NDOE FEDERATED STATES OF MICRONESIA
DEPARTMENT OF EDUCATION
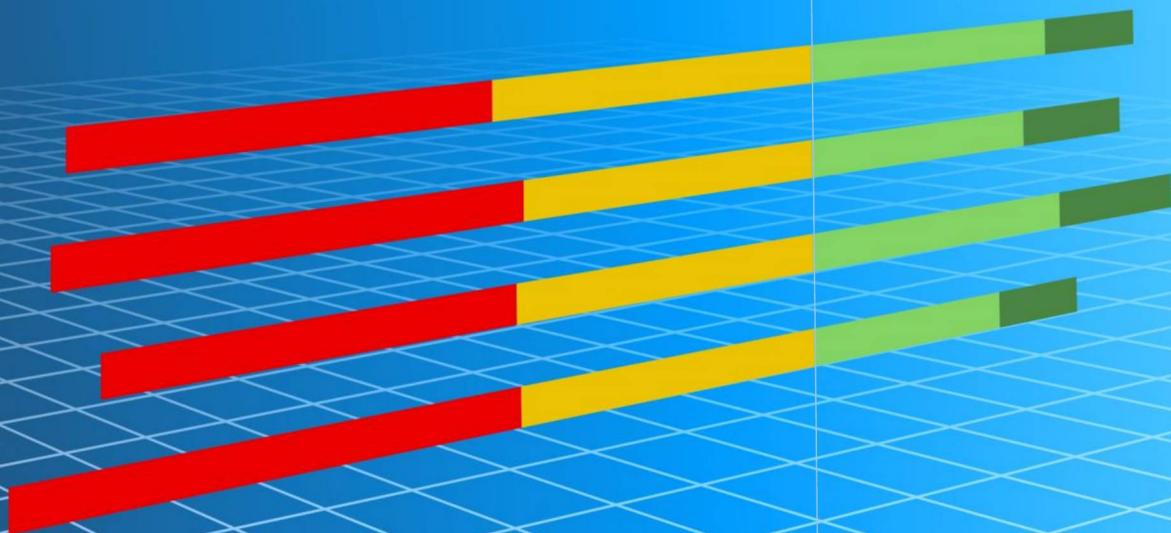Government of the FSM

FSM NDOE Education Statistics Digest 2022

2nd Edition

Federated States of Micronesia (FSM)

National Department of Education (NDOE)

FSM NDOE Education Statistics Digest 2022

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

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FOREWORD BY THE DEPARTMENT OF EDUCATION SECRETARY

On behalf of the FSM Department of Education, I am proud and privileged to present this year's FSM Education Statistics Digest 2022. We continue to expand, further improve our data and implement new monitoring and reporting tools to support our operations. Unfortunately, the pandemic continues to affect our operations, in particular reaching out to states and their schools for further "on-the-ground" training, but we remain hopeful this will improve in the years to come.

This year we bring two major additions to this publication: a chapter on regional benchmark targets and a whole part dedicate to Sustainable Development Goals (SDG). The chapter on regional benchmark targets aims at providing an at a glance summary of our progress towards our goals as set in the region. I believe it will provide a better understanding of how and where efforts and resources were spent and where we need to put more focus in order to reach those goals based on best available evidence. The SDG part aims to improve our international reporting obligations and assist us in reaching all the sustainable goals.

In all of these endeavors, we continue to receive tremendous support and collaboration from my fellow colleagues, both at the State and National Departments 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 is highly commendable and much appreciated.

We are confident that our publications continue to improve and highlight our commitment for improved quality education in the FSM. We hope that interested readers will find it useful and welcome all feedback for further improvements.

Finally, I would like to extend my sincere thanks to all those individuals especially the FedEMIS team, the SDOE and NDOE staff and the organizations and development agencies who have provided their contribution to this initiative.

Best wishes,

Gardenia Aisek

Secretary of Education

FSM Department of Education

EXECUTIVE SUMMARY

This is the FSM Education Statistics Digest for the school year 2020-21, a type of publication we started in school year 2017-18. 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.

In this publication, we include a comprehensive set of key performance indicators and general education statistics. It also details where our data comes from, how it is cleaned up and validated, how the figures we publish are computed (methodology) and analysis and discussions for this year's data and most of the time the past five year trend. The publication is organized in two parts: our own national and by state education statistics and the education statistics based on the international standards especially for SDG reporting.

While various indicators have improved, the FSM continues its slight decline in enrolments. Access to primary education is generally better then both ECE and Secondary. Chuuk seems to have less under reporting then last year but their quality of data is still significantly below that of the other three states and often affects the national average.

We boast a very good pupil-teacher ratio and most of our teachers are considered qualified based on our current minimum requirements. Much work remains to be done to improve the teacher certification process. While our teacher attrition needs to be improved, qualified teachers have a higher tendency to remain in the education system.

STRUCTURE OF THE EDUCATION IN THE FSM

The structure of the education system in the Federated States of Micronesia is depicted in Figure 0.1 below.
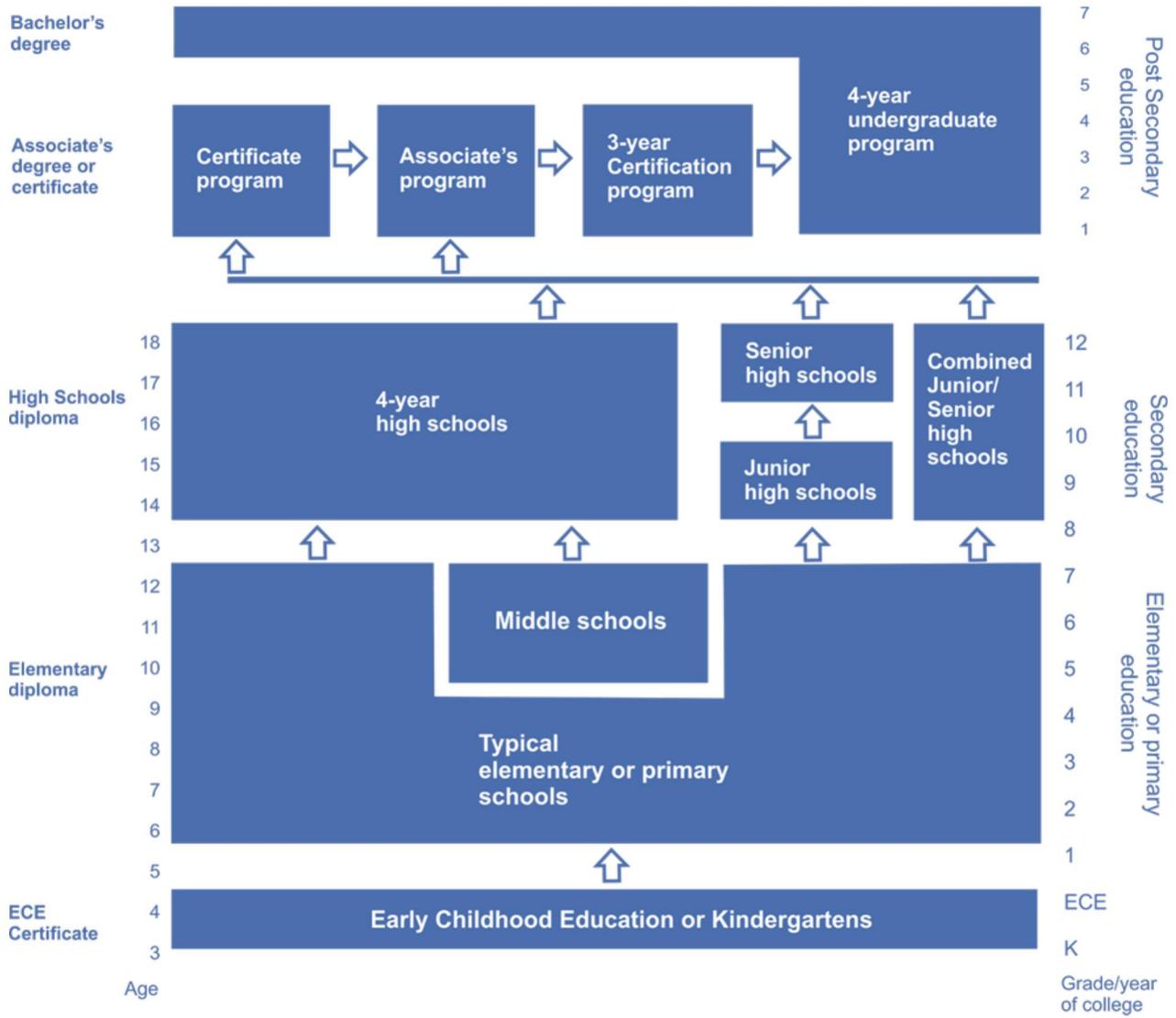
Figure 0.1: Structure of Education in the FSM

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DOCUMENT CONTROL

CONTRIBUTION

This result is possible by the hard work of many people. If someone is omitted, please accept our sincerest apologies and let us know so we can update.

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	Asia Development Bank (ADB)
	United Nations Children's Fund (UNICEF)
	Secretariat of the Pacific Community (SPC)

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Verified By:	Weison Weital, Wayne Mendiola	25 August 2022
Approved By:	Weison Weital	30 September 2022

RELEASES

There will likely be subsequent releases of this document as new data becomes available or improved. We keep a release history of remarks on what have changes.

Version	Date Released	Pages Affected	Remarks
1	30 July 2022	ALL	First draft of this document with currently available data for SY2021-22

READER'S GUIDE

SUMMARY

This report is divided into nine major sections discussing all the major aspects of our education system. All key indicators and statistics are developed in compliance with our general agreement with regional and global forums that require us to track and report our progress on these key performance indicators. For example, the Compact Agreement with the US government, UN global agenda such as the Sustainable Development Goals, and our recent agreement with the Asian Development Bank. Besides, we also need to standardize our data quality and reporting framework across the states. Most of the raw data is included in the form of table that will also be available online, through our FedEMIS Open Education Data Android and iPhone app[1]. Charts are included to analyze the data in the current years and identify trends and patterns over time.

DATA SOURCES

The data is generally from a single source: our Federated States of Micronesia Education Management Information System (FedEMIS). At times, data is sourced elsewhere such as population from the statistics department and exams. Data comes in the FedEMIS is various ways and with increasing data validation:

- The primary data collection tool is an annual census referred to internally within the FedEMIS Annual School Census Workbook;
- The population projections come from the National Statistics Office (NSO) loaded directly into FedEMIS every 10 years;
- The school accreditations data come from inspection survey data on the the FedEMIS Education Survey Tool, an android app with clean integration with FedEMIS web application;
- The exams data come from the scanning machine that can output the results into excel spreadsheets; They are currently still loaded into the Soe Assessment with efforts underway to integrate with FedEMIS; and,
- All remaining data unless otherwise noted would be managed directly in the FedEMIS web application.

DATA ANALYSIS AND INTERPRETATIONS

It is important to note that the FedEMIS system is new and while data from previous years has been processed and loaded into it, the quality of data for previous years vary. In addition, the data collection method and tools have changed over the years; this can affect the reconstructed cohort calculation method in use in the system. The FedEMIS brings in a new consistent data collection annual census tool, and a centralized data management system and improved data collection processes. While the quality of data has improved and will continue improving going forward, caution is warranted when analyzing trends and patterns over the years.

LIMITATIONS OF THE DATA

There are several limitations to bear in mind while analyzing the data. Some statistics have some higher (or lower) then normal calculated figures. The small sizes of populations in the FSM, especially in Kosrae state, combined

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[1] In your store search for Pacific Open Education Data and install the app. Select FedEMIS as country.

with re-constructed cohort analysis can significantly distort results. Less remote schools have had data quality inspections to validate the submitted data but more remote schools did not due to logistics issues.

NOTES ON TABLES

In the previous two years, we have published some tables that were quite large to capture all the recommended disaggregation following UNESCO UIS international guidelines. Add to this publishing the most recent five years and tables can quickly become quite unwieldy at times. This year, we take another approach. When the data fits, in a simple table we publish as much of the disaggregation and past years as we can. When it goes beyond a full page, we truncated it to only include as many past years as possible that will fit nicely on a single page. Statistician or other more advanced people interested in the full data set can avail of it through out Android or iPhone app (Pacific Open Education Data app,) through our public RESTful API or simply by contacting us and requesting the excel workbooks generated from our FedEMIS Data Warehouse.

POLICY NOTES

A number of policies are important to provide some context in various part of this report. Those will be listed here as they become relevant.

- The non-official age of 5 for ECE level is used in the system for calculations, Primary level (grades 1-8) is age 6 to 13 and for Secondary level (grades 9-12) is age 13 to 17.

TIMELINE

Timeline	Activity
August	**Registration of new students (August 10)**
	Continue to update school staff and student demographics and other information needed. Collect information on student's official birth certificate. **(until September 14)**
	Beginning enrollment data from school to State DOE (September 15) Schools will submit student enrollment and other information as per the format to State DOE.
September	**Data cleaning and validation (September 29)** Compile, verify, edit and approve the data by the Director SDOE.
	Submission of the data to NDOE (September 30)
October	**Dissemination of School Report Card (Oct 30)**
	Generate school report card and disseminate to each school through online or hardcopies as feasible.
March	**Annual Data Meet** – Data managers and head of the State DOE meet to discuss data quality and other issues related to FedEMIS/FedSIS.
June	**End of school year report to NDOE (June 30).** Upload the end year data in the FedEMIS/FedSIS.
	Teacher Certification results (June 30)
	NMCT results (June 30)
	School Accreditation (Issuance of Form B) by State DOE
July	**Annual Digest (State Level) July 30**
August	**Annual Digest (National)**

Issuance of School Accreditation certificates
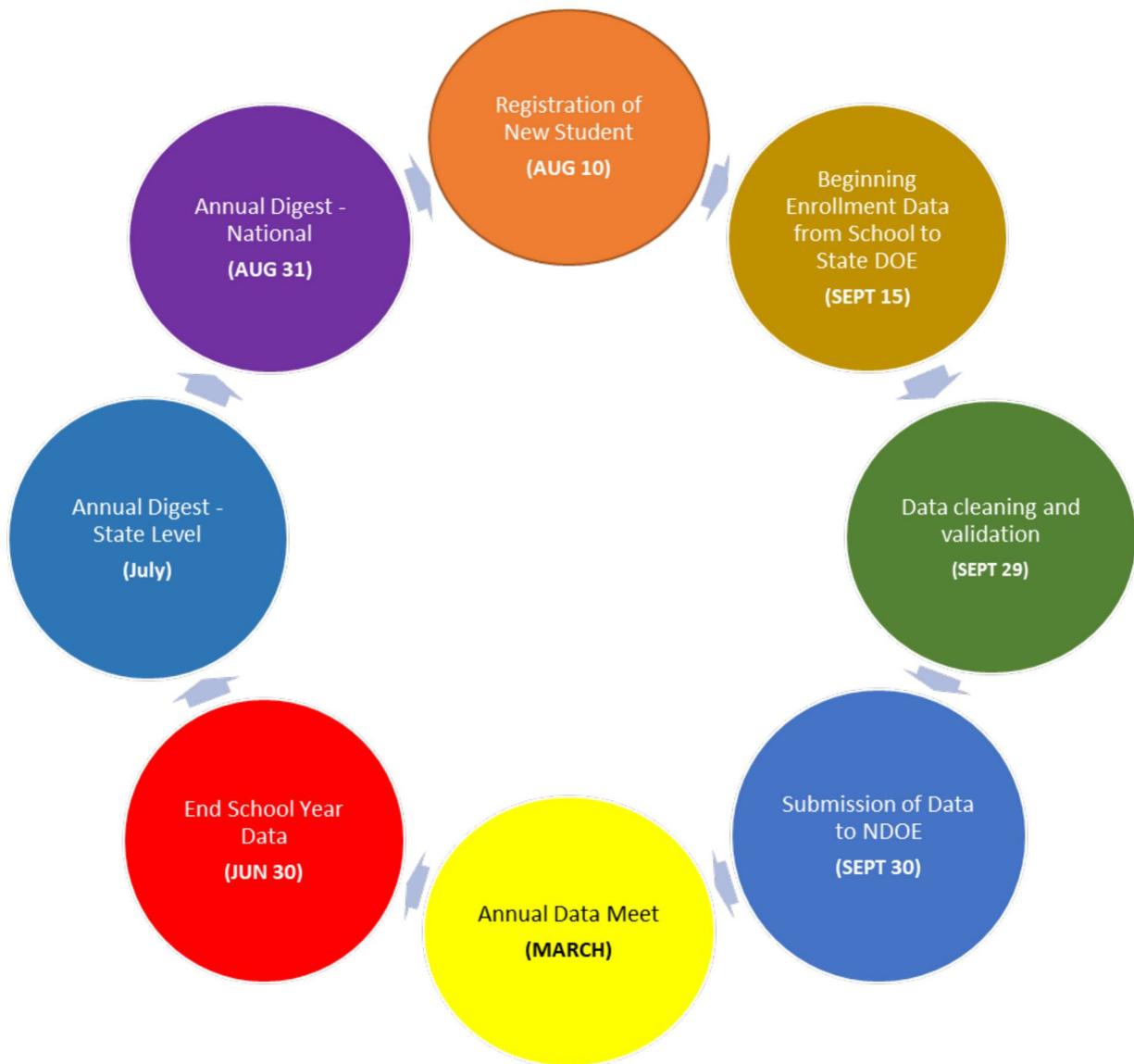
PART 1: EDUCATION DEMOGRAPHICS

The first part of the Education Statistics Digest is concerned with the publication of comprehensive education data sets that do not fit exactly in the Sustainable Development Goal 4. It contains summary data analysis on most of the data we collect.

CHAPTER 1: ENROLLMENT INDICATORS

Indicators in this section are mostly based on internationally recognized standards as documented in (UNESCO Institute for Statistics, 2009). Most of the core enrollment indicators are included in this chapter.

BACKGROUND

DATA SOURCE

There are two primary data sources for the production of all these key education indicators: the population projection from the National Statistics Office (NSO) and the FedEMIS annual school census from the NDOE/SDOE which has been consistently used for three years. The data sources for previous years varied but was mostly done through student and teacher rosters similar to the current improved annual census.

LIMITATIONS

Due to small population, various indicators can fluctuate significantly for small data quality issues. It is important to bear this in mind when analyzing the statistical indicators. This is especially true in Kosrae the state with the smallest population in the FSM.

GROSS ENROLLMENT RATIO AND NET ENROLLMENT RATE

DEFINITION AND PURPOSE

GROSS ENROLLMENT RATIO (GER)

It is total enrollment in a specific level of education, regardless of age, expressed as a percentage of the eligible official school-age population[1] corresponding to the same level of education in a given school year. It shows the general level of participation in a given level of education. It indicates the capacity of the education system to enroll students of a particular age group. It can also be a complementary indicator to net enrollment rate (NER) by indicating the extent of over-aged and under-aged enrollment.

NET ENROLLMENT RATE (NER)

It is the enrollment of the official age group for a given level of education expressed as a percentage of the corresponding population. It is to show the extent of coverage in a given level of education of children and youths belonging to the official age group corresponding to the given level of education.

METHODS OF CALCULATION

GROSS ENROLLMENT RATIO (GER)

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[1] The non-official age group for ECE level is 5 has used in the system for calculations, Primary level (grades 1-8) is age 6 to 13 and for Secondary level (grades 9-12) is age 13 to 17.

This is calculated just like in (UNESCO Institute for Statistics, 2009): Divide the number of pupils (or students) enrolled in a given level of education regardless of age by the population of the age group which officially corresponds to the given level of education and multiply the result by 100.

NET ENROLLMENT RATE (NER)

This is calculated just like in (UNESCO Institute for Statistics, 2009): Divide the number of pupils (or students) enrolled who are of the official age group for a given level of education by the population for the same age group and multiply the result by 100.

ANALYSIS AND DISCUSSIONS

The GER for 2022 is considered acceptable but remains below the universal access ideal goal. A GER of 90% or higher is considered the norm to reach universal access to education for kids. The highest is in primary at roughly ~82% and ~83% for males and females respectively (Figure 1.1.) Factors to consider here are:

- An over stated population projection (population is actually smaller than projected during last census)
- An education system not able to accommodate its school-age children into school
- Declining school-age children into the education system

When comparing it with the NER, the difference is not too big suggesting the proportion of overaged or under aged students is not too high. But that does confirm a generally low participation into the education system.

In Figure 1.1, both GER and NER are presented by gender for all three level of education in FSM: Early Childhood Education (ECE), Primary (Elementary) and Secondary. Females have a slightly higher participation in ECE at all levels of education. At a glance, for both ECE and Primary it is clear that the difference between male and female students is small in both GER and NER (less than 5%) but increases in secondary meaning boys don't make it as far. This signifies that the gender parity or gender ratio is better balanced in ECE and Primary favors females in secondary.

In ECE, the GER has a national average of 68% and 70% for males and females compared to the NER at 49% and 51% of the population (Figure 1.1.)

The low NER in ECE suggest that less than half of our kids are preparing for formal education at the official age.

This remains alarming and there is a need to develop plans to bring this population in the school. Nearly the same situation is true in secondary where the NER is below 42% for males and 53% for females.

In summary, while participation to the education system in 2022 has been low outside of Primary, it is particularly poor at getting kids ready for education (ECE) and completing the education (secondary).
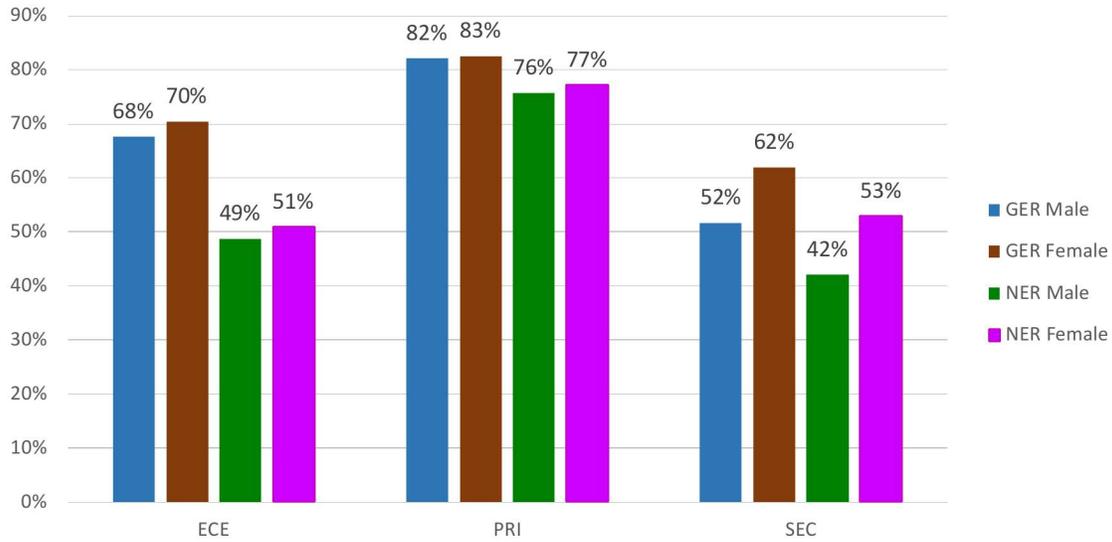
Figure 1.1: GER and NER by Education Level and Gender Chart

Figure 1.2 below compares time series data for overall GER and NER. Interestingly, both GER and NER has followed similar patterns over the past five years. While there was a slight but noticeable downward trend a few years ago, it has since largely been stabilizing in the past three years.
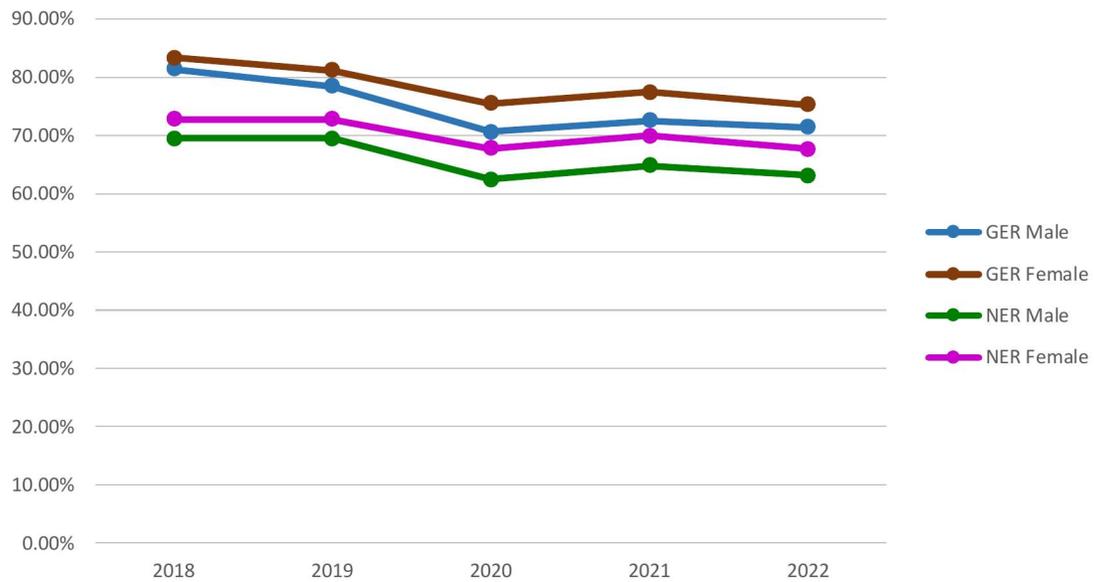
Figure 1.2: GER/NER for the Nation by Gender Trend

The data used in producing GER/NER charts is available in Table 1.1. Table 1.1 is derived from Table 6.4 extracted from the FedEMIS data warehouse.

Table 1.1: GER/NER by Year, Education Level and Gender

	GER	GER Male	GER Female	NER	NER Male	NER Female
2018	**82.45%**	**81.52%**	**83.44%**	**71.15%**	**69.55%**	**72.85%**
ECE	87.30%	86.83%	87.80%	53.45%	53.57%	53.33%
PRI	91.71%	91.91%	91.51%	83.55%	83.17%	83.96%
SEC	63.06%	60.07%	66.29%	50.96%	46.87%	55.38%
2019	**79.87%**	**78.52%**	**81.30%**	**71.10%**	**69.49%**	**72.81%**
ECE	85.09%	86.05%	84.09%	62.10%	65.12%	58.89%
PRI	88.66%	88.52%	88.81%	82.36%	81.97%	82.76%
SEC	61.32%	57.32%	65.63%	51.11%	46.28%	56.32%
2020	**73.03%**	**70.68%**	**75.53%**	**65.09%**	**62.48%**	**67.85%**
ECE	71.02%	71.10%	70.94%	50.33%	49.64%	51.06%
PRI	81.78%	80.77%	82.84%	75.88%	74.67%	77.15%
SEC	56.29%	50.96%	62.04%	47.37%	41.83%	53.35%
2021	**75.00%**	**72.60%**	**77.55%**	**67.33%**	**64.85%**	**69.96%**
ECE	71.90%	69.81%	74.13%	52.53%	50.96%	54.20%
PRI	82.03%	81.57%	82.51%	76.41%	75.66%	77.20%
SEC	61.92%	55.84%	68.47%	52.99%	47.13%	59.31%
2022	**73.31%**	**71.46%**	**75.28%**	**65.33%**	**63.12%**	**67.68%**
ECE	68.92%	67.57%	70.36%	49.79%	48.76%	50.89%
PRI	82.32%	82.10%	82.55%	76.40%	75.69%	77.14%
SEC	56.62%	51.70%	61.93%	47.26%	42.08%	52.85%
Grand Total	**76.72%**	**74.95%**	**78.61%**	**68.00%**	**65.89%**	**70.23%**

The situation for each state is similar with the glaring exception of Yap's very large GER ~160% driving the national GER average upwards in a misleading way (Figure 1.3.) In Yap, kids too young are enrolling to ECE only to repeat/dropout and this explains the high GER and low NER (i.e. over enrollments in non-official ages.)

A more rigidly enforced policy about when kids must start ECE would hugely improve the accuracy of the national average and better prepare kids for their education.

Pohnpei and Kosrae have slightly better GER and NER in primary. Chuuk has the lowest enrollment rates of all states across all levels of education.
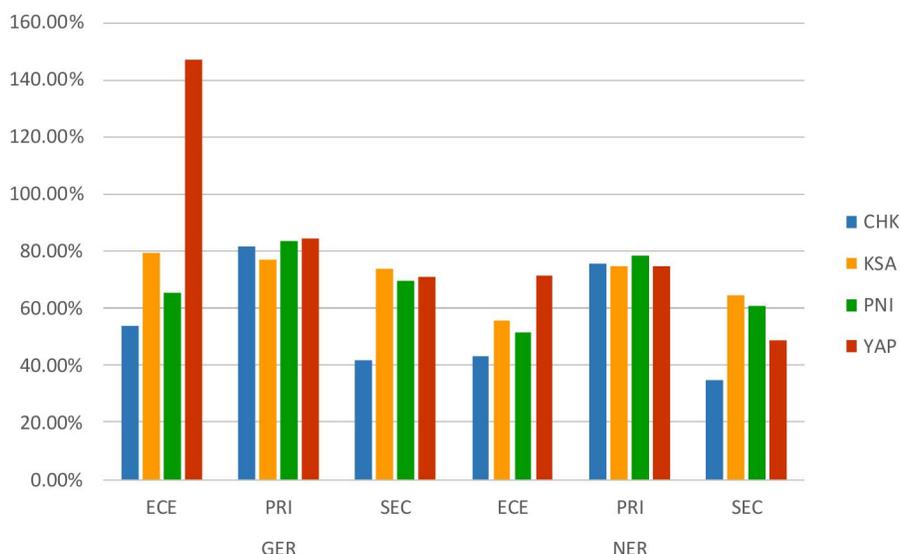
Figure 1.3: GER and NER by Education Level and State

The trends by state closely match the national slight downward trend. There was a noticeable drop in the GER for Chuuk in 2020 returning to a more realistic figure this year. This is likely due to Chuuk under reporting their enrollments in 2020 (Figure 1.4.) All the data for past five years for the GER/NER is included in Table 1.2 by education levels and state.
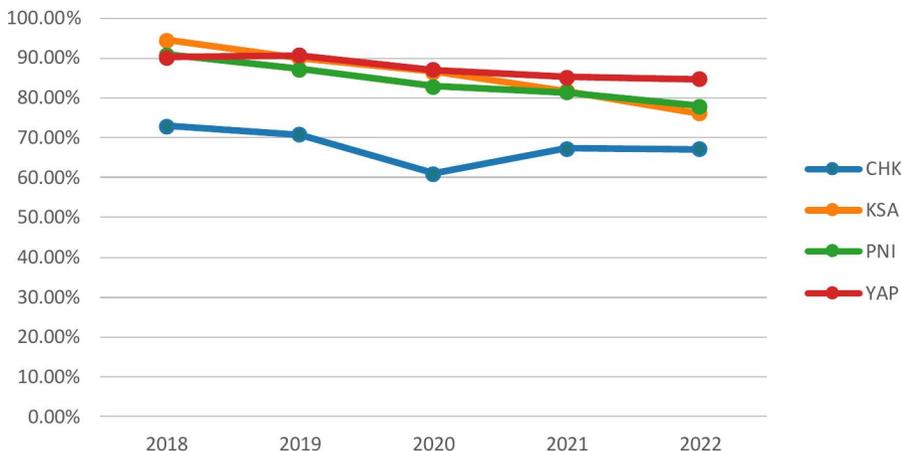
Figure 1.4: GER Only by State Trend

GROSS INTAKE RATIO AND NET INTAKE RATE

DEFINITION AND PURPOSE

GROSS INTAKE RATIO (GIR)

Is the total number of new entrants in the first grade of primary education, regardless of age, expressed as a percentage of the population at the official primary school-entrance age. It helps indicate the general level of

access to primary education. It also indicates the capacity of the education system to provide access to grade 1 for the official school-entrance age population.

Table 1.2: GER/NER by Year, Education Level and State

	GER				NER				Total GER	Total NER
	CHK	KSA	PNI	YAP	CHK	KSA	PNI	YAP		
2018	**73.00%**	**94.51%**	**90.85%**	**90.29%**	**62.29%**	**87.00%**	**79.73%**	**73.15%**	**82.45%**	**71.15%**
ECE	82.76%	112.00%	76.76%	134.62%	48.19%	94.67%	50.05%	65.38%	87.30%	53.45%
PRI	85.71%	92.60%	100.52%	89.53%	76.85%	87.87%	92.89%	80.62%	91.71%	83.55%
SEC	45.78%	94.32%	75.63%	81.61%	36.83%	83.56%	61.73%	59.78%	63.06%	50.96%
2019	**70.80%**	**90.01%**	**87.23%**	**90.75%**	**63.87%**	**81.57%**	**78.91%**	**71.55%**	**79.87%**	**71.10%**
ECE	75.59%	99.33%	74.54%	162.55%	60.27%	66.00%	61.06%	72.34%	85.09%	62.10%
PRI	83.45%	90.69%	95.75%	87.85%	77.31%	87.80%	89.49%	78.45%	88.66%	82.36%
SEC	44.79%	86.59%	73.91%	80.06%	38.24%	72.88%	62.90%	57.37%	61.32%	51.11%
2020	**61.01%**	**86.55%**	**82.87%**	**87.07%**	**55.20%**	**78.47%**	**75.05%**	**68.79%**	**73.03%**	**65.09%**
ECE	56.83%	104.00%	65.23%	140.00%	44.60%	76.67%	51.24%	57.02%	71.02%	50.33%
PRI	72.41%	88.92%	91.94%	86.74%	67.25%	84.67%	85.78%	77.20%	81.78%	75.88%
SEC	39.52%	78.01%	69.73%	75.54%	33.86%	66.72%	60.28%	54.42%	56.29%	47.37%
2021	**67.24%**	**81.71%**	**81.38%**	**85.31%**	**60.90%**	**75.31%**	**74.56%**	**67.58%**	**75.00%**	**67.33%**
ECE	52.60%	90.00%	70.14%	158.47%	44.25%	62.00%	56.28%	70.76%	71.90%	52.53%
PRI	77.38%	82.58%	88.18%	82.66%	71.83%	79.85%	82.74%	74.25%	82.03%	76.41%
SEC	50.58%	78.16%	71.04%	73.78%	43.14%	69.39%	63.33%	53.33%	61.92%	52.99%
2022	**67.19%**	**76.15%**	**77.85%**	**84.69%**	**60.45%**	**70.01%**	**70.81%**	**66.45%**	**73.31%**	**65.33%**
ECE	53.85%	79.47%	65.49%	147.03%	43.10%	55.63%	51.34%	71.61%	68.92%	49.79%
PRI	81.57%	77.04%	83.73%	84.46%	75.45%	74.55%	78.57%	74.69%	82.32%	76.40%
SEC	41.88%	73.67%	69.60%	70.80%	34.84%	64.35%	60.74%	48.54%	56.62%	47.26%
Grand Total	**67.84%**	**85.76%**	**84.03%**	**87.62%**	**60.54%**	**78.45%**	**75.80%**	**69.50%**	**76.72%**	**68.00%**

Net Intake Rate (NIR)

Defines the new entrants in the first grade of primary education who are of the official primary school-entrance age, expressed as a percentage of the population of the same age. It is meant to precisely measure access to primary education by the eligible population of primary school-entrance age.

METHODS OF CALCULATION

Gross Intake Ratio (GIR) in First Grade of Primary (G1)

This is calculated just like in (UNESCO Institute for Statistics, 2009): Divide the number of new entrants in grade 1, irrespective of age, by the population of official school-entrance age, and multiply the result by 100.

Net Intake Rate (NIR) in First Grade of Primary (G1)

This is calculated just like in (UNESCO Institute for Statistics, 2009): Divide the number of children of official primary school-entrance age who enter the first grade of primary education for the first time by the population of the same age and multiply the result by 100.

GROSS INTAKE RATIO (GIRLG) IN LAST GRADE OF PRIMARY (G8)

Also known as the Primary Completion Rate (PCR) in other publication. This is calculated just like in (UNESCO Institute for Statistics, 2009): Divide the number of new entrants in last grade of primary, irrespective of age, by the population of theoretical entrance age to the last grade of primary and multiply the result by 100.

NET INTAKE RATE (NIRLG) IN LAST GRADE OF PRIMARY (G8)

This is calculated just like in (UNESCO Institute for Statistics, 2009): Divide the number of children of official primary school-entrance age who enter the last grade of primary education for the first time by the population of the same age and multiply the result by 100.

ANALYSIS AND DISCUSSIONS

The GIR (into primary, i.e. G1) is considered acceptable around ~78-73% for males and females respectively (Figure 1.5) indicating a good level of access to primary. However, it is on the decline (Figure 1.6.) for both genders. The NIR are considered low (58% for both genders) indicating a low degree of access to primary education contradicting the GIR. In this case, access would be considered good since the education is capable of taking on new entrants (intakes). The only way to have more insight into the degree and quality of access to the education system is by also looking at other indicators forming a bigger picture.

The degree of access to secondary education decreases by ~10% for males and increases by 2% for females (Figure 1.5) which is to be expected already knowing about declining enrollments in secondary education. It is noteworthy that males make up the bulk of the reduced intakes from the first grade to the last grade of primary education.

NIR is considered very low and nowhere near theoretical 100% necessary condition for the policy goal of universal primary education. Moreover, there is a large difference of ~15-20% between the GIR and NIR (Figure 1.5). Similarly, there is also a large difference between the GIRLG and NIRLG in G8 (Figure 1.5) of ~28-30%. This indicates kids accessing primary education at a higher degree of varying ages (i.e. over/under) which is a sign of lack of enforcement and planning on how children are to start and progress through the education system. This is reflected in Figure 6.1 which shows over/under age distribution more pronounced in the early years (Grade K, Grade 1) and near the end of primary onwards (Grade 6-12).
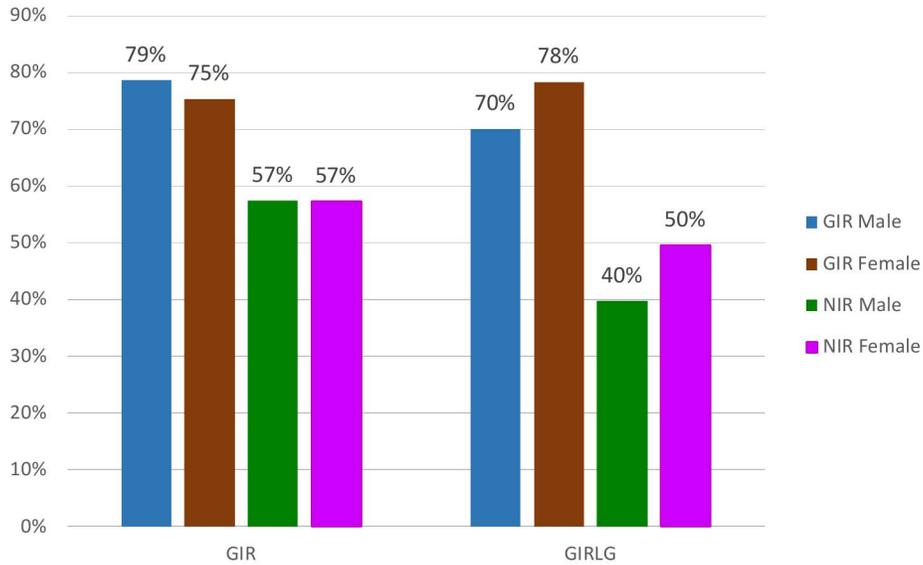
Figure 1.5: GIR/NIR First/Last Year of Primary Education by Gender

The downward trend of the GIR/NIR shown in Figure 1.6 is worrying but not surprising from what has been learned from the GER/NER previously. Address one effectively and the other will follow. Again, the inaccurate population projection in use could significantly affect these indicators.
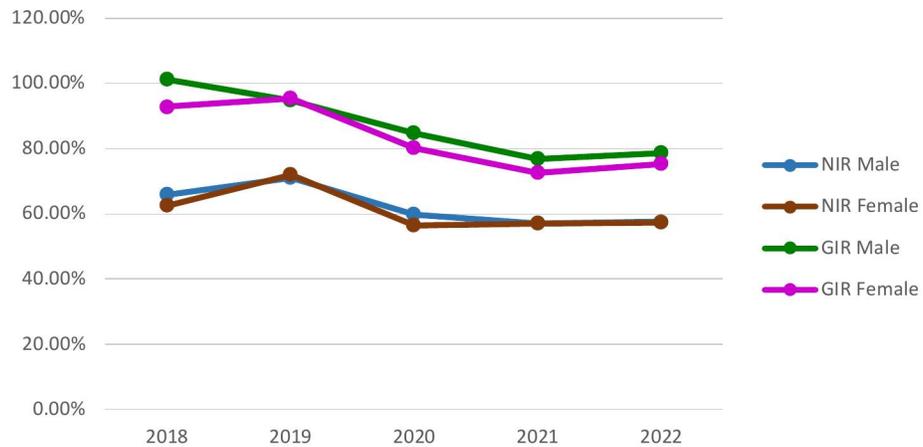
Figure 1.6: NIR/GIR First Year of Primary Education Trend

Figure 1.7 shows GIRLG/NIRLG largely remaining stable over the last five years.
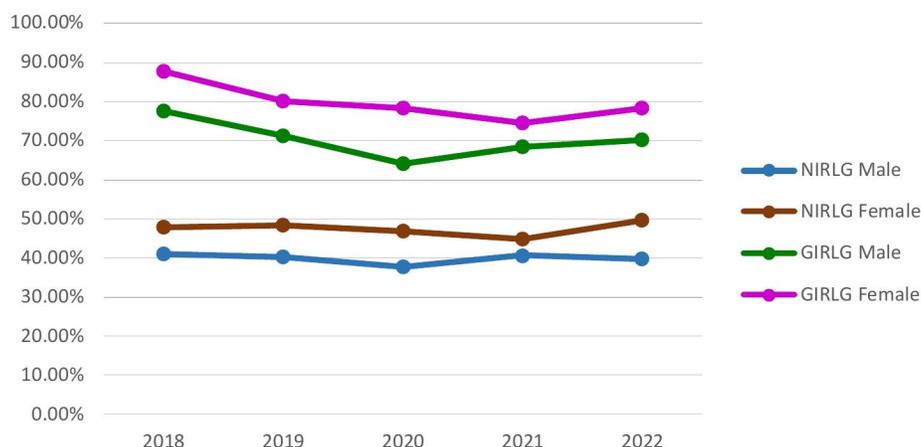
Figure 1.7: NIR/GIR Last Year of Primary Education Trend

The data used in producing GIR/NIR/GIRLG/NIRLG charts is available in Table 1.3. Data in Table 1.3 is derived from Table 6.4 extracted from the FedEMIS data warehouse. Care is taken not to include repeaters in new entrants improving on the quality of this indicator.

The same data is disaggregated in Figure 1.8. In general, Chuuk has the lowest GIR and NIR at 71% and 53% respectively. In fact, the other three states have very good GIR: 89% for Kosrae, 80% for Pohnpei and 73% for Yap.

Table 1.3: NIR/GIR First/Last of Primary Education by Year and Gender

	NIR	NIR Male	NIR Female	GIR	GIR Male	GIR Female
2018	**54.16%**	**53.25%**	**55.11%**	**89.73%**	**89.21%**	**90.27%**
G1	64.07%	65.77%	62.33%	97.08%	101.30%	92.80%
G8	44.34%	41.12%	47.77%	82.44%	77.51%	87.70%
2019	**57.79%**	**55.32%**	**60.36%**	**85.22%**	**82.79%**	**87.74%**
G1	71.46%	70.87%	72.07%	95.00%	94.71%	95.29%
G8	44.22%	40.27%	48.44%	75.51%	71.24%	80.07%
2020	**50.10%**	**48.62%**	**51.65%**	**76.73%**	**74.27%**	**79.30%**
G1	58.07%	59.79%	56.32%	82.56%	84.81%	80.26%
G8	42.20%	37.81%	46.89%	70.96%	64.07%	78.32%
2021	**49.79%**	**48.64%**	**50.98%**	**73.03%**	**72.59%**	**73.49%**
G1	57.01%	56.93%	57.08%	74.70%	76.89%	72.49%
G8	42.62%	40.61%	44.76%	71.37%	68.42%	74.52%
2022	**50.91%**	**48.43%**	**53.50%**	**75.51%**	**74.25%**	**76.81%**
G1	57.38%	57.44%	57.32%	76.96%	78.56%	75.33%
G8	44.50%	39.70%	49.62%	74.07%	70.09%	78.33%
Grand Total	**52.55%**	**50.85%**	**54.32%**	**80.03%**	**78.61%**	**81.51%**

When looking at individual states it is clear that the national average is negatively affected by Chuuk for the GIR/NIR/GIRLG/NIRLG indicators.
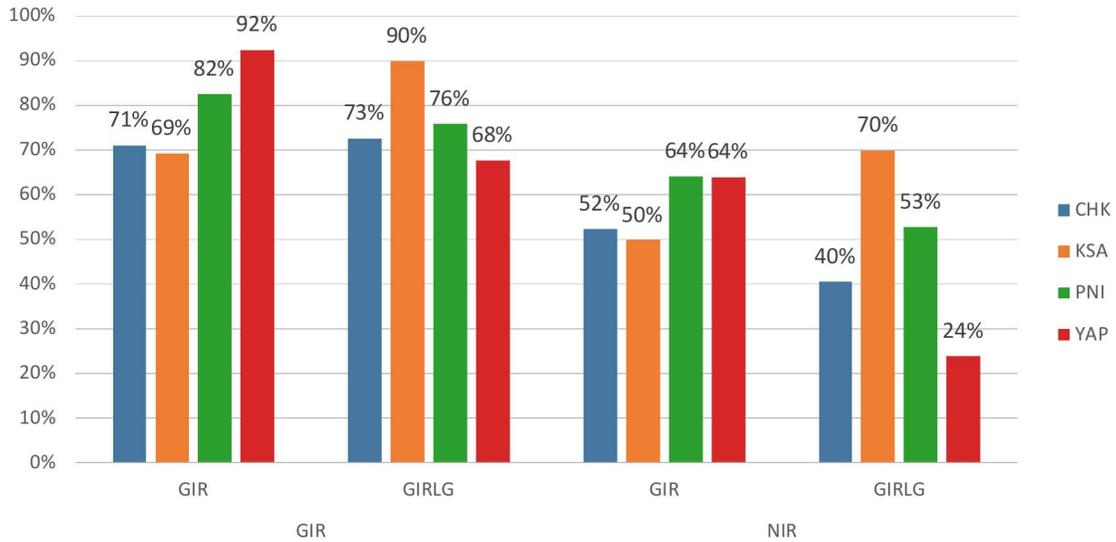
Figure 1.8: GIR/NIR First/Last Year of Primary Education by Gender

The GIR trend for all states following a slight but noticeable decline (Figure 1.9) has expected from observations of other enrollment indicators.
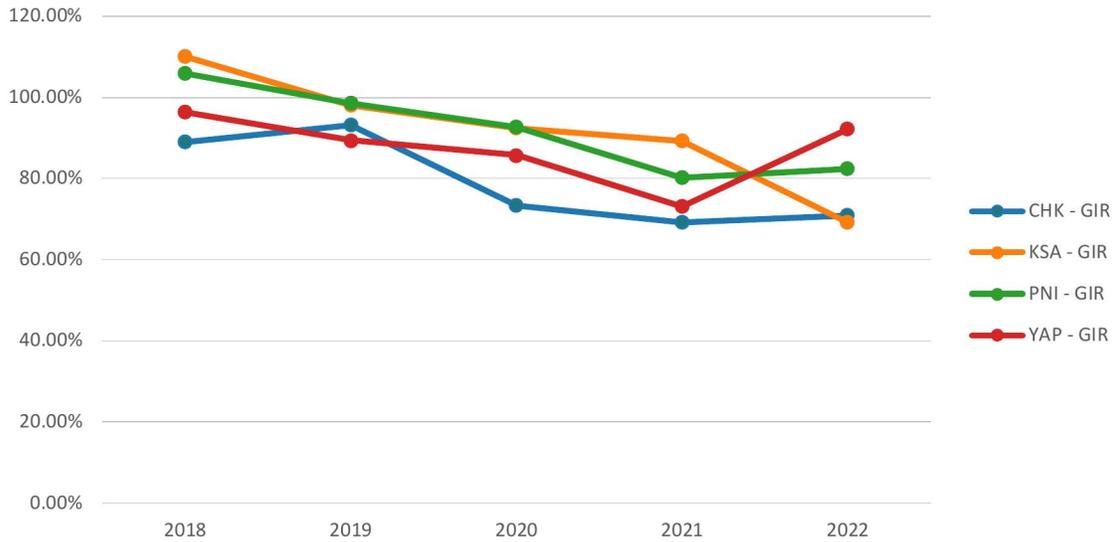
Figure 1.9: GIR (First Year) of Primary Education by State Trend

The trends of GIRLG by state is also mostly expected except for the noticeable drop for Kosrae over the last year (Figure 1.10.)
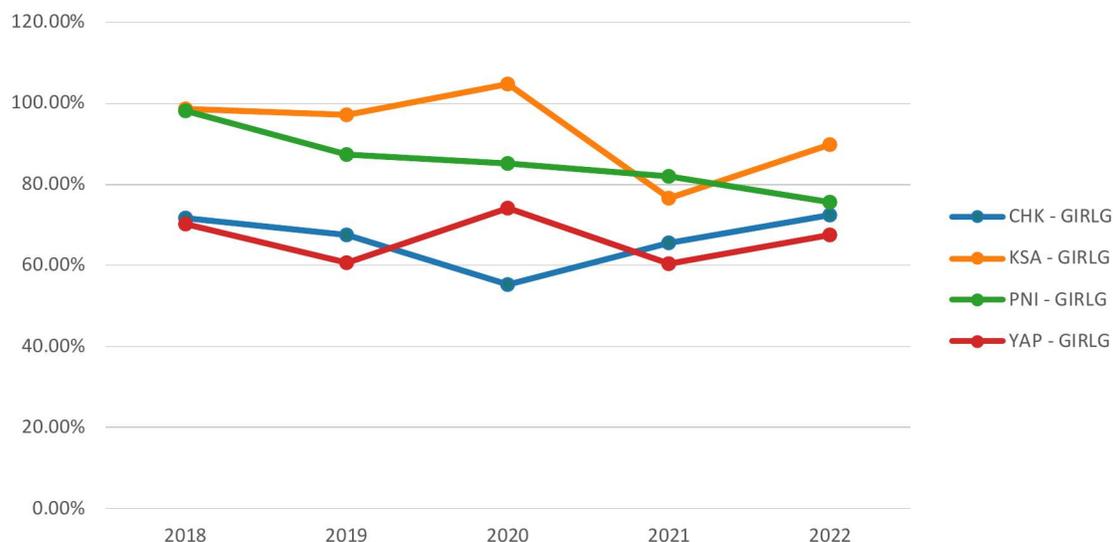
Figure 1.10: GIRLG (Last Year) of Primary Education by State Trend

Exact GIR (G1)/NIR (G1)/GIRLG (G8)/NIRLG (G8) data for the past five years by state is provided in Table 1.4.

Table 1.4: NIR/GIR First/Last of Primary Education by Year and State

	NIR				GIR				Total NIR	Total GIR
	CHK	**KSA**	**PNI**	**YAP**	**CHK**	**KSA**	**PNI**	**YAP**		
2018	**42.55%**	**91.42%**	**63.77%**	**52.91%**	**80.48%**	**104.62%**	**102.04%**	**82.18%**	**54.16%**	**89.73%**
G1	54.45%	98.10%	69.21%	70.61%	89.08%	110.13%	105.99%	96.33%	64.07%	97.08%
G8	30.39%	84.14%	58.43%	37.85%	71.69%	98.62%	98.15%	70.14%	44.34%	82.44%
2019	**51.62%**	**72.94%**	**67.34%**	**45.40%**	**80.51%**	**97.69%**	**92.91%**	**73.92%**	**57.79%**	**85.22%**
G1	68.47%	72.15%	76.91%	66.53%	93.24%	98.10%	98.48%	89.39%	71.46%	95.00%
G8	34.40%	73.79%	57.95%	27.43%	67.50%	97.24%	87.44%	60.76%	44.22%	75.51%
2020	**38.95%**	**69.74%**	**63.41%**	**44.94%**	**64.33%**	**98.36%**	**88.97%**	**79.40%**	**50.10%**	**76.73%**
G1	49.87%	62.26%	67.88%	60.82%	73.25%	92.45%	92.73%	85.71%	58.07%	82.56%
G8	27.78%	77.93%	59.03%	31.49%	55.22%	104.83%	85.27%	74.05%	42.20%	70.96%
2021	**43.08%**	**61.51%**	**60.81%**	**37.01%**	**67.35%**	**83.22%**	**81.10%**	**66.17%**	**49.79%**	**73.03%**
G1	52.02%	67.30%	64.09%	49.80%	69.19%	89.31%	80.12%	73.06%	57.01%	74.70%
G8	33.94%	55.17%	57.59%	26.21%	65.46%	76.55%	82.07%	60.34%	42.62%	71.37%
2022	**46.39%**	**59.34%**	**58.30%**	**42.16%**	**71.71%**	**79.02%**	**79.01%**	**78.92%**	**50.91%**	**75.51%**
G1	52.27%	49.69%	64.06%	63.82%	70.92%	69.18%	82.38%	92.28%	57.38%	76.96%
G8	40.38%	69.86%	52.64%	23.79%	72.51%	89.73%	75.69%	67.59%	44.50%	74.07%
Total	**44.52%**	**70.97%**	**62.72%**	**44.48%**	**72.87%**	**92.56%**	**88.79%**	**76.11%**	**52.55%**	**80.03%**

ACCESS RATE

Access Rate is not specifically defined in the UNESCO technical guideline (UNESCO Institute for Statistics, 2009) but is in other publications (UNESCO, World Bank, UNICEF, 2014). It is essentially the GIR by grade instead of specifically only just for the first and last year of primary education.

DEFINITION AND PURPOSE

ACCESS RATE (AR) BY GRADE

The AR is the total number of new entrants in a particular grade, regardless of age, expressed as a percentage of the population for that grade. It helps indicate the general level of access to any grade and indicates the capacity of the education system to provide access to specific grade levels for the official age population for that the specific grade levels.

METHODS OF CALCULATION

ACCESS RATE (AR) BY GRADE

This is calculated just like in (UNESCO Institute for Statistics, 2009) for the GIR but by individual grades: Divide the number of new entrants in grade i, irrespective of age, by the population of official school-entrance age, and multiply the result by 100.

ANALYSIS AND DISCUSSIONS

Access rate is quite stable in grades 1 through 6 hovering around 80% or more (Figure 1.11.) Beyond grade 6, there is a steady decline in intakes (new entrants) up to grade 12 (Figure 1.11.) This pattern is similar for both male and female students with the expected higher intake rate of females in late primary and secondary.
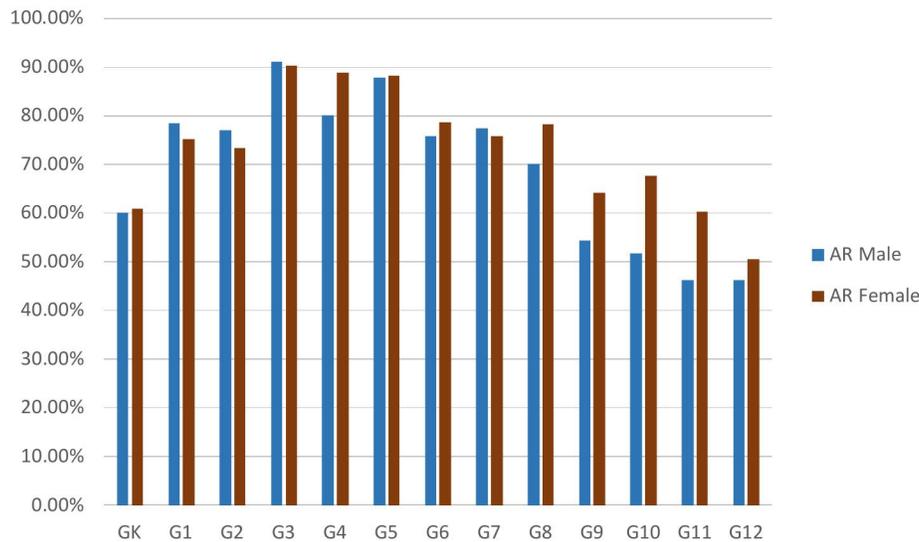
Figure 1.11: Access Rate by Grades

Looking at the trend for grade kinder a stable access rate can be observed with a slight decline that mostly occurred last year (Figure 1.12). When looking at primary grades (i.e. 1-8) we can observe a a relatively steady trend with last year's downward trend reversed this year (Figure 1.13.)

There is one alarming pattern in Figure 1.13: access to grade 1 has declined significantly for the past two years which requires immediate further scrutiny.
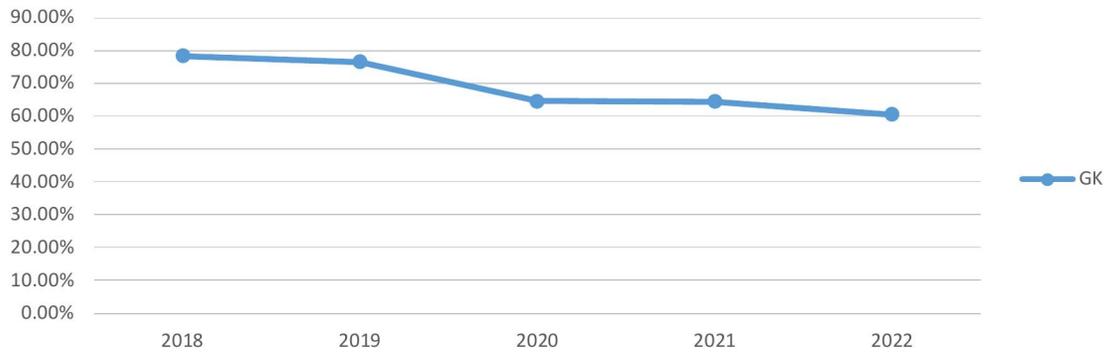
Figure 1.12: Access Rate for ECE Trend
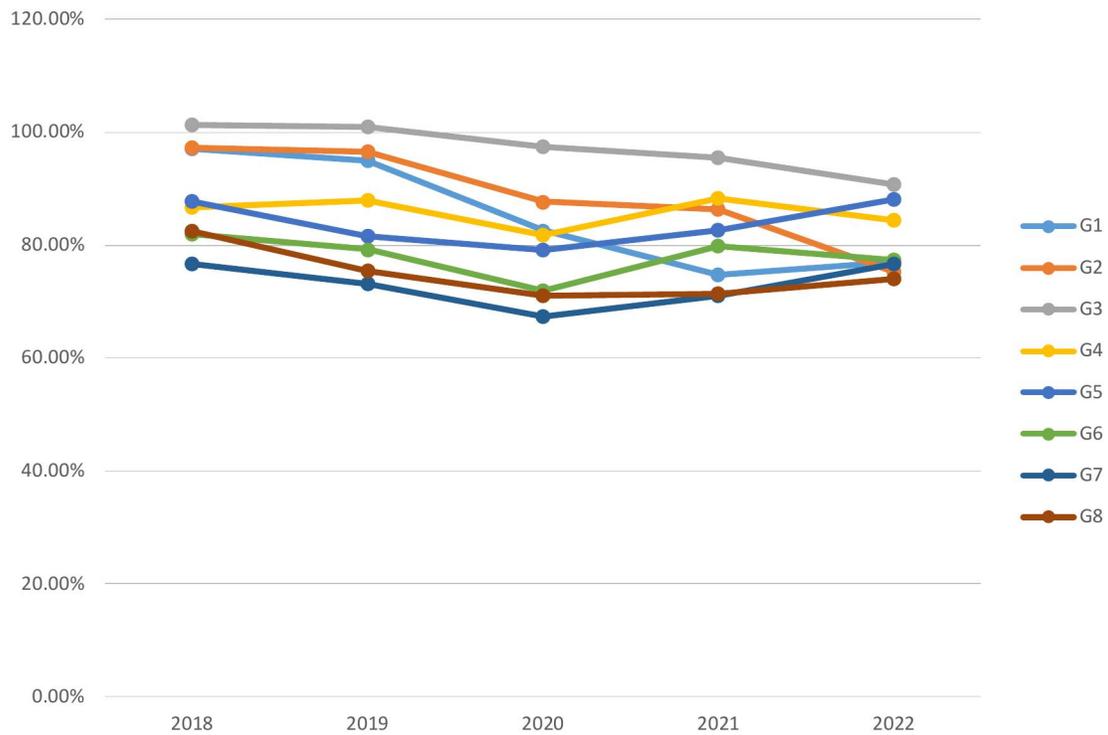
Figure 1.13: Access Rate for Primary Trend

We know that we have less enrollments going into secondary grades. But when analyzing the trends in those grades in Figure 1.14 they not only seem relatively stable but look like they might be starting an upward tick.
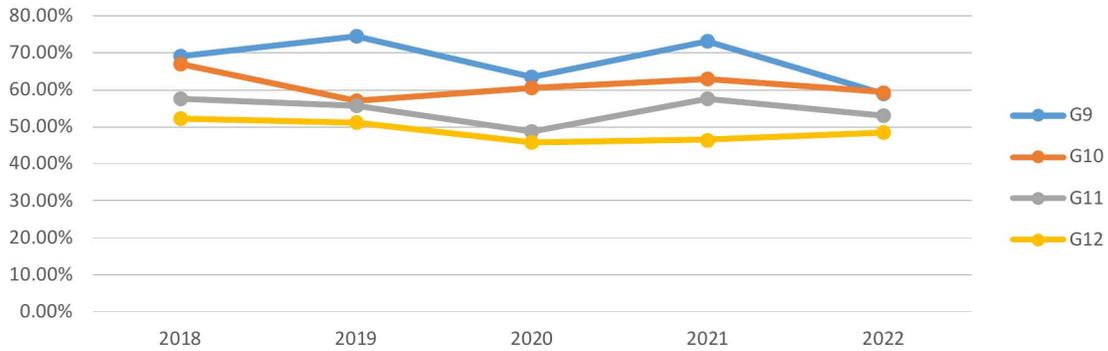
Figure 1.14: Access Rate for Secondary Trend

The highest access rate is usually found in Kosrae, Pohnpei and Yap depending on the grade (Figure 1.15.) As with all previously discussed indicators, Chuuk has the lowest access rate also. The best access rate for all states is in grade 1 to 4. Yap and Kosrae manage to keep a slightly better access rate all the way through grades of secondary.
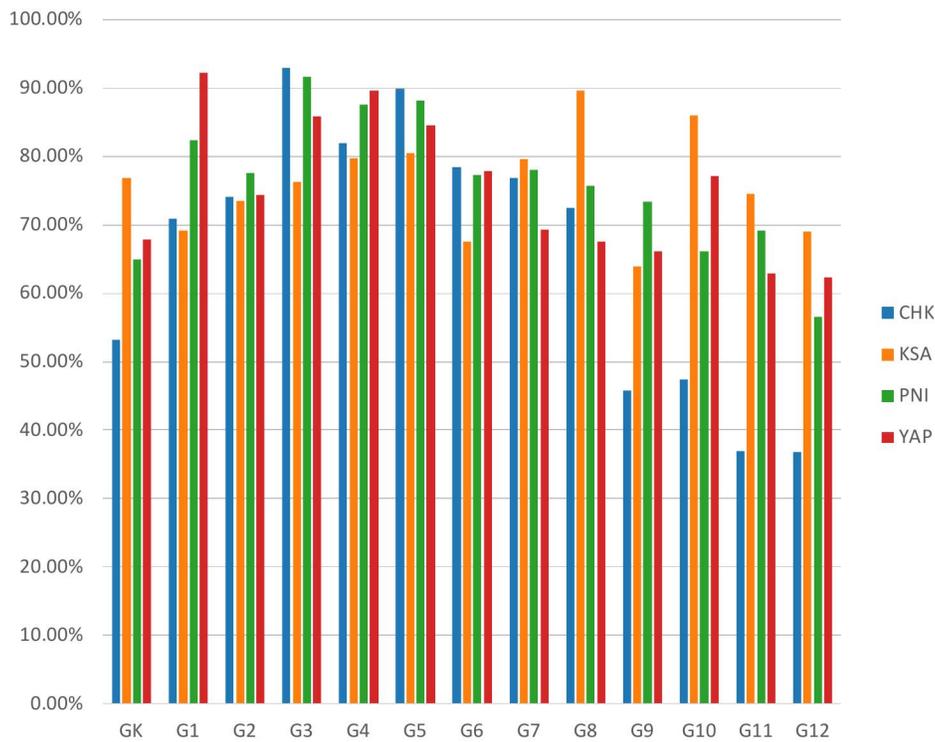
Figure 1.15: Access Rate by Grades and State

Access rate data for the nation by grade levels for the past five years is provided in Table 1.5. As for the same data disaggregated by state, only the past two years are included in Table 1.6 due to the excessively large amount of data but it remains available upon request.

Table 1.5: Access Rate by Year, Gender and Grades

	GK	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
2018													
AR	78.36%	97.08%	97.26%	#####	86.77%	87.76%	82.01%	76.73%	82.44%	69.23%	66.93%	57.72%	52.38%
AR Male	78.31%	#####	#####	#####	83.16%	86.19%	80.61%	76.98%	77.51%	65.14%	63.00%	53.80%	51.01%
AR Female	78.41%	92.80%	94.42%	#####	90.75%	89.50%	83.44%	76.49%	87.70%	73.72%	71.22%	61.94%	53.82%
2019													
AR	76.59%	95.00%	96.52%	#####	87.88%	81.67%	79.21%	73.11%	75.51%	74.49%	57.08%	55.69%	51.27%
AR Male	77.06%	94.71%	#####	#####	87.06%	77.94%	81.39%	69.98%	71.24%	70.29%	50.75%	52.71%	47.53%
AR Female	76.09%	95.29%	90.55%	#####	88.79%	85.80%	77.00%	76.22%	80.07%	79.11%	63.99%	58.88%	55.19%
2020													
AR	64.55%	82.56%	87.67%	97.51%	81.80%	79.20%	71.99%	67.29%	70.96%	63.66%	60.52%	48.72%	45.77%
AR Male	65.01%	84.81%	86.25%	98.15%	78.64%	76.86%	70.64%	67.62%	64.07%	56.43%	55.41%	42.26%	42.75%
AR Female	64.06%	80.26%	89.14%	96.82%	85.29%	81.80%	73.37%	66.97%	78.32%	71.62%	66.09%	55.66%	48.95%
2021													
AR	64.42%	74.70%	86.28%	95.51%	88.28%	82.68%	79.90%	70.96%	71.37%	73.22%	63.10%	57.61%	46.49%
AR Male	62.70%	76.89%	88.62%	91.26%	88.15%	79.08%	81.31%	69.72%	68.42%	65.84%	55.36%	52.55%	42.10%
AR Female	66.24%	72.49%	83.85%	#####	88.43%	86.68%	78.47%	72.19%	74.52%	81.36%	71.55%	63.04%	51.09%
2022													
AR	60.59%	76.96%	75.31%	90.81%	84.44%	88.12%	77.29%	76.68%	74.07%	59.05%	59.39%	53.08%	48.41%
AR Male	60.24%	78.56%	77.07%	91.20%	80.25%	87.99%	75.94%	77.44%	70.09%	54.39%	51.83%	46.26%	46.31%
AR Female	60.97%	75.33%	73.49%	90.40%	89.03%	88.26%	78.67%	75.93%	78.33%	64.17%	67.65%	60.41%	50.61%

Table 1.6: Access Rate by State, Year, Gender and Grades

AR	CHK	KSA	PNI	YAP	Grand Total
2021	**67.20%**	**81.71%**	**78.89%**	**77.28%**	**73.29%**
GK	52.60%	90.00%	70.14%	81.36%	64.42%
G1	69.19%	89.31%	80.12%	73.06%	74.70%
G2	85.03%	73.41%	92.75%	79.69%	86.28%
G3	91.96%	96.60%	100.12%	96.02%	95.51%
G4	83.27%	89.02%	94.13%	93.20%	88.28%
G5	80.76%	78.33%	85.25%	85.71%	82.68%
G6	77.44%	74.18%	83.82%	81.99%	79.90%
G7	66.77%	85.71%	75.72%	65.58%	70.96%
G8	65.46%	76.55%	82.07%	60.34%	71.37%
G9	68.92%	88.51%	73.33%	82.82%	73.22%
G10	51.70%	83.54%	70.23%	80.50%	63.10%
G11	49.18%	67.86%	63.65%	71.26%	57.61%
G12	32.30%	72.46%	57.62%	59.25%	46.49%
2022	**65.94%**	**75.69%**	**75.90%**	**74.99%**	**71.00%**
GK	53.23%	76.82%	64.95%	67.80%	60.59%
G1	70.92%	69.18%	82.38%	92.28%	76.96%
G2	74.14%	73.56%	77.59%	74.42%	75.31%
G3	93.05%	76.35%	91.76%	85.84%	90.81%
G4	81.91%	79.77%	87.59%	89.68%	84.44%
G5	89.90%	80.56%	88.25%	84.64%	88.12%
G6	78.52%	67.58%	77.36%	77.86%	77.29%
G7	76.94%	79.63%	77.99%	69.31%	76.68%
G8	72.51%	89.73%	75.69%	67.59%	74.07%
G9	45.77%	64.00%	73.46%	66.16%	59.05%
G10	47.42%	85.98%	66.12%	77.18%	59.39%
G11	36.89%	74.56%	69.21%	62.99%	53.08%
G12	36.77%	69.05%	56.57%	62.41%	48.41%
Grand Total	**66.57%**	**78.69%**	**77.39%**	**76.13%**	**72.15%**

Graduation Rate is not specifically defined in the UNESCO technical guideline (UNESCO Institute for Statistics, 2009). However, it is an indicator that FSM has been reporting for years.

DEFINITION AND PURPOSE

GRADUATION RATE (GR) [USING PROXY INDICATOR]

The GR using the GIR has proxy indicator is the total number of new entrants in grade 8 and 12, regardless of age, expressed as a percentage of the population for that grade. It helps indicate the general level of access primary and secondary graduation and indicates the capacity of the education system to provide access to graduation grade level (Grade 8 and 12) for the official age population for that the specific grade levels.

GRADUATION RATE (GR) [USING DIRECT DATA FROM END OF YEAR CENSUS]

The GR using the direct data from the end of year census is the percentage of the pupil in grade 8 (or 12) that successfully complete the grade. The most important difference with this version is that it is expressed as a percentage of the cohort of students that enrolled in the grade of graduation (Grade 8 or 12). In contrast, the previous version based on the proxy indicator GIR is expressed as a percentage of the total population of that age group (i.e. official population of age 13 for grade 8 and age 17 for grade 12). This version using the direct data will likely always be higher.

GRADUATE ON TIME

While graduation rates provide insight into how many of our students graduate, it does not give any details on how many graduate "on time". Here, graduating on time means the student graduate without repeating any grades. To estimate this we produce this indicator by looking at those that graduate and are of the official age (or, more rarely, younger.) expressed as a percentage of the cohort of students that enrolled in the grade of graduation (Grade 8 or 12).

METHODS OF CALCULATION

GRADUATION RATE (GR) [USING PROXY INDICATOR]

The UIS widely accepted method for getting the graduation rate for primary and secondary is to use *a proxy indicator* (i.e. GIR for Grade 8 and GIR for Grade 12.) Refer to GIR calculation method in previous section. Then, take the GIR for grade 8 for primary graduation and GIR for grade 12 for secondary education.

GRADUATION RATE (GR) [USING DIRECT DATA FROM END OF YEAR CENSUS]

Divide the total number of pupils in the grade 8 (and 12) that complete by the total number of grade 8 (and 12).

GRADUATION ON TIME

Divide the total number of pupils in the grade 8 that complete and are of the official age (or younger) and the pupils in grade 12 that complete and are of the official age (or younger) by the total number of grade 8 (and 12) enrollments.

ANALYSIS AND DISCUSSIONS

GRADUATION RATE (GR) [USING PROXY INDICATOR]

Graduation rate based on proxy indicator and therefore expressed as percentage of population of that age group is quite low. Unsurprisingly, the graduation rate for primary is significantly higher (~68% males and 75% females) than for secondary (~42% males and 51% females) (Figure 1.16.) Generally, graduation of primary and secondary is better with females.
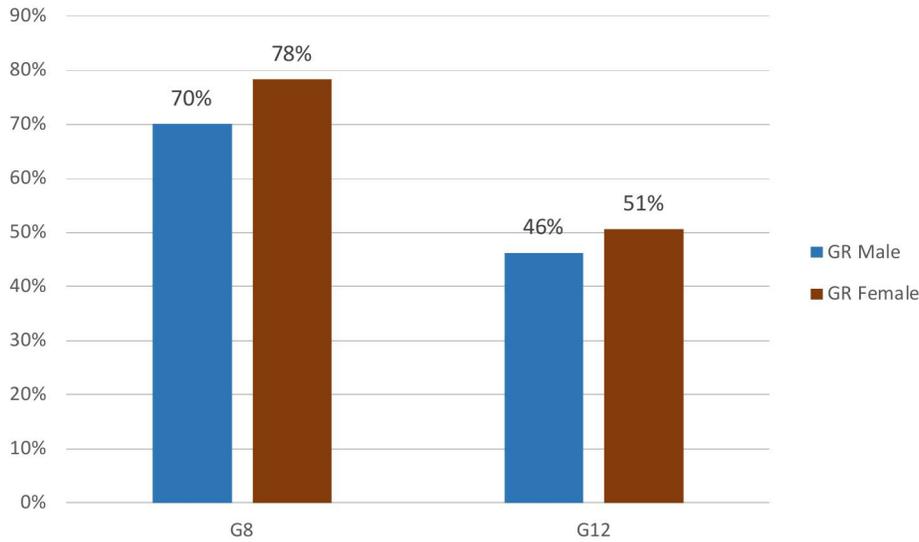
Figure 1.16: Graduation Rate [using proxy] (Primary/Secondary) by Gender

The last couple of years have seen a slight decline in the graduation as expressed as a percentage of the population of official age for graduating age groups (Figure 1.17.) The decline is more pronounced for graduation of primary education than graduation of secondary education though both have been more steady in the past two years.
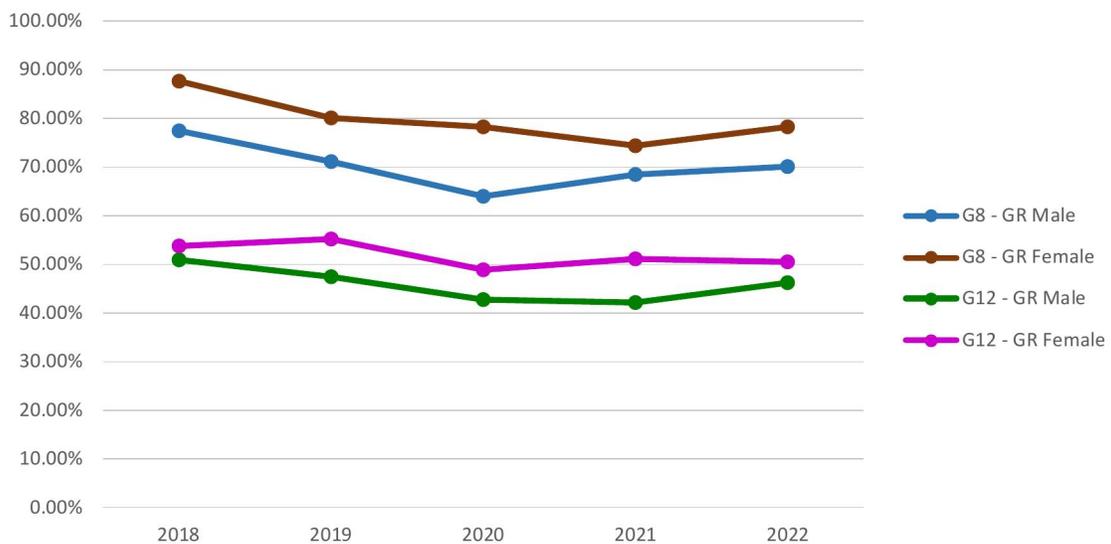
Figure 1.17: Graduation Rate [using proxy] (Primary/Secondary) by Gender Trend

Graduation rates in Chuuk as expressed as a percentage of the graduating age groups is the lowest in the FSM (Figure 1.18) with 67% from primary and only 32% from primary graduating as a percentage of the population. Kosrae and Pohnpei have the highest graduation of primary and Kosrae and Yap have the highest graduation of secondary closely followed by Pohnpei.
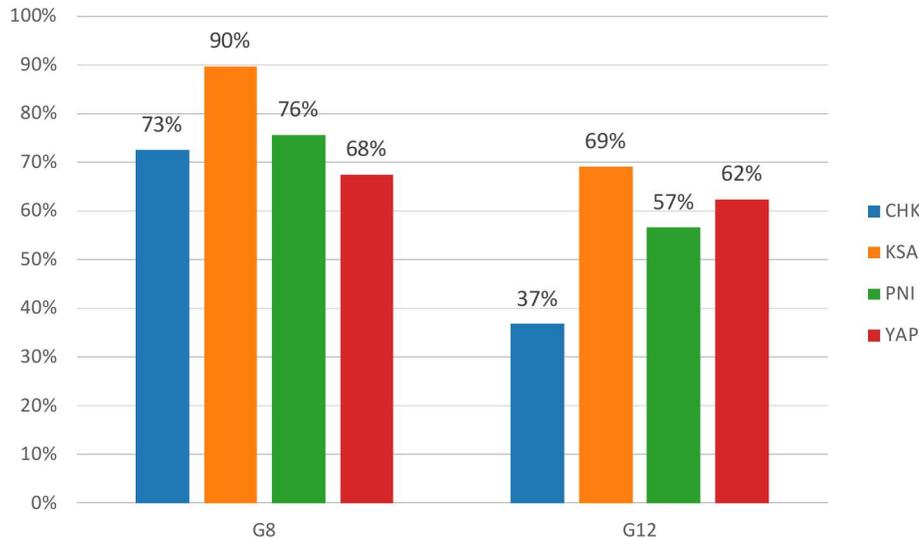
Figure 1.18: Graduation Rate [using proxy] (Primary/Secondary) by State

GRADUATION RATE (GR) [USING DIRECT DATA FROM END OF YEAR CENSUS]

As for graduation rate as expressed as a percentage of those that were enrolled in the graduating grades (i.e. grade 8 and grade 12) it is much higher at 96-97% (Figure 1.19) from both primary and secondary. The reason it is higher is simple: it is a percentage *expressed as those that were enrolled in the grade* and not all the kids that should be in that grade as discussed in the previous graduation rate using the proxy indicator. Females still graduate at slightly higher rates than males both from primary and secondary with this variant of the indicator.
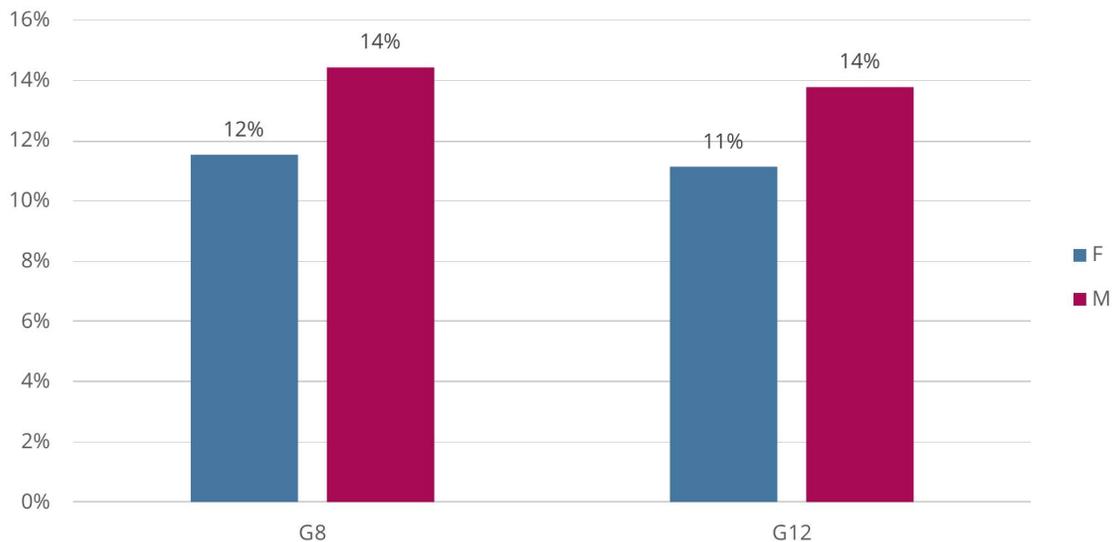
Figure 1.19: Graduation Rate [direct data] (Primary/Secondary) by Gender

The same graduation rate is shown by states in Figure 1.20 and mirrors what has already been learned and discussed previously.

Among students that start either grade 8 or 12 most of them graduate in all four states with Chuuk again showing a poorer performance.
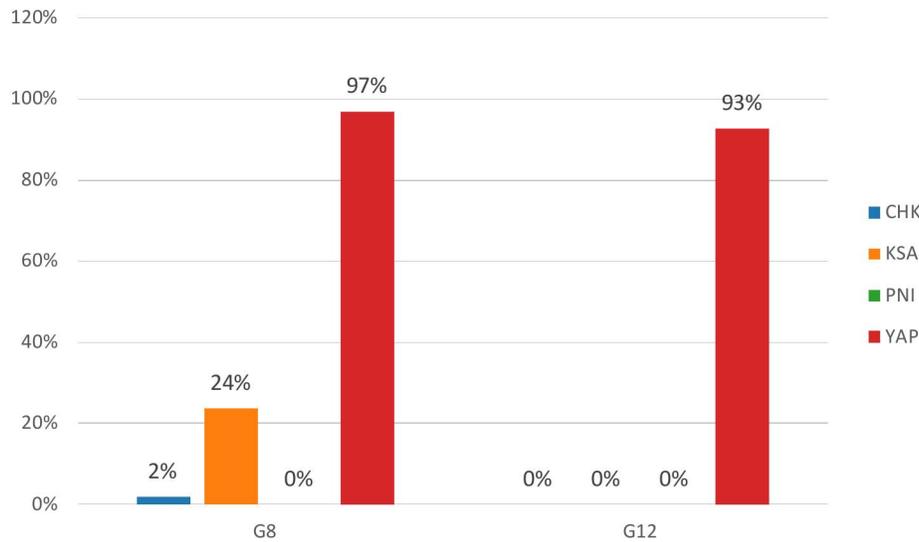
Figure 1.20: Graduation Rate [direct data] (Primary/Secondary) by State

We present some relevant data for this more recent analysis on our custom graduation rate indicator in Table 1.7.

Table 1.7: Enrollments, Dropouts and Completed by Gender, Primary/Secondary and State

	CHK		KSA		PNI		YAP		Grand Total
	G8	G12	G8	G12	G8	G12	G8	G12	
F									
Enrollments	441	228	68	58	337	268	91	75	1566
Dropouts							2	4	6
Graduated	7		12				89	70	178
M									
Enrollments	406	225	63	58	325	235	106	91	1509
Dropouts							2	1	3
Graduated	9		19				102	84	214
Total Enrollments	847	453	131	116	662	503	197	166	3075
Total Dropouts							4	5	9
Total Graduated	16		31				191	154	392

GRADUATE ON TIME

There are 80% females and 77% males graduating on time (with no excessive delays) from primary and 78% females and 73% males graduating on time from secondary (Figure 1.19.) These figures are relatively good but note they are expressed as a percentage of the cohort making it to the grade 8 and 12 and not as the cohort that should be in those grades from the whole population.
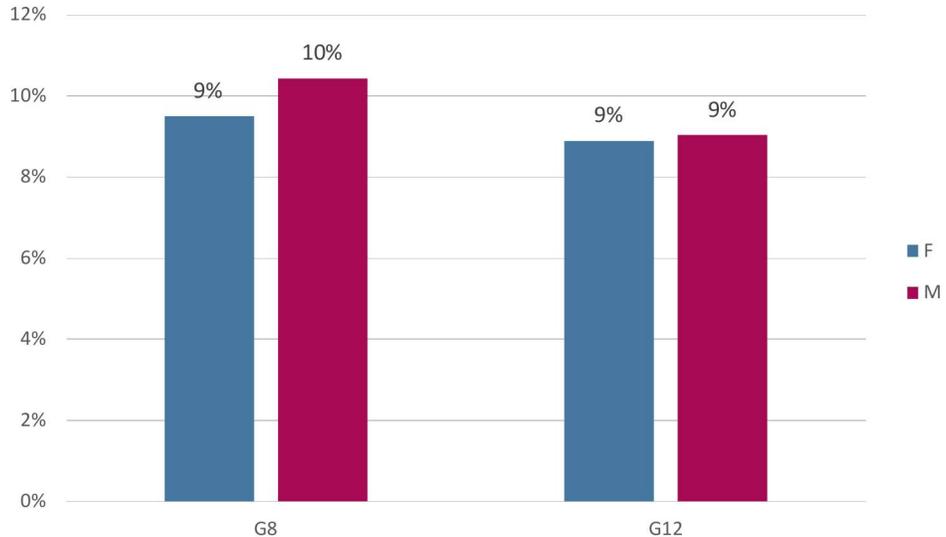
Figure 1.21: Graduate on time (Primary/Secondary) by Gender

As usual, Chuuk has generally the poorest performance with 73% graduating on time from primary and 63% graduating on time from secondary.

There is one surprising observation in Figure 1.20: Yap performance normally well elsewhere seem to graduate less on time then Kosrae and Pohnpei indicating more excessive delays.
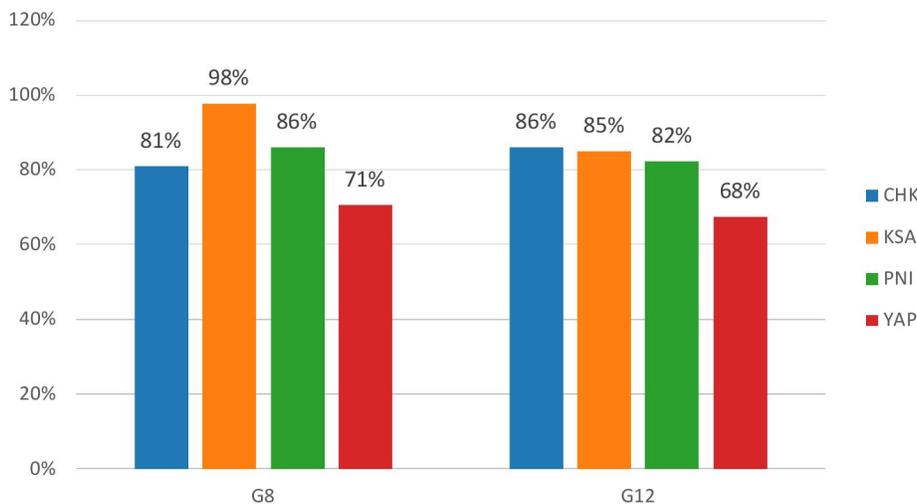
Figure 1.22: Graduation on time (Primary/Secondary) by State

PERCENTAGE OF REPEATERS

The percentage of repeaters is not to be confused with the Repetition Rate discussed in the flows chapter later.

DEFINITION AND PURPOSE

PERCENTAGE OF REPEATERS

Total number of pupils who are enrolled in the same grade as in a previous year, expressed as a percentage of the total enrollment to the specified grade. To measure the extent and patterns of repetition by grade, as part of the internal efficiency of education system.

METHODS OF CALCULATION

This is calculated just like in (UNESCO Institute for Statistics, 2009). In our FedEMIS census when recording individual student enrollments we record where the student came "from" (.e.g. New Enrol, Repeater, ECE, Transfer In).

ANALYSIS AND DISCUSSIONS

There is a large percentage of repeaters in ECE primarily driven by the behaviors found in Yap (Figure 1.21, Figure 1.23.) In general, males have higher percentage of repeaters than females (except in ECE where the females are likely more likely to start underage and come back.) However, both are considered low for primary and secondary indicating that once kids get into the education system, there is no big repeating problems and they progress with a good degree of internal efficiency.
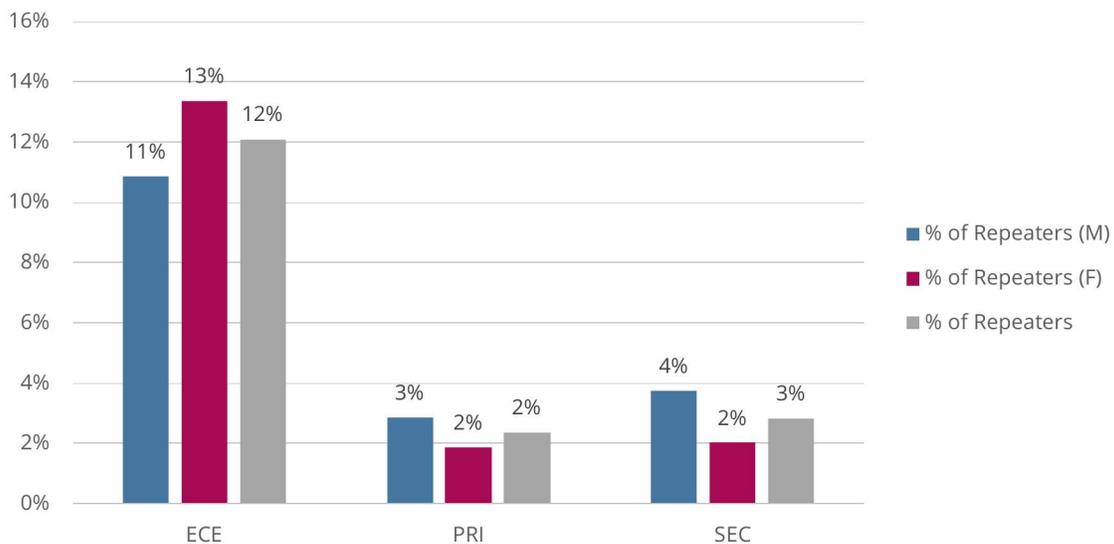
Figure 1.23: Percentage of Repeaters by Education Levels and Gender

As for percentage of repeaters over the years, ECE is seeing a slight increase. It indicates that the underage enrollments in Yap remains and will continue affecting key indicators. Secondary percentage of repeaters is generally steady while in primary saw a small decline from last year (Figure 1.22.)
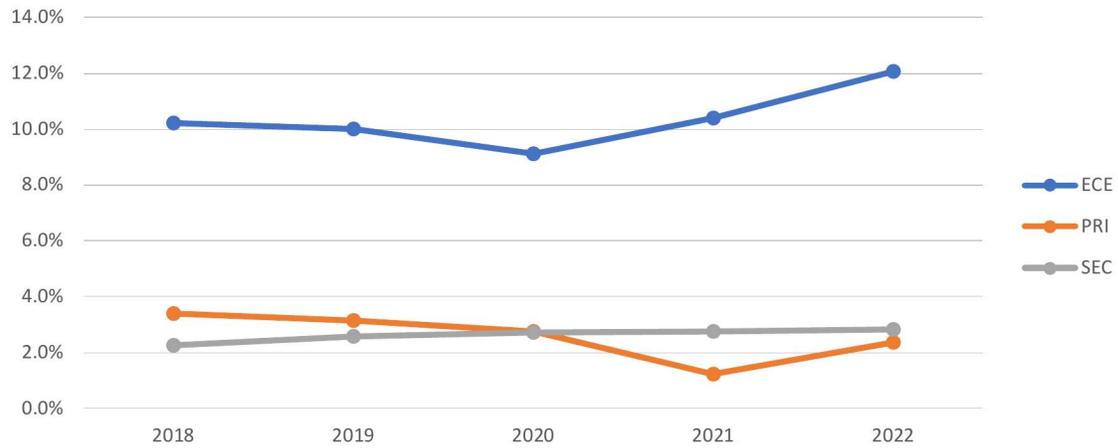
Figure 1.24: Percentage of Repeaters by Education Levels and Gender Trend

The percentage of repeaters by state is generally similar with Chuuk the highest and Yap with their many kids enrolling to grade K before the official age only to more often drop and come back.
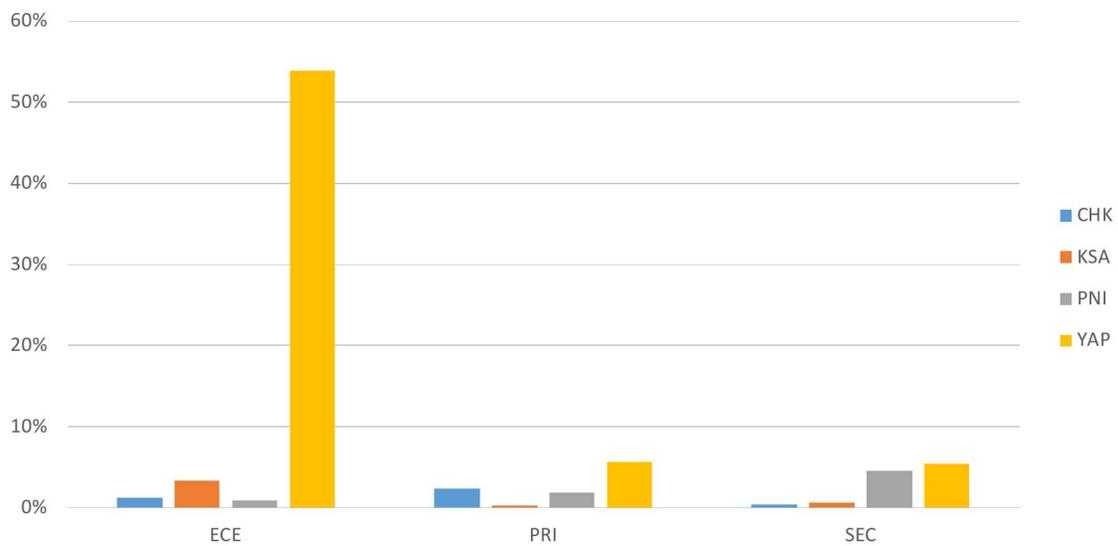
Figure 1.25: Percentage of Repeaters by Education Levels and State

Exact percentage of repeaters can be found in Table 1.8 and Table 1.9. Table 1.8 is produced from data shown in Table 6.4 taken directly from the data warehouse.

PERCENTAGE DROPOUTS

The percentage of dropout is not to be confused with the similar Dropout Rate discussed in the flows chapter later.

Table 1.8: Percentage of Repeaters by Year, Education Level, Gender

% Repeaters	ECE	PRI	SEC	Average Total
2018	10.2%	3.4%	2.3%	3.7%
2019	10.0%	3.2%	2.6%	3.6%
2020	9.1%	2.8%	2.7%	3.2%
2021	10.4%	1.2%	2.8%	2.3%
2022	12.1%	2.4%	2.8%	3.1%
Average Total	**10.3%**	**2.6%**	**2.6%**	**3.2%**

Table 1.9: Percentage of Repeaters by State, Year, Education Level, Gender

% Repeaters by State	CHK			KSA			PNI			YAP			Average Total
	ECE	PRI	SEC	ECE	PRI	SEC	ECE	PRI	SEC	ECE	PRI	SEC	
2018	7.9%	4.8%	2.2%	0.0%	0.0%	0.0%	0.0%	1.2%	0.1%	45.7%	8.0%	11.1%	3.7%
2019	3.8%	3.3%	1.0%	0.0%	0.0%	0.0%	0.6%	2.6%	2.2%	44.5%	6.7%	9.9%	3.6%
2020	4.9%	3.0%	1.9%	0.0%	0.1%	0.0%	0.2%	2.4%	4.1%	38.0%	5.2%	2.3%	3.2%
2021	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	2.0%	6.5%	48.7%	4.7%	0.7%	2.3%
2022	1.2%	2.3%	0.4%	3.3%	0.3%	0.6%	0.8%	1.8%	4.5%	53.9%	5.6%	5.4%	3.1%
Average Total	**4.0%**	**2.7%**	**1.1%**	**0.5%**	**0.1%**	**0.1%**	**0.3%**	**2.0%**	**3.4%**	**46.3%**	**6.0%**	**6.0%**	**3.2%**

DEFINITION AND PURPOSE

PERCENTAGES OF DROPOUTS

Similar to the dropout rate this indicator is used to analyze dropouts in the education system. This indicator uses direct end of year outcome of students and the number of dropouts is expressed as a percentage of all those enrolled at the end of this school year.

METHODS OF CALCULATION

PERCENTAGES OF DROPOUTS

At the end of the school year, our FedEMIS annual school census is updated with an outcome column (e.g. Completed, Dropout, To Repeat, and Transfer out). These records are used to produce the direct percentage of dropouts for the school year.

ANALYSIS AND DISCUSSIONS

The ideal percentage of dropouts is 0%. The percentage of dropouts is around 1.5-4% in primary grades and at its highest in grades 9 and 10 (Figure 1.24.) Schools should work to reduce dropouts at all grades with a particular focus on improving dropouts in higher grades.

Dropouts are generally higher with males throughout the whole education system.
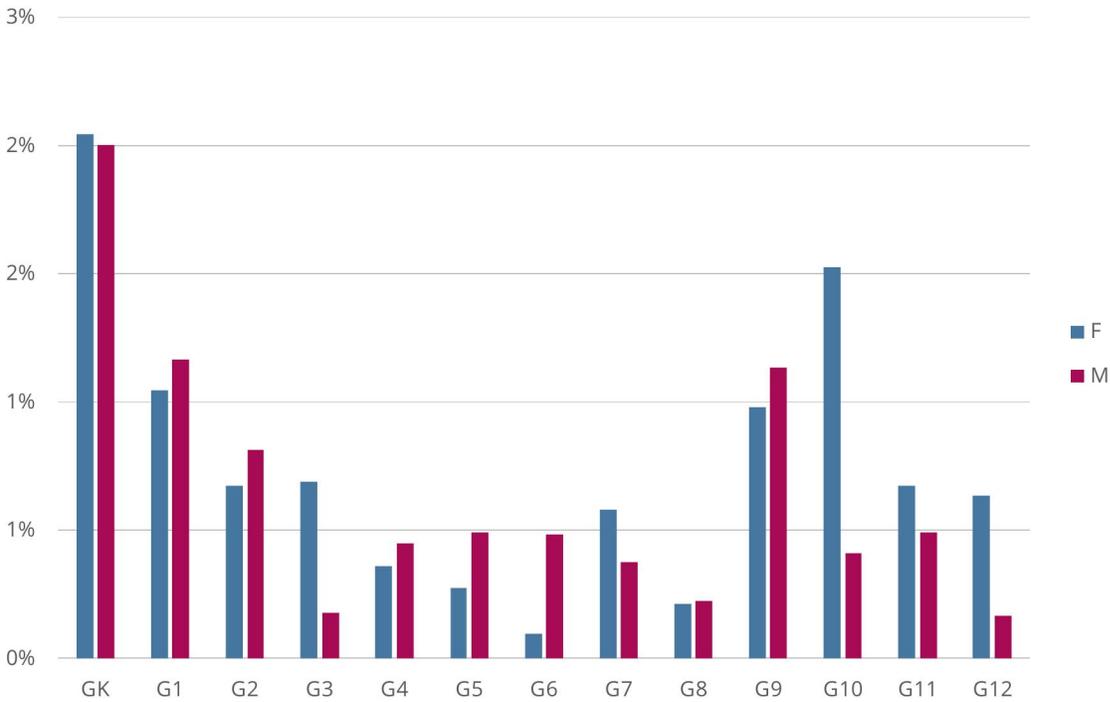
Figure 1.26: Percentage of Dropouts by Grade and Gender

In Yap, Grade K dropouts are very high which is mostly noise in the data since those are typically under age starting too soon only to come back again after. There are essentially no dropouts in Kosrae while Chuuk leads the country with most dropouts for most primary grades (Figure 1.25.) Yap and Pohnpei significantly increases their dropouts in grade 9, 10 and 11. Considering those students are so close to completing their secondary education we need to find way to keep these students at school. Enrollments and Dropouts are put side by side for all states, both gender and each grade in Table 1.10.
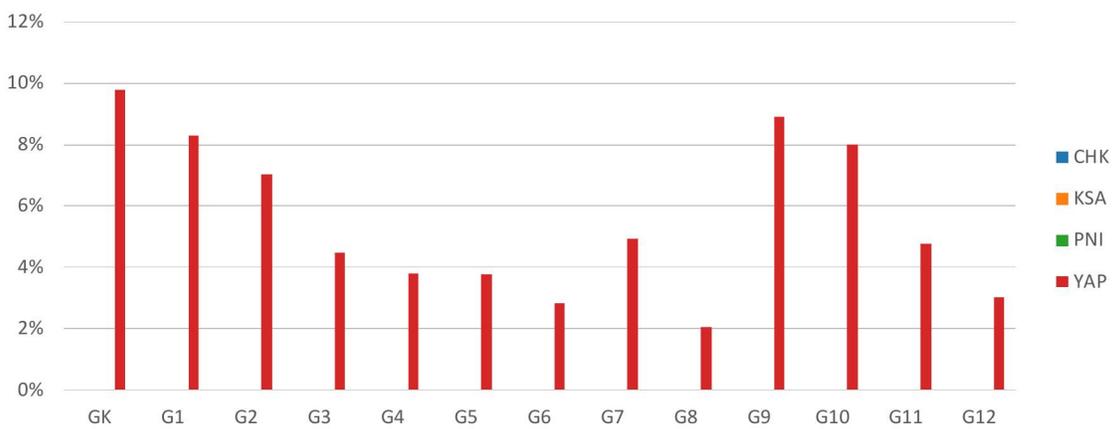
Figure 1.27: Percentage of Dropouts by Grade and State

AGE SPECIFIC ENROLLMENT RATE

DEFINITION AND PURPOSE

AGE SPECIFIC ENROLLMENT RATE (ASER)

Enrollment of a specific single age enrolled, irrespective of the level of education, as a percentage of the population of the same age. It shows the extent of the educational participation of a specific age cohort.

METHODS OF CALCULATION

AGE SPECIFIC ENROLLMENT RATE (ASER)

This is calculated just like in (UNESCO Institute for Statistics, 2009): Divide the number of pupils of a specific age enrolled in educational institutions at all levels of education by the population of the same age and multiply the result by 100.

ANALYSIS AND DISCUSSIONS

Enrollment by single age tends to correspond with the general patterns of GER/NER and GIR/NIR discussed earlier (Figure 1.26). These distributions indicate that there are students yet to be enrolled in almost all grades from ECE to the secondary level. Participation is highest between 7 and 11 years of age. At the age 5, considered the age to enroll in ECE programs, there are just around ~57% of children out of pre-school. Similarly, around ~32% of children at the official age of grade 1 are not in school. After 14 years of age, the non-enrolled population increases substantially. By the age of 18 corresponding with grade 12 education, around 80% are out of school (Figure 1.26.)
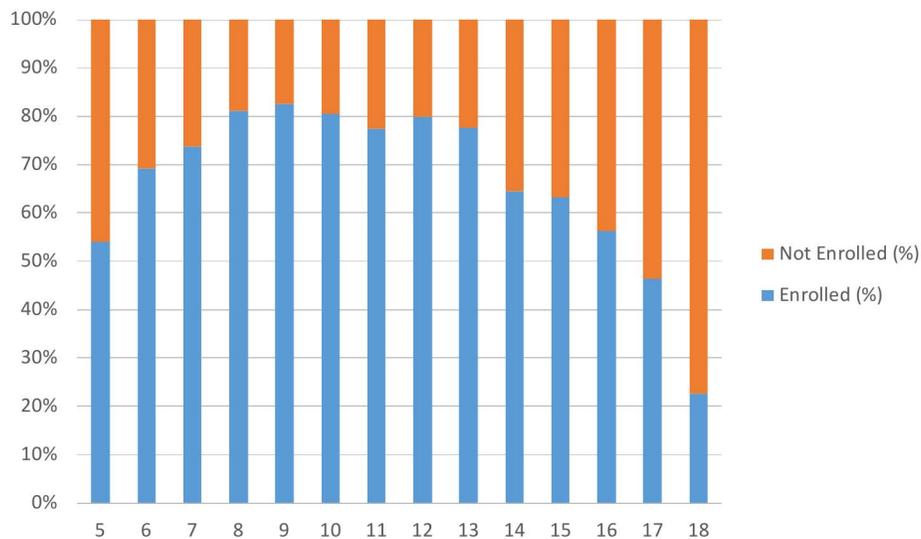
Figure 1.28: Age Specific Participation to Education System

The highest participating age group is 8-10 years old with both female and male averaging ~87% and 81% for Females and Males respectively (Figure 1.27.)

Table 1.10: Enrollment/Dropouts by Grades, Gender and State

	Dropouts				Enrollments				Total Dropouts	Total Enrollments
	CHK	KSA	PNI	YAP	CHK	KSA	PNI	YAP		
Female				**86**	**5351**	**809**	**4453**	**1351**	**86**	**11964**
GK				17	298	55	304	174	17	831
G1				10	434	50	352	122	10	958
G2				6	426	63	309	95	6	893
G3				7	528	57	338	95	7	1018
G4				4	543	68	378	122	4	1111
G5				3	543	72	384	102	3	1101
G6				1	522	63	361	95	1	1041
G7				6	502	68	367	96	6	1033
G8				2	441	68	337	91	2	937
G9				8	304	50	367	96	8	817
G10				13	312	73	360	107	13	852
G11				5	270	64	328	81	5	743
G12				4	228	58	268	75	4	629
Male				**77**	**5229**	**829**	**4515**	**1476**	**77**	**12049**
GK				17	303	65	307	173	17	848
G1				12	436	61	389	143	12	1029
G2				8	462	65	351	104	8	982
G3				2	547	56	408	106	2	1117
G4				5	545	72	386	116	5	1119
G5				6	572	73	436	137	6	1218
G6				5	494	60	360	118	5	1032
G7				4	515	61	380	107	4	1063
G8				2	406	63	325	106	2	900
G9				9	261	62	374	95	9	792
G10				3	279	71	286	93	3	729
G11				3	184	62	278	87	3	611
G12				1	225	58	235	91	1	609
Grand Total				**163**	**10580**	**1638**	**8968**	**2827**	**163**	**24013**

There is a significant drop in male participation in the age group 14-16 which requires attention.
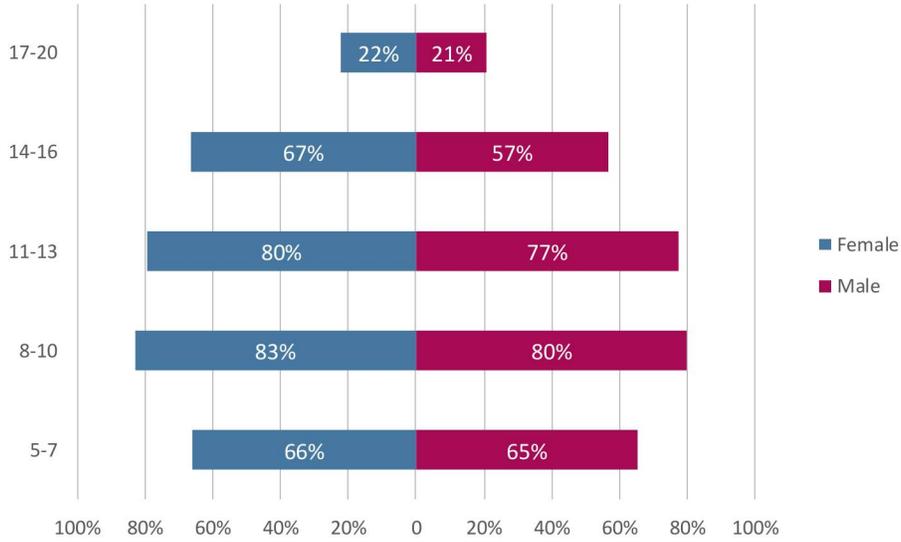
Figure 1.29: Age Specific Enrollment Rate by Gender

Over the past five years, there is the slight decline already discussed also observed from this angle (Figure 1.28) though the trend has been reverse slightly this year.

Sadly, while most age groups have seen an increase in participation the all-important 5-7 age group remained on the decline (Figure 1.28.)
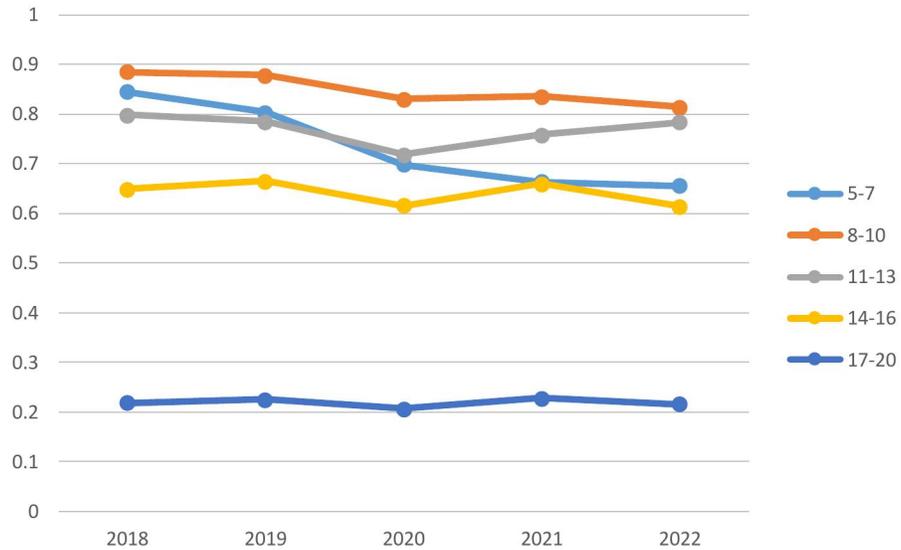
Figure 1.30: Age Specific Enrollment Rate trend

OUT-OF-SCHOOL CHILDREN

DEFINITION AND PURPOSE

OUT-OF-SCHOOL CHILDREN (OOS)

Children in the official primary school age range who are not enrolled in either primary or secondary schools. It is to identify the size of the population in the official primary school age range who should be targeted for policies and efforts in achieving universal primary education.

METHODS OF CALCULATION

OUT-OF-SCHOOL CHILDREN (OOS)

This is calculated just like in (UNESCO Institute for Statistics, 2009): Subtract the number of primary school-age pupils enrolled in either primary or secondary school from the total population of the official primary school age range.

ANALYSIS AND DISCUSSIONS

Population remain out of school for two reasons: 1) they were never enrolled in school and 2) enrolled in school but dropped out early without completing certain level or grade of education. Both NER and GER are not as high as they should be at the primary and secondary levels. This tends to indicate that in general children were never enrolled in the first place. The total number of out-of-school children to reach out to numbers in the low thousand across the whole nation. We note again this indicator could be affected by an overstated population projection.
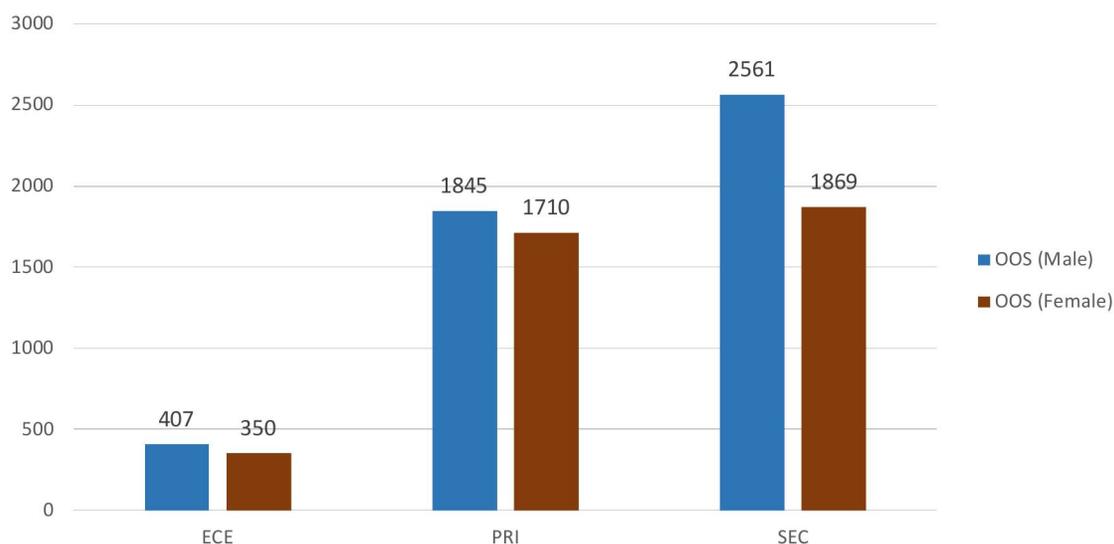
Figure 1.31: Out-of-school Children by Education Level and Gender

The time-series data on Out-Of-School children reveals an alarming increasing pattern in the out-of-school males and females at all education levels (Figure 1.30) though fortunately this trend has returned steady or on the decline since last year.

This suggest strong actions needed to reverse and/or explain this increasing out-of-school children trend: what proportion of them are leaving overseas? What proportion of them are pursuing vocational training?
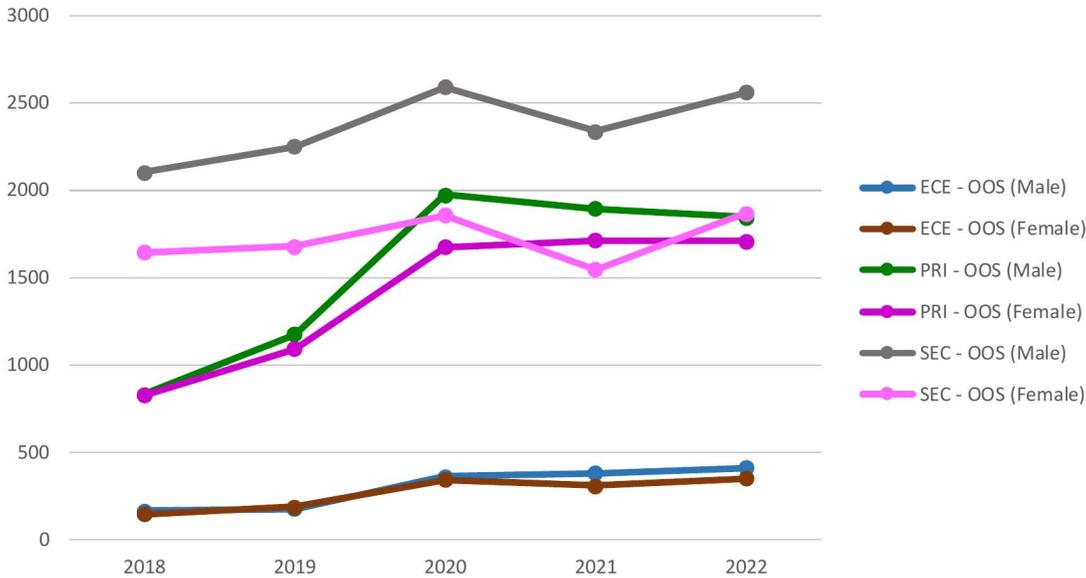
Figure 1.32: Out-of-school Children by Education Levels Trend

Chuuk has the most out of school children at all levels of education by far while Kosrae has the lowest followed by Yap and Pohnpei. Yap's negative out of school children is explained by the common enrollments (and re-enrollments) of kids in ECE forcing the data model to claim there are more enrollments than population of that age group while this is almost certainly not true.
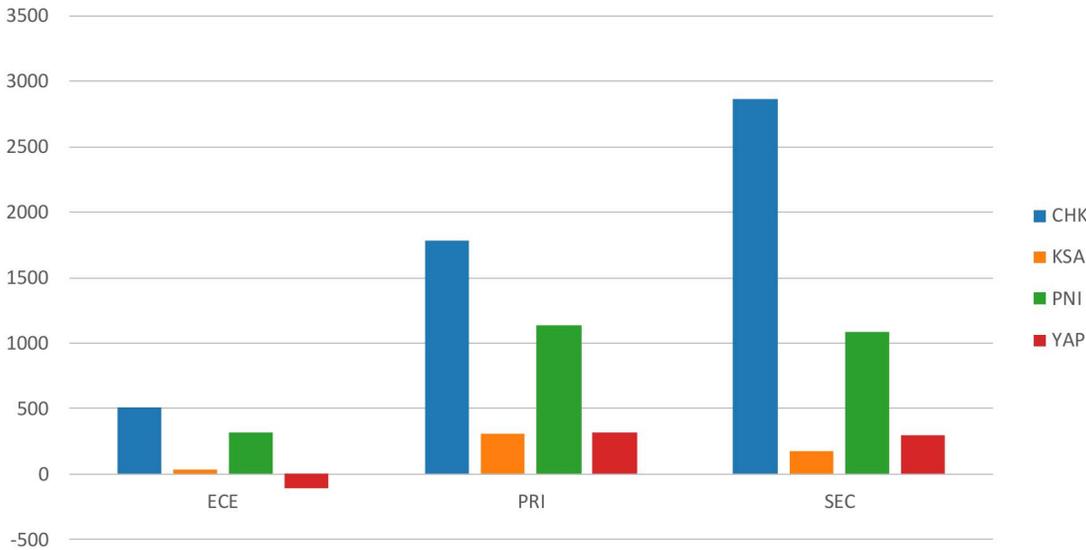
Figure 1.33: Out-of-school Children by Education Levels and State

The exact out-of-school numbers for the past five years can be found in Table 1.11 by education level, gender and state. Take note of Kosrae's past negative out-of-school numbers. This is one example of an issue caused by small population. Especially in ECE, the Kosrae enrollments were actually a tiny bit higher than what the population for those age groups were projected to be by the national population census. The other way to get

more precise out-of-school numbers would be a direct count in Kosrae of children not going to school which is a lot more tedious then using established models.

Table 1.11: Out-of-school children by year, education level and gender

	OOS Male			OOS Female			OOS Total		
	ECE	PRI	SEC	ECE	PRI	SEC	ECE	PRI	SEC
CHK									
2018	87	694	1490	104	683	1163	191	1377	2653
2019	124	835	1572	147	762	1134	271	1597	2706
2020	249	1498	1755	231	1169	1214	480	2667	2969
2021	303	1236	1462	225	955	968	528	2191	2430
2022	268	999	1626	247	790	1237	515	1789	2863
KSA									
2018	-15	57	7	-3	40	31	-18	97	38
2019	5	57	34	-4	65	56	1	122	90
2020	-4	71	67	-2	75	81	-6	146	148
2021	0	115	84	15	115	63	15	230	147
2022	14	157	99	17	147	79	31	304	178
PNI									
2018	108	17	503	107	-53	365	215	-36	868
2019	99	178	549	137	118	382	236	296	931
2020	148	286	638	175	276	444	323	562	1082
2021	122	382	643	156	444	394	278	826	1037
2022	162	560	666	160	579	424	322	1139	1090
YAP									
2018	-16	60	102	-65	156	85	-81	216	187
2019	-54	106	96	-93	145	107	-147	251	203
2020	-32	119	130	-62	155	119	-94	274	249
2021	-47	162	147	-91	197	121	-138	359	268
2022	-37	129	170	-74	194	129	-111	323	299

CHAPTER 2: FLOW-RATE INDICATORS

Indicators in this section are referred to as **_flow rates_** as they study flows of students from one year to another. Typically, flow rates are produced using the _reconstructed cohort_ method and need two consecutive years of _consistent_ data collection to produce. This means that for the current year School Year (SY) 2021-22 we can produce flow rates for SY2020-21=>SY2021-22. For example, we can calculate the promotion rate of the cohort of students that were in Grade 10 in SY2020-21 promoting into Grade 11 in SY2021-22.

BACKGROUND

DATA SOURCE

There is a single data source for the production of all these key education indicators: the FedEMIS annual school census from the NDOE/SDOE which has been consistently used for five years. The data sources for previous years varied but was mostly done through student and teacher rosters similar to the current improved annual census.

LIMITATIONS

Flow rates are challenging as they require consistent data collection for two consecutive years (UNESCO Institute for Statistics, 2009). An under- or over-enrollment reporting in one of the two consecutive years will result in inaccurate estimates. It's important to note that this is not just a challenge in FSM but a challenge in general.

> Furthermore, note that Chuuk inconsistently reported in a couple of the recent past years, mostly omitting schools completely, and this has had a significantly effect on the FSM reporting as a whole.

Other factors affecting us in particular are small population (having bigger impact on statistics figures) and frequent student transfers caused by both international and internal migration. Because student movement within FSM and abroad is all too common, getting to the exact numbers is always challenging. This is the reason why one will observe what seems to be theoretically "impossible" values such as negative dropouts. However, looking at the raw data we have more enrollments recorded on the second of the two consecutive years and this is why we (rarely) arrive at such negative dropout rate in some instances. Going forward with our single same consistent data collection tools we should see less and less of this even when using the reconstructed cohort. Filtering out Chuuk from the national average already yields realistic and generally acceptable figure.

TRANSITION RATE (TR)

DEFINITION AND PURPOSE

The number of pupils admitted to the first grade of a higher level of education in a given year, expressed as a percentage of the number of pupils (or students) enrolled in the final grade of the lower level of education in the previous year. It is meant to convey information on the degree of access or transition from one cycle or level of education to a higher one.

METHODS OF CALCULATION

Here we simply make use of the Promotion Rate ECE=>G1 for Transition Rate for ECE to Primary and Promotion Rate G8=>G9 for Transition Rate for Primary to Secondary since the Promotion Rate is essentially a more general granular version (by grade instead of through education levels) of the Transition Rate.

ANALYSIS AND DISCUSSIONS

The transition rate ECE=>Primary (shown as GK->G1) very high at 111-105% for males and females respectively (Figure 2.1.) Note that the high transition is unfortunately deceiving as it is distorted by two major factors:

- Significantly increased because of Chuuk's under reporting last year;
- Significantly decreased because of Yap's over enrollments in ECE ending up in dropouts

The transition Primary=>Secondary (shown as G8->G9) is also high at 85% and 89% for males and females respectively this time Chuuk having a lesser effect as inconsistent data is mostly in primary schools.
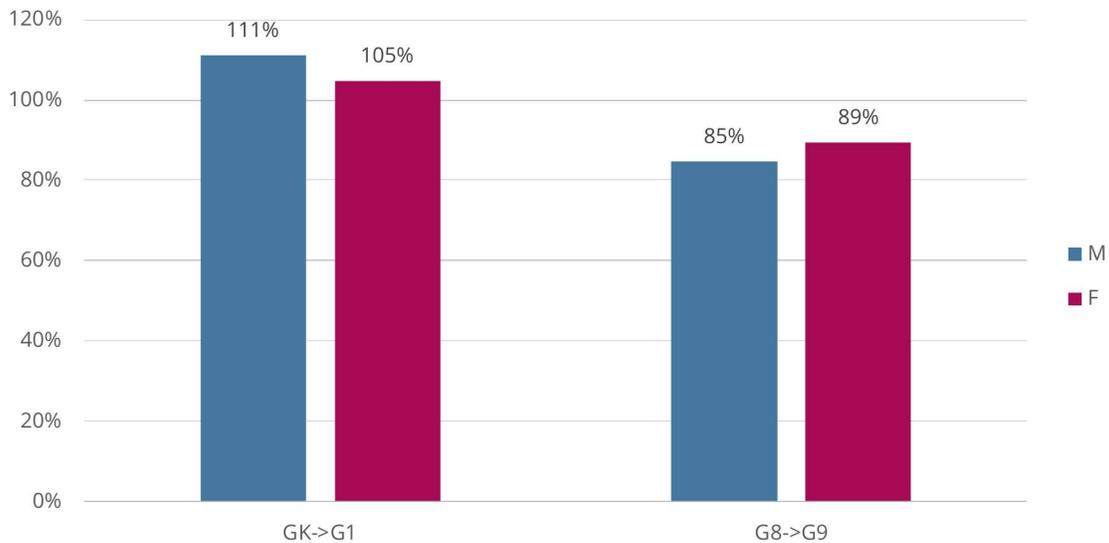
Figure 2.1: Transition ECE=>Primary and Primary=>Secondary for nation by gender

The trends shown in Figure 2.2 shows a return from the decline of a couple of years ago with a slight increase for ECE=>Primary. Primary->Secondary had an unusual increase last year driven by Chuuk's inconsistent data but is seeing a return to normalcy this year (Figure 2.2).
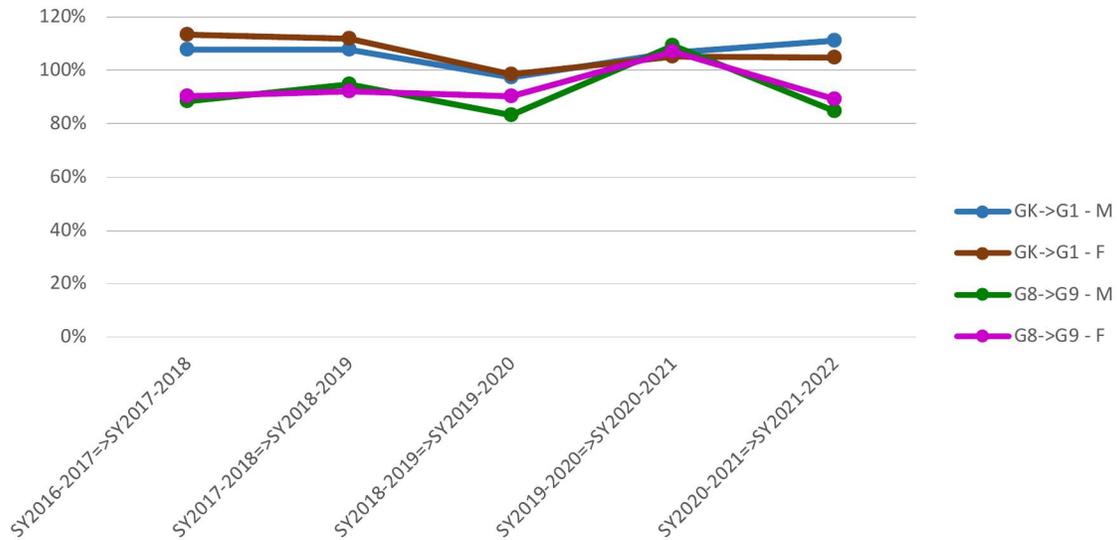
Figure 2.2: Transition ECE=>Primary and Primary=>Secondary by gender for past 5 years

Looking at this data for all states in Figure 2.3 confirms what was stated previously about Chuuk and Yap's effect on the overall average.

Chuuk's inconsistent data reporting (especially its under reporting last year) greatly affects all indicators nationally especially the flow indicators in this chapter.

Chuuk has the poorest data clearly shown by very high transition rates (>144%) for both ECE->Primary and Primary->Secondary. The high ECE->Primary in Chuuk is further amplified by the particularly low participation into ECE. Pohnpei has a very high ECE->Primary at 108% but this is likely because of the lack of ECE enforcement resulting in more students "appearing" in grade 1 not previously in ECE last year and not so much because of a lack of consistent data reporting. This would drastically improve with compulsory Grade Kinder nation-wide. Kosrae has the best data with excellent transition rates. Yap and Pohnpei are close second but Yap is affected by over enrollments in ECE that don't make it to Grade 1 as many of them were too young to be there in the first place.
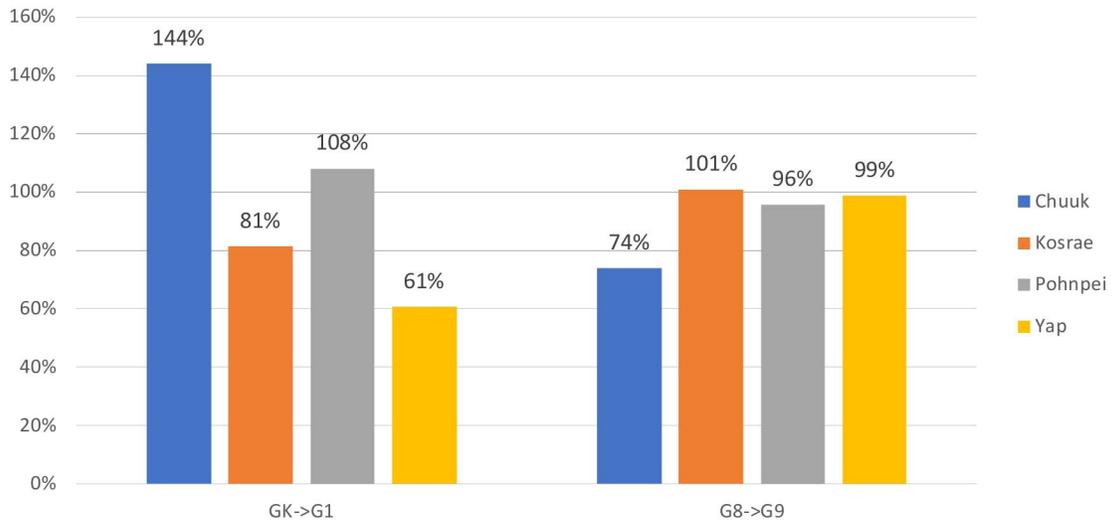
Figure 2.3: Transition ECE=>Primary and Primary=>Secondary by state

All the transition rates data for all states and the last five years can be found in Table 2.1.

Table 2.1: Transition Rates for last five year for all states

Transition Rates	Chuuk GK->G1	Chuuk G8->G9	Chuuk Total	Kosrae GK->G1	Kosrae G8->G9	Kosrae Total	Pohnpei GK->G1	Pohnpei G8->G9	Pohnpei Total	Yap GK->G1	Yap G8->G9	Yap Total
SY2016-2017=>SY2017-2018	117%	78%	97%	93%	114%	103%	138%	93%	116%	61%	99%	80%
SY2017-2018=>SY2018-2019	121%	88%	104%	92%	114%	103%	118%	94%	106%	69%	99%	84%
SY2018-2019=>SY2019-2020	104%	74%	89%	99%	99%	99%	114%	91%	102%	55%	117%	86%
SY2019-2020=>SY2020-2021	130%	130%	130%	91%	102%	97%	113%	93%	103%	54%	100%	77%
SY2020-2021=>SY2021-2022	145%	74%	110%	82%	101%	92%	108%	96%	102%	61%	99%	80%

DEFINITION AND PURPOSE

Proportion of pupils from a cohort enrolled in a given grade at a given school year who study in the next grade in the following school year. It is meant to measure the performance of the education system in promoting pupils from a cohort from grade to grade, and its effect on the internal efficiency of educational systems. It is also a key indicator for analyzing and projecting pupil flows from grade to grade within the educational cycle.

METHODS OF CALCULATION

This is calculated just like in (UNESCO Institute for Statistics, 2009): Divide the number of new enrollment in a given grade in school year $t+1$ by the number of pupils from the same cohort enrolled in the preceding grade in the previous school year t.

ANALYSIS AND DISCUSSIONS

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 K and 8—representing ECE=>Primary and Primary=>Secondary transitions respectively—are shown and discussed above in Transition Rate already. The two main things to observe from Figure 2.4 are:

- A very acceptable promotion rate for most grades. This means once student make it to a grade they are quite likely to promote to the next grade.
- There is a very slight decline as the year (grade levels) progresses into the education system.
- The promotion from grade 12 is not calculated using the re-constructed cohort method but we offer an alternative estimate with the graduation rate indicator.

Figure 2.4: Promotion by grade and gender for nation

It is important to look at individual states as we know Chuuk's data distorts the national average. This is confirmed in Figure 2.5 where Chuuk has higher than 100% for many grade promotions due to their under reporting the previous year. It is noteworthy that Chuuk has improved data reporting this year compare to the last one.

Pohnpei, Kosrae and Yap all show very good promotion rates except for the GK which is until now still not compulsory.
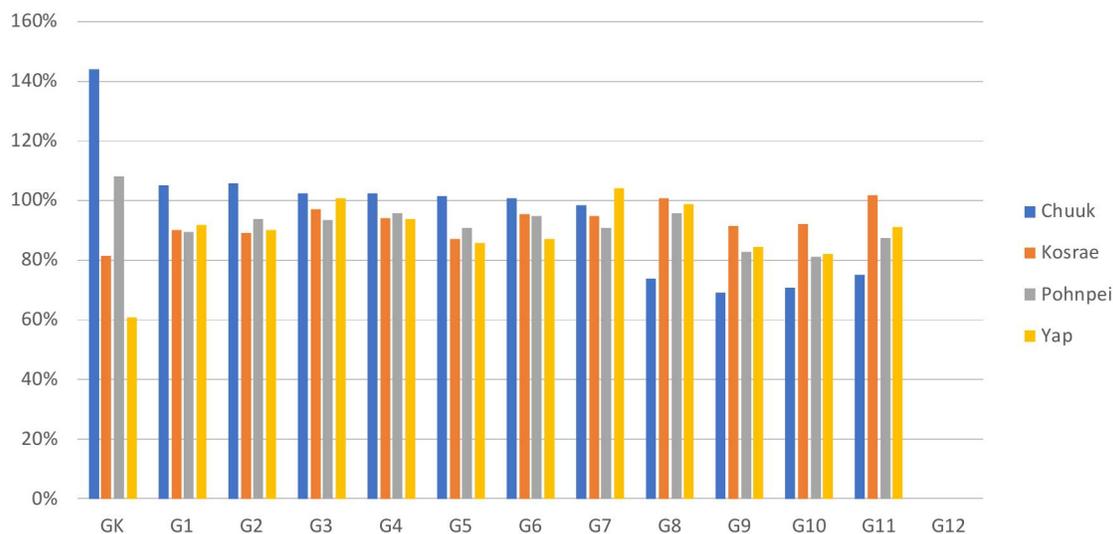
Figure 2.5: Promotion by grade and gender by state

All the promotion rate data for all states and five years can be found in Table 2.2.

SURVIVAL RATE (SR)

DEFINITION AND PURPOSE

Percentage of a cohort of pupils enrolled in the first grade of a given level or cycle of education in a given school year who are expected to reach successive grades. It is meant to measure the retention capacity and internal efficiency of an education system. It illustrates the situation regarding retention of pupils from grade to grade in schools, and conversely the magnitude of dropout by grade.

METHODS OF CALCULATION

This is calculated just like in (UNESCO Institute for Statistics, 2009): Divide the total number of pupils belonging to a school-cohort who reached each successive grade of the specified level of education by the number of pupils in the school-cohort i.e. those originally enrolled in the first grade of primary education, and multiply the result by 100. The survival rate is calculated on the basis of the reconstructed cohort method, which uses data on enrollment and repeaters for two consecutive years.

Table 2.2: Promotion Rates for last five year for all states

Promotion Rates	GK	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
SY2016-2017=>SY2017-2018	**102%**	**93%**	**95%**	**96%**	**100%**	**94%**	**97%**	**91%**	**96%**	**86%**	**85%**	**91%**	**0%**
Chuuk	116%	93%	87%	92%	94%	86%	92%	84%	78%	82%	79%	81%	0%
Kosrae	92%	97%	95%	99%	96%	95%	98%	96%	115%	80%	84%	104%	0%
Pohnpei	137%	104%	104%	104%	106%	106%	105%	100%	93%	107%	104%	92%	0%
Yap	61%	79%	94%	91%	104%	88%	94%	86%	99%	73%	72%	87%	0%
SY2017-2018=>SY2018-2019	**100%**	**92%**	**94%**	**94%**	**95%**	**92%**	**91%**	**88%**	**99%**	**76%**	**84%**	**93%**	**0%**
Chuuk	120%	97%	94%	97%	90%	88%	83%	81%	88%	82%	72%	82%	0%
Kosrae	92%	95%	96%	98%	95%	100%	101%	92%	113%	76%	95%	104%	0%
Pohnpei	118%	94%	93%	92%	91%	95%	90%	90%	94%	79%	81%	87%	0%
Yap	70%	83%	93%	89%	101%	85%	89%	89%	99%	68%	88%	98%	0%
SY2018-2019=>SY2019-2020	**93%**	**90%**	**94%**	**93%**	**91%**	**89%**	**88%**	**90%**	**95%**	**77%**	**83%**	**86%**	**0%**
Chuuk	103%	83%	89%	82%	82%	82%	73%	79%	74%	76%	70%	74%	0%
Kosrae	99%	97%	98%	97%	100%	99%	96%	97%	99%	78%	91%	96%	0%
Pohnpei	114%	91%	94%	94%	93%	95%	93%	92%	91%	76%	86%	85%	0%
Yap	55%	89%	96%	98%	91%	81%	89%	92%	118%	80%	83%	89%	0%
SY2019-2020=>SY2020-2021	**97%**	**93%**	**98%**	**97%**	**96%**	**98%**	**96%**	**95%**	**106%**	**95%**	**90%**	**94%**	**0%**
Chuuk	130%	108%	105%	103%	106%	106%	103%	104%	130%	104%	103%	102%	0%
Kosrae	91%	86%	94%	95%	92%	95%	97%	91%	101%	99%	90%	94%	0%
Pohnpei	113%	93%	96%	96%	95%	95%	92%	94%	93%	87%	82%	90%	0%
Yap	54%	85%	96%	94%	91%	98%	93%	90%	100%	91%	86%	90%	0%
SY2020-2021=>SY2021-2022	**99%**	**94%**	**95%**	**99%**	**97%**	**91%**	**95%**	**97%**	**92%**	**82%**	**81%**	**89%**	**0%**
Chuuk	144%	105%	106%	103%	102%	101%	101%	98%	74%	69%	71%	75%	0%
Kosrae	81%	90%	89%	97%	94%	87%	96%	95%	101%	92%	92%	102%	0%
Pohnpei	108%	89%	94%	93%	96%	91%	95%	91%	96%	83%	81%	87%	0%
Yap	61%	92%	90%	101%	94%	86%	87%	104%	99%	85%	82%	91%	0%

ANALYSIS AND DISCUSSIONS

The survival rates (Figure 2.6) read like this:

- Survival Rates (from G1) in legend to Grade 8 (left on horizontal 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 (left on horizontal 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 (right in horizontal 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 are extra bars above the Grade 12 horizontal 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 significantly higher survival rate than males: 78% vs 86% surviving to grade 8, 33% vs 40% surviving to grade 12, and 50% vs 52% surviving to grade 12 when making it to grade 9 (Figure 2.6.)
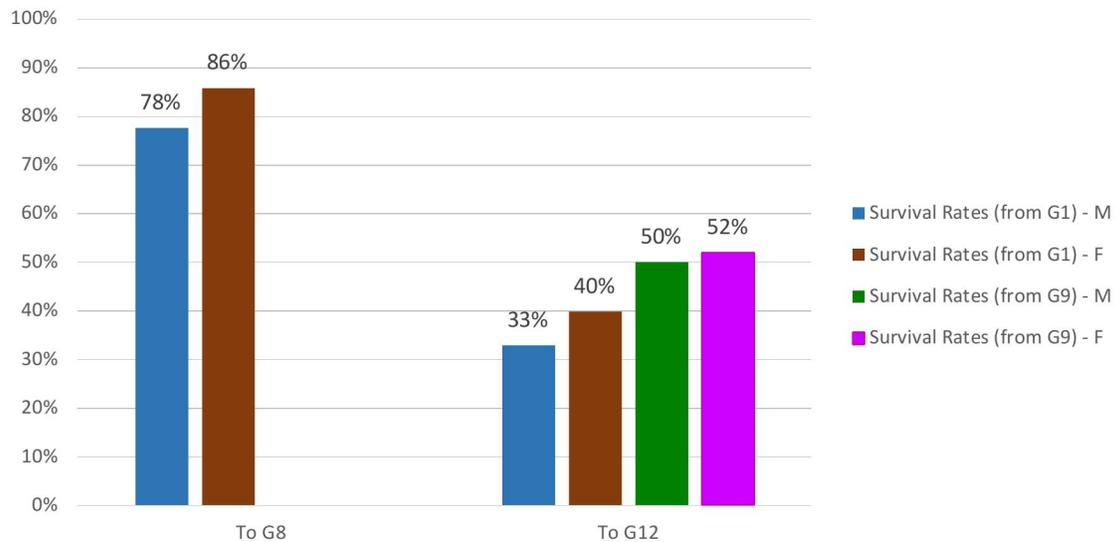
Figure 2.6: Survival rates by gender for the nation

The unusual peak in last year's trend—largely caused by Chuuk's poor data consistency—is returning to normal due to Chuuk's improved data this year (Figure 2.7).
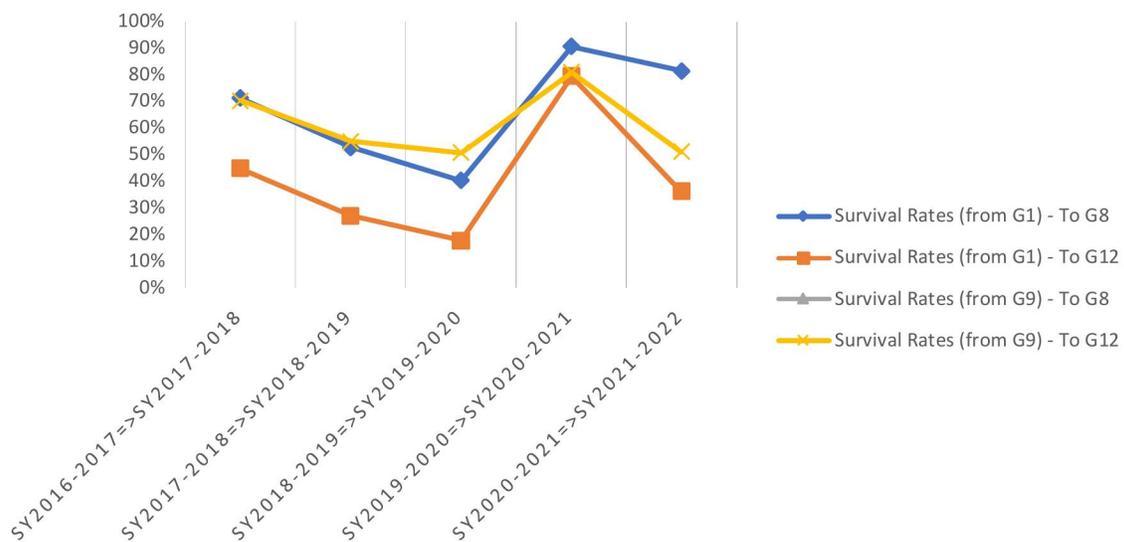
Figure 2.7: Survival Rates Trend

Looking at state data we again obverse the negative impact of Chuuk especially in the Survival Rates from G1 to G8 at 117% (Figure 2.8). Yap has the highest survival rate from Grade 1 to 8 at 61% followed by Pohnpei and Kosrae at 59% and 58% respectively. Kosrae has the highest survival rate from Grade 1 to Grade 12 at 50%

following by Yap at 38% and Pohnpei at 33%. When students make it to Grade 9 Kosrae students are the most likely to survive until Grade 12 with 86% following by Yap (63%) and Pohnpei (59%).

Chuuk's figures can not be relied on except to demonstrate the needs to drastically improve their data collection.
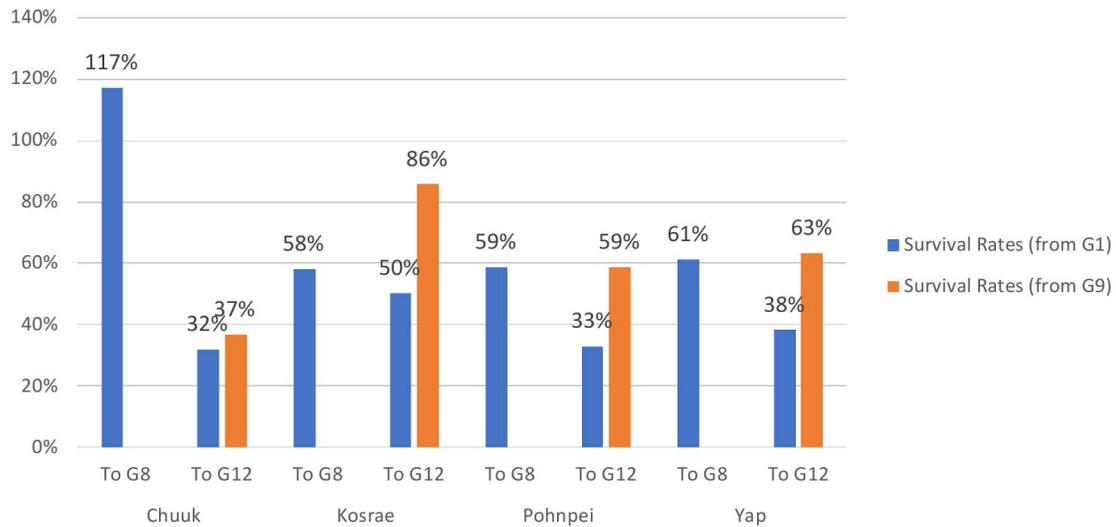
Figure 2.8: Survival rates by gender for the nation

All the survival rates data for all states and five years can be found in Table 2.3 and 2.4.

Table 2.3: Survival Rates for last five year for all states

Survival Rates (from G1)

	Chuuk		Chuuk Tot	Kosrae		Kosrae Total	Pohnpei		Pohnpei Total	Yap		Yap Total
	G1 to G8	G1 to G12		G1 to G8	G1 to G12		G1 to G8	G1 to G12		G1 to G8	G1 to G12	
SY2016-2017=>SY2017-2018	46%	19%	32%	79%	63%	71%	132%	127%	130%	50%	23%	36%
SY2017-2018=>SY2018-2019	47%	20%	34%	79%	67%	73%	57%	30%	44%	47%	27%	37%
SY2018-2019=>SY2019-2020	24%	7%	15%	85%	57%	71%	60%	30%	45%	50%	35%	42%
SY2019-2020=>SY2020-2021	140%	200%	170%	59%	50%	55%	67%	40%	53%	56%	40%	48%
SY2020-2021=>SY2021-2022	117%	32%	75%	58%	50%	54%	59%	33%	46%	61%	38%	50%

Table 2.4: Survival Rates for last five year for all states

Survival Rates (from G9)

	Chuuk	Chuuk Total	Kosrae	Kosrae Total	Pohnpei	Pohnpei Total	Yap	Yap Total
	G9 to G12		G9 to G12		G9 to G12		G9 to G12	
SY2016-2017=>SY2017-2018	53%	53%	69%	69%	103%	103%	46%	46%
SY2017-2018=>SY2018-2019	49%	49%	75%	75%	56%	56%	58%	58%
SY2018-2019=>SY2019-2020	39%	39%	68%	68%	55%	55%	59%	59%
SY2019-2020=>SY2020-2021	109%	109%	84%	84%	64%	64%	70%	70%
SY2020-2021=>SY2021-2022	37%	37%	86%	86%	59%	59%	63%	63%

DEFINITION AND PURPOSE

Proportion of pupils from a cohort enrolled in a given grade at a given school year who study in the same grade in the following school year. It is meant to measure the rate at which pupils from a cohort repeat a grade, and its effect on the internal efficiency of educational systems. In addition, it is one of the key indicators for analyzing and projecting pupil flows from grade to grade within the educational cycle. *Not to be confused with the Percentage of Repeaters indicator which is elsewhere and slightly different.*

METHODS OF CALCULATION

This is calculated just like in (UNESCO Institute for Statistics, 2009): Divide the number of repeaters in a given grade in school year *t+1* by the number of pupils from the same cohort enrolled in the same grade in the previous school year *t*.

ANALYSIS AND DISCUSSIONS

The repetition rate by grade (Figure 2.9) are low in general. Aside from the slightly higher repeating males in grade 1, 9 and 10, the general repetition rate by grades is around 0.5 to 3%. The repetition rate is similar across most grades with 8 grade seeing slightly lower repetition rates.
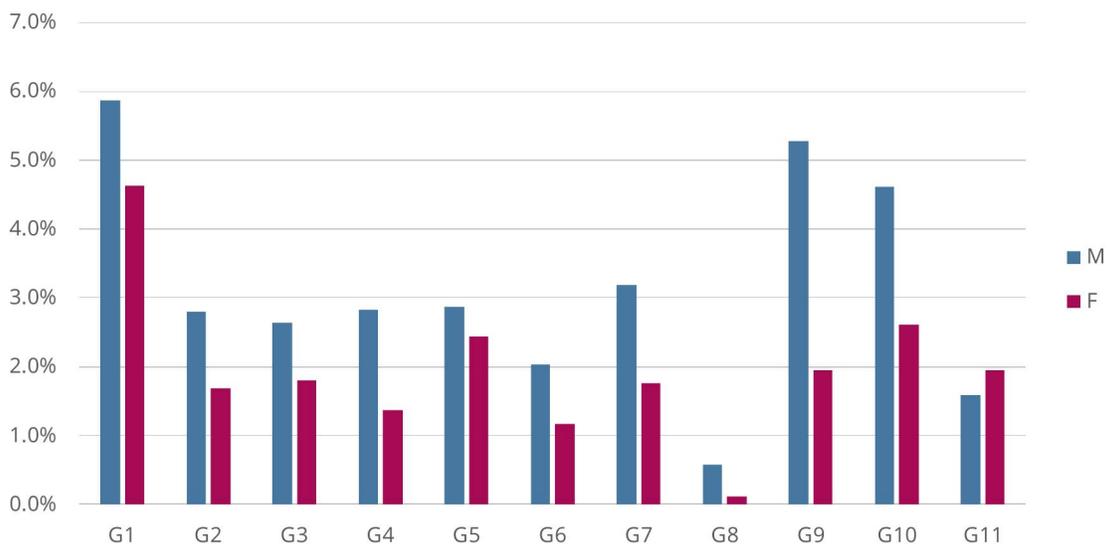
Figure 2.9: Repetition Rate by gender and grade (using reconstructed cohort)

Yap, Ponhpei and Chuuk have the highest number of repeaters while Kosrae tend to not repeat students much. Chuuk seem to have reported on repeaters this year much better than last year. Yap's stricking 50% of ECE repeaters shown in Figure 2.10 is proof of what has been mentioned throughout this publication about Yap over enrolling kids too young for ECE only to dropout and come back distorting some indicators.
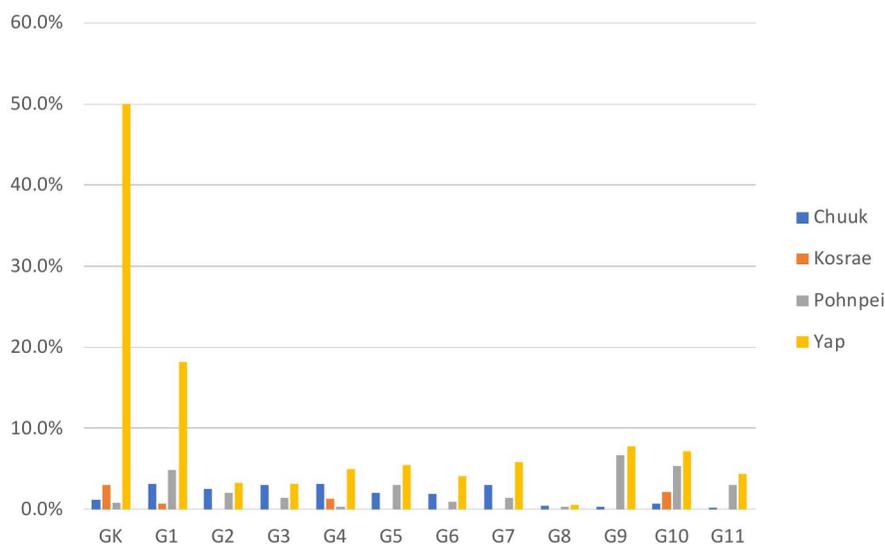
Figure 2.10: Repetition Rate by gender and grade (using reconstructed cohort)

Repetition rates by grade data for all states and five years can be found in Table 2.5.

DROPOUT RATE (DR)

Here we will discuss the dropout rate by grade, the cumulative dropout rate and reasons behind dropouts.

DEFINITION AND PURPOSE

DROPOUT RATE BY GRADE (DR BY GRADE)

Proportion of pupils from a cohort enrolled in a given grade at a given school year who are no longer enrolled in the following school year. It is meant to measure the phenomenon of pupils from a cohort leaving school without completion, and its effect on the internal efficiency of educational systems. In addition, it is one of the key indicators for analyzing and projecting pupil flows from grade to grade within the educational cycle.

DROPOUT RATE CUMULATIVE (DR CUMULATIVE)

Proportion of pupils from a cohort enrolled in a given grade at a given school year (e.g. Grade 1) who are no longer enrolled in another school year (e.g. Grade 8). It is meant to get an idea of cumulative dropouts over multiple years.

METHODS OF CALCULATION

DROPOUT RATES (DR)

This is calculated just like in (UNESCO Institute for Statistics, 2009): Dropout rate by grade is calculated by subtracting the sum of promotion rate and repetition rate from 100 in the given school year.

DROPOUT RATE CUMULATIVE (DR CUMULATIVE)

This is calculated just like in (UNESCO Institute for Statistics, 2009): by subtracting the survival rate from 100% at a given grade (see Survival Rate above).

Table 2.5: Repetition Rates for last five year for all states

Repetition Rates Trend	GK	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11
SY2016-2017=>SY2017-2018	**45.1%**	**19.4%**	**17.3%**	**14.1%**	**9.2%**	**9.2%**	**15.5%**	**18.3%**	**6.5%**	**21.6%**	**13.6%**	**11.2%**
Chuuk	8.0%	5.0%	6.1%	5.1%	2.4%	3.2%	4.3%	7.0%	4.1%	2.7%	2.1%	2.6%
Kosrae	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Pohnpei	0.0%	1.2%	2.4%	1.0%	0.3%	0.1%	0.1%	3.2%	1.5%	0.0%	0.0%	0.0%
Yap	37.1%	13.2%	8.7%	8.0%	6.6%	5.9%	11.1%	8.1%	0.9%	18.9%	11.5%	8.6%
SY2017-2018=>SY2018-2019	**58.0%**	**19.0%**	**15.4%**	**9.4%**	**8.1%**	**12.9%**	**12.8%**	**11.9%**	**6.1%**	**23.7%**	**15.7%**	**6.2%**
Chuuk	3.5%	4.4%	3.9%	2.7%	3.1%	3.4%	3.5%	2.3%	2.3%	1.9%	0.9%	0.6%
Kosrae	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Pohnpei	0.6%	4.1%	3.2%	1.8%	1.6%	1.8%	0.8%	3.0%	3.2%	3.5%	3.8%	0.3%
Yap	54.0%	10.5%	8.2%	4.9%	3.4%	7.7%	8.5%	6.6%	0.5%	18.3%	11.0%	5.3%
SY2018-2019=>SY2019-2020	**36.6%**	**19.4%**	**10.0%**	**9.7%**	**6.4%**	**13.6%**	**10.5%**	**5.5%**	**3.2%**	**8.1%**	**9.3%**	**7.6%**
Chuuk	3.7%	3.7%	2.4%	3.2%	1.7%	3.9%	3.1%	0.9%	1.0%	2.5%	0.9%	2.5%
Kosrae	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Pohnpei	0.1%	3.5%	4.2%	2.9%	2.0%	2.2%	1.6%	0.7%	0.5%	3.2%	4.5%	3.0%
Yap	32.7%	12.1%	2.8%	3.6%	2.7%	7.5%	5.8%	3.9%	1.7%	2.4%	3.9%	2.1%
SY2019-2020=>SY2020-2021	**55.3%**	**16.8%**	**6.8%**	**4.3%**	**4.7%**	**7.0%**	**3.7%**	**5.3%**	**1.7%**	**7.5%**	**13.0%**	**5.3%**
Chuuk	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.3%	0.0%	0.3%
Kosrae	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Pohnpei	0.0%	4.3%	1.9%	1.5%	1.5%	2.2%	0.6%	1.7%	1.2%	5.8%	12.5%	4.5%
Yap	55.3%	12.5%	4.8%	2.8%	3.2%	4.6%	3.1%	3.6%	0.5%	1.4%	0.5%	0.6%
SY2020-2021=>SY2021-2022	**54.9%**	**26.9%**	**7.8%**	**7.5%**	**9.6%**	**10.5%**	**6.8%**	**10.3%**	**1.2%**	**14.8%**	**15.4%**	**7.6%**
Chuuk	1.2%	3.2%	2.5%	3.0%	3.1%	2.0%	1.8%	3.0%	0.4%	0.4%	0.6%	0.2%
Kosrae	3.0%	0.7%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%
Pohnpei	0.8%	4.9%	2.0%	1.3%	0.2%	3.0%	0.9%	1.4%	0.3%	6.7%	5.4%	3.0%
Yap	50.0%	18.2%	3.3%	3.1%	5.0%	5.5%	4.1%	5.9%	0.6%	7.7%	7.2%	4.4%

ANALYSIS AND DISCUSSIONS

DROPOUT RATE BY GRADE

The most stricken observation in Figure 2.11 is the several negative dropout rates in grade 1 to 4. This is unfortunately largely because of Chuuk's inconsistent data again as we will see shortly (and Yap to a lesser extent). We can still observe there are increasingly more dropouts in higher grades nationwide.
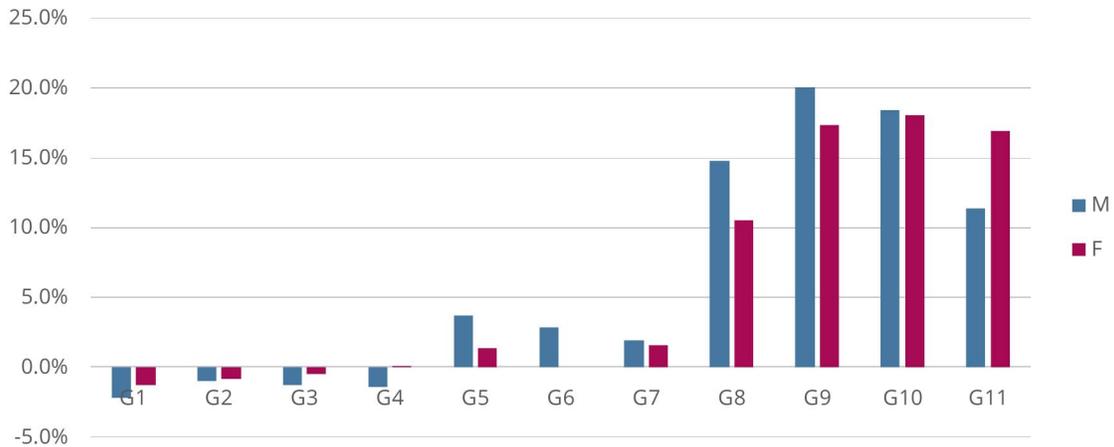
Figure 2.11: Dropout rates by gender for the nation

Dropout by state is shown in Figure 2.12 and confirms Chuuk as the culprit to push most nationwide dropout rates into negative territory. In the other three states, Kosrae has the highest dropout in primary grades. Dropout starts in the 1-3% range in early grades to increase in the 6-10% range near the end of primary onwards.

All dropout rates data for all states and five years is shown in Table 2.6.
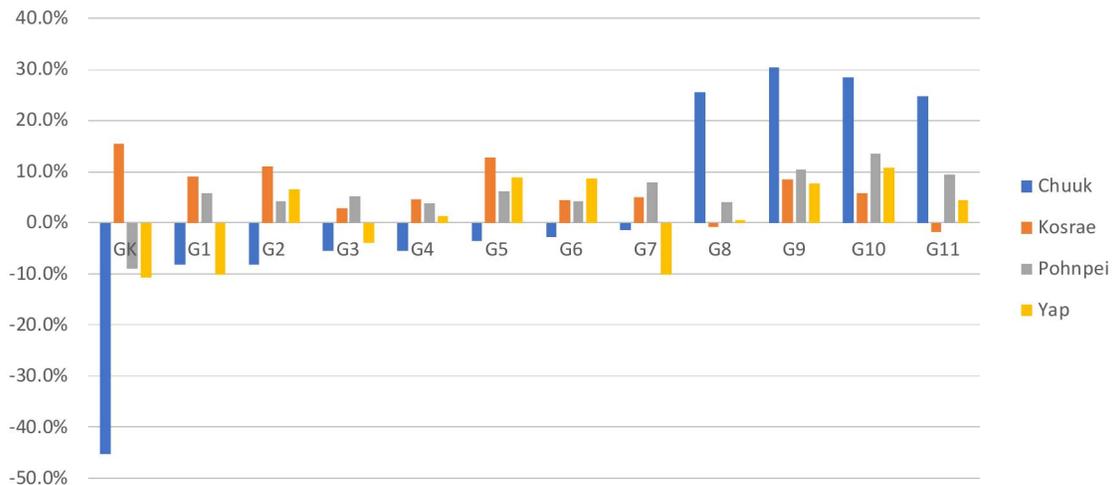
Figure 2.12: Dropout rates by state and gender

DROPOUT RATE CUMULATIVE (DR CUMULATIVE)

The cumulative dropout rate from Grade 1 to Grade 8 averages about 18% (survival 82%,) an acceptable figure that should still be improved. However, the cumulative dropout rate increases to 64% from Grade 1 to 12 (Figure 2.13.)

Table 2.6: Dropout Rates for last five year for all states

Dropout Rates Trend	GK	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11
SY2016-2017=>SY2017-2018	**-51.2%**	**7.1%**	**1.9%**	**0.3%**	**-9.0%**	**16.5%**	**-3.3%**	**15.9%**	**8.9%**	**36.4%**	**47.0%**	**25.1%**
Chuuk	-24.3%	2.3%	6.6%	3.3%	3.9%	11.0%	4.1%	9.2%	18.0%	15.3%	19.0%	16.2%
Kosrae	7.9%	2.9%	4.6%	1.3%	3.8%	4.9%	1.9%	4.0%	-14.9%	20.4%	16.0%	-3.8%
Pohnpei	-36.9%	-5.6%	-6.5%	-5.2%	-6.5%	-5.6%	-4.6%	-2.9%	5.4%	-7.2%	-4.3%	7.9%
Yap	2.1%	7.4%	-2.9%	0.9%	-10.1%	6.3%	-4.7%	5.6%	0.4%	7.9%	16.3%	4.8%
SY2017-2018=>SY2018-2019	**-58.4%**	**11.9%**	**8.0%**	**15.2%**	**13.5%**	**19.4%**	**23.8%**	**35.9%**	**-0.5%**	**71.0%**	**48.3%**	**22.9%**
Chuuk	-23.8%	-1.4%	1.8%	0.4%	6.8%	9.1%	13.4%	16.4%	9.8%	15.9%	27.0%	17.2%
Kosrae	7.7%	5.2%	3.6%	2.1%	4.6%	0.0%	-0.6%	8.4%	-13.3%	23.8%	4.9%	-3.7%
Pohnpei	-18.9%	1.9%	3.7%	6.3%	7.0%	3.1%	9.0%	6.6%	2.6%	17.9%	15.0%	12.4%
Yap	-23.5%	6.2%	-1.2%	6.6%	-4.9%	7.3%	2.0%	4.6%	0.5%	13.4%	1.4%	-3.0%
SY2018-2019=>SY2019-2020	**-8.1%**	**21.7%**	**13.4%**	**19.4%**	**28.5%**	**29.7%**	**37.7%**	**33.9%**	**15.7%**	**82.3%**	**60.4%**	**49.4%**
Chuuk	-7.2%	13.5%	8.3%	14.6%	16.8%	14.3%	23.5%	20.0%	24.7%	21.7%	29.3%	23.6%
Kosrae	1.3%	3.2%	1.2%	3.1%	0.0%	1.4%	3.9%	2.6%	1.4%	22.2%	8.5%	4.4%
Pohnpei	-14.6%	5.7%	2.3%	3.3%	5.0%	2.5%	5.4%	7.0%	8.9%	21.2%	9.4%	12.1%
Yap	12.3%	-0.8%	1.6%	-1.6%	6.7%	11.5%	4.8%	4.3%	-19.3%	17.1%	13.1%	9.3%
SY2019-2020=>SY2020-2021	**-43.9%**	**10.0%**	**2.3%**	**7.7%**	**12.5%**	**-0.9%**	**11.5%**	**16.6%**	**-26.0%**	**11.7%**	**26.0%**	**18.5%**
Chuuk	-30.1%	-8.5%	-5.0%	-3.3%	-5.7%	-6.0%	-2.8%	-3.7%	-30.4%	-4.4%	-2.6%	-2.6%
Kosrae	9.0%	13.6%	6.0%	4.9%	8.4%	4.9%	2.8%	9.0%	-1.3%	1.4%	9.5%	6.2%
Pohnpei	-13.0%	2.3%	1.8%	2.8%	3.8%	2.5%	7.3%	4.6%	6.2%	7.2%	5.7%	5.2%
Yap	-9.7%	2.5%	-0.4%	3.2%	6.0%	-2.3%	4.1%	6.7%	-0.5%	7.5%	13.3%	9.7%
SY2020-2021=>SY2021-2022	**-49.2%**	**-3.3%**	**13.5%**	**-1.6%**	**4.2%**	**24.4%**	**14.6%**	**1.4%**	**29.3%**	**57.0%**	**58.7%**	**37.0%**
Chuuk	-45.2%	-8.2%	-8.2%	-5.5%	-5.4%	-3.5%	-2.7%	-1.4%	25.7%	30.3%	28.5%	24.8%
Kosrae	15.6%	9.2%	11.0%	2.8%	4.5%	12.8%	4.4%	5.1%	-0.9%	8.4%	5.8%	-1.8%
Pohnpei	-8.9%	5.7%	4.2%	5.2%	3.9%	6.2%	4.2%	7.8%	4.0%	10.5%	13.6%	9.5%
Yap	-10.7%	-10.0%	6.5%	-4.0%	1.2%	8.8%	8.6%	-10.1%	0.6%	7.7%	10.8%	4.4%
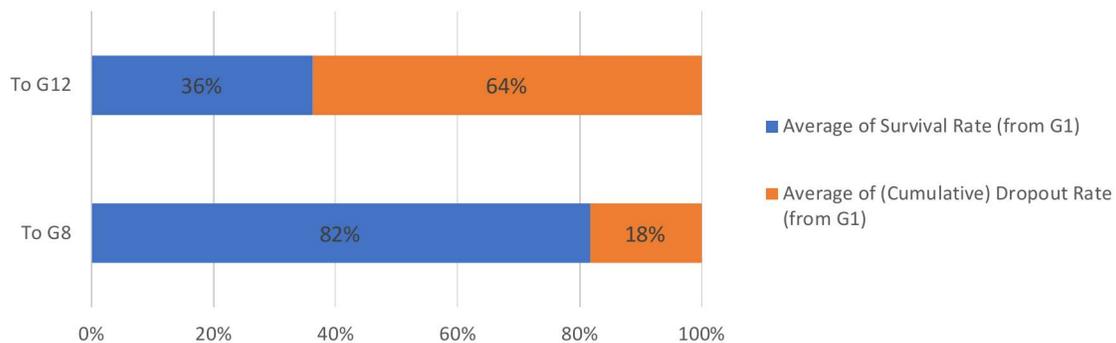
Figure 2.13: Cumulative Survival/Dropout rate

The cumulative dropout rate from Grade 1 to 8 is similar and high for all states at ~40% except Chuuk with an unreliable number of -17%. The cumulative dropout rate from Grade 1 to 12 further increases in the +60% range for all state.

Data so far indicates that there is a bigger problem of dropouts in rural schools especially in primary grades.
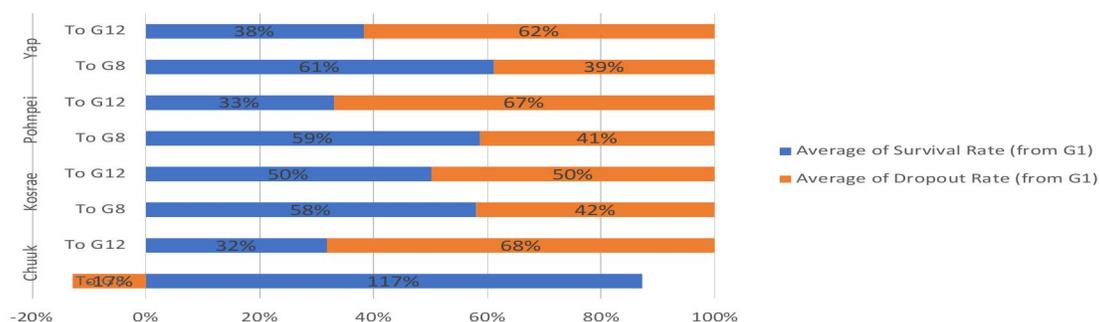
Figure 2.14: Cumulative Survival/Dropout rates by state

Table 2.7: Cumulative survival/dropout rates by region for the past 5 years

	SR (from G1)		DR (from G1)	
	To G8	**To G12**	**To G8**	**To G12**
SY2016-2017=>SY2017-2018	**77%**	**58%**	**23%**	**42%**
Chuuk	46%	19%	54%	81%
Kosrae	79%	63%	21%	37%
Pohnpei	132%	127%	-32%	-27%
Yap	50%	23%	50%	77%
SY2017-2018=>SY2018-2019	**57%**	**36%**	**43%**	**64%**
Chuuk	47%	20%	53%	80%
Kosrae	79%	67%	21%	33%
Pohnpei	57%	30%	43%	70%
Yap	47%	27%	53%	73%
SY2018-2019=>SY2019-2020	**55%**	**32%**	**45%**	**68%**
Chuuk	24%	7%	76%	93%
Kosrae	85%	57%	15%	43%
Pohnpei	60%	30%	40%	70%
Yap	50%	35%	50%	65%
SY2019-2020=>SY2020-2021	**81%**	**82%**	**19%**	**18%**
Chuuk	140%	200%	-40%	-100%
Kosrae	59%	50%	41%	50%
Pohnpei	67%	40%	33%	60%
Yap	56%	40%	44%	60%
SY2020-2021=>SY2021-2022	**74%**	**38%**	**26%**	**62%**
Chuuk	117%	32%	-17%	68%
Kosrae	58%	50%	42%	50%
Pohnpei	59%	33%	41%	67%
Yap	61%	38%	39%	62%
Grand Total	**69%**	**49%**	**31%**	**51%**

CHAPTER 3: SCHOOLS

This chapter includes both basic statistics on the schools in the FSM as well has enrollments by schools and other types of disaggregation.

BACKGROUND

DATA SOURCE

The primary data source for the data herein is the FedEMIS web portal and annual school census.

LIMITATIONS

The only true limitation here is the precision with which the annual census data is submitted by schools.

SCHOOLS DISTRIBUTION

DEFINITION AND PURPOSE

Schools in the FSM are managed either by the government or by non-government agencies such as the Church and other private sector organizations. All public and non-public schools are required to go through the annual accreditation certification. These basic statistics enables a better understanding of our school distribution.

METHODS OF CALCULATION

Each school in the FedEMIS can assign its geographical location (i.e. State, national/local electorate, Island/municipality, GPS coordinates), its managing authority (i.e. Public/Private). Producing the statistics in the table below is simply an automated count and processing of data on schools.

ANALYSIS AND DISCUSSIONS

There are 182 active schools in the FSM in 2022. This includes a special school in Kosrae for special education not always counted as a school but meeting criteria of a school and hence included just like the others along with its enrollments. Chuuk has the most schools with 75 following by Yap with 58 and Pohnpei with 40 (Figure 3.1.) Kosrae has 8 schools plus the 1 special school.
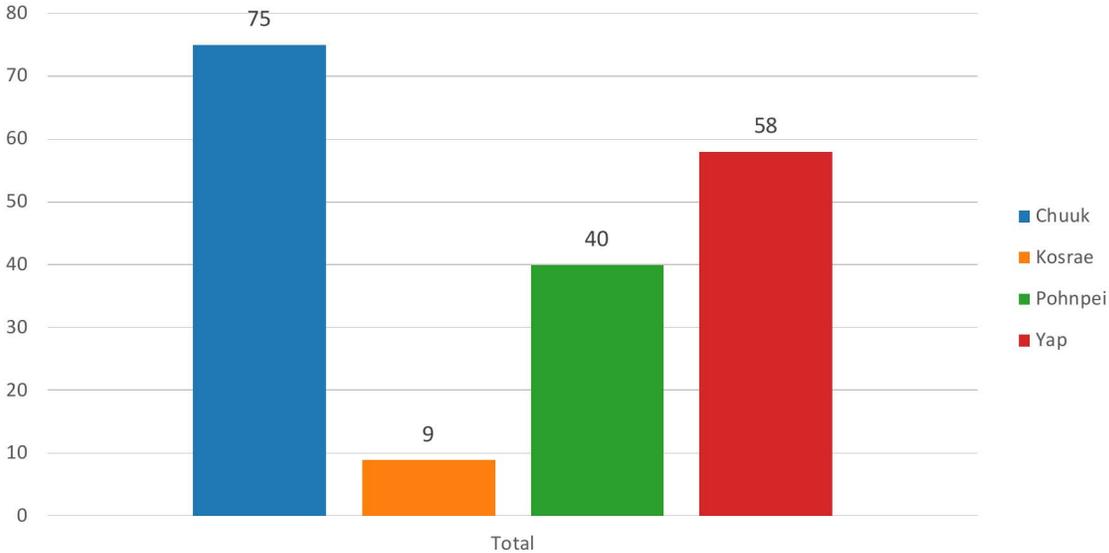
Figure 3.1: Distribution of schools by state

The States Department of Education manage most schools (163 in total) with the remaining 20 schools ran by churches and one by another private organization (Figure 3.2.) The most active church organizations (i.e. running at least 4 schools) include the Roman Catholic Church and the Seventh Day Adventist.
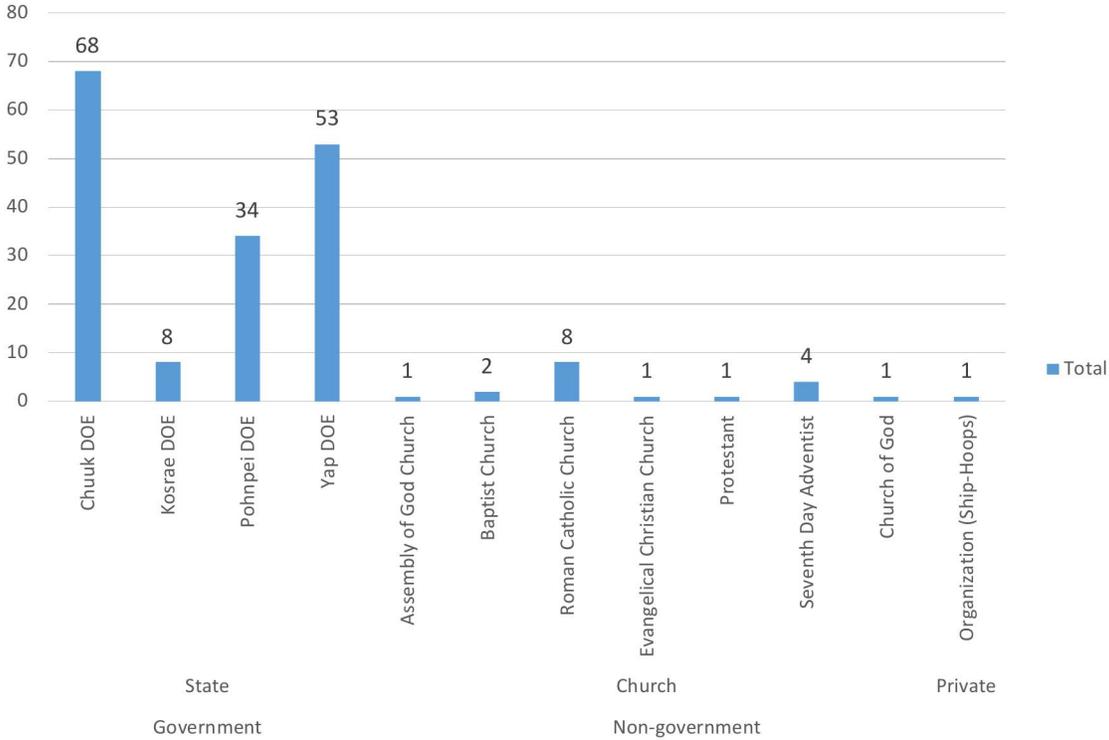
Figure 3.2: Distribution of schools by its managing authority

There are 163 public schools (i.e. Government) and 19 private schools (i.e. Non-Government). A total of 64 schools are considered to be on an outer island, 67 on the main island and the remaining 51 in the Chuuk lagoon (Figure 3.3.)
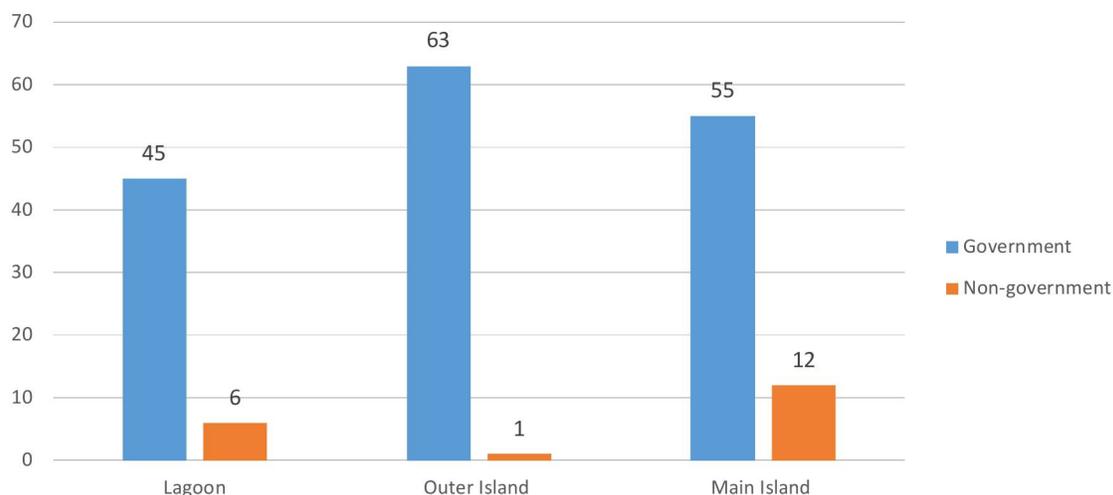
Figure 3.3: Distribution of schools by its region and managing authority

Table 3.1 shows a detailed distribution of the FSM schools used to produce the previous statistics. On the first column it first disaggregate by state followed by authority group (Government and Non-Government, also known as Public/Private) and finally by the managing authority. The region disaggregation is provided as additional columns in the table.

SCHOOLS ENROLLMENTS

DEFINITION AND PURPOSE

Total enrollments is the mostly used indicator for planning. We can present enrollments by many types of disaggregation including by State, Local/National Electorate, Managing Authority (i.e. Public/Private, Organizations), Region (Island, Rural/Urban).

Knowing how many enrollments nationwide is important but not enough for detailed planning. Statistics on enrollment by various types of disaggregation is also useful to plan expenditures.

Table 3.1: Schools by Region and Managing Authority

Count of Schools				
	Lagoon	Outer Island	Main Island	Grand Total
Chuuk	**51**	**24**		**75**
Government	**45**	**23**		**68**
Chuuk DOE	45	23		68
Non-government	**6**	**1**		**7**
Roman Catholic Church	3	1		4
Evangelical Christian Church	1			1
Seventh Day Adventist	1			1
Organization (Ship-Hoops)	1			1
Kosrae			**9**	**9**
Government			**8**	**8**
Kosrae DOE			8	8
Non-government			**1**	**1**
Seventh Day Adventist			1	1
Pohnpei		**5**	**35**	**40**
Government		**5**	**29**	**34**
Pohnpei DOE		5	29	34
Non-government			**6**	**6**
Assembly of God Church			1	1
Baptist Church			1	1
Roman Catholic Church			2	2
Protestant			1	1
Seventh Day Adventist			1	1
Yap		**35**	**23**	**58**
Government		**35**	**18**	**53**
Yap DOE		35	18	53
Non-government			**5**	**5**
Baptist Church			1	1
Roman Catholic Church			2	2
Seventh Day Adventist			1	1
Church of God			1	1
Grand Total	**51**	**64**	**67**	**182**

METHODS OF CALCULATION

Each school in the FedEMIS can assign its geographical location (i.e. State, national/local electorate, Island/municipality, GPS coordinate, Region), its managing authority (i.e. Government run, Non-government). That said, any data that is correctly tied to a school in FedEMIS can be analyzed by all the supported types of disaggregation; whether this is enrollments from the annual census, school accreditation or WASH surveys, exams performance, locations of teachers, etc. The focus herein is enrollments as there are dedicated chapters for other type of data.

ANALYSIS AND DISCUSSIONS

Chuuk and Pohnpei have the highest enrollment with 10580 and 8968 respectively while Yap has 2827 and Kosrae has 1638 enrollments. Together Chuuk and Pohnpei make up ~80% of all FSM enrollments.
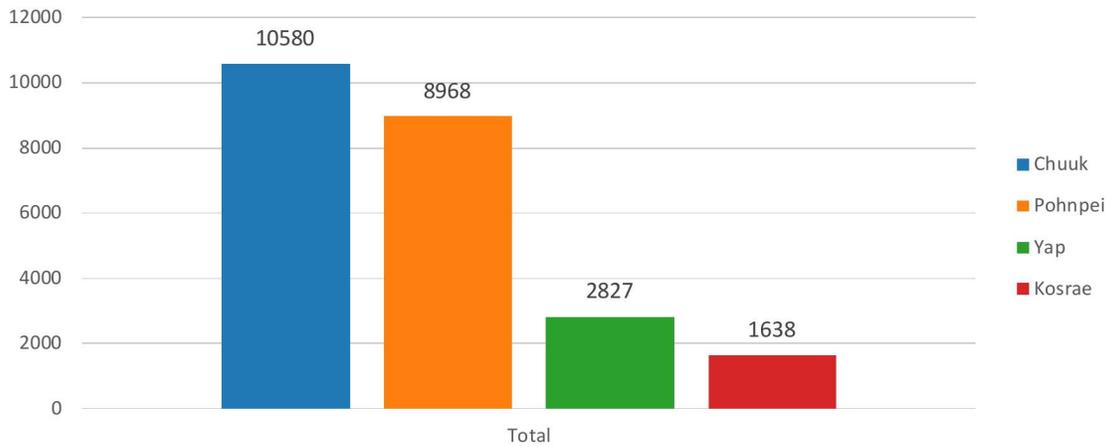
Figure 3.4: Schools enrollment by state

The trend of enrollments is relatively steady over the past five years with a slight decline mostly seen for Chuuk and Pohnpei over the recent years (Figure 3.5.) Chuuk's under reporting of enrollments a couple of years ago is clearly seen in Figure 3.5 though has seen been readjusted.
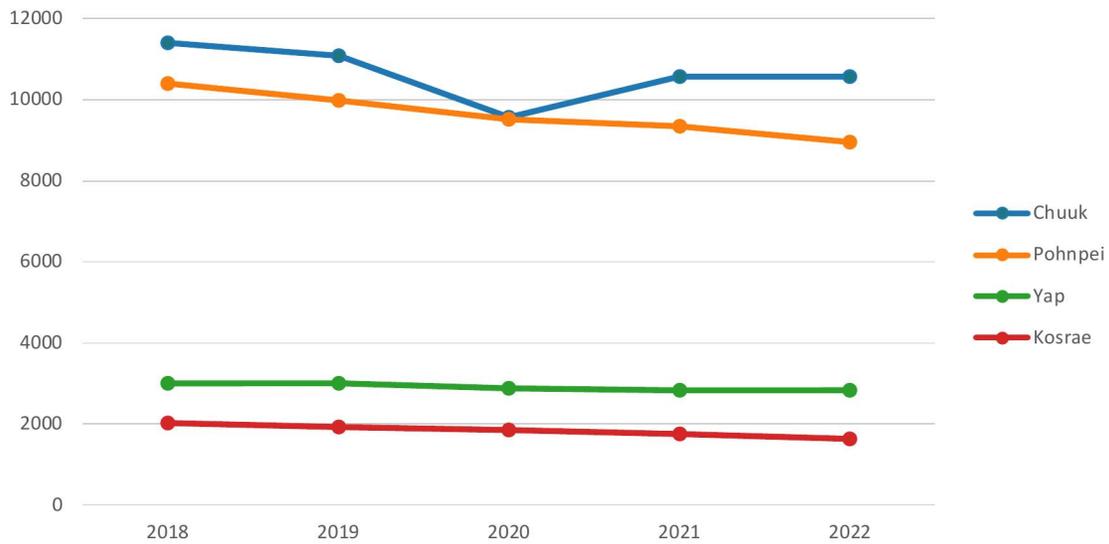
Figure 3.5: School enrollments by state trend

Table 3.2: Enrollments by State for last five years

Enrolment	Chuuk	Pohnpei	Yap	Kosrae	Grand Total
2018	11413	10392	2993	2013	26811
2019	11088	9997	3011	1919	26015
2020	9572	9514	2890	1853	23829
2021	10566	9360	2839	1751	24516
2022	10580	8968	2827	1638	24013

Similarly, the four state departments of education handle most of the enrollments (20,557) (Figure 3.6) followed by 1687 enrolled in Roman Catholic run schools and 644 in SDA run schools. The enrollments in schools run by the Department of Education in Pohnpei are on the decline while enrollments in schools run by most other managing authorities are steady (Figure 3.7) with data included in Table 3.3.
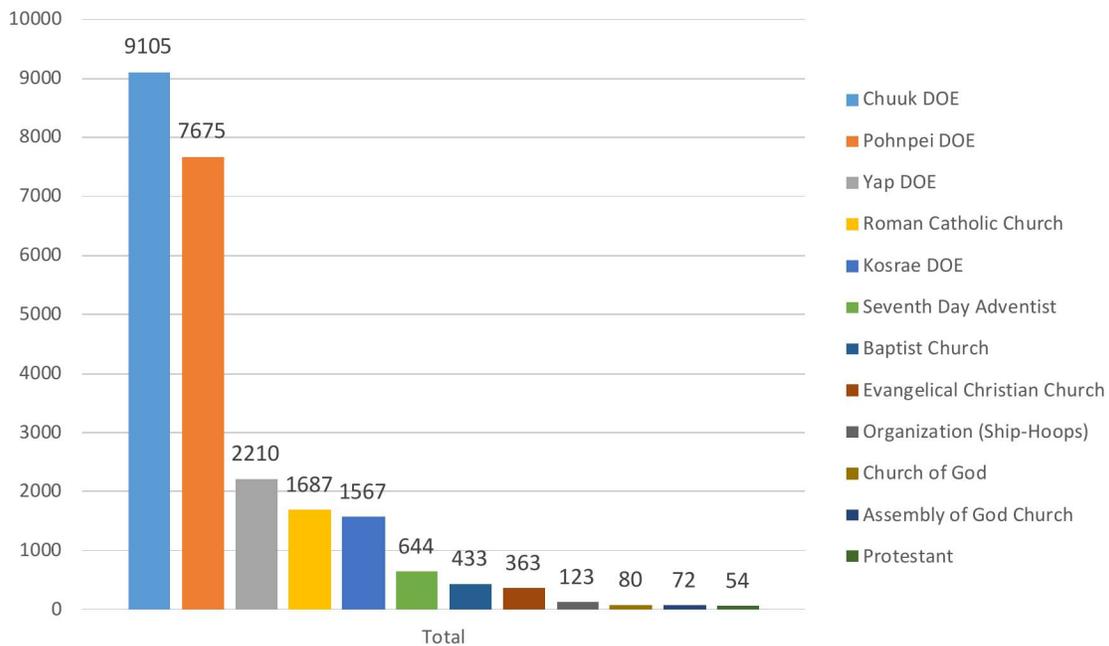
Figure 3.6: Schools enrollment by managing authority
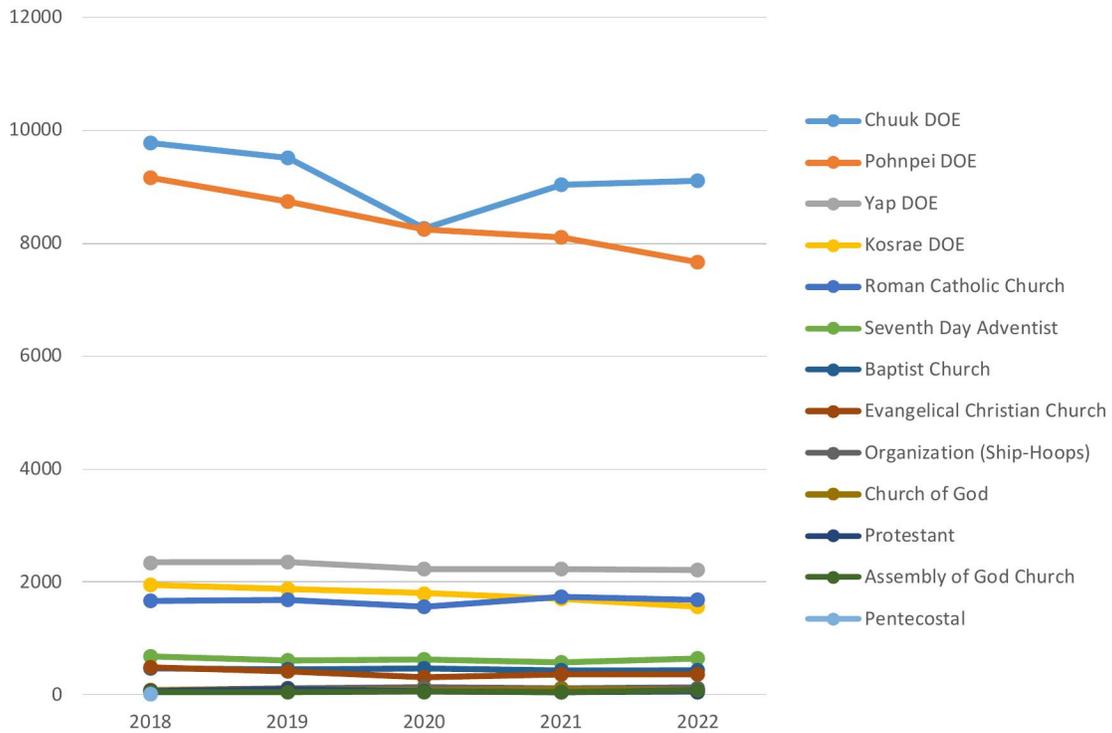
Figure 3.7: Schools enrollments by managing authority trend

Main Island schools account for 12,072 enrolled students while there are 8,514 enrollments in lagoon schools and 3,427 in outer island schools (Figure 3.8.) There is a very slight decline in enrollments in schools in the past five years from all regions except in the Lagoon area (Figure 3.9.)
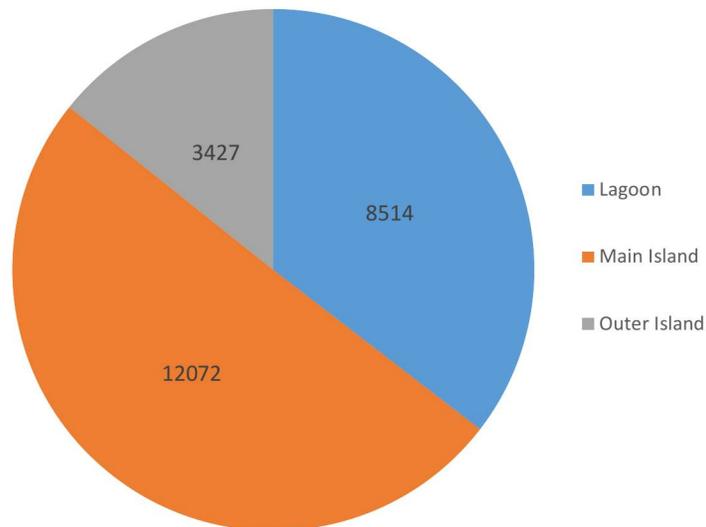
Figure 3.8: Schools enrollment by region

Table 3.3: Enrollments By Managing Authority for last five years

Enrollments	Chuuk DOE	Pohnpei DOE	Yap DOE	Kosrae DOE	Roman Catholic Church	Seventh Day Adventist	Baptist Church	Evangelical Christian Church	Organization (Ship-Hoops)	Church of God	Protestant	Assembly of God Church	Pentecostal	Total
2018	9777	9164	2341	1954	1659	681	466	482	85	82	68	38	14	26811
2019	9512	8748	2358	1875	1689	613	448	417	112	107	98	38		26015
2020	8271	8252	2231	1796	1555	620	460	312	126	86	67	53		23829
2021	9046	8114	2226	1703	1744	569	436	362	117	99	52	48		24516
2022	9105	7675	2210	1567	1687	644	433	363	123	80	54	72		24013
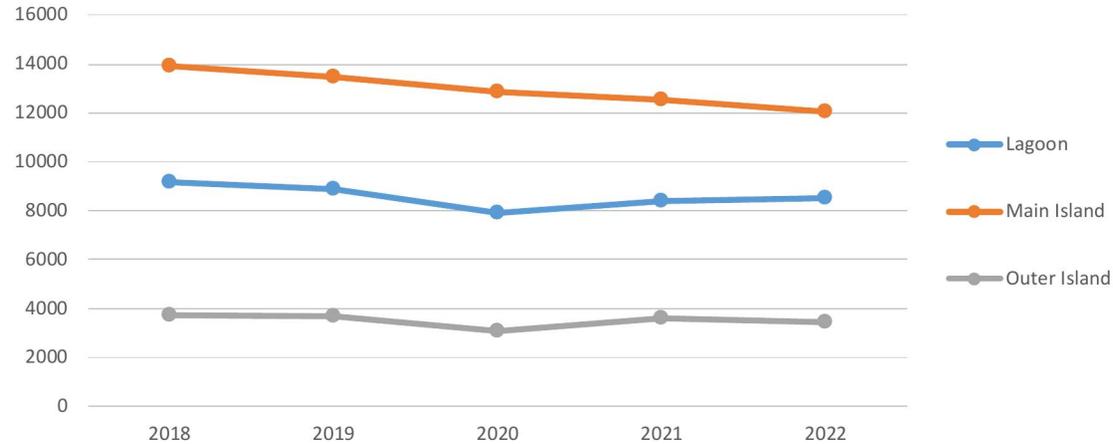
Figure 3.9: Schools enrollments by region trend

Table 3.4: Enrollments by region for last five years

Enrolments	Lagoon	Main Island	Outer Island	Grand Total
2018	9178	13922	3711	26811
2019	8880	13456	3679	26015
2020	7919	12846	3064	23829
2021	8376	12549	3591	24516
2022	8514	12072	3427	24013

CHAPTER 4: TEACHERS

PUPIL-TEACHER RATIO

DEFINITION AND PURPOSE

Average number of pupils per teacher at a specific level of education in a given school year. We can also compute this more precisely by Grade. To measure the level of human resources input in terms of the number of teachers in relation to the size of the pupil population.

METHODS OF CALCULATION

Allocation of teacher is based on data provided in the FedEMIS Annual School Census. Those teachers for whom no activities (Grades) are recorded are classified based on their Employment Status and Job Title. Those identified as teaching staff but with no provided Grades are classified as "Teaching (Unspecified)"[1]. Staff may perform multiple activities, such as teaching at different grade levels, or sharing time between Teaching and Admin/Other duties. There is extensive data validation in the census upload process that checks for a strict defined set of rules to improve quality of teacher and their duties. For purposes of more accurately representing Pupil Teacher Ratio at the Grade level, the contribution of each teacher to each of their multiple duties (i.e. Grade(s) taught) is evenly divided (e.g. teacher with duties in Grade 1 and Grade 2 have 50% in Grade 1 and 50% in Grade 2.) The sum of these "Full Time Equivalent" allocations for each teacher is 1 (i.e. 100% as teachers are considered full time); therefore, the sum of all FTE allocations equals the number of teachers.

ANALYSIS AND DISCUSSIONS

A high pupil-teacher ratio (PTR) suggest the teachers are responsible for larger groups of students hindering their ability to focus on individual students needs and learning abilities. The PTR for ECE is very good at 12 (Figure 4.1) but this of course will need to be maintained as enrollments in ECE also improves. The PTR for primary is 15 and secondary 14. When computing the PTR for only teachers that are qualified the situation is still very good at 13, 17 and 14 for ECE , primary and secondary respectively indicating that in general students have a good degree of access to qualified teachers.

> The PTR for certified teachers is very high corroborating with data elsewhere about the need to improve the certification process including its data collection in the FSM.

It would be important to explore the PTRs through various disaggregation, for example to ensure qualified teachers are not concentrated in more urban settings. We do this by region in Figure 4.2 and find that the PTR is actually better in outer islands. However, the PTR does increase in the Lagoon (Chuuk) requiring closer attention. We also observe that students on Main Island have higher access to certified teachers though it remains in needs of improvement across all regions.

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1 Teachers with unspecified grades less desirable and we aim to reduce this less complete data.
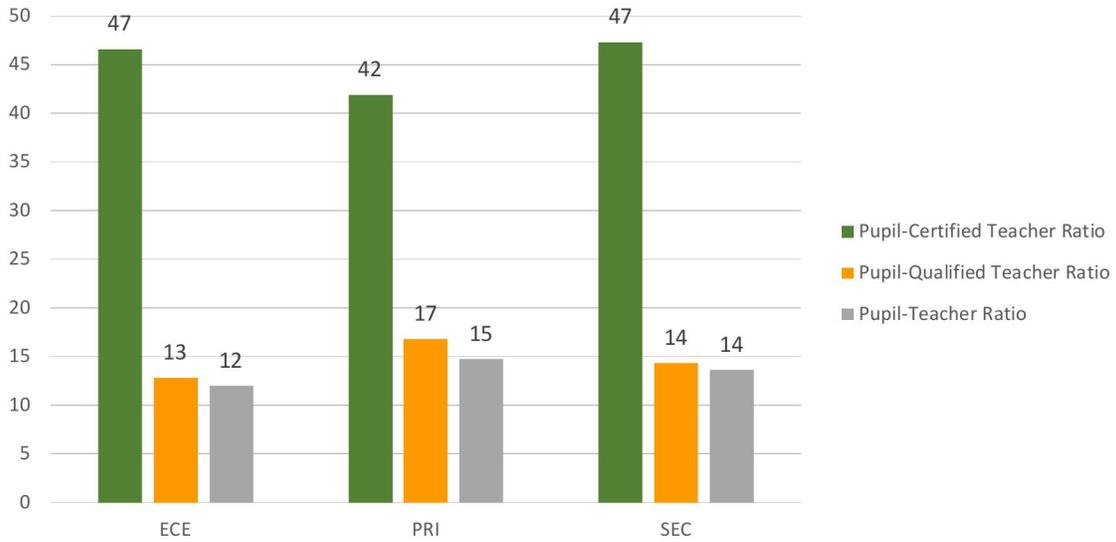
Figure 4.1: Pupil-Teacher Ratios by Education Levels
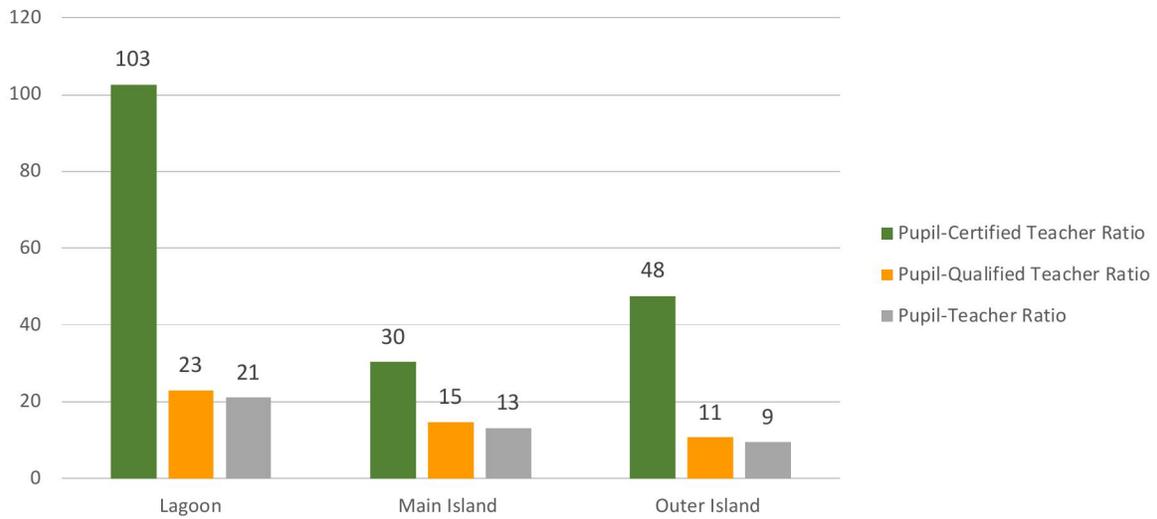
Figure 4.2: Pupil-Teacher Ratios by Region

The PTR is similar for most grades (Figure 4.3.) It looks slightly better in grades Kinder, 1, 3 and 8. Note that while still considered acceptable, the PTR seems a little higher in Figure 4.3 (by grades) than in Figure 4.1 (by education levels.) This is due to missing data on some teachers. Teachers with no duties (Grades) specified do not participate in the "by grade" disaggregation affecting the figures. We are currently improving this through increased data validation by schools being trained to look at their own submitted data in the FedEMIS portal.
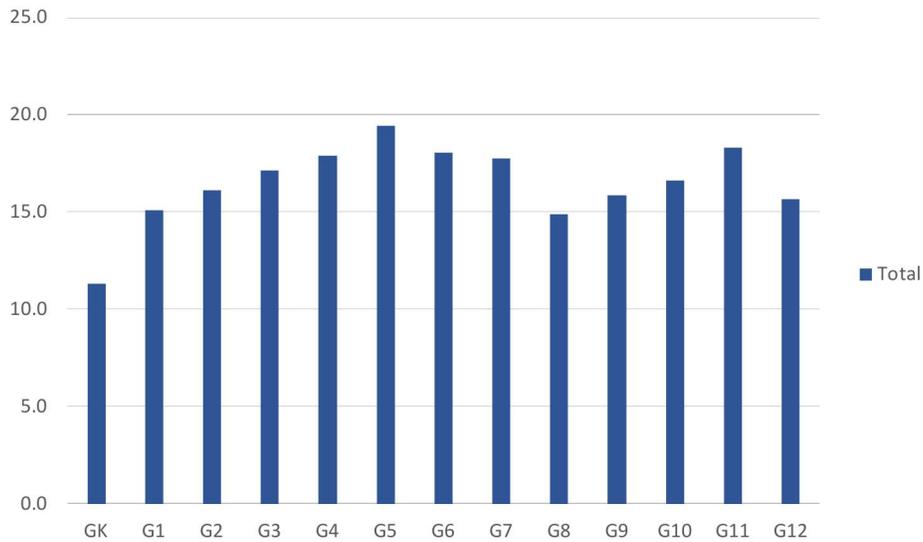
Figure 4.3: Pupil-Teacher Ratio by Grade

Looking at the PTR by state and by grade we can observe that it is higher in Chuuk in general. This indicates that teachers with missing duties data are more prominent in Chuuk, again affecting the national average. In general, the best PTR in the FSM is in Yap followed by Kosrae and then Pohnpei.
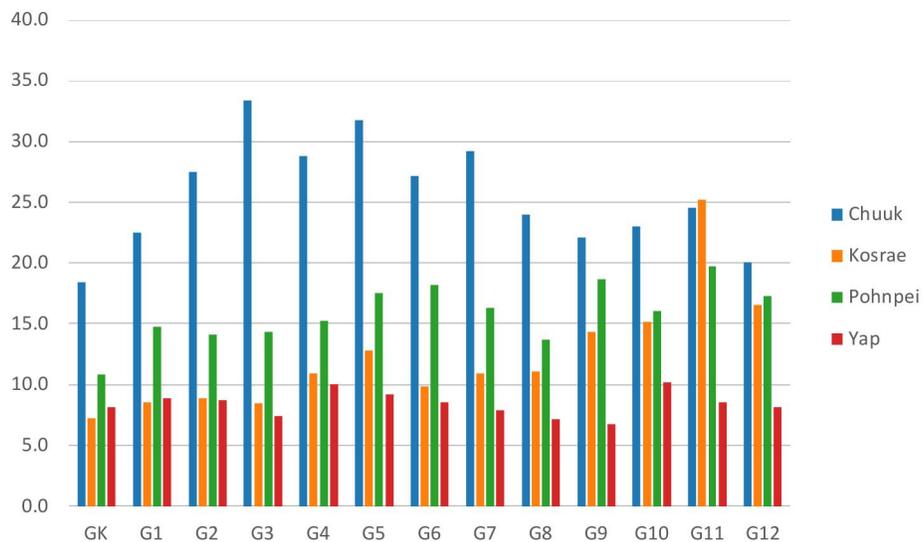
Figure 4.4: Pupil-Teacher Ratio by Grade and State

TEACHER QUALIFICATIONS AND CERTIFICATIONS

DEFINITION AND PURPOSE

QUALIFIED TEACHERS

The percentage of teachers that are considered qualified to teach in the FSM. This means at least an Associate of Arts.

CERTIFIED TEACHERS

The percentage of teachers that are considered certified to teach in the FSM. This means to have pass one of the certification below. Certifications do expire and must be renewed.

- Temporary National Teacher Certificate
- Basic National Teacher Certificate
- Intermediate National Teacher Certificate
- Advanced National Teacher Certificate (Level 1)
- Advanced National Teacher Certificate (Level 2)
- Special National Teacher Certificate

METHODS OF CALCULATION

Qualifications and Certifications records are managed directly in the FedEMIS. This is merely a count of records meeting the criteria for each teacher. Where there is a new important calculation involved is how teachers are classified into the various education levels (e.g. ECE, Primary and Secondary.) FedEMIS supported three methods that will produce different number of teachers into the education levels:

- "**Simple Count Method**" each teacher is assigned an education level based on the highest grade taught (e.g. A teacher teaching Grade 1 and Grade 12 would be counted as 1 in Secondary). Total across disaggregations equals total teachers on record. Simple but imprecise.
- "**Full-time Part-Time Method**" each teacher weight a total of 1 whether they are full time (only teacher) or part time teacher (teaches and does admin). But the allocation is based on the weight (e.g. A teacher teaching Grade 1 and Grade 12 would be counted 0.5 in Primary and 0.5 in Secondary) Total across disaggregations equals total teachers on record. Advanced but more precise.
- "**Full-time Equivalent**" each teacher weight the time they teach only (e.g. A teacher teaching Grade 1, Grade 12 and Admin duties would be counted 0.33 in Primary and 0.33 in Secondary and 0.33 in Admin) Total across disaggregations equals or less than total teachers on record. Advanced and even more precise.

In past years, the Simple Count Method was used to analyze the data. The last two years, the Full-time Part-time Method is used provide more precision by education level and be inline with international data submissions.

ANALYSIS AND DISCUSSIONS

Interestingly, the percentage of qualified males vs females is essentially the same (or very similar) at all levels of education (Figure 4.5.) There is a slightly higher percentage of qualified teachers in ECE and secondary than in primary when it really should be the other way around. The situation is reversed with certified teachers: primary has a higher percentage of certified teachers than both ECE and secondary

> Clearly the certification process data is behind; while more than 90% of teachers are qualified, only around ~30-35% (Table 4.1) are considered certified with up-to-date certifications (Figure 4.5.)
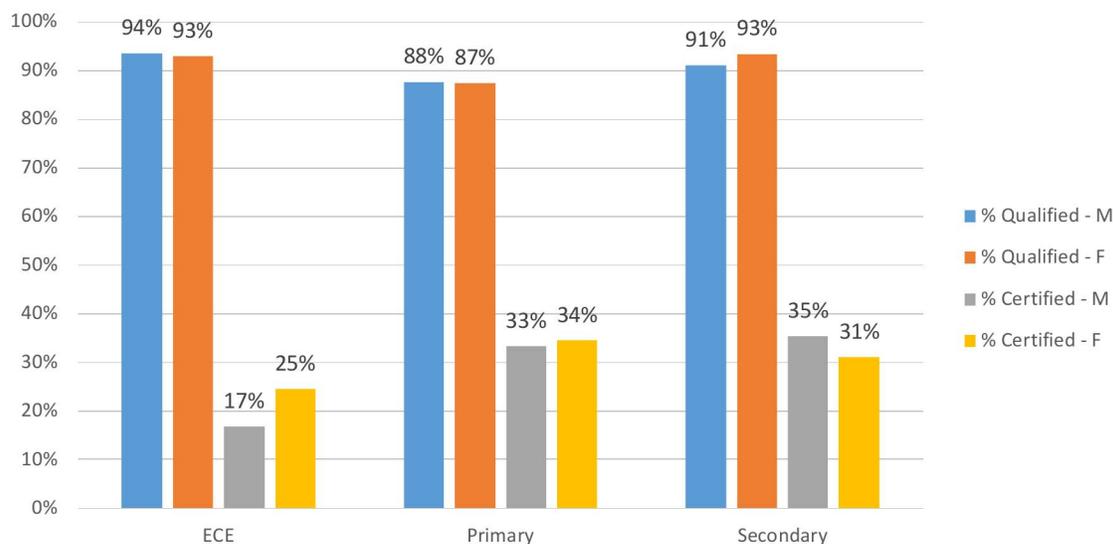
Figure 4.5: % of qualified/certified teachers for the nation by education level and gender

Qualified teachers can be found in similar proportions across all age groups (Figure 4.6.) The most qualified age groups are younger in both ECE and Primary. In secondary, older teachers are as qualified as their younger peers. There is a slightly higher percentage of certified teachers in primary across all age groups. The youngest age group (i.e. 20-29) are the least certified in ECE and secondary.
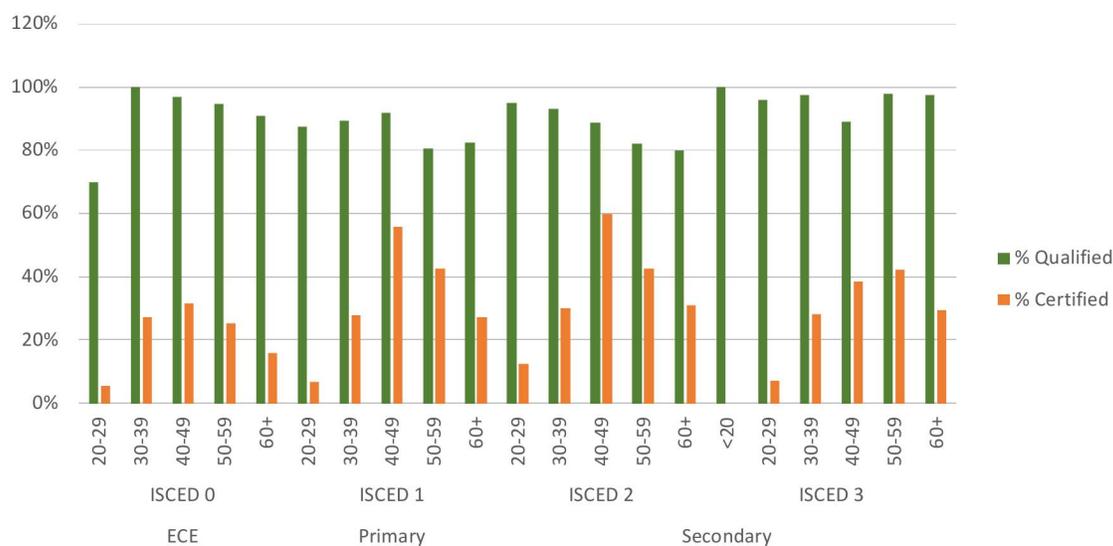
Figure 4.6: % of qualified/certified teachers for the nation by education level and age group

The states with the highest qualified teachers is Pohnpei followed by Chuuk and Kosrae for Primary and Secondary (Figure 4.7.) Yap has the lowest with only 69% of its primary teachers qualified although it does have the highest percentage of qualified teachers in ECE.
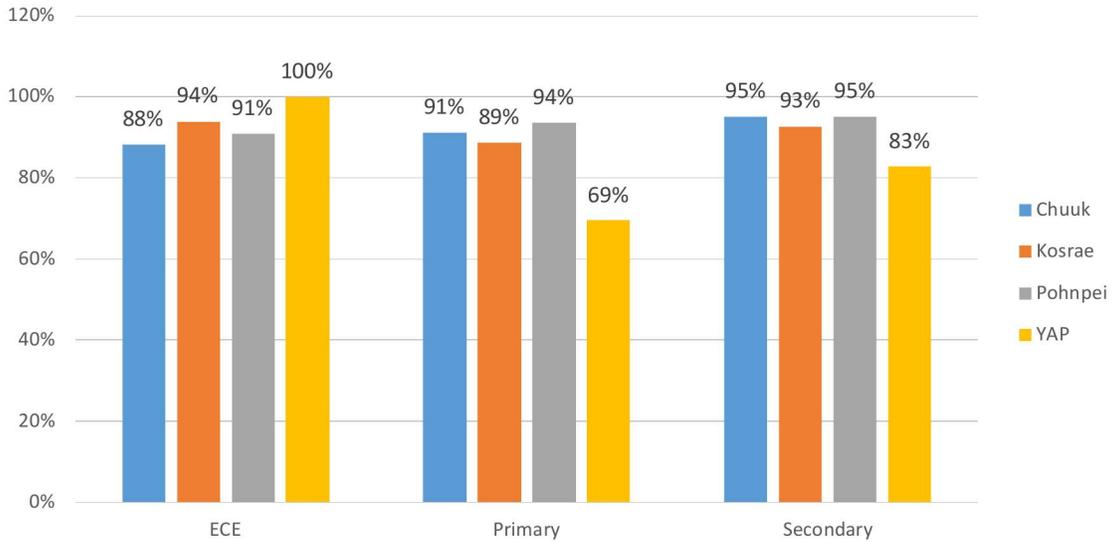
Figure 4.7: % of qualified teachers by state, education level and age group

Kosrae has the highest percentage of its teachers that are considered certified followed by Pohnpei. Yap only started to have its teachers certified with 3% and 7% in primary and secondary respectively. Figure 4.8 merely re-enforces the need to improve the teacher certification process.
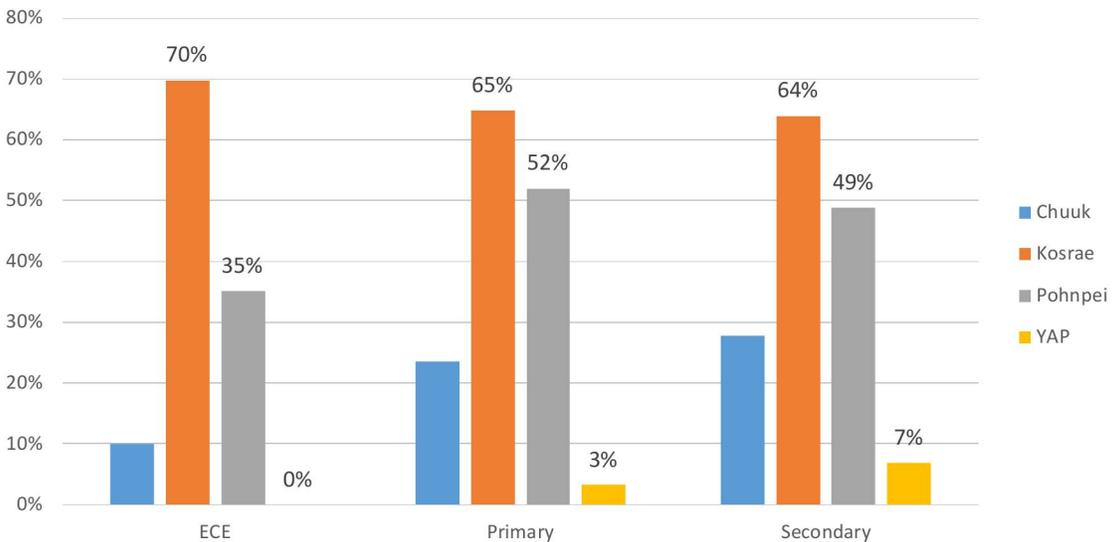
Figure 4.8: % of certified teachers by state, education level

All the data to produce the above analysis can be found in Table 4.1 and 4.2. The former displays the total numbers nationally with the gender and age groups disaggregation while the latter is by gender and state and figures are in "Full-time Part-time".

Table 4.1: Teachers qualification and certification by education level, age group and gender

	FTPT Qualified Teachers		FTPT Certified Teachers		FTPT Teachers		Total FTPT Qualified Teachers	Total FTPT Certified Teachers	Total FTPT Teachers
	F	M	F	M	F	M			
ECE	**118.01**	**28.85**	**31.17**	**5.17**	**127.01**	**30.85**	**146.86**	**36.33**	**157.86**
ISCED 0									
20-29	10.70	2.00	1.00	0.00	15.20	3.00	12.70	1.00	18.20
30-39	32.00	9.61	7.25	4.00	32.00	9.61	41.61	11.25	41.61
40-49	27.33	4.67	10.39	0.00	28.33	4.67	32.00	10.39	33.00
50-59	25.36	9.50	8.28	1.00	27.36	9.50	34.86	9.28	36.86
60+	22.62	2.74	4.25	0.17	24.12	3.74	25.36	4.42	27.86
(blank)		0.33		0.00		0.33	0.33	0.00	0.33
Primary	**491.80**	**245.14**	**193.90**	**93.12**	**562.91**	**279.86**	**736.94**	**287.02**	**842.77**
ISCED 1									
20-29	77.43	35.82	5.75	3.00	88.79	40.65	113.25	8.75	129.44
30-39	165.14	76.65	47.69	27.70	184.89	86.25	241.79	75.39	271.14
40-49	141.68	65.03	93.78	31.50	153.53	71.63	206.72	125.28	225.17
50-59	61.35	43.58	34.51	21.08	80.60	49.94	104.93	55.60	130.54
60+	42.80	24.06	12.17	9.83	50.70	30.38	66.86	22.00	81.09
(blank)	3.40	0.00	0.00	0.00	4.40	1.00	3.40	0.00	5.40
Secondary	**294.19**	**339.00**	**97.93**	**131.72**	**315.08**	**372.29**	**633.19**	**229.65**	**687.37**
ISCED 2									
20-29	14.89	9.98	1.25	2.00	15.03	11.15	24.87	3.25	26.18
30-39	33.20	38.57	8.42	14.70	36.34	40.86	71.77	23.12	77.20
40-49	28.89	55.40	17.03	39.70	32.26	62.80	84.29	56.73	95.06
50-59	10.62	22.42	4.21	12.92	14.15	26.06	33.04	17.12	40.21
60+	6.92	13.60	2.58	5.33	9.51	16.17	20.52	7.92	25.68
(blank)	1.40	0.33	0.00	0.00	1.40	1.33	1.73	0.00	2.73
ISCED 3									
<20	1.00		0.00		1.00		1.00	0.00	1.00
20-29	40.98	27.20	5.00	0.00	41.98	29.20	68.18	5.00	71.18
30-39	62.66	63.17	20.64	15.60	64.77	64.28	125.83	36.24	129.05
40-49	55.09	40.90	25.81	15.80	59.87	47.90	95.99	41.61	107.77
50-59	18.67	39.50	7.00	18.00	18.89	40.50	58.17	25.00	59.39
60+	17.67	27.59	6.00	7.67	17.67	28.70	45.26	13.67	46.37
(blank)	2.20	0.33	0.00	0.00	2.20	3.33	2.53	0.00	5.53
Total	**904.00**	**613.00**	**323.00**	**230.00**	**1005.00**	**683.00**	**1517.00**	**553.00**	**1688.00**

Table 4.2: Teachers qualification and certification by education level, gender and state

	FTPT Qualified Teachers		FTPT Certified Teachers		FTPT Teachers		Total FTPT Qualified Teachers	Total FTPT Certified Teachers	Total FTPT Teachers
	F	M	F	M	F	M			
Chuuk									
ECE	**29.48**	**4.44**	**3.64**	**0.17**	**31.98**	**6.44**	**33.93**	**3.81**	**38.43**
ISCED 0	29.48	4.44	3.64	0.17	31.98	6.44	33.93	3.81	38.43
Primary	**171.66**	**86.75**	**45.14**	**21.67**	**190.16**	**93.33**	**258.41**	**66.80**	**283.49**
ISCED 1	171.66	86.75	45.14	21.67	190.16	93.33	258.41	66.80	283.49
Secondary	**107.86**	**112.81**	**33.22**	**31.17**	**109.86**	**122.22**	**220.66**	**64.39**	**232.08**
ISCED 2	38.76	43.56	13.08	15.10	40.76	49.31	82.32	28.18	90.07
ISCED 3	69.10	69.25	20.14	16.07	69.10	72.92	138.35	36.21	142.01
Kosrae									
ECE	**12.53**	**3.00**	**8.53**	**3.00**	**13.53**	**3.00**	**15.53**	**11.53**	**16.53**
ISCED 0	12.53	3.00	8.53	3.00	13.53	3.00	15.53	11.53	16.53
Primary	**51.26**	**27.20**	**41.26**	**16.03**	**57.26**	**31.20**	**78.46**	**57.29**	**88.46**
ISCED 1	51.26	27.20	41.26	16.03	57.26	31.20	78.46	57.29	88.46
Secondary	**18.21**	**32.80**	**11.21**	**23.97**	**20.21**	**34.80**	**51.01**	**35.18**	**55.01**
ISCED 2	4.90	16.80	3.90	12.97	4.90	18.80	21.70	16.87	23.70
ISCED 3	13.31	16.00	7.31	11.00	15.31	16.00	29.31	18.31	31.31
Pohnpei									
ECE	**47.00**	**7.33**	**19.00**	**2.00**	**52.50**	**7.33**	**54.33**	**21.00**	**59.83**
ISCED 0	47.00	7.33	19.00	2.00	52.50	7.33	54.33	21.00	59.83
Primary	**200.15**	**83.40**	**105.75**	**51.75**	**214.51**	**88.58**	**283.55**	**157.50**	**303.09**
ISCED 1	200.15	83.40	105.75	51.75	214.51	88.58	283.55	157.50	303.09
Secondary	**108.85**	**124.27**	**50.25**	**69.25**	**110.99**	**134.08**	**233.12**	**119.50**	**245.08**
ISCED 2	31.55	58.93	14.25	45.25	32.36	63.30	90.48	59.50	95.66
ISCED 3	77.30	65.33	36.00	24.00	78.63	70.78	142.63	60.00	149.42
YAP									
ECE	**29.00**	**14.08**	**0.00**	**0.00**	**29.00**	**14.08**	**43.08**	**0.00**	**43.08**
ISCED 0	29.00	14.08	0.00	0.00	29.00	14.08	43.08	0.00	43.08
Primary	**68.73**	**47.79**	**1.75**	**3.67**	**100.98**	**66.74**	**116.52**	**5.42**	**167.72**
ISCED 1	68.73	47.79	1.75	3.67	100.98	66.74	116.52	5.42	167.72
Secondary	**59.27**	**69.13**	**3.25**	**7.33**	**74.02**	**81.18**	**128.40**	**10.58**	**155.20**
ISCED 2	20.70	21.02	2.25	1.33	30.67	26.96	41.73	3.58	57.64
ISCED 3	38.57	48.11	1.00	6.00	43.34	54.22	86.67	7.00	97.56
Total	**904.00**	**613.00**	**323.00**	**230.00**	**1005.00**	**683.00**	**1517.00**	**553.00**	**1688.00**

TEACHER ATTRITION RATE

DEFINITION AND PURPOSE

The percentage of teachers leaving the profession in a given school year is measured by the teacher attrition rate. Anything above 10% is considered high and disruptive to students. In other words, the lower the attrition the better.

METHODS OF CALCULATION

This is estimated based on the data from the FedEMIS Annual School Census for two consecutive years. In the data warehouse, we consolidate data for each year disaggregated by education sector, gender, state for total number of teachers, new teacher entrants, and existing teachers. Teacher attrition is then computed following the standard UNESCO Teacher Attrition.

ANALYSIS AND DISCUSSIONS

This is the second year we publish teacher attrition using increasingly high quality data. We can produce the teacher attrition by education sector as recommended by UNESCO and SDG indicators but we can also produce the same figures for total teachers, certified teachers and qualified teachers.

The teacher attrition has significantly improved compared to the previous two years and is within the ideal attrition at 7% for ECE, 9% for primary and 9% for secondary (Figure 4.9.) This means teachers have largely been remaining in the profession since last year. When computing the teacher attrition for our qualified teachers, it is slightly better at 7% for ECE, 7% for primary and 8% for secondary (Figure 4.9) indicating that qualified teachers tend to remain more than their unqualified peers. Certified teachers attrition is even better at 2-4% at all levels of education. However, with only ~30% of teachers currently certified these figures could still change drastically.
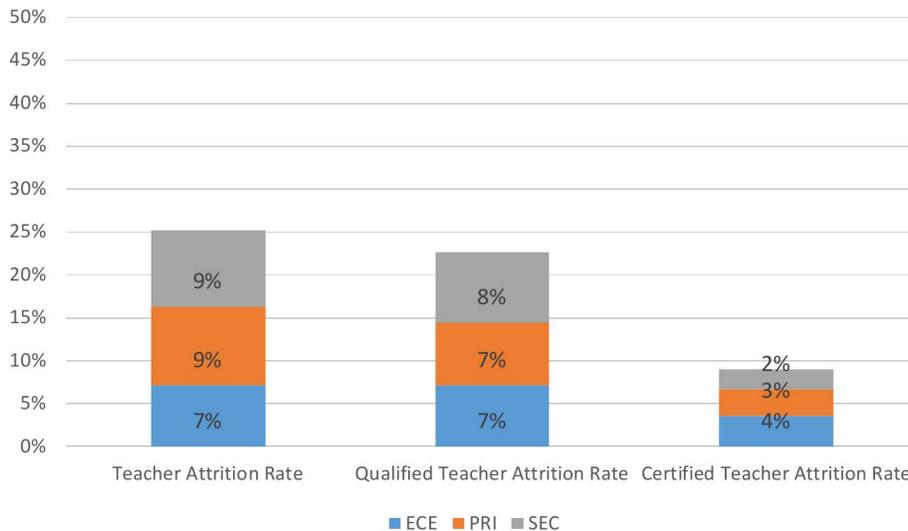
Figure 4.9: Teacher Attrition by Education Sector

The situation has been very similar throughout the past five years (Figure 4.10) though we now are seeing a noticeable improving trend in the past four years. While attribution does seem to be declining (i.e. improving) a close eye on the situation will remain important in the years to come to ensure the trend remains on the decline or that it remain at the ideal target of no more than 10%.
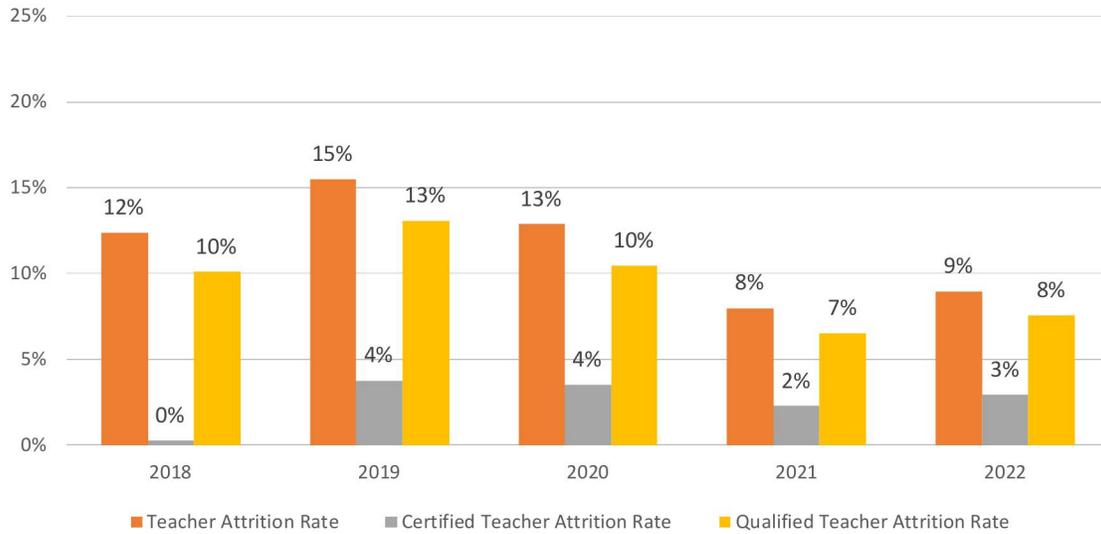
Figure 4.10: Teacher Attrition for past five year

The largest teacher attrition is in Yap at 10% followed by Chuuk at 9% (Figure 4.11.) All states currently enjoy ideal attrition rates all below the target of less than 10%.
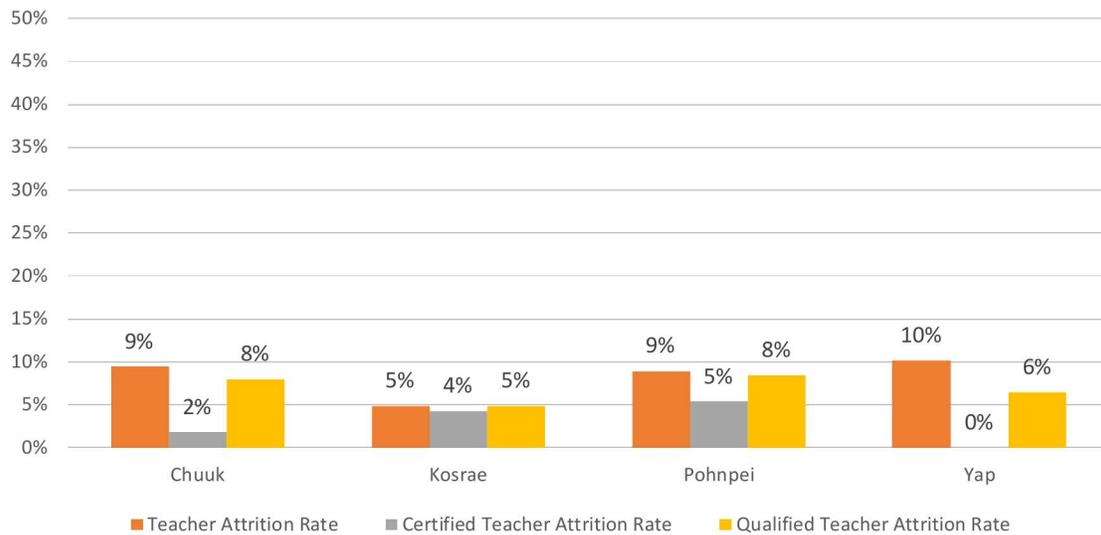
Figure 4.11: Teacher Attrition by State 2022

The data used to produce all the above analysis can be found in Table 4.3. It contains data for the last two years, all states, the number of new entrants (new teachers not found in the previous year), total number of teachers, existing teachers and the resulted teacher attrition rate for this year.

Table 4.3: Teacher Attrition Data by State for Past Two Years

Year	State	New Entrants	Number of Teachers	Exiting Teachers	Teacher Attrition Rate
2021	Chuuk	14	562	20	
2022	Chuuk	57	554	53	9%
2021	Kosrae	38	164	28	
2022	Kosrae	6	160	8	5%
2021	Pohnpei	51	616	39	
2022	Pohnpei	46	608	55	9%
2021	Yap	39	355	50	
2022	Yap	49	366	36	10%

Year	State	New Certified Entrants	Number of Teachers	Exiting Certified Teachers	Certified Teacher Attrition Rate
2021	Chuuk	0	562	1	
2022	Chuuk	2	554	10	2%
2021	Kosrae	7	164	18	
2022	Kosrae	3	160	7	4%
2021	Pohnpei	7	616	18	
2022	Pohnpei	14	608	33	5%
2021	Yap	0	355	2	
2022	Yap	0	366	0	0%

Year	State	New Qualified Entrants	Number of Teachers	Exiting Qualified Teachers	Qualified Teacher Attrition Rate
2021	Chuuk	13	562	14	
2022	Chuuk	47	554	45	8%
2021	Kosrae	26	164	28	
2022	Kosrae	3	160	8	5%
2021	Pohnpei	44	616	34	
2022	Pohnpei	36	608	52	8%
2021	Yap	24	355	36	
2022	Yap	36	366	23	6%

TEACHER ACADEMIC DEGREES, CERTIFICATIONS AND TRAININGS

DEFINITION AND PURPOSE

Teacher qualifications in the FedEMIS are either:

- **Academic Qualification:** those degrees acquired in higher level education institution (universities, colleges, vocational schools)
- **Certifications**: FSM trainings and test to certify teachers to teach. These certifications include concepts like curriculum, pedagogical concepts, leadership, etc.
- **Trainings**: Other types of specific training (e.g. workshops for Improving Quality of Basic Education (IQBE), principal leadership, overseas trainings)

The purpose of recording and reporting on those is to monitor and evaluate the progress of qualified teachers, certified teachers and teachers that have received the required training

METHODS OF CALCULATION

All teacher qualifications are recorded to different places in FedEMIS:

- FedEMIS Online: Directly in the teacher's profiles each qualification can be added with detailed information
- FedEMIS Annual School Census: schools report the highest achieved qualification and certification. This is can be used as a verification of central data for completeness

All these qualifications are added together taking care to select only the "best" qualification in cases it is the same information (e.g. a school reporting a teacher with an associate of art that is already fully documented in the FedEMIS.) Then, it is merely a simple count with full support for various disaggregation (e.g. gender, region, managing authority.) Teachers with more than one qualifications (e.g. A Bachelor and a Masters) are counted once only with their highest qualification.

ANALYSIS AND DISCUSSIONS

The majority of qualified teachers have either an Associate of Arts or Associate of Science followed by a Bachelor of Arts (Figure 4.12.) The fourth largest group is teacher with only a High School diploma, which is not a high enough qualification to teach (i.e. to be qualified to teach). FSM does have teachers with higher qualifications but it forms a small percentage overall.
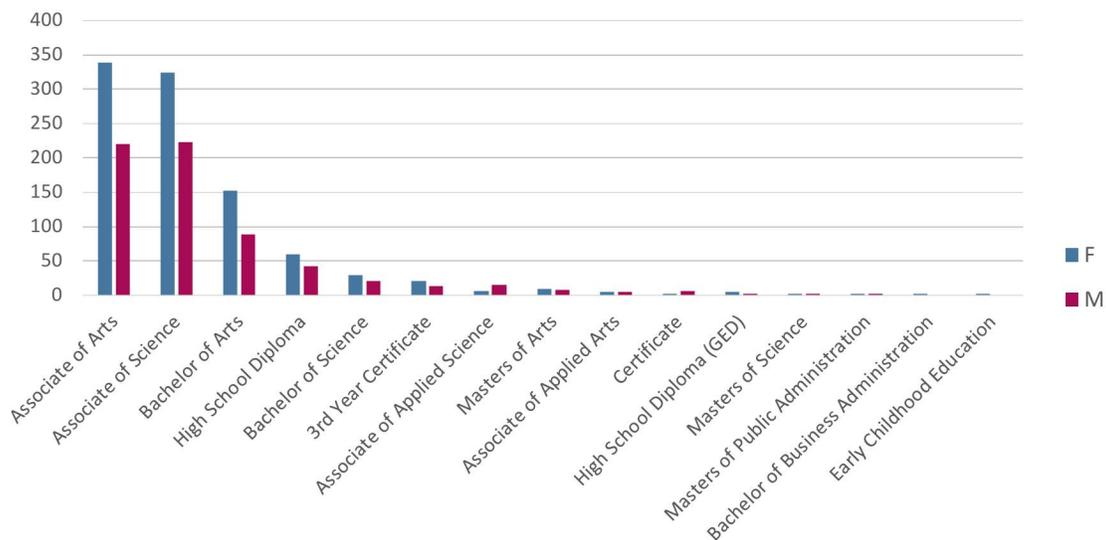
Figure 4.12: Total Teachers by Academic Degrees and Gender

The situation is similar in all states. Yap as a very high number of teachers teaching with only a high school diploma followed by Pohnpei (Table 4.13.) We can also produce the analysis further disaggregated by teacher's sources of funding for anyone interested.
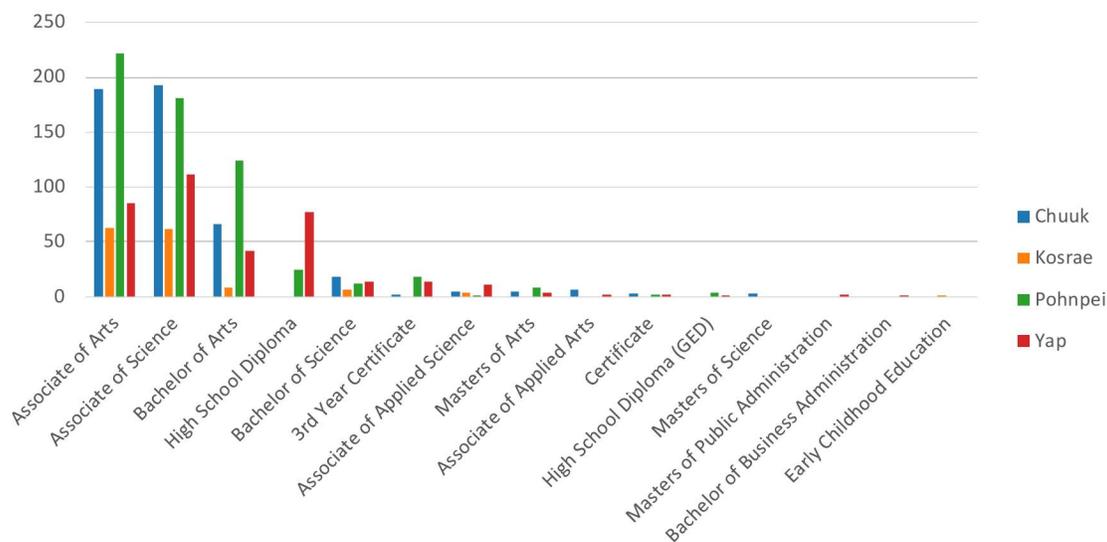
Figure 4.13: Total Teachers by Academic Degrees and State

The most currently issued certification in the FSM is currently the "Basic National Teacher Certificate" which is the minimum (Figure 4.14.) Only 43 "Advanced National Teacher Certificate (Level 1)" is shown in the system while a single "Advanced National Teacher Certificate (Level 2)" has been issued.
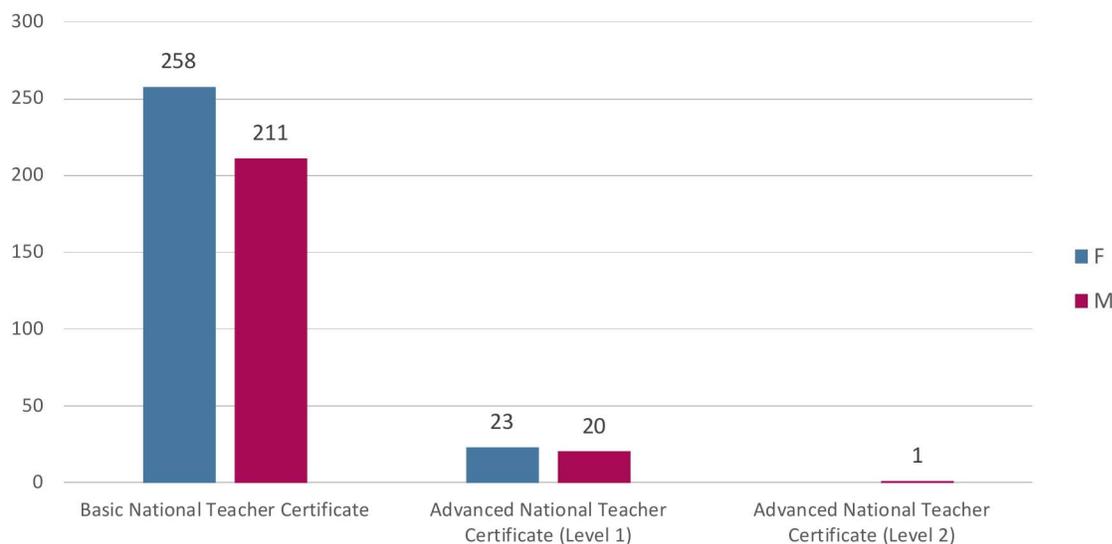
Figure 4.14: Total Teachers by FSM Certification and Gender

Most of the Advanced National Teacher Certificate are issued to teachers in Pohnpei or Kosrae. Pohnpei has the most certified teachers in general of all states (Figure 4.15.)
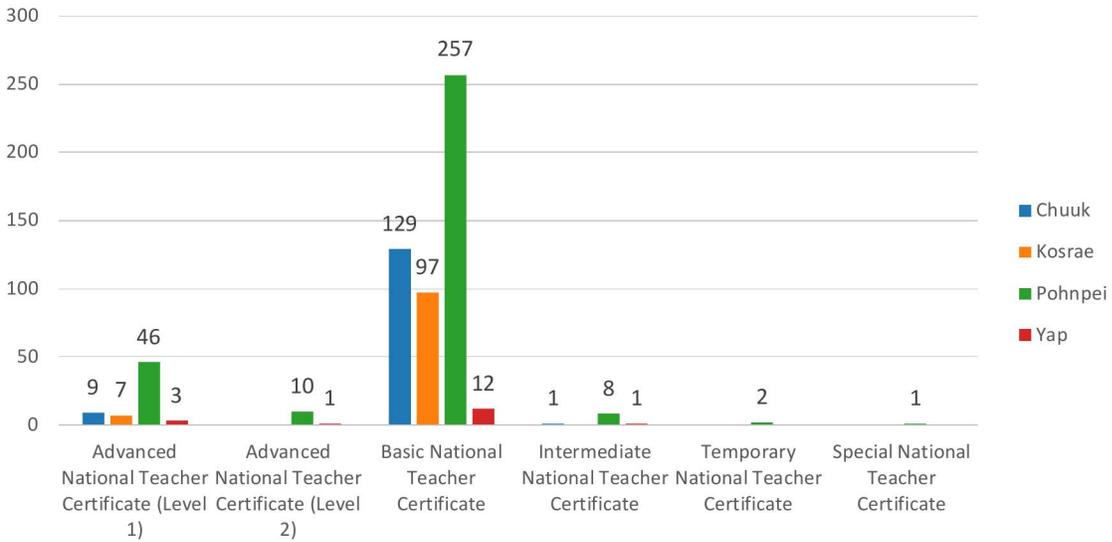
Figure 4.15: Total Teachers by FSM Certification and State

The relevant raw data of those teacher qualifications (i.e. academic degrees) and certifications is provided in Table 4.4 and 4.5 by state and gender. Similarly, the Table 4.6 and 4.7 shows the same data but disaggregate by the school's region.

Table 4.4: Teachers by qualification (Academic Degrees,) state and gender

Teachers by Qualifications	Chuuk F	M	Chuuk Total	Kosrae F	M	Kosrae Total	Pohnpei F	M	Pohnpei Total	Yap F	M	Yap Total	Grand Total
Academic Degree	**296**	**195**	**491**	**82**	**63**	**145**	**373**	**224**	**597**	**204**	**162**	**366**	**1599**
Associate of Arts	112	77	189	33	30	63	143	79	222	51	34	85	559
Associate of Science	120	73	193	37	25	62	111	70	181	56	55	111	547
Bachelor of Arts	42	24	66	5	3	8	77	47	124	28	14	42	240
High School Diploma							15	10	25	45	32	77	102
Bachelor of Science	9	9	18	5	2	7	7	5	12	9	5	14	51
3rd Year Certificate	1	1	2				12	6	18	7	7	14	34
Associate of Applied Science	2	3	5	1	3	4		1	1	3	8	11	21
Masters of Arts	3	2	5				5	3	8	1	3	4	17
Associate of Applied Arts	4	3	7							1	1	2	9
Certificate	1	2	3					2	2		2	2	7
High School Diploma (GED)							3	1	4	1		1	5
Masters of Science	2	1	3										3
Masters of Public Administration										1	1	2	2
Bachelor of Business Administration										1		1	1
Early Childhood Education				1		1							1
(blank)	**36**	**27**	**63**	**9**	**6**	**15**	**5**	**6**	**11**				**89**
(blank)	36	27	63	9	6	15	5	6	11				89
Grand Total	**332**	**222**	**554**	**91**	**69**	**160**	**378**	**230**	**608**	**204**	**162**	**366**	**1688**

Table 4.5: Teachers by certification, state and gender

Teachers by Certification/Training	Chuuk F	M	Chuuk Total	Kosrae F	M	Kosrae Total	Pohnpei F	M	Pohnpei Total	Yap F	M	Yap Total	Grand Total
FSM Certification	**84**	**55**	**139**	**61**	**43**	**104**	**187**	**137**	**324**	**5**	**12**	**17**	**584**
Basic National Teacher Certificate	77	52	129	57	40	97	148	109	257	4	8	12	495
Advanced National Teacher Certificate (Level 1)	7	2	9	4	3	7	27	19	46	1	2	3	65
Advanced National Teacher Certificate (Level 2)							9	1	10		1	1	11
Intermediate National Teacher Certificate		1	1				2	6	8		1	1	10
Temporary National Teacher Certificate							1	1	2				2
Special National Teacher Certificate								1	1				1
Grand Total	**84**	**55**	**139**	**61**	**43**	**104**	**187**	**137**	**324**	**5**	**12**	**17**	**584**

Table 4.6: Teachers by qualification (Academic Degrees,) region and gender

Teachers by Qualifications	Lagoon		Lagoon Total	Main Island		Main Island Total	Outer Island		Outer Island Total	Grand Total
	F	M		F	M		F	M		
Academic Degree	**226**	**132**	**358**	**569**	**321**	**890**	**160**	**191**	**351**	**1599**
Associate of Arts	88	52	140	194	108	302	57	60	117	559
Associate of Science	84	43	127	176	99	275	64	81	145	547
Bachelor of Arts	35	19	54	107	57	164	10	12	22	240
High School Diploma				41	23	64	19	19	38	102
Bachelor of Science	8	9	17	20	12	32	2		2	51
3rd Year Certificate	1	1	2	17	5	22	2	8	10	34
Associate of Applied Science	1	2	3	2	7	9	3	6	9	21
Masters of Arts	3	1	4	6	5	11		2	2	17
Associate of Applied Arts	3	2	5				2	2	4	9
Certificate	1	2	3		3	3		1	1	7
High School Diploma (GED)				3	1	4	1		1	5
Masters of Science	2	1	3							3
Masters of Public Administration				1	1	2				2
Bachelor of Business Administration				1		1				1
Early Childhood Education				1		1				1
(blank)	**31**	**17**	**48**	**14**	**12**	**26**	**5**	**10**	**15**	**89**
(blank)	31	17	48	14	12	26	5	10	15	89
Grand Total	**257**	**149**	**406**	**583**	**333**	**916**	**165**	**201**	**366**	**1688**

Table 4.7: Teachers by certification, region and gender

Teachers by Certification/Training	Main Island		Main Island Total	Lagoon		Lagoon Total	Outer Island		Outer Island Total	Grand Total
	F	M		F	M		F	M		
FSM Certification	**248**	**175**	**423**	**52**	**31**	**83**	**37**	**41**	**78**	**584**
Basic National Teacher Certificate	205	144	349	48	31	79	33	34	67	495
Advanced National Teacher Certificate (Level 1)	32	23	55	4		4	3	3	6	65
Advanced National Teacher Certificate (Level 2)	8	1	9				1	1	2	11
Intermediate National Teacher Certificate	2	5	7					3	3	10
Temporary National Teacher Certificate	1	1	2							2
Special National Teacher Certificate		1	1							1
Grand Total	**248**	**175**	**423**	**52**	**31**	**83**	**37**	**41**	**78**	**584**

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TEACHER ATTENDANCE

</div>

DEFINITION AND PURPOSE

Average daily attendance of teachers is the total number of days teachers are absent from school and is meant to monitor the teacher engagement and dedication to their duties.

METHODS OF CALCULATION

In the annual census, each teacher is recorded with the total number of days absent. We combine this with the total number of official school days and total teacher count for attendance percentage. We also group the total absences in bins for histogram analysis

ANALYSIS AND DISCUSSIONS

The overall attendance of teachers is very good between ~93-99%. The situation is similar for all states of the FSM (Table 4.8.) Roughly 900 teachers were indicated to have no absences at all in the school year while ~400 of them had 1-5 days of absence, a little over 200 of them had 6-10 days of absence, around 100 with 11-15 days of absence. There are approximately 150 with more than 16 days of absence that warrants some attention (Figure 4.17.)

Table 4.8: Teacher Attendance by State and Gender

	Chuuk		Kosrae		Pohnpei		Yap	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
Total Teachers	234	339	91	100	250	401	177	211
Total School Days	180	180	180	180	180	180	180	180
Possible Attendance	42120	61020	16380	18000	45000	72180	31860	37980
Total Absent	0	0	0	0	0	0	509	653
Actual Attendance	42120	61020	16380	18000	45000	72180	31351	37327
Attendance Rate	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	98.40%	98.28%
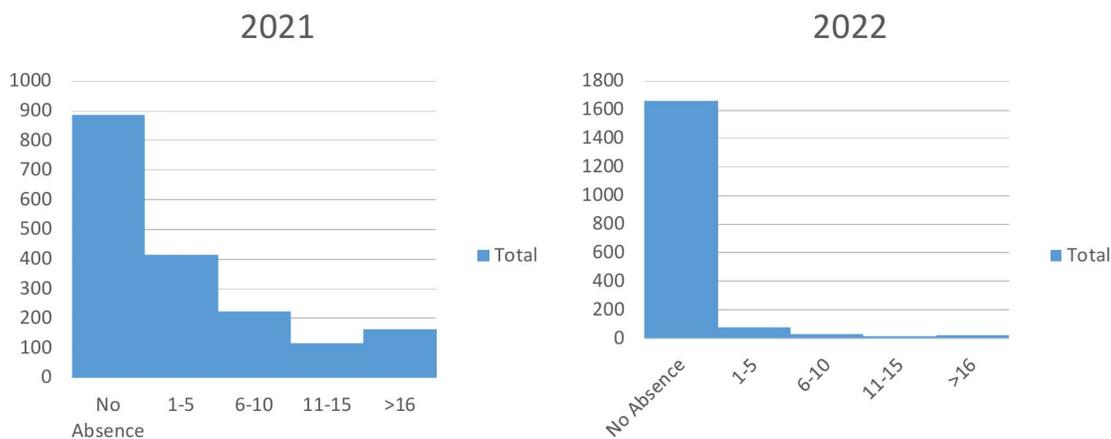
Figure 4.16: Histogram of Teacher Attendance

CHAPTER 5: EXAMS

This chapter on the FSM National Minimum Competency Standard Based Test (NMCT) summarizes student performance on the test series for the school year 2022.

Exams data is still being verified and finalized and may change in the next version of this document.

BACKGROUND

NMCT

The NMCT is a group of standards based assessment tests used as the main summative assessment tools at the end of the school year for grades 4, 6, 8 and 10 in Mathematics and Reading. The NMCT assesses students on various metrics following a simple top to bottom hierarchy: exam (whole test), standards, benchmarks, indicators and by individual students.

SCORING

Regardless of where in the hierarchy of metrics assessed, the results are based on four achievement levels shown below in Table 5.1.

Table 5.1: Achievement Levels

Achievement Level	Description
Competent	Working at competent level
Minimum Competency	Meeting the minimal competency level
Below Minimum Competency	Approaching but not yet meeting minimum competency level
Well Below Minimum Competency	No understanding of the concepts measured

The scoring in FedEMIS can then be delivered by individual students, schools, region, managing authority, states and more.

ASSESSED SUBJECTS

The NMCT assesses student performance on selected curriculum standards and benchmarks from selected subject areas for grades 4, 6, 8 and 10. The areas assessed are:

Table 5.2: Subject Areas Assessed

Grade Level	Subject Areas
Grade 4	Reading and Mathematics
Grade 6	Reading and Mathematics
Grade 8	Reading and Mathematics
Grade 10	Reading and Mathematics

SUBJECTS STANDARDS, BENCHMARKS, INDICATORS AND ITEMS

A selection of standards is made to assess various broasd concepts within the subject areas that are considered important to evaluate the students' progress. In turn, the standards are organized further into more granular concepts called benchmarks which are then organized further into indicators. Indicators then usually (but not necessarily) have four items (questions on the test) to assess its performance. The number of items within a given indicator, benchmark, standard or exam is used to produce the results using standard cutoffs. Readers interested in more technical details can refer to

DATA SOURCE

FedEMIS is primarily used as the main platform to manage exams data, exams analysis and reporting.

METHODOLOGY

The NMCT is administered annually at many public and private schools, during March to May of the school year which begins in August and ends in May. Raw data for each student and their answers to each exam items is then entered into FedEMIS.

LIMITATIONS

It is impossible to assess all the students in any given year for each of these standard base test. However, a relatively large number of students are selected to take these exams and the results offer a statistical representation of the overall student population performance.

ANALYSIS AND DISCUSSIONS

The majority of students perform at either "Below Minimum Competency" or "Minimum Competency" (Figure 5.1). The strongest subject areas of Reading in Grade 6 and Reading in Grade 10 with ~41% and ~65% of student achieving minimum competency respectively. The weakest is Year 8 Math and Year 10 Math with only ~21% and X% of student achieving minimum competency respectively.

Table 5.3: NMCT Achievement Levels Percentages by Grades and Subject Areas

Candidates Count	Well Below Minimum	Below Minimum Competency	Minimum Competency	Competent	Grand Total
Year 4 Maths	186	974	388	112	1660
Year 6 Reading	263	659	426	222	1570
Year 6 Maths	216	838	419	98	1571
Year 8 Reading	264	620	462	82	1428
Year 8 Maths	209	927	264	30	1430
Year 10 Reading	30	347	507	204	1088
Grand Total	**1168**	**4365**	**2466**	**748**	**8747**
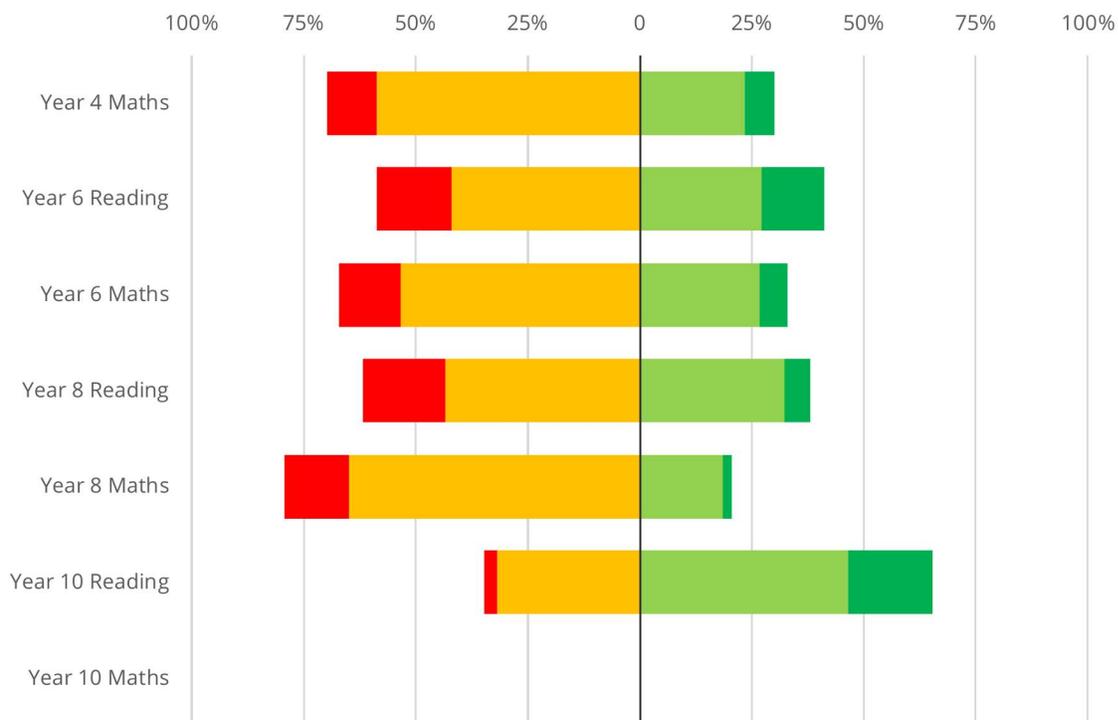
Figure 5.1: Student Performance by Subject and Grade

The following table and graph present student performance on the NMCT tests from 2018 to 2022[1]. They show on whole test analysis the percent of students performing at minimally competent and competent levels.

There was a small decline in performance in Math Grade 4 (and most subjects) in 2021 after the peak of the pandemic (Figure 5.2-5.5). Fortunately, this year the results have started to improve again getting back on track with the target benchmarks.

The declining performance observed after the pandemic is already on course to be reversed back.

[1] There was no administered test in 2020 due to the corona virus pandemic.
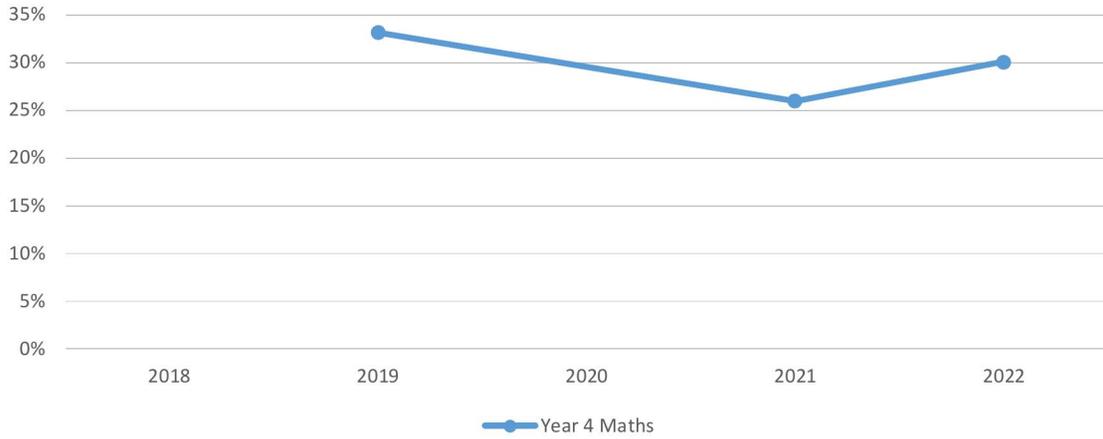
Figure 5.2: NMCT Grade 4 Student Performance Recent Trend
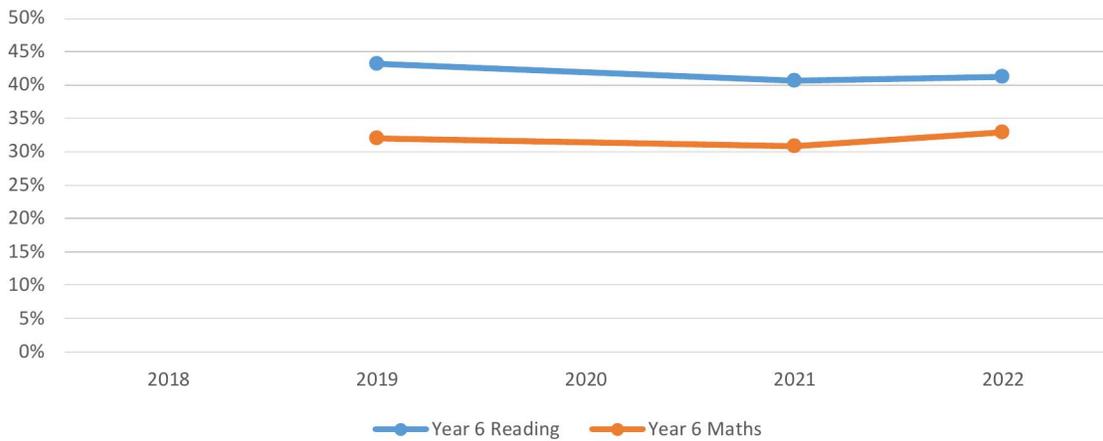
Figure 5.3: NMCT Grade 6 Student Performance Recent Trend
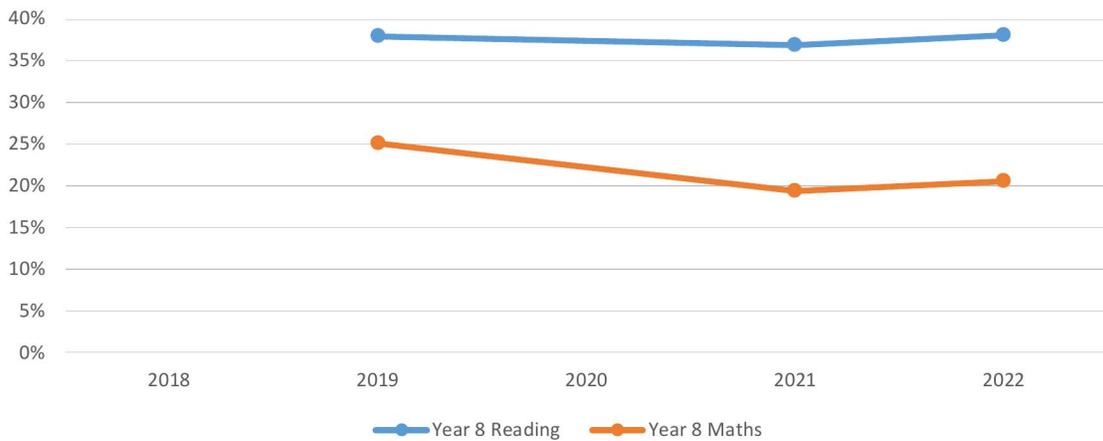
Figure 5.4: NMCT Grade 8 Student Performance Recent Trend

The student performances have seen a significant improvement in Year 10 reading (Figure 5.5). The results for Math Grade 10 is not yet loaded.
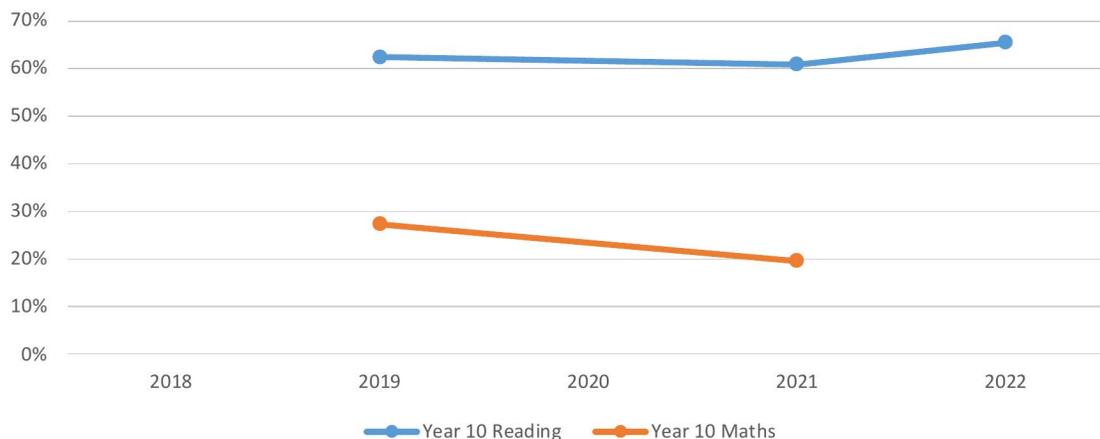
Figure 5.5: NMCT Grade 10 Student Performance Recent Trend

All the data for the past 5 years for the percent of students meeting the minimum proficiency levels can be found in Table 5.6.

Table 5.4: NMCT Performance Minimally Competent and Above Recent Trend

	2018	2019	2020	2021	2022
Year 4 Maths	N/A	33%	N/A	26%	30%
Year 6 Reading	N/A	43%	N/A	41%	41%
Year 6 Maths	N/A	32%	N/A	31%	33%
Year 8 Reading	N/A	38%	N/A	37%	38%
Year 8 Maths	N/A	25%	N/A	19%	21%
Year 10 Reading	N/A	62%	N/A	61%	65%
Year 10 Maths	N/A	27%	N/A	20%	N/A

Looking at the results by states we observe that Kosrae is generally the highest performing state (Figure 5.6-5.9) while Chuuk is the lowest performing state by a fairly large margin.

Figure 5.6: NMCT Grade 4 Student Performance Recent by State
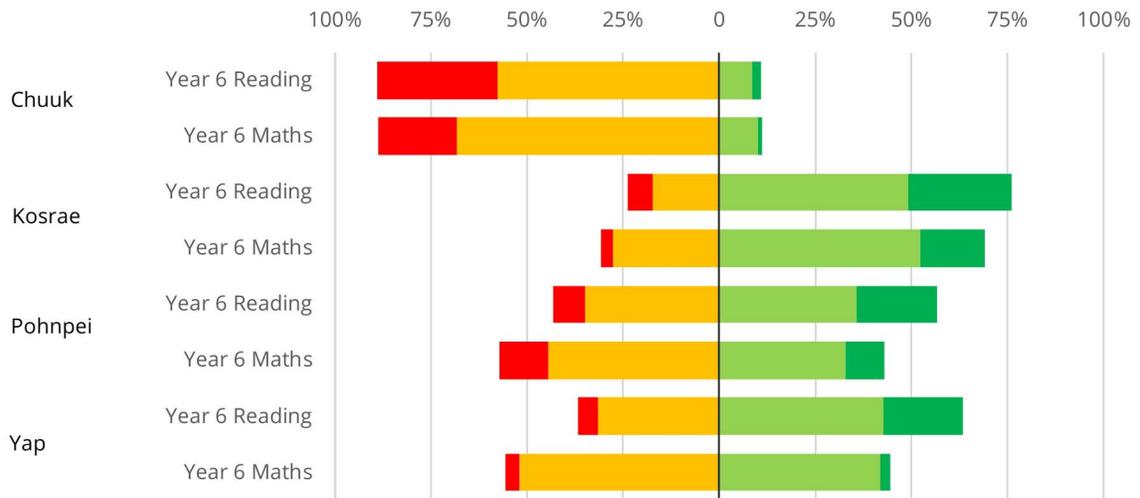
Figure 5.7: NMCT Grade 6 Student Performance Recent by State
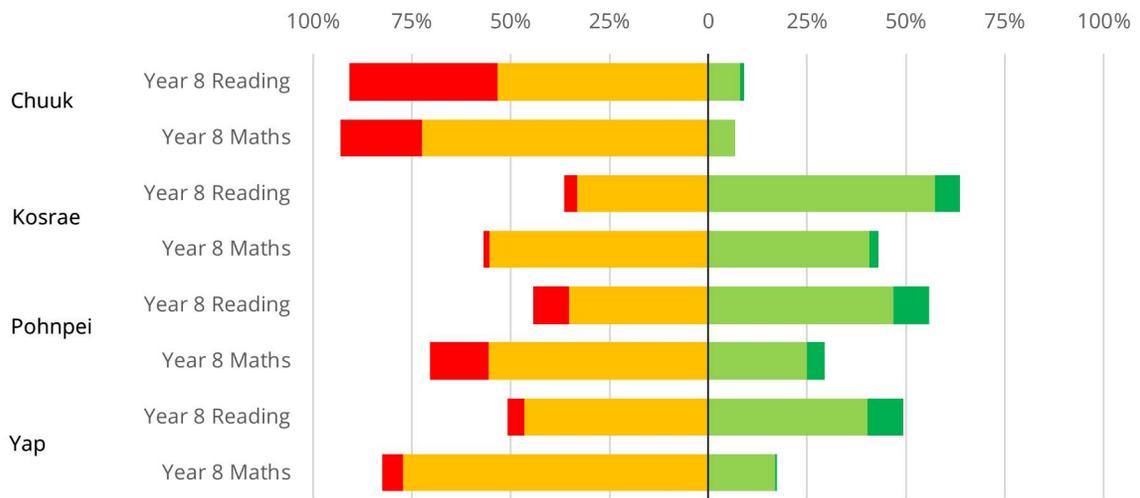
Figure 5.8: NMCT Grade 8 Student Performance Recent by State
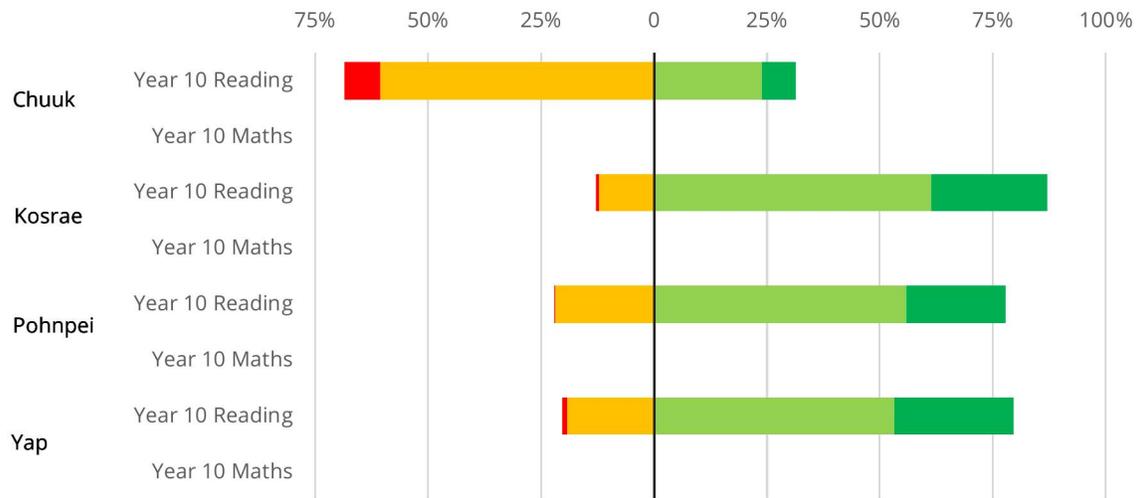
Figure 5.9: NMCT Grade 10 Student Performance Recent by State

CHAPTER 6: STUDENTS AND SPECIAL EDUCATION

This chapters reports more students enrollments data but from different angles. It also reports on other student data such as attendance. Special Education students is also included in this Chapter.

BACKGROUND

DATA SOURCE

The primary data source for the production of all the following student related data is the FedEMIS annual school census.

LIMITATIONS

Again this year, the student data took longer than usual to submit as some schools had later closing dates due to the Coronavirus pandemic.

STUDENT ENROLLMENT BY AGE DISTRIBUTION

The following analysis shows the age distribution of students by grades for this school year and past five years.

DEFINITION AND PURPOSE

Age distribution takes a closer look at the percentage of students enrolled of official age versus that of under and over age. This helps in assessment if students are effectively following the grades at their official age.

METHODS OF CALCULATION

This is merely a count on the number of students of official age (i.e. 6 years of age before December 31 in grade 1, etc.) and a count of the students that are either over or under that age.

ANALYSIS AND DISCUSSIONS

Distribution of over, under and official age students by grade provides some enriching information about student characteristics (Figure 6.1). While majority of students in all grades including ECE are at the official ages, quite a number of them are over and underage at the ECE Grades, Grade 1 and Grades 7 and up. This is quite normal but it does suggest a number of kids are either repeating or starting late.

There are small increases of over age found when nearing the end of primary and secondary that could suggest two things: older dropped out students are coming back to complete higher grades and/or simply more repeating students later in those education levels. The latter can easily be further examined by producing repeaters by grades (Figure 6.2). The largely steady and small percentage of repeaters throughout grades shown in Figure 6.2 does not directly corroborate with the over age in Figure 6.1. The two explanations left are under reporting of repeaters and/or some older dropouts coming back to school.
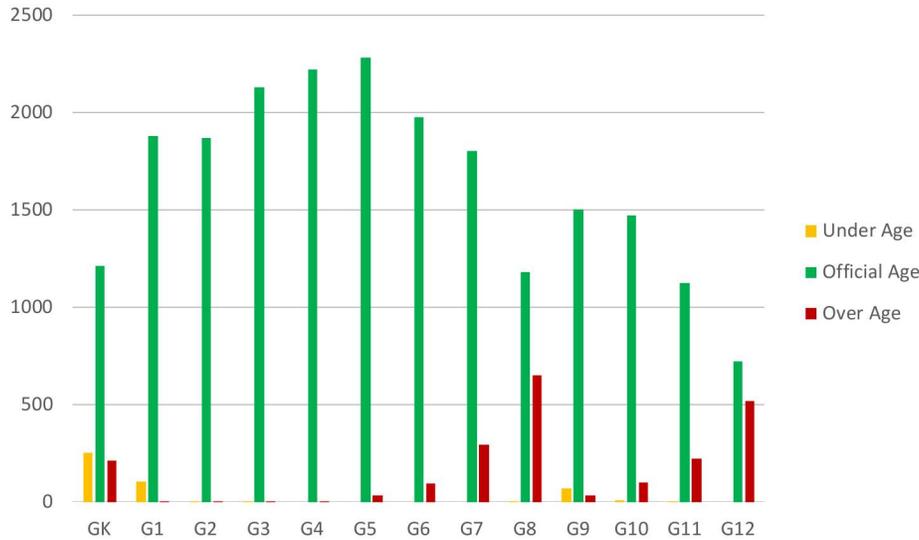
Figure 6.1: Student age distribution by grade
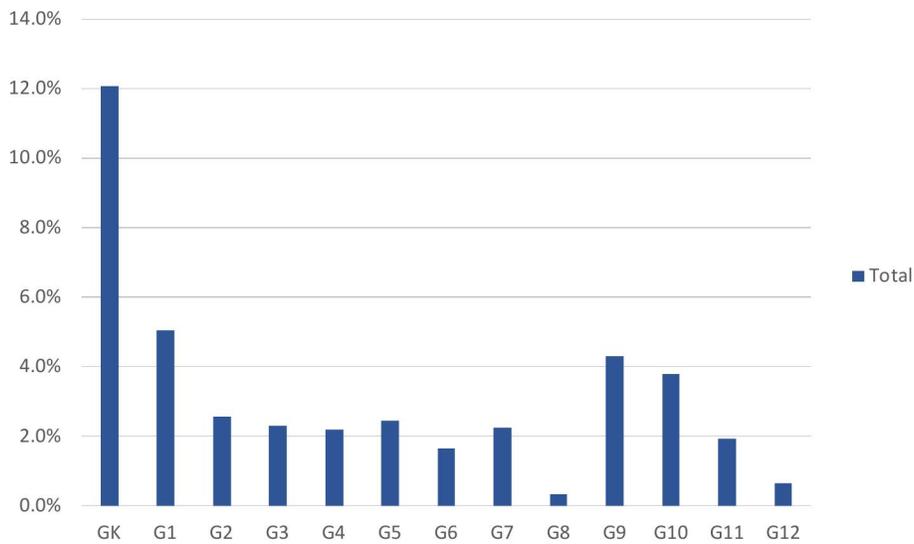
Figure 6.2: Percentages of repeaters by grades

Looking at states the percentage of repeaters is higher in Yap followed by (generally) Chuuk. Yap's very high repeaters in Grade Kinder is due to children enrolling before the official age only to drop out and start over again. While this is better than not having any training before primary education at all—and considering that a large percentage simply drop anyway to come back again the following year—it could be further improved by making the entrance into ECE more systematic and compulsory.
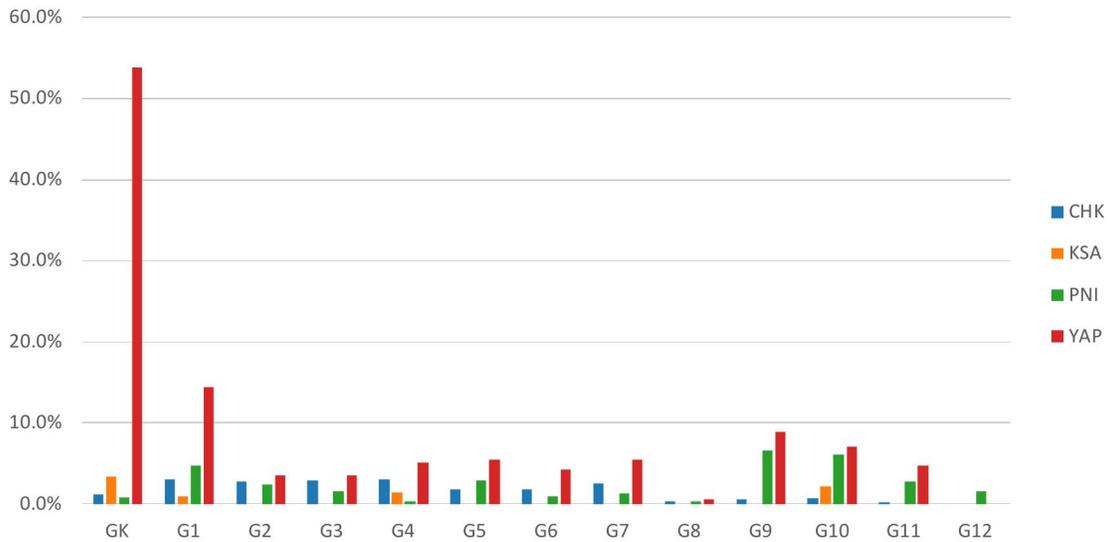
Figure 6.3: Percentages of repeaters by state

The presence of under age children in some higher grades especially at grade 9 (Figure 6.1) is suspect and outlines an area worthy of investigation.

Aside from the already known declining enrollments observed mainly in official age group, the trend of over and under age enrollments have followed mostly consistent patterns over the last five years (Figure 6.4.)
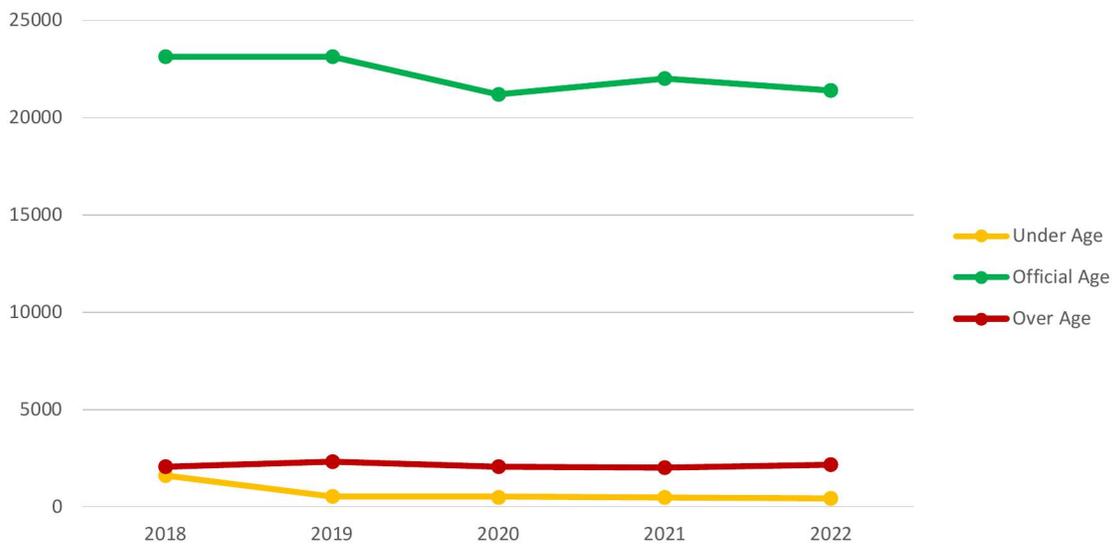
Figure 6.4: Student age distribution trend

It is interesting to have a look at this data by state (Figure 6.5). Yap has definitely a higher under age (and over age) count, largely driven by their under-age ECE enrollments. The rest is similar across all states with more than 90% of students at their official grade.

Aside from year 2018 that seems to be an outlier in the trend, the over age was on a very small but noticeable decline until this year were is now remains steady with the exception of Yap showing an increase in over age this year (Figure 6.6). This suggest mostly good things including less repeaters and dropouts. Yap's over age can mostly be explained by their slightly larger amount of reported repeaters.
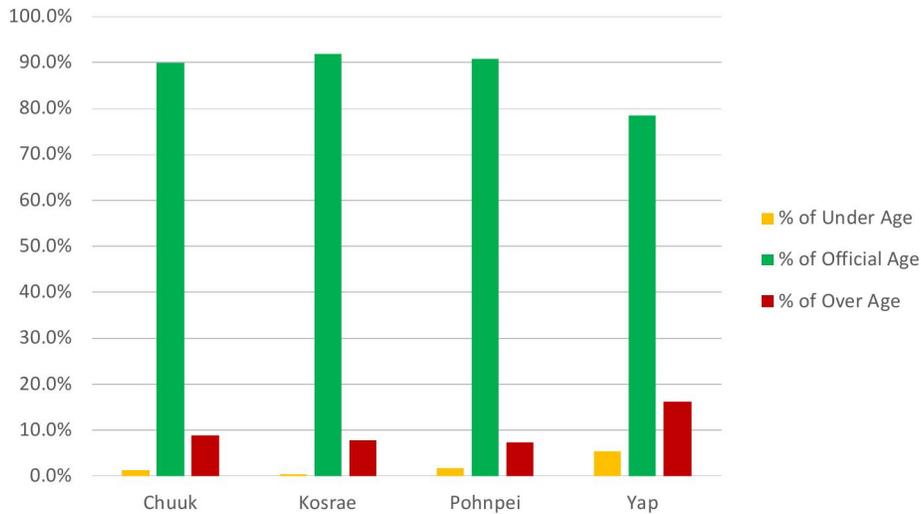
Figure 6.5: Student age distribution by state
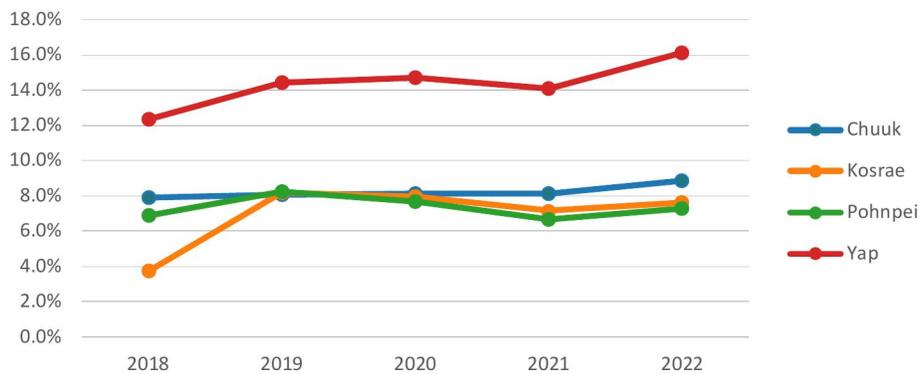
Figure 6.6: Percentage of over age students by state trend

For under age, over age and official age percentages of enrollments by state and gender for the past five years, the reader can refer to Table 6.1. Detailed age distribution data by year, education level, grade and gender is compiled in Table 6.2.

Table 6.1: Student age distribution by state and gender

	Chuuk		Kosrae		Pohnpei		Yap		Grand Total
	F	M	F	M	F	M	F	M	
2018									
% of Under Age	7.0%	6.6%	3.7%	4.7%	5.4%	5.3%	7.6%	5.8%	6.0%
% of Over Age	7.0%	8.8%	2.2%	5.2%	5.9%	7.9%	10.1%	14.3%	7.7%
% of Official Age	86.1%	84.6%	94.2%	90.1%	88.8%	86.8%	82.2%	79.9%	86.3%
2019									
% of Under Age	2.1%	1.4%	1.6%	0.8%	1.5%	1.1%	7.5%	6.0%	2.1%
% of Over Age	7.8%	8.3%	7.1%	9.2%	7.4%	9.1%	11.7%	17.0%	8.9%
% of Official Age	90.1%	90.3%	91.3%	90.0%	91.1%	89.8%	80.9%	77.0%	89.0%
2020									
% of Under Age	1.6%	1.2%	1.8%	1.0%	1.9%	1.6%	7.2%	5.5%	2.2%
% of Over Age	7.5%	8.8%	6.5%	9.3%	7.1%	8.2%	11.9%	17.3%	8.7%
% of Official Age	90.9%	90.0%	91.7%	89.7%	91.0%	90.2%	80.9%	77.2%	89.1%
2021									
% of Under Age	1.6%	1.0%	0.7%	0.7%	1.6%	1.8%	7.5%	5.8%	2.0%
% of Over Age	7.6%	8.7%	6.5%	7.7%	6.5%	6.8%	11.7%	16.4%	8.2%
% of Official Age	90.8%	90.3%	92.8%	91.6%	91.8%	91.4%	80.8%	77.8%	89.8%
2022									
% of Under Age	1.6%	0.7%	0.6%	0.2%	1.8%	1.7%	5.8%	5.0%	1.8%
% of Over Age	7.8%	9.9%	6.3%	8.9%	6.8%	7.8%	13.8%	18.3%	9.0%
% of Official Age	90.6%	89.3%	93.1%	90.8%	91.4%	90.5%	80.4%	76.7%	89.1%
Total % of Under Age	**2.8%**	**2.3%**	**1.7%**	**1.6%**	**2.5%**	**2.4%**	**7.1%**	**5.6%**	**2.9%**
Total % of Over Age	**7.5%**	**8.9%**	**5.6%**	**8.0%**	**6.7%**	**8.0%**	**11.8%**	**16.6%**	**8.5%**
Total % of Official Age	**89.7%**	**88.8%**	**92.6%**	**90.4%**	**90.8%**	**89.7%**	**81.1%**	**77.7%**	**88.6%**

Table 6.2: Student age distribution by education level, grade and gender

	Under Age		Official Age		Over Age		Enrolled		Total Under Age	Total Official Age	Total Over Age	Total Enrolled
	F	M	F	M	F	M	F	M				
2021	**272**	**228**	**11098**	**10910**	**931**	**1077**	**12301**	**12215**	**500**	**22008**	**2008**	**24516**
Early Childhood	**158**	**150**	**639**	**638**	**77**	**86**	**874**	**874**	**308**	**1277**	**163**	**1748**
GK	158	150	639	638	77	86	874	874	308	1277	163	1748
Primary	**42**	**46**	**7551**	**7779**	**477**	**562**	**8070**	**8387**	**88**	**15330**	**1039**	**16457**
G1	42	46	863	941	1		906	987	88	1804	1	1893
G2			1006	1108			1006	1108		2114		2114
G3			1110	1100			1110	1100		2210		2210
G4			1088	1201	3	3	1091	1204		2289	6	2295
G5			1059	1061	10	20	1069	1081		2120	30	2150
G6			988	1026	40	60	1028	1086		2014	100	2114
G7			852	797	116	146	968	943		1649	262	1911
G8			585	545	307	333	892	878		1130	640	1770
Secondary	**72**	**32**	**2908**	**2493**	**377**	**429**	**3357**	**2954**	**104**	**5401**	**806**	**6311**
G9	64	30	951	878	11	20	1026	928	94	1829	31	1954
G10	5	2	861	705	52	73	918	780	7	1566	125	1698
G11	1		656	573	116	120	773	693	1	1229	236	1466
G12	2		440	337	198	216	640	553	2	777	414	1193
2022	**250**	**191**	**10757**	**10643**	**957**	**1215**	**11964**	**12049**	**441**	**21400**	**2172**	**24013**
Early Childhood	**133**	**121**	**601**	**612**	**97**	**115**	**831**	**848**	**254**	**1213**	**212**	**1679**
GK	133	121	601	612	97	115	831	848	254	1213	212	1679
Primary	**57**	**48**	**7561**	**7800**	**474**	**612**	**8092**	**8460**	**105**	**15361**	**1086**	**16552**
G1	55	47	901	981	2	1	958	1029	102	1882	3	1987
G2	1		890	982	2		893	982	1	1872	2	1875
G3	1		1015	1115	2	2	1018	1117	1	2130	4	2135
G4			1111	1114		5	1111	1119		2225	5	2230
G5			1087	1199	14	19	1101	1218		2286	33	2319
G6			1007	970	34	62	1041	1032		1977	96	2073
G7			908	897	125	166	1033	1063		1805	291	2096
G8		1	642	542	295	357	937	900	1	1184	652	1837
Secondary	**60**	**22**	**2595**	**2231**	**386**	**488**	**3041**	**2741**	**82**	**4826**	**874**	**5782**
G9	51	20	754	749	12	23	817	792	71	1503	35	1609
G10	7	1	798	675	47	53	852	729	8	1473	100	1581
G11	2	1	641	487	100	123	743	611	3	1128	223	1354
G12			402	320	227	289	629	609		722	516	1238
Grand Total	**522**	**419**	**21855**	**21553**	**1888**	**2292**	**24265**	**24264**	**941**	**43408**	**4180**	**48529**

STUDENT ATTENDANCE

The following analysis shows the student attendance for the past five years.

DEFINITION AND PURPOSE

Whether or not the students are attending to class. This is meant to measure the participation of students to the education system on a daily basis.

METHODS OF CALCULATION

The total number of absences for each student is entered in the FedEMIS Annual School Census. The total number of absences is divided by the total number of school days to provide the percentage of attendance.

ANALYSIS AND DISCUSSIONS

Chuuk shows an unlikely attendance rate of 100% which is questionable (Figure 6.7). Other states have high attendance rates.
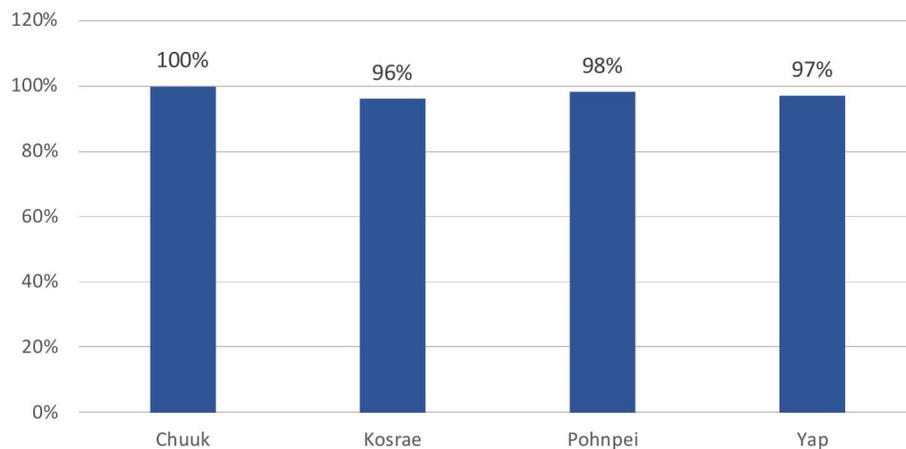
Figure 6.7: Student attendance by state
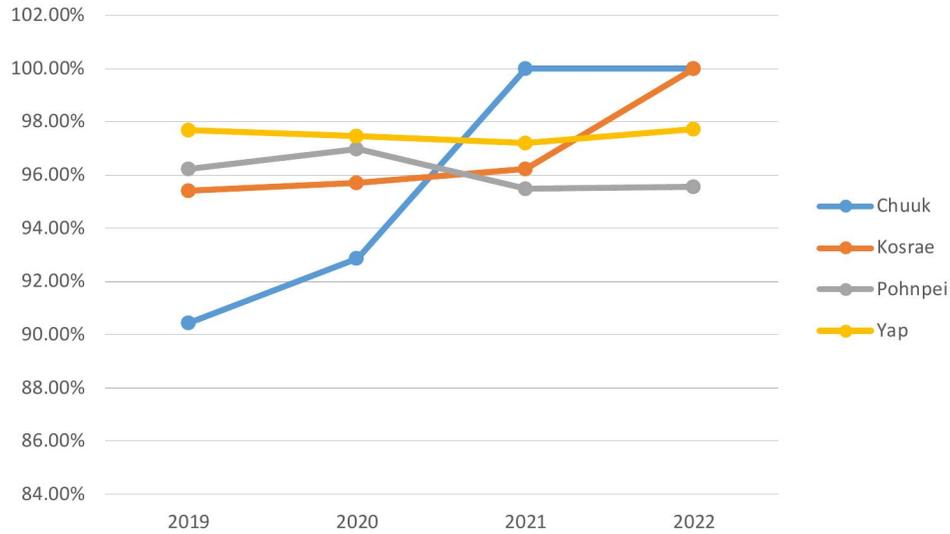
Figure 6.8: Student attendance by state trend

The actual data reported by the schools to the states is shown in Table 6.3.

Table 6.3: Enrollment and attendance data

Year	State	Total Enrollment	Total School Days	Possible Attendance	Total Absent	Actual Attendance	Attendance Rate
2019	Chuuk	11088	180	1995840	190852	1804988	90.44%
2020	Chuuk	9572	180	1722960	122915	1600045	92.87%
2021	Chuuk	10551	180	1899180	0	1899180	100.00%
2022	Chuuk	10580	180	1904400	0	1904400	100.00%
2019	Pohnpei	9935	180	1788300	67474	1720826	96.23%
2020	Pohnpei	9480	180	1706400	51614	1654786	96.98%
2021	Pohnpei	9347	180	1682460	76141	1606319	95.47%
2022	Pohnpei	8955	180	1611900	71210.5	1540689.5	95.58%
2019	Kosrae	1905	180	342900	15664	327236	95.43%
2020	Kosrae	1852	180	333360	14282	319078	95.72%
2021	Kosrae	1751	180	315180	11844	303336	96.24%
2022	Kosrae	1638	180	294840	0	294840	100.00%
2019	Yap	3011	180	541980	12527	529453	97.69%
2020	Yap	2890	180	520200	13110	507090	97.48%
2021	Yap	2839	180	511020	14204	496816	97.22%
2022	Yap	2827	180	508860	11505	497355	97.74%

STUDENT ENROLLMENTS, INTAKE AND POPULATION

The total enrollment of students disaggregated by year, grade, education levels and state.

DEFINITION AND PURPOSE

From the raw data below "Enrol" is the total enrollment (i.e. new entrants, repeaters, transfers), "Net Enrol" is the total enrollment of official age, Intake are the new entrants (i.e. no repeaters), "Net Intake" are the new entrants of official age and Population is the total population of the relevant age group. The purpose of this data is to calculate the key indicators (refer to Indicators chapter) and to produce some basic statistics to support decision making within the NDOE/SDOEs.

METHODS OF CALCULATION

There is no calculation involved here. This is merely data processed in familiar table format with disaggregation from the FedEMIS data warehouse.

ANALYSIS AND DISCUSSIONS

As mentioned throughout the text enrollments have declined this school year. The total enrollment as currently reported 24,013 with an estimated population of school age of 32,755 (Figure 6.9.) Only the next population census will be able to shed more light in the accuracy of this population data. However, there seems to be an unarguable decline in enrollments in recent years mostly at the primary level (Figure 6.10) and the same decline is not seen in the current population projection data in use (Figure 6.11). However, the decline seem to have lessen this year in Primary.
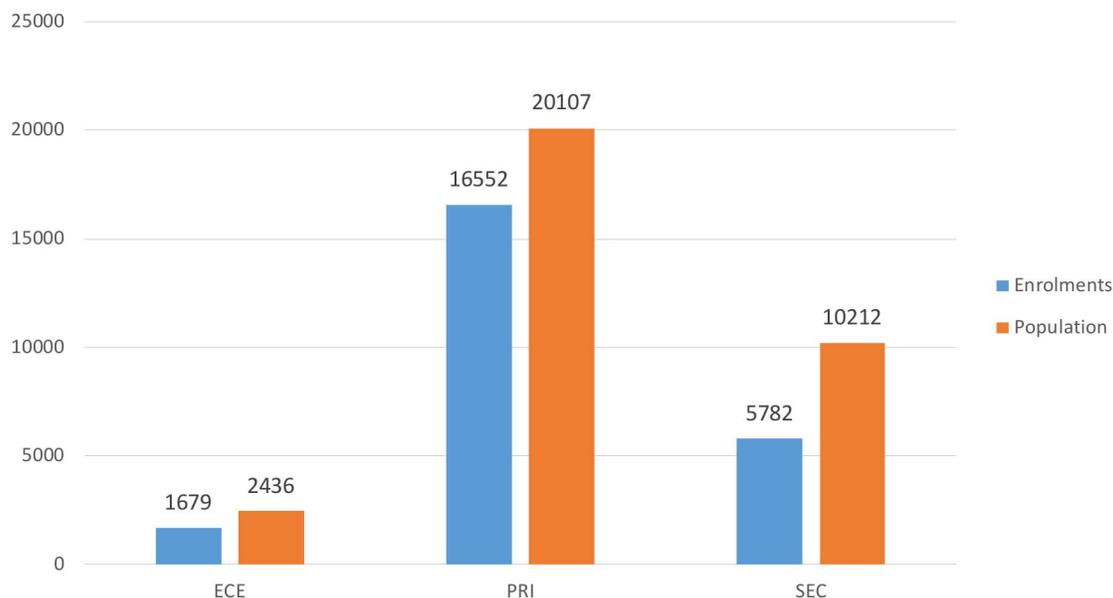
Figure 6.9: Total Enrollments and population by education level side by side
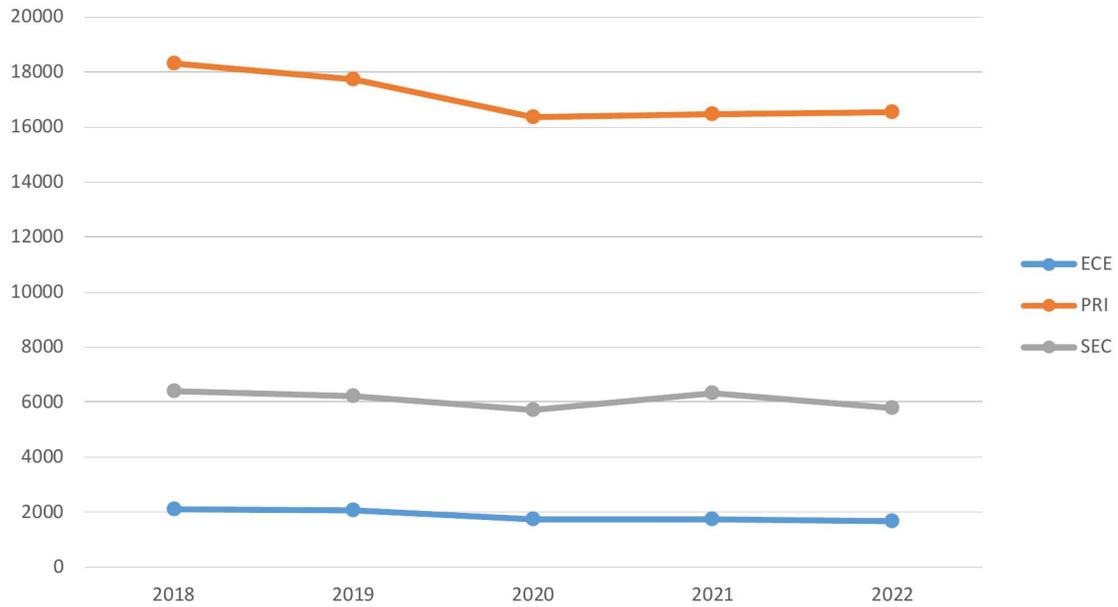
Figure 6.10: Enrollments by education levels trend
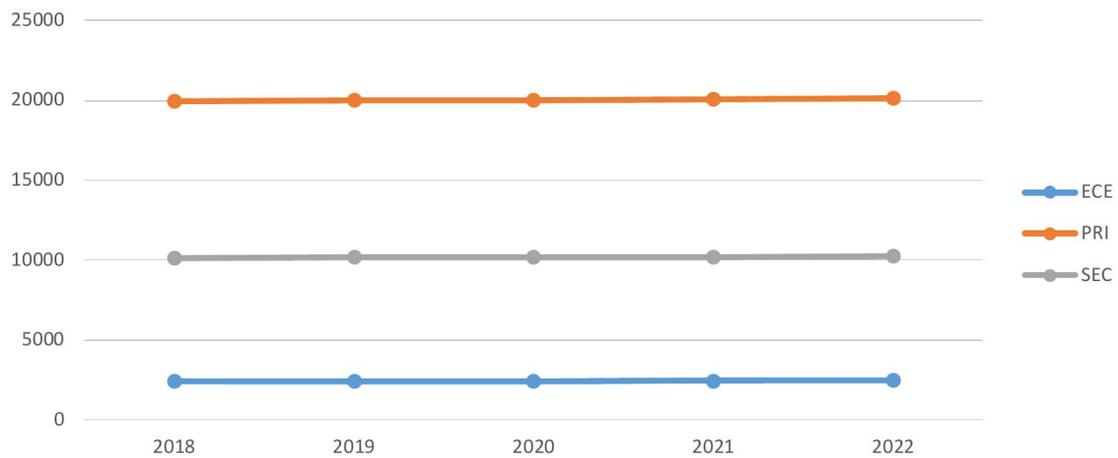
Figure 6.11: Population projection by education levels

Readers that are more adventurous might find the Table 6.4 of good use. It is used to produce various core indicators such as NER/GER/NIR/GIR. It provides data on enrollments, net enrollments (i.e. enrollments of official age), intakes (i.e. new entrants excluding repeaters), and net intakes (i.e. intakes of official age). All this data is presented side by side with population for the last five years at all levels of education[1].

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[1] Population projection in use is the FSM NSO Census 2013.

Table 6.4: Enrollments, intakes, population by year and education level

	Enrol Male	Enrol Female	Enrol Total	Net Enrol Male	Net Enrol Female	Net Enrol Total	Intake Male	Intake Female	Intake Total	Net Intake Male	Net Intake Female	Net Intake	Rep Male	Rep Female	Rep Total	Net Rep Male	Net Rep Female	Net Rep Total	Pop Male	Pop Female	Pop Total
2018	**13645**	**13166**	**26811**	**11642**	**11495**	**23137**	**3102**	**2949**	**6051**	**1861**	**1808**	**3669**	**578**	**404**	**982**	**428**	**307**	**735**	**16739**	**15779**	**32518**
ECE	1081	1029	2110	667	625	1292	975	919	1894	602	557	1159	106	110	216	65	68	133	1245	1172	2417
PRI	9402	8904	18306	8508	8169	16677	1243	1121	2364	818	763	1581	382	240	622	304	199	503	10230	9730	19960
SEC	3162	3233	6395	2467	2701	5168	884	909	1793	441	488	929	90	54	144	59	40	99	5264	4877	10141
2019	**13166**	**12849**	**26015**	**11652**	**11508**	**23160**	**3081**	**3024**	**6105**	**2102**	**2053**	**4155**	**539**	**387**	**926**	**430**	**308**	**738**	**16767**	**15805**	**32572**
ECE	1073	988	2061	812	692	1504	961	894	1855	744	630	1374	112	94	206	68	62	130	1247	1175	2422
PRI	9070	8655	17725	8399	8065	16464	1164	1153	2317	871	872	1743	330	230	560	296	191	487	10246	9745	19991
SEC	3023	3206	6229	2441	2751	5192	956	977	1933	487	551	1038	97	63	160	66	55	121	5274	4885	10159
2020	**11870**	**11959**	**23829**	**10494**	**10744**	**21238**	**2624**	**2612**	**5236**	**1735**	**1783**	**3518**	**440**	**325**	**765**	**330**	**235**	**565**	**16795**	**15834**	**32629**
ECE	888	835	1723	620	601	1221	812	754	1566	584	571	1155	76	81	157	36	30	66	1249	1177	2426
PRI	8291	8088	16379	7665	7532	15197	1044	972	2016	736	682	1418	279	174	453	248	158	406	10265	9763	20028
SEC	2691	3036	5727	2209	2611	4820	768	886	1654	415	530	945	85	70	155	46	47	93	5281	4894	10175
2021	**12215**	**12301**	**24516**	**10910**	**11098**	**22008**	**2631**	**2669**	**5300**	**1807**	**1868**	**3675**	**309**	**250**	**559**	**225**	**180**	**405**	**16824**	**15863**	**32687**
ECE	874	874	1748	638	639	1277	785	781	1566	594	583	1177	89	93	182	44	56	100	1252	1179	2431
PRI	8387	8070	16457	7779	7551	15330	948	880	1828	702	693	1395	129	74	203	108	67	175	10282	9781	20063
SEC	2954	3357	6311	2493	2908	5401	898	1008	1906	511	592	1103	91	83	174	73	57	130	5290	4903	10193
2022	**12049**	**11964**	**24013**	**10643**	**10757**	**21400**	**2470**	**2433**	**4903**	**1703**	**1727**	**3430**	**434**	**322**	**756**	**347**	**242**	**589**	**16862**	**15893**	**32755**
ECE	848	831	1679	612	601	1213	756	720	1476	555	538	1093	92	111	203	57	63	120	1255	1181	2436
PRI	8460	8092	16552	7800	7561	15361	971	916	1887	710	697	1407	240	150	390	215	139	354	10305	9802	20107
SEC	2741	3041	5782	2231	2595	4826	743	797	1540	438	492	930	102	61	163	75	40	115	5302	4910	10212
Grand Total	**62945**	**62239**	**125184**	**55341**	**55602**	**110943**	**13908**	**13687**	**27595**	**9208**	**9239**	**18447**	**2300**	**1688**	**3988**	**1760**	**1272**	**3032**	**83987**	**79174**	**163161**

Enrollments in Grade K to Grade 6 generally have more males then females but then switches to more females than males in all subsequent grades (Figure 6.12.) Grades K, 1 and 3 are all generally steady over the last five years (Figure 6.13). Grade 2 shows a slight decline from last year. Grades 4-8 are mostly steady with Grade 5 and 7 increasing slightly and Grade 6 and 6 decreasing slightly (Figure 6.13). Grade 9 has sharp decline this year while Grade 10-12 are mostly steady (Figure 6.15).

Figure 6.12: Enrollments by grade and gender
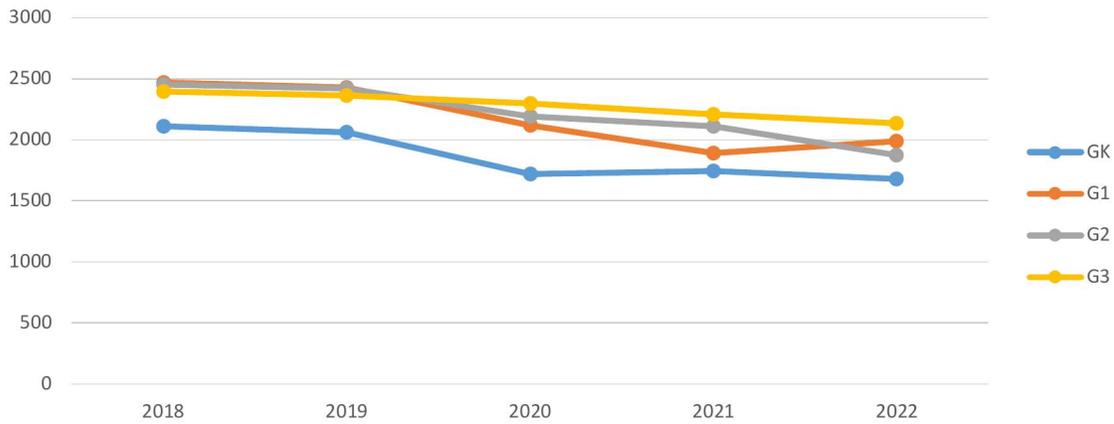
Figure 6.13: Enrollment by grade trend (Grade K to 3)
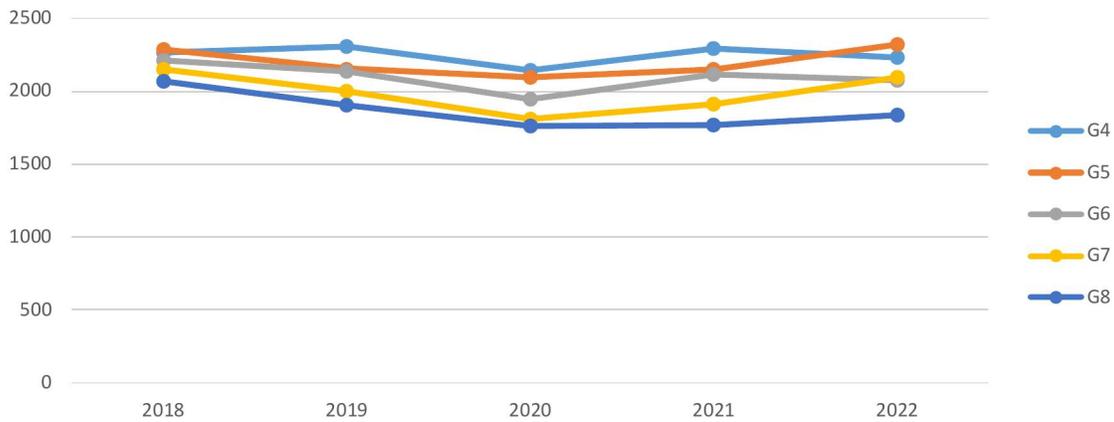
Figure 6.14: Enrollment by grade trend (Grade 4 to 8)
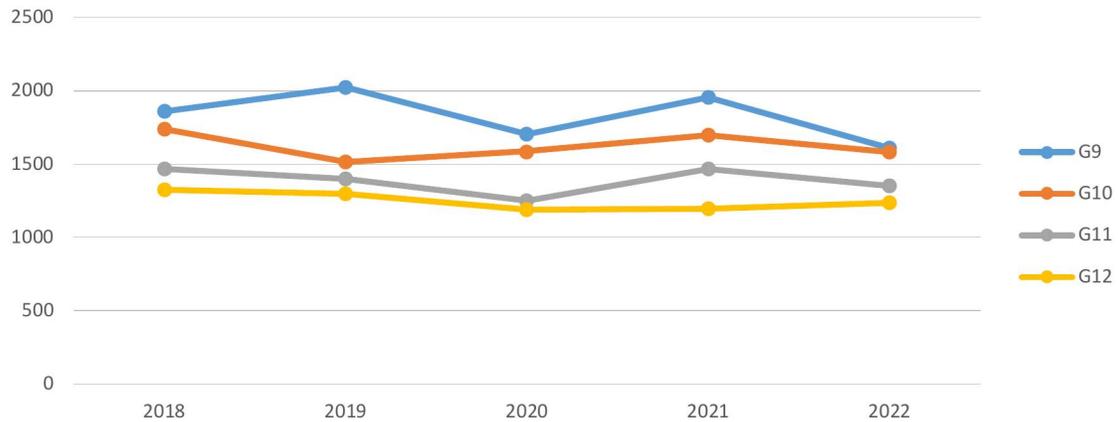
Figure 6.15: Enrollment by grade trend (Grade 9 to 12)

Again, for the more advanced readers, the same data provided in Table 6.4 is also presented in Table 6.5 but this time instead of disaggregating by education level it is disaggregated by class levels (grades.) It was used to produce GIR/NIR/GIRLG/NIRLG among other indicators.
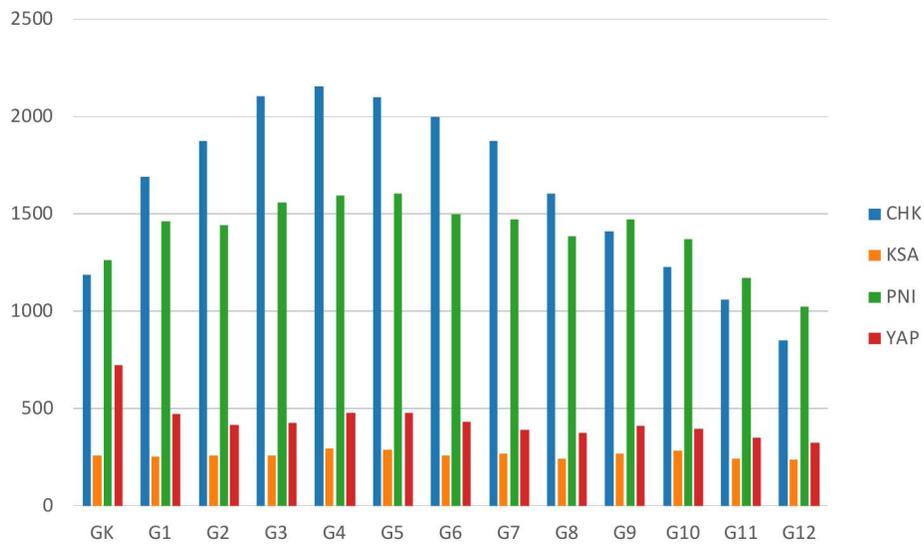
Figure 6.16: Enrollments by grade and state

Table 6.5: Enrollments, intakes and population by year and grade

	Enrol Male	Enrol Female	Enrol Total	Net Enrol Male	Net Enrol Female	Net Enrol Total	Intake Male	Intake Female	Intake Total	Net Intake Male	Net Intake Female	Net Intake Total	Pop Male	Pop Female	Pop Total
2021	**12215**	**12301**	**24516**	**7264**	**7899**	**15163**	**11906**	**12051**	**23957**	**7216**	**7836**	**15052**	**16824**	**15863**	**32687**
GK	874	874	1748	638	639	1277	785	781	1566	594	583	1177	1252	1179	2431
G1	987	906	1893	703	695	1398	948	880	1828	702	693	1395	1233	1214	2447
G2	1108	1006	2114	711	684	1395	1090	997	2087	710	683	1393	1230	1189	2419
G3	1100	1110	2210	704	775	1479	1086	1104	2190	704	775	1479	1190	1103	2293
G4	1204	1091	2295	711	697	1408	1190	1085	2275	711	697	1408	1350	1227	2577
G5	1081	1069	2150	619	672	1291	1066	1054	2120	619	672	1291	1348	1216	2564
G6	1086	1028	2114	606	671	1277	1079	1024	2103	606	670	1276	1327	1305	2632
G7	943	968	1911	532	609	1141	928	963	1891	531	608	1139	1331	1334	2665
G8	878	892	1770	518	534	1052	871	889	1760	517	534	1051	1273	1193	2466
G9	928	1026	1954	511	592	1103	898	1008	1906	511	592	1103	1364	1239	2603
G10	780	918	1698	380	522	902	739	875	1614	380	521	901	1335	1223	2558
G11	693	773	1466	320	416	736	680	759	1439	320	415	735	1294	1204	2498
G12	553	640	1193	311	393	704	546	632	1178	311	393	704	1297	1237	2534
2022	**12049**	**11964**	**24013**	**7117**	**7730**	**14847**	**11615**	**11642**	**23257**	**7045**	**7658**	**14703**	**16862**	**15893**	**32755**
GK	848	831	1679	612	601	1213	756	720	1476	555	538	1093	1255	1181	2436
G1	1029	958	1987	716	699	1415	971	916	1887	710	697	1407	1236	1216	2452
G2	982	893	1875	637	649	1286	951	876	1827	635	649	1284	1234	1192	2426
G3	1117	1018	2135	677	652	1329	1088	998	2086	677	650	1327	1193	1104	2297
G4	1119	1111	2230	664	765	1429	1085	1096	2181	664	764	1428	1352	1231	2583
G5	1218	1101	2319	697	667	1364	1187	1075	2262	696	665	1361	1349	1218	2567
G6	1032	1041	2073	586	643	1229	1010	1029	2039	583	643	1226	1330	1308	2638
G7	1063	1033	2096	585	656	1241	1033	1016	2049	583	655	1238	1334	1338	2672
G8	900	937	1837	508	593	1101	895	936	1831	507	593	1100	1277	1195	2472
G9	792	817	1609	438	492	930	743	797	1540	438	492	930	1366	1242	2608
G10	729	852	1581	417	528	945	693	828	1521	417	528	945	1337	1224	2561
G11	611	743	1354	297	433	730	600	728	1328	297	433	730	1297	1205	2502
G12	609	629	1238	283	352	635	603	627	1230	283	351	634	1302	1239	2541
Grand Total	**24264**	**24265**	**48529**	**14381**	**15629**	**30010**	**23521**	**23693**	**47214**	**14261**	**15494**	**29755**	**33686**	**31756**	**65442**

DISABILITY

DEFINITION AND PURPOSE

Disability data enables us to implement programs designed to improve results for infants, toddlers, children, and youth with disabilities. Having good statistics on the more common disabilities and where they are enables more efficient planning of the SpEd programs.

METHODS OF CALCULATION

Direct basic aggregation of data (such as summing/counting)

ANALYSIS AND DISCUSSIONS

The most commonly reported disability is "Specific learning disability" with nearly two thirds of those males (Figure 6.17.) Distant other important groups are students with "Visual Impairment", "Speed or language impairment" and "Other health impairment". In general, there are more male students with disabilities. The situation is similar for most States with Pohnpei reporting significantly more students with disabilities. Yap and Kosrae report a similar number of students with disabilities. Chuuk, the state with the most enrollments, reports the least student with disabilities and most of them are unspecified making Chuuk's data suspiciously incomplete on special education
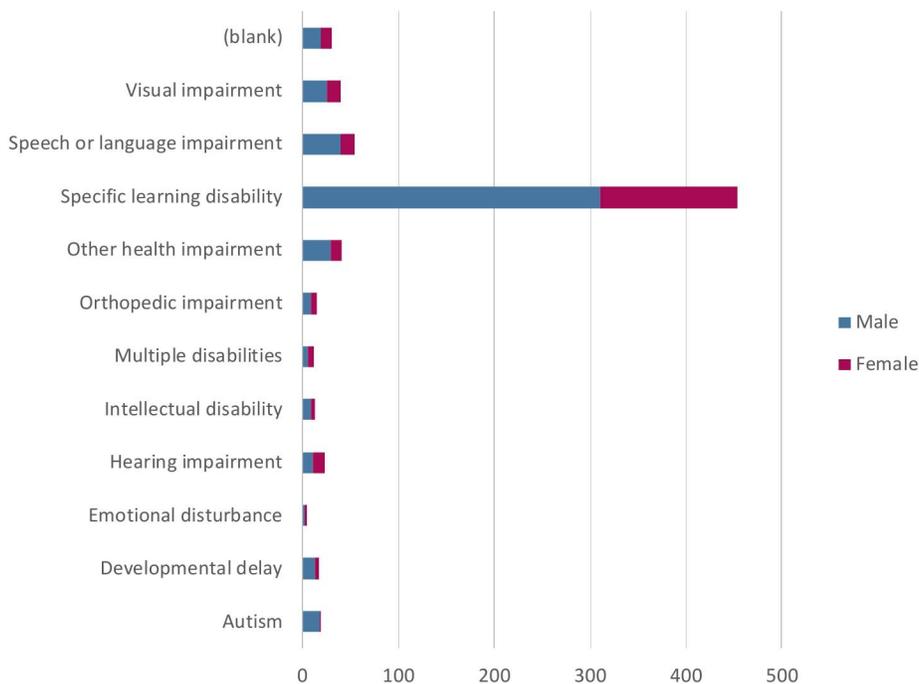
Figure 6.17: Disability distribution by gender
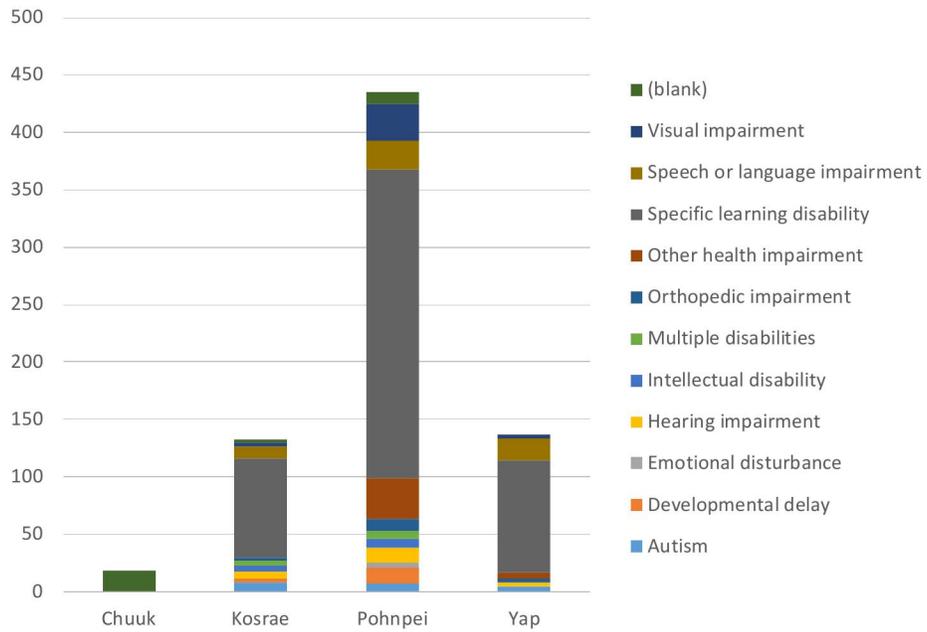
Figure 6.18: Cohort distribution for disability by state

Table 6.6: Disability by state and gender data

Disbilities	Autism	Developmental delay	Emotional disturbance	Hearing impairment	Intellectual disability	Multiple disabilities	Orthopedic impairment	Other health impairment	Specific learning disability	Speech or language impairment	Visual impairment	N/A	Grand Total
Female	**1**	**4**	**2**	**12**	**5**	**7**	**7**	**12**	**144**	**14**	**15**	**11**	**234**
Chuuk												8	8
Kosrae				4	4	3			23	2	4		40
Pohnpei	1	4	2	8	1	4	5	11	85	7	10	3	141
Yap							2	1	36	5	1		45
Male	**18**	**13**	**2**	**11**	**8**	**5**	**8**	**29**	**310**	**40**	**25**	**19**	**488**
Chuuk												10	10
Kosrae	8	3		2	1	2	2		64	8		2	92
Pohnpei	6	10	2	5	7	3	5	25	184	18	22	7	294
Yap	4			4			1	4	62	14	3		92
Grand Total	**19**	**17**	**4**	**23**	**13**	**12**	**15**	**41**	**454**	**54**	**40**	**30**	**722**

SPECIAL EDUCATION ENVIRONMENT

DEFINITION AND PURPOSE

The special education environment is the type of environment the special education children and youth are learning in. The purpose of this data is to monitor whether our children and youth with disabilities are learning in an appropriate environment capable of catering to their needs.

METHODS OF CALCULATION

Direct basic aggregation of data (such as summing/counting).

ANALYSIS AND DISCUSSIONS

Most special education students learn "Inside regular class 80% or more of the day" (Figure 6.19.) This is followed by "Services Regular ECE Program (at least 10 hours)". The (blank) is mostly Chuuk's incomplete data. Nearly 50 special education students do not have this data specified, something we need to address.
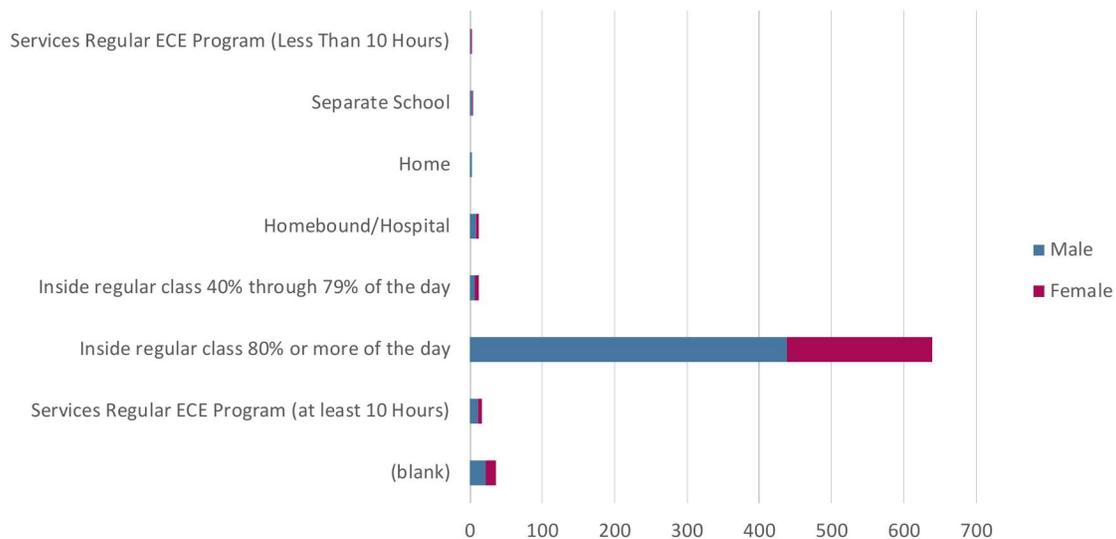
Figure 6.19: Special Education Environment Distribution

In the States, most students are inside regular classes either 80% (Figure 6.20.) Yap has 8 students in "Services Regular ECE Program (at least 10 hours)". Both Kosrae and Chuuk here have the most unspecified data (blank) in need of further improvement.
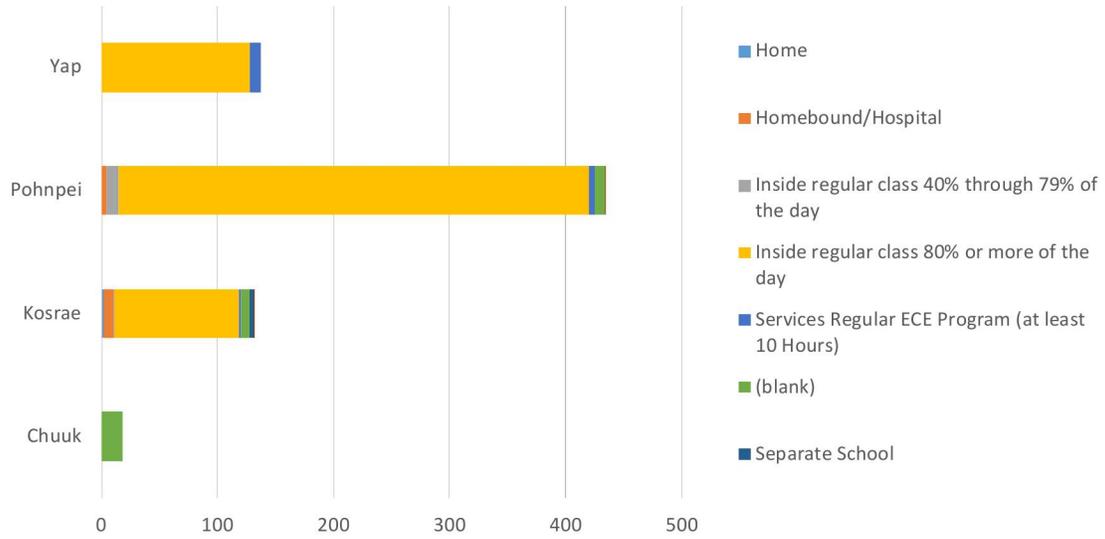
Figure 6.20: Cohort Distribution for Special Education Environment by State

Table 6.7: Special Education Learning Environment by District and Gender

Learning Environments	Home	Homebound/Hospital	Inside regular class 40% through 79% of the day	Inside regular class 80% or more of the day	Services Regular ECE Program (at least 10 Hours)	Separate School	ECE Program (Less Than 10 Hours)	(blank)	Grand Total
Female		**4**	**6**	**202**	**6**	**1**	**1**	**14**	**234**
Chuuk								8	8
Kosrae		3	1	28	2	1	1	4	40
Pohnpei		1	5	132	1			2	141
Yap				42	3				45
Male	**2**	**8**	**6**	**438**	**10**	**2**	**1**	**21**	**488**
Chuuk								10	10
Kosrae	2	5		79		2		4	92
Pohnpei		3	6	273	4		1	7	294
Yap				86	6				92
Grand Total	**2**	**12**	**12**	**640**	**16**	**3**	**2**	**35**	**722**

ENGLISH LEARNER STATUS

DEFINITION AND PURPOSE

To track progress of English learners in schools of the students with disability cohorts.

METHODS OF CALCULATION

Direct basic aggregation of data (such as summing/counting)

ANALYSIS AND DISCUSSIONS

Most of the special education students in the FSM are learning English (Figure 6.21.) The blanks are student with unavailable English learner status data as oppose to not being English learners.
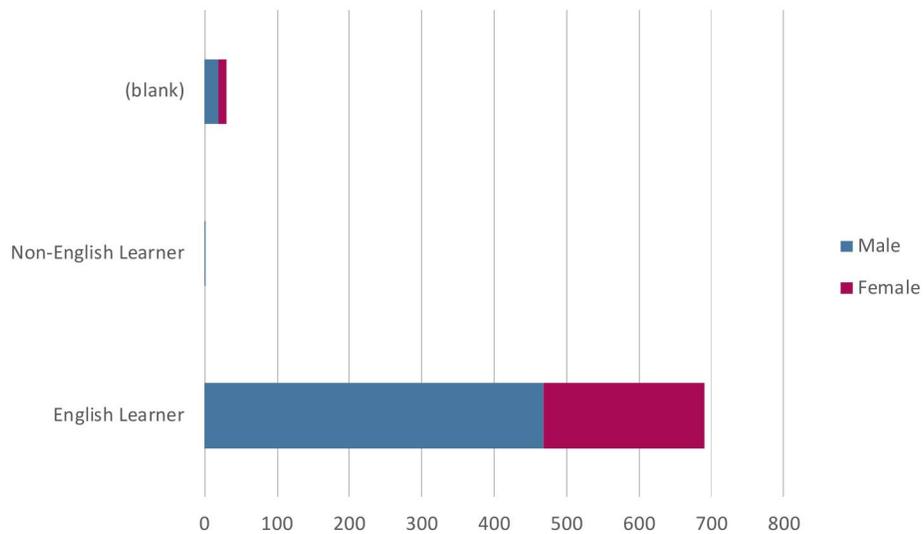
Figure 6.21: English learner distribution

Table 6.8: English learners by state and gender

English Learners	English Learner		Non-English Learner	(blank)		Grand Total
	Male	Female	Male	Male	Female	
Chuuk				10	8	18
Kosrae	90	40		2		132
Pohnpei	286	138	1	7	3	435
Yap	92	45				137
Grand Total	**468**	**223**	**1**	**19**	**11**	**722**
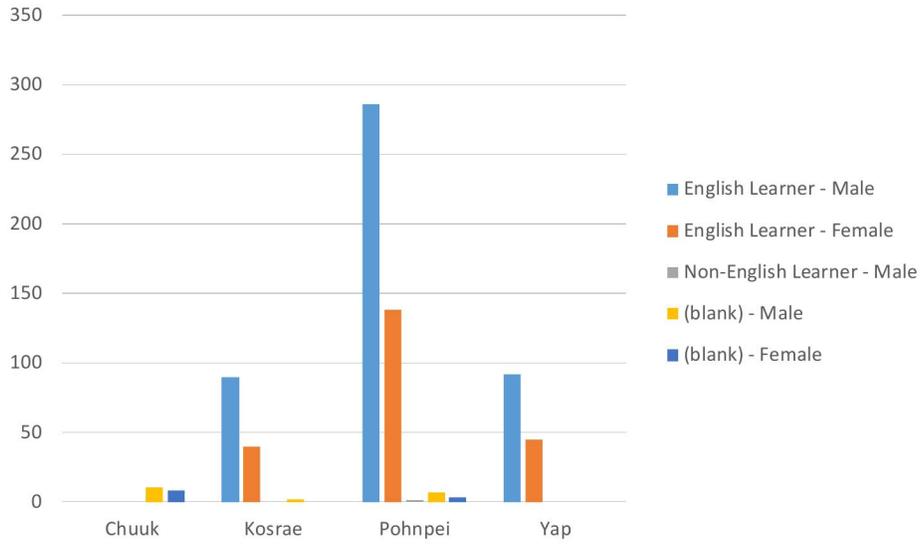
Figure 6.22: Cohort distribution for English learner by state

CHAPTER 7: BUDGET

==TODO – Can not use this unless all budget is loaded==

This chapter looks at several important budget related indicators. We have significantly improved our data management in this aspect and now provide a means for better comparison with other countries internationally. It can be a little tricky to compare with other countries, as there are a number of factors to account for in the differences producing those numbers. That said, the changes in reporting we are making by using MIEMIS is significantly improving our situation to achieve this to the extent possible.

BACKGROUND

DATA SOURCE

Budget related indicators analysis always lag a little behind as it depends on the release of the Basic Financial Statements Independent Auditor's Report and World Bank data (for GNP and GNP/capita). We show the most recently available year at the time of publishing the release and 4 years prior to that for historical analysis.

METHODS OF CALCULATION

For each year, we enter the budgets (i.e. total expenditures) for the whole government of the RMI[1]. We then enter every single Ministry of Education expenditure carefully classified into cost centres. Cost Centres are essentially accounts from the accounting system (e.g. Admin Salaries, Primary Schools Textbooks, etc.). Cost Centres define how the expenditures are to be calculated and distributed through education sectors.

- Post to sector (money used for a specific education sector (e.g. AID to Primary Private Schools)
- Prorate (money used/prorated against all education sectors (e.g. MoE Personel, Budget, Admin)
- Ignore (money not counted/ignored for indicators computation)

LIMITATIONS

While every effort is taken to take into account all sources of fund and all expenditures something other sources of funding are provided which are not included into the system. Those however would have only a minimal impact as the major sources of funding are all accounted for.

Furthermore, most of the education expenditures can be considered current expenditures. Very little expenditure is recorded as capital expenditure. There needs to be a clarification of where capital expenditure.

GNP AND GOVERNMENT SPENDING INDICATORS

PUBLIC EXPENDITURE ON EDUCATION AS % OF GROSS NATIONAL INCOME (GNI)

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[1] Expenditure for the government would preferably include budgeted and actual figures but those are currently only available for the General Fund source and not all expenditures. Therefore, budgeted and actual government-wide expenditures are currently set to the same amount.

In 2015 the Public Expenditure on Education as % of Gross National Income (GNI) (shortened to Ed/GNP %) was 8.8% and have steadily been decreasing to 6.7% in 2018 (Table 2.1.) While expenditures of the education system has remains relatively stable, the whole government expenditures have increased which explains the decrease in percentage.

In 2016, RMI's Ed/GNP % is 8.8% which is higher than the average of 4.5% as published by the World Bank[2]. RMI has nevertheless need decreasing this percentage but it remains higher then the international average

PUBLIC EXPENDITURE ON EDUCATION AS % OF TOTAL GOVERNMENT EXPENDITURE

In 2016, RMI's Public Expenditure on Education as % of Total Government Expenditure (shortened to Ed/Govt %) is 16.6% (Table 2.1) which is a little higher than the average of 14.6% as published by the World Bank[3]. While it was good back then in 2018 at 12.4% RMI has already slipped below the international average needing further scrutiny.

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[2] https://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS?name_desc=true

[3] https://data.worldbank.org/indicator/SE.XPD.TOTL.GB.ZS?name_desc=true

Table 0.1: GNP and Government Actual and Budgeted Expenditures

	GNP	Actual Expenditure				Budgeted Expenditure			
		Ed Expenditure	Govt Expenditure	Ed/Govt %	Ed/GNP %	Ed Expenditure	Govt Expenditure	Ed/Govt %	Ed/GNP %
2016	$387,000,200.00	$7,599,776.32	$110,959,926.00	6.8%	2.0%	$8,167,240.60	$142,959,926.00	5.7%	2.1%
2017	$416,554,700.00	$7,009,165.17	$141,390,017.00	5.0%	1.7%	$8,106,035.89	$141,390,017.00	5.7%	1.9%
2018	$412,197,400.00	$6,994,474.20	$118,790,596.00	5.9%	1.7%	$7,834,386.29	$118,790,596.00	6.6%	1.9%
2019	$0.00	$1,559,661.25	$0.00	#DIV/0!	#DIV/0!	$1,809,555.03	$0.00	#DIV/0!	#DIV/0!
2020	$0.00	$629,209.84	$0.00	#DIV/0!	#DIV/0!	$2,258,915.00	$0.00	#DIV/0!	#DIV/0!

EDUCATION EXPENDITURE BY SECTORS

PERCENTAGE DISTRIBUTION OF PUBLIC CURRENT EXPENDITURE ON EDUCATION BY LEVEL OF EDUCATION (SECTOR)

As a whole sector, Primary gets the largest percentage of the public current/total expenditure at 55.4%, while ECE and Secondary get 12.7% and 31.9% respectively (Table 2.2 Actual expenditures.)

However, the per-pupil expenditure (Figure 2.2) tells a slightly different story with pupils in ECE and Secondary generally getting more then students in Primary.

PUBLIC CURRENT EXPENDITURE PER PUPIL AS % OF GROSS NATIONAL INCOME (GNI AKA. GNP) PER CAPITA

REQUIRES A BIT ADDITIONAL PROCESSING TO COMPUTE AND SHOULD BE AVAILABLE IN COMING RELEASE.

Table 0.2: Government Actual and Budgeted Expenditures by Education Sectors

	Early Childhood		Primary		Secondary		Total	
	Actual	Budgeted	Actual	Budgeted	Actual	Budgeted	Actual	Budgeted
NATIONAL	$114,047.77	$137,558.16	$989,476.70	$1,193,452.46	$345,621.26	$416,869.38	$1,449,145.73	$1,747,880.00
CHK	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
KSA	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
PNI	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
YAP	$583,426.90	$640,364.50	$3,424,028.20	$3,758,184.80	$1,537,873.37	$1,687,956.99	$5,545,328.47	$6,086,506.29
Total	$697,474.67	$137,558.16	$989,476.70	$1,193,452.46	$345,621.26	$416,869.38	$1,449,145.73	$1,747,880.00

Figure 0.1: Actual and Budgeted Education Expenditure

Figure 0.2: Actual and Budgeted Expenditure per Pupil
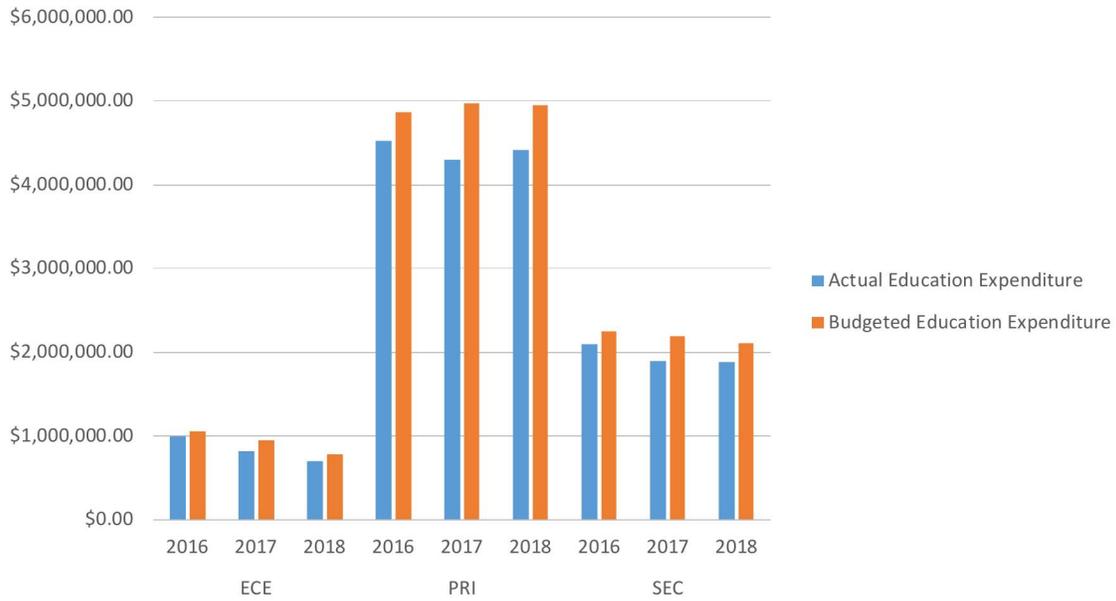
Figure 0.3: Actual and Budgeted Expenditure by Sector and Year

FSM maintain itself in the range of TODO% of public expenditure per pupil as % of the GNP per capita. The world has an average of 15% for this indicator and with the current data FSM is well TODO average when it comes to this indicator.

Table 0.3: Expenditure per Pupil as % of GNP per Capita

	Expenditure per Pupil	GNP per Capita	Expenditure Per Head as % of GNP per Capita
2015	$1,645	$4,319	38%
2016	$1,464	$4,548	32%
2017	$1,766	$4,711	37%
2018	$1,420	$4,838	29%

CHAPTER 7: BUDGET

CHAPTER 8: SCHOOL ACCREDITATIONS

School accreditation data included herein is taken directly from the FedEMIS.

BACKGROUND

DATA SOURCE

Until now data came from states in scanned PDF with aggregated results. The archived copies are messy and there is no source of all data into a single place to get all the historical data. For a couple of years now, all raw data for each conducted school inspection (school accreditation) is recorded, processed and analysed in the FedEMIS.

METHODS OF CALCULATION

Each year both public and private schools in the FSM are evaluated using a 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 the state departments within their jurisdiction.

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 exceeded standards as specified in the school accreditation manual. In other words, schools having a score of above 90% 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

LIMITATIONS

In addition, some past submitted records had erroneous results; in other words, the level of the school shown on the scanned copy is not the same as calculated from the scores and thus there are some discrepancies between submitted scanned results and FedEMIS calculated data.

Visiting schools in the outer islands tends to be the major limitations in school accreditation. School visits in those outer islands largely depend on schedule of vessels which is always uncertain. As a result, it is almost always the case that some of the schools are missing from our evaluation list. This is usually the case with schools in outer islands in Chuuk and Yap. The report is therefore based on the number of schools that could be visited within the available means and ways that could be utilized to complete the accreditation.

The school accreditation system has been recently revised and some of the policies and regulations have been changed including the tools and procedures. The new tool and procedures is going to be effective from January 2019. As such the reporting frame and the data tables will have some issues around comparability and consistency.

ACCREDITATION STATUS

The accreditation status is analyzed from two different angles:

- Cumulative to current year: this means that from all the historical data the most recent school accreditation for each school is taken into the analysis.
- Evaluated in current year: this means only the schools that had a school accreditation inspection this year is take into the analysis. In other words, only the work for this year is shown.

ANALYSIS AND DISCUSSIONS

On a cumulative basis, there are still 41 schools at Level 1 while the majority (114) are either at Level 2, 3, or 4 (Figure 8.1.) This represents a decrease in number of schools at Level 1 from last year indicating progress on that front. Similar progress can be observed in the increase of Level 4 schools over that past years (Figure 8.4.)
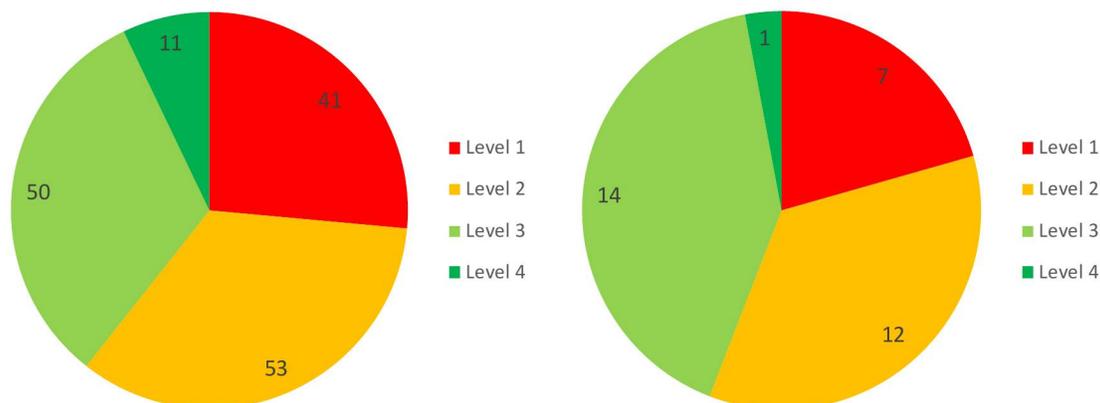
Figure 8.1: Accreditation results nationwide (left cumulative to year, right evaluated in year)

When analyzing cumulatively, the majority of Level 1 schools (i.e. 40 out of 41) can be found in Chuuk and Yap. This is understandable as both those states have a lot more remote schools accounting for most of those. Pohnpei is the state with the highest proportion of schools at Level 4 (Figure 8.2).
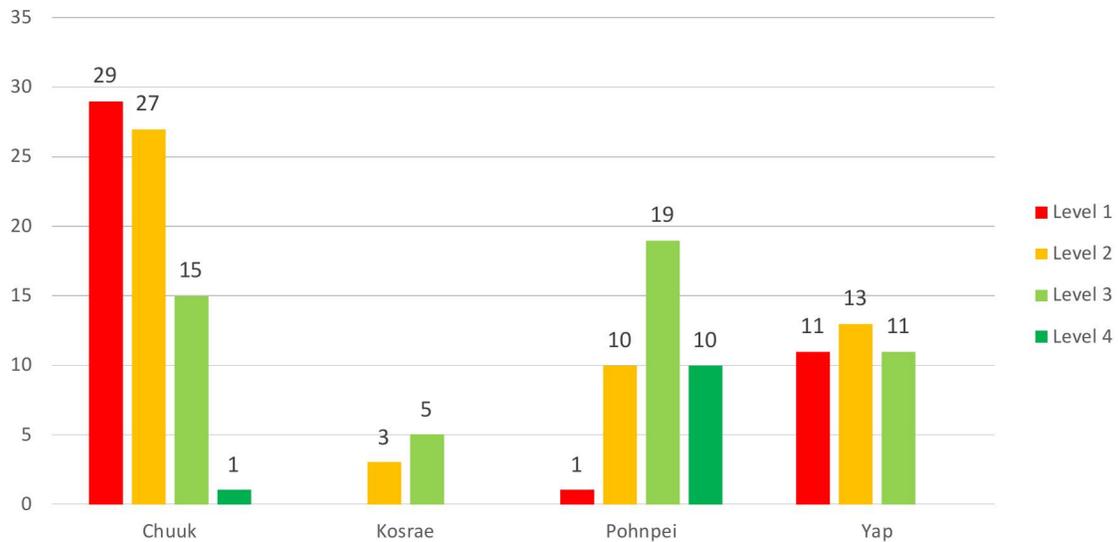
Figure 8.2: Accreditation results by state accumulative to this year

When looking at only the schools that were evaluated this year there are a few schools at Level 1 (Figure 8.3) mostly in Chuuk and one in Pohnpei. Kosrae does not yet have any approved and loaded school accreditation into the system for this school year.
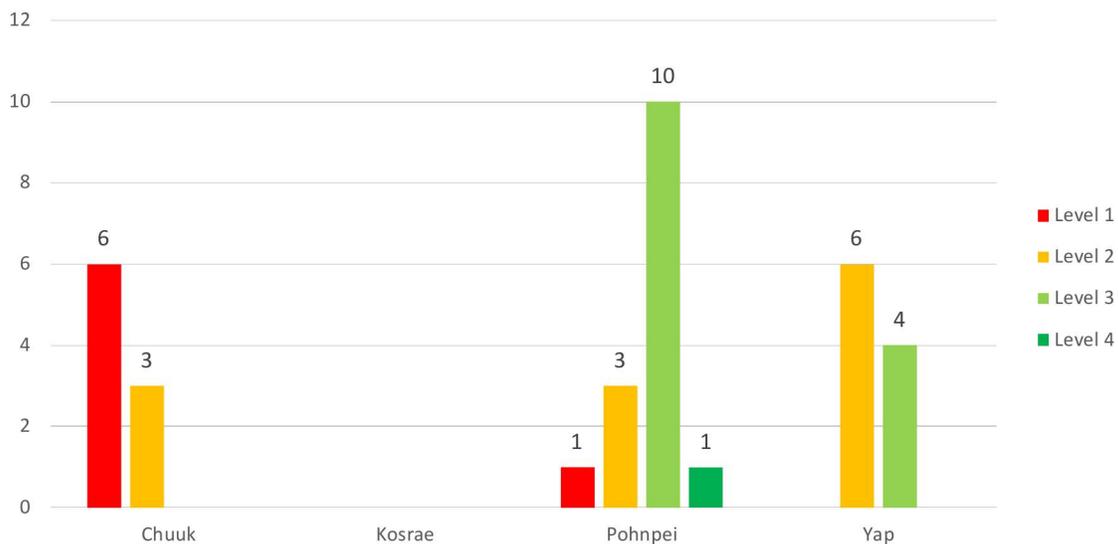
Figure 8.3: Accreditation results by state evaluated in this year

Over the years cumulatively, while the progress has been a little slow it remains steady, especially when taking into consideration older data (i.e. before 2017) not shown in Figure 8.4 which has more Level 1 and Level 2.
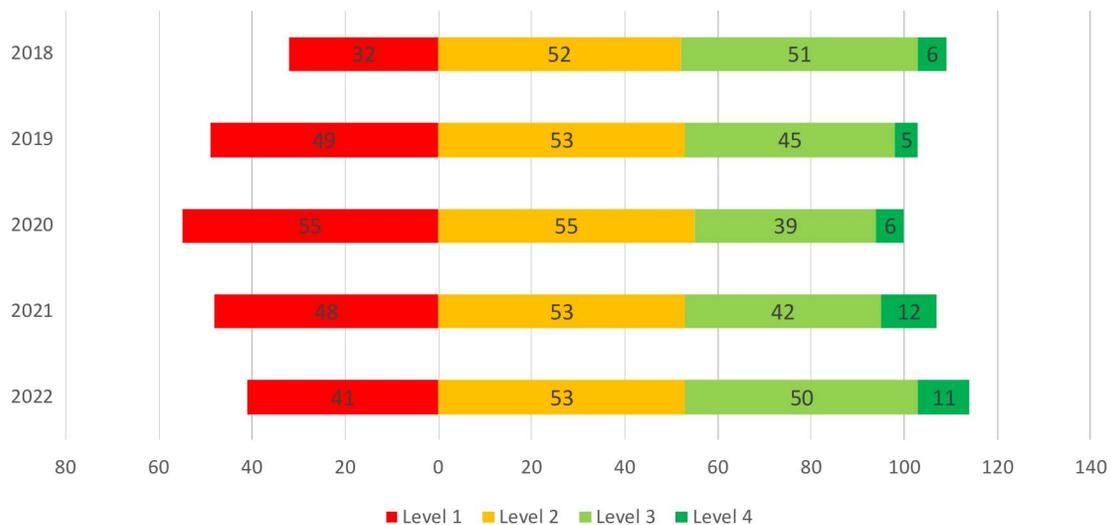
Figure 8.4: Accreditation results cumulative to each year analysis trend

Figure 8.5 looks at the progress from the angle of schools evaluated in that year (not cumulatively). Note that not all school accreditation for this year has been loaded yet.
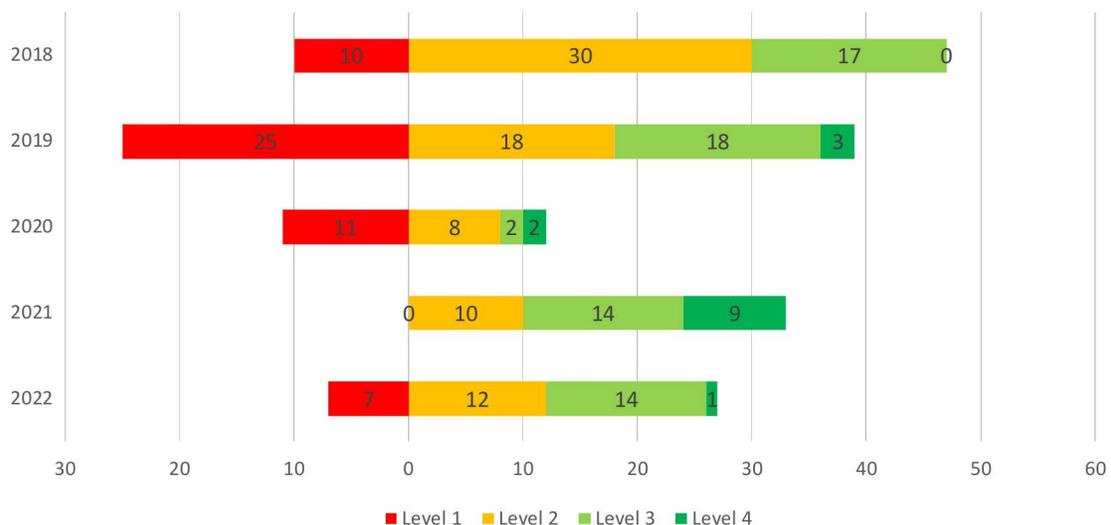
Figure 8.5: Accreditation results evaluated in each year (not cumulative)

STANDARD PERFORMANCE

The following analysis shows for the whole nation the percentage of schools that do not meet, complies with, substantially complies and exceeds the accreditations standards for each standard.

ANALYSIS AND DISCUSSIONS

An overview of the results by standards reveals quite a significant number of schools have met or exceeded the benchmarks on both school evaluation and classroom observations (Figure 8.6). Schools perform particularly well on classroom observation standards when looking at the cumulative analysis (Figure 8.6) but this is partly due to our relatively new capability to produce this deeper analysis using the FedEMIS and revised school accreditation system[1].
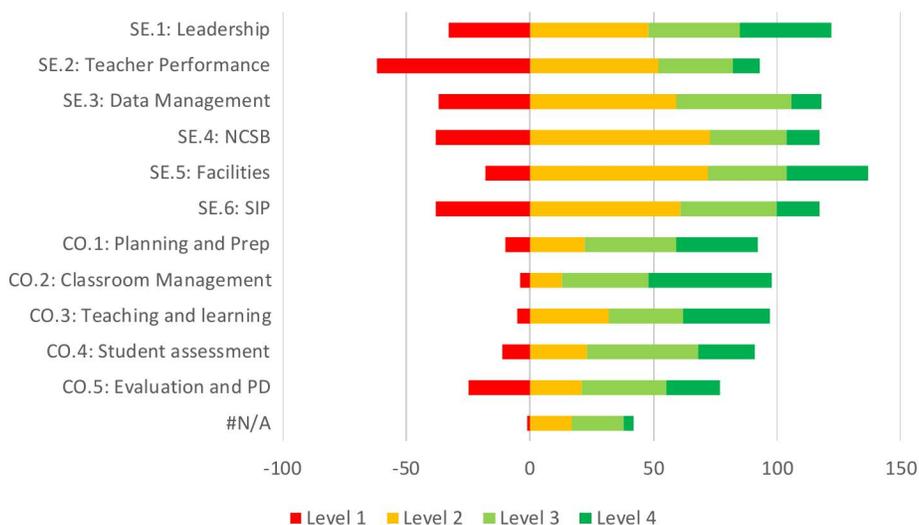
Figure 8.6: National standards performance cumulative to this year

When analyzing both cumulative and evaluated in year, the conclusions on standard performance is similar. The overall weaker standards are Teacher Performance and Data Management followed by National Curriculum Standards, Benchmarks and Student Learning Outcomes (Figure 8.7.)

In a similar vein of observation, schools perform the highest in Leadership and Facilities. It is interesting to note that standard SE.3: Data Management has both the largest number of schools at Level 1 *and* a significant number of schools performing better in Level 3 or 4. This indicates a large disparity when it comes to data usage in schools.

The classroom observation standard where more schools perform less well is the Evaluation and Professional Development followed by Planning and Preparation while the ones when schools perform better is Classroom Management and Teaching and Learning.

When looking at the schools that were accredited this year (Figure 8.7) it largely reflects the conclusion drawn when analyzing cumulatively (Figure 8.6). The one most notable difference is a welcome improvement in Data Management.

Data for both Figure 8.6 and 8.7 can be found in Table 8.1.

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[1] In older years, only a total score was recorded and archived for both classroom observation and not all the more granular data
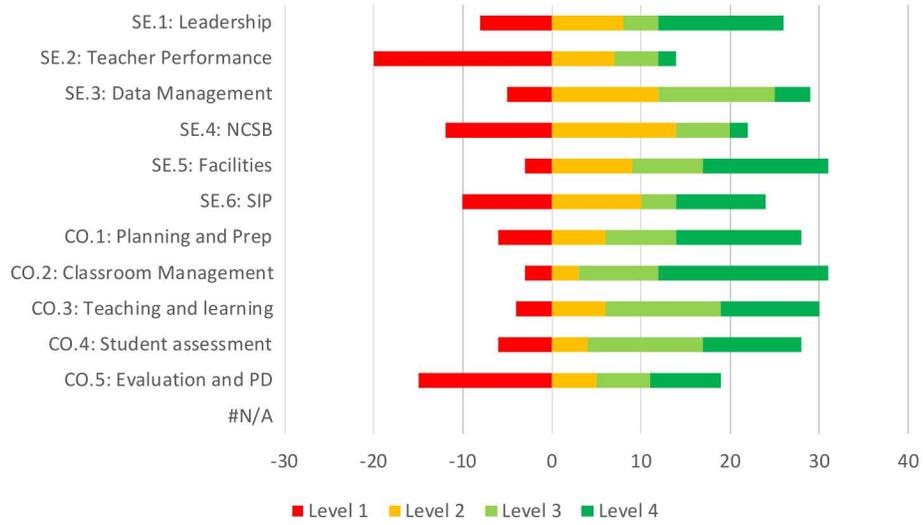
Figure 8.7: National standards performance evaluated in this year

Table 8.1: Accreditation Standard Performance by Schools

Standard	★	★★	★★★ ★★★★	Total Evaluated	Accredited	★	★★	★★★ ★★★★	Total Evaluated	Accredited
			Evaluated in Year					Cumulative up to Year		
CO.1: Planning and Prep	6	6	8	14	34	28	10	22	37	33	102	92
CO.2: Classroom Management	3	3	9	19	34	31	4	13	35	50	102	98
CO.3: Teaching and learning	4	6	13	11	34	30	5	32	30	35	102	97
CO.4: Student assessment	6	4	13	11	34	28	11	23	45	23	102	91
CO.5: Evaluation and PD	15	5	6	8	34	19	25	21	34	22	102	77
SE.1: Leadership	8	8	4	14	34	26	33	48	37	37	155	122
SE.2: Teacher Performance	20	7	5	2	34	14	62	52	30	11	155	93
SE.3: Data Management	5	12	13	4	34	29	37	59	47	12	155	118
SE.4: NCSB	12	14	6	2	34	22	38	73	31	13	155	117
SE.5: Facilities	3	9	8	14	34	31	18	72	32	33	155	137
SE.6: SIP	10	10	4	10	34	24	38	61	39	17	155	117
#N/A	0	0	0	0	0	0	1	17	21	4	43	42

CHAPTER 9: SCHOOL WASH AND RESOURCES

In this chapter we present the core data for Water Sanitation and Hygiene (WASH) and resources in schools. We have a lot more data than is presented in this chapter, in particular WASH data collected using a comprehensive survey designed in collaboration with UNICEF.

The reader interested in our full WASH data set can download the Pacific Open Education Data app and select the FSM country. Data in this chapter is currently presented in the same format as it is requested by the UNESCO Institute of Statistics yearly questionnaire.

BACKGROUND

DATA SOURCES

An annual school census workbook that is loaded into FedEMIS before being processed for publication. A comprehensive survey conducted on the FedEMIS Education Survey Tool tablet app. Data is automatically synchronized to FedEMIS for approval, processing, monitoring and reporting.

METHODS OF CALCULATION

The calculation are generally simple aggregates such as summing across various supported disaggregation.

LIMITATIONS

Comprehensive surveys such as these take time to complete. They are only needed every three to five years. The biggest limitation currently is the world crisis significantly hindering travels and forcing the staff to conduct surveys remotely including through HF radio for remote schools. As such, the available feature to take photos to support the data cannot be used currently.

WATER

ANALYSIS AND DISCUSSIONS

HYGIENE

ANALYSIS AND DISCUSSIONS

Table 9.1: Water sources in schools

Water in schools	Pre-Primary (ISCED 0)	Primary (ISCED 1)	Lower Secondary (ISCED 2)	Upper Secondary (ISCED 3)	Grand Total
Private	**20**	**26**	**26**	**28**	**100**
Institutions with improved water sources	10	13	13	14	50
of which are available for drinking	10	13	13	14	50
Public	**168**	**224**	**208**	**34**	**634**
Institutions with improved water sources	84	112	104	17	317
of which are available for drinking	84	112	104	17	317
Grand Total	**188**	**250**	**234**	**62**	**734**

SANITATION

ANALYSIS AND DISCUSSIONS

Table 9.2: Sanitation in schools

Sanitation in schools	Pre-Primary (ISCED 0)	Primary (ISCED 1)	Lower Secondary (ISCED 2)	Upper Secondary (ISCED 3)	Grand Total
Private	**17**	**22**	**22**	**24**	**85**
Institution with handwashing facilities	10	13	13	14	50
Institution providing life skills-based HIV and sexuality education	7	9	9	10	35
Public	**121**	**188**	**176**	**30**	**515**
Institution with handwashing facilities	84	111	103	17	315
Institution providing life skills-based HIV and sexuality education	37	77	73	13	200
Grand Total	**138**	**210**	**198**	**54**	**600**

HYGIENE

ANALYSIS AND DISCUSSIONS

Table 9.3: Hygiene in schools

Hygiene in schools	Pre-Primary (ISCED 0)	Primary (ISCED 1)	Lower Secondary (ISCED 2)	Upper Secondary (ISCED 3)	Grand Total
Private	**26**	**35**	**35**	**38**	**134**
Institutions with improved toilets	10	13	13	14	50
of which single sex toilets	8	11	11	12	42
of which usable single sex toilets	8	11	11	12	42
Public	**236**	**321**	**294**	**50**	**901**
Institutions with improved toilets	84	113	104	17	318
of which single sex toilets	77	105	96	17	295
of which usable single sex toilets	75	103	94	16	288
Grand Total	**262**	**356**	**329**	**88**	**1035**

RESOURCES

ANALYSIS AND DISCUSSIONS

Table 9.4: Basic resources in schools

Resources in schools	Pre-Primary (ISCED 0)	Primary (ISCED 1)	Lower Secondary (ISCED 2)	Upper Secondary (ISCED 3)	Grand Total
Private	**24**	**30**	**30**	**34**	**118**
Institution with Electricity	10	14	14	15	53
with Computers for pedagogical purposes	8	10	10	12	40
with Internet for pedagogical purposes	1	1	1	1	4
with adapted infrastructure and materials for Special Education students	5	5	5	6	21
Public	**135**	**190**	**179**	**44**	**548**
Institution with Electricity	80	104	97	20	301
with Computers for pedagogical purposes	19	35	35	14	103
with Internet for pedagogical purposes	2	3	3	2	10
with adapted infrastructure and materials for Special Education students	34	48	44	8	134
Grand Total	**159**	**220**	**209**	**78**	**666**

PART 2: SUSTAINABLE DEVELOPMENT GOAL 4

The second part of the Education Statistics Digest is concerned with the publication of data on global and thematic indicators for the follow-up and review of SDG 4 and Education 2025 and 2030.

CHAPTER 10: SDG 4.1

By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.

SDG 4.1.1

Proportion of children and young people (a) in Grade 2 or 3; (b) at the end of primary education; and (c) at the end of lower secondary education achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex

ANALYSIS AND DISCUSSIONS

These figures are in no way comparable with other nations as tools and methodologies of assessing students vary. FSM uses its own standards based assessment tool called NMCT and additional mapping work would be needed to adjust the levels of achievement in line with other frameworks. This is a limitation for all nations.

Table 10.1: SDG 4.1.1.Proportion of children achieving minimum proficiency in Reading and Mathematics

Achieving Minimum Proficiency	G4 Math			G6 Read			G6 Math			Grand Total
	F	M	N/A	F	M	N/A	F	M	N/A	
2019	**38%**	**29%**	**33%**	**48%**	**39%**	**43%**	**33%**	**30%**	**32%**	**36%**
Beginning of Primary (G4)	38%	29%	33%							33%
End of Primary (G6)				48%	39%	43%	33%	30%	32%	38%
2021	**34%**	**26%**	**24%**	**50%**	**40%**	**38%**	**35%**	**29%**	**30%**	**34%**
Beginning of Primary (G4)	34%	26%	24%							28%
End of Primary (G6)				50%	40%	38%	35%	29%	30%	37%
2022	**26%**	**23%**	**32%**	**44%**	**44%**	**36%**	**35%**	**34%**	**30%**	**34%**
Beginning of Primary (G4)	26%	23%	32%							27%
End of Primary (G6)				44%	44%	36%	35%	34%	30%	37%
Grand Total	**33%**	**26%**	**30%**	**47%**	**41%**	**39%**	**35%**	**31%**	**31%**	**35%**

Achieving Minimum Proficiency	G8 Read			G8 Math			Grand Total
	F	M	N/A	F	M	N/A	
2019	**34%**	**36%**	**32%**	**25%**	**26%**	**25%**	**30%**
End of Lower Secondary (G8)	34%	36%	32%	25%	26%	25%	30%
2021	**40%**	**44%**	**34%**	**25%**	**22%**	**17%**	**30%**
End of Lower Secondary (G8)	40%	44%	34%	25%	22%	17%	30%
2022	**24%**	**21%**	**42%**	**15%**		**22%**	**25%**
End of Lower Secondary (G8)	24%	21%	42%	15%		22%	25%
Grand Total	**32%**	**33%**	**36%**	**22%**	**24%**	**21%**	**28%**

SDG 4.1.2

Completion rate (primary education, lower secondary education, upper secondary education).

ANALYSIS AND DISCUSSIONS

Typically this requires data from household surveys. However, household surveys are not ideal for closely monitoring indicators as they are only done every 3 years even at the best of time. Traditionally the Gross Intake Ratio has been used as a proxy to estimate completion. Therefore, this is the approach that will be taken. It is the approach taken by other countries as well including the United Kingdom[1] that has a lot more resources then us.

Table 10.1: SDG 4.1.2 Completion Rate (primary, lower secondary, upper secondary)

	Completion Rate (Male)	Completion Rate (Female)	Completion Rate
2018	**69.73%**	**74.99%**	**72.31%**
Primary	80.61%	83.44%	82.01%
Lower Secondary	77.51%	87.70%	82.44%
Upper Secondary	51.01%	53.82%	52.38%
2019	**66.80%**	**70.76%**	**68.74%**
Primary	81.39%	77.00%	79.21%
Lower Secondary	71.24%	80.07%	75.51%
Upper Secondary	47.53%	55.19%	51.27%
2020	**59.21%**	**66.86%**	**62.95%**
Primary	70.64%	73.37%	71.99%
Lower Secondary	64.07%	78.32%	70.96%
Upper Secondary	42.75%	48.95%	45.77%
2021	**64.05%**	**68.14%**	**66.05%**
Primary	81.31%	78.47%	79.90%
Lower Secondary	68.42%	74.52%	71.37%
Upper Secondary	42.10%	51.09%	46.49%
2022	**64.13%**	**69.27%**	**66.64%**
Primary	75.94%	78.67%	77.29%
Lower Secondary	70.09%	78.33%	74.07%
Upper Secondary	46.24%	50.61%	48.37%
Grand Total	**64.78%**	**70.00%**	**67.33%**

SDG 4.1.3

Gross intake ratio to the last grade (primary, lower secondary).

ANALYSIS AND DISCUSSIONS

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[1] https://sdgdata.gov.uk/4-1-2/

Table 10.2: SDG 4.1.3 Gross intake ratio to the last grade (primary, lower secondary)

	GIRLG Male	GIRLG Female	GIRLG Total
2018	**79.09%**	**85.47%**	**82.22%**
Primary (G6)	80.61%	83.44%	82.01%
Lower Secondary (G8)	77.51%	87.70%	82.44%
2019	**76.42%**	**78.47%**	**77.42%**
Primary (G6)	81.39%	77.00%	79.21%
Lower Secondary (G8)	71.24%	80.07%	75.51%
2020	**67.42%**	**75.73%**	**71.49%**
Primary (G6)	70.64%	73.37%	71.99%
Lower Secondary (G8)	64.07%	78.32%	70.96%
2021	**75.00%**	**76.58%**	**75.77%**
Primary (G6)	81.31%	78.47%	79.90%
Lower Secondary (G8)	68.42%	74.52%	71.37%
2022	**73.07%**	**78.51%**	**75.73%**
Primary (G6)	75.94%	78.67%	77.29%
Lower Secondary (G8)	70.09%	78.33%	74.07%
Grand Total	**74.20%**	**78.95%**	**76.52%**

SDG 4.1.5

Out-of-school rate (primary education, lower secondary education, upper secondary education).

ANALYSIS AND DISCUSSIONS

Table 10.3: SDG 4.1.5 Out-of-school Ratio (primary, lower secondary, upper secondary)

	OSR Male	OSR Female	OSR
2018	**19%**	**17%**	**18%**
Primary	4%	6%	5%
Lower Secondary	19%	16%	17%
Upper Secondary	40%	34%	37%
2019	**22%**	**19%**	**21%**
Primary	6%	8%	7%
Lower Secondary	27%	20%	24%
Upper Secondary	43%	34%	39%
2020	**29%**	**24%**	**27%**
Primary	14%	14%	14%
Lower Secondary	33%	27%	30%
Upper Secondary	49%	38%	44%
2021	**27%**	**22%**	**25%**
Primary	14%	14%	14%
Lower Secondary	30%	26%	28%
Upper Secondary	44%	32%	38%
2022	**28%**	**24%**	**26%**
Primary	16%	16%	16%
Lower Secondary	25%	22%	24%
Upper Secondary	48%	38%	43%
Grand Total	**25%**	**21%**	**23%**

SDG 4.1.6

Percentage of children over-age for grade (primary education, lower secondary education).

METHOD OF CALCULATION

The requested definition of over-age is at least 2 years above the intended official age. For example, if the official age for Grade 1 is 6 years old we classify as over age any pupil in Grade 6 and 8 years or older.

ANALYSIS AND DISCUSSIONS

Table 10.4: SDG 4.1.6 Out-of-school Ratio (primary, lower secondary, upper secondary)

Over Age	Primary		Primary Total	Lower Secondary		Lower Secondary Total	Total
	F	M		F	M		
2018	6.88%	9.31%	8.14%	11.51%	13.52%	12.51%	9.15%
2019	9.20%	12.55%	10.94%	12.76%	15.02%	13.85%	11.58%
2020	9.19%	12.70%	10.99%	12.76%	15.12%	13.91%	11.62%
2021	8.02%	11.38%	9.74%	11.51%	15.16%	13.31%	10.54%
2022	8.68%	11.70%	10.23%	11.68%	15.55%	13.61%	11.03%
Total	**8.38%**	**11.50%**	**9.99%**	**12.04%**	**14.84%**	**13.42%**	**10.76%**

SDG 4.1.7

Number of years of (a) free and (b) compulsory primary and secondary education guaranteed in legal frameworks.

ANALYSIS AND DISCUSSIONS

Table 10.5: SDG 4.1. 7 Number of years of free/compulsory primary and secondary education

	Primary	Lower Secondary	Upper Secondary	Grand Total
2018				
Years Free	6	2	4	12
Years Compulsory	6	2	0	8
2019				
Years Free	6	2	4	12
Years Compulsory	6	2	0	8
2020				
Years Free	6	2	4	12
Years Compulsory	6	2	0	8
2021				
Years Free	6	2	4	12
Years Compulsory	6	2	0	8
2022				
Years Free	6	2	4	12
Years Compulsory	6	2	0	8

CHAPTER 11: SDG 4.2

By 2030, ensure that all boys and girls have access to quality early childhood development, care and pre-primary education so that they are ready for primary education.

SDG 4.2.1

Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex.

ANALYSIS AND DISCUSSIONS

Methodological development for this indicator is still ongoing. It will also require household surveys or new direct assessment of children at home or in schools.

SDG 4.2.2

Participation rate in organized learning (one year before the official primary entry age), by sex.

ANALYSIS AND DISCUSSIONS

Table 11.1: SDG 4.2.2 Participation rate in organized learning by gender

Early Childhood Participation			
	F	M	Grand Total
2018	73%	76%	74%
2019	64%	69%	67%
2020	57%	53%	55%
2021	58%	55%	56%
2022	56%	53%	54%
Grand Total	**61%**	**61%**	**61%**

SDG 4.2.3

Percentage of children under 5 years experiencing positive and stimulating home learning environments.

ANALYSIS AND DISCUSSIONS

This indicator requires data from household surveys which have not been done yet.

SDG 4.2.4

Gross early childhood education enrolment ratio in (a) pre-primary education and (b) early childhood educational development.

ANALYSIS AND DISCUSSIONS

In FSM, Pre-primary (or ISCED 02) is known as ECE and are enrollments in Grade ECE. There is no ISCED 01.

Table 11.2: SDG 4.2.4 Gross early childhood education enrolment ratio

	Pre-primary (ISCED 02)		
	GER Male	**GER Female**	**GER**
2018	87%	88%	87%
2019	86%	84%	85%
2020	71%	71%	71%
2021	70%	74%	72%
2022	68%	70%	69%
Grand Total	**76%**	**77%**	**77%**

SDG 4.2.5

Number of years of (a) free and (b) compulsory pre-primary education guaranteed in legal frameworks.

ANALYSIS AND DISCUSSIONS

Table 11.3: SDG 4.2.5 Number of years of free/compulsory pre-primary education

	ECE (ISCED 01)	Pre-Primary (ISCED 02)
2018		
Years Free	1	1
Years Compulsary	0	0
2019		
Years Free	1	1
Years Compulsary	0	0
2020		
Years Free	1	1
Years Compulsary	0	0
2021		
Years Free	1	1
Years Compulsary	0	0
2022		
Years Free	1	1
Years Compulsary	0	0

CHAPTER 12: SDG 4.3

By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.

SDG 4.3.1

Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex.

ANALYSIS AND DISCUSSIONS

This indicator requires data from household surveys which have not been done yet.

SDG 4.3.2

Gross enrolment ratio for tertiary education, by sex.

ANALYSIS AND DISCUSSIONS

Not available yet, coming soon.

SDG 4.3.3

Participation rate in technical and vocational programmes (15- to 24- year-olds), by sex.

ANALYSIS AND DISCUSSIONS

Not available yet, coming soon.

CHAPTER 13: SDG 4.4

By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent work and entrepreneurship.

SDG 4.4.1

Proportion of youth/adults with information and communications technology (ICT) skills, by type of skill.

ANALYSIS AND DISCUSSIONS

This indicator requires data from household surveys which have not been done yet.

SDG 4.4.2

Percentage of youth/adults who have achieved at least a minimum level of proficiency in digital literacy skills.

ANALYSIS AND DISCUSSIONS

This indicator requires data from household surveys which have not been done yet.

SDG 4.4.3

Youth/adult educational attainment rates by age group, economic activity status and programme orientation.

ANALYSIS AND DISCUSSIONS

This indicator requires data from household surveys which have not been done yet.

CHAPTER 14: SDG 4.5

By 2030, eliminate gender disparities in education and ensure access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.

SDG 4.5.1

Parity indices (female/male, rural/urban, bottom/top wealth quintiles and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated.

ANALYSIS AND DISCUSSIONS

Including the parity indices for gender, region, wealth quintiles and disability status for all the SDG indicators would become way too unwieldy for this publication. The reader interested in this can access the raw data to produce this publication residing in excel workbooks. Feedback welcome on how to package this for those interested.

SDG 4.5.2

Percentage of students in primary education whose first or home language is the language of instruction.

ANALYSIS AND DISCUSSIONS

Table 14.1: SDG 4.5.2 % of primary education students' first language is language of instruction

PELA	
Chuuk	97%
Kosrae	96%
Pohnpei	78%
Yap	1%
Grand Total	**80%**

SDG 4.5.3

Extent to which explicit formula-based policies reallocate education resources to disadvantaged populations.

ANALYSIS AND DISCUSSIONS

The formula still being defined by UNCESCO UIS.

SDG 4.5.4

Education expenditure per student by level of education and source of funding.

ANALYSIS AND DISCUSSIONS

To be included from external source.

SDG 4.5.5

Percentage of total aid to education allocated to least developed countries.

ANALYSIS AND DISCUSSIONS

This indicator is not applicable to us. Only donor countries are required to submit this indicator.

CHAPTER 15: SDG 4.6

By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.

SDG 4.6.1

Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex.

ANALYSIS AND DISCUSSIONS

Household surveys not yet available.

SDG 4.6.2

Youth/adult literacy rate.

ANALYSIS AND DISCUSSIONS

Household surveys not yet available.

SDG 4.6.3

Participation rate of youth/adults in literacy programmes.

ANALYSIS AND DISCUSSIONS

Household surveys not yet available.

CHAPTER 16: SDG 4.7

By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.

SDG 4.7.1

Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies (b) curricula (c) teacher education and (d) student assessments.

ANALYSIS AND DISCUSSIONS

Indicator calculation method still being worked out by UNESCO UIS.

SDG 4.7.2

Percentage of schools that provide life skills-based HIV and sexuality education.

ANALYSIS AND DISCUSSIONS

Note that schools providing education in multiple ISCED levels are counted more than once; the Grand Total will be more than the total number of schools in country.

Table 16.1: SDG 4.7.2 Schools providing life skills-based HIV and sexuality education

Life skills	Schools with HIV and Sexuality Education
Public	
ECE/Pre-Primary (ISCED 0)	37
Primary (ISCED 1)	77
Lower Secondary (ISCED 2)	73
Upper Secondary (ISCED 3)	13
Private	
ECE/Pre-Primary (ISCED 0)	7
Primary (ISCED 1)	9
Lower Secondary (ISCED 2)	9
Upper Secondary (ISCED 3)	10
Grand Total	**235**

SDG 4.7.3

Extent to which the framework on the World Programme on Human Rights Education is implemented nationally (as per the UNGA Resolution 59/113).

ANALYSIS AND DISCUSSIONS

How to produce this indicator is still being defined by UNCESCO UIS.

SDG 4.7.4

Percentage of students by age group (or education level) showing adequate understanding of issues relating to global citizenship and sustainability.

ANALYSIS AND DISCUSSIONS

The required data for this indicator is not available in FSM.

SDG 4.7.5

Percentage of 15-year old students showing proficiency in knowledge of environmental science and geoscience.

ANALYSIS AND DISCUSSIONS

The required data for this indicator is not available in FSM.

CHAPTER 17: SDG 4.A

Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all.

SDG 4.A.1

Proportion of schools with access to: (a) electricity; (b) the Internet for pedagogical purposes; (c) computers for pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking water; (f) single-sex basic sanitation facilities; and (g) basic handwashing facilities (as per the WASH indicator definitions).

ANALYSIS AND DISCUSSIONS

Note that schools providing education in multiple ISCED levels are counted more than once; the Grand Total will be more than the total number of schools in country.

Table 17.1: SDG 4.a.1 Schools providing basic facilities

Schools with	ECE/Pre-Primary (ISCED 0)	Primary (ISCED 1)	Lower Secondary (ISCED 2)	Upper Secondary (ISCED 3)
Private	**62**	**80**	**80**	**88**
Electricity	10	14	14	15
Internet for pedagogical	1	1	1	1
Computers for pedagogical	8	10	10	12
Special Education adapted	5	5	5	6
Water Source	10	13	13	14
Water Available for Drinking	10	13	13	14
Single Sex Toilets	8	11	11	12
Handwashing	10	13	13	14
Public	**464**	**630**	**586**	**112**
Electricity	80	104	97	20
Internet for pedagogical	2	3	3	2
Computers for pedagogical	19	35	35	14
Special Education adapted	34	48	44	8
Water Source	84	112	104	17
Water Available for Drinking	84	112	104	17
Single Sex Toilets	77	105	96	17
Handwashing	84	111	103	17

SDG 4.A.2

Percentage of students experiencing bullying in the last 12 months.

ANALYSIS AND DISCUSSIONS

Able to collect through annual census but data not submitted but schools.

SDG 4.A.3

Number of attacks on students, personnel and institutions.

ANALYSIS AND DISCUSSIONS

Data not available.

CHAPTER 18: SDG 4.B

By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training, information and communications technology, technical, engineering and scientific programmes in developed countries and other developing countries.

SDG 4.B.1

Volume of official development assistance flows for scholarships by sector and type of study.

ANALYSIS AND DISCUSSIONS

Needs to be completed by Scholarship division.

SDG 4.B.2

Number of higher education scholarships awarded by beneficiary country.

ANALYSIS AND DISCUSSIONS

Needs to be completed by Scholarship division.

CHAPTER 19: SDG 4.C

By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least-developed countries and small island developing States.

SDG 4.C.1

Proportion of teachers in: (a) pre-primary education; (b) primary education; (c) lower secondary education; and (d) upper secondary education who have received at least the minimum organized teacher training (e.g. pedagogical training) pre-service or in-service required for teaching at the relevant level in a given country, by sex.

ANALYSIS AND DISCUSSIONS

The data here is presented as count of full-time and part-time teachers who have been certified to teach in FSM.

Table 19.1: SDG 4.c.1 Teachers who received certification to teach in country

Percent of Certified Teachers	Pre-Primary (ISCED 0)	Primary (ISCED 1)	Lower Secondary (ISCED 2)	Upper Secondary (ISCED 3)	Grand Total
Private	**0%**	**0%**	**5%**	**10%**	**6%**
F	0%	0%	8%	11%	5%
M	0%	0%	2%	10%	7%
Public	**25%**	**37%**	**44%**	**34%**	**36%**
F	28%	38%	34%	37%	36%
M	17%	35%	51%	31%	37%
Grand Total	**23%**	**34%**	**40%**	**29%**	**33%**

SDG 4.C.2

Pupil-trained teacher ratio by education level.

ANALYSIS AND DISCUSSIONS

This is what we refer to Pupil-certified teacher ratio.

Table 19.2: SDG 4.c.2 Pupil-Trained/Certified Teacher Ratio by Education Levels

PTR (Certified)	Pre-Primary (ISCED 02)	Primary (ISCED 10)	Lower Secondary (ISCED 24)	Upper Secondary (ISCED 34)	Grand Total
2018	40	43	36	50	43
2019	44	47	37	52	46
2020	40	46	34	56	45
2021	42	44	35	54	44
2022	46	44	36	48	43
Grand Total	**42**	**45**	**36**	**52**	**44**

SDG 4.C.3

Percentage of teachers qualified according to national standards, by level and type of institution.

ANALYSIS AND DISCUSSIONS

The minimum required to be considered qualified to teach in FSM is an Associate of Arts degree.

Table 19.3: SDG 4.c.3 Teachers who are considered qualified to teach in country

Percent of Qualified Teachers	Pre-Primary (ISCED 0)	Primary (ISCED 1)	Lower Secondary (ISCED 2)	Upper Secondary (ISCED 3)	Grand Total
Private					
F	60%	57%	76%	94%	74%
M	100%	48%	43%	91%	75%
Public					
F	97%	90%	90%	97%	92%
M	93%	90%	92%	94%	91%
Grand Total	**93%**	**87%**	**88%**	**94%**	**90%**

SDG 4.C.4

Pupil-qualified teacher ratio by level of education.

ANALYSIS AND DISCUSSIONS

Table 19.4: SDG 4.c.4 Pupil-Qualified Teacher Ratio by Education Levels

PTR (Qualified)	Pre-Primary (ISCED 02)	Primary (ISCED 10)	Lower Secondary (ISCED 24)	Upper Secondary (ISCED 34)	Grand Total
2018	14	18	16	17	17
2019	13	18	17	15	17
2020	11	16	16	15	15
2021	11	17	16	16	16
2022	11	17	17	15	16
Grand Total	**12**	**17**	**16**	**16**	**16**

SDG 4.C.5

Average teacher salary relative to other professions requiring a comparable level of qualification.

ANALYSIS AND DISCUSSIONS

Need data from other professions.

SDG 4.C.6

Teacher attrition rate by education level. Note that teacher attrition does not yet support the UIS education level (ISCED) disaggregation though it will be soon.

ANALYSIS AND DISCUSSIONS

Table 19.5: SDG 4.c.6 Teacher Attrition Rate by Education Level

Year	State	New Entrants	Number of Teachers	Exiting Teachers	Teacher Attrition Rate
2021	ECE	17	141	9	
2022	ECE	4	140	10	7%
2021	PRI	95	1129	86	
2022	PRI	110	1123	104	9%
2021	SEC	30	427	42	
2022	SEC	44	425	38	9%

Year	State	New Certified Entrants	Number of Teachers	Exiting Certified Teachers	Certified Teacher Attrition Rate
2021	ECE	1	141	3	
2022	ECE	0	140	5	4%
2021	PRI	10	1129	27	
2022	PRI	18	1123	35	3%
2021	SEC	3	427	9	
2022	SEC	1	425	10	2%

Year	State	New Qualified Entrants	Number of Teachers	Exiting Qualified Teachers	Qualified Teacher Attrition Rate
2021	ECE	15	141	6	
2022	ECE	3	140	10	7%
2021	PRI	66	1129	66	
2022	PRI	83	1123	83	7%
2021	SEC	26	427	40	
2022	SEC	36	425	35	8%

SDG 4.C.7

Percentage of teachers who received in-service training in the last 12 months by type of training.

ANALYSIS AND DISCUSSIONS

The only in-service training currently considered is the training to be certified to teach in FSM therefore no type of training disaggregation is provided, only by gender and ISCED Level (which can be mapped to education level.)

Table 19.6: SDG 4.c.7 Teachers who received certification training within last 12 months

FTPT in-service trained	Pre-Primary (ISCED 0)	Primary (ISCED 1)	Lower Secondary (ISCED 2)	Upper Secondary (ISCED 3)	Grand Total
M	0.54%	4.23%	5.94%	3.55%	4.25%
F	1.79%	4.75%	7.37%	6.78%	5.07%
Grand Total	**1.55%**	**4.57%**	**6.52%**	**5.14%**	**4.74%**