NATIONAL DEPARTMENT OF EDUCATION
Government of the
Federated States of Micronesia

FEDEMIS

NDOE

report

FSM EDUCATION INDICATORS

AUGUST 2019, VERSION 2

Federated States of Micronesia (FSM)

National Department of Education (NDOE)

NDOE Education Indicator Report 2019

A publication of the NDOE Data Unit

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ABBREVIATIONS

ADB	Asia Development Bank
AR	Access Rate
ASER	Age-specific Enrollment Rate
CHK	Chuuk
COMET	College of Micronesia Entrance Test
DOE	Department of Education
DOI	Department of Interior
DR	Dropout Rate
ECE	Early Childhood Education
FedEMIS	FSM Education Management Information System
FedSIS	FSM Student Information System
FSM	Federated States of Micronesia
GER	Gross Enrollment Rate
GIR	Gross Intake Rate
KSA	Kosrae
NDOE	National Department of Education
NER	Net Enrollment Rate
NIR	Net Intake Rate
NMCT	National Minimum Competency Test
NSO	National Statistics Office
OIA	Office of Insular Affair
OOS	Out-of-School
PDF	Portable Document Format
PNI	Pohnpei
PR	Promotion Rate
PTR	Pupil-Teacher Ratio
RR	Repetition Rate
SDOE	State Department of Education
SR	Survival Rate
TR	Transition Rate
UIS	UNESCO Institute for Statistics
UN	United Nations
US	United States
WASH	Water Sanitation and Health

FOREWORD BY THE DEPARTMENT OF EDUCATION SECRETARY

On behalf of the FSM Department of Education and on my own, I feel proud and privileged to present this year's FSM NDOE Indicators Report 2019. It has been a long journey to get where we are now. Compiling and cleaning historical data, setting-up required hardware and software, developing capacity of national and state DOE data managers, preparing schools principals and teachers, and finally reaching to a consensus among state and national governments on data policy was indeed a significant undertaking.

In all of these endeavors, we have received tremendous support and collaboration from my fellow colleagues, both at the State and National Department of Education. All the technical assistance and continuous financial support provided by development partners, especially from the Office of the Insular Affairs of the US Government, the Asian Development Bank, the Government of Australia, and the Secretariat of the Pacific Community in highly commendable.

In contrast to last year's Publication of the Education Digest, this report is the traditional FSM NDOE Indicators report. Going forward we plan to publish both, this shorter simpler report and the comprehensive digest of all our data later in the year. It will also be the first year that each state will have their own version of this Indicators report. While the NDOE data team will assist in the production of their first version, the states (Chuuk and Yap so far) have started receiving training on all the skills required to understand how it is produced. This showcase our commitment for improved quality education in the FSM. With the help of reliable, timely and quality data, we will be able to make better rational distribution of our limited resources including our enhanced ability to making informed decision.

Finally, I would like to extend my sincere thanks to all those individuals especially the FedEMIS team and the task force that came up with the concept of an integrated EMIS, and the organizations and development agencies who have provided their contribution to this initiative.

Best wishes,

Kalwin Kephas
Secretary
FSM Department of Education

EXECUTIVE SUMMARY

This is the 2019 FSM National Indicators Report, which first started in the FSM known as the JEMCO Indicators Report. The data is almost entirely from a single integrated source: The Federated States of Micronesia Education Management Information System (FedEMIS), a byproduct of the recent data improvement initiative. The report focuses on the set of 25 agreed indicators and for *most* of them, we show a chart and narrative analysis for the current year and the past 5 years trend, and a slightly more comprehensive data set in the form of a table. Note that the NDOE will also publish larger data sets through other platforms such as the comprehensive FSM Education Digest, the FedEMIS Open Data App (Android/iPhone/iPad) and on the website. Within this report there are instances that the time series data is not included because it is either not available, does not meet the quality threshold we now aim or too bulking to present in this focused report.

While there is always room for improvement the quality of data published by NDOE and SDOE has recently significantly improved and is on the path to improve further year after year with the on-going data management project largely funded by the United States Department of Interior (DOI) - Office of Insular Affair (OIA) and Asia Development Bank (ADB). We hope this report will prove useful and foster on-going communication and collaboration for better decision making in the FSM.

All the indicators are calculated based on the mathematical model published by the UNESCO Institute for Statistics unless otherwise noted.

Note that in order to meet the July 1 deadline this report had to be published with some data not in its final state. Chuuk has yet to complete their end of year data and also some private schools data is not included. Pohnpei still have some schools without the end of year data. Some of the indicators depend on this end of year data and will be computed or modified upon submission of the final state of the data. Other indicators might also be affected by this data not in final state though results will not change substantially. School Accreditation data for 2019 is not yet fully validated and in a final official state. Student assessment data is missing data from the state of Yap has they had technical problems with their equipment. In light of this, NDOE will published revised editions

REVISION HISTORY

The release history of this document is logged in Table 1: Release Log. Any type of additional work whether it is based on feedback from stakeholders, data quality fixes, new features it all gets logged.

Table 1: Release Log

Date Release	Version	Sections Affected	Comments
July 1, 2019	1	All	First version. Missing some end of year data, in particular from Pohnpei.
August 29, 2019	2	Most themes	Many figures were adjusted using the finalize end of year data especially affecting flow rates (Promotion, Transition, Dropouts, Graduation). Total enrolments also had adjustments in particular Chuuk did not have some private schools which are not included and therefore most derived figures will see some minor adjustments. Most of the overall take away analysis remains unchanged. Exams data had some corrections done.

THEME 1: HOW MANY CHILDREN ARE IN SCHOOL?

Student Enrollment

Student enrollment portrays an important glimpse of country's educational status. Along with the number of students enrolled, few other indicators such as GER, NER supplements to predict country's overall situation in terms of educational status.

In 2019, total enrollment in FSM school was 26,015[1] (Table 1.1). Of this total enrollment share of girls and boys were 12,849 and 13,166, respectively. Student enrollment across the states follows the general pattern of population distribution, i.e., states with higher populations such as Chuuk and Pohnpei have higher enrollments compared to Yap and Kosrae as revealed in terms of student's distribution (Fig 1.1).

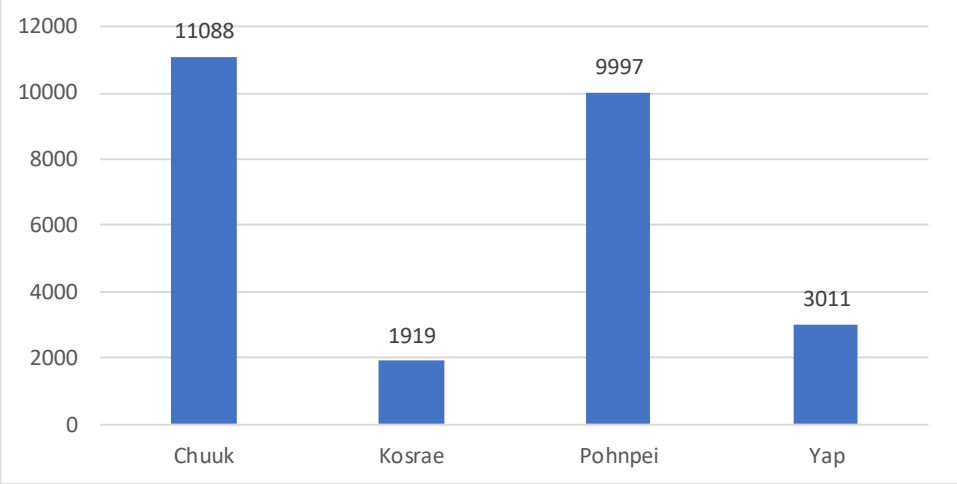

Figure 1.1: Student Enrolment by State

Trends in last five years (2015-2019) indicates a pattern of gradual decline in school enrollments in FSM (Figure 1.2). Decline in student enrollment is generally common in all four states. However, such patterns are more visible in last two years especially in Chuuk and Pohnpei, both of which are the two largest states in FSM. Enrollments in the two other states (i.e. Yap and Kosrae) is relatively stable with low rates or declining student population.

[1] Includes enrollments in ECE, elementary and secondary schools in both public and private institutions.

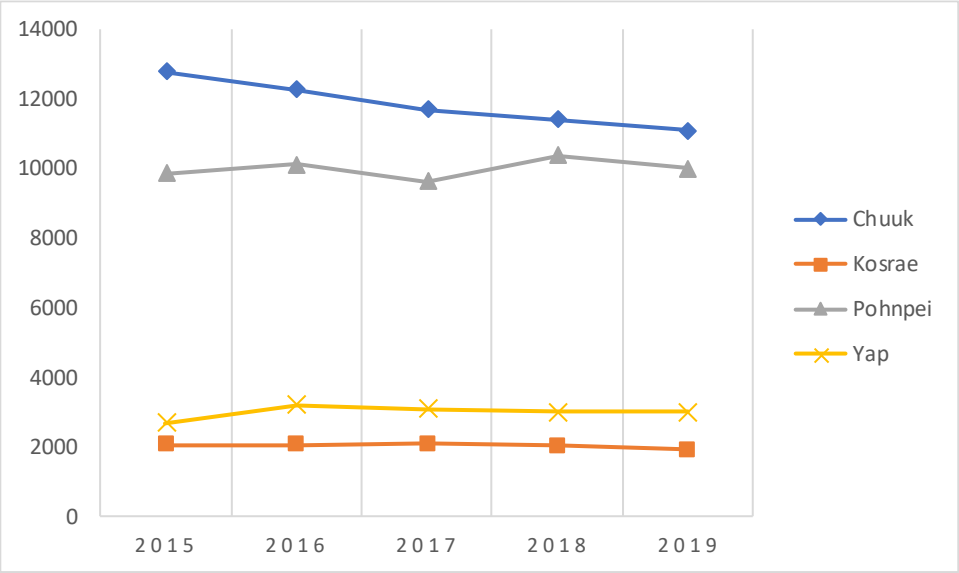

Figure 1.2: Enrolment trend over the past 5 year by state

There are two apparent reasons for this decline in school enrollment. Firstly, the declining populations in FSM due to out migration has a direct impact in school enrollments. Secondly, beginning from 2017, NDOE has launched a series of data consolidation and validation exercise as part of the data improvement project in all four states which has support in eliminating obvious discrepancies and over reporting of student number.

Table 1.1: Enrolment data by state for the past 5 years

Enrolments													
	Chuuk		Chuuk Total	Kosrae		Kosrae Total	Pohnpei		Pohnpei Total	Yap		Yap Total	Grand Total
	F	M		F	M		F	M		F	M		
2015	6211	6568	12779	992	1065	2057	4790	5084	9874	1237	1460	2697	27407
2016	5974	6311	12285	1001	1062	2063	4966	5157	10123	1502	1693	3195	27666
2017	5740	5960	11700	996	1083	2079	4696	4932	9628	1480	1619	3099	26506
2018	5619	5794	11413	976	1037	2013	5157	5235	10392	1414	1579	2993	26811
2019	5540	5548	11088	927	992	1919	4949	5048	9997	1433	1578	3011	26015

Net Enrollment Rate

Net enrollment reflects percent of students enrolled in school within their official school age. In the FSM, official school age is defined as 5 years of age before 31 December for ECE, 6 years of age before 31 December for Grade 1 and so on and so forth. In that regard, net enrollment indicates percent of students who are enrolled in their "official grade". A high NER indicates a high degree of coverage for the official school-age population.

In 2019, net enrollment in FSM schools is 82% in elementary level, whereas it is only 65% in ECE and 46% Secondary level (Table 1.2, Figure 1.3). While boys' and girls' net enrollment is almost equal in elementary level (Grades 1-8), boys' NER is higher in ECE and girls' NER is higher in secondary level (Figure 1.3).

Since elementary level education is compulsory in FSM, NER is higher than other education levels and stable at this level for both boys and girls. On the other hand, boys tend to dropout from high school relatively earlier than girls. We have started collecting data on the reasons for dropout which will soon be compiled in the Dropout indicator.

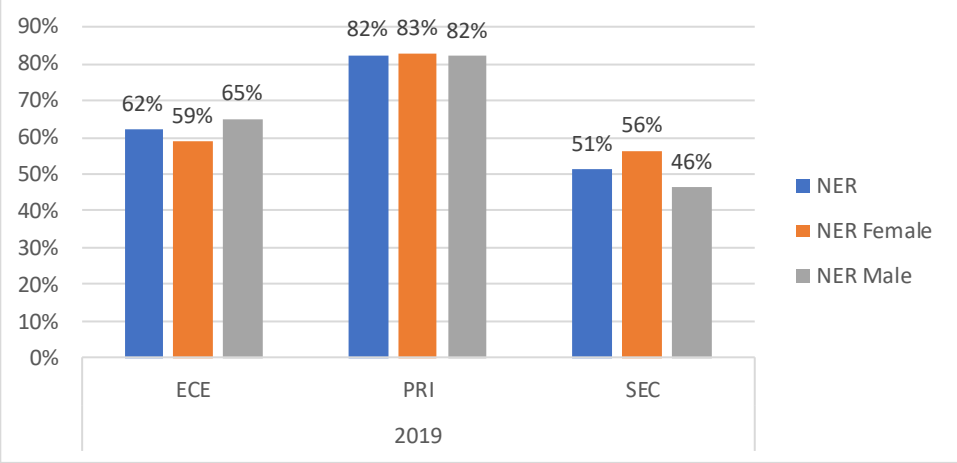

Figure 1.3: NER for the nation by education levels and gender/total

NER trend over last five years has also declined in all three level. While elementary level NER is quite stable in all five years, there is a sharp decline in ECE and Secondary level NER. This data is also included for all states in Table1.2 with similar pattern as national.

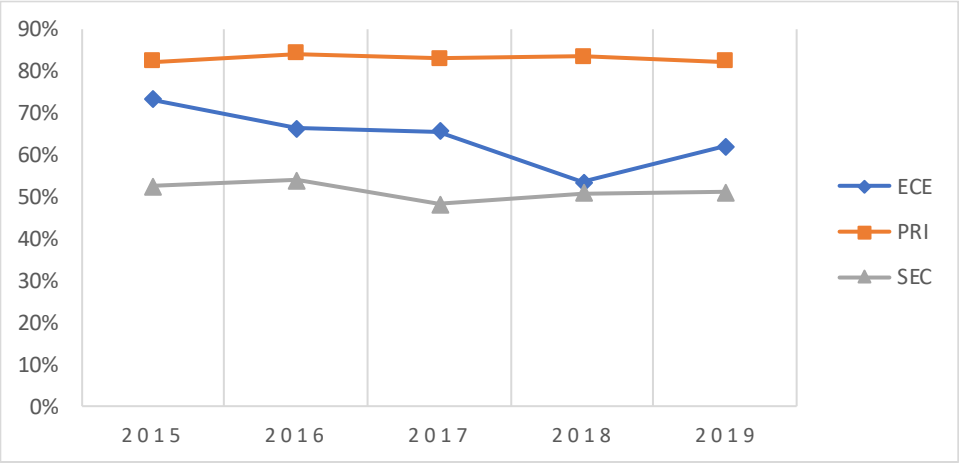

Figure 1.4: NER for the nation by education level for the past 5 years

Pohnpei and Kosrae are clearly performing better throughout the years with higher coverage of the school-age population, followed by Yap and then Chuuk at the lowest end (Table 1.2). This could be due to Yap and Chuuk under reporting enrollments (e.g. not reporting private schools) or it could be they really need to work on getting higher participation into the education system.

Table 1.2: NER data for the nation by education level for the past 5 years

	Chuuk			Kosrae			Pohnpei			Yap			Total NER (M)	Total NER (F)	Total NER
	NER (M)	NER (F)	NER	NER (M)	NER (F)	NER	NER (M)	NER (F)	NER	NER (M)	NER (F)	NER			
2015	**69%**	**72%**	**70%**	**87%**	**87%**	**87%**	**75%**	**76%**	**76%**	**61%**	**61%**	**61%**	**71%**	**73%**	**72%**
ECE	78%	70%	74%	90%	74%	82%	74%	64%	69%	77%	82%	79%	77%	69%	73%
PRI	81%	83%	82%	91%	90%	91%	87%	87%	87%	63%	63%	63%	82%	83%	82%
SEC	42%	51%	46%	77%	84%	80%	52%	59%	55%	54%	52%	53%	49%	56%	52%
2016	**67%**	**69%**	**68%**	**86%**	**88%**	**87%**	**76%**	**79%**	**77%**	**74%**	**77%**	**75%**	**72%**	**75%**	**73%**
ECE	67%	62%	65%	81%	104%	92%	58%	59%	58%	84%	94%	88%	66%	66%	66%
PRI	82%	81%	81%	89%	87%	88%	87%	89%	88%	82%	80%	81%	84%	84%	84%
SEC	39%	48%	43%	80%	87%	83%	59%	63%	61%	57%	66%	61%	50%	58%	54%
2017	**64%**	**67%**	**66%**	**89%**	**87%**	**88%**	**74%**	**76%**	**75%**	**70%**	**74%**	**72%**	**70%**	**72%**	**71%**
ECE	64%	57%	61%	95%	82%	89%	75%	57%	66%	68%	80%	73%	70%	61%	66%
PRI	79%	80%	80%	92%	90%	91%	86%	90%	88%	80%	78%	79%	82%	84%	83%
SEC	34%	44%	39%	81%	83%	82%	51%	53%	52%	51%	63%	57%	45%	52%	48%
2018	**61%**	**64%**	**62%**	**86%**	**88%**	**87%**	**77%**	**82%**	**80%**	**73%**	**73%**	**73%**	**70%**	**73%**	**71%**
ECE	51%	45%	48%	100%	89%	95%	49%	51%	50%	52%	84%	65%	54%	53%	53%
PRI	77%	77%	77%	86%	90%	88%	91%	95%	93%	85%	76%	81%	83%	84%	84%
SEC	32%	42%	37%	83%	84%	84%	58%	66%	62%	56%	64%	60%	47%	55%	51%
2019	**62%**	**66%**	**64%**	**82%**	**81%**	**82%**	**77%**	**81%**	**79%**	**70%**	**73%**	**72%**	**69%**	**73%**	**71%**
ECE	64%	57%	60%	71%	61%	66%	67%	56%	61%	64%	84%	72%	65%	59%	62%
PRI	77%	78%	77%	88%	87%	88%	89%	90%	89%	79%	78%	78%	82%	83%	82%
SEC	33%	44%	38%	73%	73%	73%	58%	68%	63%	54%	61%	57%	46%	56%	51%
Average Total	**65%**	**68%**	**66%**	**86%**	**86%**	**86%**	**76%**	**79%**	**77%**	**70%**	**71%**	**71%**	**70%**	**73%**	**72%**

Gross Enrollment Rate

Generally, gross enrollment can easily exceed 100% due to overage and underage student population in the system. However, in FSM school gross enrollment is below 90% (Figure 1.5), which indicates FSM is not yet approaching—though is very close to—the number required for universal access of the official age group.

Another important thing to note is the 5-10% difference between GER and NER for primary and secondary (Figure 1.3 and 1.5) providing a glimpsed into the extent of over age and under age students in those education levels. This is not nearly has pronounced as the difference in ECE between the NER and GER (Figure 1.3 and 1.5) which suggest a real issue in the consistency of how students are put into ECE to prepare them for school grades. The large NER/GER difference for ECE indicates we have kids of all sorts of ages in ECE which could be a contributing factor of a less optimal school preparation.

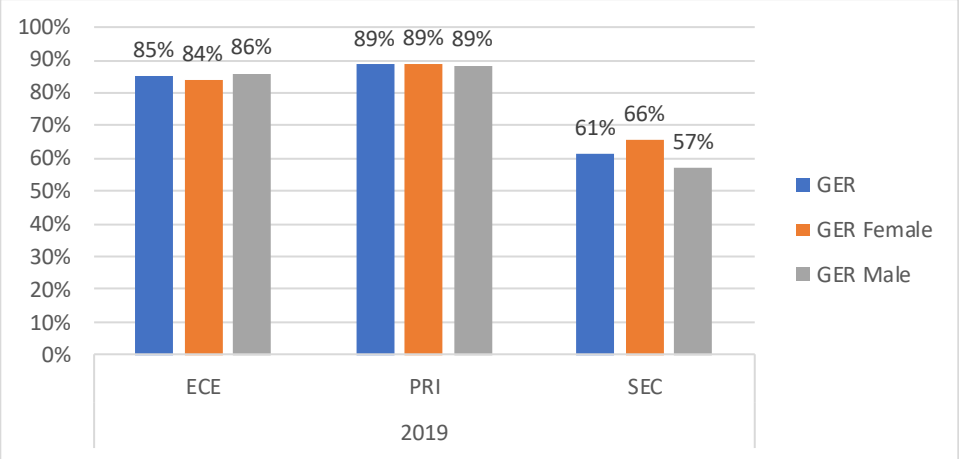

Figure 1.5: GER for the nation by education level and gender/total

The trend of GER over last five years (2015-2019) indicates a declining pattern in all three levels of education, which is an indication of less participation to the education system in FSM schools (Figure 1.6). This could be due to the population projection not reflecting the actual population and only the next population census might offer a bit more insight into this.

Across all three levels of education (ECE, Primary, and Secondary), gross enrollment rates are almost equal for both girls and boys. The rate is higher in ECE and Primary level compared to secondary level, which indicates grade repetition is higher in the lower levels than in higher level.

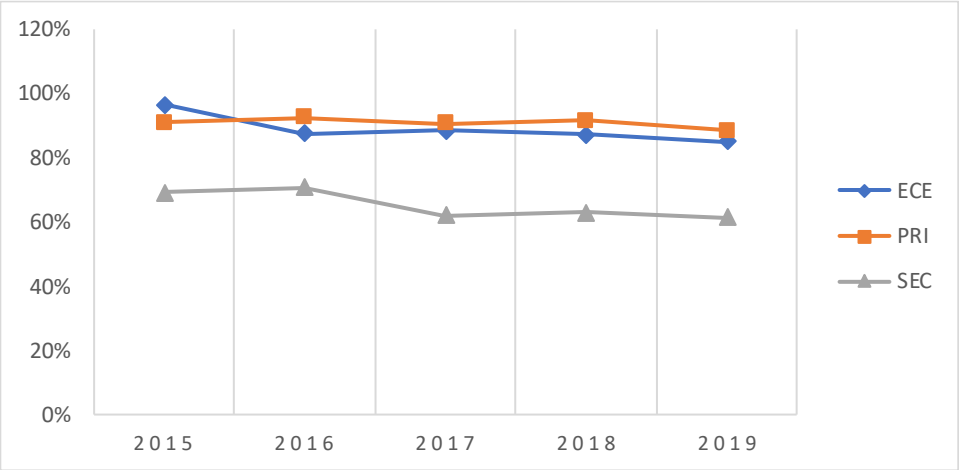

Figure 1.6: GER for the nation by education level over the past 5 years

The complete data set for all states and gender for the GER is included in Table 1.3 for further scrutiny.

Table 1.3: GER data for Chuuk by education level for the past 5 years

	Chuuk			Kosrae			Pohnpei			Yap			Total GER (M)	Total GER (F)	Total GER
	GER (M)	GER (F)	GER	GER (M)	GER (F)	GER	GER (M)	GER (F)	GER	GER (M)	GER (F)	GER			
2015	**82%**	**82%**	**82%**	**98%**	**95%**	**97%**	**87%**	**86%**	**87%**	**85%**	**78%**	**82%**	**85%**	**84%**	**85%**
ECE	108%	88%	98%	118%	110%	114%	78%	68%	73%	161%	188%	173%	103%	90%	97%
PRI	92%	91%	92%	96%	94%	95%	97%	94%	95%	73%	70%	72%	92%	90%	91%
SEC	57%	63%	60%	98%	93%	95%	71%	76%	73%	90%	73%	82%	68%	71%	69%
2016	**79%**	**79%**	**79%**	**98%**	**96%**	**97%**	**88%**	**89%**	**89%**	**99%**	**95%**	**97%**	**85%**	**85%**	**85%**
ECE	87%	80%	83%	113%	129%	121%	61%	64%	62%	169%	215%	188%	87%	88%	88%
PRI	92%	88%	90%	95%	92%	93%	96%	97%	96%	94%	88%	91%	94%	91%	93%
SEC	51%	61%	56%	100%	97%	99%	81%	82%	81%	90%	86%	88%	68%	73%	71%
2017	**74%**	**76%**	**75%**	**100%**	**95%**	**98%**	**84%**	**84%**	**84%**	**94%**	**93%**	**94%**	**81%**	**82%**	**82%**
ECE	85%	78%	82%	137%	114%	126%	80%	62%	71%	143%	197%	166%	93%	84%	89%
PRI	88%	87%	87%	95%	93%	94%	94%	96%	95%	91%	88%	90%	91%	91%	91%
SEC	45%	53%	49%	99%	96%	98%	67%	67%	67%	86%	83%	85%	60%	64%	62%
2018	**72%**	**74%**	**73%**	**95%**	**93%**	**95%**	**89%**	**92%**	**91%**	**92%**	**89%**	**90%**	**82%**	**83%**	**82%**
ECE	85%	81%	83%	119%	104%	112%	77%	77%	77%	112%	166%	135%	87%	88%	87%
PRI	86%	85%	86%	91%	94%	93%	100%	102%	101%	94%	84%	90%	92%	92%	92%
SEC	42%	50%	46%	98%	90%	94%	72%	79%	76%	81%	82%	82%	60%	66%	63%
2019	**69%**	**73%**	**71%**	**91%**	**89%**	**90%**	**86%**	**89%**	**87%**	**91%**	**90%**	**91%**	**79%**	**81%**	**80%**
ECE	78%	73%	76%	94%	106%	99%	79%	70%	75%	140%	193%	163%	86%	84%	85%
PRI	83%	84%	83%	91%	90%	91%	95%	97%	96%	90%	86%	88%	89%	89%	89%
SEC	39%	52%	45%	90%	83%	87%	70%	78%	74%	82%	78%	80%	57%	66%	61%
Average Total	**75%**	**77%**	**76%**	**96%**	**94%**	**95%**	**87%**	**88%**	**88%**	**92%**	**89%**	**91%**	**82%**	**83%**	**83%**

Gross Intake Rate

Gross intake rate (GIR G1 in Figure 1.7) indicates percent of intake (i.e. new entrants without repeaters) at any age into the first grade of primary education (i.e. grade 1.) Another related indicator of the same definition is the Gross Intake Rate into the last grade of primary (GIR G8 in Figure 1.7.)

The figures below (Figure 1.7), indicates varying levels of GIR by grades and gender. Overall GIR is higher in grade 1 compared to grade 8. In grade 1, GIR is slightly higher for male compared to female, whereas in grade 8 female GIR is substantially higher than male. Possible reasons for this variation by gender could be associated with late entry of male in grade 1, whereas higher GIR for females in grade could be associated with repetition in elementary level.

Another key thing to note is the large difference (roughly 17-33%) between the GIR G1 (first grade of primary) and GIR G8 (last grade of primary). This indicates a high degree of access to primary at the start but gradually decreasing nearer the end of primary. Whether this is simply because of dropouts of whether the FSM education system struggles to accommodate the new entrants is something that needs closer examination.

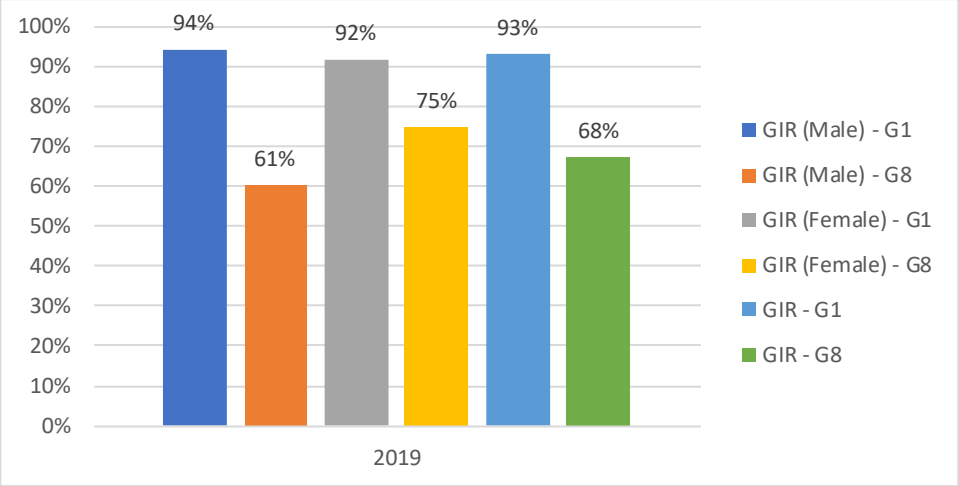

Figure 1.7: GIR (G1) /GIRLG (G8) for the nation by education level and gender/total

Higher GIR is also an inefficiency indicator. Hence, a declining trend in GIR over the last five years (2015-2019) is a good indication of improving educational efficiency (Figure 1.8).

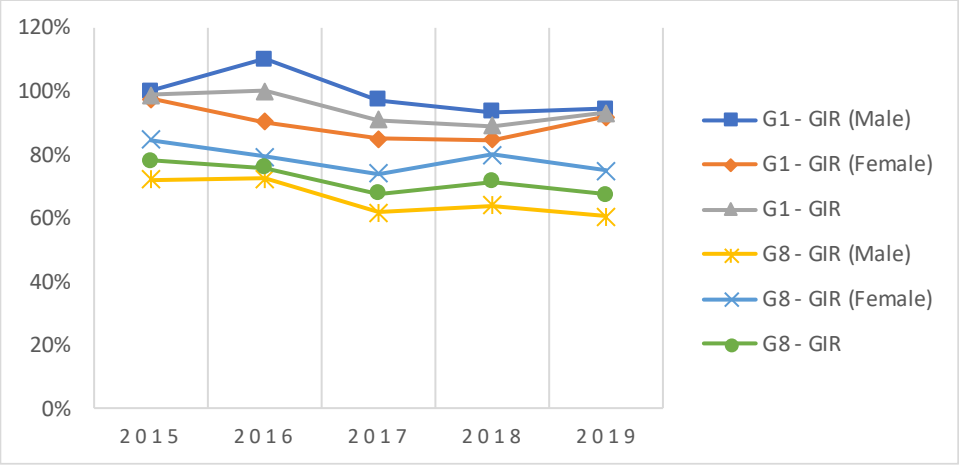

Figure 1.8: GIR (G1)/GIRLG (G8) for the nation by education level over the past 5 years

The complete data set for all states and gender for the GIR into first and last grades of primary is included in Table 1.4 for further scrutiny.

Table 1.4: GIR (G1)/GIRLG (G8) data for the nation by education level for the past 5 years

	CHK			KSA			PNI			YAP			Total GIR (M)	Total GIR (F)	Total GIR
	GIR (M)	GIR (F)	GIR	GIR (M)	GIR (F)	GIR	GIR (M)	GIR (F)	GIR	GIR (M)	GIR (F)	GIR			
2015	**86%**	**91%**	**89%**	**89%**	**122%**	**104%**	**99%**	**93%**	**96%**	**66%**	**67%**	**66%**	**89%**	**91%**	**90%**
G1	100%	98%	99%	79%	126%	99%	102%	97%	100%	71%	67%	69%	96%	96%	96%
G8	72%	85%	78%	101%	119%	110%	97%	89%	93%	61%	67%	64%	81%	86%	84%
2016	**91%**	**85%**	**88%**	**98%**	**110%**	**103%**	**99%**	**93%**	**96%**	**95%**	**88%**	**92%**	**95%**	**90%**	**92%**
G1	110%	91%	100%	90%	118%	102%	110%	102%	106%	116%	95%	106%	109%	96%	103%
G8	73%	80%	76%	107%	103%	105%	88%	85%	86%	79%	82%	80%	81%	83%	82%
2017	**79%**	**80%**	**80%**	**107%**	**113%**	**109%**	**96%**	**96%**	**96%**	**85%**	**96%**	**90%**	**87%**	**89%**	**88%**
G1	97%	85%	91%	95%	126%	108%	96%	100%	98%	113%	109%	111%	98%	95%	97%
G8	62%	74%	68%	121%	100%	111%	96%	93%	94%	62%	84%	72%	77%	84%	80%
2018	**79%**	**82%**	**80%**	**97%**	**114%**	**105%**	**104%**	**100%**	**102%**	**84%**	**80%**	**82%**	**89%**	**90%**	**90%**
G1	94%	85%	89%	101%	123%	110%	111%	100%	106%	102%	90%	96%	101%	93%	97%
G8	64%	80%	72%	92%	106%	99%	96%	100%	98%	70%	71%	70%	78%	88%	82%
2019	**77%**	**84%**	**81%**	**92%**	**104%**	**98%**	**93%**	**93%**	**93%**	**69%**	**79%**	**74%**	**83%**	**88%**	**85%**
G1	94%	92%	93%	91%	108%	98%	100%	97%	98%	80%	99%	89%	95%	95%	95%
G8	61%	75%	68%	93%	101%	97%	86%	89%	87%	60%	62%	61%	71%	80%	76%
Average Total	**82%**	**85%**	**83%**	**97%**	**113%**	**104%**	**98%**	**95%**	**97%**	**80%**	**82%**	**81%**	**89%**	**90%**	**89%**

Age Specific Enrollment Rate

FSM school age range is 5-18 for grades ECE to high-school, which means population in this age are expected to be in school. Figure 1.9 indicates a gradual improvement in enrollment from age 5 to 8. However, the enrollment takes a sharp decline after age 8. In other words, out of school population is higher in early ages as well in the later part of their education.

Both male and female student population has almost similar pattern (Table 1.5). This could have been caused by high dropout rates in higher grades. In the secondary level, high dropout rate is understandable; however, high dropout rate in elementary level contradicts with the compulsory education laws.

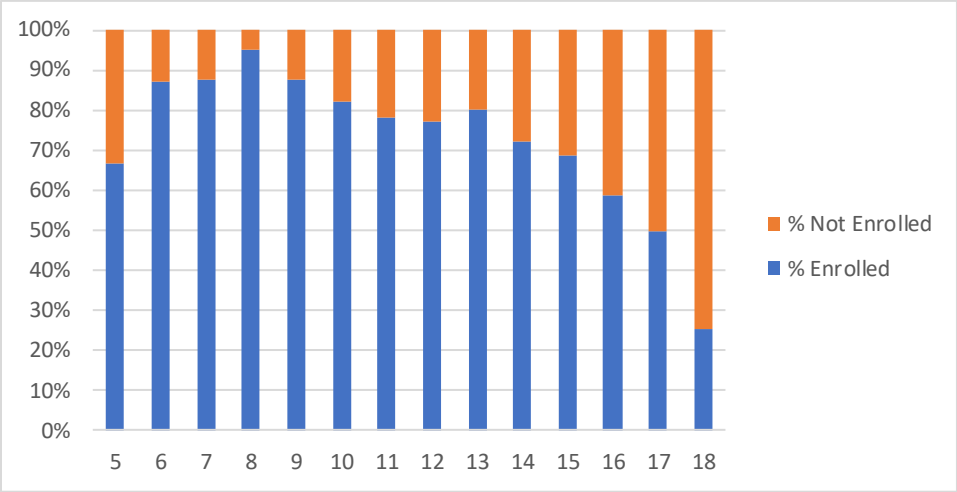

Figure 1.9: ASER for the nation

ASER trends over the last five years (2015-2019) reveals a generally declining pattern except for population at the age of below 5 years (Figure 1.10). The declining ASER is not a good sign, as these populations must remain in the system.

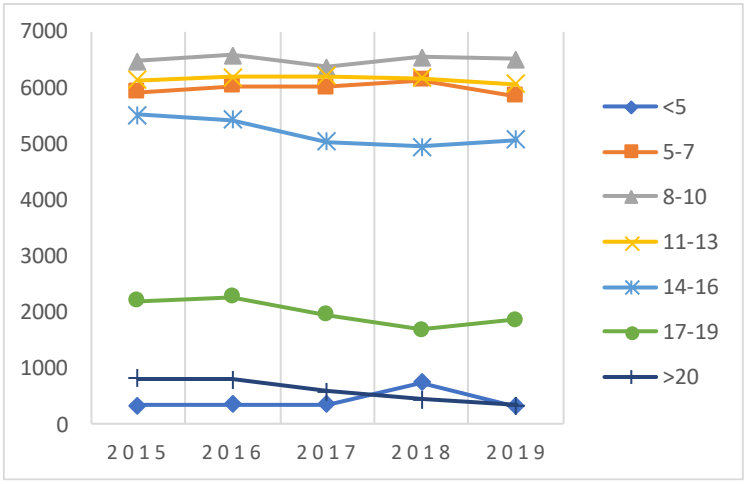

Figure 1.10: ASER for the past 5 years

The complete data set for all states and gender for the age specific enrollment rate in the education system is included in Table 1.5.

Table 1.5: ASER data for the nation by for the past 5 year

% Enrolled	Chuuk		Kosrae		Pohnpei		Yap		Average Total
	F	M	F	M	F	M	F	M	
5	64%	69%	63%	74%	59%	69%	89%	67%	67%
6	89%	87%	106%	85%	85%	87%	88%	76%	87%
7	78%	86%	95%	121%	93%	94%	73%	91%	88%
8	96%	89%	89%	89%	100%	96%	95%	113%	95%
9	84%	81%	90%	84%	94%	96%	83%	97%	88%
10	78%	80%	83%	78%	101%	80%	69%	73%	82%
11	75%	72%	55%	81%	79%	93%	82%	79%	78%
12	68%	72%	106%	95%	87%	80%	87%	65%	77%
13	81%	67%	104%	100%	93%	90%	59%	64%	80%
14	64%	57%	92%	73%	93%	76%	76%	75%	72%
15	63%	52%	85%	69%	79%	76%	92%	83%	69%
16	52%	39%	65%	88%	74%	64%	94%	65%	59%
17	38%	28%	78%	84%	69%	61%	49%	72%	50%
18	19%	19%	31%	60%	25%	27%	40%	46%	25%
Average Total	**68%**	**64%**	**82%**	**84%**	**81%**	**78%**	**76%**	**75%**	**73%**

Access Rate

Access rate (AR) is the percent of population in the system and is closely linked with the ASER discussed above. Comparing Figure 1.10 and Figure 1.11, we can clearly

see a similar pattern of enrollment. In other words, Figure 1.10 was about enrollment by specific age and figure 1.11 is about enrollment by specific grade. Thus, these two categories age and grade are very much linked to each other.

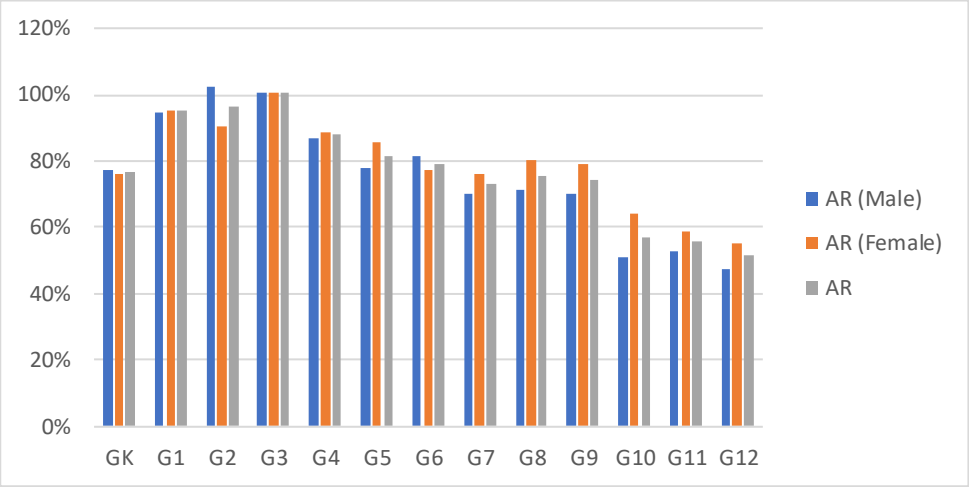

Figure 1.11: AR for the nation by grade and gender/total

In last five years (2015-2019) enrollment is gradually declining in FSM schools (Figure 1.12, 1.13, 1.14). This is cause for alarm as the population was projected to increase slightly over the years. Whether this is actually what has happened is hard to tell. The next population census might offer some insight here. But if the projections were close to reality then this would mean a decreasing access to education overall which is not good.

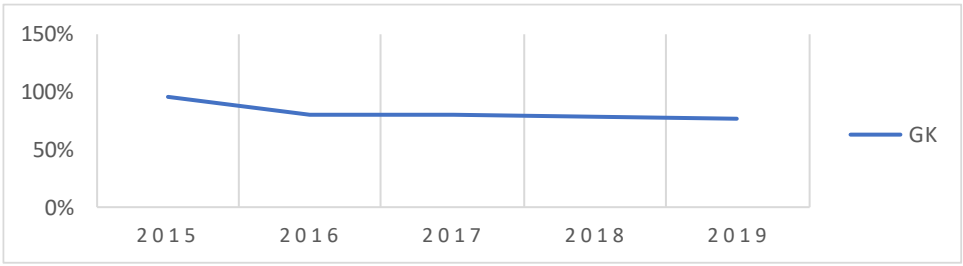

Figure 1.12: AR in ECE for the nation over the last 5 years

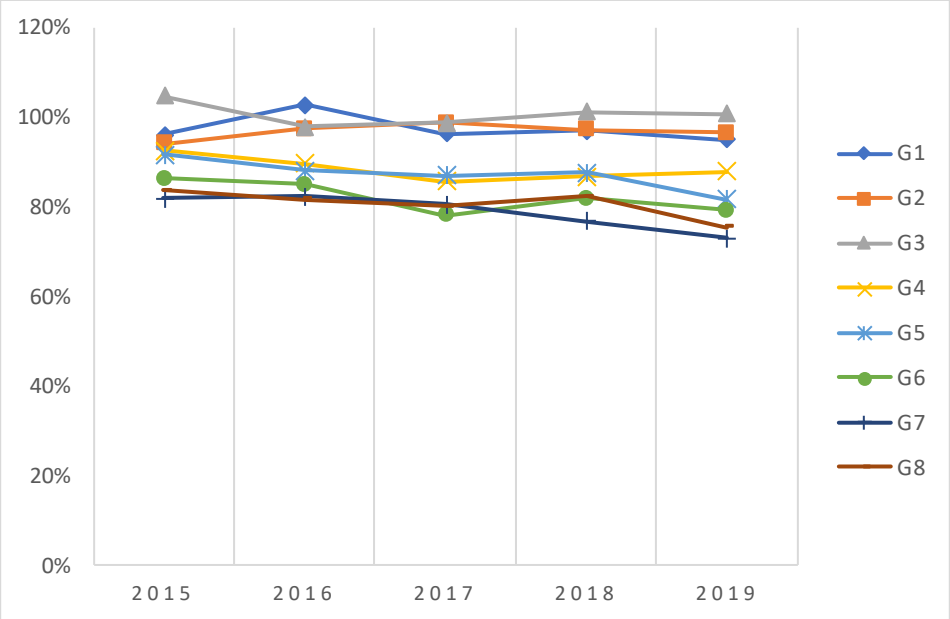

Figure 1.13: AR in primary for the nation over the last 5 years

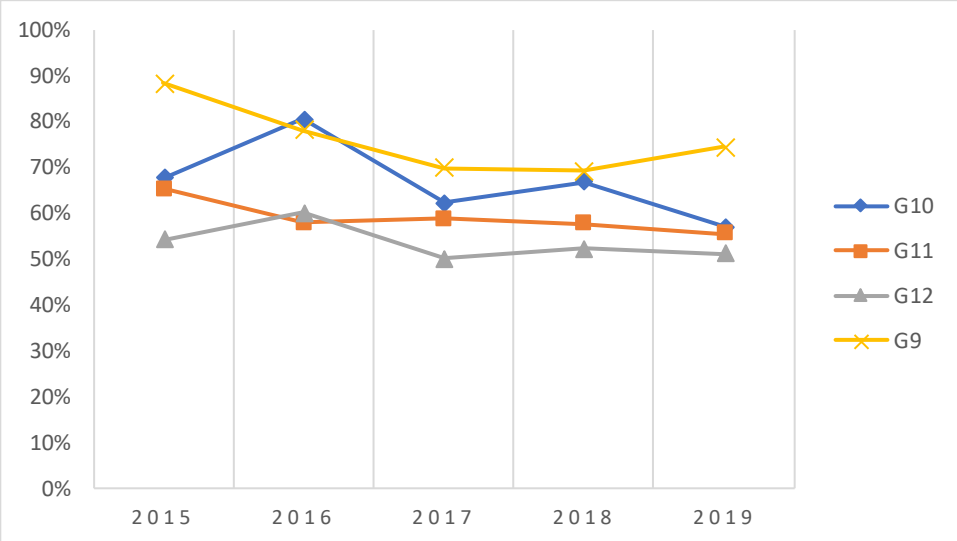

Figure 1.14: AR in secondary for the nation over the last 5 years

The complete data set for all states and gender for the age specific enrollment rate in the education system is included in Table 1.6.

Table 1.6: AR data for the nation for the past 5 year

AR	GK	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	Grand Total
CHK	**79%**	**98%**	**99%**	**101%**	**87%**	**89%**	**79%**	**74%**	**74%**	**68%**	**56%**	**45%**	**40%**	**76%**
2013	71%	106%	107%	101%	88%	94%	82%	85%	77%	76%	58%	49%	41%	79%
2014	76%	106%	112%	115%	93%	96%	89%	78%	83%	80%	65%	52%	46%	84%
2015	98%	99%	96%	108%	94%	93%	85%	81%	78%	85%	57%	53%	44%	82%
2016	81%	100%	97%	99%	85%	88%	79%	75%	76%	63%	66%	42%	44%	76%
2017	79%	91%	98%	97%	85%	83%	74%	71%	68%	63%	50%	43%	37%	72%
2018	76%	89%	92%	93%	80%	88%	72%	70%	72%	51%	52%	40%	36%	70%
2019	73%	93%	93%	97%	83%	78%	76%	61%	68%	62%	43%	39%	34%	69%
KSA	**114%**	**101%**	**91%**	**101%**	**89%**	**87%**	**86%**	**101%**	**109%**	**105%**	**96%**	**90%**	**91%**	**97%**
2013	105%	101%	88%	95%	99%	94%	91%	118%	107%	108%	93%	103%	107%	101%
2014	119%	90%	98%	106%	90%	96%	92%	98%	135%	105%	113%	98%	89%	102%
2015	114%	99%	82%	109%	89%	87%	90%	101%	110%	120%	90%	86%	84%	97%
2016	121%	102%	91%	86%	94%	87%	83%	100%	105%	109%	110%	90%	85%	97%
2017	126%	108%	88%	104%	77%	92%	87%	93%	111%	96%	91%	93%	90%	96%
2018	112%	110%	96%	99%	88%	71%	86%	96%	99%	107%	88%	81%	100%	95%
2019	99%	98%	96%	108%	83%	81%	71%	98%	97%	93%	86%	82%	85%	90%
PNI	**71%**	**102%**	**105%**	**107%**	**96%**	**92%**	**92%**	**91%**	**96%**	**86%**	**74%**	**71%**	**63%**	**88%**
2013	67%	104%	109%	112%	92%	86%	97%	106%	102%	98%	70%	74%	63%	91%
2014	72%	99%	107%	111%	101%	99%	93%	99%	110%	87%	68%	66%	63%	90%
2015	73%	100%	102%	104%	97%	95%	92%	83%	93%	88%	72%	75%	58%	87%
2016	62%	106%	105%	101%	94%	93%	94%	91%	86%	91%	93%	66%	73%	89%
2017	71%	98%	105%	104%	92%	91%	85%	91%	94%	70%	70%	69%	56%	84%
2018	77%	106%	106%	113%	99%	94%	94%	87%	98%	81%	80%	78%	62%	90%
2019	74%	98%	104%	104%	97%	88%	88%	83%	87%	87%	65%	70%	66%	85%
YAP	**115%**	**91%**	**80%**	**92%**	**80%**	**77%**	**76%**	**74%**	**70%**	**83%**	**84%**	**76%**	**70%**	**81%**
2013	93%	84%	69%	92%	79%	70%	75%	74%	73%	78%	76%	80%	64%	77%
2014	165%	79%	73%	78%	77%	75%	72%	71%	69%	88%	92%	73%	81%	83%
2015	173%	69%	69%	88%	68%	75%	72%	73%	64%	84%	94%	78%	72%	82%
2016	112%	106%	78%	90%	94%	73%	84%	78%	80%	81%	89%	89%	75%	87%
2017	96%	111%	89%	88%	75%	89%	68%	80%	72%	86%	79%	77%	69%	83%
2018	73%	96%	92%	101%	77%	77%	87%	65%	70%	84%	78%	60%	69%	79%
2019	90%	89%	89%	105%	86%	79%	72%	80%	61%	77%	76%	73%	63%	80%
Grand Total	**82%**	**99%**	**99%**	**102%**	**89%**	**89%**	**84%**	**82%**	**84%**	**79%**	**68%**	**60%**	**55%**	**82%**

THEME 2: HOW FAR DO THEY GET IN SCHOOL?

In this theme, we have several ***flow rates***. Examples of flow rates included in this theme are Transition Rate, Promotion Rate and Survival Rate. The reader may notice that the latest year of data is *2018*. This is in fact correct. Since flow rates typically mean from one year to another we need data for two consecutive years. Currently, in 2019 we can produce flow rates for SY2017-18=>SY2018-19, identified by 2018 in the charts and tables. For example, we can calculate the promotion rate of the cohort of students in Grade 10 in SY2017-18 promoting into Grade 11 in SY2018-19.

Transition Rate

There is a slightly higher than 100% transition rate from ECE to Grade 1 shown as 0 in Figure 2.1. The reason is that there is more enrolments in Grade 1 then there were students in the previous year in ECE. This contradicts with the assumption that only those children enrolled in ECE in previous year can be enrolled Grade 1 this year. In FSM, we have many students coming directly into Grade 1 without ECE background and this is what causes the model's assumption to be violated. The main things to consider here are:

- Is there compulsory ECE in all states? Compulsory ECE is not being enforced as shown by a transition above 100% for ECE=>Primary. This could have further reaching consequences including not preparing our students as well as we could for Grade 1.
- The violated assumption in the model is mostly affecting the ECE=>Grade 1 promotion/transition value. To address this we are now collecting a new piece of data: "Whether the students in grade 1 attended ECE". With this new data we will be able to produce the Transition Rate ECE=>Grade 1 with a more precise cohort.

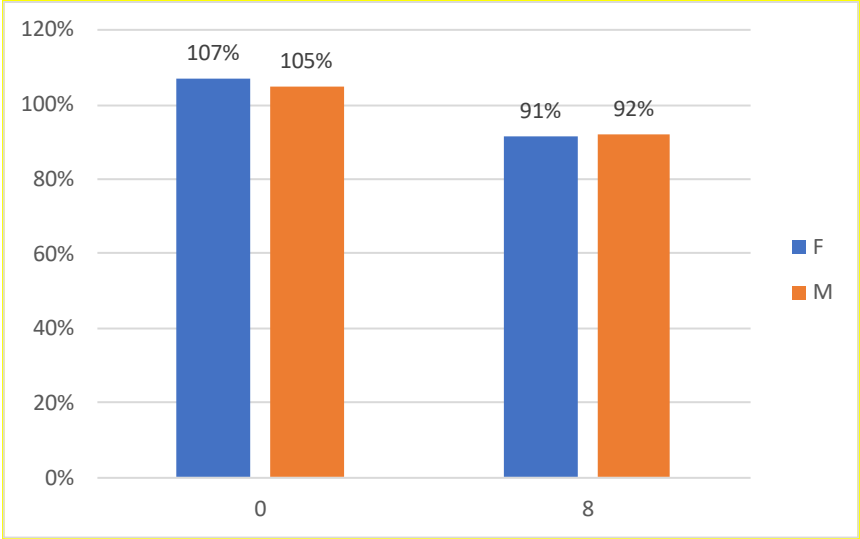

Figure 2.1: Transition ECE=>Primary and Primary=>Secondary for nation by gender

The states most affected by this "skipping ECE" are Chuuk and Pohnpei as shown in Figure 2.2. The transition rates for Primary=>Secondary for Pohnpei and Yap in the nineties are signs of good intake capacity into secondary while Chuuk is a little lower. Kosrae with ~112% transition rate from Primary=>Secondary shows some weakness in the data as there is no clear explanation as discussed in previous paragraph.

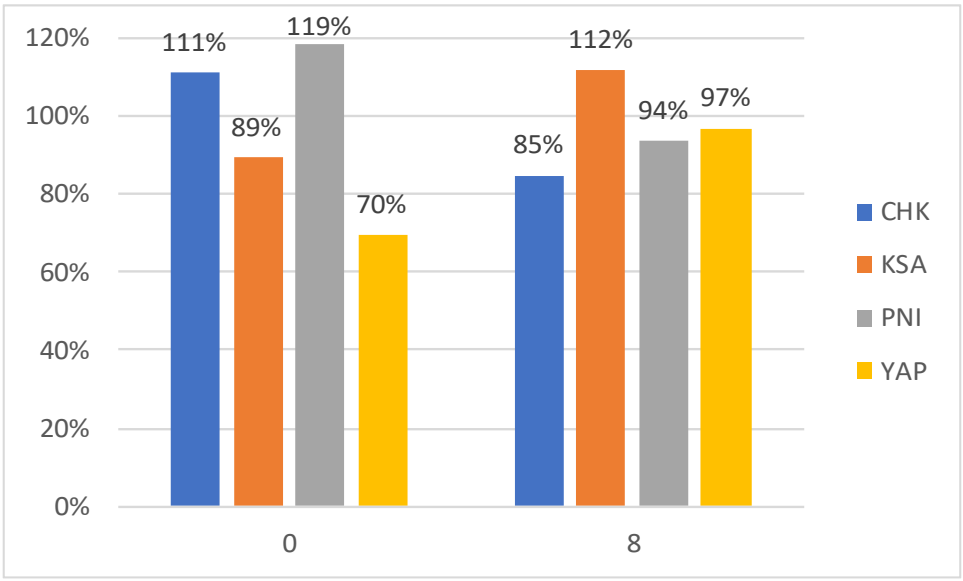

Figure 2.2: Transition ECE=>Primary and Primary=>Secondary by state

The trends in Figure 2.3 shows signs of data improving. The transition rate for ECE/Primary (shown as 0 in Figure 2.3) shows a decline in the last two years seen the FedEMIS Annual School Census was launched. The transition rate

Primary=>Secondary is seeing a small increase in more recent years, which is ultimately the aim of this indicator.

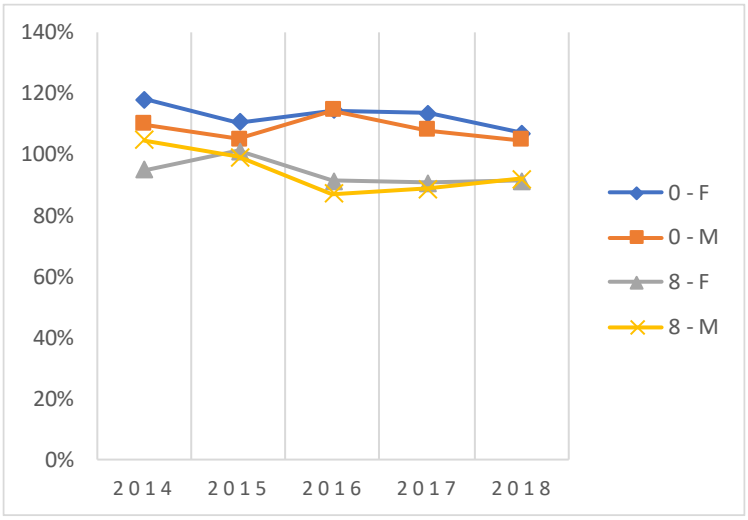

Figure 2.3: Transition ECE=>Primary and Primary=>Secondary by gender for past 5 years

Promotion Rate

This rate is a more general version of the transition rate above and reports on each grade as oppose to just across education levels like the transition rate. This means that the Grade 0 and 8—representing ECE=>Primary and Primary=>Secondary transitions respectively—are shown and discussed above in Transition Rate also. The main thing to observe here is a slight decline in promotion as cohorts of students progress to higher grades. This means we are constantly loosing students throughout the life cycle of the K-12 education system. Females have a slightly better promotion health then males. There is nothing in Grade 12 as students are not typically promoted beyond Grade 12.

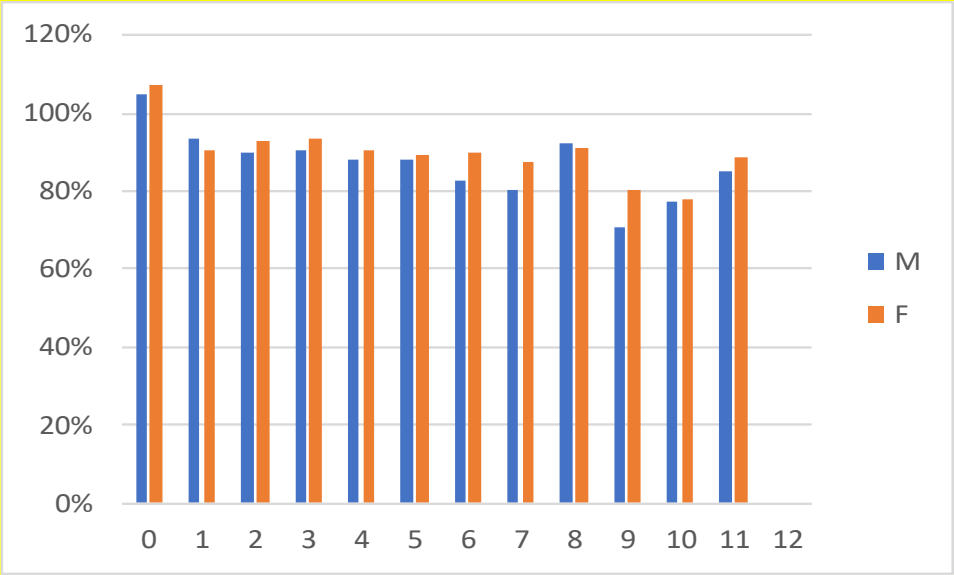

Figure 2.4: Promotion by grade and gender for nation

The state version of the chart shows similar pattern with Kosrea and Pohnpei both having a slightly more stable promotion at least for the grades of primary education. Chuuk has the most pronounced declined suggesting they lose more students as cohorts progress throughout grades.

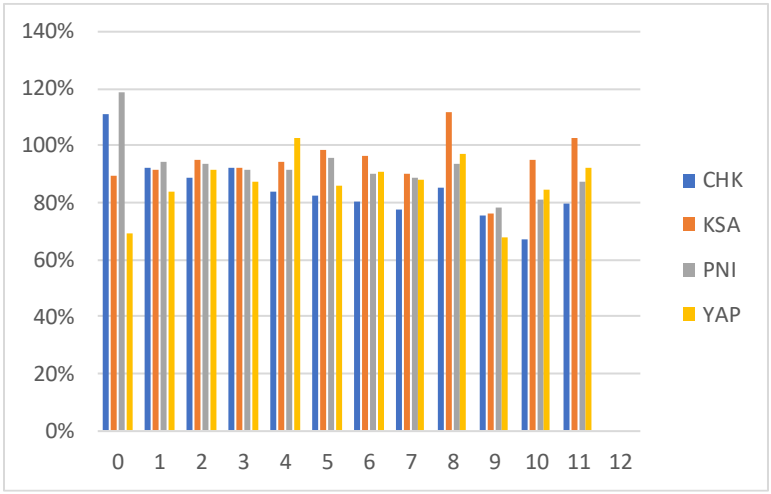

Figure 2.5: Promotion by grade and state

Table 2.1: Promotion rates by grade, state and national

Promotion Rates																				
	2015				2015 Total	2016				2016 Total	2017				2017 Total	2018				2018 Total
	CHK	KSA	PNI	YAP		CHK	KSA	PNI	YAP		CHK	KSA	PNI	YAP		CHK	KSA	PNI	YAP	
0	110%	94%	134%	64%	100%	116%	94%	144%	74%	107%	116%	93%	137%	61%	102%	111%	89%	119%	70%	97%
1	98%	101%	102%	118%	105%	92%	95%	97%	80%	91%	93%	98%	104%	79%	94%	92%	91%	94%	84%	90%
2	101%	90%	96%	116%	101%	92%	97%	95%	92%	94%	88%	95%	104%	94%	95%	89%	95%	94%	91%	92%
3	92%	101%	99%	119%	103%	93%	104%	99%	85%	95%	93%	99%	104%	91%	97%	93%	92%	92%	88%	91%
4	90%	101%	99%	114%	101%	89%	101%	100%	97%	97%	94%	96%	106%	104%	100%	84%	94%	91%	103%	93%
5	90%	96%	102%	111%	100%	84%	102%	94%	86%	91%	86%	95%	106%	88%	94%	82%	98%	96%	86%	91%
6	91%	99%	102%	116%	102%	90%	100%	99%	94%	96%	92%	98%	105%	94%	97%	80%	96%	90%	91%	89%
7	87%	94%	96%	115%	98%	79%	101%	96%	90%	91%	84%	96%	100%	86%	92%	78%	90%	89%	88%	86%
8	88%	118%	106%	115%	107%	86%	108%	88%	94%	94%	79%	115%	93%	99%	96%	85%	112%	94%	97%	97%
9	81%	87%	103%	98%	92%	73%	79%	75%	82%	77%	84%	80%	107%	73%	86%	75%	76%	78%	68%	74%
10	74%	103%	86%	100%	91%	61%	87%	69%	86%	76%	81%	84%	104%	72%	86%	67%	95%	81%	84%	82%
11	85%	92%	101%	101%	95%	86%	93%	86%	80%	86%	85%	104%	92%	87%	92%	80%	103%	87%	92%	91%
12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Percentage of Repeaters

Total repeaters enrolled in the same grade as previous year express as percentage of total enrolled in specified grade. Note this indicator is slightly different from the repetition rate that we also report in other publications. By far the state with the highest repeating percentage is Yap with an especially high rate of repeaters in ECE. This is almost certainly due to Yap allowing very young kid that are most likely not ready for schools into ECE. The higher percentage of repeaters in primary and secondary education could be due to Yap schools being a little stricter on their students or students' performance are lower than other states. A closer look at the student's exams performance data might provide more insight into the reason for high percentage of repeaters.

Kosrae has no repeaters at all while both Chuuk and Pohnpei maintains percentage of repeaters below 5%. These low values suggest good efficiency of the internal education system.

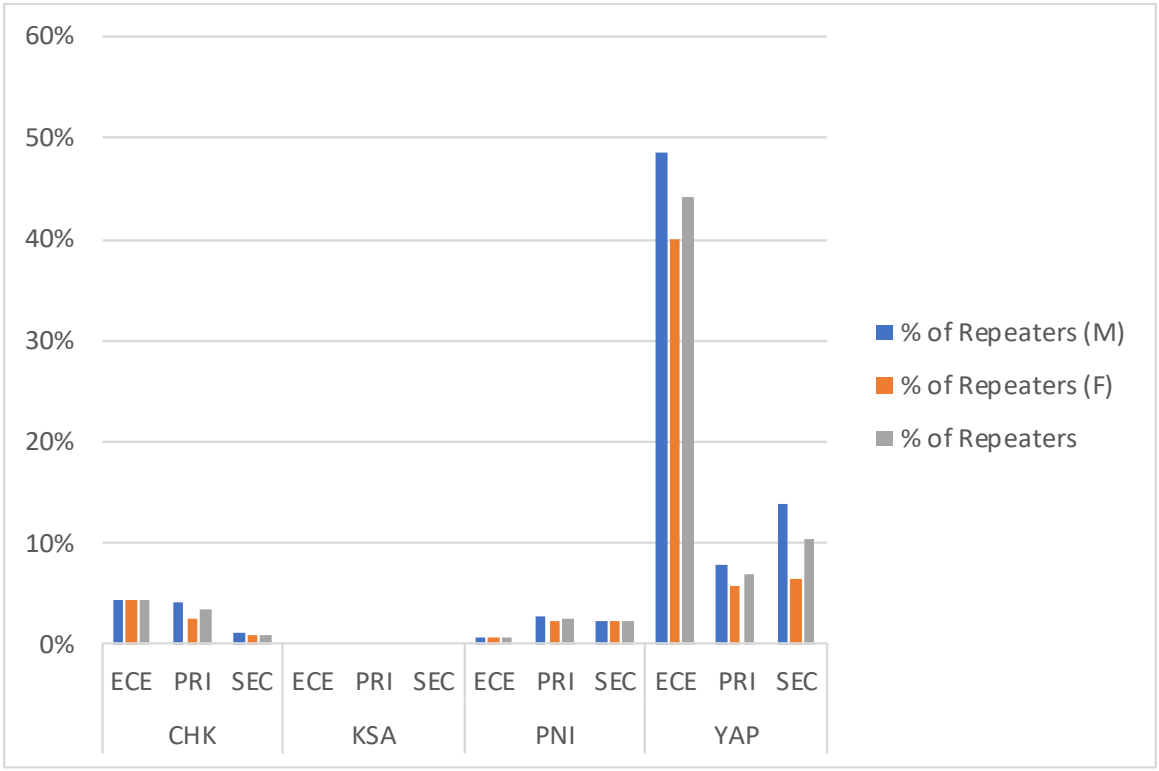

Figure 2.6: Percent of repeaters by state, education level and gender

The trend of percentage of repeaters suggest a slight increase for Pohnpei and Yap while Chuuk saw a sharp decrease in this school year's repeaters. Note that Chuuk

did not yet submit data for private schools amounting to roughly 900 new students and some repeaters; it may have an effect on the trend pattern.

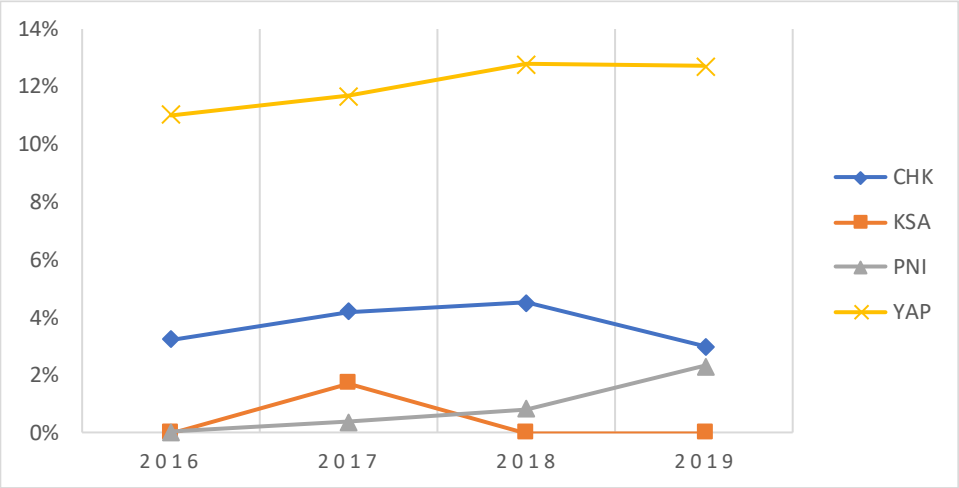

Figure 2.7: Percent of repeaters for the last 5 years by state

Table 2.2: Percent of repeaters by state and education level for past 4 years

% Repeaters	CHK			CHK Total	KSA			KSA Total	PNI			PNI Total	YAP			YAP Total	Average Total
	ECE	PRI	SEC		ECE	PRI	SEC		ECE	PRI	SEC		ECE	PRI	SEC		
2016	2%	3%	3%	3%	0%	0%	0%	0%	0%	0%	0%	0%	48%	7%	5%	11%	3%
2017	4%	5%	2%	4%	0%	0%	5%	2%	0%	0%	1%	0%	42%	7%	8%	12%	3%
2018	8%	5%	2%	5%	0%	0%	0%	0%	0%	1%	0%	1%	46%	8%	11%	13%	4%
2019	4%	3%	1%	3%	0%	0%	0%	0%	1%	3%	2%	2%	44%	7%	10%	13%	4%
Average Total	**5%**	**4%**	**2%**	**4%**	**0%**	**0%**	**1%**	**0%**	**0%**	**1%**	**1%**	**1%**	**45%**	**7%**	**9%**	**12%**	**3%**

Attendance Rate

Generally, attendance as reported by schools in the FSM is high with 90% and above.

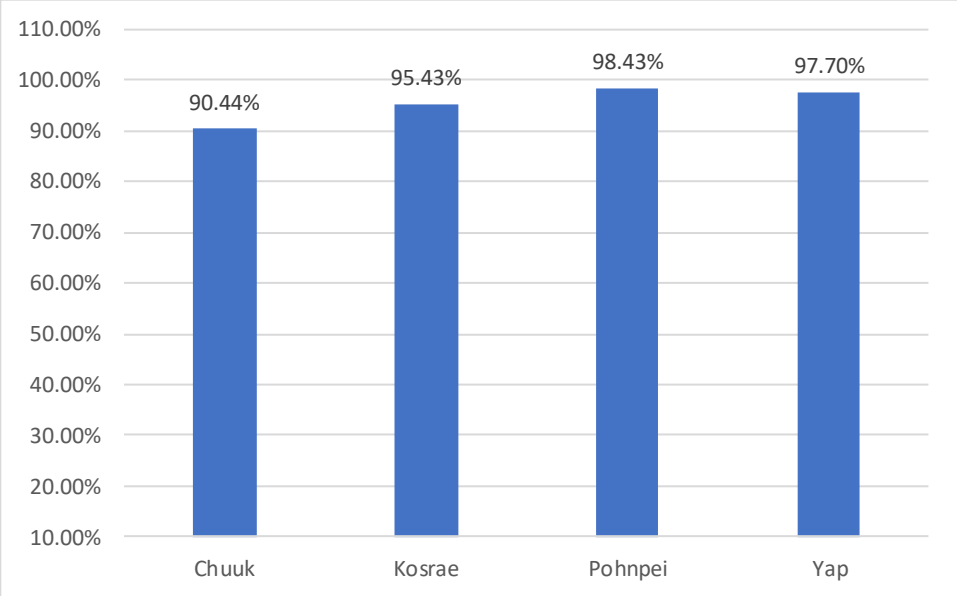

Figure 2.8: Attendance rate by states

Survival Rate

The survival rates shown in Figure 2.8 read like this:

- Survival Rates (from G1) in legend to Grade 8 in vertical axis is the *expected* surviving percentage of the cohort starting in Grade 1 reaching Grade 8
- Survival Rates (from G1) in legend to Grade 12 in vertical axis is the *expected* surviving percentage of the cohort starting in Grade 1 reaching Grade 12
- Survival Rates (from G9) in legend to Grade 12 in vertical axis is the *expected* surviving percentage of the cohort that made it to Grade 9 and then go on reaching Grade 12. This is why there is no grey and yellow bars for Grade 8 in the vertical axis.

The survival rate is a measure to help predict the survival of student cohorts based on the promotion from grade to grade as observed by the data. In addition, when comparing the total number of students in grade 1 to those in grade 8 and 12 as a snapshot in time with relatively constant population the survival rates presented provide a realistic expectancy rate.

Most survival rates throughout the nation are considered low with female having slightly higher survival rate than males. The data shows roughly ~45% (39% Male/50% Female) survival rate of cohort starting in Grade 1 and reaching Grade 8 and that same cohort starting and Grade 1 and reaching Grade 12 is very low at about ~20% (17% Male/25% Female). Even from the cohort that have successfully made it to Grade 9 only about half (46% Male/55% Female) will survive to Grade 12.

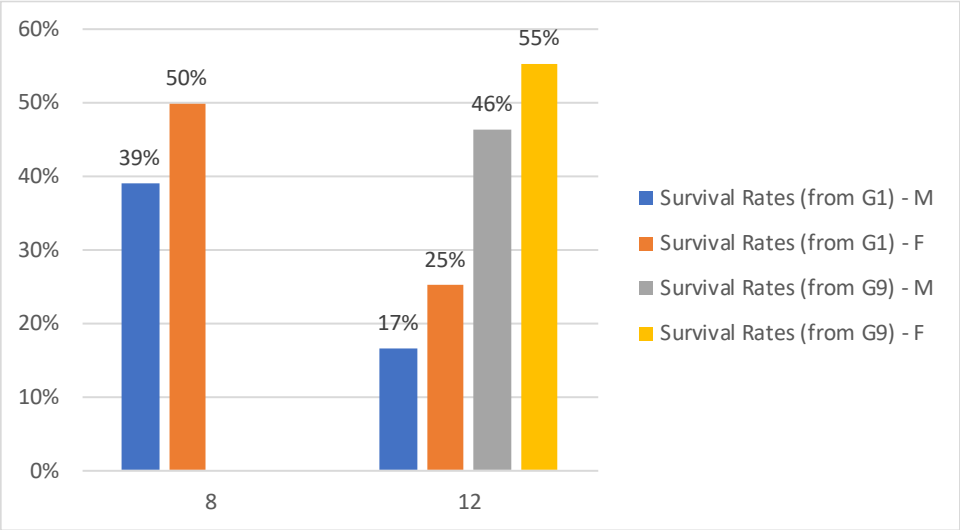

Figure 2.9: Survival rates by gender for the nation

Chuuk has the lowest expected survival from Grade 1 to 8 at 33%. The highest survival expectancy from Grade 1 to 8 are in Kosrae with 65% followed by Pohnpei with 57% and Yap with 47%. In a similar vein of analysis, this same pattern is observed with survival from Grade 1 to 12 and Grade 9 to 12 with Chuuk the poorest and Kosrae the highest following by Pohnpei and then Yap.

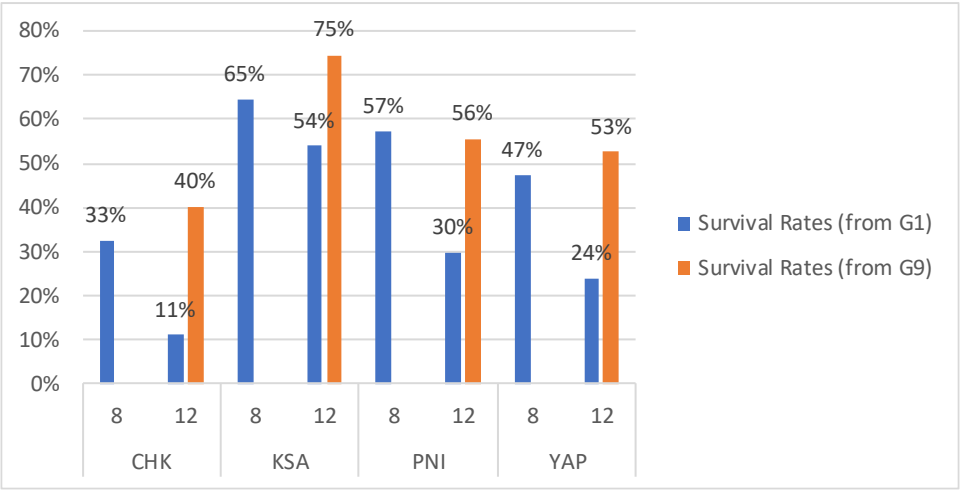

Figure 2.10: Survival rates by gender and state

Table 2.3: Survival rates by state

	Survival Rates (from G1)	Survival Rates (from G9)
CHK	**44%**	**40%**
8	33%	
12	11%	40%
KSA	**118%**	**75%**
8	65%	
12	54%	75%
PNI	**87%**	**56%**
8	57%	
12	30%	56%
YAP	**71%**	**53%**
8	47%	
12	24%	53%

Graduation Rate

Waiting on the finalized end of year data, especially Pohnpei.

There a several variations of how to report on graduation. The interested reader can refer to our Education Digest. The graduation ratio reported herein is based on the actual completed data for grade 8 and grade 12 from the FedEMIS School Annual Census.

Once the students reach grade 8 and grade 12 they have a high rate of graduating. Only a few students in the whole of FSM had to repeat those grades.

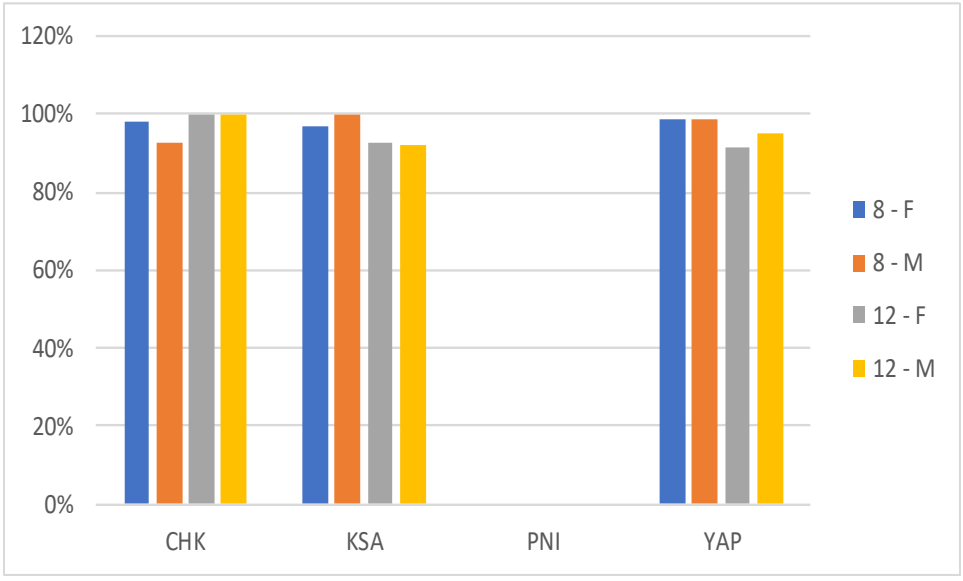

Figure 2.11: Graduation rate by state and gender for Grade 8 and 12

Graduation Rate	8		8 Total	12		12 Total	Average Total
	F	M		F	M		
CHK	98%	93%	96%	100%	100%	100%	97%
KSA	97%	100%	99%	93%	92%	92%	96%
PNI	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
YAP	99%	99%	99%	91%	95%	93%	96%
Average Total	**98%**	**95%**	**#DIV/0!**	**97%**	**97%**	**#DIV/0!**	**#DIV/0!**

Dropout Rate

Waiting on the finalized end of year data, especially Pohnpei.

We can compute dropout rates using the reconstructed cohort for the past 5 years [1] and using the actual dropout data collected at the end of the school year using the FedEMIS School Annual Census. The latter is the one used herein. Only one year of data is shown and end of year data is not in for Pohnpei and hence will only be included in the next revision of this report.

The dropout rates are similar around 5-7% in FSM. Kosrae as the least dropout of the states that submitted their end of year data. Generally, males have higher dropout rates than females. Yap has the highest dropout rate in the country, but the high dropout in ECE in the state of Yap affects this total figure.

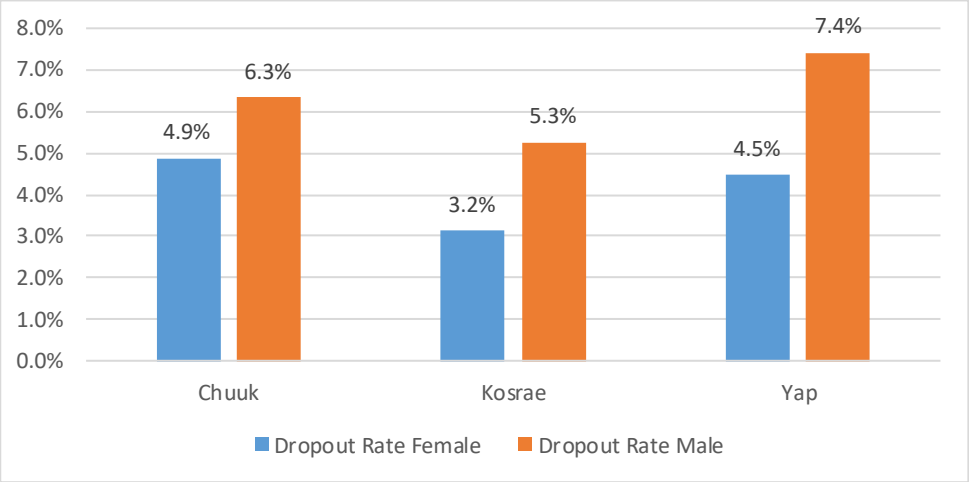

Figure 2.12: Dropout rates by states and gender

ECE high dropouts could be further improved by enforcing kids all start at the same age of 5 when they are more ready and less likely to dropout. Beyond that, most

[1] The reconstructed cohort make use of enrolments and repeaters for two consecutive years

states have high dropout rates starting as early as Grade 1 and sustained throughout all grades. This indicates a need for strategies to keep students in school throughout the whole education system. There are even significant dropouts near the graduation of high school when students are so close to completing a K-9 education. Strategies should be put in place to get these students so close to the deadline back to school and support them to finish their education.

Table 2.4: Dropout by state, grade and gender data

	Dropout		Enrol		Total Dropout	Total Enrol
	Female	Male	Female	Male		
Chuuk	**271**	**352**	**5541**	**5553**	**623**	**11094**
Grade ECE	25	21	395	444	46	839
Grade 1	42	64	577	575	106	1152
Grade 2	29	47	510	611	76	1121
Grade 3	31	37	520	586	68	1106
Grade 4	16	37	531	563	53	1094
Grade 5	22	40	491	492	62	983
Grade 6	30	41	472	520	71	992
Grade 7	21	23	411	399	44	810
Grade 8	28	27	429	372	55	801
Grade 9	13	10	404	366	23	770
Grade 10	11	4	315	224	15	539
Grade 11	3	1	263	211	4	474
Grade 12			223	190		413
Kosrae	**29**	**52**	**920**	**986**	**81**	**1906**
Grade ECE		1	75	73	1	148
Grade 1	3	1	71	83	4	154
Grade 2	1	2	76	89	3	165
Grade 3	3	2	76	83	5	159
Grade 4		1	75	67	1	142
Grade 5		3	75	69	3	144
Grade 6	3	3	55	72	6	127
Grade 7	1	2	88	68	3	156
Grade 8	2		70	71	2	141
Grade 9	8	25	69	91	33	160
Grade 10	2	5	59	81	7	140
Grade 11	4	2	61	76	6	137
Grade 12	2	5	70	63	7	133
Yap	**64**	**117**	**1424**	**1575**	**181**	**2999**
Grade ECE	19	17	193	189	36	382
Grade 1	2	7	128	122	9	250
Grade 2	3	8	103	147	11	250
Grade 3	3	6	115	135	9	250
Grade 4		1	98	123	1	221
Grade 5	3	9	108	120	12	228
Grade 6	3	10	106	106	13	212
Grade 7	4	11	123	111	15	234
Grade 8	1	1	78	95	2	173
Grade 9	5	20	108	140	25	248
Grade 10	8	17	100	105	25	205
Grade 11	6	6	83	104	12	187
Grade 12	7	4	81	78	11	159
Grand Total	**364**	**521**	**7885**	**8114**	**885**	**15999**

COMET

The College of Micronesia-FSM Entrance Test (COMET) is a three-section test given to high school seniors, high school graduates, and General Educational Development (GED) holders who want to enroll at COM-FSM, and who have not attended college previously.

COM-FSM cannot accept and enroll every high school graduate or GED holder who wants to attend the college, and has to make decisions on admitting and enrolling students. Having a high school diploma or GED is by itself not enough for the college to determine admissions. Additionally, most high schools in the FSM do not administer high school exit tests or comprehensive standard tests like Scholastic Assessment Test (SAT), American College Testing (ACT) or Test of English as a Foreign Language (TOEFL) to help the college make a decision about how well prepared a person who is to be admitted and do college level work. As such, COM-FSM developed the COMET to help identify, select, and admit students.

The purpose of the COMET is to assist COM-FSM in making decisions about admitting students to the college, and allow it to gather some information about how well prepared and "college-ready" prospective students are in English writing and reading, and in mathematics. It is also used to place students who are admitted into an appropriate COM-FSM academic degree, Achieving College Excellence (ACE), and vocational/technical certificate programs.

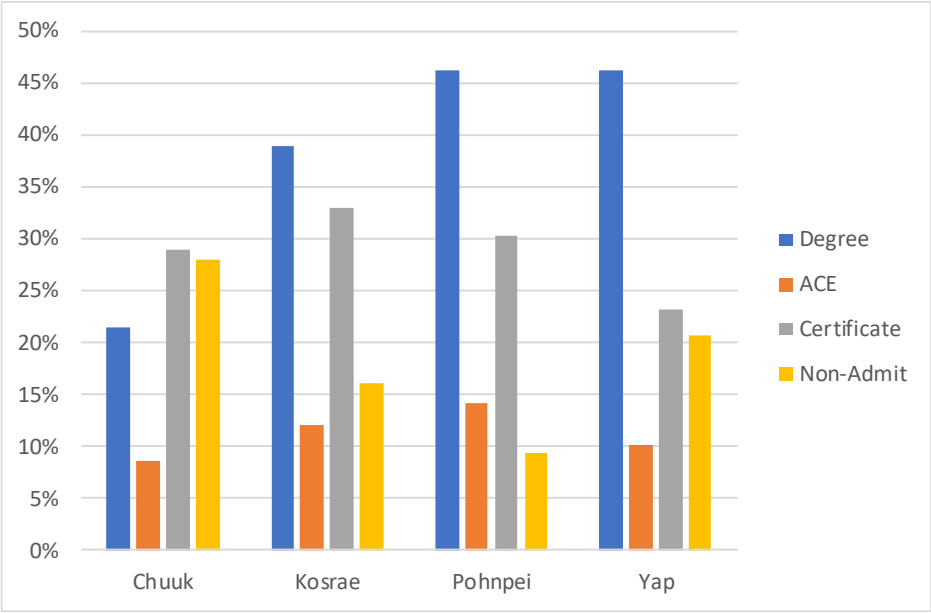

Figure 2.13: COMET by state

Table 2.5: COMET by state data

State	Testee Count	Degree	ACE	Certificate	Non-Admit
Chuuk	411	21%	9%	29%	28%
Kosrae	112	39%	12%	33%	16%
Pohnpei	635	46%	14%	30%	9%
Yap	169	46%	10%	23%	21%
Total	1327	38%	12%	29%	21%

THEME 3: HOW ARE STUDENTS PERFORMING?

NMCT

The FSM National Minimum Competency Test (NMCT) is a standards-based assessment tool that allows to measure students' level of learning with respect to standards and benchmarks in Language Arts and Mathematics. The reporting of the NMCT results are analyzed and shown along side a 2% increase target trend starting from a set baseline. It shows whether students understand the basic concepts and can do the basic skills on the standards and benchmarks. The NMCT data is taken from Soe Assessment tool and provided by the assessment team.

It is important to note that the following results are not inclusive of Yap's students due to technical difficulties they experienced with their equipment.

Reading

The chart below shows gradual improvement over the years in grade six reading until this year. While the set target was achieved in SY2017-2018, it has seen no improvement this school year. These results suggest the need for teachers to dig deeper into the standards and benchmarks where students of reading grade 6 are experiencing difficulties.

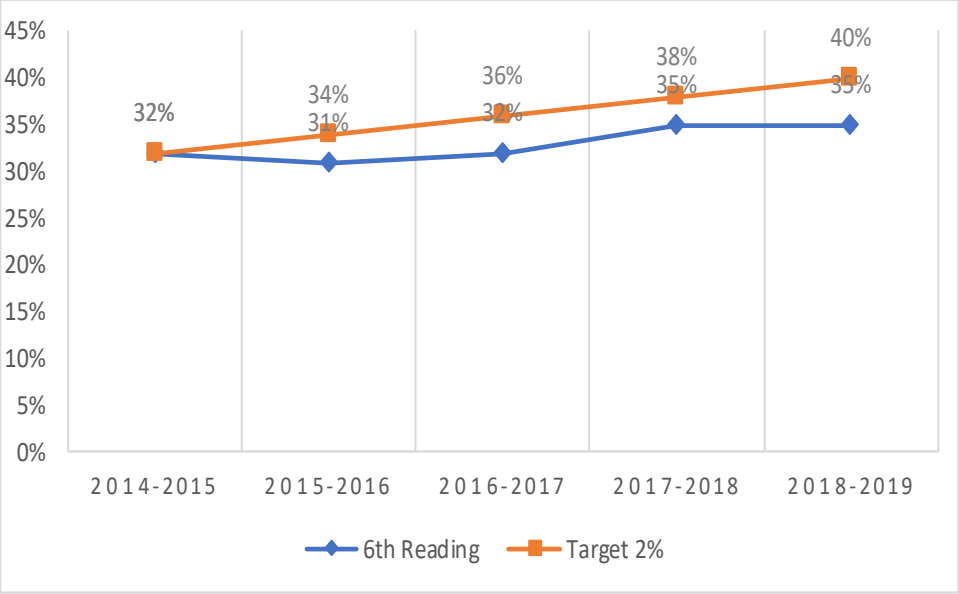

Figure 3.1: NMCT Reading Grade 6 Trend

Compared to the results at fourth grade, student performance in reading is below the benchmark in three consecutive years with slight progress over the last three years. A target increase of 2% is recorded in the last year which meets the target but compare to the original baseline is still below. It may be worth revising the baseline and improve from there going forward.

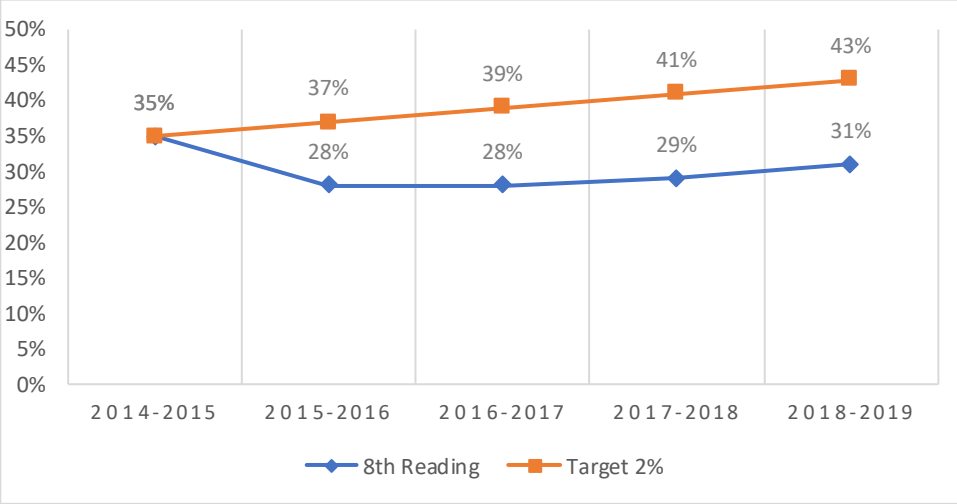

Figure 3.2: NMCT Reading Grade 8 Trend

Results of reading test at grade 10 shows some steady progress actually exceed the target in SY2016-17 and SY2017-18. However, there was a slight decline for this year to be mindful about; instead of the target 2% increase there was a 2% decrease in performance.

The overall trend in reading competencies indicates that less than 50% of the students are meeting the reading benchmarks. Percentage of students meeting the reading benchmarks is even lowest at lower grades than at the higher grades. Suggest that there's need to focus more into lower grades to improve their reading competencies. The analyses show that our students are still lacking in the basic education at the foundation level. We need to put more resources where the need is.

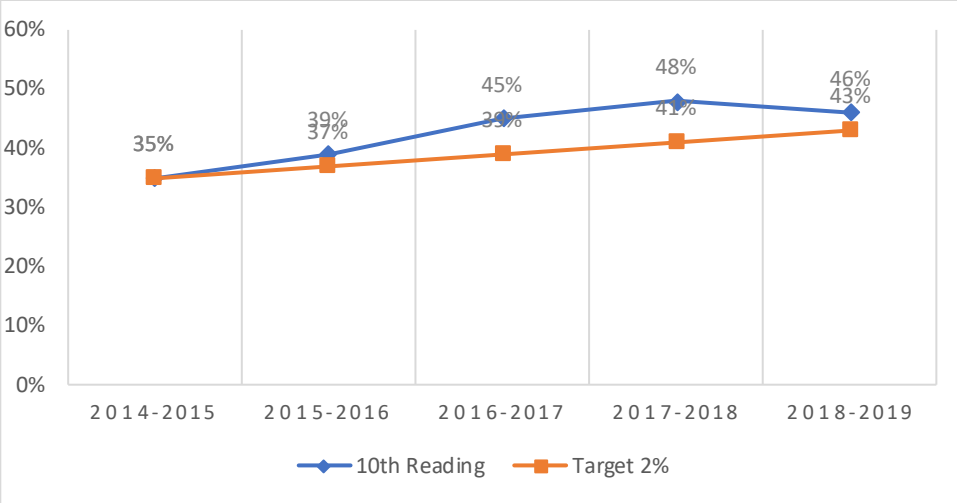

Figure 3.3: NMCT Reading Grade 10 Trend

Mathematics

Percent of students meeting the benchmarks are higher than the target in SY2016-17 and SY2018-19 but this year has seen a sharp decline in performance of 4%. Furthermore, the overall performance over the years is generally low with only about 33% of students meeting or exceeding the benchmarks at grade four. Note there is no data for this test in SY2015-16 hence the break in the trend.

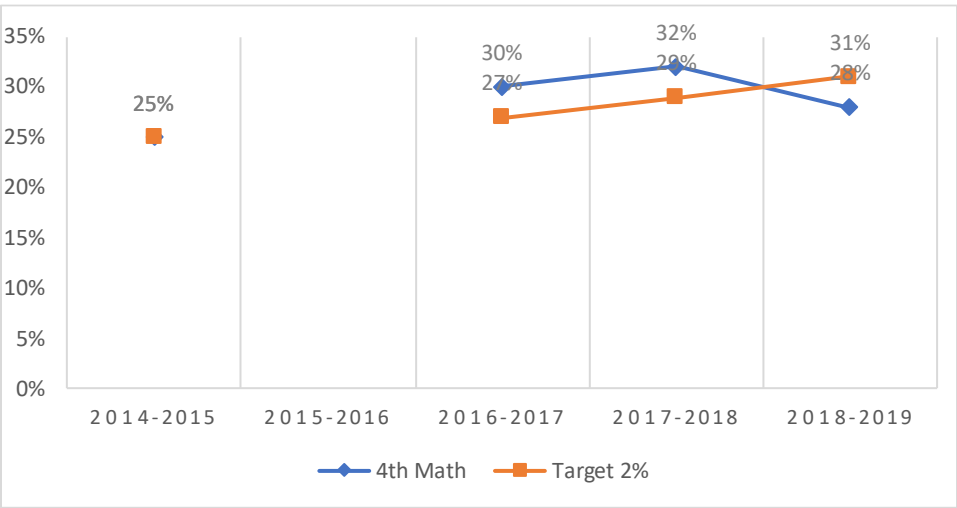

Figure 3.4: NMCT Mathematics Grade 4 Trend

Students at grade six has also been able to record slightly higher percentage of them meeting the benchmarks compared to the target in last three consecutive years. However, the increments are only marginal and that the overall percentage has remained below 30%. Even though the percentage is still below the

performance level, the trend shows that our students were progressing throughout recent years but again as seen a sharp decline of 6%.

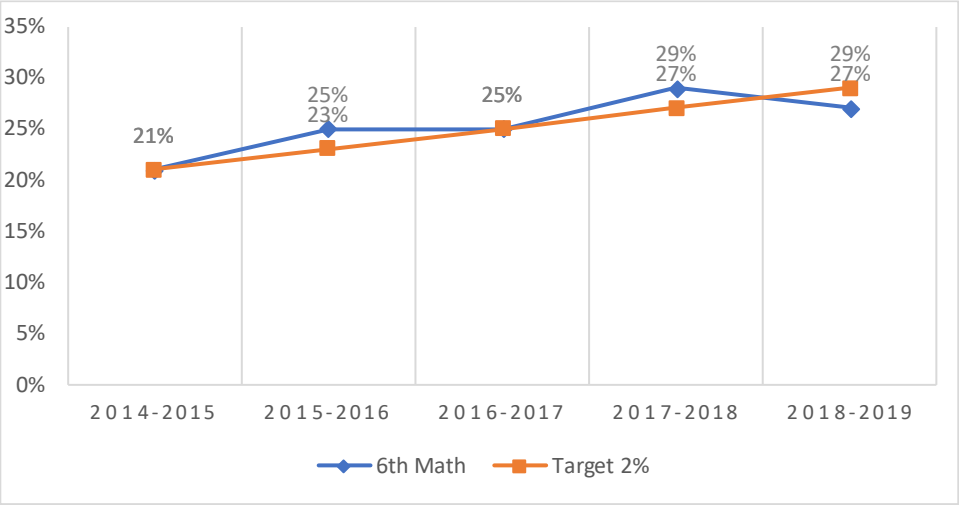

Figure 3.5: NMCT Mathematics Grade 6 Trend

Students at grade 8 had until this year been relatively stable with little to no progress and this year is showing a 3% decline in performance indicating an important area of focus going forward. The overall trend is significantly below the original target and in fact is showing an alarming decrease.

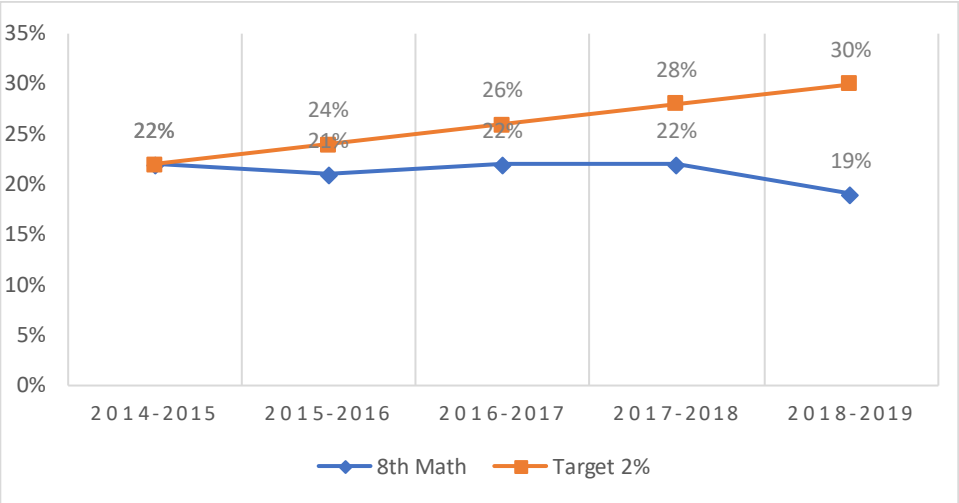

Figure 3.6: NMCT Mathematics Grade 8 Trend

There is a 1% decrease in performance for student of Grade 10 Mathematics starting a slight but important to note decline over the past 3 years (Figure 3.7). For the first time the performance trend is now below the target set from the baseline and thus needs to be further scrutinized.

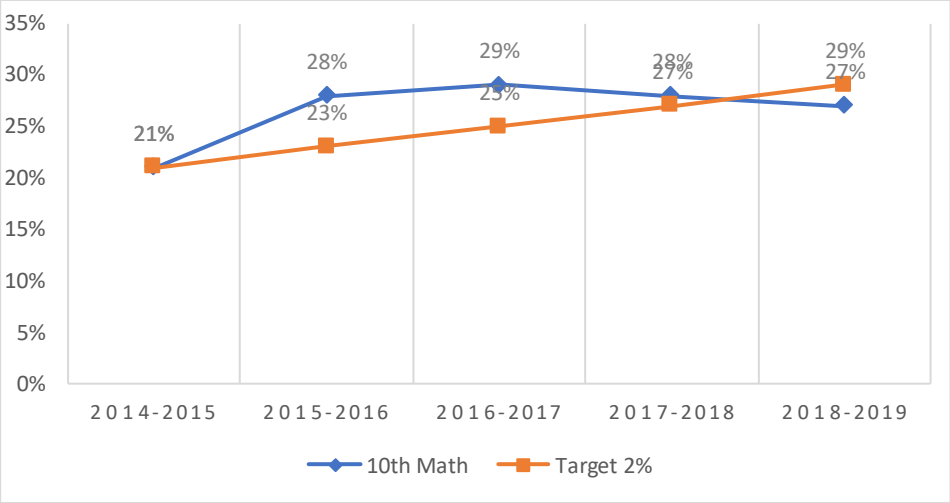

Figure 3.7: NMCT Mathematics Grade 10 Trend

Overall students have had weaker performance this SY2018-19 in Mathematics or little to no progress in Reading. The results could be due to a high performing Yap student cohort for which data is missing this year. However, even if that were the case, it would mean that other states are at risk of a performance decline. This could also be a weaker cohort of students then previous years or some other inconsistency in the data collected.

THEME 4: HOW ARE TEACHERS DOING?

Student Teacher Ratio

A high student-teacher ratio suggest the teachers are responsible for larger groups of students hindering their ability to focus on individual students needs and learning abilities. Both Chuuk and Kosrae have very high student ratios especially in ECE but also Primary suggesting a lack of teachers in primary. Yap has the best teacher ratio followed by Pohnpei.

The difference between student-teacher ratio and student-*qualified* teacher ratio is small suggesting the teachers are getting more qualified but nevertheless looking after too many students. The student-*certified* teacher ratio is the highest amongst all ratio meaning many teachers do not have the certifications to teach in FSM. In particular, in Yap no teachers are certified.

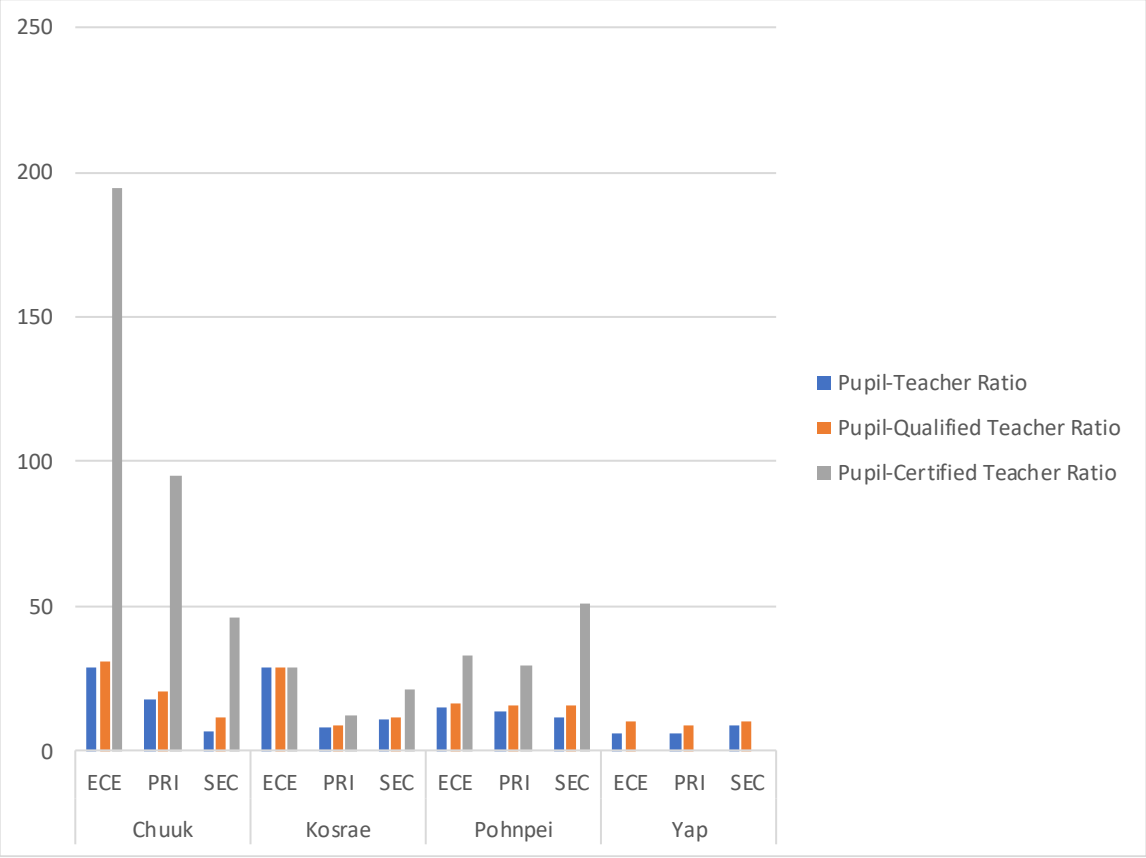

Figure 4.1: Student-Teacher Ratio for the nation by state and education levels

Table 4.1: Student-Teacher Ratios for the nation by state and education levels data

	Pupil-Teacher Ratio	Pupil-Qualified Teacher Ratio	Pupil-Certified Teacher Ratio
Chuuk	**14**	**18**	**81**
ECE	29	31	195
PRI	18	20	95
SEC	7	12	46
Kosrae	**9**	**10**	**15**
ECE	29	29	29
PRI	8	9	12
SEC	11	12	21
Pohnpei	**13**	**16**	**33**
ECE	15	16	33
PRI	14	16	29
SEC	12	16	51
Yap	**7**	**9**	**#VALUE!**
ECE	6	10	#VALUE!
PRI	6	9	#VALUE!
SEC	9	10	#VALUE!
Average Total	**12**	**15**	**46**

Teacher by Degree Level

The vast majority of qualified teachers have either an Associate of Arts or Associate of Science followed by a Bachelor of Arts. The fourth largest group is teacher with only a High School diploma, which is not a high enough qualification to teach. FSM does have teachers with higher qualifications but it forms a small percentage overall.

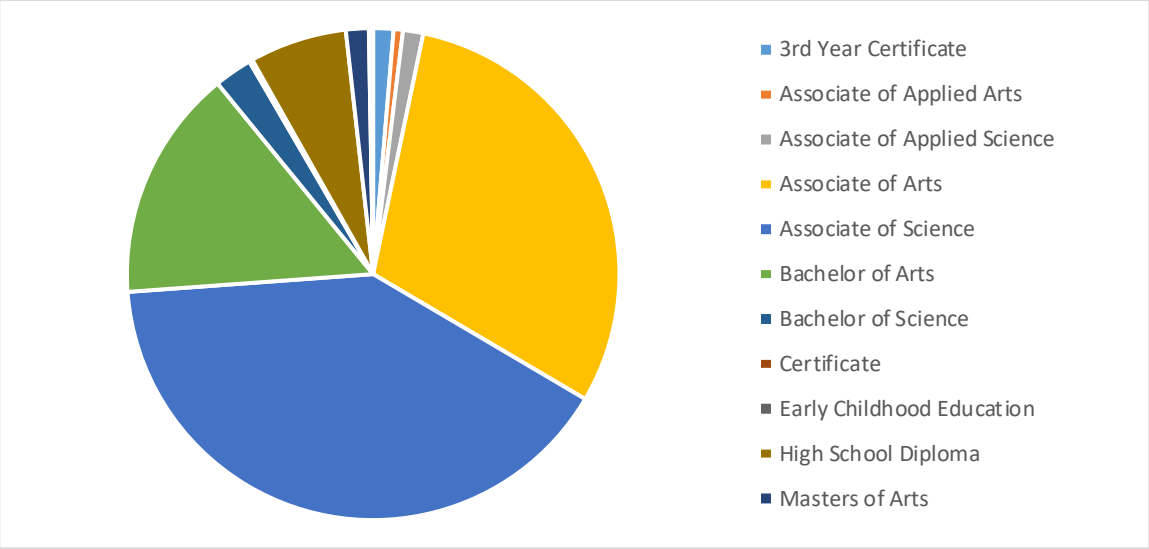

Figure 4.2: Teachers by Degrees

The situation is similar in all states though Yap as a very high number of teachers teaching with only a high school diploma followed by Pohnpei. Note that the teachers reported here all all teachers regardless of their source of funding though as always this data is available on demand and will be added in the FedEMIS reports online.

Table 4.2: Teachers by Degrees and state data

Total Teachers	Chuuk	Kosrae	Pohnpei	Yap	Grand Total
3rd Year Certificate			9	15	24
Associate of Applied Arts	8	1		2	11
Associate of Applied Science	6	10		8	24
Associate of Arts	182	69	212	81	544
Associate of Science	269	106	240	112	727
Bachelor of Arts	83	20	118	54	275
Bachelor of Science	19	2	13	11	45
Certificate			3		3
Early Childhood Education		1			1
High School Diploma			18	97	115
Masters of Arts	9		11	7	27
Masters of Business Administration	1				1
Masters of Science	3			1	4
Grand Total	**580**	**209**	**624**	**388**	**1801**

Teacher Attendance Rate

The attendance rate of teachers in all state is very good all above 90%. Chuuk has the lowest attendance at 93% for males and 92% for female. The attendance rate for males and females is similar in general.

Table 4.3: Attendance data by state and gender

	Chuuk		Kosrae		Pohnpei		Yap	
	Male	Female	Male	Female	Male	Female	Male	Female
Total Teachers	270	387	101	108	267	392	186	202
Total School Days	180	180	180	180	180	180	180	180
Possible Attendance	48600	69660	18180	19440	48060	70560	33480	36360
Total Absent	3250	5319	0	0	314	458	560	592
Actual Attendance	45350	64341	18180	19440	47746	70102	32920	35768
Attendance Rate	93.31%	92.36%	100.00%	100.00%	99.35%	99.35%	98.33%	98.37%

Percent of Qualified/Certified Teachers

The percentage of qualified teachers in FSM hovers at around 50% and is similar for female and male and the three main education levels (Figure 4.2.) The percentage of certified teachers however is much lower especially in Chuuk and Yap where no

teachers have been certified, something that will be addressed in the near future. Pohnpei and Kosrae both have slightly higher qualified and certified teachers (Figure 4.2). When combining this information with Figure 4.3 where it can be observed that Pohnpei has the lowest teacher attrition rate we get a model to aspire to for the other state where the quality of teachers and disruption to students is the best in the FSM.

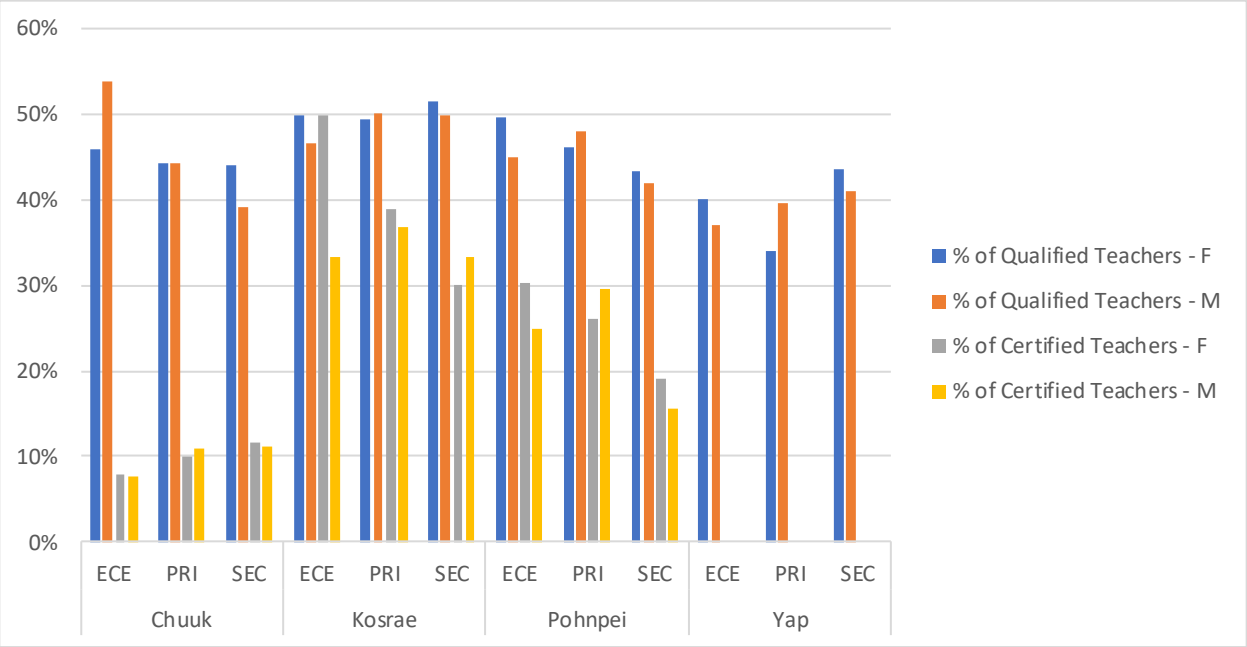

Figure 4.3: Percent of qualified and certified teacher for the nation by state and gender

Table 4.4: Percent of qualified and certified teachers for the nation by state and gender data

	% of Qualified Teachers		% of Certified Teachers		Total % of Qualified Teachers	Total % of Certified Teachers
	F	M	F	M		
Chuuk	**44%**	**42%**	**10%**	**11%**	**44%**	**11%**
ECE	46%	54%	8%	8%	47%	8%
PRI	44%	44%	10%	11%	44%	10%
SEC	44%	39%	12%	11%	41%	11%
Kosrae	**50%**	**50%**	**37%**	**36%**	**50%**	**36%**
ECE	50%	47%	50%	33%	48%	39%
PRI	49%	50%	39%	37%	50%	38%
SEC	51%	50%	30%	33%	51%	32%
Pohnpei	**46%**	**46%**	**25%**	**25%**	**46%**	**25%**
ECE	50%	45%	30%	25%	49%	30%
PRI	46%	48%	26%	29%	47%	28%
SEC	43%	42%	19%	16%	43%	17%
Yap	**37%**	**40%**	**0%**	**0%**	**38%**	**0%**
ECE	40%	37%	0%	0%	39%	0%
PRI	34%	40%	0%	0%	36%	0%
SEC	43%	41%	0%	0%	42%	0%
Average Total	**44%**	**44%**	**15%**	**16%**	**44%**	**16%**

Teacher Attrition Rate

The percentage of teachers leaving the profession in a given school year is measured by the teacher attrition rate. This is estimated based on the data from the FedEMIS School Annual Census for two consecutive years. Anything above 10% is considered high and disruptive to students. This means we have many teachers leaving the profession from year to year. Pohnpei is doing a little better than other states but male teachers are leaving at a close to an alarming rate. There is a higher rate of male teachers leaving in Kosrae and Ponhpei while in Chuuk females are leaving at higher rates. Yap's male and female teachers are both leaving at similar rates.

Since the numbers in Figure 4.3 are so high for this indicator it is important to note the possible reasons:

- The worse possible case: this reflects reality and we have a very high rate of teachers leaving the profession in FSM in general with the exception of Pohnpei.
- There could be small differences in how the teachers' names are entered into the census workbook or even incomplete teacher roster, which would affect the estimation of leavers used to calculate the Teacher Attrition Rate. However, if the states are correctly using the rollover feature this sort of data quality issue is greatly minimized.

An important task for states is to verify the number of leavers in Table 4.3. Leavers mean the number of teachers that were in the SY2017-18 census workbook submission that are not in the SY2018-19 census workbook submission.

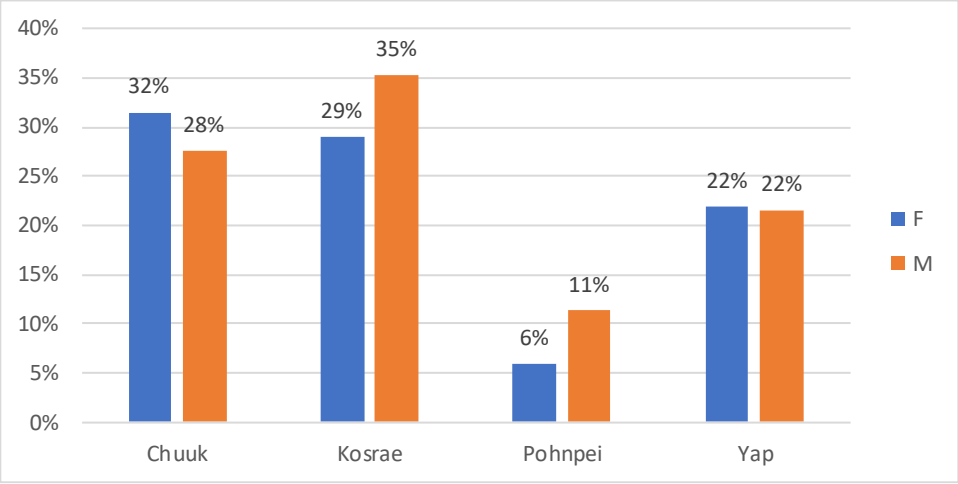

Figure 4.4: Leavers and Teacher Attrition Rate by gender and state

Table 4.5: Leavers and Teacher Attrition Rate by gender and state data

	Leavers		Teacher Attrition Rate		Total Leavers	Total Teacher Attrition Rate
	F	M	F	M		
Chuuk	115	73	32%	28%	188	30%
Kosrae	20	37	29%	35%	57	33%
Pohnpei	18	28	6%	11%	46	8%
Yap	46	36	22%	22%	82	22%
Grand/Average Total	**199**	**174**	**21%**	**22%**	**373**	**22%**

THEME 5: HOW MUCH DO WE SPEND?

Per Pupil Expenditure

In the absence of current expenditure available during reporting period, the fund used in calculating the PPE is from FY19 Sector and SEG funds allocated to all four states in lieu of actual current expenditure.

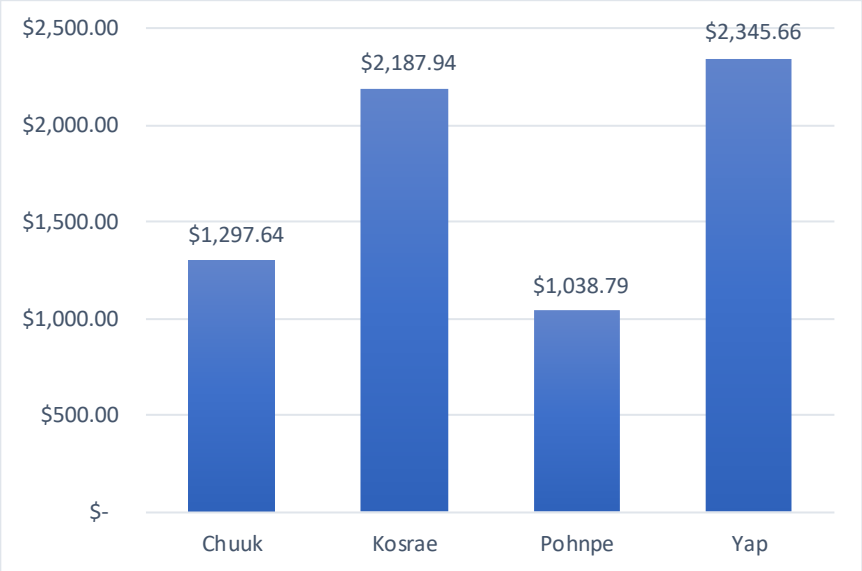

Figure 5.1: School Year 2018-2019 PPE

Data shows a slight increase in per pupil expenditure for all states from school year 2017-2018 to school year 2018-2019. The increase in PPE reflects the slight decrease in student enrollment from SY2017-18 to SY2018-19.

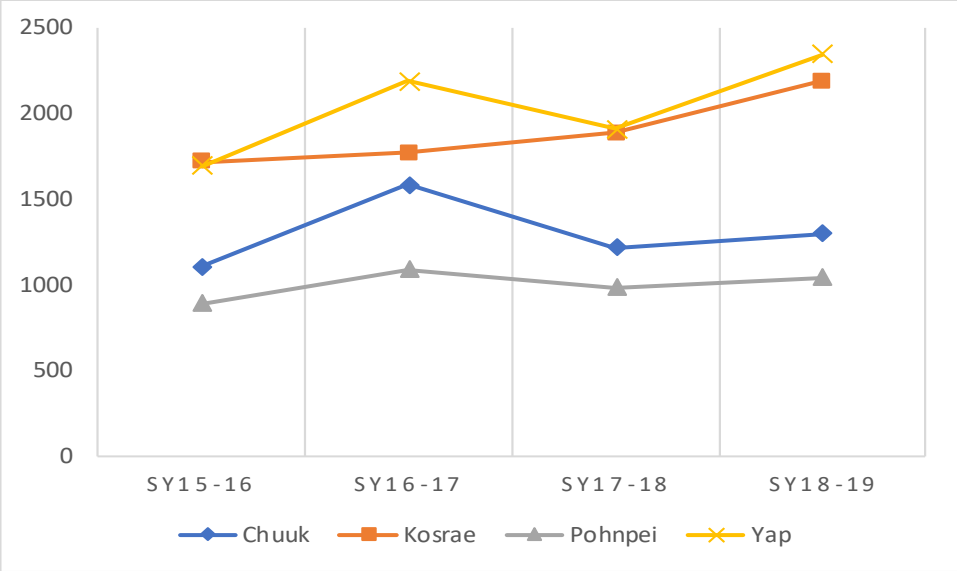

Figure 5.2: Per-Pupil Expenditure Trend

Table 5.1: SY2018-2019 Per-Pupil Expenditure data

State		Sector		SEG		Total	Enrollment		PPE
Chuuk	$	9,947,278.00	$	3,637,688.00	$	13,584,966.00	10469	$	1,297.64
Kosrae	$	2,959,508.00	$	1,151,635.00	$	4,111,143.00	1879	$	2,187.94
Pohnpe	$	7,782,191.00	$	2,602,603.00	$	10,384,794.00	9997	$	1,038.79
Yap	$	5,382,780.00	$	1,668,286.00	$	7,051,066.00	3006	$	2,345.66
Nation	$	26,071,757.00	$	9,060,212.00	$	35,131,969.00	25351	$	1,385.82

Government Expenditure on Education as % of GDP

The data provided is based on the most recent data on Real GDP from FSM Statistic estimates 2017.

GDP at purchase price	250Mil
% of GDP	18.24%

Expenditure on Education

The most recent data available on government spending is based on 2017 Government Finance Statement. The average expenditure on education from all government is about 14% of total expenditure. In all four states, Chuuk has the highest percent of public expenditure on education with about 38% of their 2017 government revenue spent on education.

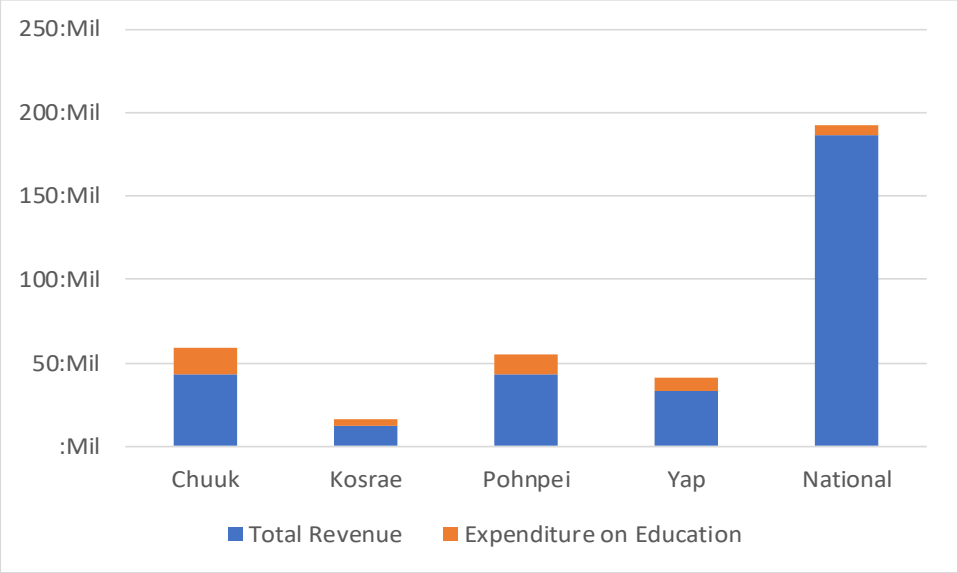

Figure 5.3: Expenditure on Education by Government

Table 5.2: 2017 Government Finance Statistics (GFS)

Government	Total Revenue	Expenditure on Education
Chuuk	$ 42,794,793.00	$ 16,255,162.00
Kosrae	$ 12,515,782.00	$ 3,951,990.00
Pohnpei	$ 43,088,644.00	$ 11,767,573.00
Yap	$ 33,439,287.00	$ 7,371,361.00
National	$ 186,298,131.00	$ 6,180,794.00
Total	$ 318,136,637.00	$ 45,526,880.00

Number of Students Awarded

Students and school services provided under the government subsidies, grants and contributions which include but not limited to Financial assistance, Merit Scholarship for the top four valedictorian students in the nation each year and Sin Tax scholarship for top qualified students pursuing higher degree at the graduate and postgraduate levels.

As of June 30 2019, a total of 488 students have been awarded.

Table 5.3: Scholarships awarded

Scholarship Type	Student Awarded
National Scholarship	444
Sin Tax Scholarship	38
Merit Scholarship	6
Total	488

THEME 6: HOW ARE SCHOOLS DOING?

School Accreditation

Each year both public and private schools in the FSM are evaluated using standardized tool. There's a school accreditation procedure manual which provides norms and guidelines for the use of the tool. Same tool is used in all four states, however, due to different geographies and spread out populations, time for school surveys have been different in different states. The Evaluation of schools is done by State Schools Evaluation Team (SSET) or a combined SSET and Core Team.

Once the school visits are done, summary of results is produced in a standard format called Form B. Form B provides initial results of the evaluation and the determination of school's level. Schools are measured using four different levels of criteria:

"Level-4" include schools that has met or exceed standards as specified in the school accreditation manual. In other words, schools having a score of 90% and above in school evaluation report are placed under level 4.

"Level-3" includes schools that has just met the standards as specified in the school accreditation manual. In other words, schools having a score of 76-90% in school evaluation report are placed under level 3.

"Level-2" include schools that has partially met the standards as specified in the school accreditation manual. In other words, schools having a score of 51-75% and above in school evaluation report are placed under level 2.

"Level-1" include schools that has failed to meet the standards as specified in the school accreditation manual. In other words, schools having a score of 50% or below in school evaluation report are included under level 1.

All schools that are determined at level 4 and 3 receive national special certificate of achievement. Such schools do not require to be evaluated for next three years. They only require to prepare and self-study plan. Schools that are determined at level 2 will receive a national certificate of accreditation. Schools that are determined at level 1 will undergo through Special measures and will be required to produce a recovery and re-start plans in three year.

Number of Schools Accredited by Level

AS of June 15 2019, seventy eight schools were visited and evaluated in all four states in the Nation. Out of the seventy eight schools visited by the States School Evaluation Team (SSET) and some with combination of SSET and Core Team, 17 schools report are still pending from states and are not included in the data herein. Accreditation level by state will be updated upon completion of the Core Team validation of SSET evaluations by first week of July 2019.

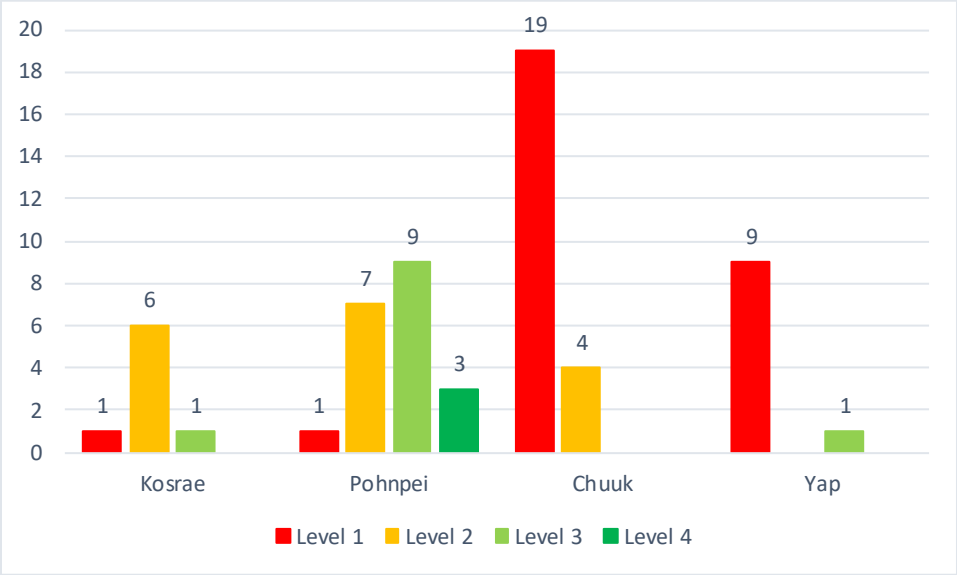

Figure 6.1: Accreditation status as of June 15, 2019

Table 6.1: School Accreditation preliminary levels data for 2019

State	Level 1	Level 2	Level 3	Level 4	Total # of schools visited	CT present onsite of evaluation	Validated by CT based on documents provided
Kosrae	1	6	1	0	8	3	5
Pohnpei	1	7	9	3	20	8	12
Chuuk	19	4	0	0	35	14	21
Yap	9	0	1	0	15	8	7
FSM	30	17	11	3	78	33	45

Percent of Accreditation by Standard

Data by standard was not yet validated and compiled by the accreditation team and therefore is not included in this first draft.