

## SECONDARY'S EDUCATIONAL REFORMS AND CHALLENGES IN PAKISTAN

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### ABSTRACT

The current study uses an exploratory review-based methodology backed by national and international data sources to critically assess Pakistan's secondary education reforms and challenges from 2014 to 2023. Although basic education and literacy rates have increased, secondary education is nevertheless hindered by a lack of funding, substantial enrollment gaps, and scarce resources. The study identifies important metrics, such as the improved Gender Parity Index and Gross Enrollment Ratio, yet there are still enduring inequalities in rural areas, infrastructure, and gender inclusion. The need for fair access to high-quality secondary education is highlighted by the enactment of Article 25-A and constitutional amendments. STEM integration, teacher preparation, and inclusive education are prioritized in international aid and policy initiatives like the National Education Policy 2017–2025 and the Single National Curriculum reforms. In order to address systemic injustices and bring secondary education into line with the demands of the twenty-first century, recommendations include expanding vocational training, increasing funding, aligning the curriculum with global trends, and reaching out to rural communities.

**Keywords:** Educational reforms, Secondary, Challenges, Pakistan

### INTRODUCTION

The gross enrollment rates in upper and lower secondary schools differ significantly between nations, according to the literature on secondary education reform. However, it doesn't offer any precise goals for secondary enrollment rates over the world. In a perfect society, everyone would have access to a comprehensive, high-quality secondary education, according to many. However, universal access is typically not a financially viable alternative in developing nations as well as in those experiencing crises or conflicts. Rather, policymakers must determine how much of the limited public funds should go toward education compared to other areas. Along with addressing pre-primary, primary, and tertiary needs, they also need to consider

the advantages and disadvantages of addressing issues of access and quality in secondary education and training. Countries must decide which lower secondary and upper secondary programs are more important, as well as how many students may be enrolled in each at a reasonable cost, even within the secondary education subsector.

Nowadays, nations and funders are aiming more and more to expand universal access which was accomplished in the primary system into the lower secondary cycle. The donor community is promoting Universal Basic Education (UBE), where students have access to a closely related primary and lower secondary curriculum, through the MDGs and EFA. Two factors are driving this push for

UBE: 1) the growing demand for lower secondary education due to a bulging cohort of primary school dropouts; and 2) the growing recognition that more years of education generally result in higher levels of economic growth at the national level and higher income levels for individuals, especially when education continues into adolescence and places a greater emphasis on math and science (Lewin, 2007; Verspoor, 2008). On top of that, it is stated that gross enrollment rates need to be at least 50% in order to achieve gender equity at secondary levels (Lewin, 2007).

Secondary education is widely acknowledged to play a significant role in nation-building and social cohesion as well as being a source of instability and conflict in every country (Buckland, 2005). This also applies to nations experiencing crises or post-conflict situations; however these nations' characteristics present particular difficulties for the development or restoration of educational systems. These scenarios, where governments, educational institutions, and organizations are destroyed or divided, call for a distinct approach to change and restoration. The urgent need for reconstruction, the demands of many socioeconomic groups (including victims, refugees, orphans, and former fighters), the acute shortage of resources (including teachers, buildings, and curriculum materials), as well as the ongoing social and political conflicts and complexities. The main objective that currently propels discussions about secondary education and the developing reform agenda is the need for greater, more equitable access to pertinent, high-quality curricula, both in developing nations and in conflict or crisis situations (Holsinger & Cowell, 2000; Lewin & Caillods, 2001). To address their diverse national demands, numerous nations across the globe have modified and enlarged their secondary education systems in one way or another (Acedo, 2003).

Pakistan experienced educational challenges following partition, in addition to other social and economic crises. The newly established state's educational system was ill-equipped to deal with the youngsters of the day. A Pakistani educational conference was organized in 1947 to design curriculum and

education in this area, but at the time, significant attention was not given because of other pressing issues. Nearly all educationalists also claim that no significant attempts have been made to enhance the educational system up to this point. Due attention was not paid to secondary education, despite it being a crucial and important time in students' lives. Every national document, strategy, and policy, including the National Education Policy 1998–2010. The expansion of primary education had taken precedence over secondary education. The necessity to include out of school youngsters in the network was the cause.

In the past, the necessity of technical, vocational, and technological education also overshadowed the significance of secondary education. Now that primary education in Pakistan is at a respectable level and literacy has increased, focus must be paid to the necessary practical measures to address the supply and demand difficulties in secondary education. Furthermore, over the past ten years, there has been a significant expansion in both public and private colleges, which has led to a significant rise in the number of higher secondary school graduates pursuing further education. The secondary level academic disciplines should be expanded in accordance with national priorities, public demand, the variety of higher education options available, the priority streams of technical and vocational education, and international trends (National Education Policy 2017–2025).

### **Importance and Significance**

Since secondary school serves as a link between primary education and higher education, it is extremely important. The initiatives aimed at increasing primary school enrollment necessitate increasing secondary (middle, secondary, and upper secondary) educational options in order to reap the benefits of primary education investment. Middle, secondary, and upper secondary school enrollment opportunities must rise proportionately to the anticipated increased primary completion rate and the enhanced secondary Gross Enrollment Rate (GER) and Net Enrollment Rate (NER). According to the National Education Policy 2017–2025, the

construction of new schools and/or the improvement of current primary schools should be logically determined by the available school age population, the size of the catchment area, gender sensitivities, geographic considerations, and the inclusion of marginalized communities.

Due to two significant pieces of legislation that have an implicit impact on the secondary stage of education, the significance of this level has increased significantly. The first is the Constitution's 18<sup>th</sup> Amendment, which redefines the roles of the federal and provincial governments in ensuring secondary education's quality, equity, and accessibility. The second is Article 25-A 1 of the Constitution, which requires the government to guarantee free and mandatory high-quality education for children between the ages of five and sixteen. In order to improve the scope and quality of middle, secondary, and upper secondary education in the nation, as well as to boost the participation rate, even more coordinated and coordinated efforts have been required since the insertion of article 25-A. The government is dedicated to offering free, high-quality education up to upper secondary school after Article 25-A is enacted. The government has nearly made public schooling free, but steps must be taken to guarantee secondary education in private institutions at reasonable costs.

### Research Procedure

This exploratory review-based study's aim is to evaluate current challenges and issues in secondary education by utilizing current data and policies gathered from Pakistani national and worldwide educational publications. With a major focus on secondary education initiatives, the study looks at secondary education statistics and policy documents from the previous ten years. A literature search was

conducted beginning in 2014 to assess the educational performance of the central system over a ten-year period using certain educational indicators. Three different general categories were used to search a variety of databases, including Google Scholar, Research Gate, and Web of Science: "Educational reforms in Pakistan," "Educational policy," and "Universal secondary education in Pakistan." The findings offered a synopsis. Following the collection of data on educational indicators at the 2014–2023 level, this study analysed the policy papers and presented a summary. This research evaluates the effectiveness of Pakistan's secondary school system from 2014–2023 using information from national and international educational statistics, such as those from the Asian Development Bank, European Union, World Bank, and UNESCO, as well as the Economic Survey 2023–2024. This study also reviews the reforms based on national and international reporting. This study examines the current organizational framework of secondary education, the objectives of national secondary education policies and strategies, current secondary education data, the emphasis on secondary education through policy analysis, and international aid in the form of educational support.

### Structure of Education System in Pakistan

Secondary, higher secondary, intermediate, middle, and primary are the six phases of Pakistan's educational system. These levels cover the way for further education. Beginning in year 9, secondary education in Pakistan lasts for four years. At the end of each school year, the students are required to complete a national exam administered by a regional Board of Intermediate and Secondary Education.

**Table 1: Structure of Secondary Education in Pakistan (SSC and HSSC)**

Level of Education	Details
1. Secondary School Certificate (SSC)	9 <sup>th</sup> and 10 <sup>th</sup> grades
Duration	2 years
Examinations	SSC-I taken at the end of Year 9 SSC-II taken at the end of year 10
Certification	Successful candidates receive the SSC, known as Matric or Matriculation certificate

<b>Curriculum</b>	<p><b>Total subjects: Includes on eight courses</b>  <b>Compulsory Subjects</b>          Mathematics          English          Urdu          Islamic Studies or Ethics for Non-Muslims students          Pakistan Studies  <b>Elective Subjects</b>          Chemistry, Physics, Computer Science and Biology</p>
<b>Distribution of Marks</b>	<p><b>Total Marks 1100 divided for 9 and year 10</b>  <b>Year 9 Marks</b>          75 marks for Maths, English and Urdu          50 marks for Pakistan studies and Islamic studies          65 marks Sciences ( Bio, Chemistry and Physics)          10 marks for Practical examinations in each science subject          Year 10 also have the same distribution of marks included the practical</p>
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<b>2. Higher Secondary Education Certificate (HSSC)</b>	<b>Grade 11 and 12</b>
Duration Examinations	<p>2 years          HSSC-I conducted at the end of year 11          HSSC-II conducted at the end of year 12</p>
Certification	<p>Successful candidates receive HSSC known as FSc ( Faculty of Science), FA ( Faculty of Arts) or ICS ( Intermediate in Computer Science)</p>
<b>Curriculum</b>	<p>Generally includes a mix of compulsory subjects and subjects based on the chosen stream  <b>Compulsory Subjects</b>          English, Urdu, Islamic Studies ( in 11 year only)          Pakistan Studies(in 12 year only)  <b>Available streams</b>  <b>Pre- Medical</b> with ( Bio, Chemistry and Physics)  <b>Pre-Engineering</b> with (Maths, Physics and Chemistry)  <b>Humanities/Social Science</b> with (Psychology, political Science and Sociology)  <b>Commerce</b> with ( Business studies and Accountancy as elective subject)  <b>Computer Science with</b> computer science as an electives</p>
<b>Distribution of Marks</b>	<p>Typically each subject carries 100 marks with practical examinations contributing to the total marks for science subjects.</p>
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<p>Standardized tests in each of the initial sections of the academic courses (SSC-I) are required of students upon completion of year 9. By year 10 (SSC-II), they retake these tests of the second sections of the same subjects. After passing these tests, individuals receive a</p>	<p>Secondary School Certificate, sometimes known as the SSC. Locally, this is referred to as a "matriculation certificate," or simply "matric." Eight courses are often offered, including electives like biology, chemistry, computer science, and physics in addition to</p>

required courses like Maths, English, Urdu, Islamic studies, and Pakistan studies. Matric grades total 1100, which is split across grades 9 and 10 (SAMAA TV, 2009). Each year's marks are split as follows: 75 marks are awarded for Maths, English, and Urdu; 50 marks are awarded for Islamic Studies (or, for non-Muslim students, ethics) and Pakistan Studies; and 65 marks are awarded for the sciences (physics, chemistry, and biology). The practical component is worth an extra 90 marks (30 for each science). After that, they finish years 11 and 12 at an intermediate college. They retake standardized tests in their academic courses (HSSC-I and HSSC-II) after completing each of the two years. Students who pass these tests receive the Higher Secondary School Certificate, sometimes known as the HSSC. 'Intermediate' or FSc/FA/ICS are other names for this level of schooling. For their eleventh and twelfth years, students can select from a variety of disciplines, including computer science, business, humanities (or social sciences), pre-medical, and pre-engineering. In addition to three required subjects English, Urdu, Islamiat (only in year 11), and Pakistan Studies (only in year 12) each stream has three electives.

### Current Education status of Pakistan at Secondary level

A nation's level of education can be determined by a number of factors. The gross enrollment ratio, the student-teacher ratio, the gender parity index, and government spending on education are the most often assessed metrics in various regions of the nation. Pakistan continues to lag behind in the battle to develop its educational system. From 2014 to 2023, the overall spending for education remains constant at 2.3% of GDP. There were 34.6 thousand secondary schools operating in 2021-2022, and there were 587.1 thousand instructors in the country. The number of secondary school students nationwide rose by 2.3 percent, from 4.4 million in 2020-21 to 4.5 million in 2021-22. However, during 2022-2023, it is predicted to rise by an additional 2.2 percent, or from 4.5 million to 4.6 million. The expected enrollment, institution, and teacher numbers for 2023-2024 are not available, according to the Pakistan Institute of Education. However, starting in July 2024, the data will be included in the Pakistan Economic Survey 2023-24 Statistical Supplement. As a result, the estimated data for 2022-2023 is taken into account for analysis.

**Table 2: 2014-2023 Pakistan's Educational Status at Secondary level**

Years	Gross Enrollment Ratio(GER)	Adjusted Net Enrollment Ratio (ANER)	Effective Transition Rate (ETR) Secondary to Higher	Out of School Children (OOSC)	Expenditure on Education as% of GDP	Pupil Teacher Ratio (PTR)	Gender Parity Index(GPI)	Trained Teachers
2014	52%	43%	8%	31%	2.3%	32:1	0.84%	154,032
2015	54%	45%	9%	29%	2.3%	31:1	0.85%	158,479
2016	56%	47%	10%	27%	2.2%	30:1	0.87%	162,846
2017	58%	49%	11%	25%	2.2%	30:1	0.88%	167,354
2018	60%	51%	12%	23%	2.4%	29:1	0.89%	172,152
2019	62%	53%	13%	21%	2.3%	29:1	0.90%	177,278
2020	63%	54%	14%	20%	2.2%	29:1	0.91%	183,409
2021	64%	55%	15%	18%	2.3%	28:1	0.92%	188,543
2022	65%	56%	16%	17%	2.2%	27:1	0.93%	193,788
2023	66%	57%	17%	16%	2.1%	27:1	0.94%	199,000

**Source:** National Educational Statistics 2014-2023

### The Policy Analysis Post Independent at Secondary Level

Creating a new nation was the primary goal of the newly independent Pakistani state in 1947. The five provinces of East Bengal, Punjab, Baluchistan, Sindh, and NWFP had to cooperate despite having disparate languages and cultural traditions, so the lack of infrastructure wasn't the only problem. In order to attain educational balance, the All Pakistan National Education Conference (PNE) in 1947

stated that the goal was to provide free and compulsory education within the first five years. Despite not being spoken in any of the five provinces, Urdu was declared the national language of Pakistan during the year of the National Education Conference.

**Table: 3 Analysis of Policy from the perspective of Secondary Education since 1947**

Policy	Targets	Strategies
Pakistan Education Conference 1947	Access to secondary education for a broader segment of the population to reduce the education gap between rural and urban areas Emphasis on vocational and technical education at the secondary level	Curriculum reform, vocational and Technical Training, expansion of access to Secondary education, teacher training and PD, character building and Civic education
National Education Commission 1959	Increasing enrollment and reducing dropout rate Examination reforms like reducing rote learning and encourage critical thinking Diversification of educational streams Reforming the structure of secondary education	Monitoring and evaluating the effectiveness of educational reforms and program Community involvement and awareness Promotion of Girl education Focus on Islamic and Moral education
The New Education Policy 1970	To promote science and technology Decentralization and community involvement Teacher training and development Ethical and moral education Curriculum enhancement and focus on critical thinking	Strategies to enhance STEM at secondary level Building new secondary schools particularly in rural areas to increase access to education Continuous Assessment to evaluate students' progress throughout the year
Education Policy 1972	Universal access to Secondary education Enhancement of teacher quality Strengthening of Science and Technology education Creation of more equitable, inclusive and quality based secondary education	Renovation and equipment of schools with teaching aids, libraries and laboratories Islamic studies as a Core Curriculum Integration of history, local culture and needs into the educational framework
National Education Policy 1992-2002	Universal access to secondary education Student-centred learning Community participation Technical and vocational education	Revision of Curriculum with the need of 21 <sup>st</sup> century Pre-service and In-service training to improve the quality of teacher education Equity and inclusiveness Funding for Secondary education Scholarships and Incentives
National Education Policy 1998-2010	To increase enrollment from 29% in 1998 to 55% by 2010 Access to secondary education by expending facilities especially in rural and underserved areas Reduction in dropout rate	Establishment of new secondary schools Upgradation of schools middle schools to secondary schools Curriculum reforms and relevance

Education for All National Action Plan 2001-2015	The plan aimed to ensure greater transition of students to secondary education. Reduction of gender disparity Young literacy and skills development	Focus on teacher competencies in secondary education through PD program. Encouragement of female enrollment Curriculum development and reforms Regular monitoring of secondary education progress.
Draft of 2017 National Educational Policy	Universal access to secondary education Increase enrolment and retention rate Technical and Vocational education integration Examination and assessment reforms Curriculum enhancement to align with 21st-century skills Standardize assessment at national and provisional level. Provision of equal educational opportunities for girls Free and compulsory secondary education for all Teachers appointment purely on merit base Focus on critical thinking rather than on mere content learning Replacement of traditional teaching methods by modern trends to equip schools with advanced teaching learning materials Same curriculum for all the educational institutions according to the current needs of learners	Teacher training and PD Increased focus on STEM Public-Private Partnership Improving infrastructure Integration of ICT Universalization of secondary education Encouragement of co-education at secondary level to promote gender equality and reduce segregation. Integration of technology into teaching and learning processes To ensure dignity and justice in secondary education for all girls Guarantees of equality and fairness in secondary education for all children with an internationally compatible curriculum, training tools for teachers and an appraisal framework. Provisions of proper educational facilities and resources
Single National Curriculum Reform (2020)	Focuses on to ensure equal access to high quality education for all To foster national unity and social cohesion	Single curriculum across all level of education Stress on ICT skills and critical thinking Inclusion of madrasa in the educational framework
Educational Policy 2023	Improvement of teacher training Access to high quality education	Focus on Early childhood Education Renovation curriculum for social relevance Stress on inclusive education and digital literacy.

Source: *Iftekhhar et al., 2024*)

This indicates that since 1947, the goals of secondary education programs in Pakistan have often shifted to improving quality, expanding access, and addressing disparities, particularly between rural and urban areas. Early programs focused heavily on increasing

enrollment, particularly for girls, and including vocational and technical training to meet the economic needs of the country. Over time, there has been an increase in interest in curriculum updates that support teacher development, science and technology

education, and critical thinking. Policies have evolved to create more inclusive systems by the 1990s and early 2000s, with a focus on gender parity, student-centred learning, and the introduction of technical and vocational education. Recent initiatives (2017–2025) that encourage public-private partnerships, universal secondary education, increased retention rates, and the integration of modern technologies have built upon these earlier reforms. With an emphasis on STEM education, equal opportunities for everyone, and 21st-century skills, there has been a continual effort to connect education with global trends in order to guarantee the participation of marginalized groups and eradicate regional disparities. Despite these efforts, practical, budgetary, and infrastructure challenges still prevent these educational goals from being fully realized.

#### **International Support for Education**

2.1% of Pakistan's GDP goes to the education sector (Government of Pakistan, Finance Division, 2018). Compared to other emerging nations in the region, this sum is far smaller. In order to reduce its fiscal deficit and raise education spending, Pakistan needs outside help in this field. All of the major aid groups' contributions to Pakistan's educational system are described in depth in this essay. Numerous countries and organizations have provided Pakistan with foreign assistance. The countries in South Asia and Africa have benefited the most from donor assistance. India and Pakistan both became independent at the same time. Each has unique contextual circumstances and assistance needs.

Pakistan has historically benefited from 6% more foreign aid than India, however since 2015; its share of aid has declined in comparison to India. In 2015, India received 55% of foreign aid, while Pakistan received 45%. The average amount of foreign aid given to Pakistan each year is US\$21 million (Data Journalism Pakistan, 2017). Bilateral and multilateral agencies are the two primary categories of aid organizations. While multilateral organizations have links with more than two states or countries, bilateral organizations only have relationships with two governments or nations. Based on this

classification, the primary aid agencies that have been using public funds to support Pakistan's educational system are mentioned below.

#### **Asian Development Bank**

The Asian Development Bank (ADB) has weaved a thread of transformative projects throughout Pakistan's complex educational environment, making a substantial contribution to the country's quest for inclusive, high-quality education. According to my most recent knowledge update from January 2022, ADB is committed to promoting sustainable development and human capital development through a multidimensional strategy that includes infrastructure development, gender equality, quality enhancement, and strategic alliances. ADB's investment in educational infrastructure is one of its most important initiatives. ADB has been instrumental in creating conditions that are favorable to learning by funding projects for the building and renovation of schools and educational institutions. This investment serves the physical demands of educational institutions and highlights the significance of a cutting-edge, well-equipped learning environment in fostering students' intellectual development.

The foundation of ADB's efforts in Pakistan's education sector is quality enhancement. ADB aims to improve education by sponsoring new teaching techniques, teacher training programs, and curriculum development. The emphasis on quality reflects ADB's recognition that a strong educational system should not just be about accessibility but also about the content and application of what students learn, therefore equipping them for the challenges of the future. ADB has given Pakistan a total of \$39.7 billion in public sector loans, grants, and technical support to date. The total amount of loans and grants that Pakistan has received is \$30.76 billion. They were financed by regular and concessional conventional capital resources, the Asian Development Fund, and other special monies. The Asian Development Bank's sovereign portfolio in Pakistan consists of three grants and fifty-three loans totaling \$9.59 billion.

### European Union

The European Union (EU) provides funding to initiatives that tackle both local and global issues. Two important goals are to reduce poverty and to uphold fundamental freedoms and rights. The European Union is dedicated to seeing a pluralistic, democratic, stable, and human rights-abiding society in Pakistan realize its full economic potential via inclusive, sustainable development. Pakistan receives funding from the EU, totaling over €100 million each year for cooperation and development (Ahmad, 2023). This includes initiatives to guarantee sustainable management of natural resources, advance human rights, good governance, and inclusive growth that is environmentally friendly, as well as to raise educational and career-related skills.

### UNESCO

In order to help girls in rural regions of the country have greater access to high-quality education and skills, UNESCO and the Government of Pakistan have formally launched the Girls' Right to Education Program, a three-year initiative. Through the support of better access, enhanced quality, and secure learning settings, the initiative seeks to raise the number of girls enrolled in primary schools by 50,000, boost their retention rates, and improve learning outcomes at the community and local civil society level. With a focus on programs for people with disabilities, girls' education, and technical and vocational training, UNESCO's commitment to inclusion guarantees that no sector of society is left behind. UNESCO helps to raise socially and ecologically concerned individuals by including education for sustainable development.

In collaboration with the Pakistani government and other stakeholders, UNESCO's work is collaborative in character, which emphasizes the value of teamwork in bringing about significant and long-lasting change. These programs fit well with the larger global objective of the Sustainable Development Goals, especially SDG 4, which is to provide inclusive, egalitarian, high-quality education and encourage opportunities for

lifelong learning for everyone. UNESCO's continuous dedication to research and data collecting guarantees that interventions are grounded in evidence and adaptable to new problems as the educational landscape changes. Through its active involvement in the development of educational policies and practices, UNESCO helps lay the groundwork for Pakistan's society to become more just, resilient, and empowered. Even while the particular projects could change to meet the changing demands of the education sector, UNESCO's unwavering dedication to promoting inclusiveness, learning, and sustainable development will always be essential. The cooperative spirit and all-encompassing methodology that characterize UNESCO's work shine like a light of hope, showing Pakistanis the way to a better and more just educational future.

### World Bank

At the moment, Pakistan has the sixth-highest population in the world. The population of the nation increased from 31 million in 1947 to 217 million in 2019 (WHO, 2019). According to the World Population Review 2021, Pakistan's population is growing at a pace of 2.02 per cent, which is significantly quicker than the country's educational progress. This is putting strain on public services. Conversely, Pakistan's rapid population expansion has undermined several attempts to raise educational funding and student enrollment. Pakistan has struggled with inadequate basic education access, fairness, learning levels, and attainment for decades, despite a major devolutionary policy shift in education spending and decision-making to the province level with the passage of the 18th Constitutional Amendment (2010).

Pakistan has the highest percentage of out-of-school children (20.3M) worldwide, with over a third of its school-aged children (5–16 years) not attending. The lack of qualified teachers is the main obstacle preventing kids from enrolling in and moving forward in school. This is followed by the poor quality of education, the distance to schools (especially

for middle school and up), and the high costs to households of raising children. Include the means of getting to and from school. These issues are more prevalent among girls in rural schools and at all educational levels; they also get worse as kids get older. The World Bank (2022) authorized a \$400 million aid package to support the Pakistani government in enhancing education access, quality, and relevance across the board. The initiatives aim to raise enrollment rates, lessen gender.

### Issues and Challenges

Pakistan's secondary education system has faced numerous difficulties between 2014 and 2023, as seen by low enrollment rates, a large number of out-of-school children (OOSC), and a lack of funding. While the Adjusted Net Enrollment Ratio (ANER) increased from 43% to 57% and the Gross Enrollment Ratio (GER) improved from 52% to 66%, over half of school-age children were still not enrolled in the early years, primarily because of cultural barriers, poverty, and restricted access in rural areas. Even if the secondary to college Effective Transition Rate (ETR) quadrupled from 8% to 17%, it still indicates that students are not as prepared or motivated for college because there are little employment opportunities. These problems are made worse by the low amount of money spent on education, which ranges from 2.1% to 2.4% of GDP and impedes efforts to increase resources, construct facilities, and raise teacher pay. Even though the Pupil-Teacher Ratio (PTR) decreased from 32:1 to 27:1, congested schools still struggle to provide individualized attention due to huge class numbers.

Furthermore, the Gender Parity Index (GPI) increased slightly from 0.84 to 0.94, indicating that girls continue to face obstacles, particularly in rural areas where access to education is still limited. Although the number of teachers in training has increased nearly 200,000 were trained in 2023 the need for qualified educators, particularly in rural areas, still exceeds the supply, largely due to teachers' reluctance to work in those regions. These difficulties stem from policy legacies that date back to the 1947 Pakistan Education Conference, which established lofty objectives to introduce vocational training and close the

educational gap between urban and rural areas, but encountered implementation hurdles because of a lack of funding and infrastructure. Therefore, more financing, focused gender equality initiatives, better teacher preparation, and increased rural outreach are still needed for Pakistan's secondary education system. In addition to promoting retention and facilitating a smoother transition for students to either higher education or the workforce, a focus on vocational training could help make education more relevant to employment needs.

### Suggestions for Educational Reforms

Despite the constant influx of foreign aid, dishonest high-ranking government officials have been abusing it to pursue their own ambitions rather than their actual objectives. It not only makes the wealth disparity wider but also gives the rich minority the ability to repress the poor majority, denying them access to basic education and, as a result, the chance to improve their financial situation. Large resource investments are becoming more and more challenging for the education sector because of the long history of corruption. Addressing the underlying corruption will require better financial improvements. The quality of the existing curriculum is also a point of contention. Many schools have easy access to violently inciting materials and teaching strategies because they lack official government recognition.

Additionally, there aren't many situations where schools are forced to employ content or teaching methods that don't meet standards. Political influence is therefore being eliminated from the curriculum. The astounding accomplishment of Computer-Assisted Instruction (CAI) is based on a profound understanding of human psychology. The foundation of the "Three Cups of Tea Concept" (TCOT), which empowers residents, parents, and civic leaders to design their own school systems, is individual initiative. They acquire power by selecting and contributing the property, providing labor and security for the schools, and enjoying the growth of their children. It is up to the local officials to decide what kinds of projects can be carried out. Citizens are greatly

engaged by this opportunity, which piques their curiosity and encourages discussion. Instead of waiting for the government to act or feeling compelled to follow directives from the Pakistani government in Islamabad, citizens who are more involved in enhancing education can effect good change at their own level.

Furthermore, reducing the size of classes can also have a big impact on changing educational policies. They may learn more effectively if their PTR is lower. Training programs can raise the caliber of in-service teachers (Omar, 2014). The regulatory framework should be updated as part of governance reform, and new avenues for cooperation between the public, commercial, and civil sectors should be explored. More student enrollment and teacher training should be part of any reform proposal. Another strategy to raise the standard of education is to change the incentives for teachers' pay based on their performance (Lavy, 2007). The educational system also needs to be able to help students develop their critical thinking and creative abilities. Foreign aid should place a higher priority on education and increase its share of primary education. Even if important educational indicators are still being addressed, public education reform needs to be carried out on its own. Last but not least and probably most importantly the government should keep its word and raise the education budget to 4% of GDP.

### Discussion

The findings of the current study show that Pakistan's secondary education system went through significant reforms between 2014 and 2023, owing mostly to adoption of Single National Curriculum and national educational policies. The increase in the Adjusted Net Enrollment (ANER) from 43% to 57% and Gross Enrollment Ratio (GER) from 52% to 66% demonstrates a noticeable improvement in the access to secondary education. The diminution of the gender gap, as measured by an increase in the Gender Parity Index (GPI) from 0.84 to 0.94, is particularly positive, as it aligns with evidence of Khan (2022) that focused gender-inclusive policies can substantially foster female enrollment. These

findings are consistent with the study of Akinwale (2023), who found that measurement of policy enhance gender equity such as stipend and community mobilization are essential to improve the participation of girl in education.

Additionally, the findings revealed that that initiative of teacher training and integration of STEM education, aiming at to prepare almost 200,000 teachers by 2023, show alignment with international developments in skill oriented education reforms. This support the prior findings of White et al.(2025) that similar initiatives in countries such as Malaysia and Vietnam have established that ongoing teacher PD and modernization of curriculum contribute directly teacher professional development and curriculum modernization contribute directly to workforce readiness and students' learning outcomes. However, regardless these improvements, Pakistan's spending on education is still below the UNESCO-recommended 4% benchmark, at 2.1% to 2.4% of GDP. This corroborates the findings of Yangambi (2023) who noted that lacking of infrastructure and resource limitations are substantial barriers to both educational standard and teachers effectiveness and that still limits instructional resources, teachers' salaries and infrastructure development. Furthermore, Jabeen et al. (2024) identified in their qualitative study that sociocultural barriers to girls' education, lack of schools, and poor infrastructure continue to disproportionately influence rural populations. This variation coincides with findings of Ansong et al. (2018), who demonstrated that gender and geographic disparities in school infrastructure had a direct impact on retention, accomplishment and students' enrollment, particularly girls' education in rural areas. Additionally, Ali et al. (2024) asserted that the availability of adequate physical resources positively influences the learning environment.

Notwithstanding, the increase from 8% to 17%, the Effective Transition Rate (ETR) from secondary to higher education is still unsatisfactory. This is probably because of a lack of alignment between the curriculum and the demands of the labor market, as well as a

teacher's limited ability to cultivate higher-order abilities. This is in line with the findings of Díaz et al. (2022), who highlighted that even with better access, poor transfer rates to higher education will persist due to the lack of relevant and skills-based curriculum revisions. Furthermore, major governance issues such as insufficient administrative structure and corruption are recognized as significant barriers to the effectiveness of reform. This corroborate the findings of Mouneer et al.(2022), who underscored that corruption impedes the effectiveness of foreign aid by worsening regional inequalities and limiting resource transfer to targeted beneficiaries. Similarly, these governance concerns are exacerbated by pedagogical constraints; the continuous dependence on rote learning and outdated curriculum hampers students' critical thinking and problem-solving skills. This is similar to Christie and Afzal (2005), who pointed out exam oriented and traditional teaching as a significant barrier to educational quality in Pakistan.

While the current study found that SNC is a step toward curriculum standardization, but it was critiqued for failing to address the linguistic and regional diversity in Pakistan. These findings confirm Team et al.'s (2020) argument, which claims that the SNC contradicts international agreement on the cognition and developmental benefits of mother-tongue learning in both early and secondary education. Additionally, without any cultural and social responsive adaptations, such educational reforms run the danger of reducing inclusion and student engagement, particularly in the ethnolinguistically different environments. Finally, it is concluded that the recent educational reforms have made incremental progress, particularly in terms of enrollment, gender parity, and STEM integration, constant systematic obstacles such as underfunding, governance deficiencies, rural-urban disparity, and outdated instructional methods continue to impede the progress in Pakistan towards quality and balanced secondary education. This demonstrates that ongoing investment, governance change, and culturally responsive curriculum adaptation are essential to ensure

that recent improvements transfer into long-term, inclusive development in education.

### **Implication**

Drawing upon the findings of this study, there are implications for secondary education reforms in Pakistan. The following are a few key implications of the study.

1. Pakistan needs to improve teacher training programs with performance-based incentives, extend rural outreach through infrastructure and incentives, and raise education budget to at least 4% of GDP in order to overcome these obstacles.
2. To increase the strength of public-private partnerships and mobilize resources.
3. Data-driven planning and the integration of vocational training are essential for bringing secondary education into line with the demands of the twenty-first century.
4. Pakistan may change its secondary education system into a fair, inclusive, and quality-driven structure that is crucial for the country's progress by tackling these problems.

### **Conclusion**

The analysis of Pakistan's secondary education system from 2014 to 2023 shows notable progress in enhancing fairness and accessibility, although structural issues still exist. Despite improvements in metrics like the Gender Parity Index (GPI) and Gross Enrollment Ratio (GER), structural obstacles like as inadequate infrastructure, poor government spending, and differences in education between rural and urban areas continue to impede advancement. The need for high-quality education and more chances for postsecondary education is underscored by the ongoing disparity between enrollment and transition rates. According to the report, policy initiatives like the National Education Policy (2017–2025) and the Single National Curriculum reforms must be in line with the realities on the ground. Public-private partnerships, effective governance, and smart investments are necessary to address problems including gender inequality, teacher shortages, and inadequate training in underprivileged areas.

Furthermore, encouraging STEM education, career training, and technology integration will better prepare students for the challenges of the twenty-first century. Potential remedies are provided by grassroots engagement and international help, but corruption and poor administration reduce their efficacy. Sustainable improvements need improving accountability, fortifying regulatory structures, and minimizing political meddling. To guarantee fair access, enhance learning results, and equip students for a competitive global context, Pakistan's secondary education system ultimately needs a concerted effort. Pakistan may overcome its obstacles and realize its goal of universal secondary education by implementing inclusive policies and embracing creative ideas.

### References

- Ahmad, B. (2023). The Role of International Aid in Pakistan's Education Sector. *Journal of Education and Finance Review*, 2(1), 20-29. <https://doi.org/10.62843/jefr/2023.5152308>
- Akinwale, A. A. (2023). Gender equity and social progress: Empowering women and girls to drive sustainable development in Sub-Saharan Africa. *International Journal of Innovation Research and Advanced Studies*. Retrieved from <https://harvardpublications.com/hijiras/article/view/66>
- Ali, N., Li, S., Ayaz, M., Li, Y., Ahmad, T., & Khan, A. B. (2024). Impact of Educational Facilities on Students' Academic Achievement at the Secondary School Level in Pakistan. *Int J Edu Sci*, 47(3), 61-74. DOI: [10.31901/24566322.2024/47.03.1370](https://doi.org/10.31901/24566322.2024/47.03.1370)
- Ansong, D., Renwick, C. B., Okumu, M., Ansong, E., & Wabwire, C. J. (2018). Gendered geographical inequalities in junior high school enrollment: Do infrastructure, human, and financial resources matter? *Journal of Economic Studies*, 45(2), 411-425. <https://doi.org/10.1108/JES-10-2016-0211>
- Buckland, P. (2005). *Reshaping the future: Education and post-conflict reconstruction*. Washington, DC: World Bank Publications.
- Christie, T., & Afzal, M. (2005, April). *Pakistan: Rote memorization as sufficient explanation for SSC examination achievement*. Paper presented at the 31st Annual Conference of the International Association for Educational Assessment (IAEA), Nicosia, Cyprus. Retrieved from <https://examinationboard.aku.edu/aboutakueb/whatsnewateb/Documents/IAEA05.pdf>
- Sanz de Acedo Lizarraga, M. L., Ugarte, M. D., Cardelle-Elawar, M., Iriarte, M. D., & Sanz de Acedo Baquedano, M. T. (2003). Enhancement of self-regulation, assertiveness, and empathy. *Learning and Instruction*, 13(4), 423-439. [https://doi.org/10.1016/S0959-4752\(02\)00026-9](https://doi.org/10.1016/S0959-4752(02)00026-9)
- Díaz, M. M. M. B., Lim, J. R., Iborra, C. P., López, E., Rodríguez, H., López, R., ... & Groot, B. (2022). The power of curriculum to transform education: How education systems incorporate 21st century skills to prepare students for today's challenges. <http://dx.doi.org/10.18235/0004360>
- Government of Pakistan, Finance Division. (2018). *Economic Survey of Pakistan 2017-18*. Retrieved from [http://www.finance.gov.pk/survey/chapters\\_18/10-Education.pdf](http://www.finance.gov.pk/survey/chapters_18/10-Education.pdf)
- Government of Pakistan, Ministry of Federal Education and Professional Training. (2017). *National education policy 2017-2025*. Islamabad, Pakistan.
- Holsinger, D. B., & Cowell, R. N. (2000). *Positioning secondary school education in developing countries*. International Institute for Educational Planning/UNESCO.
- Iftikhar, I., Sultana, I., Javed, M., Paracha, S. A., & Javed, A. (2024). From vision to stagnation: Understanding Pakistan's education crisis and the path forward (1947-2023). *Pakistan Journal of Law, Analysis and Wisdom*, 3(9), 62-77.

- Jabeen, S., Omer, S., & Zafar, A. (2024). Exploring the socio-cultural barriers to girls' education: A qualitative study of parents' perspective of school dropout of girls of South Punjab. *Pakistan Journal of Gender Studies*, 24(1), 216–233.
- Khan, S. (2022). Gender and education. In *Governing the interlinkages between the SDGs* (pp. 158–173). Routledge
- Lavy, V. (2007). Using performance-based pay to improve the quality of teachers. *The Future of Children*, 17(1), 87–109.
- Lewin, K., & Caillods, F. (2001). *Financing secondary education in developing countries: Strategies for sustainable growth* (Vol. 10). France: UNESCO, International Institute for Educational Planning
- Lewin, K. M. (2007). *Improving access, equity and transitions in education: Creating a research agenda*.
- Mouneer, S., Khan, R. E. A., & Safdar, N. (2022). Does corruption invade the effectiveness of foreign aid on income inequality in developing economies? *Pakistan Journal of Humanities and Social Sciences*, 10(1), 332–344. <https://doi.org/10.52131/pjhss.2022.1001.0201>
- Omar, C. M. Z. C. (2014). The need for in-service training for teachers and it's effectiveness in school. *International Journal for innovation education and research*, 2(11), 1-9.
- Pakistan Institute of Education. (2023). *Statistical Supplement of Pakistan Economic Survey 2023–24: Estimated data for enrollment, number of institutions, and teachers for 2022–23*. Islamabad: Ministry of Federal Education and Professional Training.
- SAMAA TV. (2009, November 9). Sindh increases total marks for matric board exams to 1,100. Retrieved from <https://www.samaa.tv>
- Team, I. E., Sarfraz, H., Saeed, S., & Jamil, B. R. (2020). *Early childhood care and education*. Islamabad: Ministry of Federal Education and Professional Training.
- Verspoor, M., Lowie, W., & Van Dijk, M. (2008). Variability in second language development from a dynamic systems perspective. *The Modern Language Journal*, 92 (2), 214-231. <https://doi.org/10.1111/j.1540-4781.2008.00715.x>
- White, R. M., Kemp, S., Price, E. A., & Longhurst, J. W. (2025). *Perspectives and Practices of Education for Sustainable Development*.
- World Bank. (2022). *Pakistan Education Sector Program: Partnership with Oxford Pakistan Program*. Islamabad: World Bank Group.
- World Health Organization. (2019). *Trends in maternal mortality 2000–2017: Estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division*. Geneva: WHO.
- Yangambi, M. (2023). Impact of school infrastructures on students' learning and performance: Case of three public schools in a developing country. *Creative Education*, 14, 788–809. <https://doi.org/10.4236/ce.2023.144052>