or glorification…deployed to both catalyse and stymie attempts at reform" (Rappleye 2012). Of course, the OECD is only one organisation among global institutes and its datasets/reports that drive the global evidence agenda in educational policy making. Other actors include UNESCO and its Global Monitoring Report (GMR). The UNESCO Institute for Statistics and its global education indicators (GEI); the World Bank and its EdStats as well as Human Capital Index (HCI) that calculates the contributions of health and education to worker productivity; the Global Partnership for Education (GPE) and its Education Results Framework; and the International Association for the Evaluation of Educational Achievement (IEA) and its two flagship assessments TIMSS (in math and science) and PILRS (in reading).

National evidence-informed policies- pertaining to symbolic, conceptual, or instrumental use of evidence- however, do not necessarily lead to homogeneity of policies across nations as differing national objectives frame education policies and as the rule of the game is "to align but not necessarily to follow" (Wittmann, 2008). What starts as an imposed use of evidence may potentially lead to all other forms of evidence use, i.e., conceptual, symbolic, or instrumental leading to policy reforms that are inextricably interwoven in re-existing reform debates and constellations of stakeholders and their competing agendas.

At regional level, the European Commission's initiatives have also actively propelled the evidence agenda in the European Education Area. The evidence agenda for educational policy making in Europe began with the Lisbon Strategy in 2000- which included benchmarks for monitoring effective practices. It was reinforced by the Open Method of Coordination in 2001 (OMC) to assist member states in policy development through mutual learning and identification of best practices. Establishing a robust evidence baseline has been crucial for continuous improvement in European education systems and standards. Hence, the European Commission's directive to Member States and the EU institutions "to use evidence-based policy and practice, including robust evaluation instruments, to identify which reforms and practices are the most effective, and to implement them most. successfully" (Commission 2007). These early European initiatives eventually led to the creation of the *Education and Training Monitor* since 2012 that has tracked progress towards European targets and benchmarks, further bolstering evidence-based policymaking. To successfully implement its evidence agenda, the European Commission has deployed different mechanisms from setting a competence framework "science for policy" for researchers (2023), to organising training for policymakers to "work with evidence" (2024) to funding cross-national research through its Horizon2020 scheme to produce relevant evidence for policymaking.

2.2. Scope, structure, and methodology of the report

This report feeds into the European Commissions' agenda for evidence-informed education policymaking and the aims of Horizon 2020 funding scheme. The EU-funded Research and Innovation Action (RIA) project LEARN "Longitudinal Educational Achievements: Reducing iNequalities" contributes to both evidence-informed policymaking and reducing educational inequality aims of the European Commission by mapping, analysing, and comparing the longitudinal educational inequalities across 9 European countries' education systems.

This report serves to examine policies tackling educational inequalities and the evidence they draw upon. It is part of the deliverables of Work Package 4 (policy and impact) of LEARN Within the overall objective of the LEARN project, Work Package 4 aims to promote the European evidence-informed policies through different research outputs including this report (D4.3) that is to support and promote evidence-based decision making and policy adaption. This report aims at clarifying what counts as evidence for educational policy making and will focus first on the definition of evidence, evidence-informed policy (the section above): It will then provide insights on the role of evidence in educational policymaking through case studies drafted by LEARN partner countries, including Estonia, Finland, Germany, Ireland, Italy, and the UK, to then discuss contextual factors that may affect the use of evidence across these different contexts, and finally to depict the future directions of evidence-informed policies in Europe. Within the framework of LEARN and its focus on educational inequalities, each case study will provide an overview of the context, main educational inequalities and the policies tackling them in their contexts, the type of evidence drawn upon to formulate these main policies, as well as the availability and use of evidence, i.e., evidence bias in their respective contexts.

Since evidence-informed policy making in education is a complex process-as discussed in the introduction- and within the framework of LEARN, this report gathers basic information on main sources of educational inequalities, policies that tackle them, and the type of evidence used to formulate policies across the LEARN partner countries. The focus of this report will be on knowledge mediation (e.g., databases, knowledge brokers) and knowledge application (recent examples of using evidence to formulate policies that tackle educational inequalities between 2000-2025). Additionally, the focus of the report will be on an analysis of the impact of these policies in mitigating educational inequalities based on scientific evaluations- where possible. The report does not provide information on the evidence-based practice in schools, but it will take into consideration the different policy-making levels in each context that may operate at local, community, or national levels.

Given the slow nature of scientific research and its difficult readability by outsiders, most "policymakers, consequently, take a broad view of evidence and interpret information through their preexisting beliefs and preferred policy positions (ibid; Brown, 2015). Among the aims of this report, therefore, is to provide reader-friendly case studies to facilitate access and use of scientific evidence across LEARN countries participating in WP4.

3. Understanding Evidence: use, definitions, and forms

In this part of the report, two main themes will be delineated. In the first part the focus will be on types of evidence and data used for policymaking and their limitations based on a multi-level perspective, and a second part will depict a typology of policymakers' motivations to use evidence.

3.1. Sources of evidence from a multi-level perspective and their limitations

The term "evidence-informed" which seems to be preferred by European scholars and initiatives (Brown, 2015), bears implications for both policy and research. As (Pellegrini & Vivanet, 2021) state, the term means that in research "sources of evidence extend beyond experimental studies and often include qualitative and mixed methodologies; for policies, the European Union (EU) documents provide guidance rather than stipulations regarding the use of evidence in educational decision-making". Hence, evidence in education policy encompasses a wide spectrum of sources, ranging from global and regional policy initiatives and datasets to national and local policies and practices as well as datasets obtained through quantitative, qualitative or mixed method studies.

3.1.1. Macro-level

At macro-level (international and regional initiatives and datasets), large-scale international assessments such as PISA, TIMSS, and PIRLS or regional datasets such as EUROSTAT provide comparative data informing policy discourse and influencing national education goals. These are usually *quantitative datasets* that are useful for measuring trends, identifying correlations, and evaluating programmes and policies. In addition to the "what works" discourses that was discussed in the introduction to this report and their potential hazards in simplifying the transferability of "best practices", questions remain regarding the extent to which these large-scale quantitative datasets serve to create, collate, distribute, and apply the knowledge on which policymakers and practitioners can draw. The case of the Danish Ministry of Science, Technology and Innovation and the OECD can serve as an example here. In the wake of the OECD's review of the Research and Development (R&D) in 2004 and their rather negative view of the way research and innovation sector was organised in small-scale and uncoordinated manner in Danish higher education, one of two questions raised revealed the difference in the OECD's and the Danish "evidence agenda". Challenging the OECD's model, the question was whether evidence is to be restricted to formal quantitative empirical research, or it could be defined broadly and draw on a wider array of interpretative disciplines (see OECD, 2007).

This cleavage resonates with differing epistemological predispositions that large scale quantitative data such as those produced by the OECD incarnate and the consequent disconnected and homogenising interpretations that may be laid out regardless of the diversity of the contexts examined. This entails that large scale quantitative datasets provide a glance at education-ironically the title of the OECD's annual reports- their outcome-oriented datasets move away from understanding cultures. Additionally as (Cowen, 2023) emphasised "The irony is that on this model of understanding in comparative education – measuring the results of schooling – comparative education is emptied of all forms of academic understanding and of all complexities except those of

the technicalities of measurement: it becomes an adjunct to efficiency movements, a social thermometer indicating one measure of health – while in practice reinforcing the politics of one definition of a proper world-order".

3.1.2. Meso-level:

At meso-level, i.e., national or institutional levels, the systematic approach to produce scientific evidence may take a broad view of evidence including a mix of rigorous qualitative and quantitative data. National quantitative datasets on student demographics, test scores and school performance, and resource allocation may account as crucial evidence for policy design and strategic educational planning (MCAleavy, Tony, Riggall, & Naylor, 2021). In turn, national policies, informed by both local needs and international trends, constitute evidence on their own rights as they serve as promising responses- or "what works" within a given context- to the pressing challenges faced by education systems including quality, equity, and inclusion. Likewise, institutional-level data drawn from mixed method studies, such as student retention rates or graduation outcomes within specific universities or school districts, may offer more granular and contextualised evidence for targeted interventions. As (DeJaeghere, et al., 2020) emphasise: "When researchers want to know 'what works', quantitative methods are commonly selected instead of qualitative methods. However, without good qualitative data to contextualise these findings, 'how or why things work' can often remain obscured".

The nuances of evidence-informed policymaking can be observed in the example of France explained by (Pellegrini & Vivanet, 2020) and the example of Norway (Hovdhaugen, Vibe, & Seland, 2017). In 2017, France reduced class sizes in disadvantaged areas from 24 to 12 students for first and second graders to address achievement gaps. The decision of the Ministry of Education was based on a 2003 study by showing small positive effects of class size reduction, a newer study by the same authors (Bressoux, Lima, & Monseur, 2019), as well as a meta-analysis by (Filges, Sonne-Schmidt, & Nielsen, 2018) suggested that the impact of reduced pupil/teacher ratio diminishes over time and is small or even negative in mathematics. While reducing the achievement gap is important, longitudinal evidence suggests class size reduction may be a costly and ineffective strategy compared to alternatives like tutoring. In the case of Norway, the publication of aggregated results from national tests is contested by the authors mentioned above as these national results are of little value to small size municipalities and schools. The authors recommend that when presenting aggregated data, the government should explicitly state that the data might not be useful for small schools or municipalities for analysing their own performance or for quality enhancement. In response to these limitations, this report will include case studies in the context of Estonia, Finland, Germany, Ireland, Italy, Romania, and the UK to further delineate the nuances of national evidence-informed policies in Europe.

Therefore, while national and institutional data may provide contextualised and grounded understanding, they also have limitations. Data quality issues, biases in collection and analysis, lack of a systematic or longitudinal approach can lead to flawed conclusions and consequently bear costs on public funds and society. Furthermore, ethical aspects must be considered when collecting and using data. For instance, informed consent and privacy and confidentiality of participants shall be ensured during the data collection phase and once collected it is imperative to ensure it is FAIR (Findable, Accessible, Interoperable, and Reusable).

3.1.3. Micro-level

At Micro-level, evidence from practice encompasses the experiences and observations of teachers, school leaders, and other stakeholders within specific educational contexts (Mulholland, 2024). This can include case studies of successful programs, teacher testimonials, and student feedback on their perceptions of equality and inclusion, for instance. While often qualitative, micro-level evidence provides valuable insights into the practical implementation and impact of policies. The study of Penuel et al. 2017 has some interesting insights into the way education leaders- including school principals and central office leaders from mid- and large-size US urban areas- engage in an *instrumental use* of evidence particularly in designing curricula while they do not appreciate the *imposed use* of evidence. Interestingly, "organizational conditions related to valuing, encouraging, and offering regular opportunities for research use were more strongly associated with instrumental, symbolic, and imposed uses of research than were individual characteristics related to acquisition effort, attitudes toward research, and preparation to interpret research, while individual characteristics were more strongly associated with conceptual use. Taken together, these associations indicate that individual characteristics and organisational conditions both mattered for leaders' use of research for various purposes" (ibid).

At micro-level, the evidence eco-system remains evermore complex with multiple actors - particularly different layers of practitioners - interacting in the generation, mobilisation and use of evidence ((Nutley, Boaz, Davies, & Fraser, 2019). From a constructionist perspective, a sense-making negotiation of power, roles, responsibilities and application occurs - among actors in practice and policy - leading to a co-construction of realities and narratives across policy text, to policy discourse, and practitioners' practice (Ball's policy cycle, 1994, see (Hatcher & Troyna, 1994). Such a co-construction unfolds based on organisational cultures, leadership strategies, individual and groups' capacities, power relations, and mechanisms of problem framing (Coburn, Touré, & Yamashita, 2009). At this same micro-level, policymakers need to conform to socio-political and practical realities and thus need evidence not only regarding a policy's effectiveness, risks, and benefits, but also its acceptability to key stakeholders, ease of implementation, and cost.

3.2. The Typology of policymakers' motivation to use evidence

As discussed above, evidence for policymaking can span across quantitative, qualitative, mixed methods, practice and policy discourses that are produced, disseminated, and used within or across national contexts.

Whether policymakers draw on different types of evidence based on an imposed, instrumental, conceptual, or symbolic approach, assuming that "what works" and the choice of evidence is an anti-ideological and pragmatic one obscures the values that lead to the selection of evidence. As it was discussed previously, evidence can be mis-interpreted (as was the case in France and Norway), be misused, cherry-picked or be un- or intentionally sidelined from decision making. According to (Simillie, et al., 2019), in our current world, "the increasing complexity of policy problems and the abundance as well as ambiguity of scientific knowledge poses a significant 'technocrat's dilemma'. Relevant, synthesised, expert advice is increasingly needed but the authority of such experts is being challenged". Additionally, the two communities of policymakers and scientists have different

cultures, languages, jargons, time constraints and budgets. Hence, "The gap between the needs of policymakers and the ways researchers present evidence is one of the key barriers for the injection of evidence into policy making. The process is further impeded when evidence is not fit for the purpose and when timing is poor" while "Insufficient scientific literacy among policymakers and lack of a joined-up government approach to evidence can also reduce the ability of administrations to understand, assess and apply evidence" (ibid).

Regardless of such intricacies, the global evidence agenda motivates national educational policymakers to use evidence as part of their (non-linear) decision-making processes. Wiseman (2010) has proposed a typology of the three primary motivations for using evidence among educational policymakers. This typology is included here to provide a better understanding but not necessarily to frame the case studies that are included in this report.

The three main motivations to use evidence include:

1. **Quality:** Policymakers use evidence, such as student test scores, to measure and ensure the quality of education. They operate under the assumption that better test performance indicates better learning and, therefore, better schools and teachers. This focus on quality often leads to policies aimed at improving test scores. The quest for quality is of course also motivated by international large-scale datasets, e.g., OECD's PISA and UNESCO's objectives of quality education for all (Education for All, 2000-2015; Sustainable Development Gaol no 4, 2015-2030).

2. **Equality:** Assessing student and school performance helps determine the level of equal opportunities in access, participation, and outcomes. By identifying performance disparities between individuals, classrooms, and schools, decision-makers can create policies to address low performance. Large-scale assessments of educational inequalities can contribute to equity in education when part of a broader social agenda, often focused on race, class, or gender, and tied to students' learning opportunities. The Coleman Report (1966) is a key example, commissioned during President Johnson's Great Society program to identify inequalities affecting student achievement. Its findings, suggest family and peer influences outweigh school resources, significantly impacting equity-driven policy in the US and internationally. The quest for equality and just societies is also central to the European Pillars of Social Rights (2021)[1] as well as the United Nations Sustainable Development Agenda (SDGs, 2015-2030). Education, training and lifelong learning are the very first among the 20 principles of the European Pillar of Social Rights to attain a strong social Europe that is fair, inclusive and full of opportunity.

3. **Control:** Wiseman (2010) also acknowledges a more cynical motivation, i.e., social and political control. He argues that evidence can be used to justify decisions and "scientize" or rationalize policies, potentially serving the interests of certain individuals or groups. This can involve using assessment data to control or guide education in specific directions. For instance, tying school funding to test scores could be seen as a form of control, incentivising schools to prioritise certain subjects or teaching methods. Similarly, using international

[1] See The European Pillar of Social Rights in 20 principles - European Commission

assessment comparisons such as the OECD's PISA results to justify curriculum changes or to fund more research on assessment compared to other topics in education can also be viewed as exerting control over educational systems.

4. Case Studies

This section presents narratives of the seven LEARN partner case studies (Estonia, Finland, Germany, Ireland, Italy, Romania, UK), each tracing how flagship equity-oriented reforms were conceived, justified, and monitored. We spotlight interventions such as the UK's Pupil Premium, Finland's AI-driven dashboards, Ireland's DEIS programme, Italy's La Buona Scuola reform, and others-showing how political imperatives, international benchmarks, and local evidence streams shaped policy design. All case studies

For readers who wish to dive into the granular breakdown of each policy's target groups, evidence origins, data flows, and evaluation citations, please refer to Appendix A (National Equity-Policy Tables).

4.1. Case Study: Estonia

1. Contextual background

In 2025, Estonia's population was 1 369 285, with 47 percent residing in Tallinn or neighbouring Harjumaa county (Statistics Estonia, 2025a). The GDP per capita of Estonia is below the European Union average. The average gross salary in the last quarter of 2024 was 2 062 Euros. In 2023, 2.7% of the population lived in absolute poverty, whereas the at-risk of poverty rate was 20.2% (Statistics Estonia, 2025c). In March 2025, the unemployment rate in Estonia was 7.1% (Töötukassa, 2025).

Approximately 30 percent of the population has a migration background, though this figure falls to 16 percent among 5- to 24-year-olds. The population with migration background is concentrated in two areas: Ida-Virumaa (66% of all inhabitants and 31% of the age group 5-24) and Harjumaa (37% of all inhabitants, 21% of the age group 5-24) (Statistics Estonia, 2025b) About 932 000 report that their nationality is Estonian whereas the largest minority group is Russians (296 268) followed by Ukrainians (68 770) (Statistics Estonia, 2025a).

Statistics Estonia (2025) reports that 37 percent of the population hold a tertiary degree, 41.6 percent have completed secondary education, and 19.2 percent have only basic education or less. In 2023/2024, there were 310 437 students enrolled on all levels of education. 31 400 students in basic education studied Estonian as a second language (Haridussilm.ee, 2025). Estonian students rank among Europe's top performers in PISA 2022, placing second in reading (after Ireland) and first in mathematics and science (Ministry of Education and Research, 2025e).

Overview of the educational system

Estonia follows a comprehensive school[2] system where all students follow the same curriculum until the end of lower secondary education. Compulsory education in Estonia spans from age 7 until students finish basic school or reach the minimum leaving age of 17[3]. All three education levels-basic, upper secondary, and higher-are currently tuition-free[4]. Basic and upper secondary schools also provide free lunch, textbooks, and school transport (Estonian education system, 2025).

Pre-school education Local authorities provide pre-school education for children aged 1.5 to 7 years at the parents' request.

[5]. Pre-school services incur moderate fees-capped at 20 percent of the minimum wage-and employ highly qualified staff (Ministry of Education and Research, 2025a). Ninety-four percent of 4- to 7-year-olds attend preschool (Estonian education system, 2025).

Basic education consists of primary education, grades 1-6, and lower secondary education, grades 7-9. In principle, students are accepted to the school of their place of residence without entry tests

[2] Comprehensive school systems feature a unified lower secondary curriculum, with no early tracking into separate institutions or programs based on academic ability (OECD, 2012).
[3] Will rise to 18 in 2025

[4] Starting from 2025/2026 academic year those who already have tertiary education, vocational education or wish to study in Russian will start to pay for their education (ERR, 03.04.2025).

[5] Although, long waiting lists to receive a spot at municipal kindergarten in preferred location has been a problem for children aged 1.5 to 3 (Lang et al., 2021).

(Ministry of Education and Research, 2025a). Some schools, lacking defined catchment areas, conduct selection via entrance tests or indirectly through motivation letters and interviews. Acquisition of basic education enables one to continue in general or vocational secondary education (Ministry of Education and Research, 2025a).

General secondary education studies last 3 years. The owner of a school (either local municipality or the state) establishes the conditions for admission to the school. At the end of their studies, students must pass three state exams (Estonian, mathematics and a foreign language), a school examination, and student study or practical work (Ministry of Education and Research, 2025a). Until the education reform from 2007 to 2011 one could obtain secondary education either in Estonian or Russian, but since the reform also in Russian-language schools at least 60% of the teaching is in Estonian (Klaas-Lang, 2022) - this reform is one of the focal points of our following analysis.

Vocational (secondary) education has different tracks. Those with at least basic education can enrol in vocational secondary education (length: 3-4 years), those without vocational skills only (length: 3 months to 2.5 years) (Estonian education system, 2025). Graduating requires that the student accomplish all the study goals evaluated by vocational exams (Ministry of Education and Research, 2025c).

Higher education is also free of charge in Estonia for those studying full-time and in Estonian in state-owned institutions and there is needs-based support for students. The previous system which had both free places and tuition-based places was replaced in the academic year 2013/2014 (ERR, 09.09.2011). There are 18 educational institutions offering higher education in Estonia (Ministry of Education and Research (2025d). The transition to free higher education will be one of the focal points of the following analysis.

2. Main educational inequalities

Based on previous studies in Estonia the main sources of educational inequalities can be grouped to parental resources (with parental education being the most influential compared to financial and cultural resources) (Täht et al., 2016; Helemäe & Saar, 2016; Saar & Helemäe, 2017; Saar et al., 2020) and minority/ethnic background (Lindemann & Saar, 2011; Täht et al., 2018).

Research shows that **parental resources**-particularly parents' education level-drive inequalities in both student achievement and final attainment in Estonia. Across several waves of the PISA study, students with lower socioeconomic status have performed lower compared to their more advantaged peers. In earlier rounds, Estonia stood out positively, as the influence of social background was weaker and the gap between disadvantaged and advantaged students was smaller than in most other countries (Lindemann, 2013a; 2019). However, in the last wave of 2022, the influence of parental background had increased and was in mathematics tests similar to OECD average (Lindemann, 2023). When looking more closely at the components of the SES variable, mothers' education and parents' unemployment have been found to be the most influential to the kids test results (Lindemann, 2013a).

When focusing on educational attainment, studies in Estonia have shown that having a parent with higher education is a big advantage. After completing basic education, students with highly educated parents are significantly more likely to choose general secondary education over vocational

education, a trend that has intensified across generations (Täht et al., 2016). Several studies have turned their attention to the attainment of higher education, and also here the role of parents' education level is significant: the share of children who have higher education from families with highly educated parents is five times higher compared to children of parents with basic education (Helemäe & Saar, 2016). The same pattern was observed among a study among university students, where 53% of students had mothers with higher education, whereas in the mothers' generation overall, the share of women with higher education was 27% (Kirss et al., 2011). The researchers have tested if the inequalities observed might be due to financial or cultural resources (measured with no. of books at home) but found that when taking these variables into account, the parental education remains most significant (Helemäe & Saar, 2016). Saar & Helemäe (2017) conclude that possibilities for compensation of one resource with another are relatively limited. However, Saar and co-authors (2020), found indication that this long-lasting pattern might be changing, as in the younger generations, financial and cultural resources coupled could compensate for lower parental education.

Over the years **students from Russian-language instruction** have displayed weaker results in surveys on educational achievement, there are ethnic differences in educational paths as well as in the final education level achieved.

In PISA studies over the years students from Russian-instruction schools have performed weaker in all the categories measuring academic achievement - mathematics, reading and natural sciences (Lindemann, 2013b; 2019; Põder, Lauri & Rahnu, 2017, Täht et al., 2018). Compared to students in Estonian-instruction schools they have also shown weaker results in problem solving skills (Lindemann, 2014). Besides PISA, another study focusing on civic knowledge found a similar pattern of weaker performance of students in Russian-instruction schools (Põder & Lauri, 2021b). The authors have theorised this difference may be partly due to socio-economic composition of Russian-instruction schools, indicating that children undergo difficulties due to their parental disadvantages (Lindemann, 2013b; Täht et al. 2018). Others have explained the difference in achievement with the more closed class climate in the Russian-instruction schools (Põder & Lauri, 2021b) and the attitudes of students themselves, who report less enjoyment in learning natural sciences and more frequent scepticism towards the scientific basis of knowledge (Täht et al., 2018).

There are differences also in the following educational paths of students from the two parallel tracks. Russians have lower odds of continuing into general secondary and higher education compared to native Estonians (Lindemann & Saar, 2011; Kreegipuu & Jaggo, 2018). This difference is attributed more to students' language proficiency and citizenship, rather than to parental economic, cultural, or other resources (Lindemann & Saar, 2011). While basic and secondary schools taught for a long time in either Estonian or Russian (the change to 60% in Estonian in upper secondary education in 2007-2011, in basic education the change is currently ongoing), tertiary education options in Russian shrank much earlier. Mirroring the limited opportunities of students who lack language skills, the students from Russian-instruction schools more often ended up in tuition-based higher education, in private universities and in programs taught in Russian (Saar, 2008) or aimed at continuing their studies abroad (Mägi & Nestor, 2012; Pungas et al., 2015; Kreegipuu & Jaggo, 2018). When already at an Estonian university, Russian-speaking students are still less likely to continue their studies at the master-level (Koppel, Haugas, & Mägi, 2020).

3. Main policies tackling educational inequalities

Higher education reform (2013)

Following Estonia's independence from the Soviet Union, the country had only six education institutions offering tertiary education (Tõnisson, 2011). The nineties were characterised by rapid changes in the higher education sector where the number of higher education institutions expanded to its absolute high in 2002 when there were 49 higher education institutions in Estonia (Saar & Mõttus, 2013). At the same time, the number of students enrolled in higher education increased 2.7 times between the academic years 1994/1995 and 2008/2009, growing from 25,000 to 68,000 (Tõnisson, 2011). Characteristic for this phase was also a rapid growth in the numbers of tuition-paying students, both in terms of absolute numbers and as a proportion of all students (Saar & Mõttus, 2013; Saar & Roosalu, 2018). In parallel, a national accreditation system was introduced starting from the late 1990s, with the first mandatory quality assessments conducted in the early 2000s, leading to the consolidation of the sector. As of 2024, Estonia has 18 higher education institutions, including 6 public universities, several private institutions, and professional higher education providers. The number of students in higher education in 2024 was 45 450 (Statistics Estonia, 2025d).

In 1995, the system of state commission was put into place where there is a contract between the government and a higher education institution for the "purchase" of a certain number of graduates. State-commissioned placements were unevenly distributed across fields of study, guided by the principle that public funding should counterbalance student preferences for so-called "soft" disciplines and prioritise "hard" disciplines instead (OECD, 2007). At the same time, the universities began to admit fee-paying students to obtain additional funding (Saar & Mõttus, 2013; Saar & Roosalu, 2018).

In this system, students either occupied state-commissioned places, which exempted them from tuition fees, or paid the full cost of tuition if they did not. Moreover, financial support for living expenses, such as student grants, was exclusively available to those enrolled in state-commissioned study places (OECD, 2007). The proportion of students paying tuition fees increased from 7 per cent in 1993 to over 50% in the 2000s (the highest share of tuition paying students was 55% in 2006/2007) (Tõnisson, 2011).

These developments raised concerns of equity. While expansion increased overall tertiary places-ostensibly benefiting under-represented students-it also risked funneling disadvantaged learners into lower-status institutions or fee-paying spots (OECD, 2007; Saar & Roosalu, 2018).

In the early 2010s, the idea of free higher education found its way to the programs of leading parties. The explanatory memorandum of the draft law states that the goal of the reform is to make the functioning of the higher education system fairer for students, increase the effectiveness of higher education outcomes, reduce fragmentation across fields of higher education, and enhance the responsibility of higher education institutions in ensuring the quality of instruction (Estonian Parliament, 2012). At the time, using the equality argument in Estonian educational policy debates was unprecedented (Põder & Lauri, 2021a; Saar & Roosalu, 2018).

In 2013 a new system was established where the cost of tuition for students studying full-time in Estonian is covered by the state. Students, who do not match these conditions (study part-time or in programs in English), will pay their own tuition. In addition, full-time students whose family income per member is below a set limit can apply for needs-based grant (Männasoo et al., 2022).

In the last years, the share of students' paying for their own education has been around 16-17% (Haridussilm, 2025). The maximum cost of one ECTS is set by government decree to 50 Euros (with exceptions of up to 120 Euros in some study areas) (Government of Republic of Estonia, 2019). This would mean a cost from 3000 to 7200 Euros per year (in case of full-time studies). In comparison, the average gross salary per month was 1981 Euros in 2024 (Statistics Estonia, 2025e).

Transition to Estonian language instruction in upper secondary education (2007-2011)

The development of a separate Estonian- and Russian-language school system in Estonia during the Soviet era reflects the diversified demographic landscape resulting from post-World War II migration. In the beginning of the nineties, the share of students learning in Russian was above 30%, in the following decades it declined to below 20% (Põder, Lauri, & Rahnu, 2017). However, at the upper-secondary level the share of students studying in Russian decreased less: in 1993 30,1% studied in Russian while as in 2006 the percentage was 27,5% (Saar, 2008).

Already, shortly after regaining independence, the Riigikogu (Estonian Parliament) adopted a decision that schools with Russian as the language of instruction must transition to Estonian and become part of Estonia's unified education system (Tomusk, 2019). When the Basic Schools and Upper Secondary Schools Act set the goal in 1993 to begin the transition to Estonian-language subject teaching by the year 2000, this deadline was postponed to 2007 in 1997. It was also specified that the transition would take place gradually and only at the upper secondary school level (Klaas-Lang, 2022).

By the mid-2000-s, Russian language upper secondary education had become a dead end, especially for students with insufficient knowledge of Estonian (Saar, 2008). The state and the stakeholders deemed the transition to Estonian-language instruction in Russian-language upper secondary schools necessary to improve the knowledge of the official language among non-Estonians, to facilitate their integration into Estonian society and to increase their ability to compete in the educational and labour market (Kello, Masso, & Jakobson, 2011). At the government level, also providing pupils whose mother tongue is not Estonian with equal possibilities for acquiring higher education was stressed (Government of Republic of Estonia, 07.06.2007). At the societal level however, the views regarding the transition clearly divided the Estonian- and Russian-speaking populations: among Estonians, the support for transition is almost unanimous, whereas the views of the Russian population regarding the transition varied (Kello, Masso, & Jakobson, 2011).

Starting in 2007, the proportion of Estonian-language instruction in Russian-language upper secondary schools was gradually increased (Klaas-Lang, 2022). While preparing for the transition, a large number of general and subject-specific methodology trainings for teaching in another language were conducted for teachers. Special learning materials were also issued to schools with Russian as the language of instruction, based on the understanding that students who are not native speakers would use them. The transition started in academic year 2007/08 with Estonian literature; in the

next two years, music and civic education were added one by one. Starting from 2010/11 Estonian history was also taught in Estonian and in the next year, geography and subject of choice by the school were added. Since 2011, all students entering the 10th grade study 60% of their subjects in Estonian at the gymnasium level (Metslang et al., 2013).

4. Which evidence, for whom, and how?

Higher education reform (2013)

The developments in Estonian higher education system have often been driven by the European political agenda, both in terms of a generally neoliberal European social agenda and reliance on foreign expertise in designing policies among other factors (Saar & Roosalu, 2018). In accordance with this observation, the explanatory memorandum of the draft law of the higher education reform mentions the OECD report *OECD Reviews of Tertiary Education: Estonia* (Estonian Parliament, 2012). Among other concerns, the OECD review stresses the problems with equity as well as the lack of attention to these issues in Estonian higher education system:

> *It can also be said that there is an overall lack of commitment to improving equity in Estonian tertiary education. Equity is not among the priorities of tertiary education policy, few initiatives are targeted at improving equity, little information is collected to assess the extent of the problem, and an insignificant share of public funds is set aside for needbased financial aid. Similarly, the institutional commitment to improving equity also appears to be low by international standards (p. 52)*

Until the higher education reform, equity was not a prevalent concern in Estonian educational debates (Põder & Lauri, 2021a; Saar & Roosalu, 2018). The memorandum however mentions equality already in its second sentence, stating, the goal of the reform is to make the higher education system fairer for the student. This is further emphasised in the paragraph about the impact of the reform for the student, which states: “expected impact of the bill lies primarily in fairer access to higher education for the student” (Estonian Parliament, 2012).

The second source mentioned in the memorandum is *Estonian Higher Education Strategy, 2006–2015* (Estonian Parliament, 2012). The strategy however puts only minor emphasis on equity dimension (Saar & Mõttus, 2013) and does not foresee free higher education in the form it was established by the reform in 2013. Fair access, “according to one’s abilities” is mentioned as a precondition to societal development and renewal of society and it is stated that this is a right that must be guaranteed by the public sector (Ministry of Education and Research, 2006, p. 1). The strategy doesn’t have any obvious link to data, but again OECD is mentioned as a reference point regarding access when one of the objectives is sets “preserving an access to higher education comparable to OECD countries” as a goal for next 10 years.

The memorandum uses some statistical data to describe the current situation in higher education regarding the division of students between free and tuition-based places (Estonian Parliament, 2012). The source of the data is not mentioned, but as the memorandum is written by the Ministry of Education and Research, one might suspect it derives from the Estonian Education Information System (EHIS), which is a national register of data related to the education system kept by the ministry since 2004.

Finally, the memorandum mentions Eurostudent IV survey from 2010 (Estonian Parliament, 2012). This is used to describe the widespread tendency to work while studying in Estonia and to justify the choice of giving access to free studies only to those studying full-time, as based on the survey working students dedicate less time to studies compared to their non-working co-students.

Transition to Estonian language instruction in upper secondary education (2007-2011)

The roots of the upper secondary education reform of 2007-2011 go back to early nineties when Estonia regained its independence. Earlier analyses have placed the upper secondary reform *as an element in the broader context of language and integration policies*. The large number of people who did not speak Estonian was seen by the state as a barrier to social cohesion and as a risk to national stability (Mehisto, 2011). Therefore, minority integration became a major political priority (Pettai, 2024) and improving language skills was seen as the main tool enabling better inclusion (Metslang et al, 2013; Soll, 2015). The language policy of early nineties dealt with reversal of the shift that Estonian had undergone during Soviet times away from being a national language used throughout society towards chiefly informal domains (Skerrett, 2014). In this context, the parliament foresaw the total transfer of Russian instruction schools to Estonian by year 2000 in order to integrate the new generations and to improve the status of the language. Different push and pull factors however reshaped this plan to what was the actual reform in 2007-2011.

At the same period, Estonia had set its goals to joining the European Union and NATO. *The international organisations* requested changes in language and related policies to meet their standards and values as a prerequisite of accepting Estonian candidacy (Hogan-Brun et al., 2008; Mehisto, 2011). They had an effect of gradually altering the stance of the Estonian government to the point where in 1997 Estonia postponed the introduction of this education law and in 2000 changed the law from demanding total instruction in Estonian by 2007 to having 60% of the curriculum taught in Estonian (Jurado 2003, referred through Hogan-Brun et al., 2008). On a more practical note, despite the initial ambitions plan, the actual efforts to make it happen were not enough in the nineties: there was a lack of qualified teachers and teaching materials as well as needs for curriculum development (Hogan-Brun et al., 2008; Pettai, 2024).

Despite the difficulties mentioned above, it was apparent, that the changes in Russian-instruction schools in 90-s (changes in curriculum, obligatory teaching of Estonian from primary school) didn't have the desired effect neither in the language nor integration policy view. Most high school graduates from these schools didn't reach a good enough level of Estonian to continue in higher education or to compete in labour market (Hogan-Brun et al., 2008; Skerrett, 2014). In addition, the separate school systems were very much responsible for establishing and maintaining separate ethnolinguistic societies in Soviet Estonia (Skerrett, 2014).

Therefore, the 60% plan for 2007 to 2011 went ahead. The rhetoric surrounding the reform in the 2000s stressed the *equality argument*: providing better opportunities for Russian youth in education and labour market through improved knowledge of Estonian (Kello et al., 2011; Masso & Soll, 2014; Metslang et al., 2013; Pettai, 2024). Only if Russian- language schools were further switched to the national language, it was argued, could Russian- speaking youth have an equal chance to compete for future life-chances (Pettai, 2024, p. 318). This rationale was also present in official documents like Estonian Language Development Strategy and Strategy for the Integration in Estonian Society

where the goals of language education are set as: achieving universal proficiency in the national language, including mastery of the literary standard, enabling employment and higher education in the Estonian language and integration of new immigrant children in the Estonian educational system (Rannut, 2008).

In conclusion, it is difficult to determine the extent to which the aforementioned reforms were driven by political motives versus grounded in evidence. While there is some indication of both influences, political considerations played a role in shaping and implementing the reforms. However, this report we are unable quantify the precise balance between these two factors.

5. Persisting educational inequalities and evidence bias: what evidence is missing

Higher education reform (2013)

The National Audit Office evaluated the higher education reform in 2019. The audit concludes that the reform has only partially achieved its goals. Regarding the goals related to equality the audit team found that the proportion of those entering higher education among different social groups has remained essentially the same and the proportion of unemployed individuals and members of households that received subsistence benefits entering higher education had not changed significantly (Riigikontroll, 2019, p. 5). Põder & Lauri (2021a) also analysed the impact of the reform on equality. They found that the reform affected neither the overall access to university nor the probability of choosing an applied curriculum among disadvantaged students but decreased their opportunity of being accepted onto high-rank curricula. Both sources mention the insufficiency of the needs-based support system as one of the possible reasons why the reform failed to reach its objectives regarding equality targets.

Regarding the data availability, already the OECD report from 2007 mentions lack of data:

> *There is a general lack of knowledge about the extent to which equity in tertiary education is a problem as a result of the lack of critical data such as the socio-economic background of students in tertiary education, that of those accessing nonfee- paying places or that of those who benefit from student support programmes. (OECD, 2007, p. 51)*

Until today, not much has changed in this regard, as researchers try to find alternative ways to analyse inequality in education system. For example, the before mentioned study by Põder & Lauri (2021a) used EHIS data and operationalised disadvantages based on the distance or time of travel from university, rurality and real estate prices of different areas.

Transition to Estonian language instruction in upper secondary education (2007-2011)

During and following the reform there have been several studies that analyse either the attitudes, experiences and expectations of the parties involved in the process (Kello et al., 2011; Kirss & Vihalemm, 2008; Klaas-Lang et al., 2014; Masso & Soll, 2014), the effectiveness of learning and student performance (Metslang et al., 2013), the impact of multi-language and multi-cultural learning on school climate (Rootamm-Valter et al., 2018) or the identity of students in the context of change (Soll, 2015). We have however been unable to locate any post-reform outcome studies, which would enable to assess if the reform had the intended effect of reducing ethnic inequalities in education or if maybe it had the unintended effect of limiting educational choices of those whose

knowledge of Estonian was weaker. As this was a central argument in following through with the reform in 2007-2011, it is very interesting that no such comparisons have been made. This may be a sign that the equality argument was of secondary importance compared to the goals of integration and language policies.

On practical side, there are also no surveys or readily available databases which would allow such comparison. In LEARN project WP3, the Tallinn University team plans to fill this gap by combining the data from EHIS, EIS and the population register.

6. Future directions and recommendations

Based on the analysis of educational inequalities and selected policies aimed at mitigating them, a necessary shift in mindset and practice is recommended: moving beyond merely acknowledging educational inequalities towards actively using evidence-based methods to address these issues. As said earlier in relation to higher education reform, this was the first time inequalities were so strongly present in the justification of reforms. It may be that there have been some changes in this regard after the reforms.

Although Estonia has made significant progress in aligning vocational and higher education with labour market needs-particularly through the OSKA forecasting system, which actively involves stakeholders in identifying required skills-there could be more systematic involvement of stakeholders in addressing educational inequalities. The OECD (2012, p. 38) highlights stakeholder engagement-particularly involving students, parents, and teachers-as a crucial factor in identifying and mitigating educational inequalities.

In long-term perspective, to ensure continuous improvement and responsiveness to real-world educational disparities, Estonia should invest in developing longitudinal database combining survey and registry data. Evaluation mechanisms should track the impact of reforms, particularly language transition policies, on minority students' academic performance and integration outcomes (including the subjective ones).

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4.2. Case Study: Finland

1. Contextual background

Classified as a Social Democratic welfare state in most welfare state typologies, Finland shares substantial similarities with fellow Nordic states, including a historical commitment to a comprehensive and egalitarian welfare state, and a high degree of decommodification (Esping-Andersen, 1998). Historically however, Finland has had substantial social and economic differences relative to its Scandinavian neighbours, being smaller and less wealthy, whilst also being disproportionately affected by the Nordic recession of the 1990s – the long-term social and economic repercussions of which are still observed (Solantaus et al., 2004). Although Finland's economy is mainly service-based, it still stands out among European countries for its sizable industrial sector-about 20 percent of employment in 2022 (O'Neill, 2024).The experience of the recession of the 1990s and the proportionally significant industrial sector of the economy have both played a substantial role in shaping the Finnish educational system, with reforms to the education system since the 1990s reflecting efforts to upskill workers to create a more stable economy, and standardise post-secondary vocational education to better reflect industrial needs.

The Finnish education system can be largely defined as undifferentiated, with no tracking occurring until the end of basic education at the age of 16. Students then have the option of pursuing academically focused education in upper secondary schools, preparing students for university, or more vocationally targeted education in vocational schools. In addition to its late-tracking, open-ended design, Finland's system provides free education at all levels and no formal dead ends: vocational graduates may still enter university (though seldom), and upper secondary pupils can switch to vocational or polytechnic paths.

The late-tracking and open-ended nature of the Finnish education system reflects changes initiated by major reforms in the 1970s and 1990s. In the 1970s, driven by a socio-liberal ethos to boost equity, Finland replaced early tracking with a comprehensive, untracked system covering students up to age 16 (Ahonen, 2021). The subsequent reform of the 1990s changed the nature of higher education, amalgamating vocational colleges without standardised entry requirements or duration, into polytechnics designed to address the changing demand for vocational skills required by the labour market (Böckerman et al., 2009). These education reforms have been credited with driving, in part, Finland's international reputation for educational excellence, best typified by Finnish students repeatedly performing at or near the top of PISA tests, albeit with declining scores in recent years. Yet despite the reputation and high PISA performance, inequalities persist in the educational performance and attainment. Gender inequalities in educational outcomes have been observed; while most girls continue into academically focused upper secondary education, only a minority of boys do, with the gender gap increasing further when it comes to selection into universities. Similarly, inequalities by migrant background have also been observed. As a country with a more recent immigration history relative to other European countries, Finland does not have a large population of second-generation immigrants. However, first generation immigrants have been observed to be more likely to drop out of or not continue into upper secondary education, relative to students of Finnish-origin (Kailaheimo-Lönnqvist et al., 2020).

Whilst the education system is premised on a lack of tracking at earlier ages and by no dead ends, the higher education system is itself highly selective, with university admission traditionally largely determined by competitive university enrolment exams. This selectivity is illustrated by the majority of students failing to obtain admission on the first application, with lower-SEP students less-likely to maintain their university intentions if they fail to attain admission with their first application, whilst higher-SEP students are more-likely to continue to apply to universities in subsequent admission windows (Heiskala et al., 2023). It also fuels a booming market for costly preparatory courses, disadvantaging students without the means to afford them **Main educational inequalities (approx. 700 words)**

Finland's education reforms of the 70s and 90s were motivated by the goal of creating a more equitable and progressive education system, removing obstacles that could ostensibly affect academic performance and achievement, and standardising post-secondary vocational training. Despite this, inequalities continue to persist, as alluded to above. Two such inequalities are regional and socio-economic differentials, with other inequalities including those between students of migrant and non-migrant background, posited to be driven at least in part by these differences.

2. Main educational inequalities

Regional differences

Finland has three distinct types of regions in terms of organising schooling. The most common distinction is between rural and urban areas, but a third category includes municipal centre villages. These different types of areas pose a challenge in ensuring schooling is available close to students' homes.

In rural areas, primary schools are typically located near pupils' homes, while lower secondary schools tend to be more centralised, with a single larger school often serving multiple areas. Upper secondary schools in rural regions are usually located in the municipal centre. In many cases, students in rural areas have no real choice regarding their school at any level of primary or secondary education. While it is technically possible to apply for a different school, the process is often too complicated for parents to pursue. This creates inequalities compared to urban schools, where distances between schools are shorter, and transport options are more convenient. In some cases, pupils may have to travel over an hour one way to reach school.

Although teaching quality has not been shown to differ significantly, rural areas face greater difficulties in finding qualified substitute teachers. Conversely, smaller rural schools often have fewer pupils, which can lead to smaller class sizes. Since municipalities are legally required to provide schooling, major differences in quality based on place of residence are rare.

Upper secondary vocational education often requires students from rural areas to move away from home, whereas in cities and larger villages, vocational training is more readily available. This can result in students opting for general upper secondary education despite being more interested in vocational training. In terms of available study options, vocational education outside larger cities is often more limited, although the most common study fields are generally covered by vocational

education providers. By comparison, for academic upper secondary education, areas outside Finland's largest cities typically have only one provider, meaning students have little to no freedom in choosing an alternative school. The financial reform in upper secondary vocational education between 2016 and 2019 led to an almost €250 million reduction in the budget, impacting the number of campuses and the range of study fields available to students. At the same time, the curriculum was renewed, and the number of on-site studies was reduced, particularly in common academic subjects.

Socioeconomic differences

In Finland's early post-independence history, it was common for children from poorer and rural households to attain substantially lower educational attainment than their more affluent and urban peers (Ahonen, 2021). It was not until after the Second World War that a major effort was made to improve access and remove barriers in accessing education for rural and poor students, with the introduction of free school meals in the late 1940s and the extension of compulsory schooling to age 16 in the 1970s, preceding the monumental reforms to comprehensive schooling in the 1970s that have largely remained as designed up to the present day. These reforms particularly benefited students from lower socio-economic households, who had previously been disproportionately placed in vocational tracks (Pekkarinen et al., 2009), and have been credited with increasing social mobility and reducing the intergenerational transmission of inequalities (Kailaheimo-Lönnqvist et al., 2020). The egalitarianism of the Finnish education system can be attested to by its performance in PISA tests, with socio-economic differentials in academic performance comparatively small relative to those in other countries, albeit widening since 2012 (Kailaheimo-Lönnqvist et al., 2020; OECD, 2023).

Despite the expansion of higher education, there have been more recent indications that educational inequalities by socio-economic background have increased, with a strengthening of the association between parents' education and children's university education (Kailaheimo-Lönnqvist et al., 2020), and an increase in the intergenerational transmission of educational inequalities (Härkönen & Sirniö, 2020). Indeed, despite the late tracking nature of the Finnish education system, at the earliest branching point in education, selection of the academically-focused upper secondary education track has been observed to explain 80% of intergenerational educational inequality in Finland (Härkönen & Sirniö, 2020). Furthermore, the highly-selective nature of Finnish universities, where the majority of first-time applicants are rejected, lends itself to increasing socio-economic differentials in university attainment, with socioeconomic background strongly associated both with applications to, and enrolment in, universities (Heiskala et al., 2023; Nori, 2011).

This differential in university education attainment can be explained, in part, by the existence of taxing entrance exams that, until recently, were the primary criteria by which students were evaluated for acceptance by universities. The high-stakes nature of the exams and the limited university places available in the *numerus clausus* system used, increases the appeal of expensive university examination preparatory courses (Kosunen et al., 2021). The high financial costs associated with attaining these supports, coupled with the persistent university intentions of students from higher socioeconomic origins that sees repeated applications even after initial

rejection, increase the socioeconomic differentials at universities. This occurs despite the absence of fees and the existence of generous financial supports available to students that are designed to decrease these inequalities.

3. Main policies tackling educational inequalities

Regional differences

At the municipal level, inequalities between different areas are monitored and reported to the national administration through evaluations conducted by FINEEC (e.g., Maths Metsämuuronen, 2017; Vocational education Metsämuuronen & Salonen, 2017). Additionally, municipalities, the Ministry of Education and Culture (e.g., OKM funding initiative opetus- ja kulttuuriministeriö, 2024), and the Local Government and County Employers (e.g., KT funding initiative kt.fi, 2021) have also received funding for educational inequalities through targeted funding initiatives or as part of broader financing initiatives.

Such targeted funding is used to cover the salaries of qualified teachers or the costs of co-teaching practices. The ministry's funding, in particular, aims to improve the quality of early childhood education, pre-primary education, and basic education by reducing learning disparities, preventing segregation, and decreasing class and group sizes. These funds are specifically intended to promote equality, equity, the principle of local schooling, and an inclusive educational culture. By addressing disparities between low- and high-income areas, such funding initiatives help to balance socio-economic differences in education. Such funding is essential to provide additional resources beyond what municipalities' base funding can cover. On the other hand, applying for these funds often requires specialised expertise, which can put municipalities in an unequal position depending on their capacity to apply successfully. Furthermore, once the funding period ends, there is a risk that the solutions developed may be discontinued due to a lack of financial resources.

The reduction in base funding for upper secondary vocational education has necessitated greater cost efficiency among vocational education providers (Kuismin, 2024). Around the same time, in 2018, the structure of vocational education was reformed. The goal of the reform was to make studies more student-friendly and better aligned with the changing demands of working life - for both employers and students. It aimed to ensure that individual needs, such as varying learning speeds and support requirements, would be considered during studies.

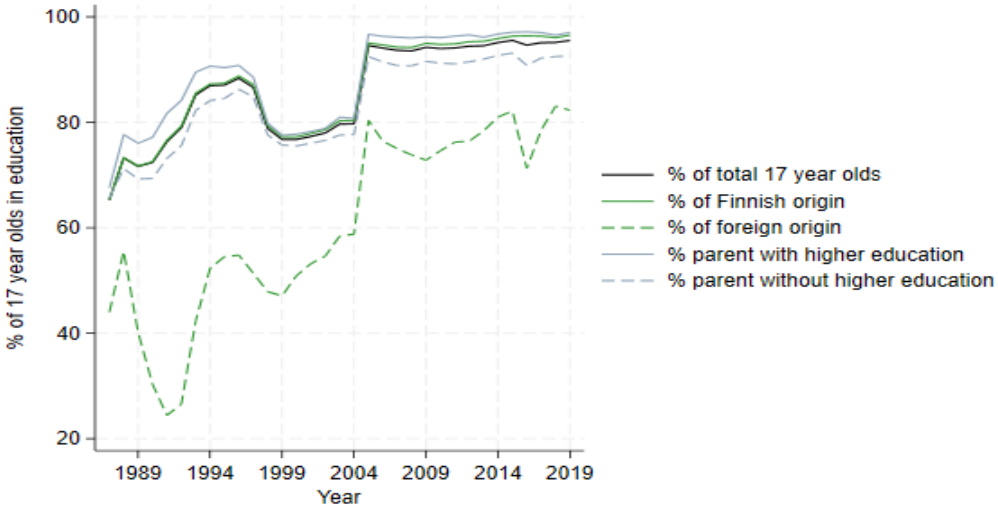
The number of contact lessons in academic core subjects was reduced (Kortesmäki, 2024), with the intention of increasing workplace learning to enhance the cost-effectiveness of vocational training. This could be seen as a response to the financial reductions of €260 million between 2015 and 2018 (Opetus- ja kulttuuriministeriön tiedote, 2014). Vocational training has received only limited extra funding to compensate for these reductions, and those are always without any guarantee of continuity. In 2021, €20 million of extra funding for hiring teachers and supportive personnel was allocated. To mitigate the impact of funding cuts, the structure of vocational diplomas was modified, allowing them to be completed in parts. This enables students to complete only specific sections and continue their studies later to achieve a full diploma. Typically, this is done by allowing students to focus on one of the key areas within their chosen field of study. This could be seen as increasing possibilities to transit from studies to work life in case of completing all of studies at once is some

reason too. It also helps reduce inequality between students who finish their studies on time and those who are more focused on work and may have lower motivation for school.

Socioeconomic differences

In line with the 'Nordic model' of education that prioritises equality (Lappalainen & Lahelma, 2016), two recent policy changes have been introduced in an attempt to stymie the lasting effect of socio-economic origin on educational performance and outcomes at various education points. While as of 2018, the vast majority of students (98%) continued into either vocational or upper higher secondary education, a small proportion of students exited education entirely on the completion of compulsory schooling at age 16 (Sahlberg et al., 2021). These students came disproportionately from migrant backgrounds and lower-socioeconomic households, reflecting disadvantages both in language skills and in familiarity with the education system (Kailaheimo-Lönnqvist et al., 2020). In response to these inequalities in educational attainment, in 2021 the government enacted a reform that prolonged compulsory education from 16 to 18 years of age. Figure 1 shows the trends in school continuation, by socioeconomic and migrant background, in the years preceding the increase in compulsory schooling age.

Figure 1. Percentage of 17-year-olds still in education prior to the extension of compulsory education to 18 years old



Further to the change of compulsory school age, efforts have also been made to decrease the reliance on university admission examinations, and increase the weight attributed to matriculation grades, in the enrolment criteria of students into university education (Kupiainen et al., 2023). This reform was intended to reduce the reliance on private preparatory classes for the highly competitive university admission examinations, which placed lower socio-economic students at a disadvantage to their more affluent peers who could afford better preparation for the examinations. The reduction in the importance of university entrance examinations and increased relative importance placed on matriculation grades have successfully reduced the demand for private preparatory courses for university admissions. However, this has not completely removed concerns with regards to the role of financial resources in providing advantages in the pursuit of university education, with inequalities appearing to now be transferred to earlier in the education cycle, as preparatory classes for

matriculation examinations have increased in popularity in step with their increased importance for university admissions (Niemelä et al., 2023).

4. Which evidence, for whom, and how?

Finland has a strong history of evidence-informed education policy, with both of Finland's major historical reforms – the reform of comprehensive education in the 70s and the creation of polytechnics in the 90s – informed and designed on the back of empirical research and a systematic approach to policy making. Typically, educational reforms of this nature are designed and prepared by a range of committees incorporating experts, civil servants and representatives from special interest groups, prepared by the administration and, after political discussion and agreement in the parliament, introduced into the education system (Lampinen, 2001).

A notable exception was the polytechnic reform of the 1990s, which followed a more experimental design and largely discarded the committee approach, introducing reforms in a stepped and temporary manner, with permanent approval for the reformed polytechnics granted only after several years of existence and an evaluation of their performance. Yet even here, Finland's educational reforms were themselves able to be drafted along the lines of international examples, particularly those of similar Nordic countries like Sweden which also developed a similar polytechnic design at that time (Nylund & Virolainen, 2019). A key feature of both the comprehensive and polytechnic reforms was the implementation of the reforms in a phased manner, paired with systematic evaluation – reflecting a strategy for empirically based and adaptable educational changes.

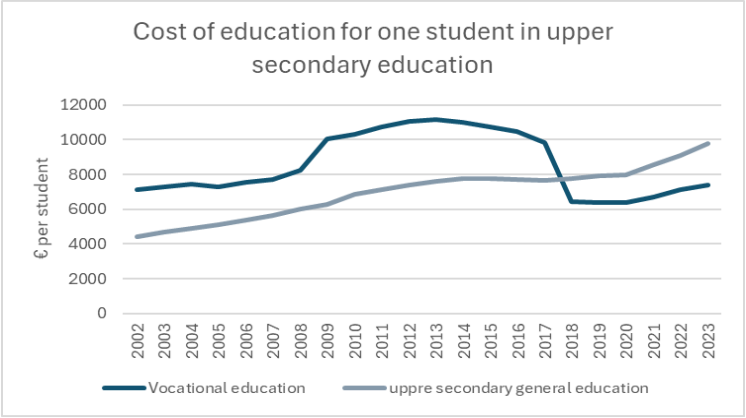
The reform of upper secondary vocational education and reductions in base funding were driven by the need to lower overall education costs (Kuismin, 2024). This was a political decision and part of Prime Minister Juha Sipilä's government's efforts to create a more cost-effective state economy. As part of making vocational education more flexible and standardised (Opetus- ja Kulttuuriministeriö, 2017; Valtiontalouden tarkastusvirasto, 2021, p. 10), the curriculum and diploma structure were revised to better align with European standards. The work to renew and evaluate the process itself is reported by FINEEC (Mäkelä et al., 2016). Kuismin (2024) claims vocational school reform was intended to be more student-friendly and meet requirements of changing work life and the needs of modern work. He also states that a key aim of the reform was to shift learning more directly into the workplace. The core idea was to support students' individual needs - such as the time and guidance required for personal growth - not just to ensure they acquire the necessary skills.

Extra municipal funding is often necessary because the larger base funding is insufficient to address inequalities caused by socio-economic background, the need for special support, and declining competencies, as highlighted in PISA studies. Currently, around 60% (compared to 39% in 2016, albeit that figure also included healthcare allocation for municipalities (Aho & Ranki, 2018; Kyllönen, 2024) of municipal expenses are allocated to education. Education funding is tied to the government's share, which follows a two-part model: basic funding and a supplementary contribution, as outlined in the Education and Culture Financing Act (Heimberg, 2019).

A key objective of the reform was to reduce dropout rates in vocational training and create a smoother transition into the workforce. To achieve this, students were allowed to complete their diplomas in sections, enabling students to enter employment even if their studies were not fully completed. Education providers also received financial incentives for each completed part (Kuismin, 2024). Today, education is mandatory until the age of 18, and the option to complete a partial diploma is primarily intended for those who already have a diploma or for adult individuals who have never completed one.

The majority of expenses in vocational training take the form of maintaining specialised halls, facilities, materials for practical training, and teaching personnel salaries (Opetushallitus, 2023). To cut these costs, measures were taken to reduce the number of separate facilities, often by merging similar subjects within shared spaces. This has led to a reduction in both the number of organisers and study locations, thereby lowering mandatory expenses. Figure 2 illustrates the per-student costs of academic and vocational track education, where since the year 2011 a noticeable reduction in vocational education costs following funding costs can be detected, while academic track spending seems increase at a consistent rate over time. While there could be a statistical explanation for the sharp drop in 2018, it appears that vocational education has borne the brunt of the funding cuts, whereas the academic track has maintained relatively stable funding levels. Recent increase in upper secondary education could be explained by free material followed by increased age for minimum study time.

Figure 2 Upper secondary school cost for student 2002-2023.



Also, as a result of these changes, the number of vocational education providers has decreased from approximately 228 in 2016 to around 144 by 2025. Similarly, the total number of vocational training locations has declined from around 600 in 2016 to approximately 450 by 2025 (Vipunen, n.d.). Shifting more of the learning to the workplace may have been seen as a way to reduce the need for physical facilities. But Kuismin (2024) found out that in many cases employers were not sufficiently informed of the changed demands. As a result, the intended flexibility and work-oriented approach led to confusion between employers and vocational education providers.

However, a contradictory outcome of these changes is that more students now must move away from their home municipalities to attend a vocational education provider that offers their chosen field of study. Since not all studies can be completed in the workplace, many students are required

to travel longer distances to take part in in-person lessons in rural areas. It appears that there were not enough existing teaching methods or capabilities to support more flexible learning arrangements, especially in terms of collaboration between employers and vocational education providers.

5. Persisting educational inequalities and evidence bias: what evidence is missing?

The existence of high-quality, full population register data has facilitated the investigation of the development of inequalities in detail, both across short time frames and, thanks to anonymised linkages with historical census data, across the life course and intergenerationally. This has enabled the effects of historical reforms, such as the major educational reforms of the 1970s and 1990s, to be comprehensively studied, with findings used to inform the development of more recent reforms.

However, several aspects of the Finnish context have made the evaluation of inequalities in Finnish education difficult to comprehensively quantify. A notable feature of the Finnish education system is its limited reliance on high-stakes testing, particularly in the early years of education. While hailed as potentially reducing stress on students in early years, the absence of standardised test scores has repercussions in terms of understanding how and when academic inequalities emerge. The earliest comparable examinations taken by students are the examinations taken at the end of Comprehensive Schooling, when students are approximately fifteen years of age. However, these examinations are unstandardised and teacher-graded, leading to potential discrepancies in how student performance is evaluated. While the matriculation exams, taken at the end of upper secondary education, are standardised and independently graded, these exams are only taken by students who select and complete the academically focused secondary education option, with performance information on students who opt for vocational tracks thereby missed. The effectiveness of matriculation examinations as a gauge of school performance is also compounded by the frequent adaptations of the matriculation examination, which hinders longitudinal analysis and adds complexity to the assessment of changes over time.

Both municipal and vocational education face a common challenge: limited financial resources. As a result, some inequalities persist, even though extra funding is partially allocated to cover rising costs. In vocational education, funding cuts and reform were closely related, which are easily confused to be the same. There is also a lack of information on how much the implementation of the reforms was affected by the Covid-19 pandemic and needed arrangements for studying. The evidence of the success of made reforms seems to be diminished by financial cuts. Good intentions could cause more inequalities, because other structural changes could increase inequalities in other areas of education or changes demands more from students themselves.

In vocational education, there is a lack of comprehensive data on actual skill development. However, FINEEC evaluates several study fields annually to gain an overall understanding of vocational studies and the impact of reforms. These reports serve as a basis for ministry-level decision-making. There is still insufficient evidence on how vocational education reforms have affected students' skills and equity in access to tertiary education. Unlike upper secondary general education, which has a standardised matriculation examination, vocational education lacks an equivalent standardised

competence test. This creates a situation where employers may struggle to trust that newly graduated students possess the necessary skills for their profession.

6. Future directions and recommendations

Finland has deservedly attained an international reputation for high quality and accessible education, yet as outlined above, persistent inequalities highlight the need for continued research. Even as policy adjustments reduced inequalities in some areas, such as reliance on private tutoring for university entrance examinations, waterbed effects can be observed where such changes lead to new inequalities emerging in other parts of the education system, as observed in the newly accentuated importance of matriculation exam preparatory classes. The importance of private market courses, coupled with an increasing emphasis on high-stakes matriculation exams for determining higher education enrolment are areas of future research that can provide insight on both regional and socio-economic inequalities in educational attainment.

Various changes could likewise facilitate the disentangling of effects, and better isolate distinct drivers of inequalities from correlated confounders. Access to standardised test scores at earlier ages, for instance, would better enable researchers to understand how and when inequalities emerge. Whilst it would be unreasonable to anticipate their introduction into the Finnish education system, FINEEC already has some remit to collect such test scores, and linking collected data with the wider Finnish registers used by researchers could open new understandings into when inequalities observed at the end of basic education and in matriculation exams emerge.

There is also a largely unrealised potential for better linkages between survey data and registers. The benefit of registers is that accurate information on demographic and economic indicators is already there, limiting the need to attain this information through surveys. However, registers lack information on other variables, particularly subjective measures, that can provide better insights into why observed differences emerge. While possible, such linkages have been difficult and time-consuming to create. There is therefore potential to more seamlessly exploit the existing anonymised identity codes to combine survey and register data, reducing the duplication of data whilst also providing richer insights than is available purely through the registers.

Vocational school reform and financial cuts for vocational education should be clearly distinguished from each other. There is a lot of confusion caused by funding reductions coinciding with the application of more workplace-oriented learning. Whilst these new approaches have the potential to bring cost savings in the long term, they require adequate funding during the implementation phase. Professional educators are also trained to meet different kinds of learning challenges, while employers are not expected to have any educational experience. Therefore, it is important to avoid relying on learning methods that only suit students with a particular attitude toward work and study. This would end up in a situation, where funding is reduced, but demands on education are increased.

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4.3. Case Study: Germany

1. Contextual background

(The German educational system is often considered distinctive due to its early and rigid tracking structure, which aims to allocate students to different educational pathways based on their perceived academic potential (Henninges et al., 2019; Schindler, 2017)) suggestion: Germany's education system is distinctive for its early, rigid tracking, assigning students to pathways based on perceived academic potential (Henninges et al., 2019; Schindler, 2017). This tracking process begins immediately after primary education, typically at the end of grade four, when students are approximately ten years old (Eckhardt, 2017). At this point, a decision must be made regarding the type of secondary school the student will attend. Traditionally, the system has followed a tripartite model. The lowest academic track, known as *Hauptschule*, was designed to prepare students for manual or blue-collar occupations. This pathway generally concluded at the end of grade nine, after which most students entered the vocational training sector-specifically the dual system (*vocational system*), which combines classroom instruction with on-the-job training. Academic demands in this track are comparatively modest.

The intermediate track, *Realschule*, aimed to equip students for mid-level white-collar roles, such as administrative or clerical positions in banks, offices, or commercial enterprises. This track typically extended through grade ten and required a moderate level of academic achievement. The most academically demanding track, *Gymnasium*, was designed to prepare students for higher education and professional careers in academic fields. This track usually continues through grade thirteen and culminates in the *Abitur*, a qualification necessary for university admission. Students in this track are expected to meet the highest academic standards. The underlying rationale for this tracking system is to create relatively homogeneous learning environments at the secondary level. The assumption is that grouping students with similar cognitive abilities, interests, and educational aspirations will foster more effective teaching and learning by allowing instruction to be better tailored to students' needs (Matthewes, 2018; Traini et al., 2021).

However, the structure and implementation of this system are complicated by Germany's federal organisation. Education policy is largely determined at the state level, meaning that each of the 16 German federal states (*Bundesländer*) has the autonomy to shape and modify its own educational system (Rürup, 2005). As a result, while broad patterns and principles can be identified at the national level, the actual organisation and functioning of schools can vary significantly between states. For this summary, the focus will remain on the general features of the German educational system, while acknowledging that numerous regional variations and institutional specifics cannot be fully addressed here (Helbig & Nikolai, 2015).

Over the past several decades, a series of educational reforms has significantly transformed the traditional structure of the German school system (Schindler & Bittmann, 2021). One of the most notable developments has been the introduction and gradual expansion of comprehensive schools (*Gesamtschulen*), where students from different educational tracks are taught together within the

same institution, and in some cases, even within the same classrooms. This reform has aimed to reduce the rigid separation between tracks and foster greater educational equality. In parallel, the system has become markedly more permeable, enabling more flexible and sequential movement between tracks and the attainment of higher educational qualifications over time (Schindler, 2014, 2015). This increased permeability reflects a broader policy shift toward enhancing individual educational trajectories and reducing the long-term impact of early tracking decisions. Additionally, the academic track (*Gymnasium*), once regarded as a selective pathway for a relatively small elite, has evolved into the most commonly chosen option. Today, about 40% student cohorts opt for the academic track directly after completing primary education, signalling a substantial shift in societal expectations and educational aspirations.6

In the remainder of this summary, we will outline the key reforms and structural transformations that have taken place over the past 25 years-changes that can be considered especially consequential given their scale and implications. We aim to shed light on the motivations behind these reforms and provide a critical assessment of their intended and unintended consequences for the German educational landscape.

2. Main educational inequalities

In this section, we focus on three primary sources of educational inequality within the German system. As revealed by the early 2000s PISA studies, the most significant disparities are associated with social origin, migration background, and the tracking system itself. We examine these three dimensions in turn, beginning with tracking, as it is closely intertwined with the other two. As previously outlined, the fundamental idea behind the German tracking system is to create relatively homogeneous learning environments for both students and teachers. The assumption is that students placed within the same track should possess similar levels of academic and cognitive ability, thereby allowing for more tailored and effective instruction. To this end, school grades from the final year of primary education are used to guide track placement. In addition, the grade four classroom teacher plays a key role by issuing a track recommendation, which may be binding or non-binding depending on the federal state.

However, this system presents several problems. Most notably, the tracking decision occurs at a very early age-around ten years old-raising questions about whether students' long-term academic potential can truly be assessed so early in life. Moreover, early tracking amplifies the influence of social origin on educational outcomes, as parental resources, expectations, and advocacy often shape how students are sorted, potentially leading to unequal opportunities (Guill et al., 2017; Holm et al., 2013; Reichelt et al., 2019; Schindler, 2017).

This brings us to the second major dimension of inequality: social origin. A large body of research has consistently shown that the likelihood of entering the academic school track is significantly higher for students from socially advantaged families than for those from less privileged backgrounds. This disparity can be understood through the lens of both *primary* and *secondary effects* of social origin (Boudon, 1974; Karlson, 2013). Primary effects refer to the correlation

[6]https://www.km.bayern.de/download/4-24-01/Bayerns_Schulen_in_Zahlen_2023-2024_Onlineausgabe.pdf, page 18.

between social background and academic performance: students from advantaged families tend to achieve higher grades and perform better on cognitive assessments. These differences often result from greater access to educational resources, such as a stimulating home learning environment or private tutoring.

Secondary effects, by contrast, refer to decision-making processes that are independent of academic performance. Even when two students demonstrate similar academic achievement, those from more advantaged families are still more likely to be placed in the academic track (Bittmann, 2022). One reason is that parents from socially advantaged backgrounds are more likely to challenge or override teacher recommendations and advocate for placement in higher tracks. In contrast, parents from disadvantaged backgrounds may hesitate to choose the academic pathway, perceiving it as more uncertain and economically risky, given the longer duration of schooling and delayed entry into the labour market (Bittmann, 2023). Advantaged families, by comparison, are often motivated by a desire to maintain or reproduce their social status, which reinforces their preference for the academic track.

A third mechanism-*tertiary effects*-relates to the role of teachers in the tracking decision. Research has shown that teachers may consider not only academic performance but also the perceived habitus or demeanour of the student (Bittmann & Mantwill, 2020; Helbig & Morar, 2017). This can further disadvantage students from less privileged backgrounds, whose behaviour or presentation may not align with teachers' expectations of academic-track students. Summarised, comprehensive analysis shows that outcomes of secondary schooling are in as much linked to social origin as to early academic performance (Bittmann, 2024).

The third key dimension of inequality is migration background. Numerous studies have demonstrated that students with a migration background tend to have lower educational outcomes than their native peers (Esser, 2019; Feliciano & Lanuza, 2016; Salikutluk, 2016). Migrant families often face substantial informational barriers; they may lack familiarity with the structure of the German school system or be unaware of the implications of different tracks. In addition, language barriers can further hinder access to academic tracks. These challenges persist despite the existence of what is often termed "immigrant optimism": many immigrant families express high educational aspirations for their children and a strong desire for upward mobility (Gresch et al., 2012). However, these aspirations frequently confront systemic barriers, particularly in the form of limited information and restricted access, which can result in lower educational attainment despite strong motivation.

3. Main policies tackling educational inequalities

As outlined above, the complexity and federal structure of the German educational system have led to the implementation of hundreds of larger and smaller reforms over the past 25 years. Given the scope and variety of these changes, it is only possible to provide a limited overview in this summary. Therefore, we focus on three selected reforms that can be considered relatively universal, as they have been adopted by the majority of the 16 German federal states. These reforms serve as representative examples of broader trends and allow for a more focused discussion of their implications and outcomes.

Abolishment of the binding teacher recommendation

As previously noted, students in Germany are sorted into secondary school tracks following the completion of primary education. Historically, the grade four classroom teacher issued a binding recommendation regarding which track a student should enter-this decision could not be overridden by parents, although choosing a lower track was always permitted. Over the past few decades, however, most federal states have abolished the binding nature of this recommendation. Only a few states- Bavaria, Thuringia, Saxony, and Brandenburg, still maintain binding recommendations. As a result, in most states today, parents can override the teacher's advice and freely choose any track for their child.

While this reform significantly shifts decision-making power from teachers to parents, it does not provide a straightforward solution to the problem of unequal access to the academic track (Bittmann, 2021). Many parents-particularly those from socially disadvantaged backgrounds, continue to place strong trust in the teacher's judgment and often adhere to the recommendation provided. As previously discussed, some families are not fully informed about the structure of the school system and may not even be aware that alternative tracks are available. Others defer to teachers, assuming they possess the best understanding of their child's needs.

Interestingly, making access to the academic track more flexible can unintentionally exacerbate social inequalities. Parents from socially advantaged backgrounds are more likely to select the academic track for their children, even when academic performance is below expectations. The removal of formal barriers enables these parents to act on their strong incentive to secure educational advantages for their children, often disregarding the original rationale of the tracking system, which is to sort students based on academic ability (Schindler & Bittmann, 2021). While such students may still face the risk of dropping out later due to performance requirements, the initial access to the academic track becomes increasingly shaped by social background rather than demonstrated ability.

Merging of lower secondary school tracks

While the German school system has traditionally been described as tripartite, with three distinct tracks following primary education-this structure has undergone significant changes in recent years across many federal states. One notable trend has been the continuous increase in the proportion of students entering the academic track (*Gymnasium*), driven largely by rising aspirations for tertiary education. Correspondingly, the number of students attending the lowest track (*Hauptschule*) has steadily declined. Over time, this track has increasingly become a residual category, primarily serving students who were unable to access the intermediate or academic tracks.

Today, *Hauptschule* is often associated with social stigma (Knigge, 2009; Völcker, 2014). Students enrolled in this track frequently encounter difficulties securing places in the *Dual System* of vocational education and training, as the most desirable positions-particularly in fields such as banking or high-prestige apprenticeships- are typically taken by applicants with intermediate qualifications or higher education eligibility. In response to these developments, several federal states have undertaken efforts to abolish or merge the *Hauptschule* with other tracks. The goal of

these reforms is twofold: to reduce the negative connotations historically linked with the label "*Hauptschule*," which is often associated with lower socioeconomic status, low academic performance, and a high proportion of students with a migration background; and to improve the overall quality of instruction by integrating resources and curricula. Although the system retains a tripartite character in many regions, particularly with the presence of comprehensive schools (*Gesamtschulen*), the removal or transformation of the least demanding track marks a significant departure from the traditional model. The consequences of this reform are rather mixed (Holtmann et al., 2024; Matthewes, 2018).

Academic track reform

Finally, we turn to the reform of the academic track (*Gymnasium*), which has also undergone substantial changes in recent years. In the early 2010s, nearly all German federal states reduced the duration of schooling in the *Gymnasium* from nine to eight years (Homuth, 2017). This reform was largely motivated by macroeconomic considerations, particularly the desire to address financial pressures associated with demographic ageing. By accelerating students' entry into vocational training or higher education, policymakers aimed to ensure that graduates would enter the labour market-and begin contributing to the tax and social security systems- at an earlier age.

. In practice, the reform simply compressed the existing curriculum without extending instructional hours-afternoon classes were not added- and content remained largely unchanged. As a result, students faced a significantly higher workload, which reduced time available for extracurricular activities, personal development, and social interaction. Moreover, concerns emerged regarding a decline in the competences of graduates from the shortened academic track.

Considering these unintended consequences, several large federal states have already reverted- or are in the process of reverting- to the nine-year *Gymnasium*. Although the reform was initially designed to modernise one of the most longstanding and prestigious segments of the German school system, its practical challenges and adverse effects ultimately led to its partial rollback or substantial revision within just a few years.7

4. Which evidence, for whom, and how?

There is no doubt that the so-called *PISA shock* of the early 2000s marked a cataclysmic turning point in Germany's educational policy, fundamentally reshaping its approach to schooling and assessment. Germany, a nation that has long prided itself as the *Land of Poets and Thinkers* (*Land der Dichter und Denker*), had historically resisted participation in large-scale international assessments. Although standardised student performance evaluations had been introduced as early as the 1970s, the Programme for International Student Assessment (PISA)- following the less-publicised TIMSS study in 1997- was the first assessment of its kind to provoke widespread public and political outcry. Although researchers had noted these trends, the official PISA results still shocked both the public

[7]https://www.lehrer-news.de/blog-posts/g9-renaissance-auch-bayern-kehrt-wieder-zum-neunjaehrigen-gymnasium-zurueck

and policymakers (Baumert et al., 2002; Davoli & Entorf, 2018; Ertl, 2006; Gruber, 2006; Stanat et al., 2003; Waldow, 2009).

The key findings of the 2000s study can be summarised as follows:

1. **Mediocre Performance in International Rankings:** Germany's students demonstrated only average reading proficiency in cross-national comparisons, far removed from the top-performing nations. Given Germany's self-image as an industrial and technological leader, these results raised urgent concerns about future economic competitiveness. If the country wished to maintain its standing, systemic improvements in educational outcomes would be imperative.
2. **Alarming Rates of Low Achievement**: A significant proportion of students completed their compulsory schooling without mastering basic literacy and numeracy skills. This finding highlighted systemic failures in foundational education, with severe implications for labour market readiness and long-term socioeconomic participation.
3. **Extreme Performance Disparities Between Student Groups**: The gap between the highest- and lowest-achieving students was among the widest internationally, exposing critical flaws in Germany's tripartite school system. While early tracking successfully created homogeneous learning environments at the secondary level, it also entrenched stark inequalities. Academically strong students-typically from privileged backgrounds-thrived in *Gymnasium* settings, whereas those in lower-tier schools (*Hauptschule* and *Realschule*) showed persistently weak performance with little upward mobility.
4. **Strong Correlation Between Socioeconomic Background and Academic Success**: The data revealed that social and migration backgrounds were decisive factors in student achievement, underscoring the system's profound inequities. Children from advantaged families consistently outperformed their disadvantaged peers, contradicting the ideal of meritocratic allocation based on initial aptitude.
5. **Significant Disparities Between Federal States**: The supplementary PISA-E study, which compared performance across Germany's 16 states, further exacerbated the controversy. The results demonstrated that differing educational policies and structures at the regional level contributed substantially to performance gaps within the country. For many states, these findings were particularly damning, as they underscored the tangible consequences of decentralised governance in education.

The PISA shock thus triggered an unprecedented wave of reforms, public debate, and policy interventions.8 While many of these changes were reactive and short-lived, the study's long-term implications for educational research were profound. It not only exposed systemic weaknesses but also catalysed a broader re-evaluation of equity, standardisation, and pedagogical effectiveness in German schooling.

As previously noted, Germany had largely neglected large-scale assessments prior to PISA and TIMSS (Martin et al., 1997). This stance was subsequently revised, leading to the establishment of various comparative tests-conducted at both state and national levels-to obtain more precise data on

[8]https://web.archive.org/web/20070626192435/http://www.lehrerverband.de/bspisa2.htm

student performance. It also became evident that educational policy required better empirical foundations through systematic data collection and scientific evaluation. To understand the causes of Germany's poor performance and the severity of its systemic educational challenges, new research initiatives were necessary. In this context, the PISA findings served as the catalyst for the National Educational Panel Study (NEPS).9 In the ensuing years, plans were developed to centrally collect and analyse nationwide data, aiming to generate novel scientific insights.10 The focus extended beyond performance measurement alone to include factors such as socioeconomic status and migration background (Immerfall & Blossfeld, 2023). All data were consolidated at a central hub, which from 9 onward became the Leibniz Institute for Educational Trajectories (LIfBi) in Bamberg (Artelt & Sixt, 2023; Blossfeld & Roßbach, 2019). The institute received substantial funding to examine education's role not only for students but across the entire lifespan. To achieve this, six initial cohorts were established, covering all age groups-from early childhood to adulthood and retirement (Blossfeld, 2009). To date, NEPS remains Germany's most ambitious and influential project for analysing education's long-term impact. Although translating findings into policy reforms remains complex, the study has yielded an unparalleled wealth of knowledge over its 16-year history.

5. Persisting educational inequalities

While significant progress has been made in understanding the mechanisms of educational inequality within Germany's school system, several structural obstacles remain. The most prominent is the system's inherent fragmentation due to its federal structure. With sixteen distinct education systems, isolating the effects of individual policies becomes methodologically challenging. While federalism offers advantages-such as regional autonomy historically designed to prevent centralised ideological control (a lesson from the Nazi era's *Gleichschaltung*)-it simultaneously impedes nationwide reform implementation and policy evaluation. A second critical barrier lies in the political reluctance to conduct systematic comparisons across states. In some cases, regulations explicitly prohibit researchers from publishing comparative analyses between federal states-a practice ostensibly meant to maintain the illusion of equitable educational quality across regions. However, as demonstrated by PISA-E and subsequent studies, interstate disparities can equate to multiple years of schooling, revealing systemic inequities that such policies deliberately obscure. Without political commitment to establishing uniform standards, achieving equitable educational access remains unlikely. Third, Germany continues to lack comprehensive standardised assessments. Despite initial reforms post-PISA, mandatory nationwide testing remains exceptional. While some states have implemented regional assessments, these cannot facilitate cross-state comparisons or provide a holistic view of national educational performance.11 Moreover, results are often restricted to ministerial use rather than being made available to researchers, reflecting enduring institutional scepticism toward empirical accountability. This data opacity perpetuates a fragmented research landscape and stifles evidence-based policymaking.

In summary, entrenched inequalities-particularly those tied to socioeconomic, and migration backgrounds-persist due to these structural and political constraints. The primary impediment to

[9]https://www.lifbi.de/de-de/Start/Forschung/Gro%C3%9Fprojekte/NEPS-Nationales-Bildungspanel/NEPS-Chronik
[10]https://www.voced.edu.au/content/ngv:33608
[11]Notable exceptions are the IQB Bildungstrend, see https://www.iqb.hu-berlin.de/bt

progress is not a lack of scientific understanding but political hesitancy. Greater institutional trust in standardised assessments, transparent data access, and cross-state collaboration would represent crucial steps toward reducing Germany's educational disparities.

6. Further directions

As previously outlined, the current German educational system continues to face numerous structural challenges and systemic barriers that impede progress toward the goal of equitable access to education for all students. Given the entrenched nature of federal educational governance and the historical resistance to centralised reform, it appears unrealistic to expect a complete unification of the system or the implementation of sweeping structural changes. This reluctance aligns with educational policy trends that have remained largely stable over the past seven decades.

Nevertheless, there are meaningful and feasible steps that can and should be taken to advance equity and evidence-based decision-making within the existing framework. Chief among these is a stronger reliance on educational research and on insights gained from large-scale assessments. Collecting comprehensive and high-quality data on student competencies across the country is essential for gaining a deeper understanding of current educational dynamics and for identifying actionable solutions. Ongoing research initiatives such as the National Educational Panel Study (NEPS) are particularly vital in this regard and should be sustained and expanded in the coming years. Only through the continuous collection of robust, up-to-date information on students, their families, educators, and institutional contexts can we form a better understanding of the educational landscape in Germany. Importantly, large-scale assessments must be complemented by multidimensional surveys that extend beyond academic performance to capture the full spectrum of educational experiences and social backgrounds.

The fact that NEPS is currently planning and implementing new cohorts-including both student and newborn samples-suggests that policymakers are increasingly recognising the importance of this approach.12 Continued investment in such data infrastructure will be essential for shaping future educational policy in a way that is both informed and responsive to societal needs.

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4.4. Case Study: Ireland

1. Contextual background

Ireland's education system has evolved significantly over time, shaped by historical, political, and economic forces. The origins of the school system date back to Ireland's time under British rule, with its structure heavily influenced by religious and social institutions (Fleming & Harford, 2016). Since independence in 1922, reforms in the 1920s, 1960s, and 1990s culminated in enshrining the right to education in the 1998 Education Act (Coolahan et al., 2017). Despite, ongoing reforms, legacy issues from these historical developments continue to influence aspects of educational policy. A long-standing respect for education is deeply embedded in Irish society, with parents consistently prioritising education, even during periods of economic hardship (Coolahan e al., 2017; Mac Giolla Phádraig, 2010). The profession of teaching has also traditionally held a high status, attracting strong applicants. (Drudy, 2001).

While Ireland has experienced robust economic performance in recent years-marked by a strong labour market and high-income levels-challenges remain that have implications for educational equity and student well-being. As of 2023, Ireland's average full-time adjusted salary was €58,700-third highest in the EU after Luxembourg and Denmark (Eurostat, 2024). The youth unemployment rate stood at 11.6%, notably below the EU average (14.8%), reflecting considerable improvements since the post-crisis years of austerity (Eurostat, 2024). However, despite these headline figures, structural challenges persist. Rising public debt, a persistent housing crisis, and cost-of-living pressures continue to affect young people disproportionately, particularly in terms of access to stable housing and mental health support. (National Youth Council of Ireland, 2023).

The Irish education system is structured into several stages: early childhood education, primary education, post-primary education, and tertiary education. Education is compulsory from age six to sixteen or until students have completed their secondary education, whichever is later. Primary and secondary education is state-funded, but most schools are privately owned and managed by religious bodies. Of approximately 3,250 primary schools, a significant proportion are small rural schools, with many operating as two-, three-, or four-teacher schools. While most education is state-funded, there are 27 fee-paying primary schools and 55 fee-paying second-level schools (Eurydice, 2024). While there is a consistent trend showing that more boys than girls are attending fee-charging schools, the percentage of total enrolments in fee-charging schools has decreased over the past decade (Department of Education, 2024). In recent decades, the Early Childhood Care and Education (ECCE) scheme has expanded, marking the state's increasing investment in pre-primary education (Smyth, 2024). However, Ireland has a five-year childcare gap between the end of paid parental leave and the start of free compulsory education-one of the longest among OECD countries (Education at Glance, 2024). Government support for early childhood education remains fragmented, with services delivered primarily by private, community, and voluntary providers, rather than being fully integrated into the formal education system (Russell et al., 2018).

Ireland has a high rate of participation in education, with 95.1% of children aged three and above enrolled in early childhood education, surpassing the EU average. The country also performs well in educational attainment, with only 5% of 25-34-year-olds lacking an upper secondary qualification, significantly below the OECD average (Education at Glance, 2024).

The education system is linguistically diverse, with two official languages, Irish and English. English is the primary language of instruction, though Gaeltacht schools in designated Irish-speaking regions use Irish as the medium of instruction, and urban areas have a small number of Irish-medium schools. Ireland has also experienced increasing cultural and demographic diversity due to migration, leading to a growing student population from minority and multilingual backgrounds. While Irish men and women outperform their counterparts in other OECD countries, there is an educational gender gap in favour of women (EAG, 2024). Women have higher third-level attainment rates overall (50% vs 42%). However, there are still differences in attainment rates by age group (Central Statistics Office, 2024). Financial investment in education remains slightly below the OECD average, with annual expenditure per student at USD 13,059, compared to an OECD average of USD 14,209 (EAG, 2024). Despite relatively low teacher attrition rates-only 3% of teachers leave the profession annually-challenges such as teacher shortages and retention persist, particularly in urban areas. Overall, Ireland's education system continues to evolve, balancing historical influences, economic constraints, and contemporary policy reforms to ensure equitable access and quality outcomes for all students.

2. Main educational Inequalities

Educational inequality in Ireland is driven by several interrelated factors, with socioeconomic disparities, access to early childhood education (ECE), and school resources in disadvantaged areas playing a crucial role in shaping student outcomes. Despite policy efforts to mitigate inequality, structural barriers persist, limiting access to high-quality education for students from lower-income backgrounds. Socioeconomic status (SES) remains one of the strongest predictors of educational success, influencing academic performance, school completion rates, and long-term career prospects (Jeffers & Lillis, 2019). The widening income gap and unequal distribution of wealth have further entrenched disparities in educational attainment, as families with fewer financial resources struggle to provide their children with the same academic advantages as wealthier peers (Madden, 2018).

Socioeconomic Disparities and Educational Outcomes

Ireland has experienced a notable increase in income concentration at the top of the distribution, exacerbating economic inequalities that translate into disparities in education. The share of total income received by the top 10% of earners has risen from just over 30% in the early 1980s to over 35% in recent years, while the top 1% now controls nearly 15% of all income, up from 10%. In contrast, the bottom 50% of earners have seen a steady decline in their share of total income, with the lowest-income quintile receiving less than 10% of national income (Gilmore, 2024). These economic patterns have direct consequences for educational access and attainment, as children from lower-income families face increased financial

barriers to participating in extracurricular activities, accessing private tuition, and attending better-resourced schools. Furthermore, children are among the most at-risk-of-poverty demographic in Ireland, reinforcing the link between childhood economic disadvantage and long-term educational inequalities (Gilmore, 2024, Curristan, 2022).

Although Ireland's social welfare system plays a crucial role in reducing income inequality, market-driven disparities remain substantial, requiring continuous state intervention (Callan et al., 2018). The reliance on social transfers helps mitigate immediate financial hardship, but wealth remains highly concentrated at the top, with the wealthiest 20% of households controlling 72.7% of net wealth-a figure exceeding the Euro Area average of 67.6% (Lynch, 2022). These economic inequalities extend beyond financial resources to social and cultural capital, which significantly influence educational success. Social networks, parental education levels, and community environments shape students' academic trajectories, offering critical advantages to those from higher-income backgrounds (Kennedy & Power, 2010). Research by Franzini, Raitano, and Vona (2013) further underscores this point, demonstrating that even when students attain similar academic qualifications, their social class background continues to determine their job prestige and income, reinforcing the persistent cycle of inequality.

School Performance and Socioeconomic Background

The impact of socioeconomic inequality on educational achievement is evident from national and international assessments. According to data from the Trends in International Mathematics and Science Study (TIMSS), students from disadvantaged backgrounds consistently score lower in mathematics and science than their peers from more affluent households (Duggan et al., 2023). These early academic gaps often widen over time, limiting students' access to higher education and professional career pathways. School completion rates also reflect deep-rooted social class disparities, with students from semi-skilled and unskilled manual labour backgrounds being 2.7 times more likely to leave school early than those from higher professional backgrounds (Byrne & Smyth, 2017). Although overall dropout rates have declined, social class remains a significant determinant of whether students complete secondary and tertiary education, highlighting the need for targeted interventions to address systemic barriers.

Schools in economically disadvantaged areas face additional challenges in supporting their student populations. These schools often have a higher proportion of students with complex learning and behavioural needs, requiring greater institutional resources and specialised support (Gilmore, 2024). However, funding disparities mean that schools in affluent areas tend to have better access to educational materials, extracurricular activities, and smaller class sizes, further widening the gap between high- and low-income students. Moreover, research shows that families in disadvantaged communities are less likely to engage in home-learning activities with their young children, reducing early literacy and numeracy skills before formal schooling even begins (Kent & Pitsia, 2018).

Early Childhood Education and Long-Term Disparities

Access to early childhood education (ECE) is a critical factor in reducing long-term educational inequalities, yet participation rates in Ireland remain relatively low compared to other OECD countries. According to the OECD's "Education at a Glance 2024" report, only 75.6% of four-year-olds in Ireland are enrolled in early childhood or primary education, placing the country 36th out of 40 OECD and partner countries (OECD, 2024). The limited availability of affordable, high-quality early education means that children from low-income families are less likely to receive structured early learning experiences, putting them at a disadvantage once they enter primary school. Research by Melhuish and his colleagues (2015) highlights that early learning deficits often persist throughout a child's academic journey, reducing their likelihood of completing secondary or tertiary education.

Ireland also has a heavy reliance on private-sector provision for early childhood education. Approximately 74% of early childhood education services operate in the private, for-profit sector, while only 26% are in the community or voluntary sector (Department of Children, Equality, Disability, Integration and Youth, 2022). This market-driven model exacerbates inequalities, as wealthier families can afford higher-quality childcare services, while lower-income families face limited availability and affordability issues. Evidence suggests that high-quality early childhood education can compensate for behavioural disadvantages among low-SES children, improving social and emotional development. However, children from low-income backgrounds who do not attend formal early education programs exhibit the highest rates of emotional difficulties and the lowest early vocabulary scores (Pietropolic & Garcia, 2022). To address these disparities the government has increased public investment in early education programs.

3. Main policies tackling educational inequalities

Early Childhood Care and Education (ECCE) Scheme

Access to high-quality early childhood education is widely recognised as a key factor in reducing long-term educational inequalities, yet Ireland has historically lagged behind other OECD countries in providing universal early learning opportunities. Prior to the introduction of the Early Childhood Care and Education (ECCE) scheme, childcare costs in Ireland were among the highest in Europe, placing a disproportionate financial burden on low-income families and single-parent households (Doorley et al., 2023). Recognising the need for systemic reform, the National Economic and Social Council (NESF) released a landmark report in 2005, recommending the creation of a universal, state-funded pre-school service to enhance early learning, social equity, and long-term academic achievement.

In response, the ECCE scheme was introduced in 2010 and expanded in 2016 as a fully funded, universal pre-school initiative, replacing the previous Early Childhood Supplement-a financial subsidy that had been criticised for failing to deliver measurable educational benefits. The ECCE programme provides two years of free early childhood education, ensuring that all children, regardless of socioeconomic background, have access to structured, high-quality learning experiences. The initiative has been particularly beneficial for children from marginalised communities, including migrant and minority groups, who may otherwise face barriers to accessing early education.

Despite its successes, gaps remain in childcare affordability and accessibility. Studies indicate that parents in Ireland continue to face some of the highest childcare costs in the OECD, with the average monthly fee for full-time care for children under three reaching €771 in 2019 (Motiejunaite-Schulmeister et al., 2019). Lower-income families and single parents bear a disproportionate burden, often resorting to informal, unregulated childcare arrangements, which may not offer the same developmental benefits as formal, registered settings (Russell et al., 2018). Addressing these gaps requires additional public investment, improved childcare infrastructure, and expanded supports for vulnerable families.

National Childcare Scheme (NCS)

Building on the ECCE programme, the Irish government introduced the National Childcare Scheme (NCS) in 2017, aiming to enhance access to affordable childcare and support parents' participation in the workforce. Originally launched as the Affordable Childcare Subsidy, the scheme underwent revisions to create a more transparent, equitable funding model, providing both means-tested and universal subsidies to families using registered childcare services.

Under the NCS, parents receive a childcare subsidy ranging from €2.14 to €5.30 per hour, depending on household income, parental employment status, and the child's age. The scheme replaces all previous childcare subsidies except the ECCE programme, streamlining financial assistance and making it easier for families to access support. However, the exclusion of unregistered childcare providers-such as childminders and nannies-has raised concerns about accessibility, particularly for families in rural areas where formal childcare options are limited (Russell et al., 2016; Doorley et al., 2023).

The NCS serves several key policy objectives, including:

- Addressing the high cost of childcare by offering progressive subsidies.
- Ensuring equitable treatment across families, with all households assessed using consistent criteria.
- Creating a streamlined, technology-driven application system to improve efficiency.
- Supporting parental choice by allowing families to select registered childcare providers.
- Ensuring good governance and financial oversight, preventing misuse of public funds.

While the NCS represents a significant step towards childcare affordability, the persistent reliance on private childcare providers and exclusion of informal carers continue to pose challenges. Future policy directions may need to expand subsidy eligibility to include regulated childminders, ensuring greater flexibility for working parents and low-income families.

Delivering Equality of Opportunity in Schools (DEIS) Programme

The DEIS (Delivering Equality of Opportunity in Schools) programme is Ireland's flagship policy initiative aimed at addressing educational disadvantage and promoting greater equity within the school system. Introduced by the Department of Education and Skills in 2005, DEIS provides targeted resources and supports to schools serving socio-economically disadvantaged communities, ensuring that all children, regardless of their background, have access to quality education. The origins of DEIS can be traced to both international and domestic policy pressures, particularly the influence of the Programme for International Student Assessment (PISA), which highlighted persistent achievement gaps between students from disadvantaged backgrounds and their more privileged peers (Hepworth et al., 2021). In response, policymakers developed structured interventions aimed at improving literacy, numeracy, and school retention rates.

DEIS primary schools are categorised into three groups: DEIS Urban Band 1, DEIS Urban Band 2, and DEIS Rural. DEIS Urban Band 1 schools serve areas with relatively higher levels of disadvantage compared to DEIS Urban Band 2 schools. Post-primary schools in the DEIS programme do not have specific categories. As of 2022, approximately 30% of primary and post-primary schools in Ireland participate in the DEIS programme, supporting an estimated 250,000 students (Singleton, 2025). Schools are assessed and selected for participation based on a deprivation index, which considers employment status, parental education levels, household overcrowding, and dependency rates. Once designated as a DEIS school, institutions receive additional funding, resources, and educational supports tailored to their specific needs.

A key component of DEIS is its support for teachers and school staff, equipping them with the necessary tools to address the unique challenges of students from disadvantaged backgrounds. The programme provides:

- Professional development opportunities to enhance teachers' skills in inclusive education, literacy, and numeracy.
- Additional teaching staff to reduce class sizes and provide more individualised support.
- Improved school leadership and management training, fostering a more supportive and effective learning environment.

Beyond academic interventions, DEIS incorporates a holistic approach to student well-being, recognising the importance of nutrition, after-school support, and parental involvement. Key initiatives include:

- Breakfast clubs, homework clubs, and after-school activities, designed to enhance academic learning and promote social and emotional development.
- Increased funding for learning materials and classroom resources, ensuring students have access to essential educational tools.

- Parental involvement and community engagement initiatives, aimed at strengthening the connection between schools, families, and local communities.

4. Which evidence, for whom, and how?

The DEIS Programme

The DEIS programme, launched in 2005, was designed to tackle educational disadvantage by targeting resources to schools serving students from low-income backgrounds. Its development was based on a combination of international and domestic evidence. Domestically, the Educational Disadvantage Committee (EDC), established in 2002, played a critical role in shaping the programme. The EDC advised the Minister for Education on creating, coordinating, and implementing initiatives to identify and address educational disadvantage, and it commissioned the Educational Research Centre (ERC) to review school selection procedures for targeted interventions. The ERC's research confirmed a strong "social context effect," where schools with higher concentrations of disadvantaged students experienced compounded educational challenges. This evidence formed the foundation for targeting DEIS resources based on a deprivation index, ensuring that interventions were directed toward the schools most in need.

The National Assessments of Mathematics and English Reading (NAMER) 2021 were conducted by the Educational Research Centre (ERC) on behalf of the Department of Education. These assessments evaluated English reading (Second class) and Mathematics (Sixth class) achievement among over 10,000 primary pupils in 188 schools. This study indicates that reading and Mathematics achievement gaps between DEIS and non-DEIS schools persist, but contextual and behavioural factors help explain these disparities. For instance, frequency of English use at home was positively associated with higher reading scores, especially in non-DEIS schools. In DEIS schools, there were no significant reading score differences by place of birth (Gilleece, & Nelis, 2023). However, in non-DEIS schools, students born in Ireland scored significantly higher in reading than their foreign-born peers. Notably, in Urban Band 1 DEIS schools, pupils who never spoke English at home outperformed their peers in Mathematics by a significant margin (Gilleece, & Nelis, 2023).

At the international level, OECD's Programme for International Student Assessment (PISA) played a crucial role in highlighting achievement gaps between students from different socioeconomic backgrounds. The early 2000s PISA results showed that Irish students from disadvantaged backgrounds were underperforming relative to their more advantaged peers (Cosgrove et al, 2002; Shiel, 2002). This prompted policymakers to introduce structured interventions to improve literacy, numeracy, and school retention rates[13].

[13] In the 2018 PISA assessment, Irish students performed above the OECD average in reading literacy and close to the average in mathematics and science. Specifically, Ireland ranked 8th in literacy, 21st in mathematics, and 22nd in science out of 78 participating countries, with mean scores of 518.1 (literacy), 499.6 (mathematics), and 496.1 (science) (Looney et al., 2022).

Beyond OECD influence, DEIS was also shaped by European and national anti-poverty strategies. The Lisbon Strategy, which aimed to reduce poverty and social exclusion across the EU, emphasised the importance of educational policies in breaking intergenerational cycles of disadvantage. At the national level, policies such as the National Anti-Poverty Strategy (NAPS), the National Action Plans against Poverty and Social Exclusion (NAPs/incl), and the Sustaining Progress agreement provided a framework for addressing educational inequality. These overlapping strategies outlined priorities, targets, and monitoring mechanisms that ensured a coordinated approach to combating educational disadvantage.

While DEIS was not a direct copy of international models, it was developed within a policy environment where borrowing and adaptation of global strategies were common (Fleming & Harford, 2023). Unlike some policies that were entirely imported without consideration for national context, DEIS was partially grounded in domestic research findings, making it a locally responsive yet internationally informed initiative.

The ECCE Programme

The introduction of the Early Childhood Care and Education (ECCE) scheme in Ireland was a response to growing evidence on the benefits of early childhood education. Prior to ECCE, state support for early education was limited, with families relying on private childcare providers and financial assistance through the Early Childhood Supplement. However, this system was criticised for being inconsistent and insufficient in addressing early learning disparities.

In 2005, the National Economic and Social Council (NESF) released a report urging the government to fund a universal pre-school service, citing evidence that investment in early education yields long-term economic and social benefits. This report relied on a combination of economic, social, and demographic data to justify its recommendations. At the time, nearly 10% of Ireland's population was under six years old, and the country was experiencing rapid economic growth, increased female labour force participation, and rising immigration. However, investment in early childhood education remained disproportionately low compared to other OECD countries (NESF, 2005).

The NESF report also drew on international data to highlight Ireland's deficiencies in early childhood education. OECD's 2004 "Starting Strong" report compared ECCE provision across OECD countries and found that Ireland lagged behind other European nations in providing state-funded pre-primary education. Additionally, EU data from the Survey on Income and Living Conditions revealed high poverty rates among mothers, further emphasising the need for affordable early education to support both children's development and parental employment.

Following these findings, the Irish government shifted its policy approach, moving from a financial supplementation model to the establishment of a structured, universal pre-school program. The introduction of the ECCE scheme ensured that all children, regardless of socioeconomic background, could access quality early education, aligning Ireland with EU and OECD recommendations on early learning investment.

The National Childcare Scheme (NCS)

Recognising the importance of early years care and education, the Irish government formed an Inter-Departmental Group in 2015 to evaluate policy options for improving the affordability, quality, and accessibility of childcare services (Paull, 2021). This group worked alongside the Department of Children and Youth Affairs (DCYA), which had been investing in longitudinal research on child development, most notably through the Growing Up in Ireland (GUI) study. Conducted by the Economic and Social Research Institute (ESRI) and Trinity College Dublin (TCD), GUI provided critical data on child well-being, parental support, and early education outcomes.

Findings from GUI highlighted gaps in early childhood services, with 15-20% of children experiencing significant emotional or behavioural difficulties (Department of Children and Youth Affairs, 2016). The study confirmed that investment in early years care and education leads to better life outcomes, supporting the argument for a more structured and affordable childcare system.

The NCS was introduced in 2017 as a direct policy response to these findings. The scheme aimed to reduce childcare costs, ensure equitable treatment of families based on income, and support parental employment by offering progressive subsidies for registered childcare services. The NCS also sought to close gaps in service provision, ensuring that children at higher risk of educational disadvantage received targeted early interventions.

5. Persisting educational inequalities and evidence bias: what evidence is missing

Despite Ireland's increased focus on equality and inclusion in educational policy, significant disparities persist across the system. While national policies such as Delivering Equality of Opportunity in Schools (DEIS) and initiatives in early childhood care and education (ECCE) have made strides in addressing disadvantage, structural inequalities remain entrenched. A critical examination of existing datasets and policies reveals gaps in both their scope and effectiveness, which in turn influence educational outcomes for various disadvantaged groups.

While some progress has been made in reducing performance gaps between disadvantaged and non-disadvantaged schools (Karakolidis et al., 2021), socioeconomic background remains a strong predictor of academic success (Gilmore, 2024). Access to home learning resources continues to influence achievement in subjects like mathematics and science, further widening the gap between advantaged and disadvantaged students.

DEIS: Progress and Persistent Challenges

The DEIS program, implemented in 2005, has led to improvements in student retention rates and higher education progression. However, persistent challenges undermine its effectiveness (Singleton, 2025):

- Stigma and Stereotypes: DEIS schools are often perceived as academically weaker institutions, leading to negative stereotypes that affect students' self-esteem and motivation.
- Resource Allocation: The transparency of funding distribution remains a concern, with inconsistencies in the level of support provided to different DEIS schools.
- Inadequate Facilities: Many DEIS schools operate with subpar infrastructure, negatively impacting the learning environment.
- Teacher Workload: Educators in DEIS schools face heavier workloads due to complex student needs and administrative responsibilities, which can compromise the quality of instruction.
- Long-Term Impact: Despite positive short-term gains, significant gaps between DEIS and non-DEIS schools persist, particularly in long-term educational and occupational outcomes.

Furthermore, research highlights the limitations in evaluating DEIS. Variations in student demographics, inconsistencies in self-evaluation processes across schools, and the lack of individual-level achievement data complicate assessments of the program's success (Gilleece & Clerkin, 2024). Additionally, current DEIS funding models do not adequately support disadvantaged students attending non-DEIS schools, leading to gaps in coverage (Gilleece & Clerkin, 2024). Addressing these shortcomings is crucial for achieving more equitable educational outcomes.

Early Childhood Care and Education (ECCE) and the National Childcare Scheme (NCS)

The expansion of early childhood education policies such as the ECCE program and the NCS has improved access to early learning. However, several barriers persist, limiting the programs' potential to reduce educational inequality:

- Financial Burden: Despite free access to the ECCE program, childcare costs in Ireland remain among the highest in Europe. Families spend nearly a third of their income on childcare, disproportionately affecting middle- and low-income families (Gilmore, 2024).
- Limited Support for the Most Disadvantaged: Families with incomes below €26,000 per annum qualify for the highest subsidy under the NCS, yet 14% of very disadvantaged families report having less disposable income under the scheme due to higher threshold rates for subsidies (Paull, 2021).
- Geographical Disparities: Certain urban and rural areas face a lack of high-quality childcare facilities. In urban areas like Ballymun and Poppintree, as well as in rural regions, private childcare providers are scarce, leading to the emergence of "childcare deserts" (Fingal Children and Young People's Services Committee, 2021).
- Barriers for Marginalised Communities: Traveller families and other marginalised groups often struggle to access ECCE programs due to limited

awareness of available subsidies and bureaucratic complexities in the application process (Child Poverty Monitor, 2023).

Moreover, evaluating the long-term impact of ECCE and NCS remains a challenge. These policies are relatively new, making it difficult to draw definitive conclusions. Additionally, administrative data sources are complex, and the lack of individual-level data on critical child development outcomes further complicates evaluation efforts.

Gaps in Evidence and Data Collection

Evidence-based educational policymaking has gained momentum internationally, highlighting the importance of empirical data in assessing educational interventions. However, in Ireland, public investment in social science research is lower compared to STEM-related fields (O'Connor, 2024). The country has increasingly relied on methods such as observational studies, secondary data analysis, and systematic reviews to guide recent curricular and policy developments (French & McKenna, 2022; Leavy et al., 2022; Rose et al., 2010). Evaluating educational interventions, however, remains a complex task. Challenges such as the declining use of experimental methods in educational psychology and difficulties with replication pose obstacles to achieving robust policy assessments (Brady et al., 2023; Plucker & Makel, 2021; Gilleece & Clerkin, 2024).

While Ireland has made significant strides in gathering and utilising educational data, gaps in research and policy implementation limit the effectiveness of interventions targeting educational inequality:

- Lack of Longitudinal Data: While studies such as Growing Up in Ireland offer valuable insights, there is a need for more comprehensive longitudinal data to assess the long-term effects of educational policies. Currently, the Growing Up in Ireland study follows only three birth cohorts, with the youngest cohort being just one year old (born in 2024).
- Underrepresentation of Marginalised Groups: Current datasets do not adequately capture the experiences of disadvantaged students outside DEIS schools or those from migrant and minority backgrounds.
- Limited Achievement Data and Measurements: The lack of harmonised individual-level data on students' achievement also affects institutional and academic efforts to evaluate educational policies (Gilleece & Clerkin, 2024).
- University-Policymaker Gap: Scholarly educational research is often less considered in the policy-making process compared to research outputs from the Educational Research Centre or the Economic and Social Research Institute (O'Connor, 2024).
- Insufficient Dissemination: Evidence hardly is accessible and actively utilised by teachers and practitioners (Barrett & Prendergast, 2025).

6. Future directions and recommendations

Establish a national pupil database linking school and achievement data

A significant gap in Ireland's educational data infrastructure is the lack of an integrated national pupil database. Such a database should connect student-level information across schools, including enrolment data, attendance records, standardised test scores, participation in programs (e.g., DEIS, ECCE), and demographic variables (e.g., socioeconomic status, ethnicity, disability status). This would enable the longitudinal tracking of students' academic journeys and facilitate the early identification of at-risk groups, allowing for more targeted interventions. Examples from other countries, such as the UK's National Pupil Database, demonstrate the value of such systems in supporting robust evaluations of educational policies and programs Additionally, other types of longitudinal data are necessary. Ireland could benefit from a longitudinal household panel study, similar to Understanding Society in the UK.

Enhance socioeconomic and demographic data collection

Current administrative datasets often lack detailed information on family income, parental education, household composition, and migration background. Systematically collecting these indicators when students enter school and updating them periodically would help policymakers understand the social gradients in educational attainment better and design more effective support for disadvantaged groups.

Mandatory reporting and standardisation of school self-evaluation

As evaluations like DEIS have shown, the variability in how schools conduct self-evaluation complicates comparisons. It is essential to introduce mandatory templates and minimum standards for School Self-Evaluation processes, particularly in disadvantaged contexts, to ensure comparability and accountability. Linking SSE reports to the national pupil database would enrich the understanding of how school practices affect student outcomes over time.

Routine longitudinal studies and panel surveys

Expand the Growing Up in Ireland model into a permanent, rolling longitudinal survey focused explicitly on education, which would follow new cohorts of students from early childhood through post-secondary transitions. This would support continuous evaluation of reforms such as ECCE and NCS and allow for real-time policy adjustments based on strong longitudinal evidence.

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4.5. Case Study: Italy

1. Contextual background

Italy, a high-income country and EU founding member, has a population of about 59 million (2023). It is marked by persistent regional disparities, with the North displaying higher income, employment, and industrial development, while the South (Mezzogiorno) faces economic stagnation, youth unemployment, and lower educational attainment (ISTAT, 2023). The Italian welfare system offers universal healthcare and pensions but provides less support in areas like family policies and early childhood services compared to other Western European countries. Fragmentation and regional differences contribute to unequal support for students and families (Ferrera, 1996).

The education system is predominantly public and centrally regulated, with recent reforms introducing evaluation and accountability mechanisms. Education is compulsory from age 6 to 16 and structured in four stages: pre-primary (ISCED 0), primary (ISCED 1, ages 6–11), lower secondary (ISCED 2, ages 11–14), and upper secondary (ISCED 3, ages 14–19). Upper secondary education is divided into general (licei), technical, and vocational tracks, which differ in curriculum, social composition, and access to higher education. Although all diploma holders can enter university, students from academic tracks are far more likely to continue to selective tertiary programs, while vocational graduates often enrol in short cycles or exit education entirely (Barone, Triventi & Assirelli 2018).

Tertiary education is mostly offered by public universities and remains largely academic in orientation. Access is formally open, but social inequalities persist in enrolment and completion.

School choice is formally free at upper secondary level, but de facto constraints-such as geographic proximity, school capacity, and social norms-limit actual options. Teachers' advice is not binding but may influence choices, especially among students from disadvantaged backgrounds (Argentin et al., 2017).

Instruction time in primary education is regulated nationally but varies in practice. Two main schedules exist: tempo normale (27–30 hours/week) and tempo pieno (up to 40 hours/week, including afternoon classes and meals). Full-time schooling is more common in the North and urban areas, where schools typically have internal canteens and municipal support. In contrast, Southern schools often lack such infrastructure, leading to shorter school days and fewer structured learning opportunities (ISMU, 2022). Extracurricular and remedial activities remain marginal, especially in disadvantaged contexts.[14]

Teaching is largely teacher-centred and guided by a national curriculum. Classrooms are typically large and academically homogeneous, with limited individualised support. Teachers play a central role but face challenges: the profession is low-paid and low-status, with a

[14] The limited presence of extracurricular and remedial activities—especially in disadvantaged contexts—is often due to a lack of dedicated funding, insufficient staffing, and minimal coordination between schools and external actors, making it harder to provide tailored support for struggling students.

workforce that is predominantly female and aging. Many teachers experience long periods of precarity before obtaining permanent contracts via national rankings or competitions. Professional development is limited, and school leadership is often weak (Argentin 2018).

In 2022, around 8.3 million students were enrolled from pre-primary to upper secondary levels (MIUR, 2023). Over 10% of students have a migrant background, with wide regional variation. Despite many being born in Italy, these students face consistent disadvantages in performance and dropout risks (INVALSI, 2023).

2. Main educational Inequalities

In the Italian education system, three main sources of inequality stand out consistently in research and data: (1) territorial inequalities, particularly between Northern and Southern regions; (2) inequalities by social background in achievement, transitions, and attainment; and (3) disparities affecting students with a migration background. Gender gaps are also present, with the advantaged group varying according to the specific educational outcome, but their magnitude is smaller than the one found on the other three dimensions (Brunori, Fedeli & Triventi, 2025). These dimensions intersect with institutional features such as early tracking, limited compensatory policies, and regional disparities in resources and infrastructure, reinforcing long-term educational stratification.

Territorial inequalities (North–South divide)

Territorial disparities are a persistent and well-documented feature of the Italian educational landscape (Viesti, 2021). Standardised achievement data, especially from INVALSI and PISA assessments, show that students in the South systematically score lower than their Northern peers, particularly in literacy and mathematics. These gaps are stark: according to 2023 INVALSI data, more than half of lower secondary students in Campania, Calabria, and Sicily failed to meet basic math proficiency, compared with about 20 percent in Lombardy and Emilia-Romagna (INVALSI, 2023).

This achievement gap does not translate into similarly strong differences in educational attainment across regions. Recent work by Fiasconaro, Triventi, and Fedeli (2024) shows that while test score gaps between regions remain large and stable, regional differences in school attainment (e.g., graduation rates, university access) are comparatively limited and sometimes even reversed. This suggests that while the Southern education system promotes school completion, it struggles to ensure skill development, possibly due to lower standards, grade inflation, or weaker instructional quality.

Underlying these patterns are infrastructural and socio-economic imbalances: Southern schools are more likely to lack full-time schedules, digital equipment, or adequate facilities, and are located in areas with higher poverty and youth unemployment. As a result, the territorial achievement gap reflects not only individual disadvantage but systemic inequalities in educational opportunities.

Social background inequality in achievement and educational transitions

Social background continues to be a major source of inequality in Italy, affecting achievement, school transitions, and attainment. Despite the expansion of education in the post-war period, **intergenerational reproduction of inequality remains strong** (Ballarino et al., 2009) and comparative work has shown the decrease of educational inequalities related to social background in Italy to have been lower than elsewhere (Breen et al., 2009). As reviewed in Triventi (2014), students from highly educated and economically advantaged families are more likely to enrol in academic tracks, complete tertiary education, and avoid school failure or dropout.

Empirical research shows that both *primary effects* (differences in school performance due to family resources) and *secondary effects* (differences in educational choices at equal performance levels) contribute to inequality-where students with similar achievement make different educational choices. While performance gradients by social origin appear somewhat smaller in Italy than in countries like Germany or the UK, **social disparities in track choice** at age 14 remain pronounced. Children of professionals and graduates overwhelmingly enter academic licei, while children of manual workers are overrepresented in vocational schools-even at similar achievement levels (Panichella & Triventi, 2014; Checchi & Flabbi, 2007). A large part of this gap (60-65%) is not due to differences in academic performance among students with different backgrounds, and depend on **heterogeneous family choices in educational investments** (Contini & Scagni, 2013).

Dropout risks and early school leaving are also socially stratified. Students from lower social classes and low-educated families are more likely to being retained (Salza, 2022), leave school without completing upper secondary education (Ballarino, Bison & Schadee, 2008) or to delay or drop out from university (Triventi & Trivellato, 2009). These patterns highlight how school transitions amplify social inequality in a system that offers limited second chances and where **family support plays a crucial role in navigating institutional choices**.

Moreover, opportunities for re-entry into education later in life are limited. Adult education and second-chance programs exist but are fragmented, underfunded, and often poorly integrated with the mainstream education system, reinforcing the permanence of early educational disadvantage.

Inequality by migration background

Migration-related educational inequalities are another significant and growing concern. Students with a foreign background (both first- and second-generation) now represent over 10% of the student population, but they experience systematically worse outcomes across levels and domains. INVALSI and PISA data show that migrant students perform significantly below native peers, even after adjusting for socio-economic background. For instance, in the 2022 PISA round, the average reading performance gap between Italian and foreign-born students was over 60 points-equivalent to more than one year of schooling (OECD, 2023). The main **sources of the migrants-natives achievement gap** have been identified in family socioeconomic and cultural resources, language barriers and school-related attitudes (Triventi, Vlach & Pini, 2022).

Migrant-background students are also more likely to repeat grades, attend vocational tracks, and less likely to access university. These **disadvantages begin early and accumulate over time**. Language barriers, limited access to pre-primary education, and residential segregation further hinder their learning paths. Notably, even students born in Italy to migrant parents (so-called "second generation") show persistent gaps, suggesting structural integration problems within the school system (Azzolini & Barone, 2013).

Policies addressing migrant inequalities remain fragmented and underdeveloped. While schools may offer some language support or intercultural education projects, there is no systematic national strategy for reducing educational disparities by migration background. Combined with the broader lack of compensatory measures in Italy's school system, this leaves migrant-background students at high risk of marginalisation.

Beyond students with a migration background, other vulnerable groups-such as Roma and Sinti children-also face persistent educational disadvantage in Italy, including higher dropout rates and lower participation in early education, yet remain largely invisible in national monitoring frameworks and policy debates.

3. Main policies tackling educational inequalities

Over the past two decades, Italian policymakers have introduced several measures aimed at reducing educational inequalities, with varying degrees of ambition, coherence, and effectiveness. These policies have attempted to address disparities across regions, social groups, and migration backgrounds-although their scope and impact have often been constrained by broader structural, fiscal, and institutional limitations. Below, we outline the main reforms and programs from 2000 to 2025, organised thematically according to the inequalities they were designed to tackle.

Addressing territorial inequalities: school quality and full-time schooling

Territorial disparities have long been a concern in Italy's education system, particularly the gap between Northern and Southern regions. One of the most consistent policy responses has involved **targeted funding programs** for schools in disadvantaged areas, especially through European Union resources (European Commission, 2020).

The **PON Scuola (Programma Operativo Nazionale per la Scuola)**, launched in the early 2000s and revised under the EU's multiannual frameworks (notably 2007–2013 and 2014–2020), has allocated billions of euros to Southern schools to improve infrastructure, digitalisation, teacher training, and student support services (MIUR, 2021). These funds aimed to modernise schools, reduce early school leaving, and promote inclusion. However, evaluations suggest that while some outcomes improved (e.g., availability of digital tools), effects on student achievement and dropout rates were more modest and uneven across regions.

A second strand of territorial policy focused on **expanding full-time schooling (tempo pieno)** in primary education. Recognising that shorter school schedules-common in the South-limit learning time and increase the burden on disadvantaged families, various governments have promoted incentives for municipalities and schools to adopt full-time hours. This was especially encouraged in the **Piano Nazionale di Ripresa e Resilienza (PNRR)**, Italy's post-

COVID recovery plan (2021), which earmarked funding for building canteens and extending instructional time in low-performing areas (Presidenza del Consiglio dei Ministri, 2021).

The PNRR also introduced **"Scuole di prossimità"** projects aimed at revitalising small schools and combating educational isolation in peripheral areas. Yet, while the policy discourse emphasises territorial equity, implementation has been hindered by local capacity gaps and bureaucratic fragmentation.

While some internal and administrative monitoring of PON and PNRR initiatives has taken place, independent or counterfactual evaluations remain rare, limiting the ability to assess the actual impact of these large-scale investments on student outcomes or inequality reduction.

Tackling socio-economic and migration-related inequalities

Socio-economic and migration background remains a key driver of educational inequality in Italy. Several national reforms since the early 2000s have attempted to address these disparities, though not always with an explicit equity rationale.

A major reform was the **extension of compulsory schooling to age 16**, introduced by **Law 296/2006**, which requires all students to attend school or engage in recognised training programs until that age. The goal was to reduce early school leaving and align Italy with EU education targets. Although the policy formally raised the minimum expected attainment level, its enforcement remains uneven, and dropout rates-especially in vocational tracks and in the South-remain relatively high. Still, this extension has helped reduce early school leaving among some vulnerable groups and delayed selection out of education, which can reduce social stratification in the short term.

Another important development was the **expansion of early childhood education and care (ECEC)**. (While already widespread for children aged 3–6, the Italian government has recently invested more in **services for children aged 0–3**, especially under the **PNRR's "Sistema integrato 0–6"** reform).[15] Suggestion: Although services for 3–6-year-olds are well established, the government has recently focused on expanding care for 0–3-year-olds under the PNRR's "Sistema integrato 0–6" reform.The aim is to increase participation in nurseries, particularly in underserved areas, by building new facilities and reducing costs for families. Given the strong link between early disadvantage and later educational gaps, this expansion may reduce socio-economic inequalities in the long run, though effects will depend on access and quality.

Accountability and self-assessment tools were strengthened through the creation of the **INVALSI national standardised assessment system** (extended in the 2010s)[16] and the **Rapporto di Autovalutazione (RAV)**,[17] launched in 2014. While these initiatives have increased transparency and encouraged schools to reflect on internal disparities, their impact

[15] https://www.istruzione.it/sistema-integrato-06/

[16] https://www.invalsi.it/invalsi/index.php

[17] https://www.invalsi.it/snv/index.php?action=ais

on reducing educational inequality has been limited in the absence of strong compensatory mechanisms or resource redistribution.

In upper secondary education, attention has also turned to **guidance and transition support**, recognising that students from low-SES backgrounds are more likely to make suboptimal educational choices. The 2013–2014 school reform introduced **"orientamento in itinere"** (in-progress guidance), aiming to provide career and educational counseling throughout secondary school.[18] However, implementation varies by region and school, and tracking remains heavily influenced by family background.

One of the most innovative and equity-oriented initiatives of the past decade has been the launch of the **"Impresa Sociale Con i Bambini"**,[19] a nonprofit entity created in 2016 as part of the **"Fondo per il contrasto della povertà educativa minorile"**. Financed by Italian banking foundations under a government-promoted agreement, Con i Bambini manages large-scale funding calls for projects that combat **educational poverty** and promote **social inclusion** among vulnerable children and adolescents.

Between 2016 and 2023, the initiative financed more than 400 multi-year projects across all Italian regions, with a focus on low-income and peripheral areas. These projects, implemented by networks of schools, municipalities, and third-sector organisations, target students from disadvantaged backgrounds with interventions such as mentoring, after-school programs, summer schools, parental engagement activities, and inclusive learning spaces.

Importantly, Con i Bambini adopts a place-based approach: projects are tailored to the local context and often developed through co-design with community actors. While formal evaluations are ongoing, the initiative is widely recognised for building local capacity, fostering collaboration, and addressing multiple dimensions of disadvantage-including economic hardship, learning gaps, family fragility, and social exclusion.

Despite its non-governmental structure, **Con i Bambini has become for some time a de facto national strategy** for educational inclusion and has filled many gaps left by fragmented public policies. Its experience is increasingly used as a reference model in discussions on how to scale up community-based approaches and integrate them with national education policy. Nonetheless, In December 2024, unexpectedly, the centre-right wing government decided **not to renew funding** for the Fund when approving the 2025 Budget Law. Specifically, it discontinued the tax credit mechanism that allowed banking foundations to contribute to the Fund. The reasons for this decision remain unclear, especially given that the needs it addressed have not diminished-and, in fact, have worsened due to the impact of the pandemic-and no alternative policies have been proposed to replace its role.[20]

4. Which evidence, for whom, and how?

[18] https://pnrr.istruzione.it/riforme/riforma-dellorientamento/

[19] https://www.conibambini.org/

[20] https://www.vita.it/poverta-educativa-minorile-il-fondo-che-tutti-vogliono-ma-che-il-governo-non-ha-rinnovato/

Several reforms in Italy reflect not only evidence but also **political moments** where international discourses resonated with domestic concerns. For example:

- The rise of **standardised testing and accountability** in the 2000s was part of a broader neoliberal turn in public administration, under governments seeking to modernise and rationalise education (Grimaldi & Serpieri, 2014).
- The post-2008 crisis era saw increased **European pressure on performance and efficiency**, leading to the integration of evaluation tools like the RAV, even though their use in redistributive planning remained weak.
- The **COVID-19 crisis** opened a window for renewed investment in education via the PNRR-but this opportunity was largely driven by external financing and conditionality, not by domestic consensus on how to tackle inequality.

International benchmarking and performance gaps: the role of OECD-PISA and INVALSI

The OECD's PISA assessments have served as a primary evidence source shaping Italian education policy. Since the early 2000s, Italian policymakers have used PISA data to monitor system performance, identify weaknesses, and frame public debates on educational quality and equity. The stark North–South divide in achievement outcomes revealed by PISA-especially in reading and mathematics-has provided compelling evidence of territorial inequality, contributing to the political legitimacy of EU-funded programs like the *PON Scuola* and, more recently, of the equity component of the National Recovery and Resilience Plan (PNRR).

At the national level, the expansion of the INVALSI standardised assessment system in the 2010s mirrored PISA's logic of comparability, performance monitoring, and evidence-based governance (Viteritti & Giancola, 2015). The INVALSI data have become a central source of diagnostic evidence for schools, policymakers, and researchers, shedding light on student learning gaps by geography, social background, and migration status. Although initially met with resistance from teachers' unions and parts of the academic community, INVALSI has gradually established itself as a key instrument in Italy's education policy landscape.

The establishment of **school self-assessment tools** (RAV, 2014) and the **National Evaluation System (SNV)** was directly inspired by international accountability models and fostered by the European Commission's recommendations on improving governance, transparency, and institutional capacity in member states' education systems (Restiglian & Da Re, 2019). These instruments drew both on OECD discourse and EU funding conditionalities, rather than arising from grassroots national debates. They are illustrative of **policy borrowing as strategic alignment**-Italy adapting its evaluation infrastructure to international norms to signal modernity, responsibility, and compliance with EU governance standards.

EU influence, structural funds, and regional equity

EU structural and cohesion funds have been central to Italy's efforts to reduce territorial educational disparities, particularly in the South. The ***PON Scuola*** (Operational Program for Education), funded under the European Social Fund (ESF) and the European Regional Development Fund (ERDF), was built on a narrative of territorial cohesion and socio-economic inclusion (Cellamare & Cavicchiolo, 2015). However, its design and implementation reflected

a **top-down compliance logic**, where Italy adapted to EU policy frameworks and funding mechanisms rather than developing a context-specific equity strategy based on domestic research.

Evaluation of *PON Scuola* interventions has been mostly administrative or descriptive.[21] Rigorous impact assessments are rare, also due to limitations in the data, and the circulation of findings among national policymakers remains limited. As such, the EU funding model enabled substantial investment in school infrastructure, teacher training, and student support services-but without a robust national evidence architecture to support policy learning and long-term planning.

The same logic applies to the **PNRR**, adopted in 2021 as part of Italy's post-COVID recovery strategy.[22] The education component of the PNRR includes ambitious goals-such as the extension of full-time schooling, increased early childhood coverage (especially in the 0–3 age group), and improved digital infrastructure in schools. While the plan responds to long-standing educational inequalities, its design was largely driven by compliance with EU policy priorities (green transition, digitalisation, gender equality, and territorial cohesion). The selection of measures was influenced more by political feasibility and EU alignment than by systematic reviews of domestic evidence.

Domestic actors, institutional inertia, and the limits of evidence use

Within Italy, the role of domestic research and policy evaluation in driving reform has been limited and fragmented. Despite the country's rich sociological and educational research tradition, **policy-relevant evidence often lacks institutional channels** to influence policymaking. Ministries typically lack internal analytical capacity, and external experts are consulted in ad hoc or informal ways. When evidence is used, it is often descriptive, instrumental, or politically convenient-rather than theory-driven or embedded in a broader evaluation culture (Martini & Sisti, 2009).

For example, the **extension of compulsory schooling to age 16** in 2006 was not based on any specific Italian study demonstrating its likely impact. Rather, it was part of a broader political effort to converge with EU education targets (e.g., reducing early school leaving below 10%), and was influenced by prevailing international discourses emphasising education as a driver of competitiveness, employment, and social cohesion.

Similarly, policies to improve **career guidance and school-to-work transitions** (e.g., *orientamento in itinere*) were adopted in part in response to Italy's poor performance in youth employment and NEET (Not in Education, Employment, or Training) indicators, as highlighted by OECD and Eurostat data. Yet, these measures were only loosely linked to empirical evidence on what types of interventions work for whom, and were implemented unevenly due to regional and institutional variation.

[21] https://www.foe.it/news/mim-pon-2014-2024-sintesi-dei-risultati-della-valutazione-di-impatto-del-programma-per-la-scuola-2014-2020

[22] https://pnrr.istruzione.it/

In sum, **evidence use in Italian education policy remains partial, strategic, and externally driven**. While international assessments like PISA and domestic data from INVALSI have helped frame problems, the design of solutions has been influenced more by EU alignment and political opportunity than by systematic policy learning. Exceptions like Con i Bambini show the potential of more participatory, evidence-informed approaches, but scaling such models remains a challenge in Italy's centralised and bureaucratic system.

5. Persisting educational inequalities and evidence bias: what evidence is missing

Despite a growing body of data and policy initiatives, significant educational inequalities persist in the Italian context. These include long-standing disparities by geography, social origin, and migration background. While standardised assessments (INVALSI, PISA), administrative data, and school self-evaluation tools have improved transparency and accountability, several critical forms of evidence remain underutilised or altogether absent. Moreover, evidence is often selectively used to support political agendas, while whole groups and emerging social dynamics remain inadequately addressed by national data collection, research, and policy design.

Overreliance on standardised testing and its limitations

Over the past two decades, Italy has heavily invested in national assessment infrastructure, particularly through INVALSI tests, which provide reliable and comparable data on student achievement in reading, mathematics, and English at multiple school levels. While these data have made educational inequalities more visible-especially across regions and school types-they also present limits.

First, standardised tests primarily capture **cognitive achievement**, overlooking key aspects such as socio-emotional skills, student wellbeing, school climate, and inclusion practices. This narrow focus can bias the policy discourse toward performance-based indicators, reinforcing technocratic and accountability-oriented solutions (e.g. testing, ranking, targeting), rather than systemic or structural reforms aimed at reducing inequality (Grimaldi, 2012).

Second, INVALSI results are used more for **monitoring than intervention**. Schools are expected to reflect on their results through the RAV process, but the state provides limited support for addressing identified weaknesses. As a result, inequalities are documented rather than corrected. This reflects a broader gap between data availability and effective equity-oriented action.

Selective and politically driven use of evidence

In many cases, the use of educational data in Italy appears to be **selective and instrumental**. Evidence is often deployed to justify pre-existing policy directions-such as the expansion of standardised assessments or the reinforcement of school autonomy-rather than to genuinely rethink structural conditions producing inequality.

For instance, **tracking at age 14** remains largely untouched by reforms, despite substantial evidence-both international and national-showing that early tracking reinforces social background inequalities. While research has shown that students from lower socio-economic backgrounds are disproportionately guided toward vocational tracks even at similar

achievement levels (Panichella & Triventi, 2014; Triventi, Barone & Facchini, 2021), this has rarely led to political questioning of the tracking system itself. Instead, policies have focused on marginal improvements (e.g., guidance programs, flexibility within tracks) without addressing the core issue of early selection.

In some cases, governments have promoted **research that aligns with intended political objectives**, such as efficiency, international competitiveness, or digital modernisation, while ignoring studies that foreground structural inequalities or demand redistributive interventions. This contributes to a form of **"evidence bias"**, where some inequalities (e.g. regional differences in digital skills) gain visibility and policy attention, while others (e.g. deep-rooted class or migration-related disparities) are overlooked.

Critical Gaps in Data Infrastructure and Access

While Italy has made important strides in building a system for monitoring educational outcomes-most notably through the expansion of standardised assessments and school self-evaluation tools-significant gaps remain in the availability, quality, and integration of data needed to understand and address the full range of educational inequalities.

INVALSI data are a major asset for monitoring student achievement over time and across regions, school types, and social groups. Their coverage of literacy, mathematics, and English from primary to upper secondary education allows for robust analysis of the evolution of learning gaps throughout the educational career. These assessments have been instrumental in documenting the persistent territorial divide between North and South, the disadvantages faced by students from low socio-economic backgrounds, and the performance gaps by migration status.

However, **INVALSI datasets also suffer from important blind spots.** They lack information on several key dimensions of disadvantage that are increasingly relevant in the Italian context. Most notably, the data include only limited or indirect measures of **family socio-economic and cultural background**, and they exclude entirely critical characteristics such as **disability status, religiosity, or special educational needs (SEN)**. As a result, certain forms of disadvantage remain **statistically invisible** and thus politically and programmatically neglected. For example, there is no systematic way to monitor how students with disabilities or religious minority backgrounds perform within the national assessment system or whether they are affected differently by school policies.

Moreover, while INVALSI data are well-suited to studying **achievement gaps at specific time points**, they are not designed to follow students through the full trajectory of their education. This limits the ability of researchers to study important **longitudinal phenomena**, such as **grade repetition, early school leaving, or transitions to post-secondary education and training**. These are precisely the areas where inequalities-particularly by social origin and migration background-often become most pronounced.

Historically, **ISTAT's social surveys** (such as the *Indagine sui percorsi di studio e lavoro dei diplomati*)[23] offered valuable insights into transitions from school to university or the labour

[23] https://www.istat.it/informazioni-sulla-rilevazione/lindagine-sui-percorsi-di-studio-e-di-lavoro-dei-diplomati-del-2007/

market, including information on family background, motivations, and social outcomes. However, **many of these surveys have been discontinued** or reduced in scope, weakening the national capacity to track the mechanisms of social reproduction in education.

Alternative data sources do exist, such as the **Almadiploma surveys**,[24] which follow high school graduates into higher education or employment. Yet these data are not publicly accessible, are not systematically integrated with INVALSI or ISTAT data, and have limited coverage across school types and territories. In parallel, **administrative register data**-such as the **Anagrafe Nazionale degli Studenti (National Student Registry)**[25]-offer huge potential for research and monitoring but remain **unavailable to most independent researchers**. These data are collected by the Ministry of Education but are not systematically anonymised or shared with academic or public policy institutions for analytical purposes.

The failure to integrate these various data sources-**achievement, sociodemographic, administrative, and longitudinal transition data**-severely limits the analytical power of Italy's education evidence base. It prevents researchers and policymakers from understanding the full life course of students, from preschool through university or employment, and from identifying critical "drop-off" points where interventions could be most effective.

Several structural reasons explain this persistent **data fragmentation and inaccessibility**:

1. **Excessive legal restrictions linked to data privacy**, often interpreted conservatively and rigidly by institutions, limit the possibility of data linkage across sources-even when anonymisation would permit it under EU GDPR regulations.
2. A **weak culture of evidence-based policymaking**, where data are seen as bureaucratic requirements rather than tools for learning, accountability, and improvement.
3. **Insufficient institutional capacity** in data management and sharing public bodies often lack the technical infrastructure and human resources needed to curate, anonymise, and disseminate datasets to the research community.
4. **Political reluctance to face accountability**: there is often a fear that open and rigorous data use might expose system-level failures, territorial inequalities, or the ineffectiveness of reforms-leading to reputational risks for public officials and political leaders.

Together, these issues foster an environment where **data exist but are underused, disconnected, or withheld**, limiting both transparency and the possibility of developing smart, targeted policies to reduce inequality. Without a stronger infrastructure for **data integration, access, and participatory use**, many critical questions about who is being left behind in the Italian education system-when, why, and how-will remain unanswered.

[24] https://www.almadiploma.it/

[25] https://www.mim.gov.it/anagrafe-nazionale-studenti

Some promising initiatives at the regional level-such as pilot programs linking INVALSI scores with local administrative and socio-demographic data-demonstrate the feasibility of more integrated monitoring systems, but these remain isolated and lack institutional continuity or national support.

6. Future directions and recommendations

Based on the Italian case study, four key recommendations emerge to lay the foundation for evidence-informed policies that can effectively address persistent educational inequalities:

1. Prioritise equity in policy agendas and resource allocation. Equity has often remained a marginal, unclear, or secondary objective in Italian education policy. Policy priorities have frequently focused on digital innovation, school autonomy, or system efficiency-sometimes driven more by international trends or political convenience than by rigorous evidence of effectiveness. To reverse this pattern, policies should explicitly identify and address educational disparities by social background, territory, and migration status, and ensure that resource distribution is aligned with equity goals.

2. Develop and integrate comprehensive data systems. Italy must strengthen and connect its data infrastructure across agencies. This includes linking achievement data (INVALSI), administrative registries (*Anagrafe Studenti*), and socio-demographic information (e.g., family background, disability, migration status). Such integration is crucial for monitoring inequality across educational trajectories and for designing targeted, evidence-based interventions.

3. Establish a national platform for evidence-based education. To support policy learning, Italy should create a centralised platform that gathers and disseminates rigorous, accessible evidence on education. This should include official evaluations of reforms, independent counterfactual impact studies, and qualitative or mixed-methods research. The platform could follow models such as the UK's *Education Endowment Foundation* or *What Works* initiatives, promoting a transparent and pluralistic approach to knowledge production and use.

4. Strengthen institutional capacity and the culture of evidence use. Italy needs to invest in data governance, research–policy linkages, and internal analytical capacity. Most importantly, a shift is needed in the political culture: from using evidence to justify decisions already made, toward valuing it as a foundation for transparency, accountability, and improvement.

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4.6. Case Study: Romania

1. Contextual background

The educational system in Romania integrates early education (compulsory from age 5), primary education (ages 6 to 11, with a preparatory grade from age 6 to 7 and then grades 1 to 4, amounting to 5 school years), secondary education (lower secondary education – ISCED level 2, grades 5 to 8, age 11 to 15 and upper secondary education – ISCED level 3, grades 9 to 12, age 15 to 18). Tertiary and post-tertiary education are organised in the Bologna system (ISCED level 5, 6, 7, 8) (Figure 1).

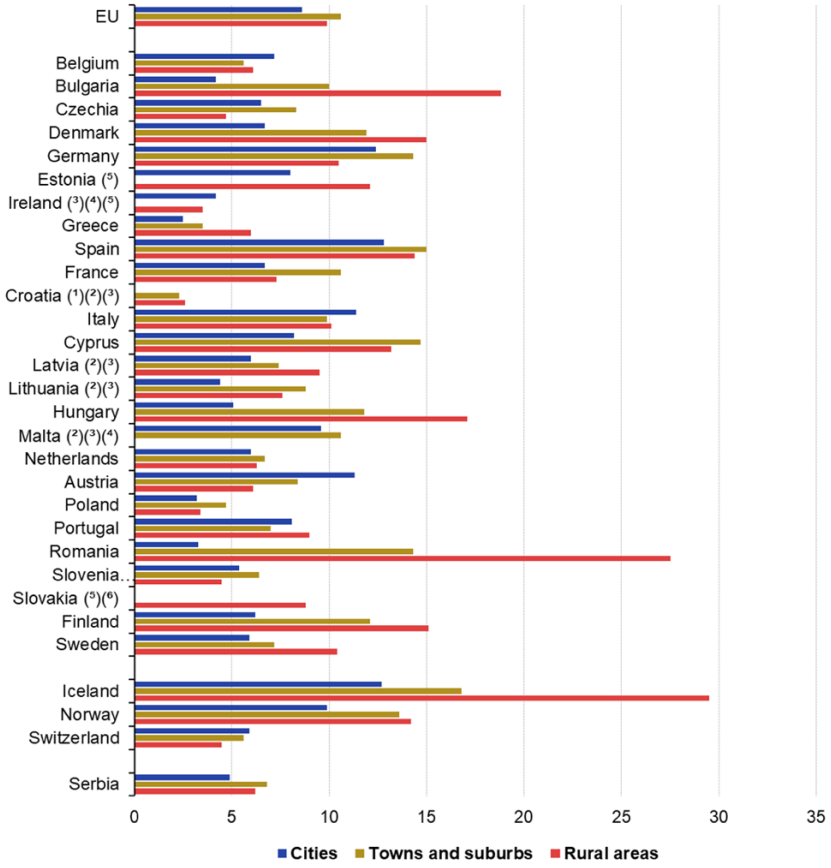
Figure 1. Structure of the Romanian education system

Age →	5	~6–11	~11–15	~15–18	~18+
Level →	Early Edu.	Primary Edu.	Lower Sec.	Upper Sec.	Tertiary & Post-Tert. (Bologna System)
Grades →	Prep	1–4	5–8	9–12	Univ./MA/PhD
ISCED →	0	1	2	3	5–8

The Ministry of Education's 2024 report shows that 2.9 million students were enrolled in pre-university education in 2023–2024. There is a general decreasing trend of youth enrolled education (74,9% of youth aged 3-23 in 2023-2024), with children from rural areas being the most disadvantaged. For instance, in the 2023-2024 school year, only 66,9% of youth from rural areas attended lower secondary education, compared to 95,6% for urban areas. For the same school year, at national level, only 78,5% of eligible youth were enrolled in upper secondary education. Romania has one of the highest levels of school dropout, with students from rural areas and students in work-bound tracks being at highest risk (Figure 1). The disparity is particularly stark: the ratio of early leavers in rural areas compared to urban areas is 8.3 - the highest in the EU, where the average ratio is only 1.2.

Figure 1. Early leavers from education and training by degree of urbanisation, 2023

(% of population aged 18-24**)**



Note: ranked on overall share of early leavers in cities. Luxembourg is not available.
(1) Rural areas: low reliability.
(2) Towns and suburbs: low reliability.
(3) Cities: low reliability.
(4) Rural areas: not available due to a very low reliability.
(5) Towns and suburbs: not available due to a very low reliability.
(6) Cities: not available due to a very low reliability.

Source: Eurostat (edat_lfse_30)

Educational tracking starts with grade 9, when majority of students are 15 years old. At the end of grade 8, all students take the National Evaluation, also called “Capacitate” (engl. Capacity), which consists of tests for Romanian and Mathematics knowledge and competence, according to the school curriculum. For each child, the family will declare a hierarchical list of up to 280 options for specialisations in upper secondary education that the child wants to attend. Based on the child’s grades at the Capacitate and the expressed options of students at national level, a computerised system assigns students to a specific specialisation from a specific high school. The hierarchy of up to 280 options that each student declared serves as input variable, to be considered beside the National Evaluation grades.

The broadest categorisation of educational tracks in Romania is theoretical or university-bound and technological and vocational or work-bound. The work-bound educational tracks have a long history of legislative and policy changes and reforms, during communism, after the fall of communism in 1989, and then after Romania becoming a member of the European Union in 2006. According to the last CEDEFOP report on Romania (2024), technological programs at post-secondary level include 4-year technological high-school programs providing

graduates with the qualification of "technician" (EQF 4) and 3-year VET programs organised in so-called "professional schools" providing graduates with the qualification of "skilled worker" (EQF 3). Moreover, the same CEDEFOP report states that "7 out of 10 IVET learners were in 4-year programmes. This is 39% of the total VET population." (p. 4).

The number of students attending technological high schools has been decreasing during the last decade, from 38,9% of students attending upper secondary education in 2014-2015 to 27,4% in 2023-2024 (Table 23, National Report on Pre-university Education, 2024). Complex workforce contexts at EU level, an ageing work population, and an increasing national focus on industries that require qualified blue-collar workers made the past decade a decade of structural change regarding educational tracking. Technological upper secondary education has moved toward a high school education since the 2011 National Law of Education, partly to counteract the high social prestige of "theoretical" high schools and equip graduates with some prerequisites for attending post-secondary and even tertiary education.

2. Main educational inequalities

There is high inequality in access to upper secondary education, with choices being decided solely by the performance at the National Evaluation ("Capacitate") at the end of the 8th grade. Parents of 8th grade students scare their children into learning for the National Evaluation by telling them that technological high schools will get them if they don't study. The Education and Training Monitor 2024 for Romania (European Commission, 2024) points to core limitations of the educational system. PISA results reveal that Romanian youths' basic skills trail EU averages and have declined over the past decade (Kitchen et al., 2017; OECD, 2023a, b; OECD, 2024). Moreover, there are multiple challenges for the quality and equity of education and training, especially at the level of evaluation and support systems. This is reflected in how educational transitions are structured and who come out from key transitions as winners. The National Evaluation is a curriculum-based exam taken at the end of grade 8, with scores determining high-school placement. This examination is not standardised according to scientific requirements. It rather reflects arbitrary choices of those who elaborate them in terms of the level of difficulty or the curriculum contents that are approached. Therefore, the winners are usually students who come from middle-class and upper-middle class families who have the objective (e.g., money) and subjective (e.g., emotional support abilities) affordances to support their offspring during this decisive transition Higher performing students generally opt for theoretical (university-bound) high schools.

Technological tracks are the outlet for youth from families with lower educational and economic status. Qualitative sociological research has shown the precarity of initial VET education in Romania, with youth having a bleak and disillusioned vision on their academic and working future and families being mostly absent from the educational lives of their children, due to their own difficult occupational and personal lives (Pantea, 2019a, b). This story of precarity is supported by the 2024-2030 project of the Ministry of Education entitled National Strategy for Supporting Parents (2024), which coagulates multiple statistical data on family structure and parental needs. This policy paper shows that in the academic year 2021-

2022 there was an increase in school dropout and failure to promote the Baccalaureate exam in students attending technological education. Parents from rural areas and small urban areas and parents with low educational and economic status are seen as the most vulnerable and in need of support to help their children during schooling. While most existing measures focused on financial or logistic support (e.g., free meals at school), there is very limited psycho-social support to help them understand their role in the academic lives of their children.

There is inequality between educational tracks (i.e., theoretical versus technological) **and within educational tracks** (e.g., for theoretical tracks humanities versus sciences; for technological tracks services versus technical). The differentiation between services and hospitality versus construction and engineering as field of specialisation has created an inequality in how they are sought for, with an advantage of services and hospitality where the type of work and employment prospects are easier (CEDEFOP, 2024; National Report of the Ministry of Education, 2024). Even for university-bound tracks there is an inequality between the humanities and STEM-related tracks focusing on exact sciences, with higher achieving students aiming for more STEM-oriented tracks which are generally perceived as more socially desirable and conferring better employment prospects (CEDEFOP, 2024). So, there is high inequality between tracks and within a broad educational track. Moreover, family and community affluence and the urban-rural divide that is characteristic of the Romanian society, make these inequalities even deeper. On the one hand, work-bound high schools are overrepresented in rural and small urban communities, making the component of track choice obsolete. On the other hand, university-bound tracks are strongly focused on strong academic performance, as they are the launching pad for university access and do not provide specific professional qualifications.

3. Main policies tackling educational inequalities

Order nr. 4801/2010 regarding the organisation and process of the national evaluation for students in grade VIII in the school year 2010-2011[Ordinul nr. 4801/2010 privind organizarea și desfășurarea evaluării naționale pentru elevii clasei a VIII-a în anul școlar 2010-2011].

The National Evaluation is a curriculum-based examination administered at the end of the 8th grade in Romania, with results used to determine admission to high school. Between 2010 and 2023, the high school admission average was calculated as a weighted mean: 80% based on the National Evaluation (NE) score and 20% based on the general average of school grades from grades 5 to 8. This formula was introduced through Order No. 4802/31.08.2010, issued by the Ministry of Education, Research, Youth, and Sports, and applied starting with the 2011–2012 academic year. Prior to this order, student performance throughout lower secondary education was also considered in admissions, but the exact calculation methods varied. The 2010 order introduced a standardised formula that emphasised the NE results while still incorporating prior school performance. As of 2024, the admission average is based solely on

the NE score. Ministerial orders such as this one are secondary legislation, issued by ministers to implement and operationalise primary laws in their area of competence. Unlike primary legislation, ministerial orders are not required to include a formal justification or explanatory note. Accordingly, Order No. 4801/2010 does not provide an explicit rationale for its provisions. Nonetheless, its objectives can be inferred from the broader educational context of the time.

The National Law of Education 1/2011

(The stated objective of this law was to modernise Romania's education system by improving quality, ensuring equity, and increasing institutional accountability) suggestion: This law aimed to modernise Romania's education system by enhancing quality, promoting equity, and strengthening institutional accountability. It introduced a broad set of reforms aimed at professionalising the teaching career, implementing competency-based curricula, decentralising decision-making, and linking school funding to student enrolment through the principle "funding follows the student". The law also emphasised external evaluation, transparency, inclusive education, and the development of vocational pathways. In terms of equity, the law recognised the need to reduce educational disparities and expand access for disadvantaged groups, including students from rural areas, Roma communities, and those with special educational needs. However, while the principle of funding following the student was intended to equalise resources, it often reinforced existing inequalities. Poorer local authorities lacked the capacity to supplement basic funding, which led to continued disparities between well-resourced urban schools and underfunded rural ones.

Decentralisation, another key pillar of the law, gave more autonomy to schools and local authorities. Yet this shift placed a heavy burden on municipalities with limited administrative or financial capacity, further widening the gap in educational opportunities. In addition to public education reforms, the law also extended financial support to accredited private schools, allowing them to receive public funding based on student enrolment under the same "funding follows the student" principle. However, this support was not tied to any explicit obligations to promote equity or serve disadvantaged populations. As a result, public resources were channelled into institutions that often cater to more privileged families, without requirements to implement inclusive policies or ensure accessibility for marginalised students.

Finally, the law underwent numerous amendments by successive governments, which gradually diluted many of its core reforms. Measures related to teacher evaluation, school leadership autonomy, and performance-based management were significantly weakened. In practice, the law's potential to reduce systemic inequality was undermined both by inconsistent implementation and by political instability.

The Law of Pre-university Education (198/2023)

This law is the most recent legislative effort to modernise Romania's educational system. Its main goals are to enhance the quality of education, promote equity, and integrate digital

technologies into teaching and learning. Notably, the law includes an explicit commitment to reducing educational inequality across social, geographic, and economic divides. To achieve this, it introduces a range of targeted measures designed to support vulnerable students and under-resourced schools.

One of the key provisions is the increase in financial allocations to schools serving disadvantaged communities. This acknowledges the unequal starting points faced by students in rural areas, segregated neighbourhoods, and schools with high levels of poverty. The law provides increased per-student funding for schools participating in consortia that link urban and rural institutions, as well as for schools serving students with special educational needs (SEN). It also expands scholarship programs for students from low-income families, with the aim of reducing dropout rates and improving access to upper secondary and higher education. These scholarships are intended to offset direct costs such as transportation, school supplies, and meals.

To address disparities in teacher distribution, the law introduces a relocation bonus-equivalent to five gross minimum salaries-for educators who commit to working in remote or underserved areas for at least five years. The law also mandates the development and implementation of inclusive education strategies, with a focus on integrating students with special educational needs and those from marginalised groups into mainstream education.

In addition, the law strengthens vocational and dual education pathways, which may enhance equity by offering alternative routes to employment and lifelong learning. Dual education programs, which combine classroom instruction with hands-on training in partnership with industry, are a key part of this approach.

Finally, the law prioritises infrastructural investments-including the construction and renovation of school buildings-particularly in rural and underdeveloped areas where basic facilities remain lacking.

4. **Which evidence, for whom, and how?**

In Romania, all government-initiated laws (proiecte de lege) and government decisions (hotărâri de guvern) are legally required to include a justification section-either a “nota de fundamentare” (substantiation note, for government decisions) or an “expunere de motive” (explanatory memorandum, for legislative proposals). This requirement is set out in Law no. 24/2000 on the norms of legislative technique for drafting normative acts. According to this law, the justification must go beyond presenting the legal and factual context; it must also articulate the rationale and objectives of the regulation, assess its economic, social, and environmental impact, and include a comparative analysis-particularly when harmonisation with EU legislation or international standards is relevant. In principle, this legal framework should ensure that government-initiated laws and decisions-including those concerning education-are grounded in evidence. In practice, however, multiple evaluations have found that the quality and depth of these justifications vary considerably. A growing body of evidence points to systemic shortcomings in the drafting of these documents, highlighting

that Romanian policymaking often suffers from a weak evidence base. Substantiation notes frequently lack data-driven analysis, omit policy alternatives, and fail to include meaningful impact assessments. Instead, they tend to rely heavily on legal references, offering little empirical justification for the proposed measures.

The remainder of this section critically examines three laws and decisions initiated by the Romanian Ministry of Education, which are critical for the understanding the state of evidence-based policymaking in Romania.

Order nr. 4801/2010 regarding the organisation and process of the national evaluation for students in grade VIII in the school year 2010-2011[Ordinul nr. 4801/2010 privind organizarea și desfășurarea evaluării naționale pentru elevii clasei a VIII-a în anul școlar 2010-2011].

The introduction of a standardised National Evaluation sought to ensure greater consistency and fairness in assessing students at the end of lower secondary education. By establishing uniform procedures and evaluation criteria nationwide, the Ministry aimed to provide all students-regardless of school or region-with equal opportunities to demonstrate their competencies. Additionally, standardised assessments were intended to generate reliable data on student performance to inform educational policy and reforms. While the idea that rural schools may engage in grade inflation is plausible, we could not locate any comprehensive studies directly addressing this issue. However, findings from a recent study on the National Evaluation in Romania between 2017 and 2023 (Andrei, Mirică, & Stoica, 2024) support this hypothesis. The study shows that the rural–urban gap in the average school grades from lower secondary education is significantly smaller (approximately 0.5 points) than the corresponding gap in National Evaluation (NE) scores (around 1.3 points), suggesting that school grades in rural areas may be inflated relative to actual performance on the NE. This policy appears to be a case of borrowed policy discourse, introduced in a political context that emphasised fairness in school evaluation. The same policy context also produced a related set of reforms aimed at reducing cheating in the Baccalaureate exam (Borcan, Lindahl, & Mihut, 2017). We found no evidence that the 2010 order was grounded in international data (e.g., OECD PISA) or formulated in direct response to EU regional policies.

The National Law of Education 1/2011

The primary source informing the law was the Presidential Commission Report for Education and Research, coordinated by Mircea Miclea, a professor of psychology and former Minister of Education, and published in 2006 (Miclea et al., 2006). Interviews conducted by our research team with three policymakers involved in the legislative process confirmed that the evidence base used in drafting the law relied almost exclusively on this report, underscoring its central role.

Commissioned by the country's president, Traian Băsescu, the report marked the first major attempt to develop a strategic, research-informed vision for education reform in Romania. It offered wide-ranging recommendations for structural changes in governance, funding

mechanisms, curriculum development, and teacher policy. Among its key proposals were the decentralisation of the education system, the introduction of external quality assurance, and the promotion of merit-based advancement-principles later embedded in Law 1/2011.

Despite its breadth, the report's empirical foundation was relatively limited. It drew primarily on international comparisons-such as results from PISA, TIMSS, and PIRLS-and expert analysis, rather than on a robust body of national empirical research. The limited availability of Romanian data at the time constrained the range of evidence consulted. Even so, the report played a pivotal role in legitimising the reform agenda of the 2011 law. Its influence was further reinforced by the appointment of Daniel Funeriu, one of its contributors, as Minister of Education during the law's drafting and adoption.

The Law of Pre-university Education (198/2023)

The Explanatory Memorandum accompanying the law provides the rationale and supporting evidence for these measures. It references various national and international reports that highlight key challenges in Romania's education system, such as high dropout rates, significant disparities in access between urban and rural areas, and persistent performance gaps among student subgroups.

By far, the most influential source informing the law is the Educated Romania Project-a comprehensive national initiative launched by the country's president, Klaus Iohannis, as a fulfilment of his 2014 electoral campaign promise to prioritise education reform. The project stands out as a unique case in Romanian policymaking, both in scope and in the degree of public and expert engagement it involved. Its findings emphasise systemic inequalities and advocate for reforms to ensure equal educational opportunities for all students, regardless of socio-economic status. The project was informed by extensive consultations with teachers, parents, students, and civil society actors, offering insights into the barriers faced by disadvantaged groups. These consultations reinforced the need for targeted, inclusive policy interventions.

Interviews conducted by our research team with three policymakers involved in drafting the law revealed that the evidence used during the legislative process was largely confined to the Educated Romania Project. However, we identified several notable exceptions. One is the "Remedial Learning" program, which was informed by experimental studies conducted by the Education Endowment Foundation in the United Kingdom. Another is the expansion of the "Healthy Meal" program, which drew on evaluations by the Ministry of Education and the World Bank of earlier iterations of the initiative. These evaluations indicated that the program is among the most effective interventions for reducing school dropout rates.

The final report of the Educated Romania Project (2021) includes a bibliography of 72 references. While many of these are methodological handbooks, pedagogical guides, or statistical overviews, fewer than ten appear to be based on empirical research using Romanian data. Most of the cited empirical evidence is drawn from international assessments such as PISA and TIMSS. Notably, the report does not reference any of the studies conducted by the

Institute of Educational Sciences (ISE)-a research unit within the Ministry of Education whose stated mission is "to provide the necessary scientific support for the latest approaches in education." Furthermore, the bibliography includes only one article published in a peer-reviewed scientific journal. Although the overall volume of educational research in Romania remains limited, the report overlooks several relevant domestic studies, suggesting that, even within the constraints of available research, the evidence base could have been more comprehensive.

5. Persisting educational inequalities and evidence bias: what evidence is missing

In key policy domains including education, draft laws and ministerial orders often cite alignment with European directives or strategic frameworks, yet these references are typically not supported by quantitative or qualitative evidence. The emphasis tends to fall on legal compliance rather than on effectiveness, efficiency, or alternative options. Rarely do these justifications include references to academic research, evaluation studies, or national statistical data. Furthermore, substantiation notes are frequently used to retroactively legitimise decisions that have already been made, rather than to transparently explain a policy rationale developed through consultation and evidence (OECD, 2017; European Commission, 2023).

Empirical evidence based on nationally representative educational data is limited in Romania. There are studies that use statistical data at national level, but as most data is cross-sectional, these studies tend to capture a snapshot of a specific educational period (Ion et al., 2019). Moreover, based on data from Web of Science (WoS), Romania ranks as one of the main contributors to education research through proceeding papers, occupying the fifth place globally, with China, the USA, Indonesia, and Spain in the top positions. However, in terms of articles and reviews within WoS educational categories, Romania ranks much lower, in 63rd place (Cretu & Grossek, 2025). Hence, empirical peer-reviewed studies on Romanian educational data tends is limited and mostly ignored in educational policy development. Moreover, existing complex qualitative work tackling vulnerable groups, like students from professional education brought depth and nuance to an otherwise stereotyped group (e.g., high dropout, low family SES, low academic achievement), but is absent from current policy discourse (e.g., Pantea, 2019a, b). The NGO sector has been working on their own empirical studies based on the specific goals of the NGO. For instance, Save the Children and the World Vision Foundation have multiple cross-sectional studies on educational dropout and vulnerable groups, like the Roma minority, children from rural areas, or children from low-SES families. Nevertheless, these studies are published as reports on their websites and are not peer-reviewed scientific papers.

At the level of educational tracking most information that is publicly available comes from the annual reports on the state of education, which are published by the Ministry of Education. These reports offer a global and politicised account on how the educational system has performed in the previous academic year. School inspectorates, which function at county-level gather multiple statistical data at the requirement of the Ministry of Education, but this

data is not publicly available as raw data, only as descriptive analyses (mostly percentages) of various variables that were measured. Also, the items that measured constructs are not publicly available. The lack of raw data availability and data collection transparency (e.g., sample description, data missingness, measures) makes any scientific analysis on educational tracking and academic achievement at national level very difficult. This may be the key reason why educational policies cite PISA data and European Commission data as empirical data, though from scientific standpoint the former does not align with the structure and evaluation criteria of the Romanian educational system and the latter are usually not transparent on data collection and bias.

Longitudinal evidence on educational development, at any educational level, is scarce in Romania. This type of research is usually funded through public research funds, which are limited, unpredictable, and do not allow for long-term longitudinal designs. The UEFISCDI is that main national funding body for scientific research and as projects can last between 2 and 3 years, they allow only for 2-3 data waves. The three longitudinal studies included in the LEARN project have been funded through UEFISCDI (i.e., TRAIDES, PERSEIDA, GOAL-ID). Therefore, the studies are research-driven rather than policy-driven and the publications based on the data are available in multiple international peer-reviewed journals. These papers have had a good impact in the international scientific community, but no impact in national policies. We can identify multiple reasons for this reality. First, the scientific discourse is too complex and cryptic for policymakers, making results difficult to understand without complex knowledge of data analyses. Second, the concepts of the studies are drawn from scientific theoretical and empirical work and do not match the policy discourse. For instance, multiple peer-reviewed empirical articles from these projects (e.g., Negru-Subtirica et al., 2023; Negru-Subtirica et al., 2020; Pop et al., 2016) showed the maladaptive role of grades as the sole indicator of academic achievement and the fact that they tend to drive personality and identity formation in Romanian adolescents.

6. Future directions and recommendations

Foremost, educational policies in Romania need to formally acknowledge the role of empirical studies in understanding and tracking educational inequalities in general. Recommendations that accompany educational policies would greatly benefit from an evidence-based explanation that is specifically grounded in the Romanian context. At a general educational policy level, one important step would be to define what counts as evidence in grounding and monitoring educational policies. In-depth empirical work needs to be grounded on state-of-the-art theoretical constructs and mechanisms that are presented in a transparent manner in the policy development process and cited in the final official documents. Key indicators for the evaluation of empirical work as scientific evidence would help policymakers to understand basic scientific concepts valuable for an evidence-based approach to education.

Second, the annual reports of the Ministry of Education can make better use of existing cross-sectional sociological data provided by the National Institute of Statistics and other

institutions that provide statistical work for the government. Nuanced analyses on vulnerable groups (e.g., students from low-income families, students from rural areas) are imperative to better understand how they do academically for specific educational tracks and specific school subjects. Hence, going beyond descriptive analyses using similar global data for the previous academic year would provide important empirical proof for unpacking specific educational inequalities. For instance, trend analyses based on cohort differences (for cross-sectional data) for multiple academic years, using the same variables, would help policy makers understand if a specific policy is working.

Third, the transparency and availability of educational data considered public data is very limited. To date, few open access resources that centralise key educational indicators exist. One such resource centralises the results for the Baccalaureate exam (https://data.gov.ro/dataset?q=Bacalaureat&sort=score+desc%2C+metadata_modified+desc). Nevertheless, the results for the National Evaluation (Capacitate) are not centralised at national level, nor are they openly available. Though a website exists (http://static.admitere.edu.ro), it comprises very limited data. Making this information public and accessible should be a key short-term goal for the Ministry of Education.

Fourth, in the Romanian educational context there are no cohort-level longitudinal studies and cross-lagged longitudinal studies on child and adolescent samples are rare and focus on research-driven rather than policy-driven objectives. Therefore, awareness raising on how a longitudinal approach would help policy development and implementation is a first step that needs to be taken.

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4.7. Case Study: The UK (England)

1. Contextual Background

In the past two-decades the UK has undergone significant social, economic, and political changes that have impacted both its education system and economic and educational inequality. Demographic shifts and economic turbulence, including the 2008 financial crisis, Brexit, the pandemic, and a cost-of-living crisis, impacted education spending. As a percentage of national income, education spending peaked in 2010-11 but declined and remained below 2010 in real terms by 2024 (Bolton 2025).

Persistent socio-economic and educational inequality is a defining characteristic of the UK (Breen 2024). Whereas overall educational attainment levels have risen substantially over the last 20 years, the proportion of the working-age population holding a degree more than doubled between 2000 and 2020 (Farquharson, McNally, and Tahir 2022), this has not translated into a reduction in relative educational inequality. Ethnicity also has a complex, but important, role in determining educational inequalities that cannot be solely explained by socio-economic inequality (Bolton and Lewis 2023). Politically, the period saw transitions between Labour (1997-2010), a Conservative-Liberal Democratic Coalition (2010-2015), and Conservative governments (2015-2024), with each introducing distinct policies addressing social mobility, education, and inequality (Jones 2016: ch. 5 & 6).

Education policy in the UK is devolved, with distinct systems in England, Scotland, Wales, and Northern Ireland. For the purposes of this report, the focus will primarily be on England, where the structure comprises several key stages: the Early Years Foundation Stage (EYFS, ages 0-5); Primary education (Key Stage 1, ages 5-7, and Key Stage 2, ages 7-11); Secondary education (Key Stage 3, ages 11-14, and Key Stage 4, ages 14-16, culminating in GCSE examinations); and Post-16 education, which includes Further Education (FE) offering A-levels, vocational qualifications, and apprenticeships, and Higher Education (HE) offering undergraduate and postgraduate degrees. Education or training is compulsory until the age of 18.

The National Curriculum provides a teaching framework for schools and there is an emphasis on standardised testing and accountability, primarily through inspections undertaken by the Office for Standards in Education, Children's Services and Skills (Ofted), and performance tables. The student population reflects the broader societal context. In England, in 2023/24, a quarter of pupils were eligible for Free School Meals (FSM), an indicator of socio-economic disadvantage used for targeted funding like the Pupil Premium (DfE 2025b)[26]. Educational outcomes and inequalities also vary significantly by region with stark differences between north and south England (Clegg et al. 2017).

[26] Families qualify if their household income falls below a state-defined poverty threshold, which is verified through their receipt of specific welfare benefits.

The period 2000-2025 is characterised by a basic tension: while overall educational participation and qualification levels have increased, the inequalities linked primarily to socio-economic background have not substantially changed (Breen 2024). Simply expanding educational provision or raising average attainment does not automatically equalise outcomes. Moreover, attainment patterns vary significantly not just between the White majority and minority groups, but also *within* and *across* different minority ethnic groups, often interacting strongly with socio-economic status and region (Martin 2023). Recognising the significance of educational inequality in the UK, policymakers established the Education Endowment Foundation (EEF) in 2011. It occupies a crucial position in the UK's research funding environment and acts as a primary intermediary for knowledge transfer. The EEF's core objective is to diminish educational disparities by disseminating effective teaching and teaching-related strategies and encouraging the adoption of evidence-based practices in education.

2. Main educational inequalities in the UK

Despite decades of policy focus and overall improvements in national attainment levels, significant educational inequalities remain within the UK system, and in particular England. These disparities manifest across various stages of education and are strongly associated with pupils' socio-economic status (SES), ethnicity, and geographic location (Clegg et al. 2017). Additional inequalities affect students with Special Educational Needs and Disabilities (SEND), who face substantial attainment gaps, and there are also clear gender disparities, with girls outperforming boys and being more likely to enter higher education (Johnson 2024).

Socio-Economic Disadvantage

Socio-economic status (SES) is the most important predictor of educational outcomes. Commonly measured using eligibility for Free School Meals (FSM), this indicator identifies pupils from the lowest-income households, though it has limitations as a binary measure that misses families just above the threshold and relies on families applying (Gorard 2012; Ilie, Sutherland, and Vignoles 2017). Research also confirms a strong gradient between household income and attainment (Choudry 2021: Ch. 2).

The disadvantage, the difference in educational outcomes between those children that do and do not quality for FSM, gap emerges early (Sullivan, Ketende, and Joshi 2013) and persists throughout the course of education. Taking a longer perspective, there is some evidence to suggest that the gap has narrowed to a small extent in recent decades (Blanden and Macmillan 2016), though is remains substantial. However, it remains the case that by the end of the Early Years Foundation Stage (age 5), FSM-eligible children are significantly less likely to achieve a 'Good Level of Development' for key outcomes. It is estimated that around 40% of the disadvantage gap observed at age 16 originates before children start primary school (Walker 2023).

The disparity widens considerably during secondary education (Johnson 2024). In 2024, for example, only 46% of disadvantaged pupils met the expected standard in English and maths GCSEs (age 16), compared to 67% of their peers (DfE 2025a). Disadvantaged pupils make slower progress, and even those who meet expectations at age 11 are less likely to achieve good GCSEs compared to non-disadvantaged students with similar prior attainment (Choudry 2021: Ch. 2). Pupils experiencing persistent disadvantage face even more profound gaps, estimated to be equivalent to being 18-23 months behind their peers by age 16 (Holt-White and Cullinane 2023). This inequality extends to post-16 pathways, with FSM-eligible pupils significantly less likely to progress to higher education, particularly to the most selective universities (Anthony 2019).

Ethnic Disparities

Educational inequalities related to ethnicity are complex and nuanced, without a simple majority-minority narrative. National data reveals significant variation in attainment across different ethnic groups. Notably, pupils from Chinese and Indian backgrounds consistently demonstrate high average attainment, often surpassing White British pupils by GCSE level and exhibiting high rates of progression to higher education. Several other Asian and Mixed-ethnicity groups also show strong performance on average (Mirza and Warwick 2024).

However, persistent underachievement characterises the experiences of other ethnic groups. Pupils from Black Caribbean backgrounds consistently show lower than average attainment at GCSE compared to other groups. Pakistani and Bangladeshi pupils have historically lagged but have shown considerable improvement over time (Bolton and Lewis 2023). Gypsy/Roma and Irish Traveller pupils face the most severe educational disadvantage, with extremely low attainment levels at all key stages (Brassington 2022). While Black pupils overall have higher HE participation rates than White pupils, they are less likely to attend more selective universities and achieve top degree classifications (Bolton and Lewis 2023).

The interaction with SES is crucial. Poverty rates are higher among most ethnic minority groups, but this doesn't fully explain attainment differences. For instance, disadvantaged White British pupils exhibit particularly low attainment, while some groups with high FSM eligibility (e.g., Bangladeshi, Black African) demonstrate relatively high achievement. This significant underperformance of specific groups like Black Caribbean and Gypsy/Roma pupils, even when accounting for SES, points towards deeper systemic issues (Mirza and Warwick 2024).

Regional Divides

Educational inequality has a distinct geographical dimension, with a long-observed North-South divide. Average attainment levels tend to be lower in the North of England and the Midlands compared to the South East and East of England (Farquharson et al. 2022).

London is an interesting case. Despite having high levels of child poverty and ethnic diversity, schools consistently outperform those in most other regions in terms of average pupil attainment and progression to higher education (Farquharson et al. 2022). It also exhibits smaller disadvantage gaps compared to other regions. The reasons for this are complex, potentially including the legacy of targeted school improvement initiatives, historically higher funding levels, high concentrations of graduate parents, the positive educational attitudes often associated with migrant communities, and effective cross-sector collaboration (Blanden et al. 2015; Burgess 2014).

Beyond these broad regional trends, specific localities, often post-industrial towns, coastal communities, or isolated rural areas, face particularly entrenched disadvantage and low social mobility. These areas, often termed 'cold spots', have been targeted by initiatives like the Opportunity Areas programme (Easton et al. 2018). London's success challenges the assumption that high deprivation inevitably leads to low attainment, suggesting targeted resources and effective strategies can mitigate the impact of disadvantage.

3. Main policies tackling educational inequalities (2000-2025)

Addressing educational inequality has been a persistent objective for successive governments in England, though approaches have varied. The Labour government (1997–2010) focused on reducing child poverty and promoting social inclusion to raise overall standards. The Coalition government (2010–2015), operating during a period of fiscal austerity, shifted towards structural reforms, parental choice, and school autonomy. Subsequent Conservative-led governments (2015–2024) continued this trajectory, emphasising academisation (becoming independent of local government), curriculum standards, and accountability (Greany and Higham 2018).

The Academies Programme (Started 2000, significantly expanded post-2010)

The Academies Programme moved many schools outside Local Authority control. Initially, under Labour, it targeted underperforming secondary schools in disadvantaged areas, converting them into independent state-funded schools with external sponsors. The programme's expansion after 2010 included primary and high-performing schools, shifting the rationale towards autonomy as a driver for improvement (British Government 2010).

The programme aimed to address inequality by tackling underperformance in schools serving disadvantaged pupils through new leadership and curriculum innovation. Proponents argued that freedom from local authority control would enable schools to better meet student needs. However, its impact on educational inequality is debated. While some academies have raised attainment for disadvantaged pupils, system-wide evidence of a consistent positive impact on the attainment gap is less clear. Concerns include social selectivity in admissions and varied provision quality (Martindale 2019).

The Pupil Premium (Introduced 2011)

The Pupil Premium, introduced in 2011 by the Coalition government, was a policy which directly allocated additional funding to schools specifically based on the number of their pupils from disadvantaged backgrounds (Foster and Long 2018). The underlying principle is that schools are best positioned to identify and meet the specific needs of their disadvantaged learners. The policy seeks to empower schools by granting them autonomy over how the funds are spent, with the expectation that this would lead to innovative and tailored interventions (Gorard 2022).

Accountability for the use of the Pupil Premium is maintained through Ofsted inspections and the requirement for schools to publish an annual online statement detailing their expenditure strategy and its impact on disadvantaged pupils' attainment. This focus on outcomes is intended to ensure that the additional resources translate into tangible improvements, thereby narrowing the persistent gap in educational achievement between disadvantaged pupils and their peers. Schools have commonly used this funding for targeted academic support, such as small group tuition, pastoral care initiatives to address non-academic barriers to learning, and strategies to enhance parental engagement (DfE 2025b).

The Education Endowment Foundation (EEF) (Established 2011)

The Education Endowment Foundation (EEF) was established in 2011 as an independent charity with a substantial founding grant from the Department for Education. Its creation was driven by the aim of breaking the link between family income and educational achievement (Edovald and Nevill 2020). The EEF plays a significant role as an evidence broker and research funder, dedicated to improving educational outcomes for disadvantaged pupils by promoting the use of evidence-based practices in schools.

The EEF seeks to reduce educational inequality primarily by generating, synthesising, and disseminating high-quality evidence about what works to improve teaching and learning. It commissions rigorous evaluations, including randomised controlled trials, of educational programmes and approaches to identify effective interventions. The findings are made accessible to educators through resources such as the Teaching and Learning Toolkit and specific guidance reports, which summarise the effectiveness, cost, and evidence strength of various strategies (Higgins et al. 2016). The importance of the EEF is its drive to embed an evidence-informed culture within the education system. By providing robust evidence, it aims to help schools and teachers make informed choices that are likely to benefit disadvantaged learners and close the attainment gap. It also plays a role in building the capacity of the education sector to engage with and apply research through initiatives like the Research Schools Network.

Other Relevant Policies and Initiatives

Several other policies contributed to addressing educational inequality, particularly focusing on early years and financial support. Sure Start / Children's Centres (from 1999/2000) tackled early disadvantage through integrated local services aimed at improving child outcomes (Start 2008; Waldfogel and Washbrook 2010). These showed lasting benefits in terms of educational outcomes (Melhuish et al. 2008; Cattan et al. 2025), although funding was significantly reduced under the Coalition government. Further interventions have included financial incentives and targeted school improvement. The Education Maintenance Allowance (EMA) (2004-2011, England) offered support to encourage post-16 participation from low-income families (Ashworth et al. 2002), informing later discussions despite its discontinuation. The London Challenge (2003-2011) was a notable area-based school improvement programme linked to raised attainment for disadvantaged London pupils (Hutchings et al. 2012).

In conclusion, the period 2000-2025 has seen many approaches to tackling educational inequality in England. These interventions have ranged from large-scale structural reforms and efforts to embed evidence-based practice. While progress has been made in some areas, the persistence of the attainment gap underscores the complexity of the challenge and the ongoing need for effective, evidence-informed strategies.

4. Which evidence, for whom, and how? Policy origins and evidence base

This section focuses on the origins of the Academies Programme, the Pupil Premium, and the Education Endowment Foundation (EEF). For each, we will cover its initial aims and developmental context, the evidence base informing its introduction, its intended beneficiaries and subsequent evolution, and its relationship with data generation and utilisation for monitoring and evaluation. The section aims to describe the role and application of evidence throughout the lifecycle of these educational programmes, particularly concerning efforts to address educational performance and equity.

Academies Programme

As noted above, the initial aim of the academies programme was to address underperformance in poor performing schools, many of which were based in disadvantaged urban areas, with the goal of raising standards for deprived pupils (Eyles and Machin 2019). However, at the time the evidence base upon which the program was based, which was set out in the 2001 White Paper *Schools Achieving Success* (DfES 2001), was criticised as weak (Goldstein 2001). The concept was not entirely novel and built upon earlier initiatives, and in particular the City Technology Colleges (CTCs) introduced by the Conservatives in the 1980s, and international examples such as US Charter Schools and Swedish Free Schools (Hatcher 2011; West and Wolfe 2019). It can also be noted that the underlying logic of the academy policy was based on the ‘third way’ approach of New Labour, which aimed to introduce market-oriented mechanisms into public-service delivery in order to encourage better performance (Connolly, Martin, and Wall 2008).

The programme underwent a major expansion following the Academies Act 2010 under the Coalition government (UK Government 2010). The aim broadened significantly, promoting academy status and operating independently of Local Authority (LA) control as desirable for all schools. A report by the National Audit Office (NAO) in 2007 found that the early academies had achieved some success in improving outcomes (NAO 2007). The expansion phase was, however, heavily influenced by a political ideology favouring market principles, school choice, and a critique of Local Authority control, framed within the context of fiscal austerity (Granoulhac 2017). This was combined with a response to perceived failures in the existing system. While data on attainment gaps provided context the large-scale expansion proceeded in advance of robust, conclusive evidence demonstrating the effectiveness of academisation, particularly for 'converter' academies, in improving outcomes or promoting equity (Hatcher 2012). The policy drove extensive use of the National Pupil Database (NPD), often linked to national longitudinal studies, for *ex-post* evaluation.

The intellectual and policy rationale for the expansion was detailed in the November 2010 White Paper, *The Importance of Teaching* (British Government 2010). This document set out a vision for a "new schools system" (ch. 5) with autonomy and freedom from bureaucracy as the central argument. It argued that “the case for the benefits of school autonomy has been established beyond doubt”, citing PISA data from the OECD. The White Paper drew on international examples such as charter schools in the US (specifically KIPP schools), autonomous schools in Alberta, Canada, and Free Schools in Sweden as evidence that greater autonomy could lead to improved outcomes, particularly for disadvantaged students. However, this evidence has been criticised as with authors such as Gorard (2014) arguing that academies perform no better than other schools. The claim that the case for autonomy was established is at best questionable with academies replicating many of the inequalities that already exist in local communities (Ball 2021: 204-206).

Pupil Premium

The introduction of the Pupil Premium in England in April 2011 was primarily driven by concerns regarding educational inequality and the persistent gap in achievement between pupils from disadvantaged backgrounds and their more affluent peers (British Government 2010). This "attainment gap" was a central focus for policymakers, with the 2010 Schools White Paper, "The Importance of Teaching," providing key evidence. This paper illustrated the disparity, noting that children eligible for Free School Meals (FSM) were only half as likely to achieve good GCSEs as the average pupil (British Government 2010). Furthermore, the White Paper highlighted that this gap in attainment between disadvantaged children and their peers widened progressively throughout a child's school career.

The policy was framed not just as an educational intervention but also as a tool to enhance social mobility. The Coalition Government made the Pupil Premium a central plank of its education policy, committing to increased funding for disadvantaged pupils (Roberts 2025). While the problem of the attainment gap provided a strong domestic impetus, the White Paper did make some international comparisons, citing countries like Finland and Canada as having smaller attainment gaps. However, the initial government documentation did not extensively detail specific international funding models that directly and comprehensively informed the

design of the Pupil Premium (Roberts 2025). Later comparative analyses and other DfE reports published after the Pupil Premium's introduction have drawn more broadly on international evidence, including PISA data, when discussing school funding and outcomes (DfE 2017).

The Pupil Premium was introduced following a consultation paper published in July 2010 and implemented in April 2011(Roberts 2025). This rapid rollout, which was not evaluated, suggests it was a policy driven by a strong political impetus to address the attainment gap which had become a significant concern. While there was engagement with think tanks like the Institute for Fiscal Studies (IFS), which published a report in March 2010 analysing the rationale and design options for such a premium (Chowdry, Greaves, and Sibieta 2010), the pupil premium was rooted in national data on educational disparities rather than extensive borrowing from specific international policy templates. The policy emerged from a political moment where tackling social mobility and the attainment gap were high on the agenda.

Education Endowment Foundation (EEF)

The Education Endowment Foundation (EEF) was established in England in 2011 under the coalition government with the goal of breaking the link between family income and educational achievement through supporting, evaluating, and disseminating evidence-based approaches to teaching and learning (Madgwick, Francis, and Kay 2023). This initiative was a key policy development driven by concerns over educational inequality and the persistent attainment gap affecting disadvantaged pupils.

The broader UK public policy landscape at the time saw a growing influence of the "What Works" movement, which advocated for policymaking based on robust evidence, particularly from experimental methods like Randomised Controlled Trials (RCTs). The EEF's creation directly applied this philosophy to the education sector. Central to the EEF's mission is a commitment to methodological rigour. It particularly uses RCTs to evaluate educational interventions but also conducts systematic reviews and meta-analyses to synthesise existing evidence, providing clear guidance on the effectiveness of various interventions (Edovald and Nevill 2020).

The 2010 Schools White Paper, 'The Importance of Teaching,' laid crucial groundwork. It announced the government's intention to establish an Education Endowment Fund, initially endowed with £110 million (later £125 million). This fund was designed to finance and evaluate innovative approaches to improve outcomes in underperforming schools with high numbers of disadvantaged pupils. A core principle was that all funded ideas would be rigorously evaluated with the findings being shared widely (British Government 2010). One of the EEF's most well-known initiatives, the Teaching and Learning Toolkit, exemplifies this by providing practitioners with accessible information on interventions, categorised by impact, cost, and evidence strength (Higgins et al. 2016; Katsipataki and Higgins 2016).

The political impetus for the EEF was notably associated with Michael Gove, the Secretary of State for Education at the time. There was also an explicit international influence from President Barack Obama's 'Race to the Top' initiative in the United States, which similarly emphasised competitive funding for educational innovation and evidence-based reforms. The

EEF was established as a strategic partnership between The Sutton Trust and Impetus Trust[27]. Its mandate was precisely targeted: to identify 'what works' specifically to narrow the attainment gap for disadvantaged pupils, emerging from a UK political moment focused on addressing domestic educational disparities through an evidence-informed approach.

5. Persisting Educational Inequalities and Evidence Bias: What Evidence is Missing?

Despite overall improvements in educational attainment in England between 2000 and 2025, significant inequalities persist across socio-economic, ethnic, regional, and other demographic lines (Breen 2024). Numerous policy interventions have been implemented, yet gaps remain. This section critically examines key areas where evidence is missing or insufficient, hindering a comprehensive understanding and effective mitigation of these enduring disparities. It is worth noting that the English data landscape is rich in terms of studies that can be used to better understand educational inequalities: from large scale cohort studies (see for example (Bynner and and Joshi 2007)) to administrative records in the National Pupil Database (Jay, Grath-Lone, and Gilbert 2019), that can be used to track performance over time, there is rich observational data available. There are also many studies funded under the auspices of the EEF. As of 2025 around 300 had been funded since 2011 which generate evidence about school and classroom-based activities which improve outcomes and reduce inequalities. Nevertheless, there remain deficiencies in the evidence landscape for a number of critical groups and disparities.

A key challenge for evidence-based policy is the significant gap in understanding and addressing the needs of vulnerable children. These evidence gaps exist for major, widespread issues as well as for specific groups who are systematically overlooked. For instance, the post-pandemic surge in persistent school absenteeism, which remains almost double pre-pandemic levels, requires a more robust evidence base to understand its drivers and identify effective interventions (Roberts and Long 2025). Similarly, the growing crisis in child and adolescent mental health, with around one in five children now having a probable mental disorder (Newlove-Delgado et al. 2022), presents a major barrier to learning for which scalable, evidence-informed solutions are urgently needed (Smith et al. 2021).

Alongside these broad challenges, a more fundamental evidence gap exists for groups who are partially or entirely invisible to official data systems, making their needs exceptionally difficult to understand and address. This includes children outside mainstream schooling, such as those Missing Education (CME) or in Elective Home Education (EHE), who are necessarily excluded from key resources like the National Pupil Database (NPD). Similarly, data for Gypsy, Roma, and Traveller (GRT) children-a group with consistently low attainment-often fails to capture the granularity needed for tailored policy responses. The scale of this undercounting can be stark for other groups; while the 2024 school census identified 54,000 young carers, estimates suggest the true figure is closer to 800,000 (Warhurst and Maynard 2025). This profound lack

[27] The Sutton Trust is a foundation focused on improving social mobility through education, founded in 1997. Impetus is a venture philanthropy charity that supports effective organisations working with disadvantaged young people. Their joint establishment of the EEF combined The Sutton Trust's research and policy focus with Impetus's model of strategic investment in high-impact charities.

of reliable data, both for understanding widespread crises and for recognising entire hidden populations, critically undermines the development of equitable and effective support.

A critical area hindering effective mitigation of educational inequalities lies in the often difficult relationship between evidence and policy decisions. This occurs when policies are formulated primarily based on pre-existing political agendas, ideological commitments, or perceived urgency, with evidence then being selectively sought, interpreted, or even commissioned to support these pre-determined positions.

Ofsted's 2021 mathematics research review has been highlighted as a potential example of policy-based evidence (Compton and and Boylan 2024). Critiques of this review pointed to a lack of methodological transparency, weaknesses in research design such as an overly broad scope, and insufficient rigor in its selection and interpretation of evidence. Concerns included an over-reliance on non-peer-reviewed literature, outdated sources, studies predominantly from outside the UK, misinterpretation of research findings, and unsupported causal claims. The review's conclusions were perceived by critics as aligning closely with pre-existing government policy preferences, for example, favouring traditional teaching methods.

Furthermore, attributing causality between specific policy interventions and changes in educational outcomes, especially concerning inequality, is inherently difficult within complex educational systems). An overemphasis on individual student differences, rather than systemic factors like poverty or community-level deprivation, can lead to interventions that reproduce deficit discourses without addressing root causes (Zengilowski et al. 2023). If influential bodies promote practices based on flawed or selectively interpreted evidence, it can lead to the widespread adoption of approaches that may inadvertently disadvantage certain student groups. The pressure for rapid policy implementation can also result in interventions targeting symptoms (e.g., focusing on learning loss without concurrently tackling chronic underfunding or socio-economic hardship) rather than the fundamental drivers of inequality. This "policy before evidence" approach, particularly when coupled with a lack of critical appraisal skills at the school level, undermines the development of truly effective strategies to combat educational disparities.

6. Future Directions and Recommendations

To foster a more equitable educational landscape built on robust evidence, future efforts must address the shortcomings identified in past and current approaches. Based on the preceding analysis, the following recommendations are proposed:

1. **Strengthen Data Infrastructure for Vulnerable Groups:** Acknowledge and actively address the significant data deficiencies concerning children outside mainstream schooling (e.g., CME, EHE), Gypsy, Roma, and Traveller pupils, and other under-identified groups like young carers. This requires investment in consistent, high-quality data collection methodologies, improved inter-agency data sharing protocols, and dedicated analytical capacity to understand their specific needs and track their outcomes effectively. Without visibility, targeted and effective policy interventions remain elusive.

2. **Embed Rigorous Pre-Policy Evaluation and Transparency:** Shift from a 'policy-first, evidence-later' approach to one where rigorous, independent, and transparent evaluation is integral *before* large-scale policy implementation. This includes clearly defining equity-focused objectives and metrics from the outset. For major reforms, such as the Academies expansion or Pupil Premium introduction, piloting and phased rollouts accompanied by robust mixed-methods evaluations should become standard practice. Findings, regardless of their alignment with political preferences, must be openly published to inform public debate and future policy development.

3. **Enhance Capacity for Evidence Utilisation at All Levels:** While organisations like the EEF play a crucial role in generating and disseminating evidence, their impact is contingent on the capacity of schools, local authorities, and policymakers to critically appraise and effectively implement this evidence. Future strategies should invest in sustained professional development focused on research literacy, critical thinking, and the practical application of evidence in diverse educational contexts. This includes fostering a culture that questions and scrutinises evidence claims, particularly those underpinning significant policy shifts.

4. **Prioritise Longitudinal and System-Level Research into the Impact of Policies:** Move beyond evaluating isolated interventions to invest in long-term research that examines the cumulative and interactive effects of multiple policies and broader socio-economic factors on educational inequalities. This requires funding for longitudinal studies that can track diverse student cohorts over time, employing mixed-methods to understand not just what works, but how. Such research is vital for understanding the deep-rooted, systemic nature of inequality and for developing more holistic and sustainable solutions rather than focusing solely on individual attainment metrics.

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5. Contextual factors that may lead to selection bias

This section first surveys each LEARN partner country's unique evidence gaps and challenges. It then identifies shared drivers of bias and common blind spots across systems. Finally, it presents a detailed taxonomy of seven interlocking contextual factors that shape which data are collected, which studies are prioritised, and whose voices inform policy design. A brief closing paragraph points toward emerging trends in Section 6.

5.1 Country-Specific Evidence Challenges

Estonia: Estonia's digital Education Information System captures near–real-time administrative data on school enrolment, examination outcomes, tertiary entry, and financial-aid uptake. That system enabled rapid adaptation of the 2013 higher-education reform, informing adjustments to need-based scholarships and fee structures. Yet it omits qualitative insights on how language transition from Russian-medium to Estonian-medium instruction affects student engagement, cultural identity, and learning trajectories. Elective home education (EHE) and children missing from education (CME) are not recorded, leaving policymakers without reliable counts of learners entirely outside formal schooling. Moreover, permanent linkage between school records and labour-market outcomes remains underdeveloped, limiting evaluation of long-term equity impacts of early-years and tertiary policies.

Finland: Finland's centralised cohort register tracks each learner from pre-primary through higher education, facilitating longitudinal analysis of progression, drop-out, and attainment by socioeconomic status (SES). Despite comprehensive data coverage, recent PISA and national study findings reveal growing SES gaps at the point of upper-secondary selection and university admissions. Mixed-method pilot projects-examining teacher attitudes, parental aspirations, and school-level practices-have surfaced qualitative barriers faced by under-represented groups, but those findings are rarely scaled or integrated into the Ministries of Education's standard reporting. Children with special educational needs and those in remote rural municipalities remain under-represented in the central register, complicating targeted policy design for these subpopulations.

Germany: Germany's federal system delegates school governance and data collection to its sixteen Länder, resulting in detailed local records of tracking decisions at age ten, vocational apprenticeship participation, and dual-system outcomes. However, the absence of a unified national cohort database inhibits cross-region comparison and hinders identification of systemic inequities. Periodic PISA assessments provoke intense methodological debate over their fit for a dual-track system but do not consistently translate into coordinated national reforms. Vocational stakeholder groups generate robust labour-market linkage statistics, while qualitative dimensions-student motivations, school climate, and teacher expectations-appear in a patchwork of academic and municipal studies, with limited influence on overarching policy frameworks.

Ireland: Ireland's semi-decentralised model entrusts data collection to individual schools, community providers, and diocesan authorities, creating wide variability in evidence capacity. The Growing Up in Ireland longitudinal survey captures rich socio-demographic and outcome

data for multiple cohorts, yet its insights seldom inform programmatic adjustments at national or local levels. Early Childhood Care and Education (ECCE) participation is monitored through a mosaic of private and voluntary registries, compelling policymakers to rely on high-level EU Barcelona benchmarks rather than granular evidence on service quality, parental satisfaction, or pedagogical approaches. Disadvantaged urban and rural communities often lack disaggregated data on attendance, attainment, and progression, limiting the tailoring of support measures.

Italy: Italy's education system is shaped by stark regional disparities and the historical influence of the Catholic Church. The national INVALSI assessment mandates standardised testing in primary and secondary schools, yet decentralised regional authorities and church-affiliated institutions implement data collection protocols unevenly, producing gaps in comparability and quality control. The PNRR-funded Sistema Integrato 0–6 reform dramatically boosted early childhood participation in previously underserved regions, but evaluation efforts focus almost exclusively on enrolment targets rather than the quality of teaching, staff credentials, or parent-reported outcomes. Political and union pressures often tilt evidence priorities toward EU compliance indicators-coverage rates, funding absorption-overshadowing deeper equity concerns such as rural-urban dropout differentials or linguistic minority inclusion.

Romania: Romania's fledgling central education authority navigates a fragmented evidence landscape of municipal school records, one-off EU pilot evaluations, and international assessments (PISA, TIMSS). Cohort tracking through compulsory schooling is uneven, and data linkage to employment or higher education outcomes is essentially non-existent. Ethnic minority groups, notably Roma and Traveller communities, are systematically under-recorded due to census-day absences and inadequate inter-agency data sharing between education, social services, and civil registration. While EU structural-fund metrics drive ambitious targets for early childhood expansion and digital infrastructure, domestic evaluation capacity remains limited, resulting in policy designs based on broad strokes rather than granular, evidence-driven intervention models.

United Kingdom (England): England's National Pupil Database (NPD) stands as one of Europe's most comprehensive administrative registers, linking demographic, attainment, attendance, and school-level governance data. Nevertheless, strict data access protocols and bureaucratic hurdles limit independent research, funnelling evidence use toward government-commissioned studies. The Pupil Premium evaluation leverages NPD to chart progress of Free School Meals–eligible pupils, yet non-standard indicators-pupil mobility, health status, care experience-remain invisible. School census data under-identifies Gypsy/Roma pupils and young carers, impeding precise targeting of interventions. Rapid policy churn around academisation has yielded novel governance metrics but has also disrupted continuity, making longitudinal equity assessments challenging.

5.2. Comparative Analysis of Shared Drivers and Blind Spots

When viewed collectively, the seven case studies reveal recurring patterns in how evidence gaps and selection biases arise. Socio-economic status is universally the strongest predictor of

educational disadvantage: lower-income families consistently correlate with reduced attainment at key transitions (entry to lower secondary, GCSEs, upper secondary selection, university admission). Language and migration background compound disadvantage in multilingual settings where second-language support is inconsistently available or inadequately monitored (Estonia, Ireland, UK).

Early tracking mechanisms, as in Germany and Finland and to an extent in England, crystallise SES effects by channelling learners from less privileged backgrounds into vocational or lower-status streams, where subsequent progression opportunities narrow. Even in universalist models-Finland's comprehensive system and Ireland's free education policies-later selection processes (upper secondary or university entry) replicate family background disparities, demonstrating that universal access alone does not guarantee equity.

Across all systems, certain populations remain institutionally invisible. Learners outside formal schooling systems (elective home education, children missing from education) escape most registers, inhibiting understanding of their needs. Ethnic minorities-particularly Gypsy, Roma, and Traveller communities-face chronic under-enumeration due to census-day absences and weak inter-agency linkages, constraining targeted inclusion efforts. Young carers, despite significant presence, are under-identified in official data, leading to unmet support requirements.

Although administrative registers in Finland and the UK provide powerful quantitative frameworks, they rarely integrate qualitative modules that capture school-level cultures, teacher perceptions, and student experiences. Conversely, systems with strong evaluative cultures of pilot interventions (England's RCTs, Finland's mixed-methods pilots) struggle to incorporate those findings into central monitoring systems, resulting in parallel evidence streams that seldom converge.

Reliance on international assessments (PISA, TIMSS, PIRLS) is universal, yet their emphasis on narrow cognitive domains and cross-national comparability risks overshadowing contextually relevant competencies, such as social-emotional learning, cultural adaptability, and local pedagogical innovations. EU fund–dependent reforms in Italy and Romania prioritise structural-fund compliance metrics-enrolment, infrastructure, absorption rates-at the expense of domestic equity priorities, reinforcing a bias toward internationally valued indicators rather than pressing national or regional equity challenges.

Drawing on the report's literature review, evidence–policy relations unfold across macro, meso, and micro levels and manifest through Weiss's four modes of research use. At the macro level, international assessments (PISA, TIMSS, OECD analyses) and EU-wide reports frame the high-level agenda, often driving symbolic and imposed uses of evidence. At the meso level, national datasets, program evaluations, and ministerial reviews supply the hard data that inform instrumental decisions-such as allocating Pupil Premium funds or extending DEIS-and shape conceptual understandings of equity. At the micro level, practitioner knowledge, stakeholder consultations, and pilot studies surface contextual nuances that guide implementation, reflecting both conceptual and instrumental modes. Viewed through Weiss's lens, some reforms exemplify instrumental use-directly translating cohort data into resource

formulas-while others act as symbolic signals of political commitment. Conceptual uptake of research reframes equity debates even as imposed mandates attach evaluation requirements to new initiatives. This multi-tiered, multi-modal perspective underscores the need to weave together macro benchmarks, meso evaluations, and micro insights when designing, piloting, and scaling truly equitable education policies.

A closer look at the seven case studies surfaces three overlapping motivations behind evidence use: quality, equality, and control. Quality imperatives drive investments in large-scale assessments and rigorous program evaluations-seen most clearly in Italy's INVALSI expansions and Germany's academy accreditation schemes. Equality concerns prompt targeted funding and disaggregated monitoring, from the UK's Pupil Premium to Ireland's DEIS, ensuring that socio-economic and demographic gaps are routinely measured. Control logic underpins real-time oversight tools and accountability mandates, exemplified by Finland's AI dashboards and Romania's digital student registers. These motivations shape which evidence streams gain traction: quality favours standardised datasets, equality demands nuanced cohort and qualitative data, and control translates findings into compliance frameworks. A balanced approach to evidence architectures must therefore reconcile these impulses-harnessing robust metrics for excellence, disaggregated insights for fairness, and transparent systems for governance-if policies are to improve learning outcomes, close gaps, and sustain public trust.

5.3. A Taxonomy of Contextual Factors Shaping Evidence Selection

Seven interrelated dynamics drive systematic biases in the production, selection, and use of evidence for educational policy:

Political and Ideological Worldviews

Governance philosophies determine which evidence is deemed authoritative. Market-oriented agendas in England and Italy legitimise choice and autonomy metrics, invoking overseas success stories to justify privatisation and accountability reforms. Social-democratic models in Finland and Estonia embed equity and completion data at the heart of universalist designs. Federal systems like Germany exhibit inter-Land variation, generating competing evidence streams and hindering unified policy responses.

Economic Environment and Budgetary Constraints

Fiscal conditions shape evidence mobilisation. Post-2010 austerity in the UK prioritised high-stakes accountability data and rapid-impact trials as cost-saving measures. Italy and Romania operate under structural-fund timelines, driving a focus on enrolment and infrastructure metrics tied to EU disbursement. Finland and Ireland, benefiting from stable budgets, sustain long-term cohort studies and invest in nuanced mixed-methods evaluations.

Institutional Cultures and Governance Structures

Centralisation versus decentralisation markedly influences data coherence. Finland's single national registry ensures consistency, whereas Germany's Länder system and Italy's regional-church dual governance produce fragmented registers. Repeated reorganisations of England's Department for Education disrupt data continuity. Ireland's diocesan and school-level autonomy yields uneven data granularity, complicating comprehensive national analyses.

National Research Ecosystems and Academic Priorities

Research agendas reflect funding incentives and scholarly traditions. The UK's Education Endowment Foundation endowment encourages large-scale RCTs, producing a wealth of intervention studies but limited qualitative follow-up. Finland's Academy of Sciences funds epidemiological cohort research, yielding robust long-run data but fewer small-scale pedagogical pilots. Estonia and Romania, with developing local research capacity, lean heavily on externally driven studies that sometimes lack cultural fit.

Funding Mechanisms and Incentive Structures

Grant criteria drive question selection. Horizon Europe and ESF+ calls push Italy and Romania toward EU-aligned deliverables, sometimes sidelining country-specific equity questions. National research councils in Finland and the UK emphasise publication impact and peer review metrics, which may not align with policymakers' needs for timely, actionable evidence.

Stakeholder Dynamics and Lobbying Pressures

Interest groups shape evidence priorities. In Germany, employer associations emphasise apprenticeship outcomes; in Finland, teacher unions resist accountability reforms; in Italy, church bodies and labour unions influence early childhood policy framing; in Romania, municipal associations prioritise infrastructure metrics. Where stakeholder engagement is broad and structured, as in Finland's research–practice networks, evidence selection tends to be more inclusive; in contexts with limited consultation, top-down studies prevail.

Transparency, Participation, and Data Accessibility

Open data regimes facilitate independent scrutiny. Finland and Ireland provide public access to anonymised registers, fostering third-party analysis. England's National Pupil Database, while comprehensive, imposes strict access controls that limit external evaluation. Italy and Romania lack unified portals, forcing reliance on summary reports. Germany's Länder-specific access rules inhibit cross-regional research. Without transparent, user-friendly systems, policymakers default to readily available or internally commissioned studies, perpetuating selection bias.

Understanding these dynamics is critical for designing policies that both harness the strengths of existing data infrastructures and mitigate inherent biases. A clear delineation of selection-bias drivers sets the stage for exploring emerging methodologies, technological enablers, and strategic reforms in Section 6.

6. Future Directions in Education Research and Evidence-Informed Policies

As Europe's education systems confront accelerating social, technological, and policy complexity, the evidence ecosystem must evolve to remain fit for purpose. Traditional reliance on large-scale assessments and administrative registers has yielded vital insights, but persistent equity challenges, emergent digital tools, and ethical imperatives demand a strategic recalibration of research methodologies, data infrastructures, and evaluative practices.

Advances in learning analytics and artificial intelligence (AI) hold promise for generating real-time, individualised insights into student engagement and progression. Pilot dashboards in Estonia and Finland demonstrate how AI algorithms can flag early warning signs-attendance dips or stalled learning trajectories-enabling timely, personalised interventions (Banerjee & Duflo, 2019). Yet without rigorous governance frameworks, algorithmic decision-making risks perpetuating historical biases embedded in legacy datasets (Cowen, 2023; Simillie et al., 2019). Consequently, future research agendas must couple predictive analytics with transparent audit trails and ethical oversight mechanisms to ensure that AI-driven tools enhance rather than entrench inequities (European Commission, 2019; UNESCO, 2024).

The rise of randomised controlled trials (RCTs) under the "what works" banner-epitomised by the UK's Education Endowment Foundation-has generated robust causal evidence on intervention efficacy (Gorard & See, 2021; Education Endowment Foundation, n.d.). However, these trials often abstract interventions from the complex settings in which learning occurs, overlooking contextual factors crucial for scalability (DeJaeghere et al., 2020). Integrating mixed-methods designs that embed qualitative case studies alongside RCTs can reveal implementation barriers, stakeholder perceptions, and unintended consequences. France's class-size reduction initiative illustrates this principle: while meta-analyses exposed modest aggregate benefits, ethnographic interviews uncovered significant variations in teacher adaptation and resource allocation that mediated outcomes (Pellegrini & Vivanet, 2021; Filges et al., 2018). Future evaluations should routinely adopt such hybrid approaches, thereby marrying statistical rigor with contextual depth (Rickinson, 2017; Spiel & Schwartzman, 2018).

Participatory and "citizen science" methodologies are also emerging as vital complements to top-down data collection. In southern Italy, teacher-led smartphone surveys and community forums have surfaced parental perspectives on early-childhood service quality, revealing barriers that national enrolment statistics alone cannot detect (Schuller & Burns, 2007; Ainscow, 2020). Empowering educators and families to generate and interpret data democratises evidence production and elevates the voices of marginalised groups-Gypsy/Roma communities, young carers, and newly arrived migrant families-who frequently fall through administrative cracks (European Commission, 2007; UNESCO, 2024). Scaling such participatory models will require secure, consent-based platforms that respect privacy while enabling rich, localised insight (Nutley et al., 2019).

Complex systems modelling and simulation techniques offer another frontier for evidence innovation. In the United Kingdom and Ireland, dynamic simulation exercises have projected the combined impacts of funding cuts, demographic shifts, and curricular reforms on cohort outcomes over multi-year horizons (Banerjee & Duflo, 2019; Torres, 2006). Such "what-if" analyses can illuminate policy interactions-showing, for example, how autonomy reforms without concomitant equity safeguards may inadvertently widen between-school segregation. Embedding system dynamics into policymaking enables proactive scenario planning, equipping decision-makers to anticipate unintended consequences and optimise resource allocation (European Commission, 2019; Cowen, 2023).

Despite these methodological advances, securing public trust and ethical legitimacy remains essential. Under the General Data Protection Regulation (GDPR), pupil registers in Germany and the UK have become less accessible for longitudinal research, impeding efforts to trace learners beyond compulsory schooling (Hovdhaugen, Vibe, & Seland, 2017; Jay, McGrath-Lone, & Gilbert, 2019). Transparent data-governance frameworks-articulating clear purposes, data-use limitations, and participatory oversight-are therefore imperative to balance individual privacy with collective learning benefits (Simillie et al., 2019; DeJaeghere et al., 2020).

Looking further ahead, the concept of EU-level "living labs" or dynamic pilot platforms promises to harmonise innovation across diverse contexts. By co-designing and testing new pedagogies, assessment models, and digital tools in a network of member-state trial sites, such labs could generate robust cross-national evidence on efficacy and adaptability. Requiring mixed-methods evaluations as pre-legislative requisites would ensure that only interventions demonstrating both measurable impact and cultural fit proceed to scale (Education Endowment Foundation, n.d.; Pellegrini & Vivanet, 2021). Horizon Europe funding could seed these collaborative infrastructures, fostering sustained partnerships among universities, ministries, schools, and community organisations.

Persistent gaps, however, demand continued attention. Many countries lack longitudinal cohorts that follow learners from pre-school through labour-market entry, limiting understanding of the long-term returns on early investments (DeJaeghere et al., 2020; Nutley et al., 2019). Qualitative research on implementation fidelity, school culture, and student voice remains under-resourced, depriving policymakers of nuanced insights into barriers and facilitators of success (Rickinson, 2017; Spiel & Schwartzman, 2018). International assessments-PISA, TIMSS, PIRLS-offer crucial benchmarks but focus narrowly on literacy and numeracy, neglecting broader competencies such as social-emotional skills, civic engagement, and digital literacies (OECD, 2023; UNESCO, 2024).

To drive genuine equity progress, evaluation frameworks must evolve beyond average attainment to foreground gap-closing outcomes. Composite equity indices-disaggregating within- and between-school differences by SES, gender, migrant background-can provide a more granular diagnostic of progress (Ofqual, 2024; Department for Education, 2025). Coupled with performance-based impact bonds, which tie funding to measured reductions in disadvantage gaps, such metrics would realign incentives toward inclusivity rather than mere expansion of provision (Gorard & See, 2021; Education Policy Institute, 2017). In sum, the next generation of evidence-informed policymaking should integrate adaptive analytics,

participatory data collection, rigorous mixed-methods evaluation, and composite equity metrics.

7. Policy Implications for the European Union

The European Union's central role in coordinating policy across diverse education systems positions it uniquely to foster a cohesive, equity-driven evidence agenda. Five strategic actions can harness methodological innovations and address selection biases identified earlier:

First, an **EU Evidence Portal** shall be established as a secure, GDPR-compliant repository linking anonymised student- and school-level data, longitudinal cohort records, and intervention evaluation findings from all member states. Tiered access for accredited researchers and policymakers would democratise data analysis, support cross-national comparisons, and enable rapid identification of emerging equity challenges (European Commission, 2007; Jay, McGrath-Lone, & Gilbert, 2019; Nutley, Boaz, Davies, & Fraser, 2019).

Second, **EU funding criteria** under Horizon Europe and the European Social Fund Plus must be recalibrated to reward demonstrable equity outcomes rather than aggregate participation gains. Grant applications should require clear, disaggregated equity metrics-such as within- and between-school gap reductions by socioeconomic status, gender, and migrant background- and outline robust evaluation plans that link educational outcomes to subsequent employment and well-being indicators (Department for Education, 2013; Gorard & See, 2021; Ofqual, 2024).

Third, the Commission should mandate **mixed-methods participatory pilot frameworks** for all major cross-border initiatives. Proposals for digital learning platforms, green skills curricula, or teacher professional-development programmes must include both randomised controlled trials and qualitative case studies with stakeholder feedback (Education Endowment Foundation, n.d.; Pellegrini & Vivanet, 2021). An open-access registry of pilot results-positive or negative-would inform collective decision-making and prevent premature scaling of untested reforms.

Fourth, **sustainable knowledge-broker networks** must be professionalised across member states. The Commission should fund dedicated research-liaison officers embedded in each education ministry, responsible for curating policy-relevant findings, organising regular forums between researchers and practitioners, and translating academic evidence into actionable policy briefs (Schuller & Burns, 2007; McAleavy, Riggall, & Naylor, 2021).

Fifth, the annual Education and Training Monitor requires supplementation with a **composite EU Equity Index**. Building on PISA benchmarks, this index would track disaggregated within-school and between-school gaps, spotlight lagging regions, and guide targeted EU support to those contexts most in need (Sutton Trust, 2008; Ofqual, 2024; OECD, 2023).

To address the selection biases identified in Section 5, policy frameworks must include a mandatory **bias-screening protocol** that ensures vulnerable subgroups-children missing from education, Gypsy/Roma/Traveller communities, and young carers-are explicitly represented in baseline datasets and evaluation cohorts. Additionally, **evidence-liaison fellowships** within

member-state ministries would institutionalise the translation of research into practice, fostering sustained dialogue between academic, policy, and practitioner communities (Nutley et al., 2019; McAleavy et al., 2021).

By advancing these interlocking measures-centralised data access, equity-driven funding incentives, rigorous mixed-methods piloting, professionalised knowledge translation, and bias-mitigation protocols-the European Union can transform evidence rhetoric into practice. This integrated approach will reinforce the Union's commitment to inclusive, data-driven policymaking and drive sustainable progress toward the European Pillar of Social Rights principle of high-quality, equitable education for every learner.

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Appendix A

This table presents the standardised policy-evidence template that each LEARN case-study team completed for their country. By using this uniform framework, all seven partners have mapped key equity policies between 2000-2025, target groups and aims, evidence origins, data-flow direction, datasets employed, and evaluation citations. This consistency enables direct cross-national comparison of how quality, equality, and control motivations shape evidence architectures in each context. Following this template, countries' tables are presented in alphabetic order as it was the case in the body of the report.

Name of the country	Name and date of major national educational policies/ (2000-2025 (major reforms 1 to 3 policies)- Please note: This table focuses on policies tackling educational inequalities. These can be developing a certain level of education to be more inclusive, expansion or access given the diversity of students, re-integration of NEET policies, ensuring attainment and transition, policies to reduce inequalities for vulnerable groups in each context.	Summary of the selected policies 1. target groups (which vulnerable group is the target of this policy, e.g., SNs NEET, sts with migration backgrounds, etc) 2. Aims (equality in access, participation, transition, attainment) 3.Education level covered by the policy	Origins of the policy with date (what evidence led to the policy design?): 1. Int'l Macro-level policy/data e.g., OECD's PISA-UNESCO-etc.) 2. European regional policies/datasets/rereport on inequalities in your country's context 3. Int'l/national scientific evidence/datasets on the most pressing educational inequalities 4. Evidence from practice leading to policy design 5. Pilot practice leading to policy design 6. Failure of the previous national educational policies as evidence to design new ones (reforms) 7. Evidence of success of a policy in another context leading to policy design in your context 8. Any other sources of evidence?	Did this national policy lead to the creation of a national dataset or a large-scale study/survey or vice versa? Please choose: 1. Policy to dataset 2. Dataset to policy	List of the datasets used as evidence This is directly related to national contexts and your responses in the previous column	Evaluation/criticism of the policies (scientific evidence) Please only add links to scientific articles that may have evaluated the effectiveness of these policies

Country tables

Name of the country	Name and date of major national educational policies/	Summary of the selected policies	Origins of the policy with date	Did this national policy lead to the creation of a national dataset or a large-scale study/survey or vice versa?	List of the datasets used as evidence	Evaluation/criticism of the policies
Estonia	**Transition to Estonian-language instruction in Russian-language upper secondary schools (2007-2011**	1. Students with minority background 2. Increase their ability to compete in the educational and labour market 3. Upper secondary education	1.Integration and language policies of the nineties 2.Pressure from international organisations 3.Equality argument in the rhetoric surrounding the reform	3. Data set to policy	Not possible to pinpoint due to lack of information. In WP3, we plan to use EHIS, EIS and population register to address the impact of this reform.	Attitudes, experiences and expectations of the parties involved • Kello, K., Masso, A. & Jakobson, V. (2011). Uurimisprojekti „Vene laps venekeelse üldhariduskooli eestikeelses õppes" koondaruanne. Tartu ülikool. • Kirss, L., & Vihalemm, T. (2008). Hariduslik integratsioon. RIP 2008–2013 vajadus- ja teostatavusuuringu haridusuuringu lõpparuanne. II osa. Riigihange 034118 „Riikliku Integratsiooniprogrammi 2008–2013 väljatöötamine". Praxis, Tartu Ülikool, Balti Uuringute Instituut, Hill & Knowlton, Geomedia. • Klaas-Lang, B., Praakli, K., Peedisson, A. & Lašmanova. A. (2014). Arvamusi ja hinnanguid riigikeele õppe korraldamise kohta vene õppekeelega koolides. Uuringu lõpparuanne. Tartu Ülikool. • Masso, S., & Soll, M. (2014). Change in Language of Instruction in Russian Medium Schools: Multilevel Analysis of Attitudes and Language Proficiency. Journal of Baltic Studies, 45(4), 517-544. Effectiveness of learning and student performance • Metslang, H., Kibar, T., Kitsnik, M., Koržel, J., Krall, I. & Zabrodskaja, A. (2013). Kakskeelne õpe vene õppekeelega koolis. Uuringu lõpparuanne. Tallinn: Tallinna Ülikool, Eesti Keele ja Kultuuri Instituut. Impact of multi-language and multi-cultural learning on school climate • Rootamm-Valter, J., Kallas, K., Lahi, H., & Šuvalov, A. (2018). Kuidas õppida koos? Liitgümnaasiumide õpilaste väärtushinnangud, hoiakud ja hakkamasaamise strateegiad mitmekeelses ja mitmekultuurilises koolis. Haridus- ja Teadusministeerium. Identity of students in the context of change • Soll, M. (2015). The Ethnic Identity of Russian-speaking Students in Estonia in the Context of Educational Change. University of Tartu.
	Higher education reform (2013)	1. Low SES students 2. Equality in access to tertiary education	1. OECD (2007). OECD Reviews of Tertiary Education: Estonia.	2.Dataset to policy	EHIS?	• Kõrgharidusreform ja tööjõuvajadused (2019). Riigikontrolli aruanne Riigikogule. • Põder, K., & Lauri, T. (2021a). The paradox of state-funded higher education: Does the winner still take it all? Education Sciences, 11 (12), 812. DOI: 10.3390/educsci11120812.

		3. Tertiary education	2. Ministry of Education and Research (2006). Estonian Higher Education Strategy, 2006–2015 3. Statistical data (EHIS?) 4. Eurostudent IV (2010)			

Name of the Country	Policy (Name & Date)	Target Groups / Aims / Level	Origins of Policy (1–8)	Flow	Datasets Used	Evaluation / Criticism
Finland	**Special Education Reform (2010)**	• Target: students with learning difficulties, SEN • Aims: early intervention, inclusive mainstreaming • Level: basic education	2, 3, 4, 6	Policy → Data set	• National Board of Education SEN statistics • Local education provider data	Takala, M. et al. (2012). *Inclusive education in Finland: A model in transition*. https://doi.org/10.1080/13603116.2012.692028
	AI-Powered Learning Analytics Pilots (2018–2023)	• Target: all students, with focus on at-risk learners • Aims: real-time monitoring, personalized support • Level: basic & upper secondary	3, 4, 5, 7	Data set → Policy	• Municipal dashboard data • EdTech pilot logs • Student well-being surveys	Kupiainen, S. & Ouakrim-Soivio, N. (2023). *AI and equity in Finnish classrooms*. https://doi.org/10.1016/j.compedu.2023.104789
	Compulsory Education Extension Reform (2021)	• Target: NEET youth, low-income families • Aims: ensure upper secondary completion, reduce dropout • Level: upper secondary	1, 2, 3, 6	Policy → Data set	• PISA 2018 • National Matriculation Exam data • Youth Guarantee tracking	Ministry of Education and Culture (2022). *Impact review of compulsory education reform*

Name of the Country	Policy (Name & Date)	Target Groups / Aims / Level	Origins of Policy (1–8)	Flow	Datasets Used	Evaluation / Criticism
Germany	**All-day School Expansion (Ganztagsschule Initiative), 2003–present**	• Target: working-class families, migrant-background pupils• Aims: improve access, reduce learning gaps• Level: primary & lower secondary	1, 2, 3, 6	Policy → Dataset	• PISA 2000• National Education Panel (NEPS)• Länder-level school statistics	Steiner, M. (2011). *All-day schooling and equity in Germany*. https://doi.org/10.1016/j.ijer.2011.03.002
	National Education Standards (Bildungsstandards), 2004–2006	• Target: system-wide quality and comparability• Aims: raise standards, reduce regional disparities• Level: primary & secondary	1, 2, 3	Dataset → Policy	• PISA 2000–2003• IQB student assessments• Länder evaluation reports	Klieme, E. et al. (2007). *Effects of national standards on school improvement*. https://doi.org/10.1007/s11125-007-9035-9
	Integration Courses & Language Support Reform, 2015–2020	• Target: refugee and migrant-background students• Aims: improve language acquisition, support integration• Level: primary to vocational	1, 2, 3, 4, 7	Policy → Dataset	• BAMF integration course data• IQB language assessments• Länder migration reports	Davoli, M. & Entorf, H. (2018). *School reforms and inequality post-PISA*. https://doi.org/10.2139/ssrn.3245678
	Merging of lower secondary school tracks	• Target: working-class families, migrant-background pupils• Aims: improve access, remove Stigma• Level: secondary	1, 3, 6	Policy → Dataset	NEPS SC3	Holtmann et al., 2024; Matthewes, 2018
	Shortening the academic school track (G8-Reform)	• Target: working-class families, migrant-background pupils• Aims: reduce time spent in secondary education• Level: secondary	1, 2, 6	Policy → Dataset	PISA2000/2003/2006	Homuth, 2017
	Abolishment of the binding teacher recommendation	• Target: working-class families, migrant-background pupils• Aims: grant easier access to academic track• Level: secondary	1, 3, 6	Policy → Dataset	NEPS SC3	Bittmann, 2021

Name of the country	Name and date of major national educational policies/	Summary of the selected policies	Origins of the policy with date	Did this national policy lead to the creation of a national dataset or a large-scale study/survey or vice versa?	List of the datasets used as evidence	Evaluation/criticism of the policies
Ireland	**DEIS (Delivering Equality of Opportunity in Schools), 2005 (revised 2017)**	• Target: socio-economically disadvantaged pupils• Aims: equalise access, participation, attainment• Levels: primary & post-primary	1. the Education Act of 1998 2. The Educational Disadvantage Committee (2002) 3. Educational Research Centre	Policy → Data set	• Census data • PISA • National Assessment of Mathematics and English Reading (NAMER) • Data collected by the Department of Education and Skills • Popal data	• Woods, P., McDermott, F., & Carey, D. (2013). Evaluating DEIS: Early impacts on literacy. Irish Educational Studies. https://doi.org/10.1080/03323315.2013.770123 • Gilleece, L., & Nelis, S. M. (2023). *Ireland's 2021 national assessments of mathematics and English reading: Exploring the home backgrounds, classrooms and schools of pupils in Urban DEIS schools*. Educational Research Centre. https://www.erc.ie/NAMER2021DEIScontext • Kelleher, C., & Weir, S. (2017). *The impact of DEIS on the size of junior classes in urban primary schools in 2014/15, with comparative data from 2009/10* (Report to the Department of Education and Skills). Educational Research Centre. https://www.erc.ie/wp-content/uploads/2017/03/The-Impact-of-DEIS-on-Class-Size-in-Primary-Schools-31.03.2017.pdf • Weir, S., Kavanagh, L., Moran, E., & Ryan, A. (2018). *Partnership in DEIS schools: A survey of Home-School-Community Liaison coordinators in primary and post-primary schools in Ireland* (Report to the Department of Education and Skills). Educational Research Centre. https://www.erc.ie/wp-content/uploads/2018/11/HSCL-report-2018.pdf
	Early Childhood Care and Education (ECCE) Scheme	• Target: children in the years before they start primary school• Aims: access to quality early	1. A transformative response to the limitations of the previous universal financial support	Data set → Policy Policy → Data set	• Early Years Education Inspections (EYEI) • Central Statistics Office •	• Curristan, S., McGinnity, F., Russell, H., & Smyth, E. (2023). *Early childhood education and care in Ireland and Northern Ireland* (ESRI Research Series No. 157). Economic and Social Research Institute. https://doi.org/10.26504/rs157

		education regardless of background• Level: early childhood	system (Early Childhood Supplement). 2. A report on Early Childhood Care and Education release by National Economic and Social Council (NESF) in 2005.		Growing Up in Ireland	• Department of Children, Equality, Disability, Integration and Youth. (2021). *An independent review of the Early Childhood Care and Education (ECCE) programme*. Government of Ireland. https://assets.gov.ie/static/documents/a177ee05-an-independent-review-of-the-early-childhood-care-and-education-ecce-programm.pdf • Department of Children, Equality, Disability, Integration and Youth. (2025). *End of year three evaluation of the Access and Inclusion Model (AIM)*. Government of Ireland. https://assets.gov.ie/static/documents/end-of-year-three-evaluation-of-the-access-and-inclusion-model-aim.pdf
	National Childcare Scheme (NCS)	• Target: parents of children aged between 6 months and 15 years• Aims: enhance access to affordable childcare and support parents' participation in the workforce • Levels: pre-primary to secondary	1. An inter-Departmental Group established in 2015 to identify and assess policy options for increasing the affordability, quality and supply of early years and school-age care and education services	Data set → Policy Policy → Data set	• Popal data • Data collected by the Department of Children, Equality, Disability, Integration and Youth • The Survey on Income and Living Conditions	• Paul, G. (2021). *12-Month Review of the National Childcare Scheme: A report prepared for the Department of Children, Equality, Disability, Integration and Youth*. Frontier Economics. Retrieved 15 June 2025, from https://gov.ie/en/department-of-children-disability-and-equality/publications/12-month-review-of-the-national-childcare-scheme-october-2021/ • Doorley, K., Tuda, D., & Duggan, L. (2023). *Extending the national childcare scheme to childminders: Cost and distributional effect*. Budget Perspectives, BP202403. https://doi.org/10.26504/BP202403 • Doorley, K., Tuda, D., McTague, A., & Regan, M. (2023). Childcare in Ireland: usage, affordability and incentives to work. *The Economic and Social Review*, *54*(4, Winter), 247-283. • Doorley, K., Regan, M., & Roantree, B. (2023). *The impact of the National Childcare Scheme on childcare costs and maternal employment*. Economic and Social Research Institute. https://www.esri.ie/system/files/publications/WP799.pdf

Name of the country	Name and date of major national educational policies/	Summary of the selected policies	Origins of the policy with date	Did this national policy lead to the creation of a national dataset or a large-scale study/survey or vice versa?	List of the datasets used as evidence	Evaluation/criticism of the policies
Italy	**Law 170/2010 on Specific Learning Disabilities (SLD)**	• Target: students with dyslexia, ADHD, other SLD • Aims: inclusive access, tailored support• Levels: primary & secondary	2, 3, 7	Policy → Dataset	• INVALSI assessments flagged for SLD• Ministry registry of SLD cases	Martinelli, M. (2015). Inclusion outcomes under Law 170/2010. *Journal of Learning Disabilities.* https://doi.org/10.1177/0022219414564659
	PON "Per la Scuola" ESF/ERDF 2014–2020	• Target: low-SES students, underserved Southern regions >• Aims: narrow regional & socioeconomic gaps • Levels: all stages	1, 2, 6	Dataset → Policy	• INVALSI regional performance data• OECD regional equity reports	Russo, F. (2018). Impact of PON 2014–20 on underprivileged schools. *European Journal of Education Policy.* https://doi.org/10.1080/01411926.2018.1472345
	"La Buona Scuola" Reform (Law 107/2015)	• Target: early leavers, disadvantaged–area schools• Aims: reduce NEET, boost quality & equity• Level: secondary	1, 6, 7	Policy → Dataset	• National dropout & NEET statistics• INVALSI national test results	Tedesco, L. (2017). Equity dimensions in La Buona Scuola. *Italian Journal of Educational Research.* https://doi.org/10.1007/s11159-017-9651-2

Name of the country	Name and date of major national educational policies/	Summary of the selected policies	Origins of the policy with date	Did this national policy lead to the creation of a national dataset or a large-scale study/survey or vice versa?	List of the datasets used as evidence	Evaluation/criticism of the policies
Romania	**Order nr. 4801/2010 regarding the organization and process of the national evaluation for students in grade VIII in the school year 2010-2011 [Ordinul nr. 4801/2010 privind organizarea si desfasurarea evaluarii nationale pentru elevii clasei a VIII-a in anul scolar 2010-2011]** **The National law of Education 1/2011** **The Law of Pre-university Education (198/2023)**	The grades at the National Evaluation (Capacitate) at the end of the 8th grade are decisive for the track and specialization within a track that a student can access. There is increasing focus at national level for technological education in high school education, with increasing structural and content changes in the past decade. Technological high school education plays a key role in making post-secondary education aligned to the needs of the labour market.	OECD PISA results European Commission (e.g., CEDEFOP 2023 Skills Forecast Romania) All evidence is (a) cross-sectional and (b) derived from EU-level and OECD priorities on education and the future of work.	Not applicable. In the Romanian educational system, there is no evidence-based education as per the working definition of the LEARN project.	3-wave TRAIDES (Transylvania Identity Development) study (2013-2014) 4-wave PERSEIDA (Perfectionism in Self and Identity Development in Adolescence) study (2014-2016) 3-wave GOALID (Goals in Identity Development) study (2018-2020)	**Global evaluation.** A growing body of evidence points to systemic shortcomings in the drafting of these documents, highlighting that Romanian policymaking often suffers from a weak evidence base. Substantiation notes frequently lack data-driven analysis, omit policy alternatives, and fail to include meaningful impact assessments. Instead, they tend to rely heavily on legal references, offering little empirical justification for the proposed measures. **Evaluation for educational tracking.** The grade at the National Evaluation is decisive for accessing "high quality" post-secondary education. Students with higher grades tend to access theoretical or university-bound schools. Technological tracks are accessed by students with lower grades at the National Evaluation (Capacitate). This has been explained in terms of the reduced social prestige of blue-collar occupations and the reduced level of parental involvement in the educational development of their children (Pantea, 2019a, b). This may lead to academic underperformance and even drop-out during high school and reduced chances to perform well at the Baccalaureate and then access tertiary education (European Commission, 2024).

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UK England	**Pupil Premium** (Introduced April 2011)	**Aim:** Raise attainment for disadvantaged pupils (5-16 years) and close the gap with peers. Also aimed to incentivise schools to attract disadvantaged pupils. **Mechanism:** Additional funding to state schools based on pupils eligible for Free School Meals (FSM) in last 6 years ('Ever 6 FSM'), looked-after (LAC) & previously looked-after children (PLAC). Service Pupil Premium (SPP) for armed forces children. Schools decide	**Origins (2011): (3) Int'l/National Scientific Evidence/Datasets:** Persistent, documented attainment gap linked to socio-economic disadvantage (using FSM eligibility as proxy). Evidence gap emerges early and widens. **(6) Failure of Previous Policies (Implicit):** Belief that prior funding/interventions were insufficient to close the gap, requiring targeted funding linked to poverty proxy	**2. Dataset to Policy:** National datasets (NPD) showing the attainment gap linked to FSM eligibility were the primary driver. **1. Policy to Dataset:** Requires tracking/reporting of PP-eligible pupils' attainment, reinforcing NPD use for monitoring. Spurred evaluations linking funding to NPD attainment data. The reliance on FSM data also incentivised schools to improve FSM registration	**Key Datasets Used as Evidence/Evaluation:** * **National Pupil Database (NPD):** Crucial for identifying eligible pupils (FSM/LAC flags) and evaluating impact on the attainment gap over time. **School Census Data:** Provides FSM eligibility data feeding NPD and funding allocations. **Longitudinal Education Outcomes (LEO):** Highly relevant for	**Evaluation/Criticism: Mixed Evidence on Gap:** Gap narrowed 2011-18, but maybe part of longer trend; progress stalled/reversed post-pandemic. Some studies find little evidence PP significantly accelerated closure vs prior trends. Evaluating direct impact is complex due to confounding factors and devolved spending. **Impact on Segregation:** One study found unexpected decrease in school segregation post-2011, suggesting incentive mechanism *might* work. **Use of Funding:** Concerns about effective targeting/ring-fencing. Shift from school experience to mandated evidence-informed spending (EEF guidance). **Definition of Disadvantage:** FSM proxy has limitations (doesn't capture depth/duration of poverty, other needs). **Funding Levels:** Significant (£2.9bn in 2023-24), but impact affected by overall budget pressures. Real-terms value fluctuated. **Need for More Evidence:** Calls for better evidence on effectiveness of specific interventions funded. **Links:** * Gorard et al. (Taylor & Francis): https://www.tandfonline.com/doi/full/10.1080/02671522.2021.1907775 DfE Evaluation (2013):(((https://assets.publishing.service.gov.uk/media/5a7c33caed915d76e2ebbc2e/DFE-RB282.pdf))) Parliamentary Briefing:(((https://researchbriefings.files.parliament.uk/documents/SN06700/SN06700.pdf)))

		spending but must focus on eligible pupils and use evidence-informed approaches (DfE 'menu', EEF evidence).	(FSM). **(4/5) Evidence from Practice/Pilots (Limited Mention):** Initial reliance on schools' own experience, but increasing policy emphasis on external evidence (EEF). **(8) Other Sources (Political Commitment):** Key policy of 2010 Coalition Government. Consultation in 2010.		evaluating long-term impact by linking school attainment (potentially influenced by PP) to later earnings/employment for FSM vs non-FSM groups. **School Expenditure Data:** Used in analyses linking funding changes to outcomes.	
	Education Endowment Foundation (EEF) (Established 2011)	**Aim:** Independent charity aiming to break the link between family income and educational achievement by improving outcomes for disadvantaged children/young people. **Mechanism:** Generates, synthesises, and mobilises evidence on 'what works' to	**Origins (2011): (6) Failure of Previous Policies/Approaches (Implicit):** Need for systematic, evidence-based approach to gap closure, moving beyond anecdote. Concurrent launch with Pupil Premium suggests funding alone insufficient without evidence	**1. Policy/Initiative to Dataset:** Core function is *generating* evidence via large-scale trials, creating new datasets evaluating interventions. These often link to national datasets (NPD) for outcome measurement. **2. Dataset to Policy/Initiative:** *Synthesises* evidence from existing national/international datasets/studies to	**Key Datasets Used/Generated:** * **National Pupil Database (NPD):** Frequently used in EEF-funded evaluations to measure intervention impact on pupil attainment/outcomes. **EEF Project Datasets:** Datasets generated	**Evaluation/Criticism: Evaluation Focus:** EEF is primarily an evaluator/synthesiser; success judged by influence and evidence quality. **Positive Influence:** Widely cited by DfE/schools for evidence-informed practice (esp. Pupil Premium). Toolkit used internationally. Central part of education landscape. **Methodological Rigour:** Promotes high evidence standards (esp. RCTs). **Criticisms/Challenges:** *Applicability/Context:* Transferring trial findings to diverse settings is challenging; the 'What Works' model may struggle with context dependency *Focus:* Emphasis on measurable attainment might undervalue wider outcomes, though EEF does cover broader strategies. *Reach/Uptake:* Ensuring evidence influences practice everywhere is ongoing; teacher capacity/resources are barriers. Evidence alone is insufficient without capacity for implementation. *Evidence Gaps:* Acknowledges and aims to fill gaps (e.g., teacher retention). **Links:** EEF Website (main resource): https://educationendowmentfoundation.org.uk/ [32]

		close the attainment gap. *Summarises:* Reviews global evidence; creates resources like Teaching & Learning Toolkit. *Builds:* Funds development and rigorous evaluation (e.g., RCTs) of educational programmes. *Mobilises:* Helps education sector use evidence via networks (Research Schools), guidance, partnerships. Supports evidence-based Pupil Premium use. Represents an institutional attempt to embed evidence use in the system.	guidance. **(3) Int'l/National Scientific Evidence:** Founded on principle that rigorous research (e.g., RCTs) identifies effective practices. Leverages global research. Cites evidence on key drivers like teacher quality. **(8) Other Sources (Government Initiative/Funding):** Established with £125m DfE endowment grant ; re-endowed £137m in 2022. Indicates government backing for independent evidence body.	create guidance/toolkits, informing practice and potentially policy. National data on the attainment gap justifies EEF's existence.	directly from EEF-funded trials, containing detailed intervention/outcome data. **International Research Databases:** Synthesises evidence from global studies/datasets . **Longitudinal Education Outcomes (LEO):** Potential for longer-term follow-up of EEF-evaluated interventions, assessing impacts on employment/earnings. **Teacher/School Surveys:** Used within trials for implementation /context data.	