

COMET Spring 2015 Statistical Exploration by High School

This document is an exploration of data from the College of Micronesia-FSM spring 2015 entrance COMET with a focus on individual high school and section statistics. In this document the word "sections" refers to high school sections. The word subsection will be used to refer to the different sections of the COMET entrance instrument. This document should be construed as an occasional informal paper by a member of faculty. Any opinions expressed are solely those of the author and do not reflect an official position of the college.

Basic Statistics for All Candidates

The COMET consists of four subsections: a written essay, a vocabulary test, a comprehension test, and a mathematics placement test. Total possible for the essay is 50 points. The mathematics subsection has four sets of ten problems designed to help place students. The total possible for the sum of the mathematics scores is 40. Nelson-Denny is used for the vocabulary and comprehension sections.

Statistic	Essay	Vocabulary	Reading	MS1	MS2	MS3	MS4	Math sum
n	1455	1456	1456	1456	1456	1456	1456	1456
min	0	0	0	0	0	0	0	3
max	50	69	38	10	10	10	10	38
mode	30	22	15	8	6	2	2	18
median	30	23	16.5	7	6	3	3	19
mean	28.28	24.78	17.28	6.94	6.01	3.59	2.90	19.44
sx	12.80	10.18	6.37	2.28	2.20	2.32	1.87	6.88
cv	0.45	0.41	0.37	0.33	0.37	0.65	0.65	0.35

High School Listing

The following is a list of the high school names used in tables in this report. For historical reasons, some tables and charts may differ.

School	School Long	State
Berea	Berea	Chuuk
Catholic HS	Catholic High School Yap	Yap
CCA	Calvary Christian Academu	Pohnpei
CHS	Chuuk High School	Chuuk
CSC	Chuuk State Campus	Chuuk
Faichuk	Faichuuk High School	Chuuk
KHS	Kosrae High School	Kosrae

School	School Long	State
KSC	Kosrae State Campus	Kosrae
MHS	Madolehnihmw High School	Pohnpei
Mizpah	Mizpah Christian High School	Chuuk
NMHS	Nanpei Memorial High School	Pohnpei
Nukuno	Nukuno High School	Chuuk
OICA	Ohwa International Christian Academy	Pohnpei
OIHS	Outer Island High School	Yap
OLM	Our Lady of Mercy High School	Pohnpei
PICS	Pohnpei Islands Central School	Pohnpei
PLHA	Pentecostal Lighthouse Academy	Chuuk
PSC	Pohnpei State Campus	Pohnpei
SCA	Saramen Chuuk Academy	Chuuk
SDA Chuuk	Seventh Day Adventist Chuuk	Chuuk
SDA Pohnpei	Seventh Day Adventist Pohnpei	Pohnpei
SDA Yap	Seventh Day Adventist Yap	Yap
SNHS-Fefan	Southern Noumeneas Fefan	Chuuk
SNHS-Tonoas	Southern Noumeneas Tonoas	Chuuk
Xavier	Xavier High School	Chuuk
YHS	Yap High School	Yap
YSC	Yap State Campus	Yap

High schools and sections in descending rank order on the four subsections

The following table lists the high schools in descending rank order of the average (statistical mean) for each of the four subsections of the COMET: essay, vocabulary, reading, and mathematics. High school averages without a section specified are averages for all candidates at the school. High schools with a section code following the name are averages for that section. Section codes are those chosen by the high school.

HS	Essay	HS	Vocab	HS	Read	HS	Math
Xavier	47.13	NMHS A1	49.29	Catholic HS	31.20	MHS A	32.10
Catholic HS	46.50	Catholic HS	43.70	Xavier	27.79	NMHS A1	31.39
CCA	44.80	Xavier	41.26	SDA Yap	26.60	Catholic HS	29.90
OLM	44.58	CCA	37.47	OLM	24.71	NMHS A2	27.59

HS	Essay	HS	Vocab	HS	Read	HS	Math
CHS A	41.67	NMHS A2	36.77	SDA Pohnpei	24.25	MHS B	27.25
SDA Yap	40.40	SDA Yap	35.20	CCA	24.00	Berea	26.22
SDA Pohnpei	39.69	OLM	34.32	Berea	22.67	Xavier	25.82
Berea	38.22	NMHS	34.13	NMHS A1	21.96	MHS D2Ag	25.38
SCA	37.85	CHS A	33.38	NMHS A2	21.32	MHS	25.25
SDA Chuuk	37.38	SDA Pohnpei	33.06	MHS A	21.10	OLM	25.19
KHS	33.53	MHS A	31.90	CHS A	20.52	SDA Pohnpei	24.63
NMHS A1	32.43	Berea	29.89	SCA	20.04	SCA	24.48
MHS A	32.00	NMHS B	28.73	YHS	19.34	MHS C	24.44
OICA	31.24	SCA	27.59	YSC	19.11	SDA Yap	24.20
YSC	31.21	YHS	27.46	NMHS	18.47	NMHS	24.18
MHS D2Ag	30.92	MHS D2Ag	27.31	PICS	17.95	CCA	22.93
YHS	30.86	MHS	26.99	KHS	17.59	MHS D1Cn	22.00
OIHS	29.78	MHS B	26.85	NMHS B	17.40	MHS D2HA	21.43
PICS	29.67	NMHS T	26.44	MHS B	17.30	KSC	20.83
MHS B	29.30	NMHS AG	26.42	MHS	16.90	NMHS B	20.47
KSC	28.17	MHS C	25.63	PSC	16.72	CHS A	20.43
MHS	28.13	MHS D2HA	25.29	MHS D2Ag	16.62	NMHS AG	20.42
MHS C	28.00	MHS D1Cn	25.14	OICA	16.41	KHS	20.29
Mizpah	27.75	YSC	24.26	MHS D1Cn	16.21	PICS	20.16
NMHS A2	27.05	MHS D1Au	23.82	Mizpah	16.00	OICA	19.65
MHS D2HA	27.00	PICS	23.34	MHS C	16.00	NMHS T	19.04
PLHA	26.38	OICA	22.88	NMHS T	15.76	PSC	18.96
PSC	25.68	CHS B	22.76	NMHS AG	15.42	YSC	18.37
MHS D1Au	23.82	KHS	21.75	CHS B	14.58	YHS	17.75
NMHS	23.39	PSC	21.16	KSC	14.50	CHS B	17.09
MHS D1Cn	22.57	CHS	20.85	OIHS	14.45	MHS D1Au	16.55
CHS B	22.48	OIHS	20.55	CSC	14.38	OIHS	15.91
CSC	21.60	Mizpah	19.25	MHS D1Au	14.09	CHS	14.61
CHS	20.54	CSC	19.12	CHS	13.27	CSC	13.60
NMHS AG	20.00	Faichuk	18.67	SDA Chuuk	13.13	SDA Chuuk	13.38
NMHS B	19.73	KSC	18.40	MHS D2HA	12.29	PLHA	13.13

HS	Essay	HS	Vocab	HS	Read	HS	Math
Nukuno	16.00	SDA Chuuk	17.25	Nukuno	12.00	Mizpah	12.50
NMHS T	15.00	PLHA	17.19	SNHS-Tonoas	11.86	Nukuno	11.57
SNHS-Tonoas	12.79	Nukuno	17.14	Faichuk	11.33	SNHS-Tonoas	11.57
Faichuk	12.33	SNHS-Tonoas	17.14	SNHS-Fefan	9.89	Faichuk	10.83
SNHS-Fefan	12.08	SNHS-Fefan	16.16	PLHA	9.19	SNHS-Fefan	10.62

Essay year-on-year for selected public high schools

The essay subsection is marked by two graders. The rubric produces a maximum of 25 points. The scores for the two graders are added, producing a score out of 50. The following table provides information for high schools on their year-on-year performance including selected sections. Note that the college does not admit based solely on essay performance. Data for 2011 is not extant.

High School	2007	2008	2009	2010	2012	2013	2014	2015
Berea	15.70	26.73	23.33	34.00	27.21	25.63	28.73	38.22
CCA-Ebeye							18.08	
CCA-P	42.00	39.25	45.30	40.31	46.82	37.25	41.29	
CHS	9.97	17.04	15.32	13.61	18.41	22.44	16.80	20.54
Chuuk HS a					36.82	37.96	39.00	41.67
Chuuk HS b							29.45	22.48
Chuuk HS not ab							12.30	17.11
Faichuuk	4.95	6.18	5.57	2.35	4.87	4.84	1.81	12.33
KHS	26.91	25.99		28.72	33.39	30.24	29.90	33.53
MHS	26.36	24.59	20.62	26.40	29.86	30.60	30.84	28.13
MHS A					37.89	33.95		32.00
MHS B					32.11	28.57		29.30
Mizpah	21.05	20.10	22.91	6.50	18.56	27.89	20.22	27.75
Moch					20.95	21.82	17.32	
Mortlock		9.77		9.38	12.00	11.25	21.85	
NICHS	19.58	13.98					24.97	
NMHS	27.75	22.58	25.07	25.15	30.51	31.74	33.30	23.39
NMHS a1	36.74	30.95			36.22	38.92	38.50	32.43
NMHS a2		22.43			32.48	32.46	37.13	27.05
NMHS b	23.74	20.20		26.80	29.18	28.40	30.44	19.73

High School	2007	2008	2009	2010	2012	2013	2014	2015
NMHS v1 TIHA	19.00	18.85				29.76	31.97	15.00
NMHS v2 AG	20.91	18.81				28.22	29.05	20.00
Nukuno	12.91			11.89	30.56		9.64	16.00
OHWA	23.33	16.17	26.00	30.54	34.17	30.70	30.55	31.24
OIHS	21.30	18.87	18.15	20.09	21.41		29.62	29.78
OLMCHS		33.56	27.33	38.43	35.17	42.59	42.48	44.58
Pentecostal	14.69	18.67	17.42	24.17	27.86	21.04	16.94	26.38
PICS	25.16	28.73	27.44	28.02	32.95	31.68	28.05	29.67
Saramen	28.69	37.00	22.70	36.00	32.89	36.63	33.56	37.85
SDA Chuuk	20.80	28.38	32.19	30.60	25.62	30.70	33.60	37.38
SDA Pohnpei	37.22	41.00	38.63	35.66	43.24	39.32	41.68	39.69
SDA Yap	40.44	30.00	28.20	24.20	42.20	33.14	41.40	40.40
SNHS-Fefan		9.18	8.61	9.83	13.32	15.76	21.36	12.08
SNHS-Tonoas			10.18		7.52	12.87	12.88	12.79
Xavier	40.27	43.63	44.65	44.66	43.24	43.98	42.66	47.13
Yap Catholic							44.67	46.50
YHS	23.86	28.99	29.33	26.86	30.06	34.13	27.16	30.86
Overall	22.03	24.35	23.21	24.16	27.54	27.60	27.06	28.28

Upward Bound

Upward Bound is a TRIO program operated by the college. The program includes students at MHS, NMHS, and PICS. The following table provides the average performance for the Upward Bound seniors on the four subsections of the COMET. Twenty-one scores for Upward Bound students were reported in the COMET.

Subsection	Pohnpei UB
Essay	36.38
Vocabulary	37.76
Reading	23.95
Mathematics average sum	31.90

Break-outs of Upward Bound score averages by individual high school lose statistical significance due to small sample sizes. The essay average would put the UB students at eleventh rank against the overall high school scores. The vocabulary average is the third highest vocabulary average against the

overall high school scores. The reading average would be ranked sixth against the overall high school scores. The UB math average would be first rank having scored higher than the best performing high school on the mathematics subsection.

The Upward Bound students significantly outperform the overall averages at their high schools. The averages are up among those achieved by private schools. Their vocabulary average is very high even against many private schools. The mathematics average is higher than any other overall high school average. Data thus far does not include school section data for MHS, NMHS, and PICS. Some sections at these high schools may have performed on par with the UB students as the UB students are in those sections.

The Upward Bound program works throughout the high school years to prepare students for college. In order to disclose any bias, this author has taught in the Upward Bound programs both in Kosrae and Pohnpei. The Upward Bound students are among the top students in the nation, and capable of working hard. They are well equipped with study skills. Where an Upward Bound student is also in an A1 or A section, the top students in a school, the combination produces some of the most academically capable students.

The following table provides data on placement for Upward Bound students versus their high school, for NMHS section data is also available.

School	Sect	ACE	Certificate	Degree	Non-Admit
MHS	A	2	1	2	
NMHS	A1	1	2	2	
NMHS	A2			1	
PICS	Unknown	1	1	8	

The NHMS A1 and MHS section A Upward Bound students should have their academic record in Upward Bound and their transcripts evaluated to make a more informed decision. This author has been rebuked in the past when he has suggested that the college only uses the COMET for degree level admissions. The above table is, for this author, indirect evidence that only the COMET is functionally considered. The college requires a transcript, but in the above data there is nothing to suggest the college used anything other than a set of algorithms on the COMET scores to make degree level admissions decisions. Indeed, when individual placements are questioned, the response of the college is usually to cite one or another score being too low – once again returning to the COMET to make the decision for the college.

The author has access to information that alleges one of the candidates denied degree level admission is one of the top two students at their school and could be either the salutatorian or valedictorian. The COMET is a measurement tool, an instrument, and should be used with an understanding of the types of errors that can occur. From an admissions perspective, a binary admit/not admit perspective, there are two types of errors, a false positive and a false negative.

Faculty have noted in the past that there appears to be times when candidates are admitted to a

program through the COMET process who do not have the academic ability to benefit from that program. This might be termed a false positive – the candidate gains admission to a program when they should not have gained admission to that program. A false positive can be viewed as giving a candidate a chance to challenge a program for which the candidate is not fully academically prepared. For example, a candidate gaining entry into a degree level program from a high school track that was not college preparatory might be identified as being at higher risk. The college could improve student success by identifying such candidates early and monitoring them more closely as they transition into college.

There will also be candidates who should have gained admission who do not gain admission, this could be termed a false negative. False negative results are potentially more challenging to detect. The school sections data provides a crude tool by which to potentially initially detect false negatives. Candidates who have been in a college preparatory section in their high school should theoretically be placing into degree level programs, especially those candidates in the uppermost "A" or "A1" section of their high school. A placement below degree level ought to trigger a transcript review. If the grade point average is above a 3.0, then the result is likely a false negative. Certainly a candidate who have been in the college's own Upward Bound program, has an Upward Bound grade point average above 3.0 and is in a college preparatory academic high school track with a high school grade point average of 3.0 or better should essentially be an automatic admission.

Requested Data: Program admissions numbers by high schools and sections

The following table is included as a result of data request.

School	Sect	ACE	Certificate	Degree	Non-Admit	Row Sums
Berea		2	1	5	1	9
Catholic HS				10		10
CCA		3	1	11		15
CHS		6	25	6	111	148
CHS	A	3	8	8	2	21
CHS	B	3	13	1	16	33
CSC		5	22	1	21	49
CSC	A		1			1
Faichuk			2		4	6
KHS		12	46	27	18	103
KSC		1	17	3	9	30
MHS			1			1
MHS	A	6	8	7		21
MHS	B	4	12	2	2	20
MHS	C		12	1	3	16

School	Sect	ACE	Certificate	Degree	Non-Admit	Row Sums
MHS	D1Au		6	1	4	11
MHS	D1Cn	1	7	1	5	14
MHS	D2Ag	1	10	2		13
MHS	D2HA		3		4	7
Mizpah		1	2		1	4
NMHS			1	1		2
NMHS	A1	6	10	12		28
NMHS	A2	1	10	8	3	22
NMHS	AG	1	6	4	15	26
NMHS	B		10		5	15
NMHS	T		12		13	25
Nukuno			1		6	7
OICA			10	4	3	17
OIHS		3	14	3	13	33
OLM		5	4	22		31
PICS		46	136	66	60	308
PLHA			4		12	16
PSC		10	54	11	24	99
SCA		3	10	11	3	27
SDA Chuuk		1	3		4	8
SDA Pohnpei		2	1	13		16
SDA Yap		1		4		5
SNHS-Fefan			4	1	32	37
SNHS-Tonoas					14	14
Xavier		2	2	33	1	38
YHS		21	47	38	25	131
YSC		3	7	6	3	19
Column sums		153	543	323	437	1456

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Author and contact information

All errors are solely those of the author. This document should be construed as an occasional informal paper by a member of faculty. Any opinions expressed would be solely those of the author and do not reflect an official position of the college. Please contact Dana Lee Ling at dleeling@comfsm.fm or 691-320-2480 extension 228 if you have questions, corrections, or unmet data needs in regards the COMET instrument. If there is break-out aggregate data you require such as class level data not broken out above, please send the author a list of the names of the students/candidates and the author can generate the aggregate statistics for those students/candidates.

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