

## AZAD JAMMU AND KASHMIR OUTSTRIPS IN GENDER PARITY IN PRIMARY SCHOOL LEVEL: AN EVIDENCE FROM MICS DATA

Dr. Syed Ghulam Haider Kazmi<sup>1</sup>, M. Tayyab Ilyas<sup>\*2</sup>, Zahid Rahim<sup>3</sup>, Dr. Navid Feroz<sup>3</sup>,

<sup>1</sup>Ex Chief Economist & Development Specialist, P&DD

<sup>\*2</sup>Chief Statistical Officer, AJ&K Bureau of Statistics (AJ&KBoS),

<sup>3</sup>System Analyst, AJ&KBoS, and <sup>4</sup>Planning Officer, P&DD Muzaffarabad

Corresponding Author: [dr.haiderkazmi@gmail.com](mailto:dr.haiderkazmi@gmail.com)

Received: 10 August 2023

Revised: 15 September 2023

Accepted: 25 September 2023

Published: 31 October 2023

### ABSTRACT

Azad Jammu & Kashmir (AJ&K) is a state spread over 13,297 square kilometers with 4.02 million population witnessing notable progress in the education sectors with dividends in gender parity attaining 1.00 Gender Parity Index (GPI) at the primary school level. It achieved a precise gender balance in the net attendant ratio at all levels - state, division, district, urban, and rural. However, there is a lack of any empirical evidence on these vital achievements of AJ&K. Hence this is the first-ever study specifically designed to bridge the prevailing gap in the development literature. It examines the GP in primary school net attendance ratio along with middle and secondary levels in AJ&K. Examining the secondary data from MICS AJ&K 2008 and 2021, it investigates the prevalence of gender parity at the primary level along with the realization of the SDGs targets in AJ&K. The study also solicits the contributing factors enabling AJ&K only to get the stipulated GP score within Pakistan and its region despite suffering from several manmade and natural disasters. It also examines AJ&K's efforts in attaining Gender Parity in quality education. The study uses Secondary data (MICS AJ&K) for carrying out the analysis benefiting from SPSS-26 and MS Excel. The graphical tools are deployed to exhibit gender parity/disparity and examine targets like MDGs and SDGs. In particular, the gender parity/disparity in net attendance ratio at different educational levels has been evaluated concerning AJ&K, divisions, and districts along with urban and rural areas. The study observed that education, particularly, gender parity despite being an important indicator of social standing and education performance remained ignored in AJ&K for many decades. However, the GP Index at the primary school level improved gradually from 0.97 in 2008 (MICS 2007-08) to GPI "1.00" at the state, division, district, and urban-rural levels in 2021 (MICS AJ&K 2002-21). It also observes gender parity in reading English (GPI 0.984) and Urdu (GPI 1.00) along with numerical skill (GPI 0.985). The study witnesses a persistent gender gap harming girls having illiterate mothers or living in poor households. The analysis also finds a gender gap harming boys and girls at the middle and secondary levels respectively. AJ&K also obtained gender parity in quality education in reading (English and Urdu) comprehension and numerical skills. The study also identifies government commitment, community zest, number of girls' schools and female teachers, mother income, and family opulence as instrumental for enhancing GP score in the AJ&K. Furthermore this study reveals that financial paucity, fragile education system, and weak institutional capacity do not matter if state commitment and community support are readily available. The study further informs that AJ&K needs extra efforts for sustaining GPI "1" and bridging the gender gap disadvantaging girls having illiterate mothers and living in poor households. It also underlines the importance of improving the overall education environment in AJ&K to sustain GP along with quality education at the primary school level and enhance GP further at the middle and secondary levels of education.

**Keywords:** Primary school education, Gender parity, Primary school enrolment, Net Attendant Ratio, Gender Parity Index, Disparities, Quality Education, Mother Education and Wealth Quintile, Urban and Rural Areas, Division and District

## INTRODUCTION

Education is key to economic growth and instrumental for human capital formation and socio-economic development. It helps ameliorate the contours of individual and family profiles in developed and developing countries (Kazmi, 1995; Rahman and Others, 2009; Shabbir and Wei, 2014 & 2015; PAGE, 2021). Generally, education remained an ignored area before the 1970s presuming it to be passive in return on investment in it. It was believed that social sectors like education and health would benefit from the trickledown effect of investment in Physical Capital. However, the failure of trickledown postulation led to a shift in emphasis on investing in Human Resource Development (HRD), widely perceived as a vehicle of economic growth while education and health are very common instruments for HRD (Johnston, 2004; Rahman and others, 2009). Education, particularly basic/primary education brings success to a nation towards economic opulence and well-being by increasing individual productivity and lowering dependency on social resources (Farooq and Kai, 2016). Being a vital input for HRD, gender parity elevates women's status, suppresses gender disparity, and permits females to their greater roles in developed & developing countries and areas like Azad Jammu and Kashmir -AJ&K (Carrin, 1984; Hicks 1989; Kazmi 1995 & 2010; Johnston, 2004; Rahman and Uddin, 2009). Among the alternative methods<sup>1</sup> Gender Parity<sup>2</sup> (GP) at the primary school level is a widely used indicator for measuring and comparing education working worldwide. It refers to gender equality not only as a fundamental human right and a key input for economic prosperity but also “crucial for the development of just and equitable society” (Khan, 2023). It is also an indicator of gender equality related to Sustainable Development Goals<sup>3</sup>-4.5.1 earmarked for ensuring inclusive and equitable quality education and promoting lifelong learning

openings for all (World Bank 2012 & 2018; WHO, 2023). GP is gauged through the Gender Parity Index (GPI) widely calculated by dividing the female value of an index by the male value. It is the “ratio of female to male values of a given indicator” (UNESCO, 2010 & 2022). When both values stay the same, the GPI value becomes 1.00 referring to the prevalence of Gender parity and evenness in to male-female attendant ratio at the primary school level as well as the absence of any gender bias or discrimination. With a small variation in its values, gender parity is commonly presumed to get the GP Index between 0.97 and 1.03 while any departure from it means the prevalence of disparities either disadvantaging girls or harming boys (UNESCO, 2010 & 2022; WEF, 2021; PAGE 2021). GPI below 0.97 indicates the presence of disparity favoring males but a disadvantage for the girls while GPI >1.03 disfavors boys instead which may intensify the number of out-of-school boys having implications for growing child labor, child abuse, or child trafficking (Guarcello and other, 2014; WEF, 2021; PAGE 2021).

Critically low female participation was evident in every area of the AJ&K economy but the education sector was the prime victim due to an inherited weak education system at the time of its liberation in 1947 with only 4 girl's primary schools in the state. Some critical bottlenecks<sup>4</sup> restricted the Government of AJ&K (GoAJ&K) from achieving GP score that could help in redressing disparities disadvantaging females in the State. However, the start of the formal development process in the early 1970s backed by the Will and Commitment of the then governments and the support of the wakeful community helped in altering this unusual situation denoting gender bias in AJ&K (GoAJ&K, 1977; Farooq and Kai, 2016)). Generally, the state of AJ&K in Pakistan is claimed as a better performer in terms of education indicators

---

<sup>1</sup> That is literacy, enrolment, retention, student teacher ratio, access, gender parity (GP) at primary school level, etc.

<sup>2</sup> Hereafter, the term Gender Parity or GP is taken as Gender parity in students enrolment/attendant ratio at Primary school level

<sup>3</sup> The United Nations' 17 Sustainable Development Goals (SDGs) aim to achieve decent lives for all on a healthy planet by 2030

<sup>4</sup> Including weak financial standing, low budgetary share for primary education, lacking institutional capacity, weak infrastructure etc.

including gender parity but without any substantial empirical evidence. The research work on GP in AJ&K, to the best of our knowledge, is non-existent. Therefore, the objective of this first-ever research effort is to bridge the prevailing gender gap in the literature in the context of GP in AJ&K. While proceeding on it, this study investigates AJ&K's standing in GP at State, Division, and District levels as well as in urban and rural areas. It also explores the GP Index (GPI) associated with the mother's education and family financial status. This study, therefore, proceeds with the following sequence: the statement of purpose and objectives are part of this Section, while the literature review of previous work on GP in Pakistan and AJ&K is given in Section 2. Section 3 deals with data collection and research methodology, while Section 4 contains the analysis of the data on AJ&K's working in GP about the state, areas, divisions, and districts as well as concerning mother education and family economic standing. The last section offers findings of this unique effort along with conclusions.

### Statement of Purpose

AJ&K, with its inherited weak education system, has faced significant challenges in achieving education targets, including gender parity. These challenges have been further compounded by financial hardship as well as natural disasters and man-made catastrophes<sup>5</sup>, which have hindered AJ&K's progress in education including gender parity at the primary school level. Some concentrated efforts initiated in the early 1970s helped improve education indicators, including gender parity (Farooq and Kai, 2016; PAGE, 2021). However the claim of AJ&K's better performance in gender parity, there is a lack of research to substantiate it. This study, therefore, aims at ascertaining AJ&K's performance in achieving gender parity corresponding to SDGs-4.5.1 with a particular focus on gender parity in primary school net attendance ratio/enrollment. It also identifies factors contributing to AJ&K's education sector working even under critical bottlenecks.

### Objective of the Study

- Examine the Education sector working in Gender Parity at state, area (urban and rural) divisional, and district levels in AJ&K at the primary school education level in the net attendant ratio.
- Evaluate the Education sector's performance in ensuring Gender parity in quality education
- Examine the role of mother education and family economic standing in fixing GPI in AJ&K.
- Evaluate the progress of AJ&K in gender parity about national and international commitments including SDGs - 4.5.1
- Enlist potential factors enabling AJ&K to perform better in GP at primary school

### LITERATURE REVIEW

The so-called trickle-down postulation underscores the significance of education in accelerating economic development and improving socio-economic status but its failure led to the proponents of human capital development and supporters of basic needs strategy emphasizing the importance of educational interventions for economic prosperity and individual well-being. Investment in human capital is taken as economic growth wherein knowledge acquisition plays a vital role in societal advancement, directly driving many countries towards economic development and thus enhancing the lives of their people (Carrin, 1984; Hicks, 1989; Kazmi, 2005; Rahman and Uddin, 2009).

Singh (2018) emphasizes the role of education, particularly literacy and gender parity in primary school enrollment, as a means to achieve a happy, successful, and peaceful life. Lack of education hinders individuals from fulfilling their life aspirations. Consequently, both developed and developing countries have increased their investment in social sectors, with education receiving significant attention for establishing prosperous, peaceful, and harmonious societies (Kazmi, 1997; Johnson, 2005). There are a couple of education indicators while GP in primary school net enrollment/attendant is very common among these. It serves as a widely used measure to assess educational performance and make regional and historical comparisons within countries

<sup>5</sup> The Earthquake 2005, frequent floods and persistent cross boarder firing on line of control (LOC) since 1947.

or worldwide (Farooq and Kia, 2016; WEF, 2021; Iqbal, 2021). Consequently, the developed countries allocate more financial resources to education, leading to higher education standards in terms of GP and other indices. However, developing countries due to limited financial resources and weak institutional capacity face challenges in education implying to illiteracy and gender disparities there (Kazmi, 2010; Farooq and Kia, 2016). Nevertheless, some developing countries like Sri Lanka, Maldives, and Karalla in India, Cuba, Somalia, and Vietnam are managing better GP and other education indices even with weak fiscal status and several other deterrents, mainly due to strong government commitment and community support (Rahman and Uddin, 2009; WEF, 2021; and Iqbal, 2021). In Pakistan the education sector remains neglected, receiving less than 3% of the GDP despite a 7% commitment to achieving MDGs 3.1 in education (Farooq and Kia, 2016). It ranks 160<sup>th</sup> in literacy worldwide (UNESCO, 2010) and 144<sup>th</sup> out of 159 countries in the World Economic Forum (WEF) Report 2021. GP in primary school enrolment/net attendant ratio is also a disregarded area in Pakistan and Azad Jammu and Kashmir as persisting gender disparities have been disadvantaging girls since the country's independence in 1947 (GoPAK 2010; Farooq and Kia, 2016; and Iqbal, 2021).

UNICEF (2020), reports that most countries attain GP in primary school enrollment but gender disparities persist in several South Asian, African, and Middle Eastern countries. Pakistan has a GPI of 0.84 indicating gender disparities disadvantaging girls and necessitating efforts to enroll 16% more girls in schools. The WEF's Global Gender Gap Report 2021 ranks Pakistan at the 153<sup>rd</sup> position out of 156 countries, with a slight improvement from 2006 but still the worst in terms of gender parity. Nasir Iqbal (2021) highlights Pakistan's weak performance in addressing gender gaps, ranking seventh out of eight South Asian countries. He asserts that it would take Pakistan several decades (136 years) to overcome the gender gap. The WEF's Global Gender Gap Report 2022 further reinforces the risk of gender parity backsliding globally and identifies Pakistan as the second-worst country in terms of gender parity (145<sup>th</sup> out of 146 countries). The focus of the above-cited research studies remains

in Pakistan ignoring AJ&K's working in GP at the primary school level.

The education sector in AJ&K though operates under Pakistan's education policies and follows the federal and Punjab education systems but faces significant challenges due to its weak economic position and inherited fragile education system since independence. It was in the early 1970s, when investment initiatives were undertaken to address the gender gap at all levels in AJ&K education (GoPAK, 1970 and 1971). The research studies however, focused on AJ&K's education system, primarily revolving around reporting or comparing literacy rates and areas like teaching job-related stress and job satisfaction among public and private school teachers ignoring GP (Shabbir and Wei, 2014 & 2015b; Farooq and Kai, 2016; ASER, 2020; Alif Ailaan, (2015). The empirical research to obtain evidence on AJ&K's performance in terms of GP has not been conducted so far. Some national and international surveys provide data on education indicators including the GP but without in-depth analysis. However, it is generally believed that AJ&K performs better than Pakistan and its provinces/areas in terms of education indicators (Farooq and Kai, 2016; Shabbier and Wei, 2014 & 2015; PAGE, 2021; and Tahir, 2016). Nevertheless, this sort of claim lacks substantial evidence based on rigorous empirical research. The Multiple Cluster Indicator Survey AJ&K 2007-08 provides a gender parity index account of net enrollment for primary and middle schools, indicating a GPI of 0.97 and 1.10, respectively. The GPI at the primary level falls within the range of 0.97 to 1.03 (UNESCO, 2010 and 2022; Swenson, 2017), indicating no gender discrimination, but at the middle level, there are disparities favoring girls and disadvantaging boys in AJ&K. The data also reveals district-wise variances in AJ&K with Mirpur district leading with a GPI of 1.05, disadvantaging boys, while Neelum district is the least performer with a GPI of 0.82, harming girls instead. In terms of wealth quantiles, a GPI of 0.85 indicates girls' deprivation in poor households, and a GPI of 0.89 for girls whose mothers have primary education also shows gender disparities stinging them. However, there are ample disparities in primary school net attending rate based on the educational background of girls' mothers in AJ&K. Girls whose mothers are illiterate or have only



secondary education experience gender parity, with a GPI of 0.98 and 1.00, respectively. On the other hand, girls whose mothers have primary-level education face gender disparities, with a GPI of 0.89 in 2008. In particular, the situation of girls from the poorest wealth quintile households is highly vulnerable, where gender disparity is harming girls at the primary level of education.

Moving on to the middle level, gender parity exists for students whose mothers have secondary-level education. However, gender disparities persist for girls whose mothers have no or only primary education, with a GPI of 0.89 and 0.36, respectively, indicating a stark reality that against every 100 boys, only 89 and 36 girls are joining the secondary school education. On the other hand, gender disparities disadvantage boys at the middle level whose mothers have no education or only primary education, with GPI values of 1.07 and 1.29, respectively. Furthermore, disparities persist based on wealth quintiles as boys from middle, fourth, and richest wealth quintile households face gender disadvantages. Similarly, girls from the poorest and second-wealth quintile households also suffer from gender disparities. Gender bias disadvantaging girls also prevails at the secondary school level, irrespective of the educational background of girls' mothers or their family's socioeconomic standing. This implies that girls are facing obstacles in accessing education at this stage, regardless of their circumstances. Overall, these findings highlight the urgent need for targeted interventions to address gender disparities in education, particularly for girls from disadvantaged backgrounds or having mothers with limited education. Efforts should be made to ensure equal educational opportunities for all, regardless of gender, socioeconomic status, or parental education level.

Farooq and Kia's (2016) study suggests that Pakistan's education system is fragile and has failed to achieve targets under national and international commitments. Discussing the education system in AJ&K, the study mentioned that AJ&K's education system follows Pakistan's policies and is structured in line with the federal and Punjab education systems. Despite receiving a significant portion of the development budget (approximately 9%) and recurring budget (28%), it remains passive in providing a conducive teaching and learning

environment. The study cites statistics stating that 41% of schools in AJ&K lack buildings, 87% lack electricity, 73% lack drinking water, and 82% lack boundary walls, which has implications for the proper functioning of the education system. However, AJ&K is still performing better in terms of education indicators compared to Pakistan and other provinces/areas, leading in literacy and net enrollment ratio (NER). It also surpasses these in gender parity at the primary school level with a GPI of 1.00. They refer to a joint report by the Sustainable Development Policy Institute (SDPI) and Alif Ailaan (2015), stating that AJ&K's districts rank higher in the Pakistan District Education Ranking. Using data from the Academy of Education Planning and Management (AEPAM, 2013 & 2014), they compare female and male enrollment ratios in AJ&K indicating a GPI score of 0.95, which to them is close to the given standard for GPI (0.97 to 1.03) thus refers prevalence of gender parity in AJ&K. The study also observes district-level variations wherein Muzaffarabad district is leading with a GPI of 1.17 and Neelum district at the bottom, indicating gender parity in favor of females in Muzaffarabad district but disfavoring them in Neelum district. They conclude that despite numerous challenges, AJ&K performs better than Pakistan and provinces/areas in education indicators including gender parity.

The Annual Status of Education Report (ASER) Pakistan (2020) also provides data on education in AJ&K, exploring gender gaps in quality education in rural areas by assessing students' reading comprehension skills in Urdu and English and numeracy skills at the primary level. The study shows no significant difference in Urdu reading skills but a slight advantage (1 percentage point) favoring boys in English reading and numeracy skills. The Pakistan Alliance for Girls Education (PAGE) study, "Status of Girls Education in AJ&K & GB," conducted in November 2021 provides district-wise data on education indicators in AJ&K and Gilgit Baltistan (GB). It reveals that limited budgetary allocations for education are affecting the education sector, with primary school enrollment rates at 98% for boys and 89% for girls.

The literature review provides some insights into AJ&K's efforts towards gender parity in the education sector, with GPI values ranging from 0.90 to 0.97 (MICS AJ&K 2008, PSLM 2014, Farooq and

Kia, 2016). However, no study has provided a detailed analysis of AJ&K's better performance, compared to Pakistan, in the education sector within the same policy framework. It also lacks a comprehensive account of the GP at the divisional and district levels and in urban and rural areas. Additionally, there is a lack of identification of stimulating factors such as mother's education and economic standing that contribute to achieving better GPI in AJ&K. This study aims to bridge this gap by using MICS AJ&K 2021-22 data to compare AJ&K's progress towards GP at the state, divisional, and district levels as well as in urban and rural areas. It also explores the role of the mother's education and the family's economic standing in determining GPI in AJ&K. The study also enlists some other influential factors in achieving GP in primary school enrollment/attending rate and determining quality education in rural areas, despite the economic challenges and critical bottlenecks faced.

**METHODOLOGY**

This first-ever research work attempts to explore AJ&K's working towards GP in primary school attendant ratio and potential factors contributing to removing gender disparity in AJ&K. For analysis purposes, this research study benefits from secondary data accessed from State's Planning and Development Department and "AJ&K At Glance" and AJ&K Statistical Year Book; UNICEF AJ&K Multiple Cluster Indicator Surveys (MICS) AJ&K 2008 & 2020-021; Pakistan Alliance for Girls Education - PAGE 2021; and World Economic Forum (WEF) 2021 & 2022.

**4. ANALYSIS**

Despite the weak economic position and numerous natural disasters, the state of Azad Jammu and Kashmir has remained determined to improve the social standing of its people, particularly in the fragile education sector. Over the past five decades, successive regimes have focused on enhancing AJ&K's education indicators, including gender parity in primary, middle, and secondary school enrollment/attendance ratios. Table 1 is compiled from the most recent MICS AJ&K 2020-21 data. It demonstrates AJ&K's success in eliminating gender disparities disadvantaging girls in the state since independence (1947) when the neglected female

education sector got only 4 girls' schools in the newly emerging state (GoAJ&K, 1977).

The analysis of the data in Table 1 not only demonstrates AJ&K's achievement of gender parity in primary school enrollment but also highlights the concerted efforts made by it despite its weak economic standing and fragile education environment (ASER, 2020; Farooq and Kai, 2016; Alif Ailaan, 2015).

Education Level	Primary		Middle		Secondary	
GP Index	2008	2002-21	2008	2002-21	2008	2002-21
	0.97	1	1.1	1.05	0.77	0.95

**Source:** Multiple Indicator Cluster Survey (MICS) AJ&K 2008 & 2020-21'

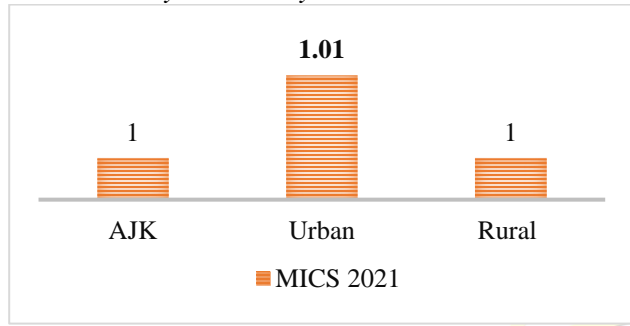
The data in Table 1 shows that AJ&K witnesses precise gender parity in 2021 in primary school education at the state level having a GPI of 1.00 with an instant gain of 0.03 points since 2008 with a GPI of 0.98 (AJ&K MICS - 2008 & 2020-21). While disparities disadvantaging boys persist at the middle school level with a GPI of 1.05 in 2021. There has been a declining trend with a 0.05-point drop in GPI from 1.10 in 2008. At the secondary level, although there has been a significant improvement in GPI, disparities still disadvantage girls with a GPI of 0.95 in AJ&K, which Farooq and Kai (2016) consider as gender parity. The data analysis also shows a significant gain in GPI in 2021 endorsing the proactive efforts of the Government of AJ&K in minimizing any gender gap in student NAR at middle and secondary levels although some discrepancies in gender parity at these levels still persist, albeit to a very small extent. The analysis further indicates that AJ&K is proactively spearheading adequate efforts to achieve gender parity and attain Target 4.5.1 of the Sustainable Development Goals (SDG5) at the primary school level. It is also successfully addressing gender disparities disadvantaging boys at the middle level and girls at the secondary level.

**Urban-Rural Gender Parity in AJ&K**

The segregated urban and rural gender parity at the primary school level has significantly increased, with a notable gain in 2021 (AJ&K MICS 2020-21). The data in Table 2 suggest that the Gender Parity index has improved and reached the desired level in both

the state and urban-rural areas, with a precise GPI of 1.00 for AJ&K and rural areas, and a GPI of 1.01 for urban areas. This indicates AJ&K's departure from gender discrimination against any segment of students living in the state, including urban and rural areas, particularly for girls at the primary level as reflected in Figures 1 and 2. It endorsed AJ&K's successful effort to fulfill the national commitments in terms of gender parity at the primary level including Millennium Development Goals - MDGs and Sustainable Development Goals – SDGs 5 in Pakistan as shown in Figure 1.

**Figure 1:**  
 Gender Parity at Primary Level in AJ&K



At the middle school level, the analysis of the data in Table 2 further reveals that GP prevails in rural areas with a GPI of 1.03, while disparities are still disadvantaging boys with a GPI of 1.14 in urban dwellings. At the secondary school level, gender parity prevails in urban areas with a GPI of 1.03 whereas gender discrimination hurting girls persists in rural areas (GPI 0.85) and may need substantial efforts to bring 15% left over rural girls in school.

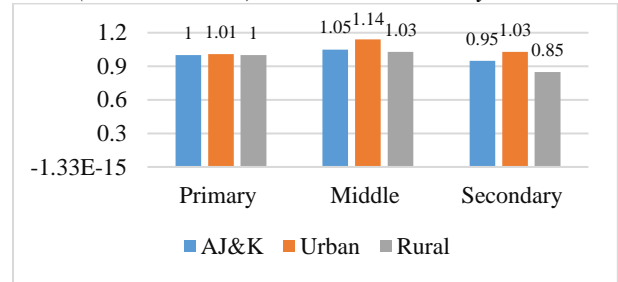
**Table 2: Areas-wise Comparison of GPI in AJ&K**

Area/ Level		AJ&K MICS 2008			AJ&K MICS 2020-21		
		Primary	Middle	Secondary	Primary	Middle	Secondary
Area	AJ&K	0.97	1.10	0.77	1.0	1.05	0.95
	Urban	1.05	1.22	0.69	1.01	1.14	1.03
	Rural	0.96	1.06	0.78	1.00	1.03	0.85
Division	Muzaffarabad	-	-	-	1.00	1.13	0.72
	Poonch	-	-	-	0.99	0.98	0.98
	Mirpur	-	-	-	1.01	1.06	1.06
District	Neelum	0.82	0.86	0.63	0.91	0.76	0.75
	Muzaffarabad	1.03	1.27	0.80	1.03	1.23	0.73
	Jhelum Valley	-	-	-	0.98	1.07	0.73
	Bagh	0.87	0.97	0.55	1.01	1.04	0.94
	Haveli	-	-	-	0.93	0.71	0.78
	Poonch	1.03	0.81	0.51	1.00	0.92	1.13
	Sudhnoti	0.99	1.19	0.71	0.99	1.10	0.84
	Kotli	0.93	1.22	1.1	1.03	0.97	0.93
	Mirpur	1.05	1.44	0.53	0.99	1.09	1.05
	Bhimber	0.99	1.20	1.07	0.98	1.17	1.21

Sources: UNICEF (2008 ), "MICS 2008"; and UNICEF & GoAJ&K (2022), "AJ&K MICS 2020-21"

Table 2 serves as a visual representation of AJ&K's efforts in achieving GP within the state not only at the primary level but also at middle and secondary levels, though the degree of success is smaller there than primary school level.

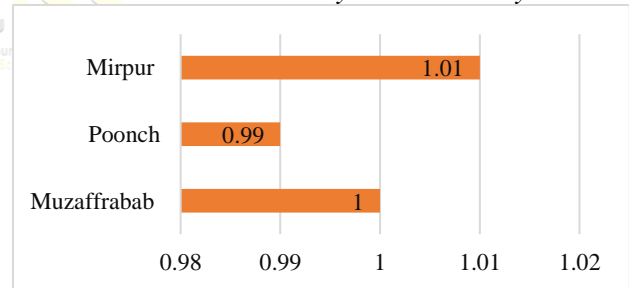
**Figure 2:**  
 Area (Urban, Rural) wise Gender Parity in AJ&K



**Divisional Level Gender Parity in AJ&K**

The divisional level data demonstrate that AJ&K has made significant progress in achieving gender parity, as all three divisions are witnessing gender parity with a slight variation between 0.99 and 1.01, as shown in Fig. 3.

**Fig. 3:**  
 Division-wise Gender Parity at the Primary level



Looking at the disaggregated data in Table 2, the Muzaffarabad division has successfully attained a GPI of exactly 1.00 at the primary school level. Similarly, the other two divisions, Mirpur and Poonch, have GPIs of 1.01 and 0.99 respectively, which also indicate gender parity, albeit with a slight departure of 0.01 point each. Importantly, these scores fall within the accepted standard range of GPI 0.97-1.03 (UNESCO, 2002). This not only signifies the absence of gender disparities at the divisional level in AJ&K but also validates the efforts of the Government of AJ&K in eliminating the gender gap in primary school-level education. These findings are consistent with previous research highlighting

AJ&K's success in achieving gender parity and meeting the MDGs' targets successfully (MICS AJ&K, 2008; Farooq and Kia, 2016).

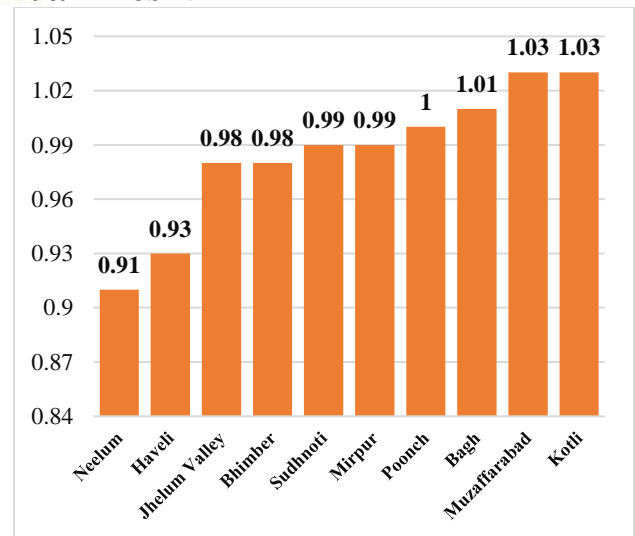
However, at the middle school level as given in Table 2, only the Poonch division maintains gender parity with a GPI of 0.98. On the other hand, the Mirpur and Muzaffarabad divisions exhibit gender disparities, disadvantageous to boys, with GPIs of 1.06 and 1.13 respectively. The extent of discrimination against boys in middle school is greater in the Muzaffarabad division. At secondary school level education in the net attendant ratio, the Poonch division once again demonstrates gender parity with a GPI of 0.98 while the Mirpur division experiences gender disparities, disadvantaging boys, with a GPI of 1.06. This suggests that girls outnumber boys in secondary school NAR in the Mirpur division. In contrast, the Muzaffarabad division has the highest degree of gender disparity hitting girls, with a GPI of 0.72 at the secondary school level. Alarming, the analysis reveals that 28% of girls in this division are still not attending secondary-level education, highlighting the urgent need for focused efforts to address this huge gender gap. Nevertheless, the divisional level data in AJ&K demonstrate commendable progress in achieving gender parity, particularly at the primary school level. Still, challenges remain at the middle and secondary school levels, especially in the Mirpur and Muzaffarabad divisions, where gender disparities persist disadvantaging boys both at the middle level while boys in Mirpur and girls in the latter at the secondary level.

**District-Level Gender Parity in AJ&K:**

The district profile of AJ&K, as shown in Figure 4, highlights the progress in achieving gender parity at the primary school level in 8 out of 10 districts. The GPI for these districts ranges from 0.98 to 1.03, indicating the absence of gender bias at the district level, with a few exceptions as Neelum and Haveli districts are performing the least in addressing gender bias with GPIs of 0.91 and 0.93, respectively. These districts exhibit gender discrimination harming girls as 9% and 7% of girls are not attending primary school education in turn in Neelum and Haveli district. However, all 10 districts have made notable progress in addressing gender disparities at the primary school level, with district Bagh showing the most improvement with a GPI gain of 0.14.

Notably, Neelum district has also observed an improvement in GPI with a gain of 0.09 as per MICS AJ&K 2021 data. At the middle school level, only Kotli district achieves gender parity with a GPI of 0.97. District Bagh, with a GPI of 1.04, is also close to the given range (0.97-1.03), demonstrating gender parity with a slight deviation of 0.01 percentage points, which according to Farooq and Kai (2016) refers to gender parity as well. The gender disparities persist at the middle level in Neelum, Haveli, and Poonch districts, with GPIs of 0.76, 0.71, and 0.92 respectively. These results indicate that 24% of girls in Neelum, 29% in Haveli, and 8% in Poonch are not attending middle-level education. In contrast, the remaining 5 districts exhibit gender disparities that disadvantage boys, with the GPI ranging from 1.07 to 1.23. The data also reveal that Muzaffarabad district leads with a GP score of 1.23, followed by Bhimber (1.17), Sudhnoti (1.10), Mirpur (1.09), and Jhelum Valley (1.07). These results reveal the suffering of boys instead as 123 girls enrolled for every 100 boys in middle schools in the Muzaffarabad district with a similar pattern in other districts, which may imply child labor in the area.

**Fig. 4:** District-wise Gender Parity at Primary level in AJ&K MICS 2021



At the secondary school level, none of the 10 districts achieved a gender parity index (0.97-1.03). Only the Mirpur district obtains a GPI of 1.05, indicating close to precise gender parity (0.97-1.03) but shows the existence of slight gender bias hurting boys. Similarly, Bhimber and Poonch districts have GPIs



of 1.21 and 1.13 respectively, indicating persistent disparities disadvantaging boys to a greater extent with implications for child labor. In the remaining 7 districts, girls are suffering from gender discrimination to varying extents. Among these districts, Neelum has a GPI of 0.75, while Muzaffarabad and Jhelum, have GPIs of 0.73 each. District Haveli, Sudhnoti, Kotli, and Bagh have GPI of, 0.78 0.84, 0.93, and 0.94, respectively. These figures indicate a significant deprivation of girls from secondary school education, as 25% of girls in Neelum and 27% in both Muzaffarabad and Jhelum while 22% in Haveli, 16% in Sudhnoti, 7% in Kotli, and 6% in Bagh are still not attending secondary-level education in AJ&K. These northern districts along with Sudhnoti are severely affected by gender disparities harming girls there. Briefly speaking, AJ&K has made progress in achieving gender parity at the primary school level in most districts but challenges remain at the middle and secondary school levels. Efforts should focus on addressing the gender disparities disadvantaging both boys and girls in various districts, ensuring equal access to education for all children in AJ&K.

**Mother Education and Gender Parity in AJ&K**

The education level of mothers plays a vital role in achieving gender parity in primary school enrollment in AJ&K (MICS AJ&K 2008 & 2020-21). The data presented in Table 3 highlights that children, whose mothers have primary and secondary level education, experience gender parity in AJ&K, with a GPI of 0.97 and 1.00, respectively. Girls at the primary school level, whose mothers are either illiterate/no education face slight disparities that disadvantage them, with a GP score of 0.5. However, this sort of slight difference is considered gender parity, as observed by Farooq and Kai (2016). On the other hand, girls whose mothers have middle and higher secondary level education exhibit a higher net attendant ratio with a slight margin, reflected in a GPI of 1.05 and 1.07, respectively, indicating the persistence of slight disparities disadvantaging boys in the primary school levels in AJ&K.

At the middle school level, only girls whose mothers have no education experience disparities that disadvantage them, with a GPI of 0.91. Among all other students having mothers with a primary to higher secondary education, boys suffer from gender

disparities to varying degrees with the highest for primary school graduated mothers. At the secondary school level, only students whose mothers have middle school-level education enjoy gender parity with a GPI of 1.03. However, disparities disadvantaging girls persist for girls whose mothers have no or only primary education (AJ&K MICS 2020-21).

**Table 3: Comparison of Mother Education and Wealth Quintile in Gender Parity AJ&K**

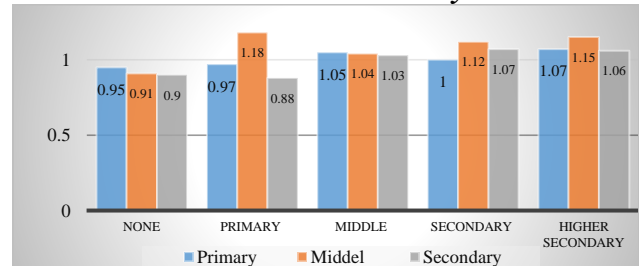
Mother Education & Wealth		MICS 2008			MICS 2021		
		Primary	Middle	Secondary	Primary	Middle	Secondary
Mother Education	None	0.98	1.07	0.83	0.95	0.91	0.90
	Primary	0.89	1.29	0.36	0.97	1.18	0.88
	Middle	-	-	-	1.05	1.04	1.03
	Secondary	1.00	0.98	0.91	1.00	1.12	1.07
	H Secondary	-	-	-	1.07	1.15	1.06
Wealth Quintile	Poorest	0.85	0.77	0.84	0.95	0.85	0.76
	Second	0.98	0.68	0.84	0.96	1.04	1.12
	Middle	0.97	1.30	0.69	1.13	1.10	1.02
	Fourth	1.05	1.18	0.78	1.02	1.05	1.01
	Richest	1.00	1.25	0.76	0.97	1.12	0.95

Source: Prepared from MICS AJ&K 2008 & 2020-2021 data

Additionally, gender disparities disadvantaging boys persist for those whose mothers have high or higher secondary level education, with GPIs of 1.07 and 1.06, respectively. Figure 5 clearly illustrates that children whose mothers hold middle-stage education have a better position in terms of primary, middle, and secondary school GP with a GPI of 1.03, 1.04, and 1.05, respectively, compared to students having mothers with other education levels. Girls with illiterate mothers are the most vulnerable segment, hurting by gender bias at all three levels of education.

**Fig. 5:**

**Mother Education and Gender Parity in AJ&K**

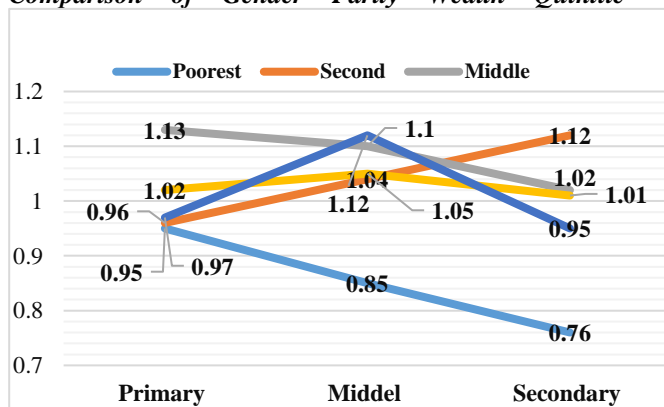


**Wealth Quintile wise Gender Parity in AJ&K**

The data in Table 3 relating to the wealth quintile and GP in AJ&K indicate that both boys and girls living

in the fourth and richest quintile households enjoy GP at the primary level having a GPI of 1.02 and 0.97, respectively. Furthermore, girls residing in the poorest and second wealth quintile households are slightly suffering from gender bias with GPI 0.95 and 0.96, respectively. The gender disparities disadvantaging boys persist with GPI 1.13 who are living in middle quintile households. In overall terms, AJ&K at the primary school level is approaching gender parity except for students who are living in fourth quintile households where the slight disparities disadvantaging boys persist yet. At the middle level, only the girls living in the poorest households are victims of disparity with a GPI of 0.85 while among the students living in the rest of the households, disparities disadvantaging boys persist with a variant extent for boys residing in the richest household with GPI 1.12 followed by boys living in middle quintile households with GPI 1.10. The boys living in second and fourth-quintile households are victims of slight gender discrimination with GPI 1.04 and 1.05. At the secondary level, there is a Gender Parity for the students living in middle and fourth-wealth quintile households with a GP of 1.02 and 1.01, respectively. However, the girls who live in the poorest as well as in the richest households are victims of gender bias with a GPI of 0.76 and 0.95, respectively.

**Fig. 6:**  
 Comparison of Gender Parity Wealth Quintile



The extent of the gender gap is wider (24%) for the girls living in the poorest households, but small (5%) for those living in the richest households indicating the vulnerability of the poorest girls suffering from disparities disadvantaging them to a greater extent. The results also show that AJ&K is managing better

standing in terms of gender parity as reflected in Table 2 and Figure 6, however; disparities harming girls yet persistent for those living in the poorest households. Additionally, the children living in the fourth quintile households are enjoying better status at all three levels with a GPI of 1.02, 1.05, and 1.01, respectively.

**Quality Education and Gender Parity in AJ&K**

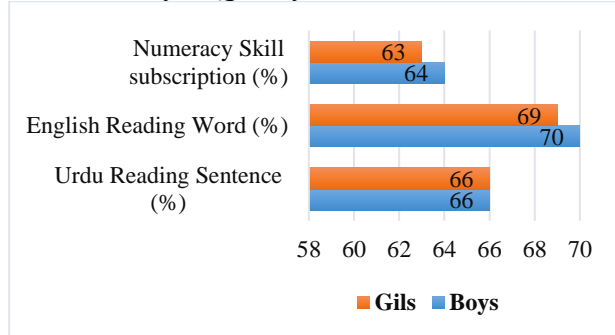
Quality education has implications for gender parity at the primary school level to offset the community, especially parent’s perceptions that school is unimportant or uninteresting (Guarcello and others, 2014). AJ&K has made significant progress in quantity but her status in quality education is still not explored. The prevalence of gender parity in quality education in rural areas of AJ&K can be understood through a reading comprehension assessment in Urdu, requiring students to read at least one sentence, and in English, requiring students to read at least one word, as well as in numeracy skills, specifically subtraction at the primary level, using data from ASER (2020). The analysis reveals that both girls and boys are achieving the same level of proficiency, with a score of 66%, indicating precise gender parity (GPI 1.00) in Urdu reading proficiency in rural areas of AJ&K. In English reading, boys slightly outperform girls by a margin of 1 percentage point, with 70% of boys and 69% of girls accomplishing the task, indicating gender balance (GPI 0.99) as well. Similarly, in numeracy skills, 64% of boys and 63% of girls complete the task, suggesting the absence of gender inequality (GPI 0.98) in AJ&K. Figure 7 provides a clear illustration of the prevailing gender balance in quality education in AJ&K.

The analysis also uncovers an astonishing fact that a significant majority of students are incompetent in several areas. More than one-third of boys (34%) and girls are unable to read a single sentence in Urdu, while 30% of boys and 31% of girls cannot even read a single word in English. Moreover, 36% of boys and 37% of girls lack basic numerical comprehension skills. This unusual situation may be due to schooling standards undermined by poor infrastructure, missing facilities, lacking faculty, female access, weak teaching-learning environment, low classroom inputs, and poor curriculum (Guarcello and others, 2014; Farooq and Kai, 2016). The widespread incompetency in these three areas highlights the challenges faced in delivering quality education in

AJ&K and calls for attention from policy designers, planners, and other stakeholders for instant action.

**Fig. 7:**

**Gender Parity in Quality Education**



Briefly speaking, AJ&K is achieving GP at the primary school level, both at the state level and within its divisions and districts, with a few exceptions at the district level. GP is also observed in urban and rural areas of AJ&K. However, girls with illiterate mothers and girls living in the poorest wealth quintile households continue to be prime victims of persistent gender disparities, disadvantaging them in AJ&K. The MICS AJ&K 2020-21 data analysis results suggest that AJ&K is making concerted efforts to bridge the gender gap at the state, rural-urban, division, and district levels, as evidenced by the improvement in GPI at the primary level from 0.98 to GPI 1.00 in AJ&K (MICS AJ&K -2008 and 2020-21). Discrepancies in GPI at the middle and secondary levels have also been successfully reduced, from 1.10 to 1.05 to 0.77 to 0.95, respectively. However, the quality of education remains a leading challenge that needs policy interventions for improving the widespread poor education infrastructure to address the gender gap in enrollment at all levels in AJ&K.

**Factors Responsible for Gender Parity in AJ&K**

The education sector in Azad Jammu and Kashmir was a historically neglected area until the early 1970s when concentrated efforts were made to initiate the development process. AJ&K is facing challenges such as weak economic standing, inadequate school buildings, poor infrastructure, and lacking teaching faculty, along with a deficient teaching and learning environment. Despite an unfavorable environment and missing basic facilities - electricity, drinking water, faculty, and boundary walls - AJ&K is making progress in improving its education indicators,

including gender parity (PLMS, 2014; Farooq and Kia, 2016; PAGE, 2021). Several factors contribute to AJ&K's triumph in gender parity despite the challenging situation since 1947 including:

**Increasing the number of female schools**

The firm commitment of the government has resulted in a notable rise in the number of female institutions in AJ&K, creating broader opportunities for girls' education. Consequently, the number of female schools has grown from 4 (1.6%) in 1947 to 2,800 (47%) in total 5,973 schools at all levels in 2021. The representation of females is also significant in colleges by almost 50%, universities (20%), and training institutions 50% (GoAJ&K, 2020 & 2021).

**Deployment of Untrained Teachers**

In the early 1970s, over 1,700 untrained teachers, including middle-pass female teachers, were recruited for government primary schools in AJ&K. These teachers were provided on-the-job training through elementary schools/colleges (GoAJ&K, 1977). Presently, the female share of 30,465 total school teachers (14,473) is 48% (AOAJ&K 2021).

**Support from the community**

There is a strong argument that the community could play a pivotal part in education development (Rahman and Uddin, 2009; Guarcello & others, 2014). In AJ&K, the wakeful community has played a decisive role in promoting gender parity by providing free land or space/rooms for many thousands of primary schools (> 4094 with 1819 females) in urban and rural areas. After the devastating earthquake in 2005, many primary schools destroyed were rebuilt on donated land with the support of donors (GoAJ&K, 2020)

**Financial Provision:** Education is primarily the responsibility of the state or government and therefore, it must make every effort within its means to ensure the provision of all necessary resources, including ongoing funding (Rahman and Uddin, 2009). AJ&K despite its limited means allocates a significant budgetary portion to education, ranging from 30% to 33% of the overall budget, with almost 9% from the development outlay (Tahir, 2016; Farooq and Kai, 2016). This allocation has helped to increase the number of male and female schools in remote areas. Moreover, the females are not restricted to joining male schools, further promoting

gender parity in AJ&K (Farooq and Kia, 2016). However, a small (1.51%) share in the budget provision for the primary wing certainly implies timely achieving GPI in AJ&K. To ensure the sustainability of achieved GPI index "1", it is crucial to enhance budget provision for the primary wing in the future.

### **Enhanced Access to Education**

The denial of schooling exacerbates the issue of out-of-school children, while enhanced access to education through reduced distances contributes to their integration and aids in curbing child labor, with significant implications for gender parity (Guarcello and others, 2014). In AJ&K the access to education has improved significantly over the years. At the time of independence, there was only one school in every 45 square kilometers (km<sup>2</sup>), indicating limited access to education, especially for females having 4 primary schools only. This has been reduced on average to almost 2.6 km<sup>2</sup> in 2021, which provides girls greater access to education (GoAJ&K, 1977 & 2021).

### **Student-teacher ratio**

The student-teacher ratio has also been playing a vital role in promoting gender parity in AJ&K. It has improved from a trivial level in 1947 to 16.04 for schools, 18.11 for colleges, and 25.63 for university level in 2019 (GoAJ&K, 1997; and 2020).

### **FINDINGS**

The analysis of this research study on AJ&K's status on GP in primary school education has yielded several key findings including:

AJ&K has achieved precise gender parity (1.00) at the primary school level in the state, divisions, urban and rural areas, and in eight out of ten districts. However, at the middle level and secondary level, the gender disparity is disadvantaging girls or boys at state, division, and district levels, with a few exceptions. Moreover, all the districts have made significant progress in removing gender gaps at the primary level, except districts Neelum and Haveli, where disparities disadvantaging girls still prevail.

AJ&K has fulfilled its commitment to gender parity in primary school enrollment, surpassing Pakistan and its provinces/areas in terms of SDGs 4.5.1 target GP "1" in 2020 well before time (2030) enable AJ&K to take the lead in Provinces, while progressing successfully towards achieving gender parity at the

middle, and secondary school levels (Farooq and Kai, 2016; MICS AJK 2020-21).

Gender disparities disadvantaging girls in AJ&K are more prevalent among those having mothers with no education and those living in the poorest households. In contrast, gender parity prevails among students whose mothers have primary and above primary education and those living in all other households, except for middle-wealth quintile households where gender disparities disadvantaging boys persist.

AJ&K observes gender parity in quality education at the primary level, as evidenced by performance in reading Urdu sentences, English words, and simple subtraction. However, the failure of more than one-third of students in all three tasks highlights the need to address the inefficiencies in the education system due to capacity or lack of facilities (Shabbir and Wai, 2014; PAGE, 2020).

The growing number of educational institutions and increasing faculty may not necessarily improve the quality of education.

Widespread political interference and the absence of reward and punishment systems have implications for the quality of education in AJ&K (Shabbir and Wai 2005; Farooq and Kai 2016).

The strong commitment of the AJ&K government and proactive support from the community has been instrumental in improving education indicators. Sustaining these efforts in the future is crucial (GoAJ&K, 1977; Rahman and Uddin 2009).

A significant portion of the education budget in AJ&K is allocated to higher education with little share (< 2%) for primary schools, mostly spent on salaries and allowances and thus leaving a minor share for classroom activities to improve quality education (Farooq and Kai 2016).

Political interventions, irrational school openings, and the absence of reward and punishment further complicate the situation in terms of GP (Shabbir and Wai 2014 & 2015).

GPI exceeding 1.03 at the middle and secondary level is alarming as it could expose out-of-school boys to child labor, child abuse, or child trafficking. (Guarcello and others, 2014).

### **CONCLUSIONS**

Despite its weak status, AJ&K has achieved gender parity, highlighting the need to investigate the factors



that enable AJ&K to perform better within the prevailing education system, policies, education setup, and resource scarcity.

Weak economic position and inadequate infrastructure do not hinder gender parity at the primary school level when there is a strong commitment from the government backed by community support (Rahman and Uddin, 2009; WEF, 2021; Iqbal, 2021).

Improving the teaching and learning environment can contribute to achieving gender parity instantly (Farooq and Wai, 2016; Shabbier and Kei, 2014 and 2015).

It is crucial to identify the reasons behind the underperformance of two districts and provide additional support to bring them at par with other districts.

Proactive efforts for primary education can lead to early achievement of SDG 4.5.1 targets like in the past, but ensuring sustainability remains an issue to deal with (Farooq and Kai, 2016).

An effective strategy should focus on quality rather than mushrooming poor-quality schooling.

Introducing accountability and restricting political interventions could pay dividends in both quantity and quality education (Shabbier and Kei, 2014 and 2015).

Judicious financial allocations for Primary schools could improve the environment for better service delivery in the education sector ensuring quality education and gender parity at all levels (Farooq and Kai, 2016; Tahir, 2016)

Finally, improving the mother's education and economic profile of a family may also give dividends in getting a GP in AJ&K.

## REFERENCES

- AEPAM (2013), "Pakistan Education Statistics (2013)" National Education Management Information System NEMIS: Academy of Education Planning and Management AEPAM, Government of Pakistan.
- AEPAM (2014), "Pakistan Education Statistics 2014, National Education Management Information System NEMIS: The Academy of Education Planning and Management (AEPAM), Islamabad

Alif Ailaan Pakistan District Education Rankings Report 2015, <http://asERPakistan.org> Retrieved on January 15, 2022

ASER (2020) Annual Status of Education Report 2019 ASER-Pakistan (2020) Idara-e-Taleem-o- Aghahi (ITA) Lahore, [www.asERPakistan.org](http://www.asERPakistan.org) Retrieved on March 15, 2022

Carrin Guy (1984), "Economic evaluation of health care interventions: A review of alternative methods" Journal of Social Science & Medicine, Volume 19, Issue 10, 1984, Pages 1015-1030, [https://doi.org/10.1016/0277-9536\(84\)90304-6](https://doi.org/10.1016/0277-9536(84)90304-6) Accessed on 4 March 2021.

Express Tribune (2013) "AJ&K Leading in Education but Lacking in Quality", March 14, 2021, <https://tribune.com.pk/> Accessed on 14 March 2021

Farooq, M.S and Kai Y.T. (2016), "A critical Study of Primary Education Situation in AJ&K State", International Online Journal of Primary Education Vol.5, issue 1, p-40-50 [www.iojpe.org](http://www.iojpe.org). Accessed on July 4, 2022

GoAJ&K (1977), "Azad Kashmir Key Indicators", P&DD AJ&K, Muzaffarabad, AJ&K

GoAJ&K (1997), AJ&K At A Glance different Issue and Statistical Year Book (1997)

GoAJ&K (2008) Multiple Indicators Cluster Survey (MICS) AJ&K 2008, Key Final Report , Muzaffarabad AJ&K, P&DD GoAJ&K , 2009

GoAJ&K (2020), AJ&K At A Glance, BOS, P&DD AJ&K

GoAJ&K (2020), AJ&K At A Glance, BOS P&DD AJ&K

GoAJ&K (2022) Multiple Indicators Cluster Survey (MICS) AJ&K 2020-21, Survey Finding Report (SFR)", BoS, P&DD, Muzaffarabad AJ&K

Government of Pakistan (2010), "Economic Survey of Pakistan" Annual Report (2010-11)", Islamabad <http://www.fincnce.gov.pk/srvey-1011.html>, Retrieved on Jun 15, 2022

Govt. of Pakistan, (1970) "Office Memorandum on Development of AJ&K", Cabinet Secretariat (Cabinet Division) Islamabad, 20<sup>th</sup> June 1970

- Govt. of Pakistan, (1971) "D. D. No. 8/9/70", Cabinet Division GoPAK" Islamabad, 11<sup>th</sup> May 1971
- Guarcello I., Lyon S., and Rosati F. (2014); "Child Labor and Out of School Children: Evidence from 25 Developing Countries", All in School: Out-of-School Children Initiative. UNICEF & UNESCO Institute for Statistics 2014 <https://www.allinschool.org> Retrieved on 12-01-2022
- Hicks John (1989), "The Assumption of Constant Returns to Scale," Cambridge Journal of Economics, Oxford University Press, vol. 13(1), p 9-17
- Iqbal Nasir (2021), "The Gender Gap", The Pakistan News, April 12, 2021, Accessed on January 30<sup>th</sup>, 2022
- Kazmi SGH (1995), "Foreign Aid and Health in Pakistan", Unpublished Ph.D. Thesis University of Bradford UK
- Kazmi SGH (1997) "Foreign aid as a determinant of social sector expenditure in Pakistan" Paper presented in Business Leadership Seminar "Setting Agenda for Change" July 29-30, 1997, ILM Lahore.
- Kazmi SGH (2005), "Foreign Aid as Determinant of Health Expenditure in Pakistan" Paper in International Conference in LUMs Lahore 2005
- Kazmi SGH (2009), "Role of Kind of Foreign Aid (Kinds) in Determining Health Status in Developing Countries: A case Study of Pakistan" 5th International Conference of Mahdism Doctrine 5-6 August 2009 THE-RAN, Iran
- Kazmi SGH (2010); "Structure Loan are determinant for Health Expenditure in Pakistan: An Evidence from Time Series data, Kashmir Development Review 2010, General of Kashmir Studies University of Azad Jammu and Kashmir Muzaffarabad Azad Kashmir
- Khan, Ghazala Murad (2017), "Literacy and Pakistan" October 17, 2107 Newspaper – Down Com,
- Khan, Zahid Ahmed (2023), Gender Equality: Role in National Development" The Express Tribune April 19, 2023 <https://tribune.com.pk> Accessed on April 20, 2023
- Knowles, LL., Maddison, W.P., (2002) Statistical phylogeography. Mol. Ecol. II (12), 2623-2635
- PAGE (2021), Pakistan Alliance for Girls Education –PAGE (2021), "Status of Girls Education in AJ&K and GB", PAGE Report November 2021
- PLSM (2014), Pakistan Social Living Standards Measurement -PSLM (2014), Pakistan Bureau of Statistics (PBS), Islamabad
- Rahman A.U. and Uddin S. (2009) Statistical analysis of different socio-economic factors affecting the education of NW FP (Pakistan), J. Appl. Quant. Methods, 4 (1) (2009), pp. 88-94
- Rashid A., Bibi Zainab & Siraj-ud din (2012) "Assessing the progress of Gender Parity in Education through achieving Millennium Development Goals: A Case Study of Quetta District Balochistan" Bulletin of Education and Research December 2012, Vol. 34, No. 2 pp.47-58
- Shabbir, Mohammad and Wei Song (2014), "Job Satisfaction Status of \Public and Private School Teachers: A Case of Pakistan Administrative Kashmir", European Journal of Educational Sciences, 1(4) 56 -71
- Shabbir, Mohammad and Wei Song (2015)" "An Empirical Research on Teaching Job Related Stress A Case of Azad Kashmir Public School Teachers", Science Int. (Lahore) 27(2) 1528-1532 January 2015
- Singh, Sanajan (2018) "Illiteracy – Essay, Speech, Article, Paragraph [The Social Issue]", <http://www.myeducorner.com/illiteracy-essay-speech-article-paragraph/> Retrieved on January 15, 2022
- State Reconstruction and Rehabilitation Authority – SERRA (2021), Annual Work Plan 2021-22, Muzaffarabad Azad Kashmir
- Swenson, Haley (2017), "What Is 'Gender Parity'?" New America. <https://www.newamerica.org/weekly/what-gender-parity/> Retrieved 07-01-2021
- Tahir. P (2017), "Education Spending in AJ&K" Published in The Express Tribune, July 28, 2017
- The Daily Time (2022) Staff Reporter, July 22, 2022

- UNESCO (2005). Education For All (EFA) Global Monitoring Report. UNESCO, Paris.
- UNESCO (2010) “Gender Parity in Primary and Secondary Education” UNESCO Institute of Statistic (UIS) Fact Sheet, September 2010, No. 4  
<https://uis.unesco.org/sites/default/files/documents/fs4-gender-parity-in-primary-and-secondary-education-en.pdf> Retrieved on December 8, 2022
- UNESCO (2022), Gender Parity Index (GPI), UNESCO’s International Institute for Education Planning (IIEP) Learning Portal, <https://learningportal.iiep.unesco.org/en/global/gender-parity-index-gpi> Retrieved on June 10, 2022
- UNICEF (2008), “Multiple Indicators Cluster Survey (MICS) AJ&K 2007-8, Key Finding Report (KFR)”, UNICEF Islamabad
- UNICEF (2020); “Gender and Education” UNICEF DATA. Monitoring the situation of Children and Women, February 2020  
<https://data.unicef.org/resources/dataset/gender> Retrieved on January 12, 2022
- World Bank (2012). Gender Equity and Development. World Development Reports. Washington D, C. Wright, S. P., Horn, S. P  
<https://documents.worldbank.org/en/publication/documents-reports/documentdetail/492221468136792185/main-report> Retrieved January 25, 2022
- World Bank (2018), “Data Bank: World development indicators”. World Bank; 2018  
<http://databank.worldbank.org/data/home.aspx> Retrieved on July 17, 2022
- World Economic Forum –WEF (2021), “Global Gender Gap Report 2021”, Insight Report March 2021  
<http://reports.weforum.org/global-gender-gap-report-2021/datexplorer> Retrieved on March 31, 2022
- World Economic Forum –WEF (2022), “Global Gender Gap Report 2021”, Insight Report July 2022  
<http://reports.weforum.org/global-gender-gap-report-2022/datexplorer> Retrieved on July 7 2022
- World Health Organization (2023), Gender Parity Index in primary level enrolment; WHO
- 2023  
<https://www.who.int/data/nutrition/nlis/info/gender-parity-index-in-primary-level-enrolment> Accessed on April 20, 2023