

Effectiveness of the Kanyashree Scholarship in Promoting Girls' Educational Retention in West Bengal

Joy Karmakar¹

Abstract

This paper assesses the effectiveness of the Kanyashree Programme, West Bengal's flagship conditional cash transfer scheme, in reducing school dropout among adolescent girls during the period 2017 to 2025. Using district level data, the study evaluates programme performance across multiple dimensions, including retention, renewal, and consistency. The results indicate divergent trends. While K2 scholarships, which support continuation at higher educational levels, exhibit relatively stable or positive growth, K1 scholarships, representing entry level participation, have shown a persistent decline since 2020-21, corresponding with the COVID-19 pandemic and broader disruptions in school enrolment. Indicators of retention and renewal reveal a mixed picture of consolidation and vulnerability. Several districts demonstrate high continuation rates, whereas others continue to experience sustained dropout pressures. The temporal consistency index of 0.85 suggests overall programme stability over time. However, the sharp decline in the Retention Index to 65.46 in 2024-25 points to renewed stress within the system. Spatial consistency has improved modestly, increasing from 89.02 in 2021-22 to 91.08 in 2024-25, indicating a reduction in inter district disparities. At the same time, the coexistence of improved spatial consistency with declining overall retention highlights systemic challenges affecting districts across the state. Therefore, the paper highlights both the achievements and limitations of the Kanyashree Programme. While it has played a significant role in delaying early marriage and supporting the continuation of girls' education, its long-term sustainability remains susceptible to structural and systemic pressures.

Keywords: Retention, Renewal, Dropout, Conditional Cash Transfer

¹ Lecturer, Department of Geography, Serampore College

1 Introduction

In 2025, West Bengal experienced a substantial decline of approximately 1.7 lakh students in undergraduate admissions to state run and state aided colleges, with enrolments falling from about 5.3 lakh in 2024 to 3.6 lakh. This decline appears paradoxical in the context of the state's flagship Kanyashree programme, a conditional cash transfer scheme specifically intended to reduce educational dropout and promote female participation in higher education. The persistence of declining enrolment despite such targeted interventions raises important concerns regarding structural weaknesses within the higher education system and the inherent limitations of incentive-based policy instruments. Existing scholarship attributes this downturn partly to systemic inefficiencies, most notably the nearly three-month gap between the declaration of examination results and the commencement of the admission process, which functions as an immediate deterrent to student enrolment. At the same time, the shift reflects deeper transformations in educational preferences, as an increasing number of students are opting for vocational and skill-oriented programmes that promise faster economic returns in comparison to conventional degree courses (Ghosh, 2025). This situation raises a broader question within debates on conditional cash transfers. If financial incentives such as Kanyashree are insufficient to sustain undergraduate enrolment, does this suggest a declining relevance of conventional higher education, or does it point to a policy gap in which monetary support alone cannot compensate for administrative inefficiencies and the misalignment between academic curricula and labour market aspirations.

The Kanyashree Prakalpa, a flagship initiative of the Government of West Bengal, has emerged as one of the most prominent social protection programmes targeting adolescent girls. Launched in 2012 under the Department of Women Development and Social Welfare, the programme was conceptualized as a conditional cash transfer scheme with dual objectives of promoting female participation in secondary education and preventing early marriage. Its international recognition was reinforced in 2017, when it received the United Nations Public Service Award, positioning it as a model of gender focused welfare intervention. The programme follows a two-tier scholarship structure. The first component provides an annual scholarship to unmarried girls aged thirteen to nineteen who remain enrolled in

education, thereby encouraging school retention. The second component offers a one-time grant to unmarried girls aged eighteen to nineteen, conditional on continued enrolment, which functions both as a symbolic and practical deterrent to child marriage. The subsequent introduction of Kanyashree Plus, with its emphasis on a graduation strategy, reflects an effort to move beyond welfare dependence by linking social protection with pathways towards productive and sustainable livelihoods. By the year 2019 to 2020, more than three million scholarships across both components had been sanctioned, indicating the programme's extensive reach. While these figures demonstrate substantial coverage, a critical assessment must also address persistent challenges related to equitable access across districts, the monitoring of long-term outcomes in education and labour force participation, and the structural conditions that continue to reproduce gender disadvantage. In this sense, the Kanyashree Prakalpa represents not merely a cash transfer mechanism, but a broader social intervention aimed at reshaping gender norms and expanding opportunities for adolescent girls in West Bengal.

One of the most concerning social outcomes observed during and after the COVID nineteen pandemic in West Bengal was the resurgence of child marriage and child trafficking. Reports in leading newspapers documented how prolonged school closures displaced many adolescent girls and boys from formal education, thereby increasing their exposure to early marriage and exploitative practices. Districts such as South Twenty Four Parganas, Dakshin Dinajpur, Malda, and Murshidabad were identified as particularly vulnerable in this regard (Singh, 2020). This pattern stands in contrast to trends observed in several other Indian states, which have recorded notable declines in both the prevalence and absolute numbers of child marriage, while West Bengal continues to face this challenge despite flagship interventions such as the Kanyashree Prakalpa (Singh, 2024). These developments underscore the need for a critical reassessment of the programme's effectiveness in achieving its core objectives of delaying marriage and sustaining educational participation among adolescent girls.

Against this background, the present study examines the temporal dynamics of Kanyashree scholarships, including both K1 and K2 components, over the period

from 2017 to 2024, with particular attention to growth patterns and district level variation. Emphasis is placed on spatial inequalities in achievement, renewal, and overall coverage across districts. To evaluate programme performance in a systematic manner, four analytical parameters are employed, namely retention, efficiency, renewal, and consistency. Taken together, these indicators provide a comprehensive assessment of the scheme's reach, stability, and equity of implementation.

The remainder of the paper is structured as follows. Section Two outlines the theoretical framework of social inclusion through conditional cash transfers, situating the Kanyashree programme within broader welfare debates. Section Three describes the methodology, including data sources, study area, and analytical techniques. Section Four presents the empirical findings and is divided into two parts. The first analyses temporal and spatial trends in K1 and K2 scholarships over the past eight years, while the second evaluates programme performance using indicators of retention, renewal, and consistency. Section Five concludes by synthesizing the principal findings and offering policy relevant recommendations.

1.1 Situating Conditional Cash Transfers within the Framework of Social Inclusion

Conditional Cash Transfer (CCT) programmes have emerged globally as a distinctive approach to social assistance, offering both immediate relief and long-term pathways to social inclusion. Their core principle lies in linking financial support to verifiable behaviours, most often in the form of continued school attendance, regular health check-ups, or other investments in children's human capital. This represents a significant departure from traditional welfare policies that emphasized the direct provision of goods and services. Instead, CCTs recognize poor households as active agents, with responsibilities as well as entitlements, thereby fostering what has been described as a virtuous cycle between social protection and human development (World Bank, 2005). Social protection, once seen merely as a safety net, is increasingly framed as an investment in human capital and poverty reduction, while also strengthening the governance of public expenditure (Vakis, 2005).

By addressing both short-term consumption needs and long-term poverty alleviation objectives, CCTs seek to combine immediate relief with structural transformation. Their impact is particularly visible in societies marked by high inequality, where traditional social insurance tied to formal employment often excludes the most vulnerable. In such contexts, CCTs extend a redistributive function, reaching those at the margins of the labour market and fostering inclusion through education, health, and nutrition. It is within this international discourse that the Kanyashree Prakalpa of West Bengal stands out as a gender-focused adaptation of the CCT model, specifically designed to delay marriage and promote continued education among adolescent girls. Its recognition with the UN Public Service Award in 2017 further underscores its innovative character as a welfare intervention aimed at reshaping entrenched social norms (Singh, 2024).

Yet, while CCTs have demonstrated measurable success in improving short-term outcomes such as school enrolment, nutrition, and health care utilization, their long-term contributions to poverty reduction and social transformation remain contested. Many CCT programmes are still too recent for a comprehensive assessment of their sustained developmental impact (Brière and Rawlings, 2006). Kanyashree, however, has operated for more than a decade, offering an opportunity to reflect on its broader influence on the social development landscape of West Bengal (Karmakar, 2023). Nevertheless, questions remain about coverage gaps, spatial inequalities in implementation, and the programme's capacity to address structural drivers of gender disadvantage.

More broadly, debates around CCTs highlight both their promise and their limitations. On one hand, they compensate for market failures that perpetuate intergenerational poverty, while their conditionalities may help internalize positive externalities of education and health (Ravallion, 2003; Das, Do & Özler, 2005). On the other hand, concerns persist regarding targeting accuracy, administrative capacity in low-income contexts, and the replicability of success across different socio-political settings. From a theoretical perspective, the relationship between CCTs and social inclusion can be explored through three interconnected dimensions include their contribution to national social policy and poverty targeting, their

ability to reshape accountability relationships between governments, service providers, and beneficiaries, and their potential to extend support to historically excluded groups, particularly women (Brière and Rawlings, 2006). Within this framework, the present paper focuses on the accountability dimension, with specific reference to the Kanyashree Prakalpa in West Bengal. The programme provides an important lens to examine how conditional cash transfers not only establish new forms of engagement between the state and adolescent girls but also redefine accountability by linking government commitments with beneficiaries' educational participation and delayed marriage (Karmakar, 2023).

2 Methodology

This section is divided into the following two parts

Data Source and Study Area

The data utilized in this study has been obtained from the official West Bengal Kanyashree portal. The period under consideration spans from 2017 to 2024, with the analysis focusing on three specific years—2017-18, 2021-22, and 2024-25—in order to trace and compare progress over time. District-wise data have been collected for these three years, with particular emphasis on the sanctioned K1 and K2 scholarships across 23 districts. The districts include Darjeeling, Kalimpong, Alipurduar, Koch Bihar, Uttar Dinajpur, Dakshin Dinajpur, Malda, Murshidabad, Birbhum, Purba Burdwan, Paschim Burdwan, Nadia, Hooghly, Howrah, Bankura, Puruliya, Jhargram, Purba Medinipur, Paschim Medinipur, North 24 Parganas, South 24 Parganas, and Kolkata. Among these, Kolkata is a fully urbanized district, whereas the others are comparatively less urbanized. Notably, Murshidabad recorded the highest number of scholarship applications in 2024-25, while Kalimpong registered the lowest.

Methods Undertaken

To evaluate the program, the analysis begins with an assessment of the temporal trends in both K1 and K2 scholarships. Subsequently, the Compound Annual Growth Rate (CAGR) is computed across districts to capture long-term growth dynamics. In order to assess program effectiveness, three indicators include Retention Index,

Renewal Rate, and Consistency Index (CI) are constructed for K1 as K2 is one time grant. The formulation of these indices is based on the following set of equations.

$$\text{Achievement Rate (AR)} = (\text{Total Sanctioned scholarship} / \text{Target scholarship}) * 100 \dots$$

(i)

$$\text{Retention index (RI)} = [\text{K1 Renewals (in year } t) / \text{Cumulative K1 Fresh up to } t-1] * 100$$

(ii)

For instance, when calculating the Retention Index for 2024-25, the numerator comprises the total number of K1 renewals reported in 2024-25, while the denominator is taken as the cumulative number of K1 fresh sanctions between 2020-21 and 2023-24. The choice of a five-year reference period is based on the assumed academic trajectory of beneficiaries. A girl is typically sanctioned the K1 scholarship at entry into Class VIII (around age 13-14), and she remains eligible to renew the award annually through to Class XII. This corresponds to a maximum span of five academic years (Class VIII, IX, X, XI, and XII). Thus, taking cumulative fresh sanctions over the preceding four years (up to $t-1$) ensures that the denominator approximates the pool of students who could legitimately appear as renewals in year t . Accordingly, if 2024-25 is taken as the year of observation (t), then renewals reported in that year are measured against the cumulative fresh sanctions during 2020-21 to 2023-24, which reflects the maximum eligible cohort still in the system.

In the context of the Kanyashree programme, the Dropout Index (DI) measures the proportion of beneficiaries who discontinue participation rather than renewing their scholarship. It is constructed as the inverse of the Retention Index (RI). While the RI indicates the share of eligible beneficiaries continuing into the next stage, the DI captures the share who exit from the scheme at that point. The formula may be expressed as:

$$\text{Dropout Rate (DR)} = (100 - \text{RI})$$

(iii)

While the Retention Index (RI) provides a cumulative measure of programme sustainability by comparing annual renewals against the total pool of fresh beneficiaries since inception, it may not always reflect the actual renewal

dynamics of specific beneficiary cohorts. In practice, a large denominator can dilute the indicator, and conversely, a one-year Renewal Rate may inflate values beyond 100 per cent because renewals in a given year often originate from multiple preceding cohorts. To address this, a modified Renewal Rate based on a rolling multi-year denominator is adopted. For instance, a three-year cumulative fresh intake (years $t-1$, $t-2$, and $t-3$) better approximates the effective pool of girls eligible for renewal in year t . This approach recognises the typical progression of beneficiaries across secondary classes (VIII-XII), where renewals span several years, while also ensuring the index remains within logical bounds. Thus, the multi-year Renewal Rate serves as a complementary measure to the Retention Index: the former capturing cohort-specific continuation, and the latter offering a broader picture of long-term programme sustainability. So, the Renewal Rate highlights continuation behaviour. The formula is:

$$\text{Renewal Rate } (RR_n) = [\{K1 \text{ Renewals (in year } t) / \sum K1 \text{ fresh (in year } t-1)\} * 100]$$

(iv)

The Consistency Index measures the degree of stability in the programme's performance across time or space. It indicates whether scholarship renewals or achievements are evenly sustained, rather than fluctuating sharply. To assess programme stability, both temporal and spatial consistency were examined using two separate formulas. Temporal consistency was measured using the following expression:

$$CI_T = \{1 - (\sigma_t / \mu_t)\} * 100$$

(v)

σ_t = standard deviation of the retention index across years, μ_t = mean of the retention index across years

CI_t = Temporal Consistency

The following formula captures spatial performance of the programme across districts in a given year.

$$CI_S = \{1 - (\sigma_d / \mu_d)\} * 100$$

σ_d = standard deviation of the retention index across districts, μ_d = mean of the retention index across districts, CI_s = Spatial Consistency

The CI is a useful measure for assessing the effectiveness and stability of conditional cash transfers like Kanyashree in retaining adolescent girls within formal education systems until adulthood. A higher CI indicates that a large proportion of girls either renew their K1 benefits annually, thereby demonstrating sustained engagement and educational continuity. Conversely, a low CI highlights discontinuity in participation, which may point to dropout, child marriage, or migration.

3 Findings and Discussion

Temporal and Spatial Dimensions of K1 and K2 Scholarships

The implementation of the Kanyashree programme has had a significant impact on reducing dropout rates among girl students across educational stages in West Bengal. According to the statement made by the Chief Minister (CM) at the Kanyashree Day celebration, the primary level (Classes I-V) dropout rate among girls, which stood at 4.75 per cent in 2011-12, has now declined to zero. At the secondary level, the dropout rate, once recorded at 16.32 per cent, has decreased substantially to 2.09 per cent in the academic year 2023-24. Similarly, at the higher secondary level, the dropout rate has fallen from 15.41 per cent to 3.17 per cent over the same period, claimed by the CM. This section therefore examines these assertions in detail, particularly in terms of whether the programme has effectively reduced dropout rates in other words, whether the scholarship scheme has been successful in retaining students. Figure 1 illustrates the temporal trend in the number of fresh and renewal K1 scholarships, showing that both sanctioned fresh and renewal scholarships have exhibited a declining pattern over the past eight years. Figure 2 presents a similar pattern for the K2 component, where the number of sanctioned upgrade (renewal) applications peaked at around 5.45 lakh in 2020-21 before gradually declining to about 4.40 lakh in 2024-25, while fresh applications have remained consistently low. This trend suggests a stabilisation of

the eligible beneficiary base and a possible saturation effect as earlier cohorts transition out of the programme.

Fig- 1 Temporal Trends in K1 Scholarship of Kanyashree

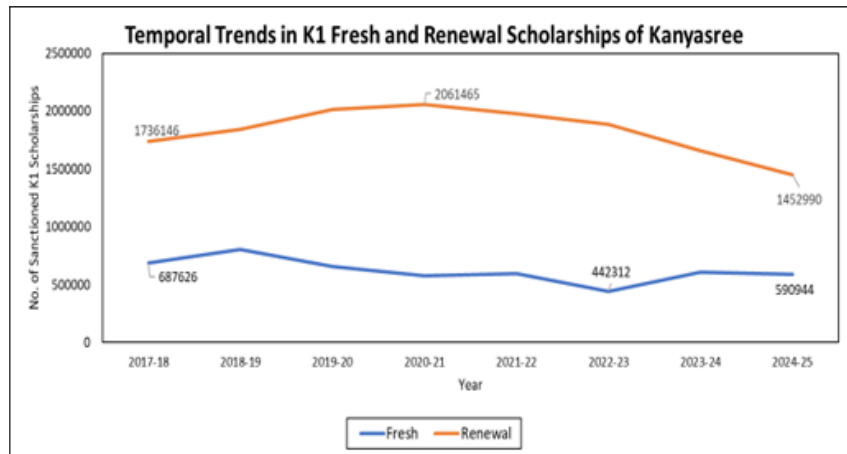
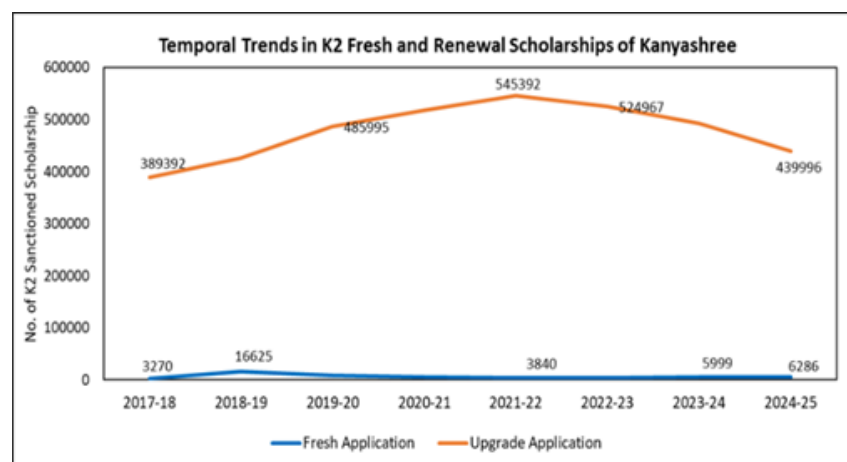


Fig- 2 Temporal Trends in K2 Scholarship of Kanyashree



Source: Kanyashree portal,
https://www.wbkanyashree.gov.in/kp_4.0/dashboard.php

Table 1 CAGR (2018-2024) of K1 Scholarships under Kanyashree across West Bengal Districts

Compound Annual Growth Rate	Districts	No. of District
-5--0	Howrah, Jhargram, Purba Medinipur, Bankura, Bardhaman Purba, Malda, South 24 Parganas, Darjeeling, North 24 Parganas, Paschim Medinipur, Murshidabad, Hooghly, Birbhum, Uttar Dinajpur, Alipurduar, Coochbehar, Nadia, Jalpaiguri, Dakshin Dinajpur	19
0--1	Kolkata, Purulia	2
Above 1	Bardhaman Paschim, Kalimpong	2

Source: Kanyashree portal,
https://www.wbkanyashree.gov.in/kp_dashboard_report.php

The district-wise distribution of Compound Annual Growth Rate (CAGR) values for Kanyashree (K1) scholarships reveals a predominantly negative trend across West Bengal. A total of 19 districts fall within the range of -5 to 0, indicating a steady decline in sanctioned scholarships over the study period. This widespread contraction suggests that the downward trend is not confined to specific regions but is rather a general phenomenon across the state. In contrast, only two districts—Kolkata and Purulia—exhibit marginally positive growth (0 to 1 per cent), suggesting relative stability rather than substantial expansion. Furthermore, a limited number of districts—Bardhaman Paschim and Kalimpong—show growth rates above 1 per cent, highlighting them as exceptions to the overall declining trajectory.

Table 2 CAGR (2018-2024) of K2 Scholarships under Kanyashree across West Bengal Districts

Compound Annual Growth Rate	Districts	No. of District
-3-- 0	Coochbehar, Nadia, Jalpaiguri, Dakshin Dinajpur	4
0-3	Bankura, Bardhaman Purba, Malda, South 24 Parganas, Darjeeling, North 24 Parganas, Paschim Medinipur, Murshidabad, Hooghly, Birbhum, Uttar Dinajpur, Alipurduar	12
Above 3	Bardhaman Paschim, Kalimpong, Kolkata, Purulia, Howrah, Jhargram, Purba Medinipur	7

Source: Kanyashree portal,
https://www.wbkanyashree.gov.in/kp_dashboard_report.php

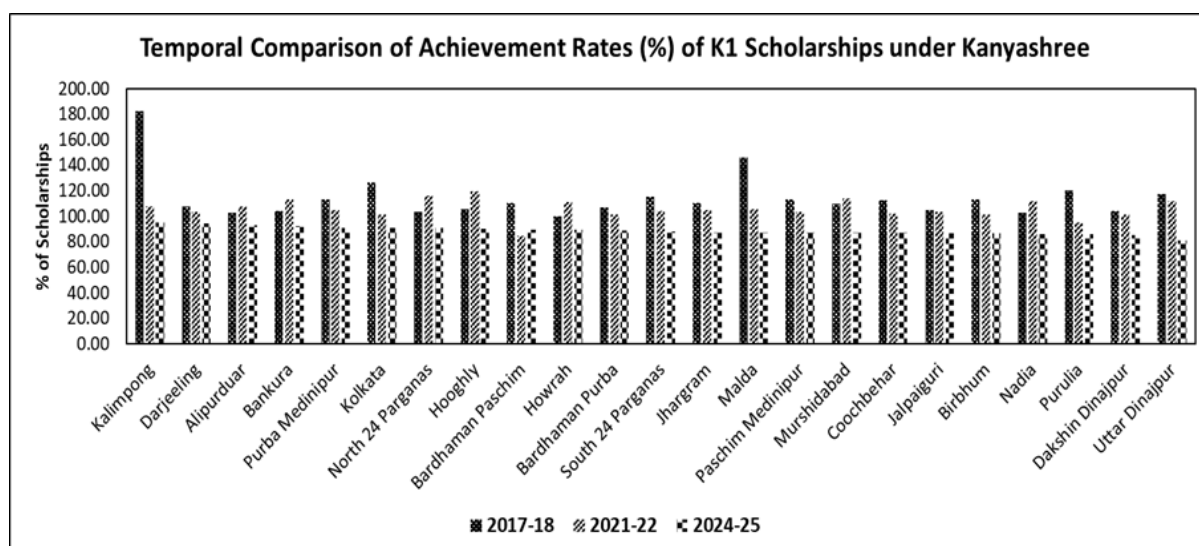
The Compound Annual Growth Rate (CAGR) analysis of K2 scholarships between 2018 and 2024 highlights a mixed but overall positive trend across West Bengal districts. Unlike K1 scholarships, where a widespread contraction was observed, K2 scholarships display a more balanced distribution of growth rates.

A relatively small group of districts—Coochbehar, Nadia, Jalpaiguri, and Dakshin Dinajpur (4 districts)—record negative growth (-3 to 0 per cent), suggesting a contraction in scholarship uptake. However, the majority of districts -12 in total fall within the 0 to 3 per cent range, including major regions such as Bankura, Bardhaman Purba, Malda, South and North 24 Parganas, Darjeeling, and Murshidabad. This indicates modest yet steady growth, reflecting a certain level of stability in the distribution of K2 scholarships. Interestingly, seven districts (Bardhaman Paschim, Kalimpong, Kolkata, Purulia, Howrah, Jhargram, and Purba Medinipur) show robust growth above 3 per cent. This comparatively higher rate suggests that in these districts, K2 scholarships have gained traction, either through improved programme implementation, greater awareness, or enhanced enrolment at higher secondary and tertiary levels.

Overall, the distribution of CAGR values underscores that while some pockets of decline persist, the dominant trend for K2 scholarships has been positive, with nearly half of the districts showing moderate growth and a significant cluster

demonstrating strong expansion. This pattern contrasts with the general decline in K1 scholarships, suggesting that retention into the K2 stage has been relatively more successful. This further implies that the impact of external disruptions, particularly the COVID-19 pandemic, has had a long-lasting effect on K1 scholarship uptake, with only a few districts demonstrating resilience or recovery.

Fig- 3 Temporal Comparison of Achievement Rates of K1 scholarship

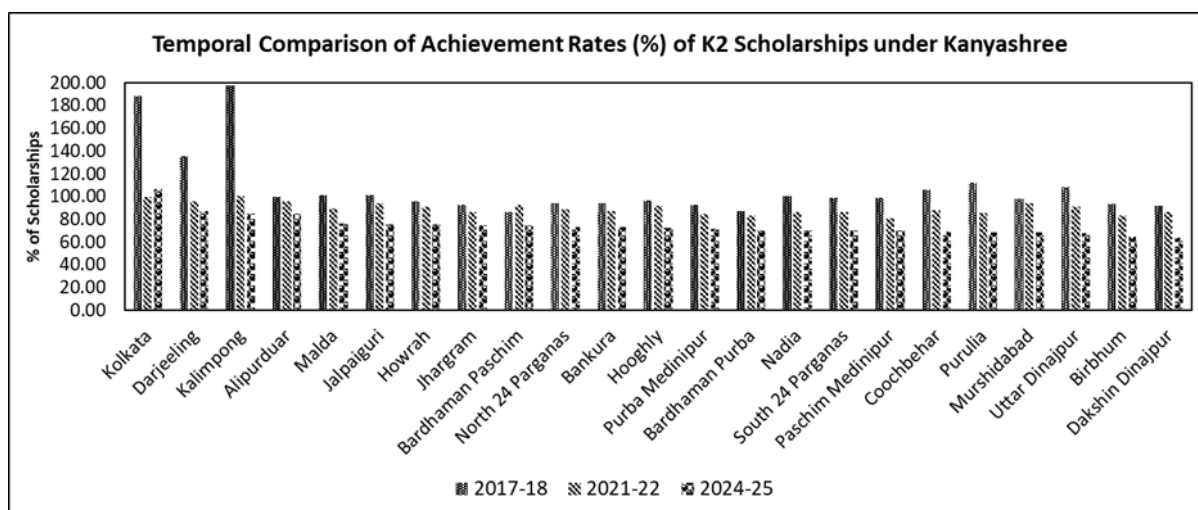


Source: https://www.wbkanyashree.gov.in/kp_dashboard_report.php

In line with the CAGR findings, the temporal comparison of achievement rates (Figure 3) further substantiates the declining trajectory of K1 scholarships, highlighting how the weakening inflow of new entrants has persisted across most districts over time. Figure 3 presents the temporal comparison of achievement rates (%) of K1 scholarships across districts of West Bengal for three time points—2017-18, 2021-22, and 2024-25. The figure reveals a general downward trend in achievement rates over time. While most districts recorded relatively high achievement levels in 2017-18, subsequent years show visible declines, particularly by 2024-25. A few districts, such as Kalimpong and Malda, stand out with exceptionally high achievement rates in the initial period (exceeding 150 per cent in some cases), which may reflect either over-reporting in early phases of implementation or a surge in sanctioned applications relative to targets. However, by 2024-25, the rates in these districts, like most others, have contracted significantly.

The broad pattern of decline across nearly all districts is consistent with the negative CAGR values discussed earlier for K1 scholarships. This reinforces the argument that K1 uptake has been disproportionately affected by external shocks, particularly the COVID-19 pandemic, leading to reduced enrolment and sanctioning of fresh applications. In contrast to the relative resilience observed in K2, the decline in K1 achievement rates underscores the challenges of sustaining entry into the programme at the initial level. Taken together, the figure 3 and the CAGR analysis suggest that while the Kanyashree scheme has remained functional, its capacity to attract new entrants (K1) has weakened over time, posing a potential risk to long-term programme sustainability unless corrective measures are taken.

Fig- 4 Temporal Comparison of Achievement Rates of K2 scholarship



Source: https://www.wbkanyashree.gov.in/kp_dashboard_report.php

Figure 4 illustrates the temporal comparison of achievement rates (%) of K2 scholarships across districts of West Bengal for the years 2017-18, 2021-22, and 2024-25. In contrast to the general contraction observed in K1 scholarships, the trend for K2 appears relatively more stable, with several districts maintaining or even exceeding 100 per cent achievement levels in the earlier years. Districts such as Kolkata, Kalimpong, and Alipurduar initially recorded exceptionally high achievement rates approaching or surpassing 180-200 per cent in 2017-18 though these values have gradually declined in subsequent years. Despite this decline, the overall pattern demonstrates that achievement levels for K2 remain comparatively

higher than K1 in most districts, suggesting that once students transition into the renewal or higher-level stage of the programme, they are more likely to be retained. Even by 2024-25, although the achievement rates have moderated, a broad base of districts still report significant participation.

This finding aligns with the CAGR analysis presented earlier, which showed positive or moderate growth in a majority of districts for K2, unlike the widespread negative growth for K1. The evidence collectively implies that the Kanyashree scheme has been more successful in sustaining student participation at the K2 level, while the real challenge lies in ensuring a steady inflow of fresh entrants into K1.

Measuring Effectiveness Beyond Numbers: Retention, Renewal, and Consistency Indices

Building on this distinction between K1 and K2 trends, it becomes essential to move beyond aggregate growth rates and assess the programme's effectiveness through deeper indicators. Retention, renewal, and consistency indices provide such measures, capturing both temporal sustainability and spatial equity in participation. A key objective of the K1 scholarship is to ensure that girls remain in the education system for an extended period. Accordingly, this section examines patterns of retention, renewal, and dropout among girl students.

Table 3 District-wise Comparison of K1 Scholarship Retention Index in 2021-22 and 2024-25

District	Retention Index		District	Retention Index	
	2021-2022	2024-2025		2021-2022	2024-2025
Alipurduar	74.82	70.93	Kalimpong	54.45	57.37
Bankura	80.44	74.92	Kolkata	63.36	55.16
Bardhaman Paschim	62.60	62.52	Malda	54.69	56.71
Bardhaman Purba	74.82	67.71	Murshidabad	65.58	60.76
Birbhum	73.50	62.82	Nadia	80.45	70.11
Coochbehar	74.69	66.87	North 24 parganas	77.05	69.69
Dakshin dinajpur	74.37	64.40	Paschim Medinipur	79.53	68.42
Darjeeling	60.51	60.58	Purba Medinipur	76.00	70.45
Hooghly	80.50	72.09	Purulia	69.19	65.31
Howrah	77.20	73.23	Siliguri	69.66	66.80
Jalpaiguri	71.70	64.66	South 24 parganas	73.40	63.33
Jhargram	78.15	68.84	Uttar dinajpur	64.69	53.35

Source: https://www.wbkanyashree.gov.in/kp_dashboard_report.php

The table 3 highlights a general decline in retention index across most districts between 2021-22 and 2024-25, indicating challenges in sustaining scholarship continuity over time. While a few districts such as Kalimpong (54.45 to 57.37), Malda (54.69 to 56.71), and Darjeeling (60.51 to 60.58) registered marginal improvements, the majority, including high-performing districts like Nadia (80.45 to 70.11) and Hooghly (80.50 to 72.09), witnessed a noticeable drop. Particularly concerning are the steep declines in districts such as Murshidabad (65.58 to 60.76) and Uttar Dinajpur (64.69 to 53.35), which point to deeper systemic challenges in sustaining scholarship retention over time. This pattern suggests that while the programme initially achieved high levels of retention in many regions, sustaining momentum has become increasingly difficult, pointing to systemic issues in renewal and progression mechanisms.

Table 4 District-wise K1 Scholarship Dropout Rates in 2021-22 and 2024-25

District	Dropout		District	Dropout	
	2021-2022	2024-2025		2021-2022	2024-2025
Alipurduar	25.18	29.07	Kalimpong	45.55	42.63
Bankura	19.56	25.08	Kolkata	36.64	44.84
Bardhaman Paschim	37.40	37.48	Malda	45.31	43.29
Bardhaman Purba	25.18	32.29	Murshidabad	34.42	39.24
Birbhum	26.50	37.18	Nadia	19.55	29.89
Coochbehar	25.31	33.13	North 24 parganas	22.95	30.31
Dakshin dinajpur	25.63	35.60	Paschim Medinipur	20.47	31.58
Darjeeling	39.49	39.42	Purba Medinipur	24.00	29.55
Hooghly	19.50	27.91	Purulia	30.81	34.69
Howrah	22.80	26.77	Siliguri	30.34	33.20
Jalpaiguri	28.30	35.34	South 24 parganas	26.60	36.67
Jhargram	21.85	31.16	Uttar dinajpur	35.31	46.65

Source: https://www.wbkanyashree.gov.in/kp_dashboard_report.php

Based on the retention patterns discussed earlier, the dropout analysis (table 4) provides a complementary perspective on the challenges of sustaining participation in the Kanyashree scheme. While a handful of districts such as Kalimpong, Malda, and Darjeeling show slight improvements, the majority report rising dropout rates, with sharp increases in districts like Nadia, Hooghly, and Paschim Medinipur that were previously strong performers. Particularly concerning are the escalations in Kolkata and Uttar Dinajpur, where dropout has reached critical levels. However, it is important to note that in Kolkata many girls are opting for admission into private institutions rather than government schools, which means that higher dropout figures there may partly reflect shifts in enrolment patterns rather than actual withdrawal from education. In contrast, the steep rise in dropout in Uttar Dinajpur more directly signals exclusion from schooling. Taken together, the decline in retention and the concurrent rise in dropout highlight systemic constraints that

threaten the programme's primary objective of reducing girls' dropout from education.

Table 5 District-wise K1 Scholarship Renewal Rates in 2020-21 and 2023-24

District	Renewal Rate		District	Renewal Rate	
	2020-2021	2023-2024		2020-2021	2024-2025
Alipurduar	99.00	100	Kalimpong	71.03	84.58
Bankura	100	100	Kolkata	85.13	82.36
Bardhaman Paschim	83.45	94.30	Malda	74.00	86.15
Bardhaman Purba	97.72	100	Murshidabad	88.10	93.55
Birbhum	98.51	98.76	Nadia	100	100
Coochbehar	99.54	100	North 24 parganas	100	100
Dakshin dinajpur	98.78	100	Paschim Medinipur	100	100
Darjeeling	80.48	89.05	Purba Medinipur	99.56	100
Hooghly	100	100	Purulia	92.56	100
Howrah	99.11	100	Siliguri	90.38	96.89
Jalpaiguri	95.07	99.97	South 24 parganas	98.08	99.19
Jhargram	100	100	Uttar dinajpur	87.02	86.69

Source: https://www.wbkanyashree.gov.in/kp_dashboard_report.php

The above concerns are further contextualised by the district-wise K1 Renewal Rates presented in Table 5, which reflect the extent to which beneficiaries continue within the scheme. The adoption of a modified Renewal Rate based on a rolling multi-year denominator allows for a more accurate assessment of cohort continuation, and the district-level patterns reveal both consolidation and divergence in outcomes. Several districts, including Bankura, Nadia, North 24 Parganas, Dakshin Dinajpur, Paschim Medinipur, Jhargram, and Hooghly, maintain Renewal Rates consistently at or near 100 per cent, suggesting strong programme stability despite dropout pressures. Others such as Bardhaman Paschim, Darjeeling, Kalimpong, and Malda show substantial improvement over time, pointing to

reduced dropout tendencies and more effective outreach. Murshidabad, Siliguri, Purulia, and South 24 Parganas demonstrate steady consolidation from already high levels. In contrast, Kolkata records a slight decline and Uttar Dinajpur remains stagnant, aligning with the dropout patterns noted earlier and indicating persistent localised challenges. Taken together, the evidence underscores the overall effectiveness of the scheme in moving towards near-universal continuation, while also reinforcing the need for targeted measures in specific districts where dropout and renewal gaps persist.

Table 6 Temporal Trend in the Retention Index of West Bengal

Year	Retention Index of K1
2017-18	44.42
2018-19	66.92
2019-20	72.08
2020-21	72.04
2021-22	72.48
2022-23	71.63
2023-24	72.96
2024-25	65.46

Source: https://www.wbkanyashree.gov.in/kp_dashboard_report.php

These district-level patterns gain further meaning when viewed against the temporal trend in the Retention Index for West Bengal as a whole (Table 6). The trajectory highlights both the achievements and the vulnerabilities of the scheme. Beginning from a relatively modest level of 44.42 in 2017-18, the index shows a sharp rise through 2018-19 and then stabilises in the range of 70 to 73 from 2019-20 onwards, which suggests that the programme was able to achieve a broad consolidation phase after the initial years of implementation. However, the notable dip to 65.46 in 2024-25 signals renewed stress in sustaining participation, and this pattern corresponds with the concurrent rise in dropout rates and the uneven renewal patterns observed across districts.

The calculated temporal consistency index of 0.85 for the period 2017-2025 indicates a relatively high degree of stability in retention over time, although the fluctuations, particularly the recent downturn, show that this stability is not

absolute. Instead, the pattern reflects both consolidation and fragility, since the scheme has successfully established a plateau of sustained participation for several years but remains vulnerable to systemic pressures that can reduce retention. This broader temporal trend resonates with the renewal analysis, as many districts demonstrate consistent continuation while a few mirrors the same vulnerabilities evident in the declining retention levels, underscoring the need for closer policy attention in lagging regions.

Alongside temporal patterns, the spatial dimension also reinforces the overall assessment. The spatial consistency index, which rose from 89.02 in 2021-22 to 91.08 in 2024-25, points to a gradual narrowing of inter-district disparities in retention performance. This improvement, though modest, signals that outcomes are becoming more evenly distributed across the state, with fewer districts significantly lagging behind. Importantly, the simultaneous rise in spatial consistency and fall in the state-level Retention Index highlights a dual reality: while gaps between districts are narrowing, the overall level of retention has weakened. This suggests that stressors affecting the scheme are systemic in nature, cutting across regions, and therefore require broad-based interventions rather than purely localised measures.

4 Conclusion

The Kanyashree Prakalpa has undoubtedly played a critical role in reshaping the educational landscape for adolescent girls in West Bengal by delaying early marriage and supporting continued schooling. The programme has achieved notable success in improving renewal and consistency rates, particularly for K2 beneficiaries. However, the persistent decline in fresh K1 enrolments, coupled with rising dropout rates in several districts after the COVID-19 pandemic, signals systemic vulnerabilities that financial incentives alone cannot address. While spatial consistency has improved, indicating reduced inter-district disparities, the overall fall in retention underscores deeper structural constraints, such as administrative inefficiencies, socio-economic pressures, and shifting aspirations toward vocational alternatives. Sustaining the programme's gains therefore requires recalibration by integrating financial transfers with institutional reforms,

ensuring better alignment between education and labour markets, and strengthening community-level engagement. Without such corrective measures, the long-term sustainability and transformative impact of Kanyashree will remain at risk.

To strengthen the impact and long-term sustainability of the Kanyashree Prakalpa, several measures are necessary. First, renewed efforts should be made to boost fresh K1 enrolments through targeted outreach in disadvantaged districts, while also addressing administrative bottlenecks such as delays in admission processes that often discourage continuation. Second, integrating vocational and skill-oriented pathways within Kanyashree Plus can align scholarships with employability and labour market demand, thereby making education more attractive to students. Third, district-specific strategies are required for areas with persistently high dropout rates, supported by digital platforms that simplify access, improve monitoring, and provide timely information to beneficiaries. Fourth, parental and community engagement must be prioritised to counter social pressures like early marriage and reinforce the value of education. Finally, linking the scheme with complementary social protection programmes in health, nutrition, and livelihoods, combined with real-time district-level monitoring and evaluation, can create a more holistic and adaptive framework to ensure that the scheme continues to support adolescent girls effectively.

Availability of data and materials

The datasets generated and analysed during the current study are openly available at https://www.wbkanyashree.gov.in/kp_dashboard_report.php

References

- Das, J., Do, Q.-T., & Özler, B. (2005). Reassessing conditional cash transfer programs. *The World Bank Research Observer*, 20(1), 57-80. <https://doi.org/10.1093/wbro/lki001>
- De la Brière, B., & Rawlings, L. B. (2006). *Examining conditional cash transfer programs: A role for increased social inclusion?* Washington, DC: World Bank Institute.
- Ghosh, B. (2025, January 15). Applications for admissions to colleges run or aided by West Bengal government dip sharply. *The Hindu*.

<https://www.thehindu.com/news/national/west-bengal/applications-for-admissions-to-colleges-run-or-aided-by-west-bengal-government-dip-sharply/article69886759.ece>

Karmakar, J. (2023). Assessing the impact of Kanyashree Prakalpa on the social development of West Bengal. *Impact and Policy Research Review*, 2(2), 10-20.

Rawlings, L. B. (2005). A new approach to social assistance: Latin America's experience with conditional cash transfer programs. *International Social Security Review*, 58(2-3), 133-161.

<https://doi.org/10.1111/j.1468-246X.2005.00220.x>

Ravallion, M. (2003). Targeted transfers in poor countries: Revisiting the trade-offs and policy options (Social Protection Discussion Paper No. 314). Washington, DC: World Bank.

Singh, S. S. (2020, November 10). Campaign to involve panchayats in child protection in West Bengal's vulnerable districts. *The Hindu*.

<https://www.thehindu.com/news/national/other-states/campaign-to-involve-panchayats-in-child-protection-in-west-bengals-vulnerable-districts/article33067601.ece>

Singh, S. S. (2024, May 12). Why is child marriage still high in West Bengal. *The Hindu*.

Vakis, R. (2005, September 30). Protección social y gestión social del riesgo en Centroamérica: Lecciones de la crisis del café. Presentation at the Central Bank of Nicaragua.

World Bank. (2005). Equity and development. *World Development Report 2006*. Washington, DC: World Bank.