



Annex 3 – Access and Participation Report



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1 Introduction

The following annex presents a full analysis of the contribution of the Basic Education for Muslim Mindanao in the Autonomous Region of Muslim Mindanao (BEAM–ARMM) program to access and participation in the region. The annex provides additional analysis, diagrams and tables which supports the summary information presented in the main End of Program Review report.

2 Anticipated Outcomes of the Program and Issues with Data

2.1 BEAM-ARMM Indicators for Measuring Outcome

Outcome 1 of the BEAM–ARMM program was to achieve 'Improved access and equitable provision of early childhood and basic education and Out of School Youth (OSY) training support'¹ which was measured through the achievement of three main indicators each of which is discussed below. The program design was all inclusive, and encompassed the participation of children of Indigenous Peoples and children with disabilities. The program's major intervention to achieve these targets was the provision of access to basic education to Out-of-School Children especially in remote and school-less barangays through the implementation of the Alternative Delivery Model (ADM), the Tahderiyyah program, and support to private madaris. The three main indicator targets used to measure program success under Outcome 1 are as follows:

1. Increase school completion² rates for boys and girls by 13% for elementary, 7% for secondary and 10% for Tahderiyyah as well as 90% of 36,000 Kindergarten completers proceeding to DepEd Grade 1 (ADM - BRAC) and 80% of ADM completers proceeding to DepEd secondary

This indicator comprises four separate targets³, these being:

- Increase school completion rates for boys and girls by 13% for elementary, 7% for secondary
- Elementary transition rate of 80% completers to DepEd secondary
- Increase Tahderiyyah completion rate by 10%
- 90% of 36,000 Kindergarten completers transition to Grade 1 (ADM). Some of these indicator targets are problematic. As noted, it would be unlikely that BEAM–ARMM would have a large impact on secondary completion rates or transition rates to secondary during its five years of intervention however the support to equipping technical and vocational high schools (TechVoc HS) may have some impact. Therefore, attribution to BEAM–ARMM for gains (or losses) on these indicators is very difficult to establish. The impact on elementary completion rate would also be relatively small given that students would only be transitioning from ADM into years 3 and 4 during 2015 and 2016. This may not have an impact on completion rates until 2017 or 2018. Further, the last two targets are transition rates not completion rates and should therefore not be targets of an indicator specifying completion but rather transition.

2. Increase access to early childhood education (ECE) of Grade 1 entrants, boys and girls from 48% to 55%

¹ Contract 64398 Amendment No. 5, dated 30 March 2015

² Completion rate under BEAM–ARMM is defined as the percentage of first grade/year entrants in a level of education who complete/finish the level in accordance with the required number of years of study. This definition is problematic as the denominator is not clearly defined.

³ Throughout this report, % increases / decreases are absolute rather than relative, unless stated otherwise.

This indicator is problematic because it is not clear whether this indicator refers to Net Intake Rate (NIR) or Apparent Intake Rate (AIR).⁴ For the purpose of this evaluation the percentages will be Net Intake Rate.⁵ However, it should also be noted that this is a participation indicator which attributes to access not a direct access indicator.

3. The percentage increase in school participation of 13% for elementary education and 7% for secondary education

Participation rate is defined as Net Enrolment Ratio (NER). However, this is also a problematic outcome indicator on which to measure the success of BEAM–ARMM. A 7% increase in secondary education would be unlikely to be attributable to BEAM–ARMM because, as stated under indicator 1 above, BEAM–ARMM will have had little impact on secondary enrolment by the end of the program. It is further problematic because the baseline was 28.4% so a 7% increase would be a proportional increase of 25% and BEAM–ARMM has not focused on secondary education access and participation.

Further, given the issues of conflict, late enrolment, lack of proper birth registration in challenging and conflict environments, high repetition rates and the need to capture late pupils through ADM, Primary Gross Enrolment Rate would be a far more suitable indicator on which to measure the outcome of the program.

The issues with the above indicators make measuring the success of BEAM–ARMM challenging. This challenge is further compounded by the inaccuracy of the regional data as detailed below.

2.2 Issues with measuring outcome

The primary data sources for measuring success against the BEAM–ARMM access and participation indicators are BEAM–ARMM data, Enhanced Basic Education Information System (EBEIS) data and data from household surveys. BEAM–ARMM maintained an accurate and detailed record of most individuals and institutions impacted through the program's Unified Management Information System (UMIS).⁶

The EBEIS is the national Department of Education's administrative data on schools including enrolments, teachers and facilities. Data derived from the EBEIS includes data from the Learner Information System (LIS) which stores data on individual learners. In principle, all public and private elementary and secondary schools, learning centres, state universities and colleges, local universities and colleges and higher education institutions offering elementary and secondary schools are directed to register and update their learners' profile in the LIS and update the school's profile in the EBEIS. From 2015 Alternative Learning System (ALS) learners commenced being registered in the LIS. This includes students being taught by mobile teachers, district ALS coordinators, instructional managers, and facilitators.

However, in practice there are issues with the accuracy and completeness of EBEIS (and LIS) data, particularly in the region of ARMM. Conflict areas tend to have poorer data.⁷ Incentives such as per capita funding mechanisms also impact the quality and accuracy of data and the systems are still becoming established in Mindanao so issues remain. For example, many school heads struggled to

⁴ Also referred to as Gross Intake Rate.

⁵ Net Intake Rate is the percentage of correctly aged new entrants enrolled in Grade 1 as a proportion of the population of six year old children in the region. Apparent Intake Rate, also called Gross Intake Rate which is the total number of new pupils in Grade 1 divided by the population of six year olds in the region.

⁶ The UMIS is the BEAM–ARMM's data warehouse which stores all of the program and related data. The program stores information on all inputs relevant to persons trained, institutions impacted, materials supplied and other program initiatives. The UMIS data is the main data used for profile analysis, to say who and where the program had impact.

⁷ The development of effective planning, monitoring and evaluation and data management in fragile states has specific challenges that may include intransigent or suspicious government officials or community members; insecurity of supervisors, evaluators and enumerators; cultural incommensurabilities; self-interest of stakeholders; destruction or manipulation of data; distrust; competing demands and expectations; and inaccessible or remote institutions and communities (Bush K. Duggan C. (2015) *Evaluation in the Extreme. Research, Impact and Politics in Violently Divided Societies*. Sage Publishing)

upload their school's data into the EBEIS, exacerbated by the poor internet connectivity in the provinces. In addition, participation rates calculated from EBEIS data are based on the national population figures. The population census was held in 2015 but given that ARMM was a conflict zone during the census, figures may be inaccurate.

There is both strong anecdotal and analytical evidence that EBEIS data is flawed and that data from 2012 is likely to be highly inaccurate. This corresponds to the period that aggregate student data was collected rather than individual student data.

As supporting evidence, BEAM–ARMM has been involved in work which facilitates and advocates for increased participation in elementary education. It would be anticipated that Grade 1 national Apparent Intake Rate (AIR) and Net Intake Rate (NIR) would increase between 2012 and 2015 or that AIR may decrease but NIR would increase as more correctly aged children are enrolled in education. EBEIS reports that Grade 1 national AIR decreased from 131.2% in 2012 (GPI 0.99) to 101.1% (GPI 0.93) in 2015, a decrease of 30.1%. At the same time, Grade 1 national NIR increased from 74.8% (GPI 0.93) 2012 to 79.8% (GPI 1.05) in 2015, an increase of 5.0%. Therefore, a greater percentage of children are correctly aged going into Grade 1.

By comparison, ARMM decreased AIR 58.2% from 168.4% (GPI 1.03) in 2012 to 110.2% (GPI 1.03) in 2015 and also decreased NIR 10.7% from 66.0% (GPI 1.12) in 2012 to 55.2% (GPI 1.15) in 2015. This demonstrates the problems of relying on the consistency of EBEIS data in conflict and difficult regions, and may also indicate that the five Provincial Local Government Units located in ARMM may still have serious problems of child participation in elementary school. The problems are endemic to all indicators using EBEIS data and therefore the use of EBEIS data for analysis of BEAM–ARMM indicators is problematic.

2.3 School less barangays

A special note should also be made concerning out of school children and school less barangays. A key objective of the BEAM–ARMM program was to establish alternative learning centres using ADM, the strengthening of Tahderiyyah program and private madaris. This was achieved in 981 of 2,490 barangays (39%) of which 445 were without schools or 39% of the 1,142 school-less barangays in 2010. However, caution should be exercised in the future when considering barangays as a measure for establishing learning centres. Analysis of the spatial map of barangay boundaries developed by BEAM–ARMM determined that:

- 753 of 2490 (30%) barangays are less than 1 km²
- 262 of 2490 (11%) barangays are more than 10 km².

DepEd–ARMM has a criteria that primary schools should be established no closer than 3km from each other and that all children should be no further than 3km from a primary school. This indicates that of 2,490 barangays, over 41% are either too small or too large to enable proper planning for primary school access. In future precise geographic coordinates and local knowledge should be used in preference to ensuring that all barangays have primary and kindergarten school facilities.

2.4 Challenges towards access and participation

As cited in the BEAM–ARMM Program Design Document in 2010, chronic poverty and episodic conflicts serve as disincentives for families to send their children to school or to have them continue in school. Occasional conflicts between the military and armed groups such as the Abu Sayyaf Group, the Bangsamoro Islamic Freedom Fighters and other armed elements, including the recent emergence of the Maute group, cause displacement and disrupt classes. The Program Design Document also proposed that the issue of 'rido' (clan warfare) would need to be seriously examined and addressed not only by DepEd–ARMM but by the Regional Government itself. These challenges

were also cited in the baseline study on access and participation that was conducted by the program.⁸ Parents would prioritise the livelihood of the family so there was a tendency to take children out of school to help in seasonal livelihood activities.

Poor health, including the lack of proper nutrition, was also a cause for absenteeism or dropouts. Aside from the lack of food, a perennial problem in ARMM is the lack of potable water supply in many households, as well as in schools, that impacts on hygiene and sanitation both at home and in school. For young people who eventually drop out of school to help earn income for the family, the lack of industries in ARMM which offer employment is a problem.

These challenges persist even today. Poverty in terms of poor income and lack of livelihood opportunities remains a major constraint in the region.

In addition, the following events had a significant impact on access and participation:

- The Universal Kindergarten Act (2012) which calls for the institutionalisation of Kindergarten Education within the basic education system.⁹
- The K–12 reforms (2013) which added a year of Kindergarten prior to starting Grade 1;
- The Early Years Act of 2013, which recognised 0–8 years as the foundational years of a child's development and strengthening of the early childhood care and development (ECCD) system for 0-4 year olds; and established the ECCD Council/Secretariat.
- Typhoon Haiyan, known as Super Typhoon Yolanda in the Philippines, devastated portions of the Philippines on 8 November 2013. The deadliest Philippine typhoon on record, Super Typhoon Yolanda killed at least 6,300 Filipinos. Bodies were still being found in January 2014. Whilst its impact on Mindanao was comparatively minor compared to other parts of the Philippines, it did divert resources and attention away from active programs in ARMM.

3 Outputs contributing towards outcomes for access and participation

In schools BEAM–ARMM's interventions included classroom construction and/or rehabilitation¹⁰, learning centres and other facilities, strengthening of the School Health program, equipping 23 TechVoc HS with equipment for livelihood skills training of senior high school students and training of teachers handling Technology and Livelihood Education. The program also provided access to Technical Vocational Education and Training (TVET) for OSY and to opportunities for employment. Specifically BEAM–ARMM achieved the following outputs which contributed towards the outcomes for Access and Participation. As noted in Annex 1, all outputs achieved their targets. Accomplishments include:

- Of the total 2,490 barangays in ARMM, the program reached 981 barangays (39%) through the ADM, the Tahderiyyah program and private madaris, of which 445 were without schools or 39% of the 1,142 school-less barangays in school year (SY) 2011-2012.
- Established a total of 1,724 ADM Learning Centres.

⁸ Baseline Study on Access and Participation, May 2015, BEAM–ARMM.

⁹ There are ongoing government activities, as mandated, to improve kindergarten enrolment nationwide, such as, the full implementation of Republic Act 10157, or 'The Kindergarten Education Law'; the increasing budget that the Department of Education has obtained from the national government; and the expansion of the government's conditional cash transfer program that requires families under the program to send their children to school. These have helped bring the country closer to its goal of universal primary education and improved primary school participation. Much of the gain in primary school enrolment is a result of the mandatory implementation of Kindergarten.

¹⁰ Initially the construction and rehabilitation of classrooms (50 constructed, 123 rehabilitated), was designed to be a strategy for access and participation but it turned out to have contributed to quality education as the newly constructed or rehabilitated classrooms helped to decongest the classrooms and enabled a more conducive learning environment.

- Supported 811 Tahderiyyah centres of which 293 are in ARMM.
- Supported 52 private madaris.
- Reached 53,736 learners from the ADM Learning Centres, consisting of 43,606 who completed Kindergarten through BRAC.
- Reached 126,940 participation count of learners in ADM from K–5.
- 52,692 ECCD learners in the Tahderiyyah program for ARMM and non-ARMM.
- 4,336 learners from the 52 supported private madaris.
- 6,344 Indigenous children from ADM learning centers.
- 1,259 children with special needs in Special Education (SPED), up from 465 in SY 2012–2013.
- 391 children with disabilities from ADM Learning Centres.
- The School Health Program, especially through the WASH-in-School (WinS), deworming activities, as well as the feeding program in some schools, has contributed to decreased absenteeism due to improved health among children.
- The TVET component of the program for OSY and senior High School students has trained 11,007 completers and provided equipment to 23 TechVoc high schools and 56% of the OSY completers have been employed.

It should be noted that while the school health program to a great extent contributes to the quality of education due to its impact on the physical well-being of the child, it also contributes to access and participation due to the availability of school health facilities in schools that help in addressing the issue of absenteeism. Qualitative evidence can be found in the case study on school health in Annex 2.

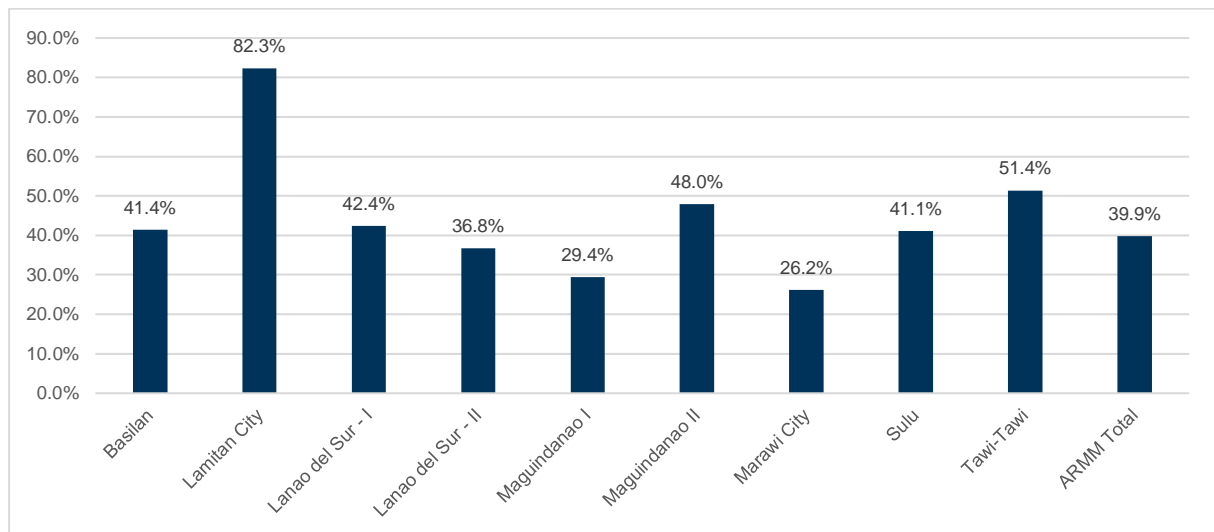
4 Analysis of progress towards BEAM–ARMM outcome indicators

4.1 Target: increase school completion¹¹ rates for boys and girls by 13% for elementary

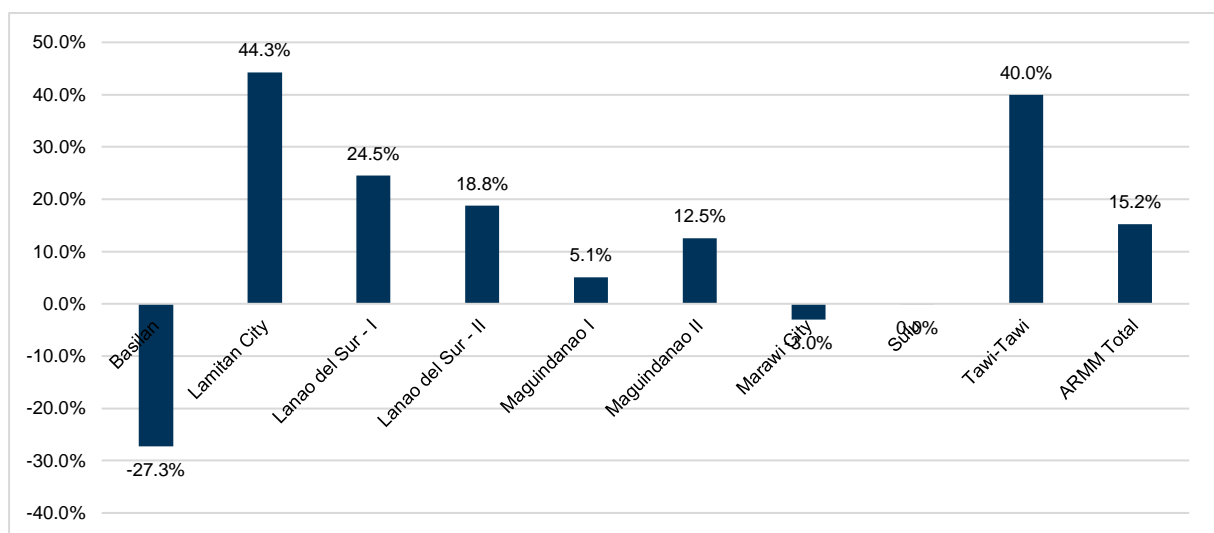
Elementary completion rate increased throughout ARMM by 15.2% from 24.6% in SY 2012–2013 to 39.9% in SY 2015–2016. Figure 1 below shows the elementary completion rate for each division for the SY 2015–2016. Figure 2 shows the change in elementary completion rate for each division between the SY 2012–2013 and SY 2015–2016. Four of nine divisions met the BEAM target of 13% increase in elementary rate between SY 2012–2013 and SY 2015–2016. However Basilan, in which BEAM–ARMM had lower contributions to access and participation, decreased 27.3% from 68.7% in SY 2012–2013 to 41.4% in SY 2015–2016.¹²

¹¹ Completion rate under BEAM ARMM is defined as the percentage of first grade/year entrants in a level of education who complete/finish the level in accordance with the required number of years of study. This definition is problematic as the denominator is not clearly defined.

¹² The reasons for this drop are not clear but may be partially due to improved data accuracy from EBEIS resulting from the transition to individual learner data.

Figure 1 Elementary completion rate by division SY 2015–2016

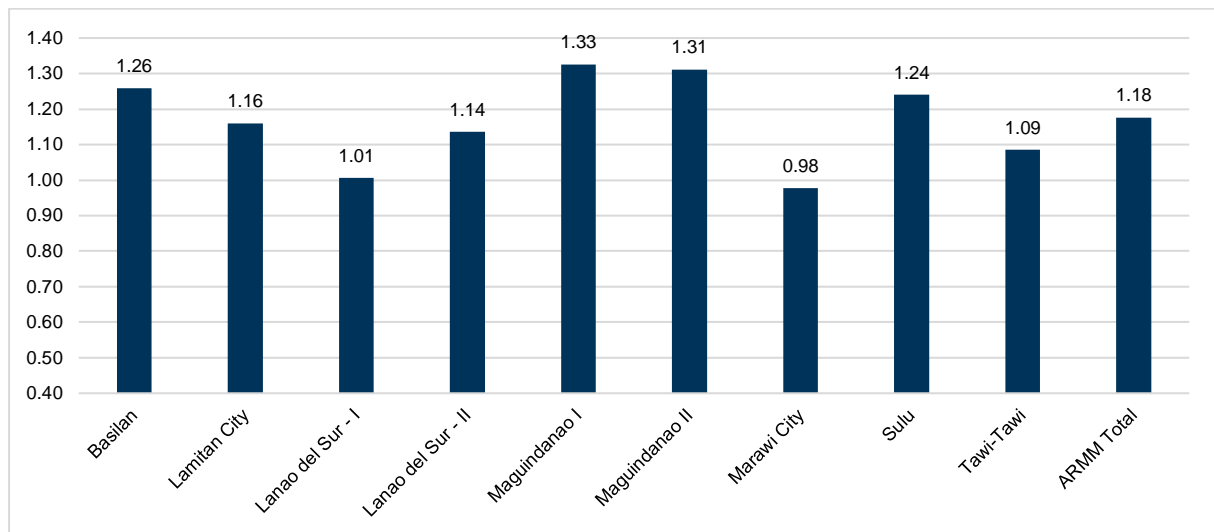
EBEIS 2016

Figure 2 Change in elementary completion rate by division between SY 2012–2013 to SY 2015–2016

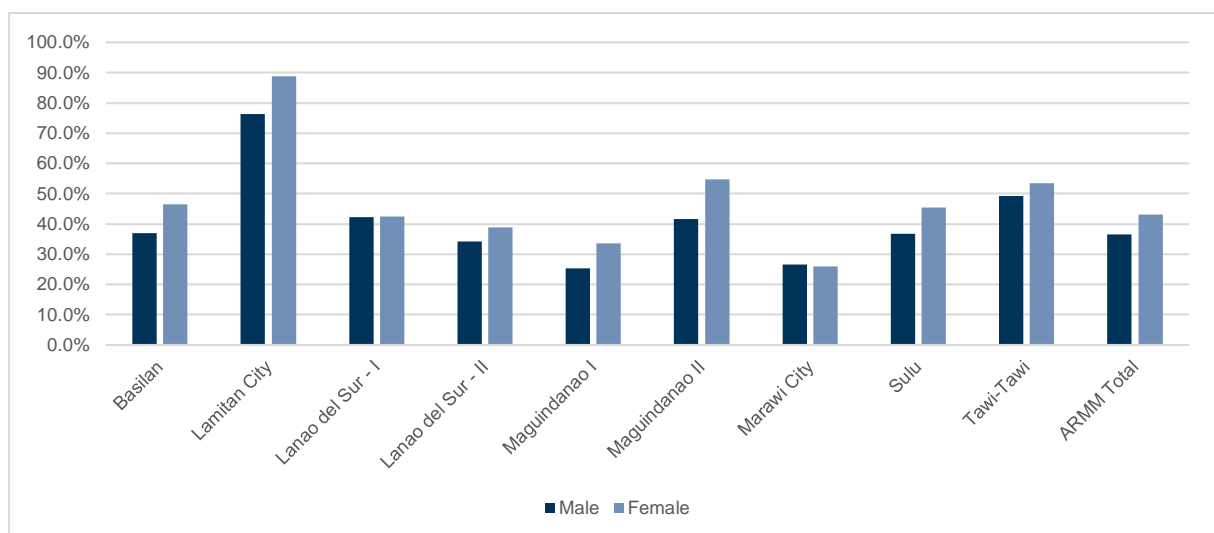
EBEIS 2016

As shown in Figure 1, completion rates remain very low with eight of nine divisions being below 55%. Only Lamitan City (82.3%) is reasonable. This is a result of high dropout rates in all other areas. Figure 3 below shows Gender Parity Index for the completion rate for elementary students by division. Figure 4 below shows the actual completion rates for male and female by division. Completion rates favour girls in all divisions except Lanao del Sur-1 (1.01) and Marawi City (0.98) indicating that retention of boys is poor.¹³

¹³ In BEAM–ARMM focal group discussions with officials conducted in 2017 school officials noted that based on the observed population in some areas, there are more girls than boys. Girls are more interested in school, and are more diligent compared to boys. On the other hand, because of poverty, boys are requested by parents to help them in their work, such as in the farm, construction and quarry. More boys also preferred to quit school and find work to help the family. Once they started to earn, they lost interest in school.

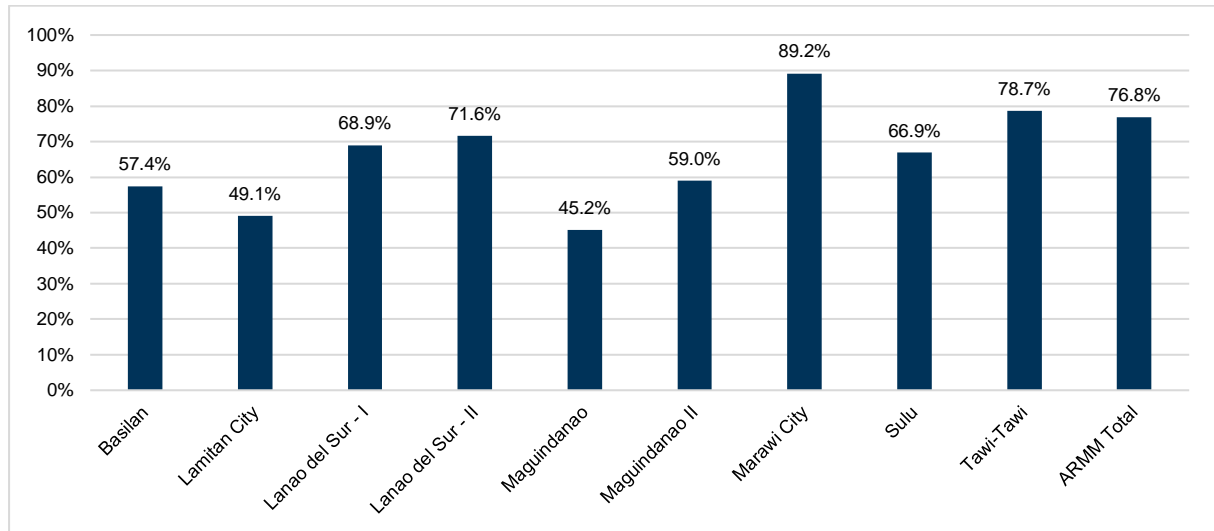
Figure 3 GPI elementary completion rate for SY 2015–2016 by division

EBEIS 2016

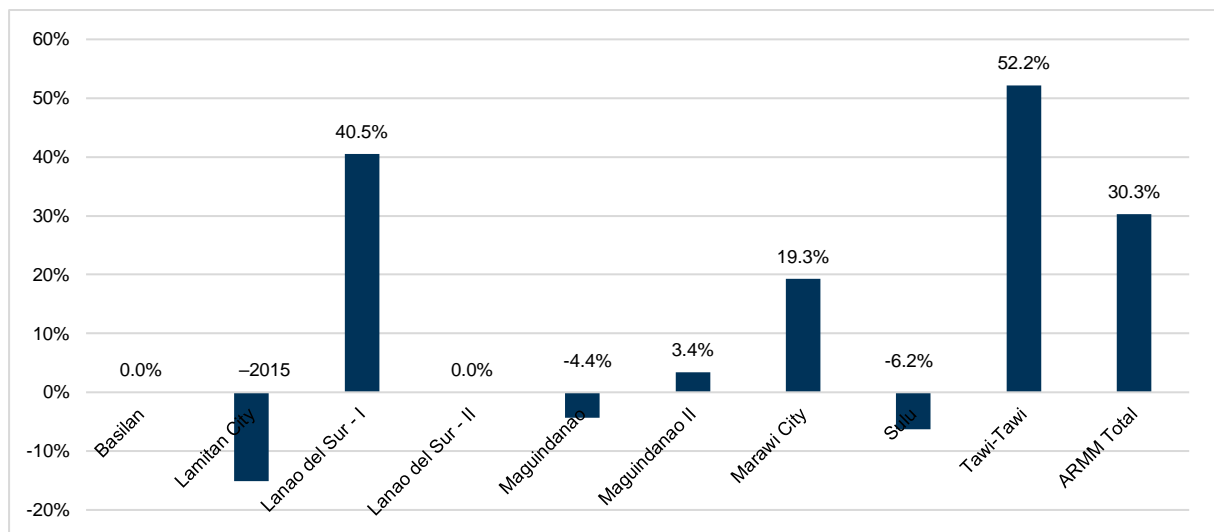
Figure 4 Elementary completion rate for SY 2015–2016 by gender

4.2 Target: increase school completion rates for boys and girls by 7% for secondary

BEAM–ARMM had the target of increasing secondary school completion rates by 7% during the course of the program. Figure 5 below shows the secondary completion rate by division for the SY 2015–2016 academic year. Figure 6 shows the change in secondary completion rate by division between the SY 2012–2013 and SY 2015–2016. Secondary completion rate increased throughout ARMM by 30.3% from 46.5% in SY 2012–2013 to 76.8% in SY 2015–2016. Four of nine divisions increased completion rates between SY 2012–2013 and SY 2015–2016. Most notable increases were in the divisions of Lanao del Sur-1 (40.5%), Marawi City (19.3%) and Tawi Tawi (52.2%) as shown in Figure 6 below.

Figure 5 Secondary completion rate by division SY 2015–2016

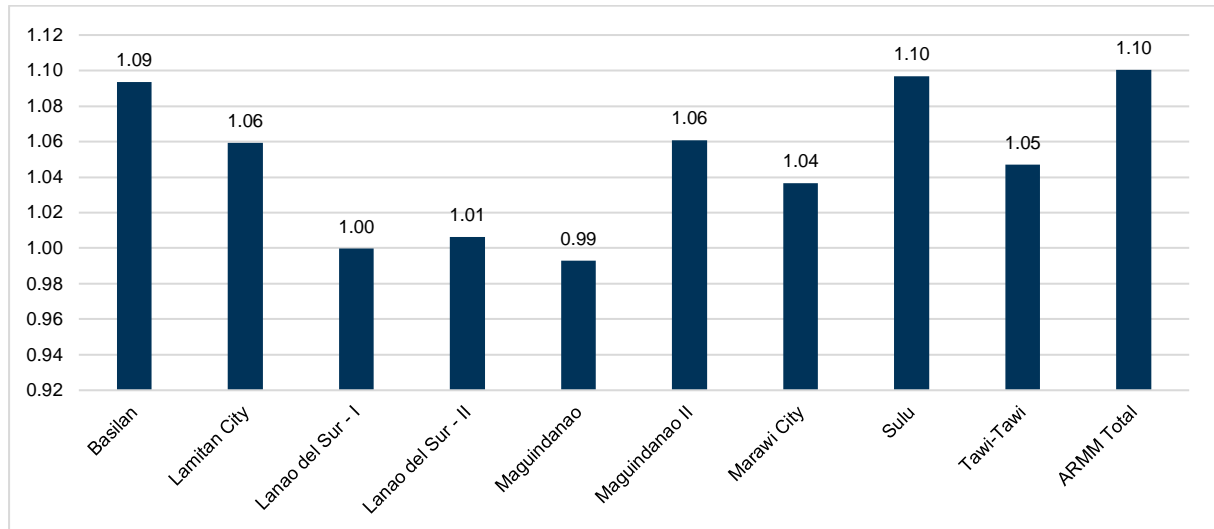
EBEIS 2016

Figure 6 Change in secondary completion rate by division between SY 2012–2013 to SY 2015–2016

EBEIS 2016

Figure 7 below shows the GPI secondary completion rate for SY 2015–2016 by division. Almost all divisions had a greater proportion of girls than boys completing secondary education. Only Lanao del Sur 1 (GPI 1.00), Lanao del Sur II (GPI 1.01) and Maguindanao (0.99) had similar completion rates for boys and girls.¹⁴

¹⁴ In BEAM focal group discussions with DepEd-ARMM officials it was reported that more female complete school because according to parents, teachers and school heads, female are more diligent in school, and more interested in school. There is more pressure for male to support family in earning income, boys are usually asked by their father to help in their work. In case of conflict, boys are more affected than girls. In some cases, boys are equally affected with girls in case of early marriage, where both of them dropout of school. Boys are also noted with less interest in school, prone to absences because of getting hooked to activities such as computer games and vices.

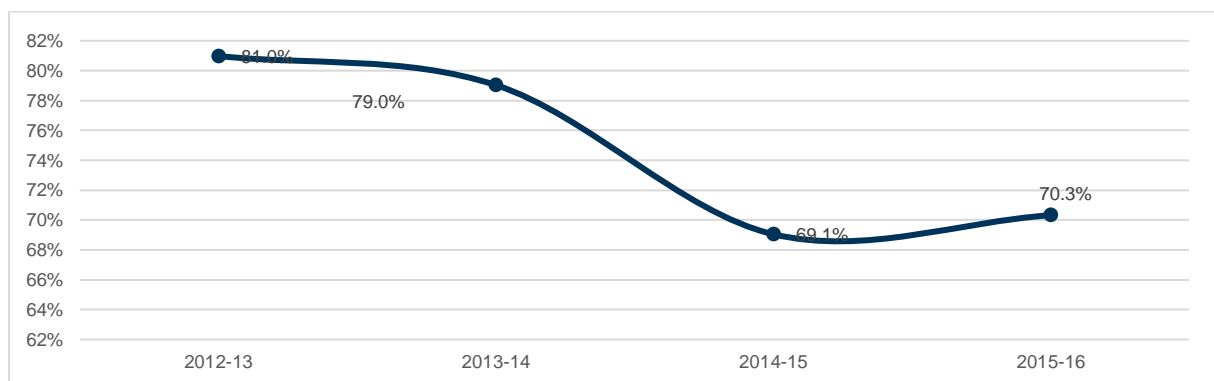
Figure 7 GPI secondary completion rate for SY 2015–2016 by division

EBEIS 2016

4.3 Target: Elementary transition rate of 80% ADM completers to DepEd secondary

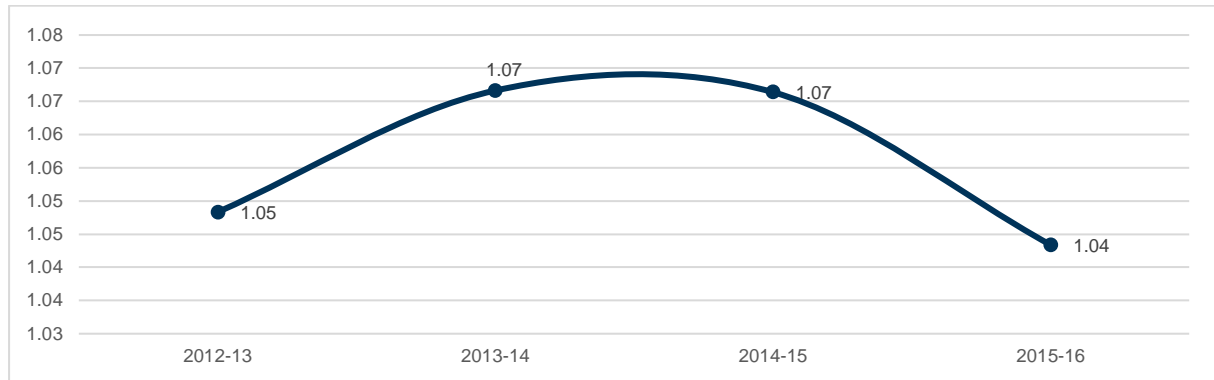
An outcome objective of BEAM–ARMM was to achieve a transition rate of 80% of completers from the ADM elementary to secondary education. It should be noted that ADM learners only completed Grade 5 in SY 2016–2017. These learners would only be able to transition to DepEd secondary schools after they complete Grade 6 in SY 2017–2018. It was not possible to meet this target within the life of the program.

But looking into the overall transition of elementary pupils to secondary education in ARMM and applying the target of 80%, the target was below the transition rate in SY 2012–2013 indicating that to meet the target a drop of 10% would have been acceptable. The graph below (Figure 8) shows the transition rate of completers from elementary to secondary for the ARMM region between the years SY 2012–2013 and SY 2015–2016. In the baseline year of SY 2012–2013 the transition rate was 91.0%. The rate varied throughout the BEAM–ARMM program and the final rate in SY 2015–2016 was 70.3%, which did not meet the target.

Figure 8 Transition rate of completers from Elementary to Secondary SY 2012–2013 to SY 2015–2016

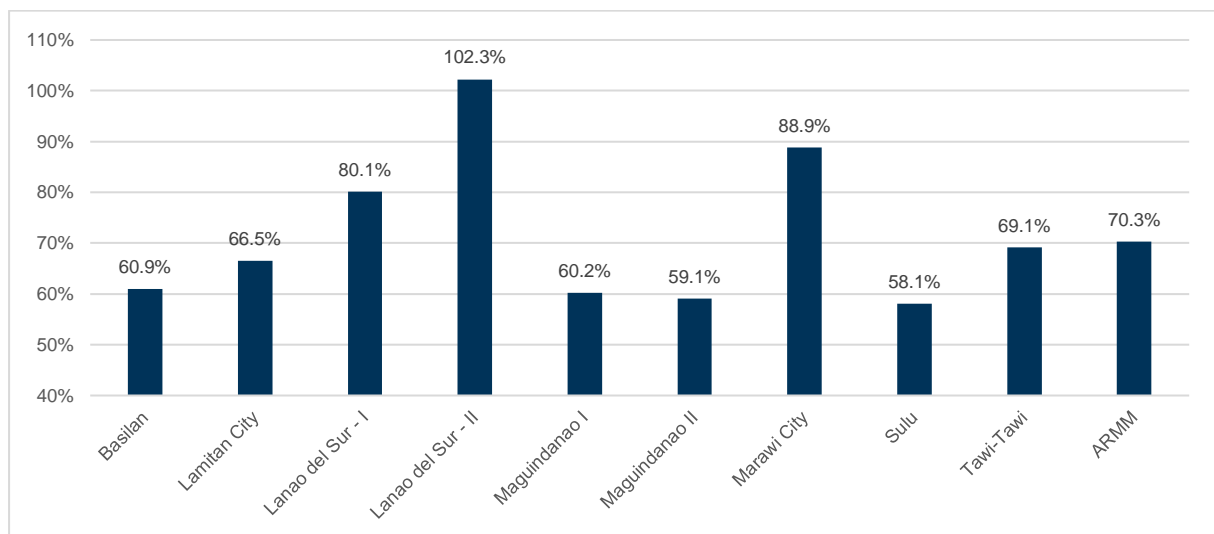
EBEIS 2016

The graph below (Figure 9) shows the GPI for transition rate of completers from elementary to secondary between the SY 2012–2013 to SY 2015–2016. A slightly greater proportion of girls' transition than boys. GPI transition rate has varied from 1.05 in SY 2012–2013 to 1.04 in SY 2015–2016.

Figure 9 GPI transition rate of completers from elementary to secondary SY 2010–2011 to SY 2015–2016

EBEIS 2016

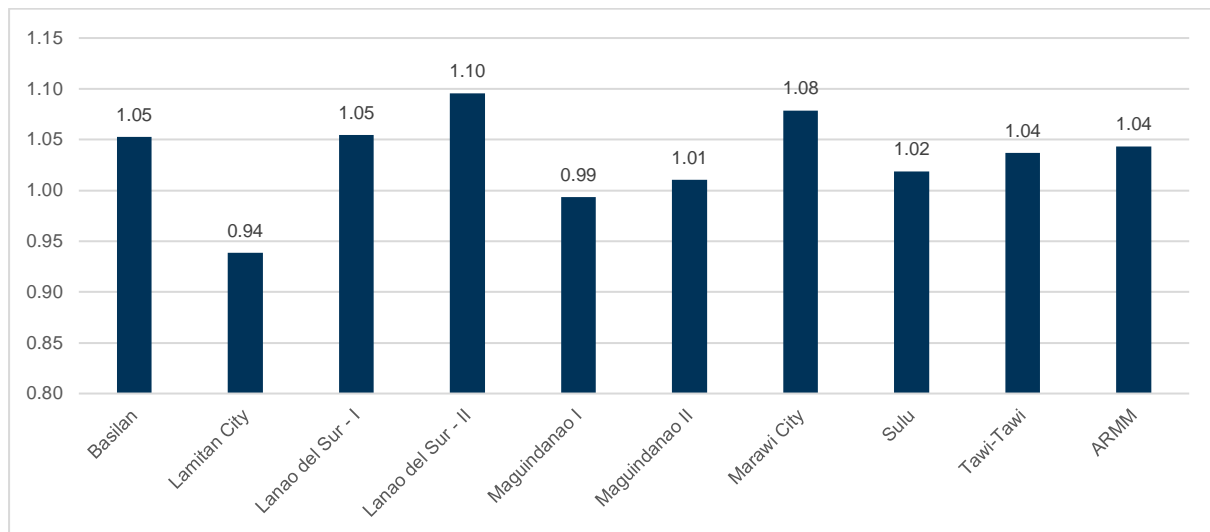
Figure 10 below shows the transition rate of completers from elementary to secondary level by division for the academic year 2015–2016. Significant variations were evident between divisions which may be indicative of issues in terms of access to secondary education. The transition rate varied considerably between divisions from 58.1% in Sulu to 102.3% in Lanao del Sur-II. This indicates that there is still a poor transition rate to secondary education in all divisions except Lanao del Sur-II (102.3%) and Marawi City (88.9%). Only three of nine divisions exceeded the target of 80%.

Figure 10 Transition rate of completers from elementary to secondary by division SY 2015–2016¹⁵

EBEIS 2016

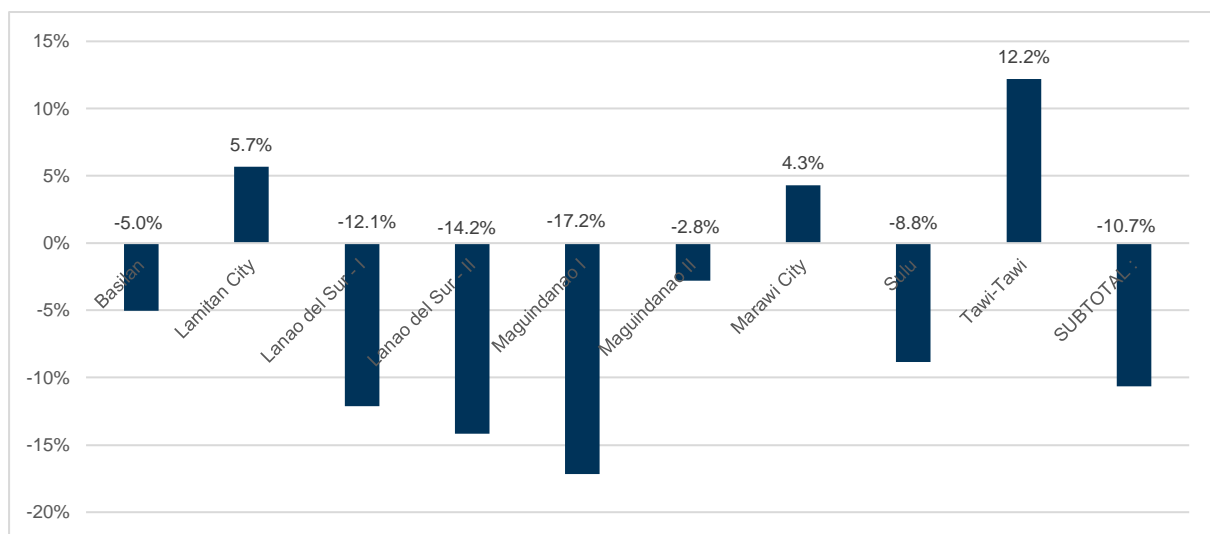
Figure 11 below shows the GPI transition rate of completers from elementary to secondary by division for SY 2015–16. Four of nine divisions have significantly more girls transitioning than boys proportional to Grade IV enrolment ($GPI \geq 1.05$) and only one division, Lamitan City ($GPI \leq 0.95$), has significantly more boys than girls.

¹⁵ Transition rates were not available for Lanao del Sur – I, Lanao del Sur – II and Sulu for the SY 2015–2016 and therefore comparison to the SY 2014–2015 was made.

Figure 11 GPI transition rate of completers from elementary to secondary by division SY 2015–2016¹⁶

EBEIS 2016

Figure 12 below shows the change in transition rate of completers from elementary to secondary by division between the SY 2012–2013 and SY 2015–2016. Six of nine divisions had a drop in transition rate during the period. Only three divisions had an increases including Lamitan (5.7%), Marawi City (4.3%) and Tawi-Tawi (12.2%).

Figure 12 Change in transition rate of completers from elementary to secondary by division between 2012–2013 and 2015–2016

EBEIS 2016

4.4 Target: Increase Tahderiyyah completion rate by 10%

Tahderiyyah program implementation across Mindanao showed a 6.6% increase in completion rate from 73.9% (70.6% for boys, 74.2% for girls) in SY 2014–2015 to 80.5% (79.8% for boys, 81.1% for girls) in SY 2015–2016. In ARMM, the Tahderiyyah completion rate increased by 7.9% from 73.9%

¹⁶ Transition rates were not available for Lanao del Sur – I, Lanao del Sur – 2 and Sulu for the SY 2015–2016 and therefore comparison to the SY 2014–2015 was made.

(73.4% for boys, 74.3% for girls) in SY 2014–2015 to 81.8% (81.5% for boys, 82.1% for girls) in SY 2015–2016. This did not achieve the BEAM-ARMM target of a 10% increase in completion rate.

In SY 2015–2016, in terms of enrolment the Tahderiyyah program reached an aggregate of 8,518 children (4,233 boys, 4,285 girls). Of these, 4,950 (58%) are from ARMM. Of the total enrollees, 80% or 6,853 (3,377 boys, 3,476 girls) completed the Tahderiyyah program. In terms of transition, for the whole of Mindanao, 1,968 out of 4,322 completers, or 45.5%, transitioned to Grade 1. In ARMM, 1,347 out of 2,958 completers, or 45.5%, transitioned to Grade 1.

4.5 Target: 90% of 36,000 Kindergarten completers transition to Grade 1 (ADM)

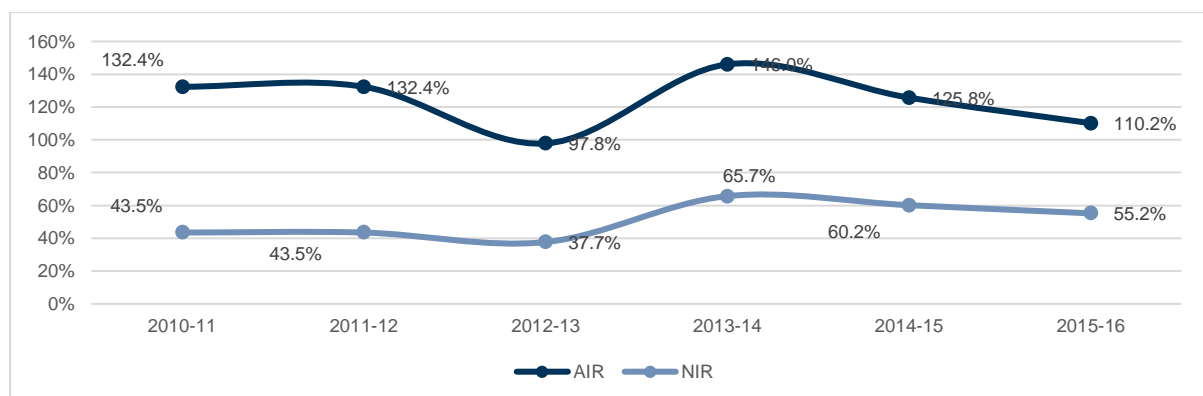
The ADM provides access to and equitable provision of basic education in ARMM, targeting out-of-school children in remote, poor and conflict-affected communities. The ADM learning centres offer Kindergarten and elementary education using the K–12 curriculum and BRAC education model approaches. From SY 2012–2013 to SY 2015–2016, a total of 43,606 children (21,606 girls and 22,000 boys) completed Kindergarten education in BRAC supported learning centres. Of these, 32,180 children (16,334 boys; 15,846 girls) or 73.8% of total Kindergarten completers transitioned to Grade 1 in DepEd–ARMM schools. The remaining 26.2% transitioned to Grade 1 in the BRAC system leading to a total overall transition rate of 100%.

4.6 Grade 1 entrants

The program was to increase access to ECE of Grade 1 entrants, boys and girls, from 48% to 55% measured as Grade 1 Net Intake Rate (NIR).¹⁷ This represents a 7% increase.

The graph below (Figure 13) shows the Grade 1 AIR and GIR between SY 2010–2011 and SY 2015–2016 for the ARMM region. The program achieved its target with an increase of 11.7%, however as the trends in Figure 13 show, the regional data is likely to be flawed to some extent. NIR increased between SY 2012–2013 and SY 2015–2016 from 43.5% to 55.2% indicating a greater percentage of correctly aged children are enrolled and also perhaps that the data is gradually becoming more accurate. AIR declined from 132.4% in SY 2012–2013 to 110.2% in SY 2015–2016. The percentage of pupils incorrectly aged for Grade 1 decreased from 67.1% in SY 2012–2013 to 49.9% in SY 2015–2016.

Figure 13 Grade 1 AIR and GIR 2010–2011 to 2015–2016 in ARMM

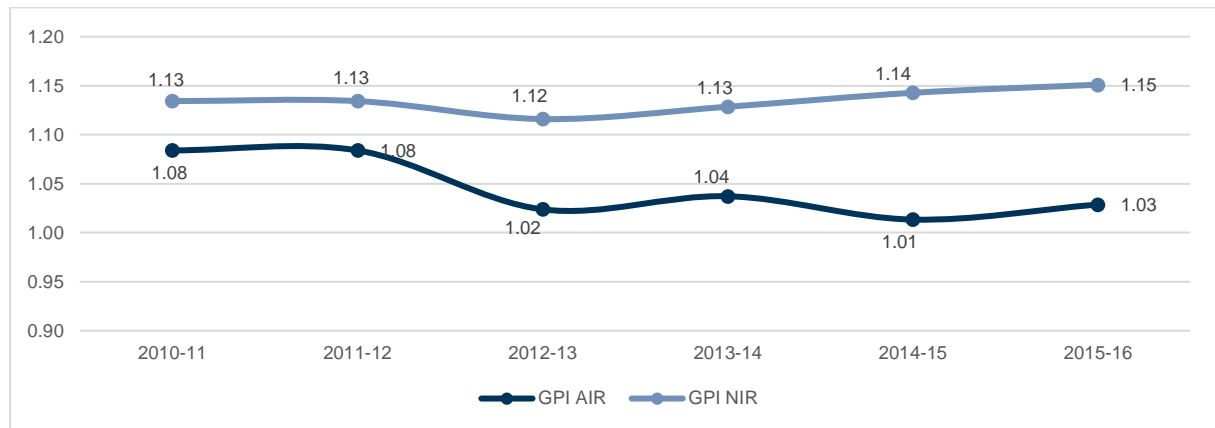


EBEIS 2016

¹⁷ Net Intake Rate is the percentage of correctly aged new entrants enrolled in Grade 1 as a proportion of the population of six-year old children in the region. Apparent Intake Rate, also called Gross Intake Rate which is the total number of new pupils in Grade 1 divided by the population of six year olds in the region.

The graph below (Figure 14) shows the GPI for Grade 1 AIR and GIR between SY 2010–2011 and SY 2015–2016 in ARMM. In terms of equity, Gross (Apparent) intake proportionally favours girls (2015–2016 GPI GIR 1.15) but the correctly aged children have increased the proportion of boys from GPI NIR 1.08 in 2012–2013 to GPI NIR 1.03 in 2015–2016. This indicates that proportional to the estimated population, more girls than boys are entering the education system in Grade 1 however for correctly aged children the proportions are equivalent.

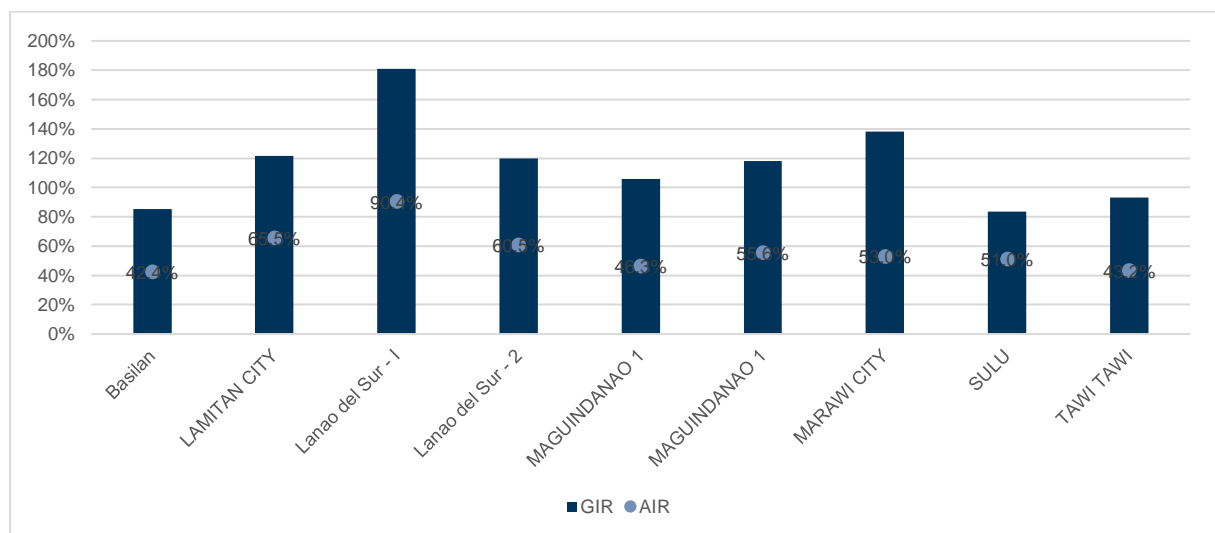
Figure 14 GPI Grade 1 AIR and GIR SY 2010–2011 to SY 2015–2016 in ARMM



EBEIS 2016

Figure 15 below shows the Grade 1 AIR and GIR SY 2015–2016 for each division in ARMM. Significant disparities in intake rate still persist between divisions and range from a GIR of 85.1% (NIR 42.4%) in Basilan to 181.1% (NIR 90.4%) in Lanao Del Sur-1 in SY 2015–2016. These disparities also highlight potential issues concerning the completeness and reliability of the EBEIS data. Three of nine of divisions met or exceeded the target of 55%.

Figure 15 Grade 1 AIR and GIR SY 2015–2016 by division in ARMM

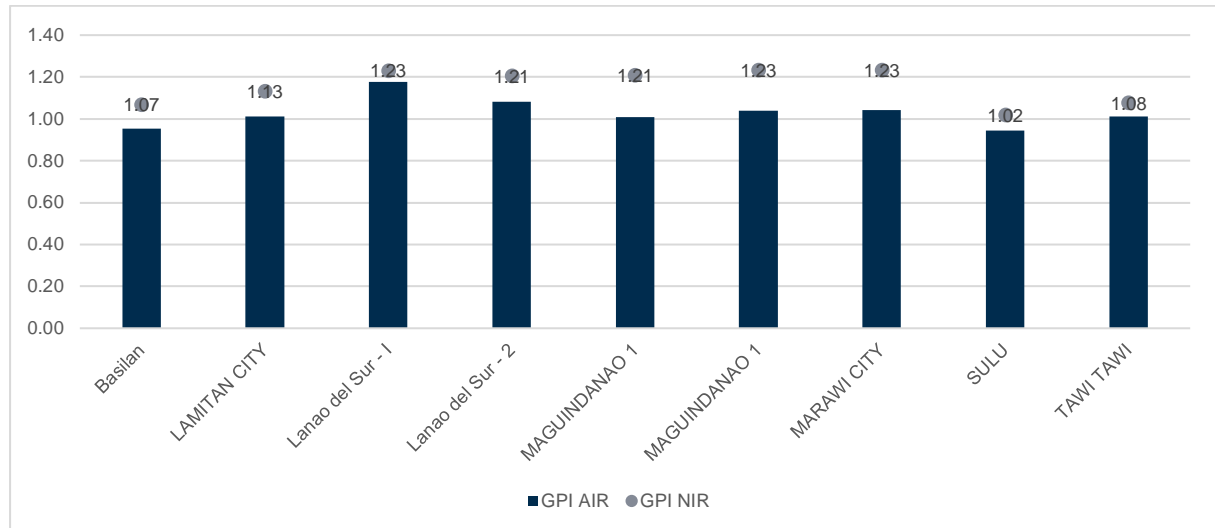


EBEIS 2016¹⁸

¹⁸ The provinces of Lanao del Sur – I, Lanao del Sur – 2 and Sulu did not have participation rates finalised for SY 2015–2016 and therefore comparison was made with SY 2014–2015 participation rates.

Figure 16 below shows the GPI Grade 1 AIR and GIR SY 2015–2016 by Division in ARMM. As indicated, gender equity also remains a substantial issue in all divisions with exclusion being more predominant for boys than for girls. Boys' exclusion from intake is very pronounced in five divisions having a GPI GIR of more than 1.20, as shown in figure 16 below.

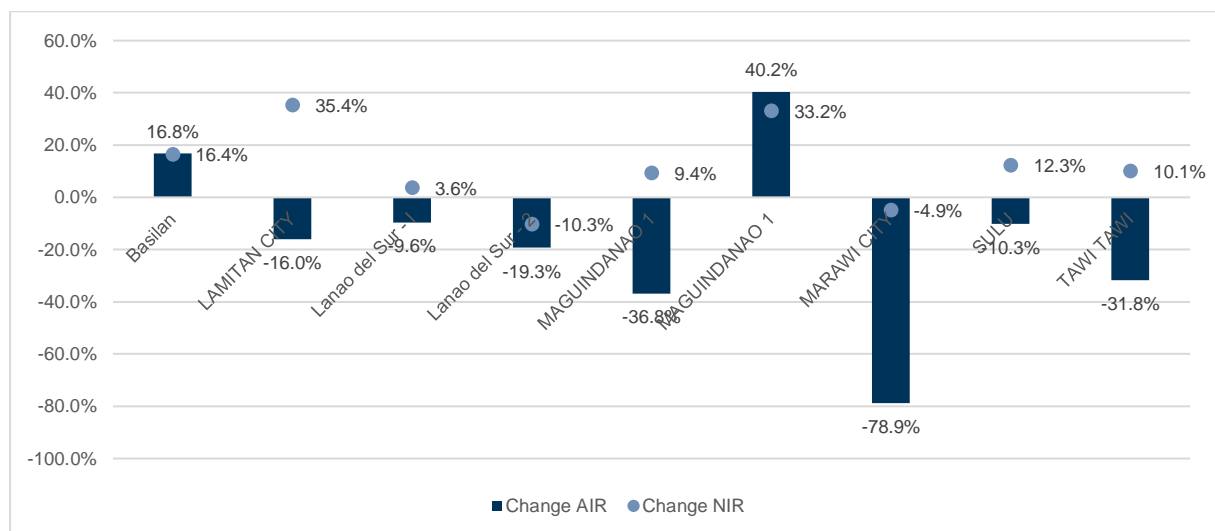
Figure 16 GPI grade 1 AIR and GIR SY 2015–2016 by division in ARMM



EBEIS 2016¹⁹

Six of nine recorded divisions achieved the BEAM–ARMM outcome to increase NIR by at least 7%. Lamitan City (34.5%), Lanao del Sur–2 (36.0%) and Maguindanao 1 (33.2%) all recorded increases in NIR of over 30%. Two of nine divisions recorded a decline in NIR however seven of nine recorded a decline in GIR with Marawi City having a decline of 78.9%.

Figure 17 Change in grade 1 AIR and NIR between SY 2012–2013 and SY 2015–2016 by division in ARMM



EBEIS 2016²⁰

¹⁹ The provinces of Lanao del Sur – I, Lanao del Sur – 2 and Sulu did not have participation rates finalised for SY 2015–2016 and therefore comparison was made with SY 2014–2015 participation rates.

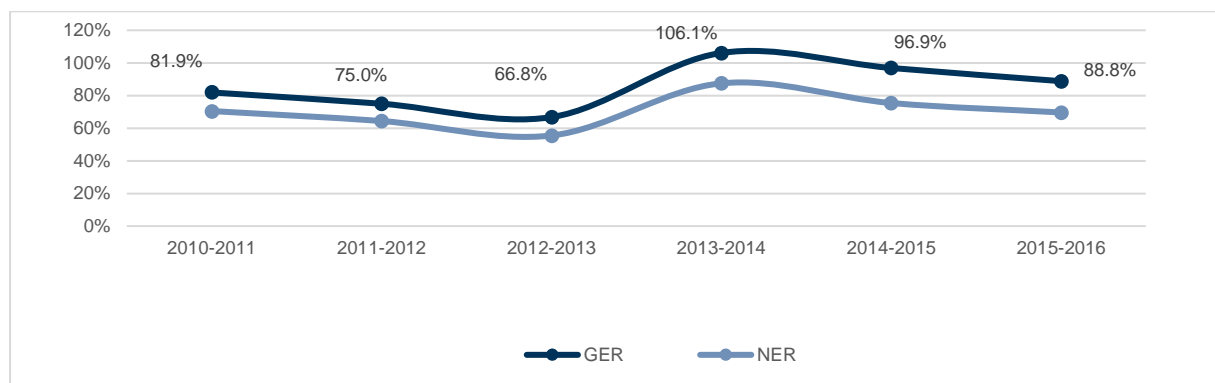
²⁰ The provinces of Lanao del Sur – I, Lanao del Sur – 2 and Sulu did not have participation rates finalised for SY 2015–2016 and therefore comparison was made with SY 2014–2015 participation rates.

4.7 Target: 13% increase in school participation in elementary

BEAM–ARMM has been involved in activities which facilitated and advocated for increased participation in elementary education. Therefore, it could be assumed that the elementary Gross Enrolment Rate (GER) and Net Enrolment Rate (NER) would increase notionally during the life of the program or that GER would decrease and NER would increase as more students of the correct age participate in elementary education. It was anticipated that during the program elementary and secondary NER would increase by 13%. As noted above this indicator is problematic so further evidence of increase in elementary participation rates and an estimation of BEAM–ARMM contribution is presented below.

The graph below (Figure 18) shows the elementary GER (labelled) and NER for ARMM between SY 2010–2011 and SY 2015–2016.

Figure 18 Elementary GER labelled and NER for ARMM SY 2010–2011 and 2015–2016



DepEd ARMM 2016

The ARMM has increased both GER and NER throughout the BEAM–ARMM program. Overall GER increased from 66.8% in SY 2012–2013 to 88.9% in SY 2015 – 2016 and NER increased from 55.5% to 69.6% during the same period. This indicates an increase in NER of 14.1% which is above the anticipated target of 13%.²¹ GER increased 12.1%. The proportion of incorrectly aged children for elementary increased from 14.1% to 21.6% of children enrolled however this is to be anticipated given that BEAM–ARMM program was designed to target those children most likely to be out of school and therefore to have been left behind.

As noted above, the trends indicate that data is not accurate. The change in recording pupil enrolments from total numbers to the recording of individual pupils was made in the 2013–2014 academic year and the impact on the data is evident.²² Participation rates decreased from SY 2013–2014 through to SY 2015–2016, likely as a result of DepEd–ARMM's efforts to correct duplicate, poor and inaccurate data.²³

Figure 19 below shows the change in elementary GER and NER by division between SY 2012–2013 and SY 2015–2016. There were large variations in the change in NER and GER between divisions

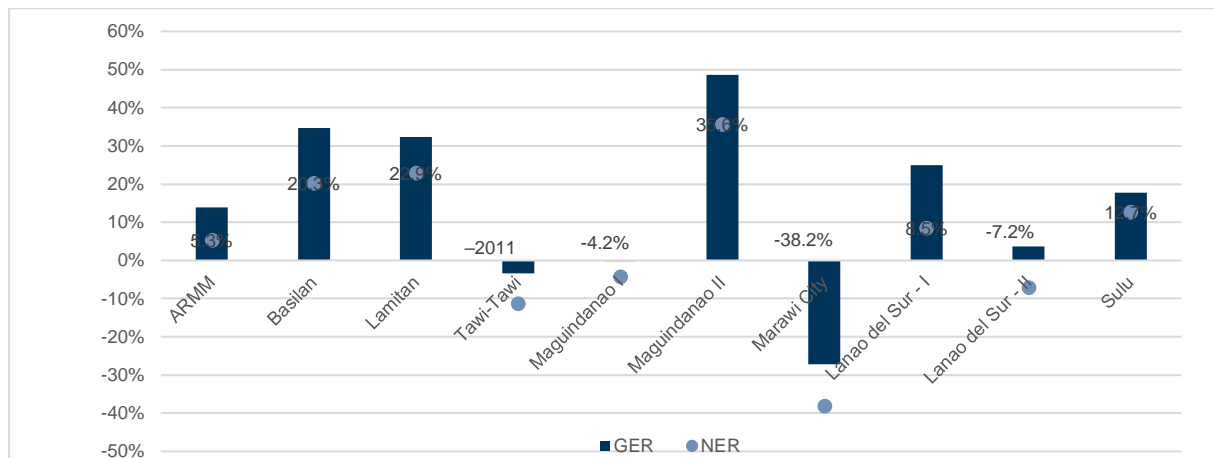
²¹ However the program is scheduled to be completed in 2017 and may achieve the target during the final year.

²² Even in a conflict environment the levels of data variation shown in ARMM would be unusual.

²³ DepEd–ARMM undertook a 'ghost busting' program commencing in SY 2013–2014 as detailed by ASec Marjuni Maddi, the Assistant Secretary for Academics of DepEd–ARMM during the meeting of the Program Coordinating Committee in February 2017. The term 'Ghost' refers to ghost pupils which are either pupils who enrol at a school but do not attend or pupils who do not exist. Ghost pupils are sometimes a means to increase funding to schools, particularly in environments where per capita funding mechanisms are used but they can also be used to apply for more resources such as teachers, classrooms and pedagogical materials.

between SY 2012–2013 and SY 2015–2016. Three of nine divisions met the BEAM–ARMM target of a 13% increase in NER whilst five of nine divisions declined during the period.²⁴

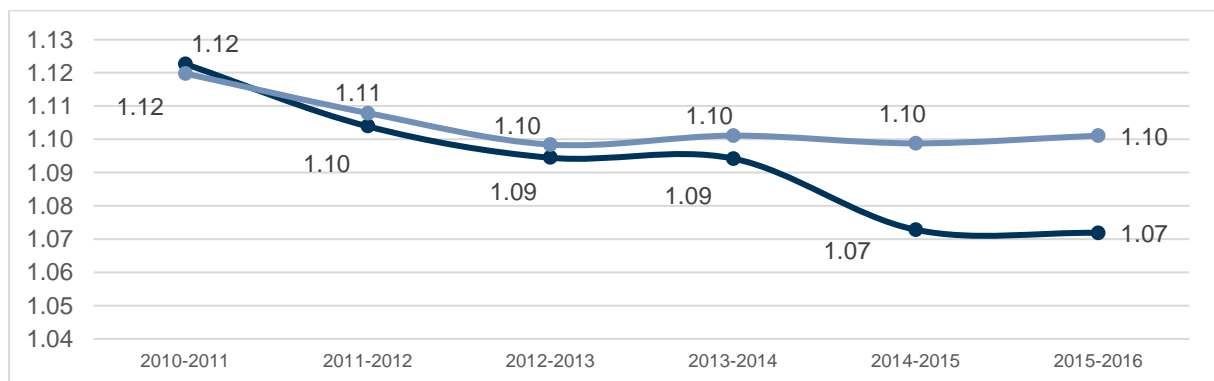
Figure 19 Change in elementary GER and NER labelled by division between SY 2012–2013 and SY 2015–2016



DepEd ARMM 2016²⁵

The graph below (Figure 20) shows elementary GPI GER and GPI NER for ARMM SY 2010–2011 and SY 2015–2016. Regionally for ARMM equity in elementary enrolment has improved since SY 2012–2013 from GPI GER 1.09 to GPI GER 1.07 in SY 2015–2016 indicating that there are still issues of low boys enrolment in elementary education.

Figure 20 Elementary GPI GER labelled and GPI NER for ARMM SY 2010–2011 to SY 2015–2016



DepEd ARMM 2016

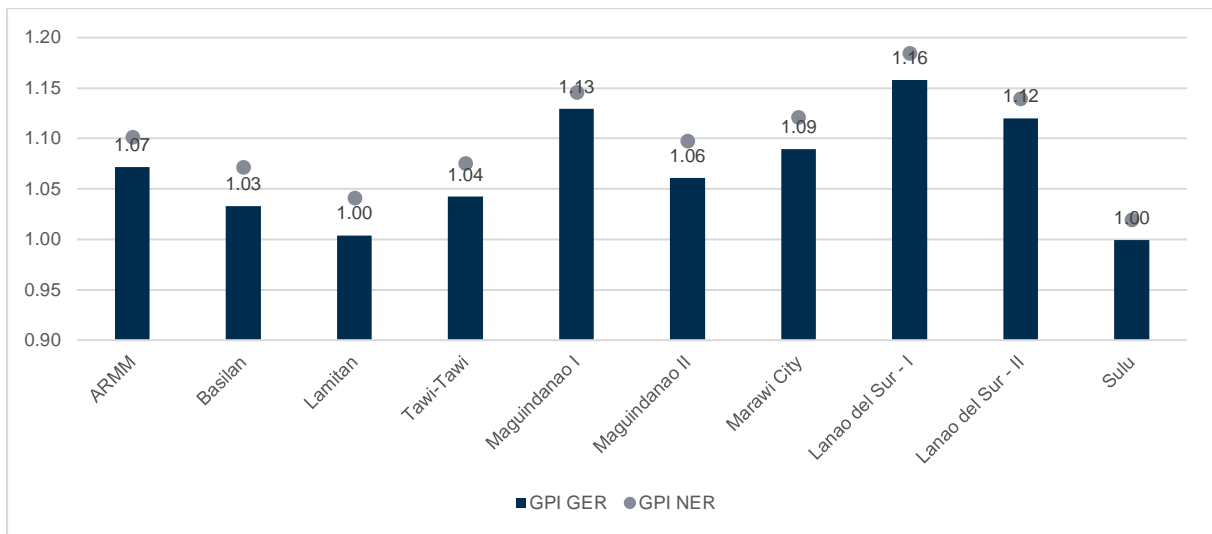
Figure 21 below shows the elementary GPI GER and GPI NER for ARMM by division in SY 2015–2016. There are marked differences in different divisions with many divisions having proportionally poor participation of boys in elementary education, most notably Lanao del Sur -1B (GPI GER 1.16), Maguindanao 1 (GPI GER 1.13), and Lanao del Sur – II (GPI GER 1.12). GPI NER are higher than GPI GER indicating more boys incorrectly aged in primary school than girls. Elementary participation

²⁴ In BEAM–ARMM Focal Group Discussions conducted in 2017, officials reported that increase in enrolment in Lamitan division was because of transfer in from conflict affected areas in nearby areas. One school cited an increase in enrolment during the occurrence of Zamboanga siege in 2013, primarily because of transfer in. When the conflict was settled, the school reduced its enrolment because the transferees went back to their place. In Marawi, when there was a problem in administration, some schools closed down resulting in decreased enrolment, though some students transferred to another school in the same division, other children were not able to attend school. These issues were endemic to many areas and resulted in large fluctuations in enrolment.

²⁵ Note that Lanao del Sur – I, Lanao del Sur – II and Sulu are using SY 2014–2015 data as SY 2015–2016 was not available at the time of drafting of the EPR.

rates in ARMM remain well below national averages of GER 106.3% and NER 91.1% indicating that more work is to be done.

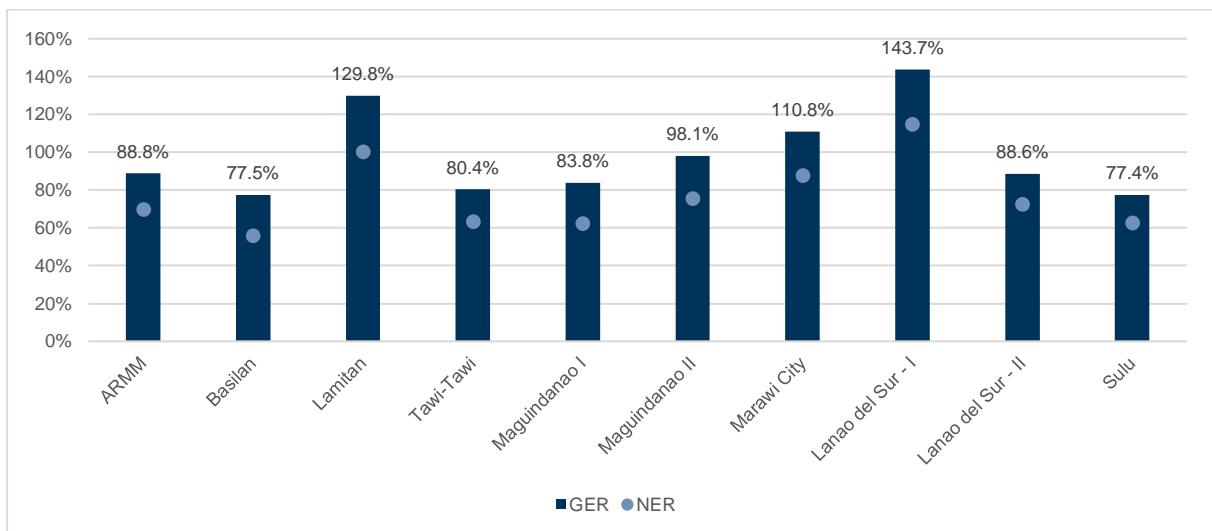
Figure 21 Elementary GPI GER labelled and GPI NER for ARMM 2016 by division



DepEd ARMM 2016²⁶

Figure 22 below shows the elementary GER and NER for ARMM by division SY 2015–2016. There are also still large divisional variations in participation rates which also indicate regions of likely poor data such as Lanao del Sur – 1 with a elementary GER of 143.7% and NER of 114.7%.

Figure 22 Elementary GER labelled and NER for ARMM 2016 by division



DepEd ARMM 2016²⁷

4.8 Target: 7% increase in participation in secondary

As noted above it is unlikely that BEAM–ARMM would have had a large impact on secondary education participation rates given the duration of the program and its focus on elementary education.

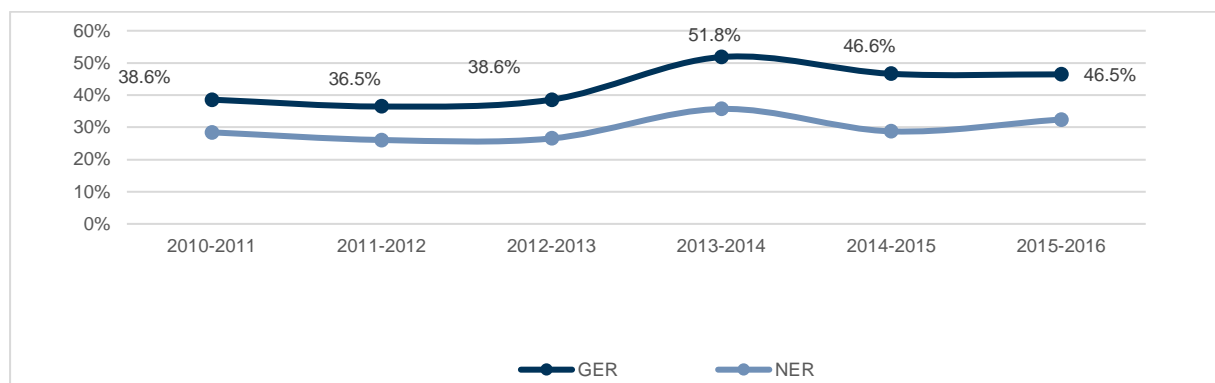
²⁶ Note that Lanao del Sur – I, Lanao del Sur – II and Sulu are using SY 2014–2015 data as SY 2015–2016 was not available at the time of drafting of the EPR.

²⁷ Note that Lanao del Sur – I, Lanao del Sur – II and Sulu are using SY 2014–2015 data as SY 2015–2016 was not available at the time of drafting of the EPR.

However this analysis is provided to help validate gains. It was anticipated that during the program secondary NER would increase by 7%. The use of this indicator is problematic so further evidence of increase in secondary participation rates and an estimation of BEAM–ARMM contribution is presented below.

The graph below (Figure 23) shows the secondary GER and NER for ARMM SY 2010–2011 to SY 2015–2016. ARMM has increased both GER and NER throughout the BEAM–ARMM program. Overall secondary GER increased from 38.6% in SY 2012–2013 to 46.5% in SY 2015 – 2016 and NER increased from 26.5% to 32.4% during the same period. This indicates increase in NER of 5.9%. GER increased 7.9%. The proportion of incorrectly aged children for elementary increased from 28.5% to 30.2% of children enrolled however this is to be anticipated given that primary repetition rates are still high in ARMM which would result in age distortions in secondary education.

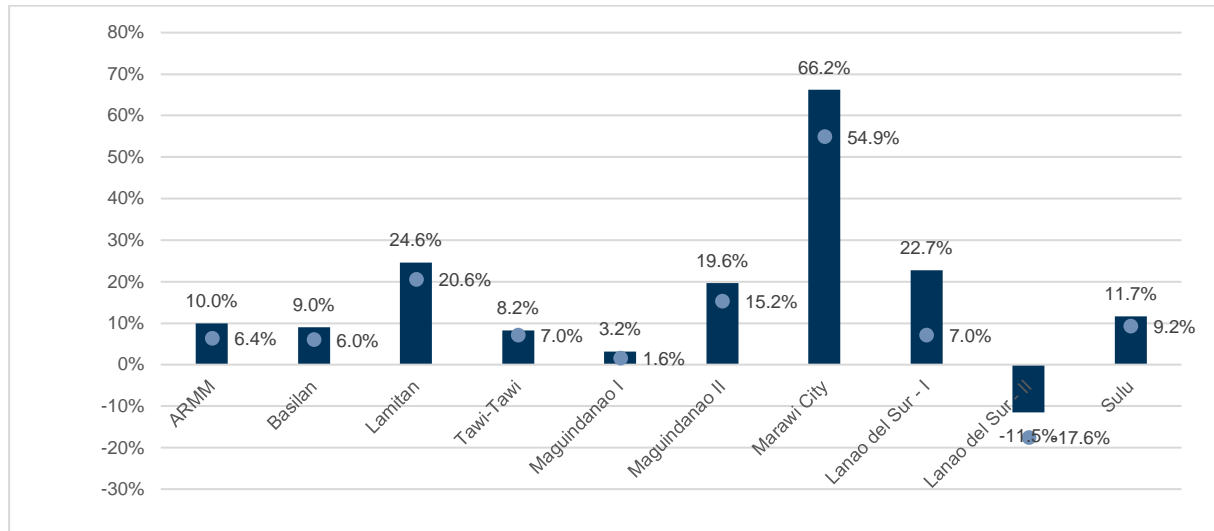
Figure 23 Secondary GER labelled and NER for ARMM SY 2010–2011 and SY 2015–2016



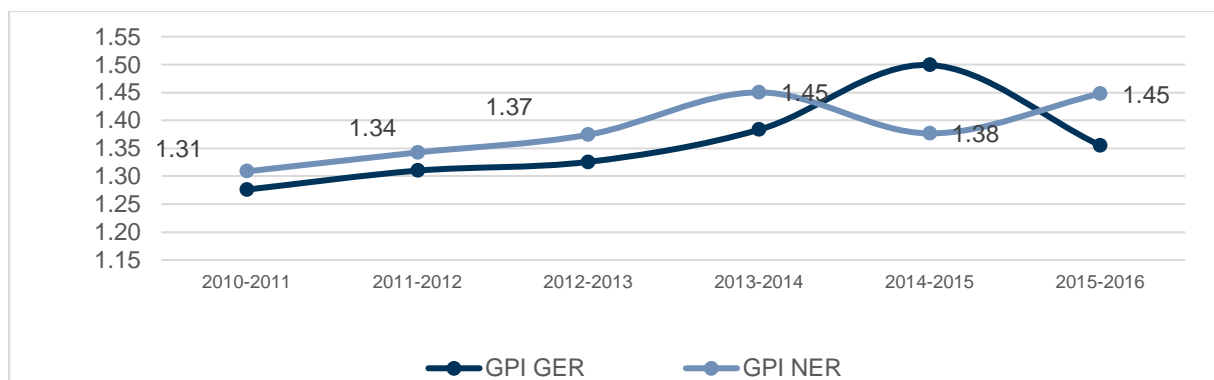
DepEd–ARMM 2016

As noted above, the trends indicate that data is not accurate. As described above, the change to individual pupils was made in the 2013–2014 academic year and the impact on the data is evident. As in the case of elementary data, participation rates decreased from SY 2013–2014 year through to SY 2015–2016 likely as a result of DepEd–ARMM's efforts to correct duplicate, poor and inaccurate data. Secondary participation rates in ARMM remain well below national averages of GER 83.7% and NER 68.2% indicating that more work is to be done.

Figure 24 below shows the change in secondary GER and NER (labelled) by division between SY 2012–2013 and SY 2015–2016. There were large variations in the change in NER and GER between divisions between 2012–2013 and 2015–2016. Six of nine divisions met the BEAM–ARMM target of a 7% increase in GER whilst two divisions declined during the period.

Figure 24 Change in Secondary GER and NER labelled by division between SY 2012–2013 and SY 2015–2016DepEd ARMM 2016²⁸

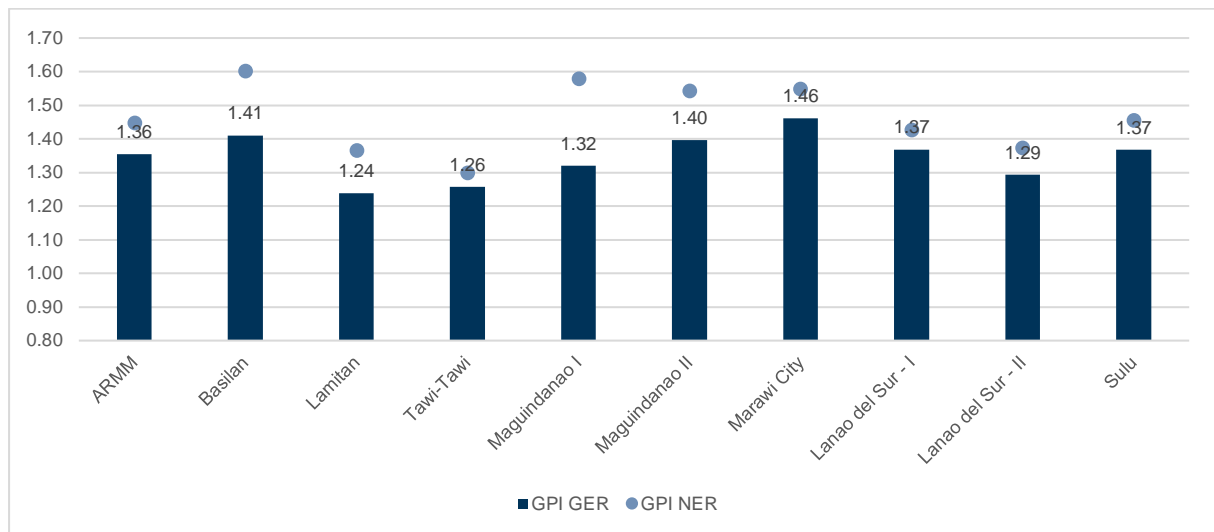
The graph below (Figure 25) shows the secondary GPI GER and GPI NER for ARMM SY 2010–2011 to SY 2015–2016. Regionally for ARMM equity in secondary enrolment has declined since SY 2012–2013 from GPI GER 1.33 to GPI GER 1.36 in SY 2015–2016 indicating that there are far fewer boys enrolled in secondary education proportional to the population than girls.

Figure 25 Secondary GPI GER labelled and GPI NER for ARMM SY 2010–2011 to SY 2015–2016

DepEd ARMM 2016

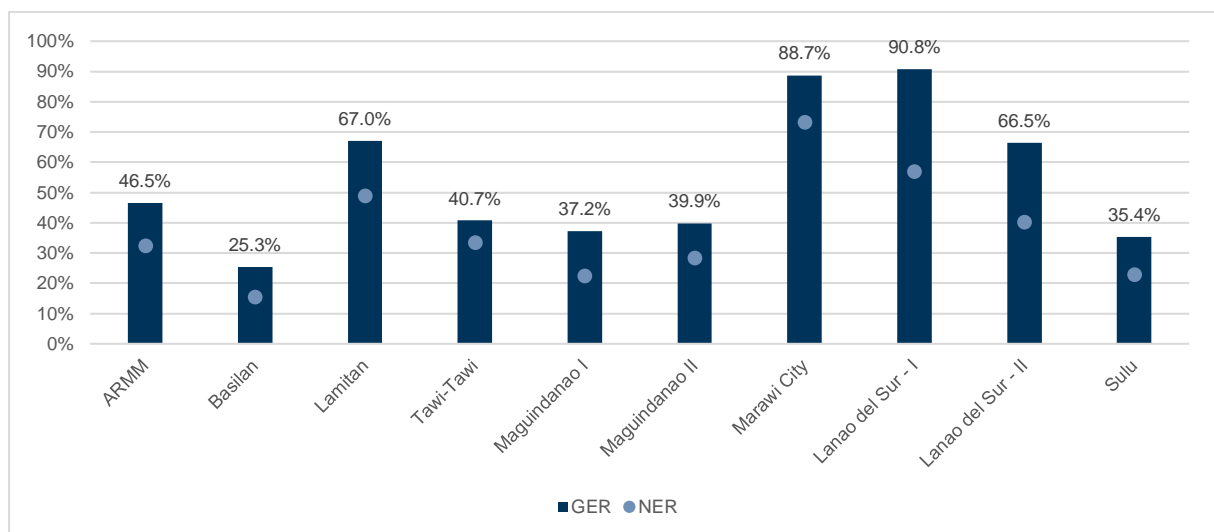
Figure 26 below shows secondary GPI GER and GPI NER by division for ARMM SY 2015–2016. There are also marked differences in different divisions. All divisions have proportionally poor participation of boys in elementary education ranging from GPI GER 1.24 in Lamitan to GPI GER 1.46 in Marawi City.

²⁸ Note that Lanao del Sur – I, Lanao del Sur – II and Sulu are using SY 2014–2015 data as SY 2015–2016 was not available at the time of drafting of the EPR.

Figure 26 Secondary GPI GER labelled and GPI NER for ARMM SY 2015–2016 by division

DepEd-ARMM 2016²⁹

Figure 27 below shows the secondary GER and NER by division for ARMM for SY 2015–2016. There are still large divisional variations in participation rates from Basilan with a GER of 25.3% to Lanao del Sur - I with 90.8%.³⁰

Figure 27 Secondary GER labelled and NER by division for ARMM for SY 2015–2016

DepEd-ARMM 2016³¹

It is evident from the participation rates that significant challenges remain in the provision of secondary education. There are only 357 high schools in the whole of ARMM compared with 2,148 elementary schools. This presents likely challenges of access for children located in small and remote communities which should be addressed in order to ensure all pupils can obtain a full education.

²⁹ Note that Lanao del Sur – I, Lanao del Sur – II and Sulu are using SY 2014–2015 data as SY 2015–2016 was not available at the time of drafting of the EPR.

³⁰ Large variations between divisions as shown in the graph below may also be indicative of incomplete or overinflated enrolment figures for some divisions.

³¹ Note that Lanao del Sur – I, Lanao del Sur – II and Sulu are using SY 2014–2015 data as SY 2015–2016 was not available at the time of drafting of the EPR.

DepEd–ARMM expects more decreases in senior high school enrolment in SY 2016–2017 due to the following reasons³²:

- In SY 2016–2017 when the senior high school program was introduced as part of the new K–12 curriculum, many secondary schools were poorly prepared for its implementation.
- The Voucher Program³³ for Grade 10 completers was implemented by DepEd in the same school year. The Voucher Program is a strategy to get Grade 10 completers to continue on to senior high school by subsidising their tuition fees in schools other than public schools where they can pursue a senior high school track of their choice, including technical vocational courses. Thus there were many transferees from public high schools to private secondary schools.

4.9 Other education indicators to inform progress in ARMM

It would be anticipated that there would be improvement in the efficiency and effectiveness of elementary education through BEAM–ARMM's training of elementary school teachers and provision of ECE education.

ARMM significantly increased elementary survival rate³⁴ by 13.4% from 27.5% (GPI 1.17) in 2012 to 40.9% (GPI 1.16) in 2015. This is still far below the national average which has increased by 13.1% from 74.24% (GPI 1.11) in 2012 to 87.30% (GPI 1.07) in 2015. Both have a higher percentage for the survival rate of female learners. However, despite having made large improvements in survival rates, ARMM still has the lowest survival rate in the Philippines compared with the national and regional averages.

Repetition rates³⁵ are very low throughout the Philippines. Repetition rates were only 0.93% (boys 1.07%, girls 0.81%) in 2012 and were lower in 2015 (boys 0.54%, girls 0.52%).

Kindergarten enrolment in ARMM went up in SY 2013–2014 but went down in SY 2014–2015. Part of the reason could be the clean-up of data for 'ghost' enrollees. However, Kindergarten enrolment went up in SY 2015–2016 due to the mandatory enrolment in Kindergarten of five-year old children with implementation of the K–12 program. There was a decrease of 24,838 or 13% of SY 2012–2013 enrolment against SY 2016–2017. Using SY 2012–2013 as baseline, nationally, the percentage of children in Grade 1 with ECD³⁶ decreased by 8.9% from 82.4% (GPI 1.03) in SY 2012–2013 to 73.5% (GPI 1.05) in SY 2014–2015. In ARMM, this has reduced by 15.38% (from 62.04% in SY 2012–2013 to 46.66% in SY 2014–2015). In SY 2014–2015, ARMM had the lowest percentage of pupils in Grade 1 who have attended ECD and was 26% below the national average.³⁷

5 BEAM–ARMM contribution to access and participation

5.1 BEAM–ARMM contributions to access

The ARMM consists of nine school divisions across five provinces spanning two geographical areas: mainland provinces of Lanao del Sur and Maguindanao in southwestern Mindanao, and the island

³² In interviews conducted in January 2017 with representatives of DepEd ARMM Planning.

³³ Refer to <http://www.deped.gov.ph/k-to-12/faq/voucher-program>

³⁴ Cohort survival rate refers to the percentage of enrollees at the beginning grade or year in a given school year who reached the final grade or year of the elementary level. It is a measure of the efficiency and effectiveness of the delivery of education services in the country (NSCB 2007).

³⁵ Repetition rate is the proportion of pupils from a cohort enrolled in a given grade at a given school year of primary or secondary education who study in the same grade in the following school year (Source: <http://www.right-to-education.org/monitoring/content/repetition-rate>)

³⁶ The latest data available from EBEIS for Grade 1 students without ECE is for the year 2014.

³⁷ In the BEAM Program Design Document it was also noted that the reason for low percentage of pupils with ECE in ARMM included both issues of poverty and attitudes at home. Parents reportedly considered their children to be too young to attend school and so they would send their children at a later age. In the qualitative study conducted in selected schools part of the reasons for the low percentage of Grade 1 with ECE is that the schools would accept children in Grade 1 even if they did not have ECE.

provinces of Basilan, Sulu and Tawi –Tawi in the Sulu archipelago. The ARMM comprises a total of 116 municipalities and two cities. It has a total of 2,490 barangays.

As noted, ensuring all barangays have access to kindergarten and elementary education services may not be a good basis for measuring access given the wide variation in barangay size. However this was a major objective of the government and therefore the reductions in barangays without access to services stands as a notable achievement.

In SY 2011–2012 there were a total of 1,142 barangays (45%) which have no public elementary schools and 18 municipalities (16%) were without public secondary schools. From SY 2012–2013 to SY 2016–2017, a total 730 elementary learning centres in 489 barangays and 1,328 pre-school learning centres in 704 barangays were established.

The following contributions to access have been made under BEAM–ARMM:

- Establishing basic education institutions (kindergarten and/or elementary) in 445 barangays (17%) which previously had no access to education services. In total, ADM with support to ECD were established in 774 barangays and supported 293 Tahderiyyah centres in 266 barangays. This brought the total of serviced barangays to 2,146 (86%). The total of underserviced barangays was reduced from 786 (32%) to 344 (14%).
- Enhancing the access to pre-school services to 900 barangays through the provision of 1,328 Learning Centres in 704 barangays and strengthening 293 Tahderiyyah centers in 266 barangays to complement government schools in 1,701 barangays. This raised the total number of barangays with pre-school services from 1,701 to 2,039.
- The provision of elementary education services to 531 (21%) barangays (where 255 are without school) to complement 1,701 barangays with government elementary schools. 52 barangays were supported with madaris and 489 with ADM Learning Centres. This raised the number of barangays with access to elementary education from 1,701 (68%) to 1,956 (79%). In SY 2016–2017 1,701 barangays (68%) have public elementary or primary schools and only four municipalities (3%) do not have public secondary schools (Datu Salibo and Datu Anggal Midtimbang in Maguindanao and Al-barka and Ungkaya-Pukan in Basilan). DepEd–ARMM was able to decrease the school-less barangays by 31%, down to 789 from the 1,142 in 2010 by providing access to 353 barangays with elementary or primary schools.

The BEAM–ARMM program has opened ADM elementary Learning Centres and supported Tahderiyyah centres³⁸ and private madaris in 445³⁹ barangays without a school. As a result of these efforts, school-less barangays in the region have decreased to 419 during the implementation of BEAM–ARMM (17% of the total number of barangays in ARMM). However, it is noted that there were other ADM Learning Centres established in barangays that were not necessarily school-less. Similarly, most of the Tahderiyyah centres and the private madaris supported by the program were not necessarily always in school-less barangays.

The Tahderiyyah program supported a total of 196 Tahderiyyah centres in 183 barangays, of which 31 are in school-less barangays. The 52 supported private madaris are in 52 barangays of which four are in barangays without public elementary schools. ADM Elementary is in 489 barangays while Kindergarten ADM were established in 704 barangays. In total the program has provided access to pre-school, kindergarten and elementary education to out of school children in 929 barangays of which 370 were school-less. Table 1 below provides a summary.

³⁸ The Tahderiyyah centers implement pre-school and kindergarten classes only.

³⁹ This figure is cumulative. Currently there are 275 school-less barangays where the ADM, Tahderiyyah and supported madaris are present. 994 ADM learning centers for Kindergarten have already ceased and the learners have transitioned to DepEd–ARMM schools.

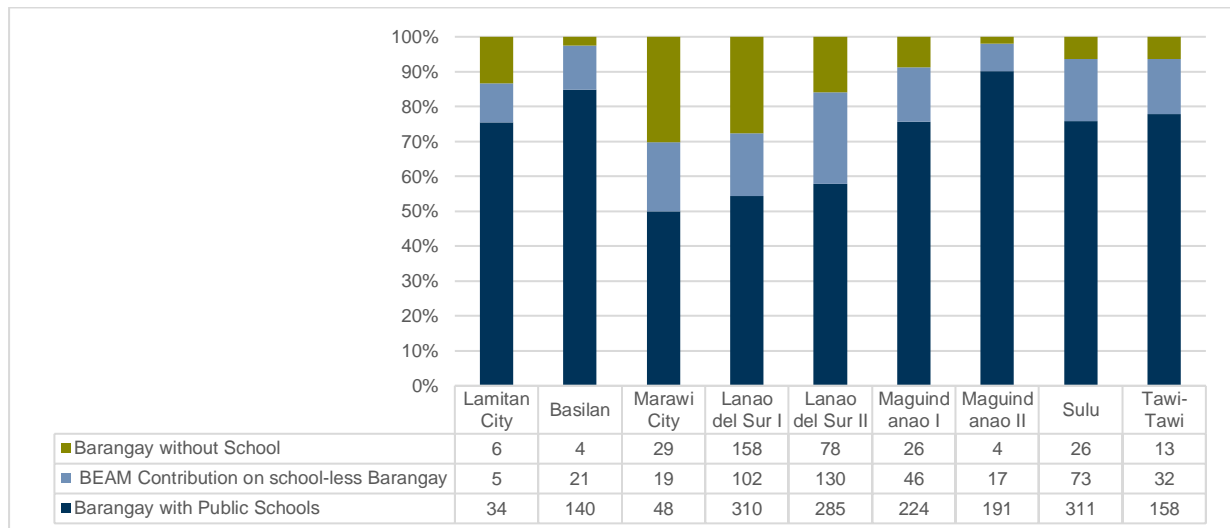
Table 1 Serviced and un-serviced barangays 2012–2017

Division	Total barangays	TOTAL BARANGAYS							
		Barangays with public school	With ADM (elementary) established	With ADM (Kindergarten) established	With Tahderiyah	With BEAM-ARMM supported madaris	With BEAM-ARMM contribution	BEAM-ARMM provision to school-less barangays	Barangays without services in 2017
Lamitan City	45	34	9	18	4	0	19	5	6
Basilan	165	140	19	36	41	15	79	21	4
Marawi City	96	48	21	28	7	0	35	19	29
Lanao del Sur I	570	310	131	183	45	4	228	102	158
Lanao del Sur II	493	285	121	147	48	9	214	130	78
Maguindanao I	296	224	85	129	34	7	152	46	26
Maguindanao II	212	191	29	38	28	5	66	17	4
Sulu	410	311	34	65	49	8	116	73	26
Tawi-Tawi	203	158	40	60	10	4	72	32	13
	2,490	1,701	489	704	266	52	981	445	344

UMIS 2017

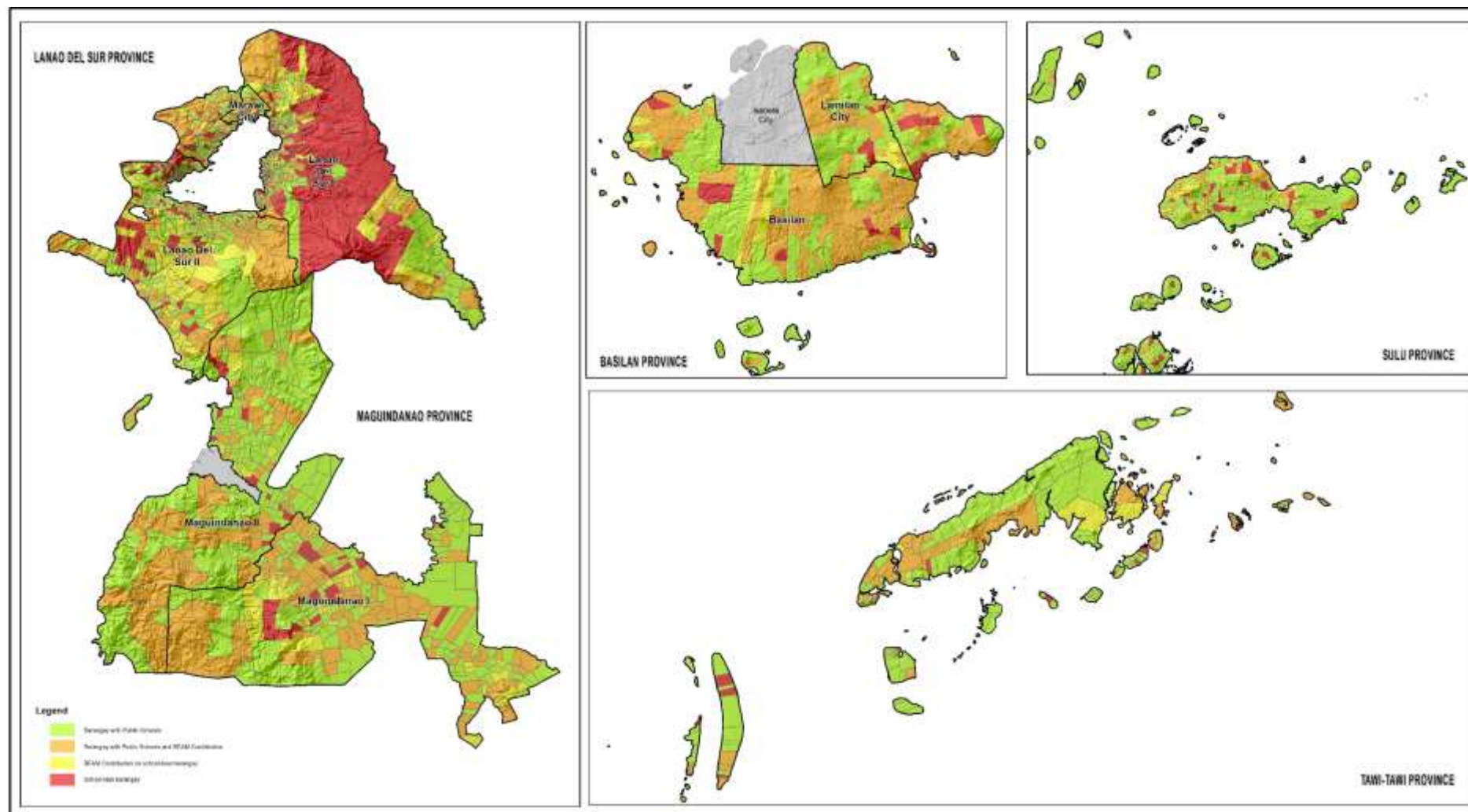
Figure 28 and maps (Figure 29) below show the un-serviced barangays throughout ARMM by division and in the case of the map for each barangay.

Figure 28 BEAM-ARMM contribution to Barangay level access to basic education services



UMIS 2016

Figure 29 Un-serviced Barangays in ARMM, by province



5.2 BEAM–ARMM contributions to participation

While the program contributed to providing access to basic education in school-less barangays, the ADM learning centres, the Tahderiyyah centres and the supported private madaris were not complete elementary schools. The ADM learning centres, employing the cohort strategy, started with Kindergarten and Grade 1 from year 1, and most of the Kindergarten learners have transitioned to public schools while the remainder continued with the cohort system as Grade 1. Each year onwards transitions to the next grade level (see participation below). The remaining cohorts are now only in Grades 3, 4 and 5. The Tahderiyyah centres only provide pre-school for children aged 3-4 years, and Kindergarten for children aged 5 years (in some cases 5 and above). The madaris are only from Kindergarten to Grade 3.

Given the program's support across multiple years and multiple grades, analysis of the data has been applied to determine the likely contribution BEAM–ARMM has made to each level of education. The analysis presented in this section has been undertaken on data available in November 2016⁴⁰ and updated where possible.

5.3 Target: 46,050 Tahderiyyah/ECCD children enrolled; achieved 52,692⁴¹ (114%)

BEAM–ARMM aimed to contribute to improve access in early childhood education by targeting 46,050 children aged 3 to 5 in Bangsamoro communities under the ECCD component. The program delivered ECCD services through Islamic day care centres or 'Tahderiyyah' in Bangsamoro communities covering ARMM, Region 9, 10, 11 and 12 in Mindanao, particularly in communities that were hard-to-reach and conflict-affected.

BEAM–ARMM undertook support to 293 of 811 Tahderiyyah through UNICEF's Tahderiyyah program located in ARMM. A total of 52,692 children were served, of which 29,825 were in ARMM.

As outlined above, in SY 2015–2016, the Tahderiyyah program reached in terms of enrolment an aggregate of 8,518 children (4,233 boys, 4,285 girls). Of these, 4,950 (58%) are from ARMM. Of the total enrollees, 80% or 6,853 (3,377 boys, 3,476 girls) completed the Tahderiyyah program. In terms of transition, for the whole of Mindanao, 1,968 out of 4,322 completers or 45.5% transitioned to Grade 1. For ARMM, 45.5% or 1,347 out of 2,958 completers transitioned to Grade 1. Table 2 provides a gender disaggregated breakdown of Tahderiyyah centre completers and transition rates for SY2015–2016. No baseline for the transition rate was established for Tahderiyyah.

Table 2 Tahderiyyah centres completers and transition data for SY 2015–2016

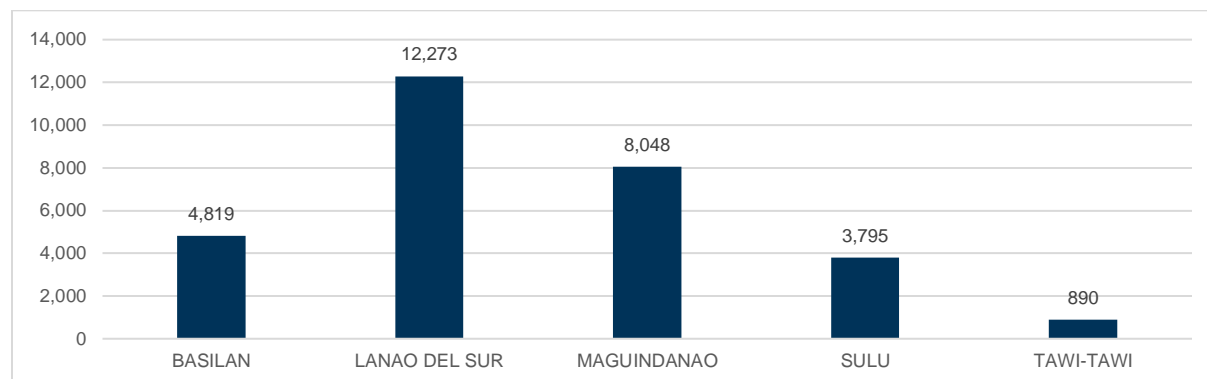
Region SY 2015–2016	Completers			Transitioned to Grade 1			Transition Rate
	Boys	Girls	Total	Boys	Girls	Total	
ARMM	1,447	1,511	2,958	645	702	1,347	45.54%
Region 9	64	91	155	21	28	49	31.61%
Region 10	99	83	182	69	48	117	64.29%
Region 11	118	100	218	53	40	93	42.66%
Region 12	410	399	809	178	184	362	44.75%
Total	2,138	2,184	4,322	966	1,002	1,968	45.53%

⁴⁰ Partners were able to provide enrolment figures for the final year 2016–2017.

⁴¹ BDA and UNICEF data of total enrolment as per official report is 52,692. However, the analysis made by the program was representative of the data that was in the UMIS.

The total number of children enrolled through the Tahderiyyah program in ARMM between SY 2012–2017 is shown by province in Figure 30 below.

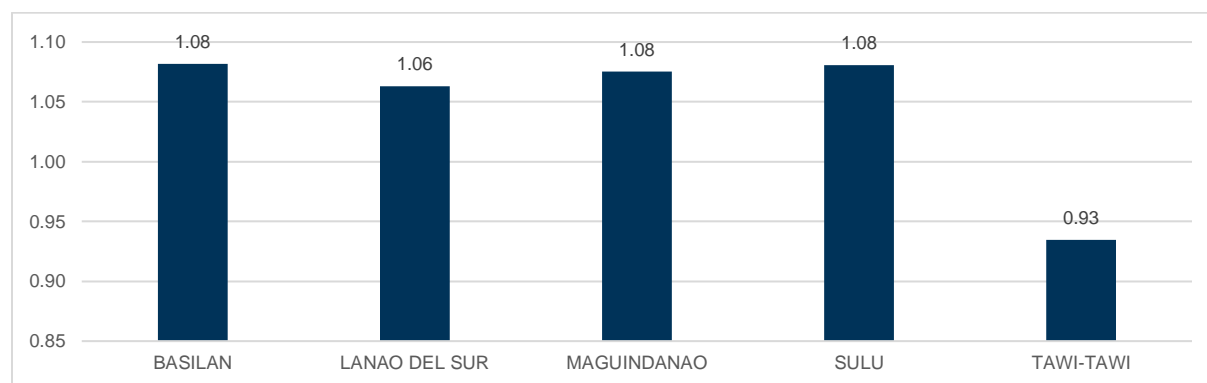
Figure 30 Total number of children enrolled in Tahderiyyah between 2012–2017 in ARMM, by province



UMIS 2016

Figure 31 shows the gender parity index of pupils enrolled by division. There was a large difference regionally in the number of children supported with 41% (12,273 of 29,825) children enrolled in Lanao Del Sur and Maguindanao which also had some of the lowest participation rates in ECD. Almost all provinces enrolled more girls than boys with the exception of Tawi-Tawi which also had the fewest children (890) enrolled.

Figure 31 GPI of total number of children enrolled in Tahderiyyah between 2012–2017 in ARMM



UMIS 2016

5.4 ADM Target 42,800 children enrolled; achieved 53,736⁴² (126%)

The ADM program operated learning centres delivering Kindergarten through to Grade 5 education to children throughout ARMM, principally in regions of low access. The total number of pupils enrolled in the program for each year and division is illustrated in the table below.⁴³ Two divisions, Lanao Del Sur and

⁴² 53736 individual pupil records were submitted by BRAC in March 2017 as verification of final pupil numbers. The total number of pupils was estimated at 51,018 using the cohort analysis presented in this section.

⁴³ This figure is enrolment by year not total individual pupils enrolled in the program.

Maguindanao had the majority of enrolments in ADM centres and these two divisions also have very low participation rates in elementary education. In SY 2014–2015 which was the largest year of enrolment in the ADM program, Lanao Del Sur had 50% (19,147 of 53736) pupils enrolled through ADM.

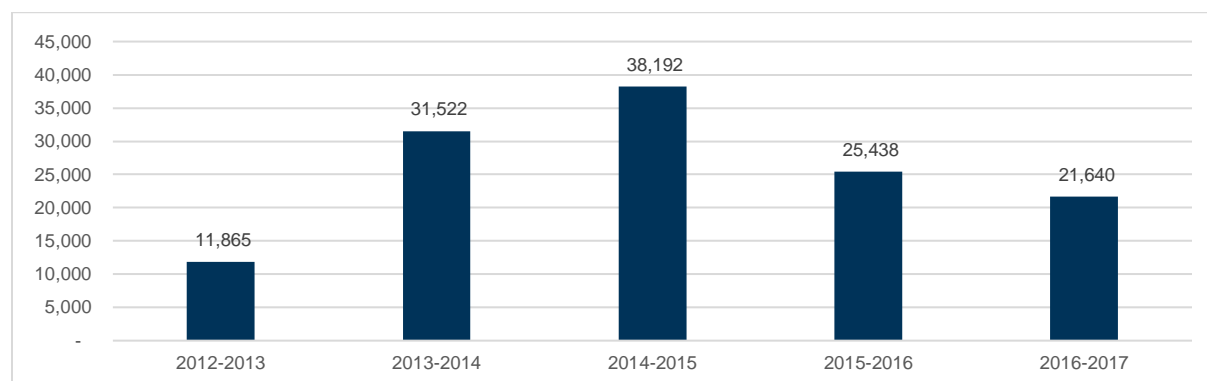
Table 3 Number of students in ADM learning centers by province and year 2012–2017

Province	2012–2013	2013–2014	2014–2015	2015–2016	2016–2017
Basilan	0	1,765	2,576	1,983	5,663
Lanao Del Sur	7,190	15,219	19,147	12,628	11,584
Maguindanao	3,265	9,438	9,615	6,989	1,850
Sulu	0	2,177	3,328	1,683	1,280
Tawi-Tawi	1,410	2,923	3,526	2,155	1,263
Total	11,865	31,522	38,192	25,438	21,640

BRAC 2016

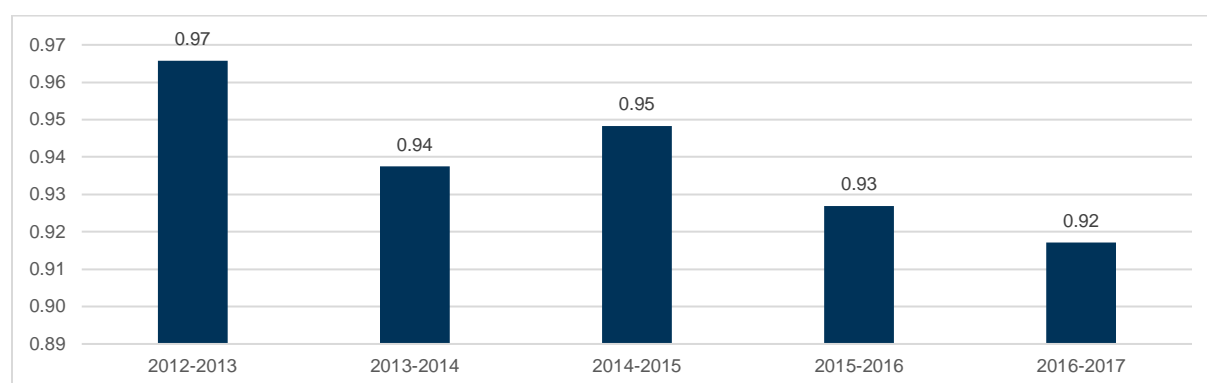
Figure 32 below shows the number of students in ADM learning centres between SY 2012–2013 and SY 2016–2017. The program had its greatest enrolment in SY 2014–2015 and gradually reduced participation in SY 2015–2016 and SY 2016–2017 as students were transitioned to the formal education system.

Figure 32 Number of students in ADM learning centres by SY 2012–2013 to 2016–2017



BRAC 2016

Figure 33 below shows the GPI for the number of students in ADM learning centres by SY 2012–2013 and SY 2016–2017. The program consistently enrolled more boys and girls each year with a strong bias towards enrolment of boys in the final year SY 2016–2017 (GPI 0.92). This is likely to be beneficial given that divisional NIR and GIR indicate a strong bias towards the intake of girls throughout ARMM. The BRAC program may have contributed towards gender equity for intake rates.

Figure 33 GPI number of students in ADM learning centres SY 2012–2013 to SY 2016–2017

BRAC 2016

Cohort analysis has been undertaken with the aims of determining the likely number of students who have passed through ADM learning centres and the number of years of schooling for each as well as the number of students who have likely transitioned to the formal education system by end of program. The cohort analysis makes the following assumptions:

- All dropouts transitioned to the formal education system and therefore are considered successful graduates.
- There were no students repeating and therefore the difference between one year's enrolment in grade X and the following year's enrolment for the same cohort in grade X+1 is due only to dropout.
- Any increases in numbers were due to intake from the region in higher grades.

Table 4 below shows a summary of the five cohorts⁴⁴ that went through the ADM program. The five separate cohorts that participated in the BRAC program are delineated by different colours. Most pupils enrolled for the full five-year elementary education cycle with cohort 1 commencing in SY 2012–2013 in Grade 1 (3,394 pupils grade 1) and cohort 2 (8,471 Kindergarten) commencing in SY 2012–2013 through to Grade 4 in SY 2016–2017. This indicates that of the total Grade 1 enrollees (3,394) in SY 2012-2013, 95.45% reached Grade 5 and the 4.55% dropped out or have transferred to public elementary schools or madaris. In SY 2013-2014, with a total of 12,478 enrollees for Grade 1, 95.5% reached Grade 4 and around 4.26% dropped out or transferred to other schools. In SY 2014-2015, a total of 6,662 children enrolled in Grade 1 and 96.86% survived through to Grade 3 in SY 2016-2017 with a 3.14% drop-out. The trend is showing that at least 3% children did not continue in the cohort system.

Table 4 ADM enrolment by year 2012–2017 cohort flow

	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Totals
2012–2013	8,471	3,394	0	0	0	0	11,865
2013–2014	15,670	12,478	3,374	0	0	0	31,522
2014–2015	15,678	6,662	12,478	3,374	0	0	38,192
2015–2016	3,798	0	6,453	11,947	3,240	0	25,438

⁴⁴ The cohort analysis makes the following assumptions that: All dropouts transitioned to the formal education system and therefore are considered successful graduates; There were no students repeating and therefore the difference between one year's enrolment in grade X and the following years enrolment for the same cohort in grade X+1 is owing to dropout only.; Any increases in numbers were due to intake from the region in higher grades.

	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Totals
2016–2017	0	0	0	6,453	11,947	3,240	3,240
Totals	43,617	22,534	22,305	15,321	3,240	3,240	110,257

BRAC 2016

Table 5 below shows the Gender Parity Index of enrolment by year for each cohort. As noted only one cohort, the Kindergarten cohort of SY 2014–2015 (15,670 pupils), had gender parity. All other cohorts favoured boys with the SY 2012–2013 Grade 1 cohort strongly favouring boys. As noted this is likely good as Grade 1 GIR and NIR throughout ARMM show that more girls proportional to the population are enrolling in Grade 1 than boys.

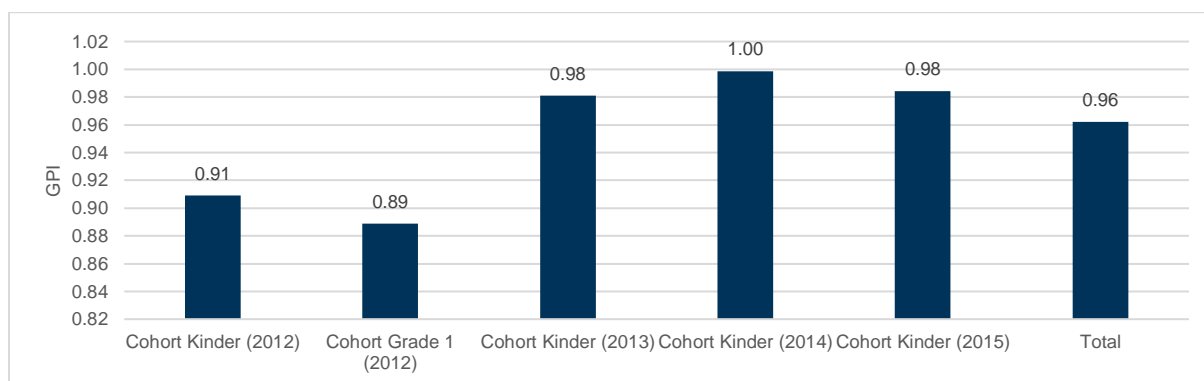
Table 5 ADM learning centres GPI by Year 2012–2016

	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
2012–2013	1.00	0.89				
2013–2014	0.98	0.91	0.86			
2014–2015	1.00	0.95	0.91	0.86		
2015–2016	0.98		0.95	0.91	0.87	
2016–2017				0.95	0.91	0.87

BRAC 2016

Figure 34 below shows the GPI for the number of pupils completing number of years of education through ADM learning centres. As indicated below, almost all ADM cohorts favoured enrolment of boys over girls.

Figure 34 GPI number of pupils completing number of years of education through ADM learning centres



BRAC 2016, Cohort analysis

The total individual pupils and number of years each studied under ADM are shown in Table 6 below.

Table 6 Number of pupils completing number of years of education through ADM learning centres

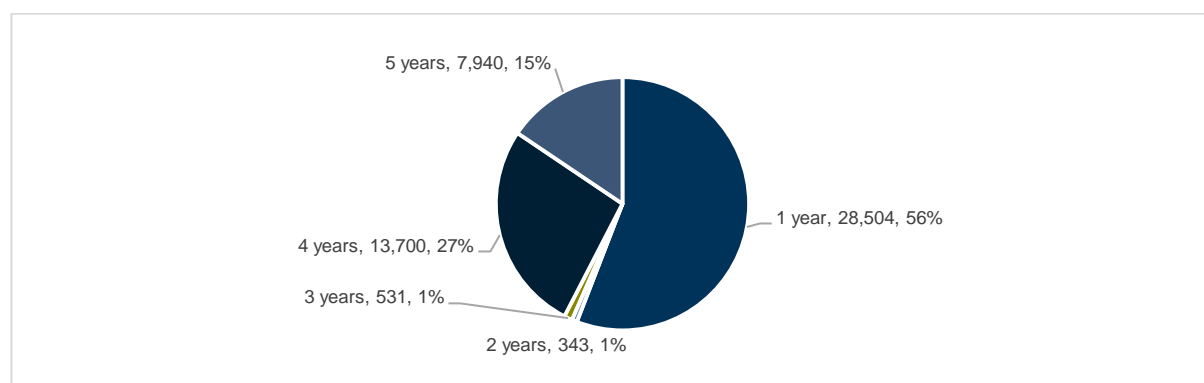
Cohort	1 year	2 years	3 years	4 years	5 years	Total
Cohort Kindergarten (2012)			531	4,007	7,940	12,478
Cohort Grade 1 (2012)	20	134		3,240		3,394
Cohort Kindergarten (2013)	9,008			6,453		15,461

Cohort	1 year	2 years	3 years	4 years	5 years	Total
Cohort Kindergarten (2014)	15,678	209				15,887
Cohort Kindergarten (2015)	3,798					3,798
Total	28,504	343	531	13,700	7,940	51,018

BRAC 2016, Cohort analysis

Figure 35 below shows the number and percentage of children receiving schooling through ADM learning centres by number of years of schooling. Over half of the children received only one year of education under the ADM system (56%, 28,508 children) whilst most of the remainder (21,640 children) received four or five years of education.

Figure 35 Number and % of children receiving schooling through ADM learning centres by number of years of schooling



BRAC 2016

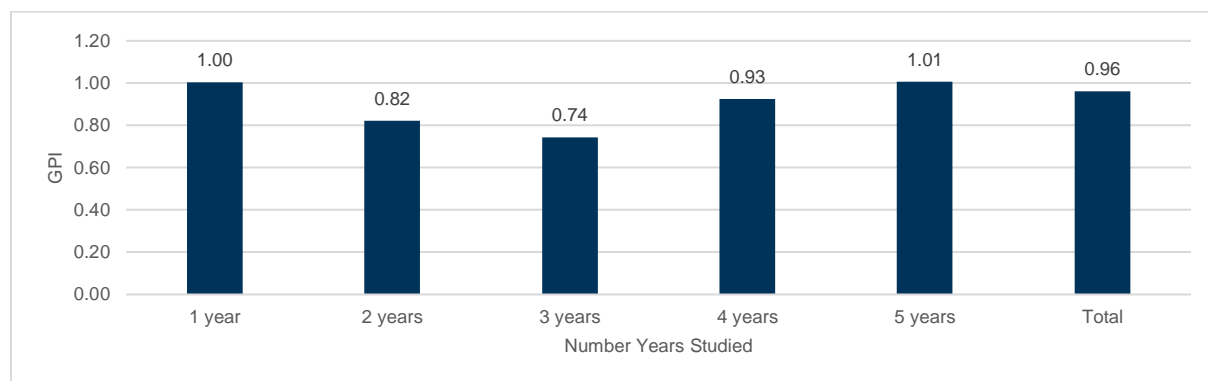
The gender parity index and number of years studied under ADM are shown in Table 7 below.

Table 7 GPI number of pupils completing number of years of education through ADM learning centres

Cohort	1 year	2 years	3 years	4 years	5 years	Total
Cohort Kindergarten (2012)			0.88	0.74	1.01	0.91
Cohort Grade 1 (2012)	NA	0.78		0.87		0.89
Cohort Kindergarten (2013)	1.00			0.95		0.98
Cohort Kindergarten (2014)	1.00	0.83				1.00
Cohort Kindergarten (2015)	0.98					0.98
Total	1.00	0.82	0.74	0.93	1.01	0.96

BRAC 2016, Cohort analysis

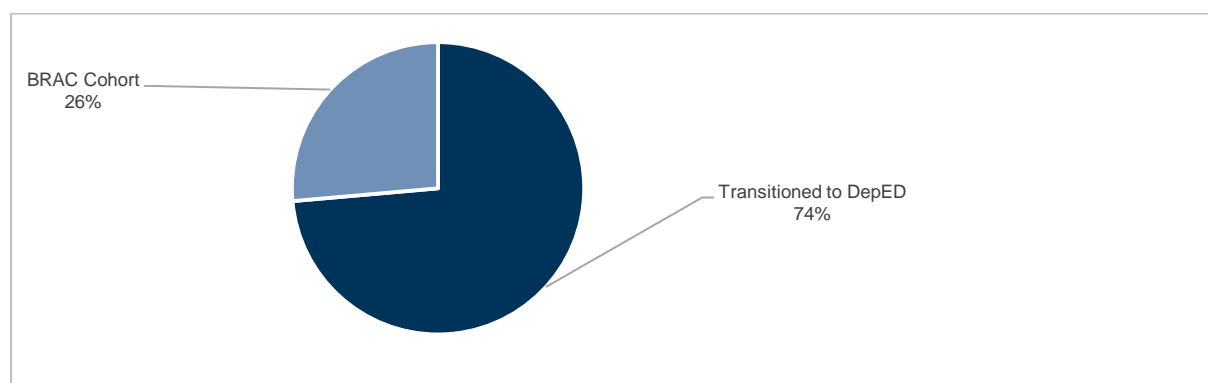
Figure 36 below shows the GPI number of pupils completing number of years of education through ADM learning centres.

Figure 36 GPI number of pupils completing number of years of education through ADM learning centres

BRAC 2016, Cohort analysis

As noted in the table and figure above, gender balance was equivalent for boys and girls for those receiving 1 year (GPI 1.00) or five years (GPI 1.01) education. However for those studying 2, 3 and 4 years there were far more boys in each class than girls. Of these the most significant are the students who studied for 4 years (7,940 pupils), almost half of which were made up of pupils studying from Grade 1 to Grade 4 and not participating in Kindergarten. This indicates that there may have been more boys than girls having low participation in those areas in which BRAC ADM were active who entered in Grade 1 for a four year cycle. It may also indicate that parents favoured enrolment of boys over girls to enrol in BRAC ADM.

Figure 37 below shows the number and percentage of BRAC ADM pupils who transitioned to DepEd Grade 1 and to Grade 1 in BRAC ADM centres. 43,606 children completed kindergarten education in ADM learning centres, 32,180 children (GPI 0.96) or 73.8% of the total kindergarten completers transitioned to Grade 1 in DepEd ARMM. The remaining 26.2% transitioned to Grade 1 in the BRAC system leading to a total transition rate of 100%.

Figure 37 Number and percentage of BRAC ADM pupils who transitioned to DepEd Grade 1 and to Grade 1 in BRAC ADM centres

UMIS 2016

Table 8 below summarises the BRAC Kindergarten completers and transition to Grade 1 to both DepEd-ARMM schools and to Grade 1 in BRAC ADM.

Table 8 BRAC kindergarten completers and transition to Grade 1

School Year/Level	Kindergarten Completers			Transitioned to DepED (Kinder)			BRAC Cohort		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
2012–2013	8,438	4,207	4,231	1,472	711	761	6,966	3,496	3,470
2013–2014	15,670	7,919	7,751	11,147	5,798	5,349	4,523	2,121	2,402
2014–2015	15,763	7,911	7,852	15,763	7,911	7,852			
2015–2016	3,798	1,914	1,884	3,798	1,914	1,884			
Total	43,669	21,951	21,718	32,180	16,334	15,846	11,489	5,617	5,872

UMIS 2016

5.5 Target: 4,100 Children impacted through madaris, achieved 5,186⁴⁵

BEAM–ARMM supported 52 madaris in SY 2015–2016 and SY 2016–2017 for children studying Kindergarten through to Grade 3. In SY 2015–2016 a total of 3,112 pupils benefited from the program in 26 madaris and in SY 2016–2017, 3,318 pupils benefited in an additional 26 madaris. Table 9 below shows the number of pupils enrolled in each province in each SY for 2015–2016 and 2016–2017.

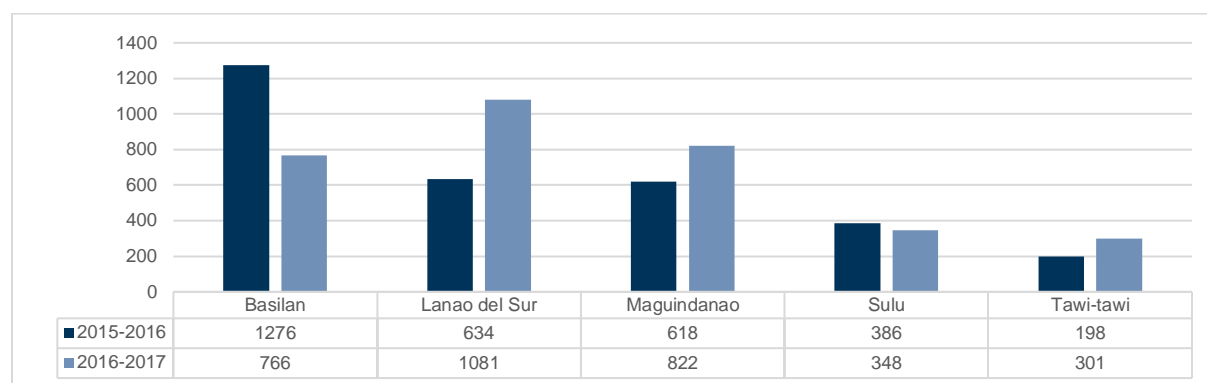
Table 9 Number of children enrolled in assisted madaris SY 2015–2016 and SY 2016–2017 by year and province

Province	2015–2016				2016–2017			
	Male	Female	Total	GPI	Male	Female	Total	GPI
Basilan	656	620	1,276	0.95	420	346	766	0.82
Lanao del Sur	318	316	634	0.99	550	531	10,81	0.97
Maguindanao	302	316	618	1.05	412	410	822	1.00
Sulu	190	196	386	1.03	202	146	348	0.72
Tawi-tawi	92	106	198	1.15	147	154	301	1.05
Grand Total	1,558	1,554	3,112	1.00	1,731	1,587	3,318	0.92

UMIS 2016

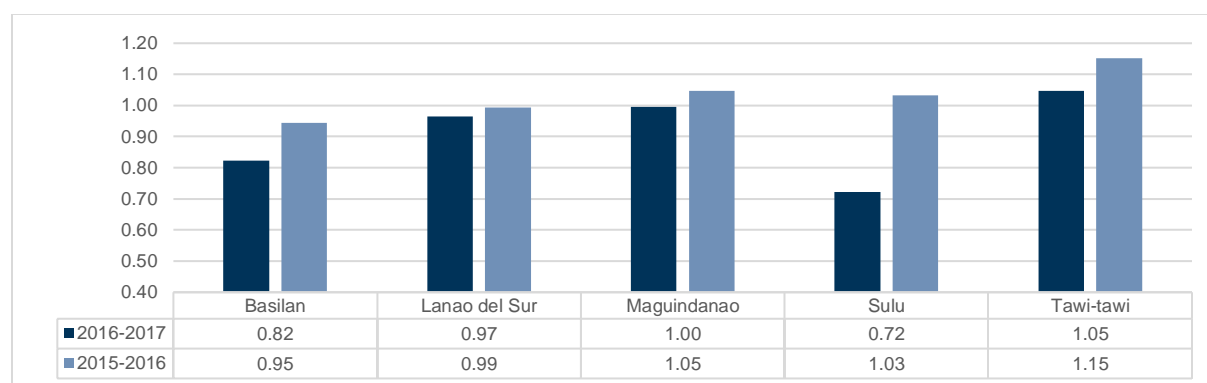
The chart below (Figure 38) shows the number of children enrolled in madaris assisted in SY 2015–2016 and SY 2016–2017 for each province. Support was greatest in Basilan, Lanao del Sur and Maguindanao, the divisions with the largest number of pupils enrolled in the madaris program. In SY 2015–2016 these three divisions comprised 81% of pupils enrolled in the BEAM–ARMM supported madaris.

⁴⁵ This number is derived using cohort analysis and varies from the 6,430 pupils published in the results table which represents the number of pupils assisted each year and does not account for the pupils who were assisted for multiple years. Individual count of children served by madaris is 4,336.

Figure 38 Number of children enrolled in madaris assisted SY 2015–2016 and SY 2016–2017 by year and province

UMIS 2016

Figure 39 below shows the GPI for the number of children enrolled in madaris assisted SY 2015–2016 and SY 2016–2017 for each province. The first year's intake had a strong gender bias towards boys in Basilan (GPI 0.82) and Sulu (GPI 0.72) however the disparity reduced significantly to GPI 0.95 for Basilan and GPI 1.03 for Sulu by the second year. This is likely a testament to the teacher training and gender sensitivity work under by BEAM–ARMM.

Figure 39 GPI number of children enrolled in madaris assisted SY 2015–2016 and SY 2016–2017 for each province

UMIS 2016

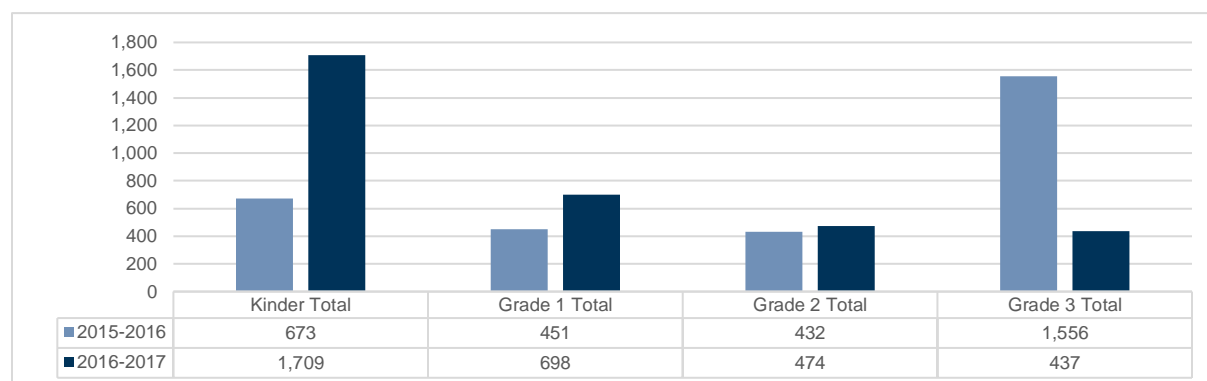
Cohort analysis of the two grades enrolled indicated that the total number of pupils impacted through the program was 5,186⁴⁶ which consisted of 3,112 new pupils and 2,074 new pupils through the 26 additional madaris in SY 2016–2017. The total pupils for each grade year is shown in the table below and graphed below. Table 10 and Figure 40 below show number of children enrolled in madaris supported through BEAM–ARMM by year and grade. The figures in Table 10 are also sex disaggregated.

⁴⁶ This is the number of unique (individual) pupils impacted by the program through the Madaris as calculated by cohort analysis. This accounts for those pupils who were promoted to higher grades in the original 26 madaris in the SY 2016–2017.

Table 10 Number of children enrolled in madaris assisted from 2015 to 2017 by year, grade and gender

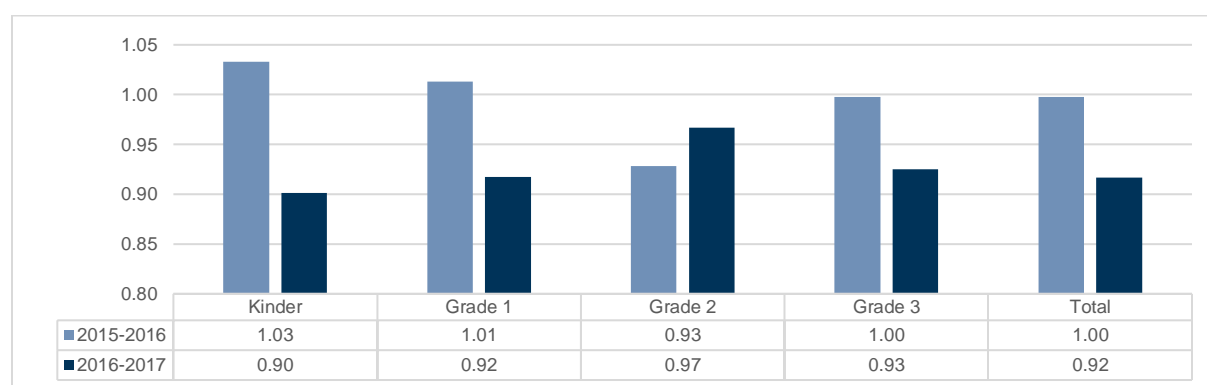
Year	No Madaris	Kinder			Grade 1			Grade 2			Grade 3			Total		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
2015–2016	26	331	342	673	224	227	451	224	208	432	779	777	1,556	1,558	1,554	3,112
2016–2017	52	899	810	1,709	364	334	698	241	233	474	227	210	437	1,731	1,587	3,318
Total		1,230	1,152	2,382	588	561	1,149	465	441	906	1,006	987	1,993	3,289	3,141	6,430

UMIS 2016

Figure 40 Number of children enrolled in madaris assisted from 2015 to 2017 by year and grade

UMIS 2016

The GPI of the number of children enrolled in madaris which were assisted by BEAM in SY 2015–2016 and SY 2016–2017 by year and grade are shown in Figure 41 below. The 26 madaris in the first year had a balanced enrolment of boys and girls however the additional 26 madaris included in the second year had a much higher enrolment of boys than girls (GPI 0.92). As in the case of BRAC ADM this may be good because throughout ARMM Grade 1 intake favours girls proportional to the population over boys.

Figure 39 GPI of number of children enrolled in madaris assisted from 2015 to 2017 by year and grade

UMIS 2016

Cohort analysis has been applied to show the number of individual children enrolled in madaris in SY 2015–2016 and SY 2016–2017 for each grade (Table 11 below). This shows the number of individual pupils impacted through BEAM-ARMM supported madaris. As noted above, 5,185 individual pupils were assisted throughout the two years the madaris were supported by BEAM-ARMM.

Table 11 Number of individual children enrolled in madaris assisted from 2015 to 2017 by year and grade

Total Students	No Madras	Kinder Total	Grade 1 Total	Grade 2 Total	Grade 3 Total	Total Students
2015–2016	26	673	451	432	1,556	3,112
new 2016–2017	52	1,709	245	79	41	2,074
Total Students	78	2,382	696	511	1,597	5,186

UMIS 2016

Table 12 below shows the number of individual children impacted by madaris program by the number of years each child was impacted. As noted 2,612 pupils were impacted for two years by BEAM-ARMM supported madaris between SY 2015–2016 and SY 2016–2017. A further 2,574 pupils were impacted for one year largely through Kindergarten.

Table 12 Number of individual children impacted by madaris program by number of years impacted

Cohort	1 Year			2 Years			Grand Total			
	M	F	T	M	F	T	M	F	T	GPI
2015–2016 Cohort	531	597	1128	1370	1242	2612	1901	1839	3740	0.97
2016–2017 Cohort	733	713	1446	0	0	0	733	713	1446	0.97
Total Students	1264	1310	2574	1370	1242	2612	2634	2552	5186	0.97

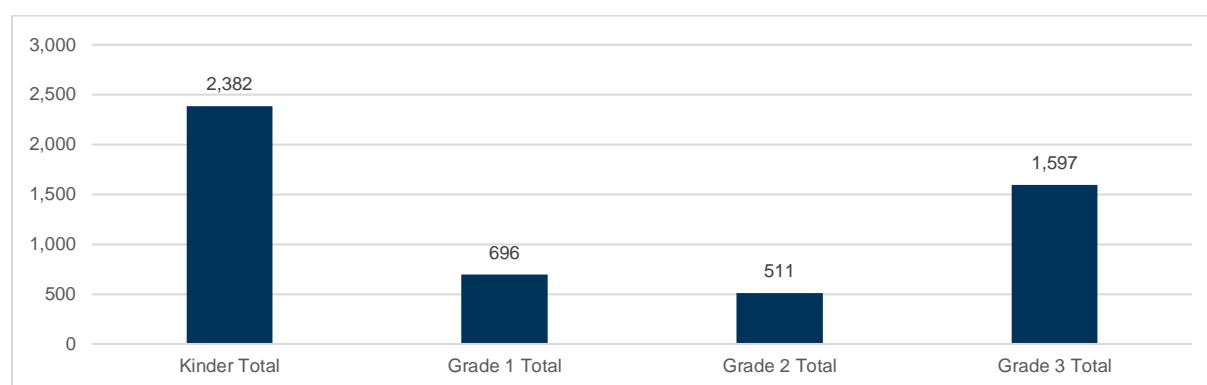
The total number of new students in the madaris program by year is shown in Figure 42 below.

Figure 42 New students in the madaris program by year



UMIS 2016

The number of students having participated in each grade level program in madaris supported by BEAM is shown in Figure 43 below.

Figure 40 Students having participated in each grade level program in madaris

UMIS 2016

Cohort survival rate was calculated using the two years of data on the 26 BEAM-ARMM supported madaris supported during SY 2015–2016 and SY 2016–2017. Survival rate from Kindergarten to Grade 3 was 47% in the madaris indicating that less than half of the children that commence Kindergarten in the madaris remain to start Grade 3, largely as a result of the large drop in students from Kindergarten to Grade 1 (33%). If survival rate from Grade 1 to Grade 3 is considered, the survival rate improves to 80% indicating that 1 in 5 students is dropping out of the madaris system possibly transitioning to public sector schools. Transition rates are unknown and more research would be required.

For schools having benefited from the program for two years it is possible to calculate survival rate, dropout rate and transition rate by grade for this cohort (Table 13 below), assuming:

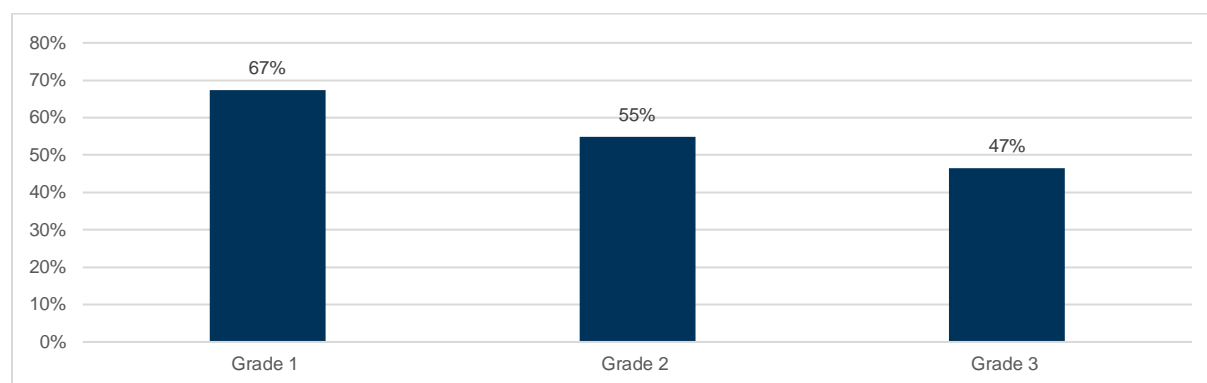
- Dropouts dropout from the system and do not transition to other schools.
- Repetition rate is the same for each grade level.

Table 13 Transition, survival and dropout rates in selected madaris schools SY 2015–2016 to SY 2016–2017

Cohort	Kinder Total	Grade 1 Total	Grade 2 Total	Grade 3 Total
2015–2016 Enrolment	673	451	432	1556
2016–2017 Enrolment	628	453	395	396
Transition Rate next grade	67%	88%	92%	NA
Survival Rate		67%	55%	47%
Dropout Rate	33%	12%	8%	NA

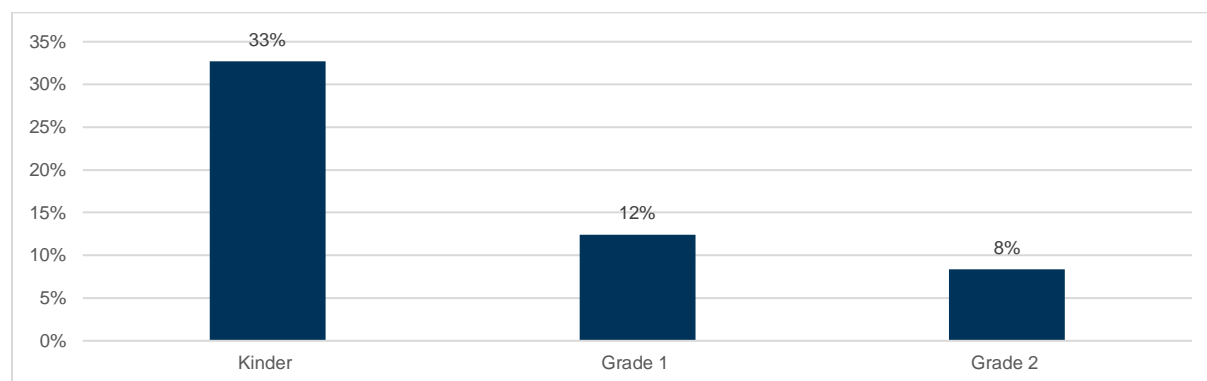
UMIS 2016

Figure 44 below shows the survival rate Kindergarten to Grade 3 for the 26 madaris BEAM-ARMM supported between SY 2015–2016 and SY 2016–17.

Figure 41 Survival rate madaris selected schools Kindergarten to Grade 3 SY 2015–2016 to SY 2016–2017

UMIS 2016

Figure 45 below shows the madaris dropout rate kindergarten to Grade 3 SY 2015–2016 to SY 2016–2017. As noted above the survival rate is very low but it is unknown whether students who drop out of madaris are transitioning to the public sector. More research is required.

Figure 42 Dropout rate madaris selected schools Kindergarten to Grade 3 SY 2015–2016 to SY 2016–2017

UMIS 2016

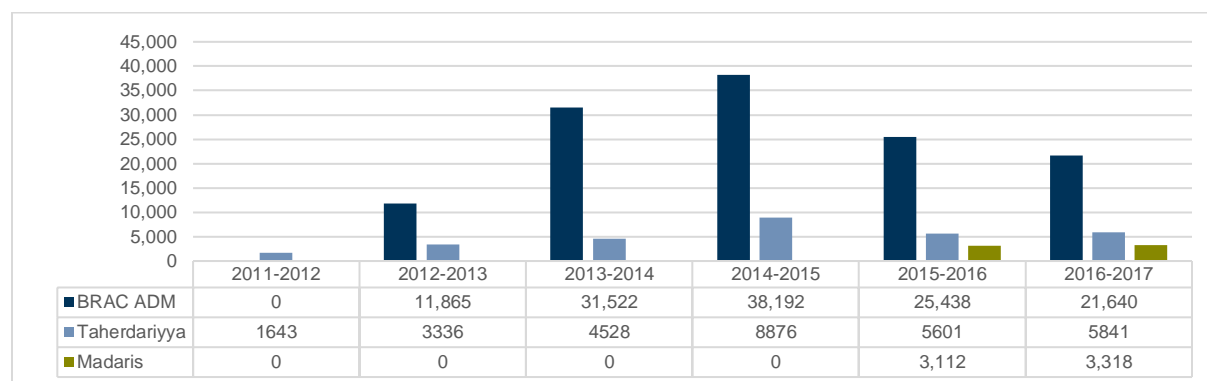
5.6 Summary of BEAM–ARMM contribution to access and participation

Table 14 and Figure 46 below show the number of students taught by program and year between SY 2012–2013 and SY 2016–2017. The BEAM–ARMM program impacted a great number of pupils throughout its course as indicated below. The total number of pupils impacted by BEAM–ARMM was approximately 86,029 and over 164,912 pupil years were taught.⁴⁷ These are pupils who would have otherwise either been excluded from the education system or who would have struggled to obtain kindergarten and elementary education.

⁴⁷ The total is 115,832 if UNICEF's contribution to other areas of Mindanao outside ARMM are counted. From this study in April 2017, data has been updated to 110,764 children impacted by BEAM–ARMM with over 164,912 pupil years.

Table 14 Number of students taught by program and year 2012 to 2017

Year	ADM		Tahderriyah		Madaris		Total
	No	%	No	%	No	%	No
2011–2012	0	0	1,643	100%	0	0%	1,643
2012–2013	11,865	78%	3,336	22%	0	0%	15,201
2013–2014	31,522	87%	4,528	13%	0	0%	36,050
2014–2015	38,192	81%	8,876	19%	0	0%	47,068
2015–2016	25,438	74%	5,601	16%	3,112	9%	34,151
2016–2017	21,640	70%	5,841	19%	3,318	11%	30,799
Total Pupil Years	128,657	78%	29,825	18%	6,430	4%	164,912

UMIS 2016⁴⁸Figure 43 Number of students⁴⁹ taught by program by year

UMIS 2016

Table 15 and Figure 47 below show the total number of student years⁵⁰ taught by program and province between SY 2012–2013 and SY 2016–2017. The bulk of the pupils benefiting directly from BEAM–ARMM were in Lanao Del Sur and Maguindanao. These provinces contained 74% of pupils (63,661 of 86,029) impacted under BEAM–ARMM within ARMM for a total of 128,657 (of 164,912) pupil years taught.

Table 15 Total number of student years taught by program and province SY 2012–2013 to SY 2016–2017

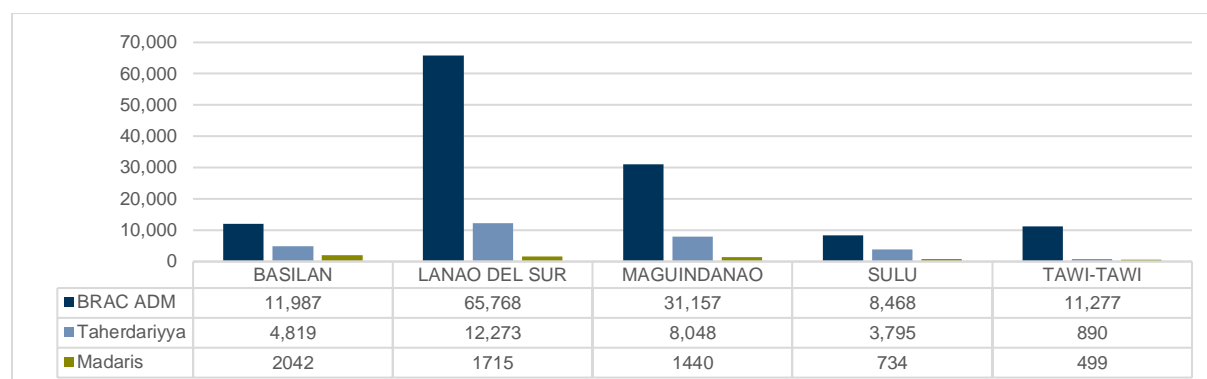
Province	ADM		Tahderriyyah		Madaris		Total
	No	%	No	%	No	%	No
BASILAN	11,987	71%	4,819	17%	2,042	12%	18,848
LANAO DEL SUR	65,768	90%	12,273	8%	1,715	2%	79,756
MAGUINDANAO	31,157	82%	8,048	15%	1,440	4%	40,645
SULU	8,468	80%	3,795	13%	734	7%	12,997
TAWI-TAWI	11,277	91%	890	5%	499	4%	12,666
Total Pupil Years	128,657	85%	29,825	11%	6430	4%	164,912

⁴⁸ UNICEF Tahderriyyah program contribution to ARMM only.

⁴⁹ Not individual pupils as some pupils were taught for multiple years under some programs (refer below).

⁵⁰ Number of student years means the total number of years of learning BEAM has supported. So for example if a student was supported in a BRAC school for four years from Grades 1 to 4, they have been supported for four student years.

UMIS 2016

Figure 44 Total number of student years taught by program and province SY 2012–2013 to SY 2016–2017

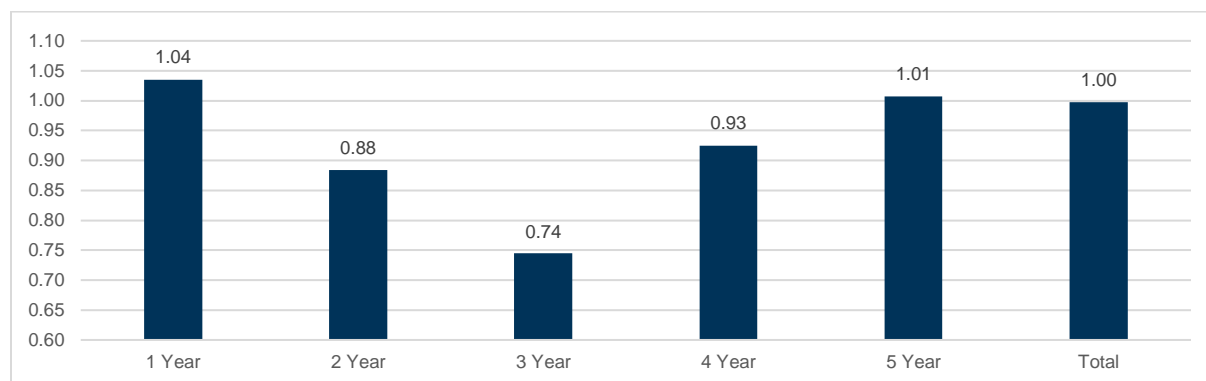
UMIS 2016

Table 16 and Figure 48 below show the GPI for the total number of individual students impacted by year and program SY 2012–2013 through to SY 2016–2017. 59% of the pupils impacted were under ADM (51,018 of 86,029) with support provided through UNICEF for the Tahderiyyah (ARMM figures only). In general, there was a good gender balance for enrolment in the different programs however there were a few cohorts in the ADM program that were biased heavily towards boys.

Table 16 GPI and total number of individual students impacted by year and program SY 2012–2013 to SY 2016–2017

Program	1 Year		2 Year		3 Year		4 Year		5 Year		Total	
	Enrol	GPI	Enrol	GPI	Enrol	GPI	Enrol	GPI	Enrol	GPI	Enrol	GPI
BRAC Schools	28,504	1.00	874	0.82	4,007	0.74	9,693	0.93	7,940	1.01	51,018	0.96
UNICEF Tahderiyyah	29,825	1.07									29,825	1.07
Cardno Madaris	2574	1.04	2612	0.91							5,186	0.97
Total	60,903	1.04	3,486	0.88	4,007	0.74	9,693	0.93	7,940	1.01	86,029	1
UNICEF Tahderiyyah non-ARMM	29,803	1.03									29,803	1.03
Grand Total	90,706	1.03	3,486	0.88	4,007	0.74	9,693	0.93	7,940	1.01	115,832	1.01

UMIS 2016

Figure 48 GPI number of individual students impacted by year and program SY 2012–2013 through to SY 2016–2017

UMIS 2016

5.7 BEAM–ARMM inclusion of marginalised and disadvantaged children

The Philippines does not employ a standardised method for identification of children with disabilities such as the Washington Method. This presents a significant barrier in identifying, including and properly caring for children with disabilities. Further, there may be stigmas attached to certain disabilities which further limits the capacity for children with disabilities to be properly included in the education system.⁵¹

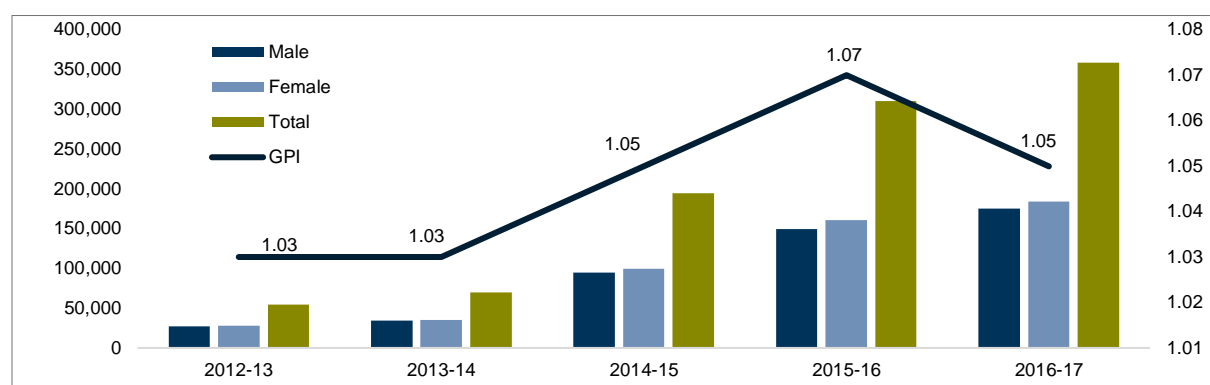
DepEd–ARMM's 'Child-Find' program aims to seek those children with disabilities to bring them to school as part of the national goal of universal education. This has helped to increase enrolment of children with disabilities. In SY 2012–2013 there were only 90 reported children with disabilities in the SPED program for children with special needs. With assistance to SPED from BEAM–ARMM this has increased to 187, while in regular schools enrolment data showed an increase in children being served under SPED from 375 in SY 2012–2013 to 1,072 in SY 2016–2017. Total children with disabilities enrolment in ARMM, including SPED data, increased by from 465 in SY 2012–2013 to 1,650 in SY 2016–2017. This includes the 391 children with disabilities (235 boys and 156 girls) from the ADM LCs.

A key objective of BEAM–ARMM was to increase participation of marginalised groups such as children of Indigenous Peoples. The ADM program served the children of marginalised families in the target communities who have a strong desire for education for their children. All children enrolled in ADM belonged to marginalised families, like the Teduray in Upi, Maguindanao, Yakan in Basilan, and Sama in island provinces. They took advantage of the ADM Learning Centres that were established in their local communities. The ADM project offered free books, bags, and school supplies. In the four years of ADM implementation from SY 2012–2016, a total of 6,344 (GPI 1.00) indigenous peoples and ethnic group children enrolled in ADM.

Data from EBEIS for children of indigenous peoples in ARMM is likely flawed but improving. As indicated on the graph (Figure 49) below, there were 54,527 children identified as indigenous peoples in ARMM in SY 2012–2013 which has increased steadily to 358,730 children in SY 2016–2017, which is more than a six-fold increase. The increase is likely owing to the change to individual pupil data through the LIS.

⁵¹ From the various Focus group discussions with Schools Division Superintendents in November 2017 related to the End-of-Program Review.

Figure 45 Enrolment of indigenous children, sex disaggregated and total



EBEIS 2016

5.8 Improved access to water and sanitation

BEAM–ARMM has contributed to improvement in access to water and sanitation through the work of GIZ and UNICEF. Based on EBEIS data, in the 2010–2011 school year, at the start of the program, 50% of schools in ARMM had access to water. By SY 2015–2016, 87% of schools in ARMM now have access to water. In SY 2010–2011, the pupil-toilet ratio was 226 in all schools in ARMM, which has been reduced to 136 by SY 2015–2016. While there are several factors which contribute to these improvements, under component 2, DepEd ARMM's progress on WinS has made a significant contribution to improving WASH infrastructure on school grounds. Through the WinS program, 400 schools and 550 learning centres were provided with washing facilities and toilets were rehabilitated or constructed in 255 schools. DepEd–ARMM has also made strides to improve the way schools are supported by health personnel to improve WASH.

Poor health is the main reason for school absenteeism and dropouts in the Philippines.^{52, 53, 54} In a study conducted in Camiguin, Mindanao, schoolchildren benefiting from the Essential Health Care Program had higher increases in mean Body Mass Index and lower prevalence of moderate to heavy soil-transmitted helminths infection than the control group.⁵⁵

In the case of ARMM, although research was not conducted on dropout rates in relation to the Essential Health Care Program implementation under BEAM–ARMM, the same interventions are implemented with the aim that better WASH improves children's health, making them more able to attend school regularly and stay in school. Under the BEAM–ARMM program, in schools which implemented the Essential Health Care Program in ARMM, the retention rate between SY 2010–2011 and SY 2015–2016 improved by nearly 9% whereas the improvement in non-target schools was 5% across the same period, based on EBEIS data. In addition, component 2 has developed a simplified school feeding pilot which has shown initial promise in improving attendance, particularly for boys.

⁵² Maligalig D, Caoli-Rodriguez A, Martinez A, Cuevas S: Education outcomes in the Philippines. ADB Economic Working Papers Series. 2010, Manila: Asian Development Bank, No. 199

⁵³ Nava F: Factor in school leaving: Variations across gender groups, school levels and locations. *Education Quarterly*. 2009, 67: 62-78.

⁵⁴ Araojo JR: Philippine country report on school health promotion program. 2nd Asian Conference on Oral Health Promotion for School Children, Prospects for our Future Generation. 2003, Ayutthaya, Thailand: Thammasat University, 103–20110.

⁵⁵ Monse B, Benzian H, Naliponguit E, Belizario V, Schratz A, van Palenstein Helderman W. 'The Fit for School Health Outcome Study – a longitudinal survey to assess health impacts of an integrated school health program in the Philippines.' *BMC Public Health*. 2013 Mar 21;13:256. doi: 10.1186/1471-2458-2013-256.

5.9 BEAM–ARMM’s contribution to OSY and TechVoc high schools

The program also provided access to alternative learning through TVET, with support to 11,007 completers of which 51 were learners from early implementers of the senior high school program. BEAM–ARMM also provided equipment to 23 senior high school which are following the technical-vocational track (TechVoc High Schools).

The TVET component was deemed an access program as it provided access to opportunities for OSY and for national certification by the Technical Education and Skills Development Authority, and access to opportunities for employment. Of the 11,007 TVET completers, tracer studies established that 56% have found employment. As an access program TVET has also provided equipment to 23 selected techvoc high schools to facilitate technical and vocational skills development for senior high school students.

6 Recommendations

6.1 Limitations of supply side interventions

BEAM–ARMM studies indicate that there are limitations to supply side interventions and that many reasons children drop out of school and discontinue education are related to home and the environment. Most prominent amongst these were:

- **Poverty and hunger:** Based on the baseline study on OSY conducted for the TVET program, students drop out of schools because they have no money to pay for school fees; they need to find a job for the family; or are no longer interested in school. These three reasons are related to poverty. Parents tell their children to find work instead of attending school, because in school, they have no income. Girls are also made to stop attending school because they need to take care of their younger siblings while the parents work.
- **Conflict / family feud:** Children with parents involved in military service or insurgency, usually re-locate during or after the conflict resulting in dropout. Family feuds or *rido* where children are usually impacted, even when they are a distant relative, often results in families relocating to avoid the conflict.
- **Early marriage:** More girls’ dropout due to early marriage, a traditional practice in Muslim communities. Students, usually overage, dropout of school because of early marriage.

6.2 Recommendations for future interventions concerning access and participation

The following recommendations are derived from the BEAM–ARMM study on access and participation.

- **Improve learning environment for children in academics, arts, music and sports:** Arts, music, and sports are the activities that interest children and reduce absenteeism. Organisation of academic and art clubs allow children to harness their leadership potential with assigned tasks and responsibilities. They enjoy working as a group and learn more.
- **Support SPED classes in schools:** Some barangays do not have access to SPED schools, and children with special needs are integrated to regular class. Training for teachers handling children with special needs as well as facilities for learning for these children should be made available in

selected schools. Training for teachers handling slow learners would contribute to improved participation, because when children know how to read, they keep coming back to school.

- **Continue feeding program:** not only for wasted and severely wasted pupils but to include pupils in lower grades. Feeding is seen by teachers as an effective strategy to keep children in school. Pupils from poor families sometimes go to school hungry, affecting their performance and interest in school. Lack of food also causes absenteeism. When children go home at noon, they do not go back to class in the afternoon due to distance and when they have no food to eat.
- **Conduct of separate class or alternative delivery model of education for Bangsamoro ethnic group such as Badjao or Sama.** These groups of pupils are prone to bullying due to lack of hygiene and many are overage. If possible, hire a teacher for them from their own tribe or community. This will help ensure their participation in school.
- **Improve classroom pupil to teacher ratio; as well as provision of chairs:** A conducive learning environment also improves retention in school.
- **Availability of water supply, wash and sanitation in schools:** Many schools do not have water supply, affecting hygiene and sanitation in schools. Wash and sanitation improve students' attendance in schools as observed by teachers and parents.
- **Provide livelihood for the mothers:** Mothers are responsible for feeding children. If they have the means to feed their children, they will support their attendance at school.
- **Integrate peace education in selected schools in ARMM:** Peace education may be integrated or piloted in selected schools in ARMM, where issues on children affected by conflict may be addressed. Issues on bullying and how the children and community treat children with special needs and their families are also addressed, as relayed by experience of Broce Elementary School.