## COMET Spring 2018 Statistical Exploration by High School

This document is an exploration of data from the College of Micronesia-FSM spring 2018 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 . The msum column tracks the sum of the four math subsection scores. There are also sections that test vocabulary and comprehension.

| Statistic | Essay | Voc | Comp | MS095 | MS096 | MS099 | MS100 | msum |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| n | 1403 | 1403 | 1403 | 1403 | 1403 | 1403 | 1402 | 1403 |
| min | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| max | 50 | 72 | 37 | 10 | 10 | 10 | 10 | 40 |
| mode | 50 | 25 | 17 | 10 | 3 | 3 | 2 | 13 |
| median | 32 | 25 | 18 | 8 | 5 | 4 | 3 | 19 |
| mean | 31.86 | 26.66 | 18.75 | 7.30 | 4.89 | 4.56 | 3.53 | 20.27 |
| sx | 11.74 | 11.24 | 7.11 | 2.46 | 2.74 | 2.70 | 2.42 | 8.84 |
| cv | 0.37 | 0.42 | 0.38 | 0.34 | 0.56 | 0.59 | 0.68 | 0.44 |

## Correlations

| Correl | Essay | Voc | Comp | MS095 | MS096 | MS099 | MS100 | msum |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Essay | 1.00 | 0.57 | 0.65 | 0.53 | 0.57 | 0.50 | 0.38 | 0.58 |
| Vocab | 0.57 | 1.00 | 0.73 | 0.46 | 0.58 | 0.55 | 0.49 | 0.61 |
| Comp | 0.65 | 0.73 | 1.00 | 0.50 | 0.59 | 0.56 | 0.40 | 0.60 |
| Msum | 0.58 | 0.61 | 0.60 | 0.82 | 0.90 | 0.89 | 0.81 | 1.00 |

The vocabulary and comprehension subsections correlate to each other more strongly (0.73) than either correlates to the essay subsection $(0.57,0.65)$. This suggests that the vocabulary and comprehension are likely to be measuring the same basic skills while the essay is providing new information on a different skill set. To the extent that this is true, there may be redundancy between the vocabulary and comprehension subsections of the COMET.

Correlation of the language sections of the COMET to the mathematics sections is generally weaker, with especially poor correlations to skills in college algebra. There remains no way to infer mathematical capabilities from language skills.

Over time the average overall performance is fairly stable. There is only a hint of possible improvement in the means. While the large underlying sample sizes may make these changes statistically significant, these changes are not meaningful.

Mean by COMET subsection versus year


Spring term test runs only

Concern has been expressed that one of the subsections was not updated for this year. There is no signal in the data that any of the subsections saw an unusual gain that might be seen if that subsection was compromised in any way based on the subsection having been used the year before.

## High school abbreviations

| Acronym | School Full Name | State |
| :---: | :---: | :---: |
| Berea | Berea Christian | Chuuk |
| CCA | Calvary Christian Academy | Pohnpei |
| CHS | Chuuk High School | Chuuk |
| CSC | Chuuk State Campus | Chuuk |
| CSDA | Seventh Day Adventist Chuuk | Chuuk |
| CTEC | Career \& Technical Education Center | Pohnpei |
| FHS | Faichuuk High School | Chuuk |
| FCA | Faith Christian Academy | Yap |
| KHS | Kosrae High School | Kosrae |
| KSC | Kosrae State Campus | Kosrae |
| MHS | Madolehnihmw High School | Pohnpei |
| NMHS | Nanpei Memorial High School | Pohnpei |
| NHS | Nukuno High School | Chuuk |
|  | Ohwa International Christian |  |
| OICA | Academy | Pohnpei |
| OIHS | Outer Island High School - Ulithi | Yap |
| OLM | Our Lady of Mercy High School | Pohnpei |
| PICS | Pohnpei Islands Central School | Pohnpei |
| PLHA | Pentecostal Lighthouse Academy | Chuuk |
| PSDA | Seventh Day Adventist Pohnpei | Pohnpei |
| SCA | Saramen Chuuk Academy | Chuuk |
| SNHS-F | Southern Noumeneas Fefan | Chuuk |
| SNHS-T | Southern Noumeneas Tonoas | Chuuk |
| Xavier | Xavier High School | Chuuk |
| YCHS | Yap Catholic High School | Yap |
| YHS | Yap High School | Yap |
| YSC | Yap State Campus | Yap |
| YSDA | Seventh Day Adventist Yap | Yap |
| -10 | Tenth grade |  |
| -11 | Eleventh grade |  |

## Notes

Pohnpei State Campus is now known as the Career \& Technical Education Center

Overall average performance on subsection by high schools

| School | $\mathbf{n}$ | School Essay | School Vocab | School Comp | School Math |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Berea | 21 | XHS 48.05 | YCHS 49.95 | YCHS 32.65 | YCHS 35.85 |
| CCA | 17 | YCHS 47.05 | XHS 42.77 | XHS 29.23 | OLM 31.66 |
| CHS | 231 | OLM 46.31 | CCA 40.59 | CCA 28.88 | MHS 30.57 |
| CSC | 53 | PSDA 46.26 | PSDA 39.58 | OLM 28.19 | XHS 28.40 |
| CTEC | 55 | CCA 42.35 | OLM 39.16 | PSDA 27.74 | NMHS 27.68 |
| FCA | 10 | SCA 41.41 | YSDA 37.55 | YSDA 25.73 | PSDA 27.19 |
| FHS | 13 | YSDA 37.64 | NMHS 33.43 | Berea 21.71 | YSDA 24.18 |
| KHS | 146 | MHS 35.37 | MHS 28.98 | YHS 19.57 | CCA 22.76 |
| KSC | 7 | NMHS 35.37 | PICS 28.16 | PICS 19.45 | KSC 22.00 |
| MHS | 86 | CTEC 33.22 | YHS 25.74 | KSC 19.14 | YHS 21.30 |
| NMHS | 139 | YHS 33.20 | FCA 25.20 | KHS 19.10 | PICS 20.06 |
| OICA | 18 | KSC 32.71 | OIHS 24.83 | MHS 18.90 | KHS 19.80 |
| OIHS | 23 | PICS 32.29 | CTEC 23.55 | NMHS 18.53 | Berea 19.76 |
| OLM | 32 | KHS 32.11 | Berea 23.52 | SCA 17.54 | SCA 18.95 |
| PICS | 261 | FCA 29.80 | KHS 22.71 | FCA 16.90 | CTEC 18.89 |
| PLHA | 5 | OIHS 29.17 | KSC 22.00 | OICA 16.67 | FCA 18.30 |
| PSDA | 31 | PLHA 29.00 | SCA 21.84 | CTEC 16.42 | OICA 15.33 |
| SCA | 37 | OICA 28.44 | CSC 20.51 | CHS 15.85 | OIHS 15.09 |
| SNHS-F | 34 | CSC 28.17 | CHS 20.44 | YSC 14.50 | YSC 14.75 |
| SNHS-T | 20 | Berea 28.05 | YSC 20.25 | OIHS 14.09 | CHS 13.19 |
| XHS | 43 | CHS 24.30 | OICA 19.22 | CSC 13.75 | CSC 12.15 |
| YCHS | 20 | YSC 20.38 | SNHS-F 17.21 | PLHA 11.00 | PLHA 11.20 |
| YHS | 82 | SNHS-F 13.26 | PLHA 16.80 | SNHS-F 10.47 | SNHS-T 10.95 |
| YSC | 8 | SNHS-T 10.65 | SNHS-T 16.30 | FHS 10.46 | FHS 10.23 |
| YSDA | 11 | FHS 8.54 | FHS 14.23 | SNHS-T 10.10 | SNHS-F 8.97 |
| Total | 1403 | Mean 31.86 | Mean 26.66 | Mean 18.75 | Mean 20.27 |

In the table the n is the sample size, vocab refers to the vocabulary subsection, and comp refers to the comprehension subsection. The math column is based on the sum of the four subsections of the math component of the COMET. All values are the overall average for that school on the given subsection. Small differences in the average scores are not significant.

## Mean essay score vs. School



While placement does not depend on any single score, an essay score of 40 or higher usually results in placement in a college level writing course. An essay score of 34 to 39 is likely to result in placement in a one semester developmental writing course. Scores between 20 and 34 yield program admission decisions that depend in part on the other subsection scores.

Essay scores belong 20 are the result of errors of grammar or word order being frequent, limited vocabulary and frequent errors clearly hindering expression of ideas, an essay that evidences little or no attempt at connectivity - although the reader can deduce some attempt at organization, and the essay response is of limited relevance to the task set. Below 20 there may be major gaps in the treatment of topic and/or pointless repetition. As an anecdotal reference point, some years ago a fifth grade student with L1 skills in English wrote an essay that scored a 36. High school averages below 20 suggest a rather comprehensive systemic failure across multiple years of education.

## Essay score distribution



At one time the distribution of essay scores had a large number of essays marked as a zero essays that were off topic or written in a language other than English. The original essay marking rubric had only a four point scale. A fifth point was added to each metric (syntax, vocabulary, organization, cohesion, content) when the number of papers maxing out on the rubric strongly skewed the distribution. There are signs in the above distribution that essay writing skills have continued to improve over the past decade. The number of scores from 46 to $50(n=195)$ now exceeds the number between 41 and $45(n=162)$.

Mean math score vs. School


The math score sum does not translate into placements per se as this subsection consists of four sets of ten problems each targeting a particular level in mathematics. These are multiple choices questions. Randomly selecting answers should generate a score of roughly eight. Averages near ten or less suggest near random answering of the questions. The first ten questions are usually at an arithmetic and pre-algebra level of mathematics. A sum of less than fourteen would suggest a fundamental failure to lift students above the most basic numeric skills. High schools with an average lower than this ought to be taking a critical look at their mathematics programs.

Overall average performance on subsection by high schools with sections broken out for schools that submitted section lists

| School | n | School Essay | School | Vocab | School Comp | School Math |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Berea | 21 | XHS 48.05 | YCHS | 49.95 | YCHS 32.65 | MHS A 38.00 |
| CCA | 17 | YCHS 47.05 | XHS | 42.77 | XHS 29.23 | NMHS A 35.93 |
| CHS | 121 | OLM 46.31 | NMHS A | 40.77 | CCA 28.88 | YCHS 35.85 |
| CHS 10 | 27 | PSDA 46.26 | CCA | 40.59 | OLM 28.19 | MHS 35.57 |
| CHS 11 | 37 | CCA 42.35 | PSDA | 39.58 | PSDA 27.74 | MHS B 33.33 |
| CHS A | 24 | MHS A 42.06 | OLM | 39.16 | CHS A 27.08 | OLM 31.66 |
| CHS B | 22 | SCA 41.41 | MHS | 39.00 | MHS 26.14 | YHS 1128.62 |
| CSC | 53 | MHS 38.86 | YSDA | 37.55 | YSDA 25.73 | NMHS H 28.59 |
| CTEC | 55 | NMHS A 37.90 | NMHS H | 36.41 | MHS A 23.29 | XHS 28.40 |
| FCA | 10 | YSDA 37.64 | NMHS B | 33.43 | YHS 1122.31 | PSDA 27.19 |
| FHS | 13 | YHS 1137.62 | MHS A | 33.18 | NMHS A 21.97 | MHS Da 26.57 |
| KHS | 146 | NMHS 36.65 | CHS A | 31.04 | Berea 21.71 | MHS Dm 26.56 |
| KSC | 7 | MHS B 36.56 | NMHS Ag | 30.22 | NMHS 20.08 | MHS C 25.69 |
| MHS | 7 | NMHS H 36.45 | NMHS Co | 29.50 | PICS 19.45 | MHS Dc 25.15 |
| MHS A | 17 | NMHS Ag 35.87 | MHS B | 28.83 | KSC 19.14 | NMHS B 25.05 |
| MHS B | 18 | CHS A 34.58 | YHS 11 | 28.77 | KHS 19.10 | NMHS Ag 24.83 |
| MHS C | 13 | MHS C 33.85 | PICS | 28.16 | YHS 19.06 | NMHS 24.69 |
| MHS Da | 7 | CTEC 33.22 | MHS Dm | 27.67 | MHS B 18.94 | YSDA 24.18 |
| MHS Dc | 13 | KSC 32.71 | MHS Dh | 27.00 | MHS Dm 18.00 | MHS Dh 24.00 |
| MHS Dh | 2 | YHS 32.36 | MHS Da | 26.00 | NMHS B 17.76 | CCA 22.76 |
| MHS Dm | 9 | PICS 32.29 | NMHS | 26.00 | SCA 17.54 | KSC 22.00 |
| NMHS | 26 | KHS 32.11 | MHS C | 25.38 | NMHS H 17.21 | CHS A 20.63 |
| NMHS A | 30 | MHS Dm 31.44 | FCA | 25.20 | MHS Dh 17.00 | NMHS Co 20.10 |
| NMHS Ag | 23 | MHS Da 31.29 | YHS | 25.17 | NMHS Ag 16.91 | PICS 20.06 |
| NMHS B | 21 | MHS Dc 30.92 | OIHS | 24.83 | FCA 16.90 | YHS 19.93 |
| NMHS Co | 10 | NMHS B 30.81 | MHS Dc | 24.69 | OICA 16.67 | KHS 19.80 |
| NMHS H | 29 | FCA 29.80 | CTEC | 23.55 | CTEC 16.42 | Berea 19.76 |
| OICA | 18 | NMHS Co 29.70 | Berea | 23.52 | CHS 1115.59 | SCA 18.95 |
| OIHS | 23 | CHS B 29.27 | KHS | 22.71 | MHS C 15.54 | CTEC 18.89 |
| OLM | 32 | OIHS 29.17 | CHS B | 22.27 | CHS B 15.45 | FCA 18.30 |
| PICS | 261 | PLHA 29.00 | KSC | 22.00 | MHS Da 15.43 | OICA 15.33 |
| PLHA | 5 | OICA 28.44 | CHS 11 | 21.86 | MHS Dc 15.31 | OIHS 15.09 |
| PSDA | 31 | CSC 28.17 | SCA | 21.84 | YSC 14.50 | YSC 14.75 |
| SCA | 37 | Berea 28.05 | CSC | 20.51 | CHS 1014.19 | CHS 1013.70 |


| SNHS-F | 34 | MHS Dh 26.50 | YSC | 20.25 | CHS 14.14 | CHS B 12.73 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SNHS-T | 20 | CHS 1125.35 | CHS 10 | 19.37 | OIHS 14.09 | CSC 12.15 |
| XHS | 43 | CHS 1022.93 | OICA | 19.22 | CSC 13.75 | CHS 1112.05 |
| YCHS | 20 | CHS 21.35 | CHS | 17.80 | NMHS Co 13.40 | CHS 12.03 |
| YHS | 69 | YSC 20.38 | SNHS-F | 17.21 | PLHA 11.00 | PLHA 11.20 |
| YHS 11 | 13 | SNHS-F 13.26 | PLHA | 16.80 | SNHS-F 10.47 | SNHS-T 10.95 |
| YSC | 8 | SNHS-T 10.65 | SNHS-T | 16.30 | FHS 10.46 | FHS 10.23 |
| YSDA | 11 | FHS 8.54 | FHS | 14.23 | SNHS-T 10.10 | SNHS-F 8.97 |
| Total | 1403 | Mean 31.86 | Mean | 26.66 | Mean 18.75 | Mean 20.27 |
| School | n | School Essay | School | Vocab | School Comp | School Math |

## Notes

At Madolenihmw High School the section letters are majors:
$A$ is academic one
$B$ is academic two
C is business
D consists of two sections. One section is construction and mechanics, the other is agriculture and home arts. Each of these sections lists students separately for the four concentrations. This document will use Dc, Dm, Da, and Dh respectively for construction, mechanics, agriculture, and home arts.
MHS without a section designation are students who were not on the class section lists submitted.

Nanpei Memorial High School previously used A1 and A2 for their academic majors, B for business, and two vocational sections denoted V1 and V2. This year Nanpei has labeled their sections as Academic, Health, Business, Agriculture, and Construction. These appear to correspond to the section letters used previously but indicate that A2 now has a health major focus. NMHS without a section designation are students who were not on the class section lists submitted.

## Essay performance over time for high schools and selected

 sections| Spring: Essay | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Berea | 27.21 | 25.63 | 28.73 | 38.22 | 28.95 | 45.00 | 28.05 |
| CCA | 46.82 | 37.25 | 41.29 | 44.80 | 42.53 | 47.40 | 42.35 |
| CHS | 18.41 | 22.44 | 16.8 | 20.54 | 20.78 | 28.56 | 24.29 |
| CHS A | 36.82 | 37.96 | 39 | 41.67 | 36.44 | 42.30 | 34.58 |
| Faichuk | 4.87 | 4.84 | 1.81 | 12.33 | 7.80 | 15.47 | 8.54 |
| Faith Christian |  |  |  |  |  |  | 29.80 |
| KHS | 33.39 | 30.24 | 29.9 | 33.53 | 31.22 | 30.98 | 32.11 |
| MHS | 29.86 | 30.6 | 30.84 | 28.13 | 32.08 | 31.94 | 38.86 |
| MHS A1/A | 37.89 | 33.95 |  | 32 | 39.14 | 39.32 | 42.06 |
| MHS A2/B | 32.11 | 28.57 |  | 29.3 | 29.29 | 32.30 | 36.56 |
| MHS BU/C |  |  |  | 28 | 33.90 | 29.86 | 33.85 |
| NMHS | 30.51 | 31.74 | 33.3 | 23.39 | 36.52 | 28.58 | 36.65 |
| NMHS A1/A | 36.22 | 38.92 | 38.5 | 32.43 | 40.47 | 37.43 | 37.90 |
| NMHS A2/H | 32.48 | 32.46 | 37.13 | 27.05 | 39.63 | 30.93 | 36.45 |
| NMHS B | 29.18 | 28.4 | 30.44 | 19.73 | 37.33 | 26.17 | 30.81 |
| Nukuno | 30.56 |  | 9.64 | 16.00 | 28.83 |  |  |
| OICA | 34.17 | 30.7 | 30.55 | 31.24 | 30.27 | 35.00 | 28.44 |
| OIHS | 21.41 |  | 29.62 | 29.78 | 28.00 |  | 29.17 |
| OLMCHS | 35.17 | 42.59 | 42.48 | 44.58 | 36.58 | 43.40 | 46.31 |
| PICS | 32.95 | 31.68 | 28.05 | 29.67 | 31.88 | 31.00 | 32.29 |
| PICS A1 |  |  |  |  |  | 44.58 |  |
| PICS A2 |  |  |  |  |  | 36.39 |  |
| PLHA | 27.86 | 21.04 | 16.94 | 26.38 | 20.00 | 14.60 | 29.00 |
| SCA | 32.89 | 36.63 | 33.56 | 37.85 | 37.59 | 42.65 | 41.41 |
| SDA-C | 25.62 | 30.7 | 33.6 | 37.38 | 20.00 | 36.71 |  |
| SDA-P | 43.24 | 39.32 | 41.68 | 39.69 | 41.28 | 44.78 | 46.26 |
| SDA-Y | 42.2 | 33.14 | 41.4 | 40.40 | 40.58 | 42.00 | 37.64 |
| SNHS-Fefan | 13.32 | 15.76 | 21.36 | 12.08 | 12.90 | 17.40 | 13.26 |
| SNHS-Tonoas | 7.52 | 12.87 | 12.88 | 12.79 | 13.12 | 13.78 | 10.65 |
| Xavier | 43.24 | 43.98 | 42.66 | 47.13 | 48.61 | 48.31 | 48.05 |
| YCHS |  |  | 44.67 | 46.50 | 47.31 | 48.31 | 47.05 |
| YHS | 30.06 | 34.13 | 27.16 | 30.86 | 37.20 | 32.83 | 32.36 |
| Overall | 27.54 | 27.6 | 27.06 | 28.28 | 31.72 | 31.18 | 31.86 |

Placement status analysis by high schools at the section level where sections were known

| SchSxn | Non-Admit | Certificate | ACE | Degree | Sum |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Berea | 3 | 8 | 3 | 7 | 21 |
| CCA |  | 1 |  | 16 | 17 |
| CHS | 62 | 44 | 11 | 4 | 121 |
| CHS 10 | 14 | 8 | 2 | 3 | 27 |
| CHS 11 | 17 | 12 | 2 | 6 | 37 |
| CHS A |  | 5 | 2 | 17 | 24 |
| CHS B | 6 | 10 | 3 | 3 | 22 |
| CSC | 25 | 20 | 5 | 3 | 53 |
| CTEC | 11 | 21 | 10 | 13 | 55 |
| FCA | 3 | 4 | 1 | 2 | 10 |
| FHS | 10 | 2 |  | 1 | 13 |
| KHS | 17 | 55 | 17 | 57 | 146 |
| KSC |  | 4 |  | 3 | 7 |
| MHS |  |  |  | 7 | 7 |
| MHS A |  | 1 | 1 | 15 | 17 |
| MHS B |  | 3 | 8 | 7 | 18 |
| MHS C | 3 | 3 | 4 | 3 | 13 |
| MHS Da | 1 | 3 | 1 | 2 | 7 |
| MHS Dc | 2 | 6 | 5 |  | 13 |
| MHS Dh |  | 2 |  |  | 2 |
| MHS Dm | 1 | 5 | 1 | 2 | 9 |
| NMHS | 3 | 3 | 3 | 17 | 26 |
| NMHS A | 1 | 7 | 2 | 20 | 30 |
| NMHS Ag | 4 | 8 | 5 | 6 | 23 |
| NMHS B | 4 | 8 | 2 | 7 | 21 |
| NMHS Co | 4 | 5 | 1 |  | 10 |
| NMHS H | 2 | 9 | 9 | 9 | 29 |
| OICA | 3 | 13 |  | 2 | 18 |
| OIHS | 10 | 8 | 3 | 2 | 23 |
| OLM |  |  | 2 | 30 | 32 |
| PICS | 26 | 106 | 44 | 85 | 261 |
| PLHA | 2 | 3 |  |  | 5 |
| PSDA |  |  |  | 31 | 31 |


| SCA | 6 | 9 | 7 | 15 | 37 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| SNHS-F | 28 | 4 | 1 | 1 | 34 |
| SNHS-T | 18 | 1 | 1 |  | 20 |
| XHS |  |  | 2 | 41 | 43 |
| YCHS |  |  |  | 20 | 20 |
| YHS | 14 | 20 | 3 | 32 | 69 |
| YHS 11 |  | 3 | 1 | 9 | 13 |
| YSC | 2 | 5 |  | 1 | 8 |
| YSDA |  | 1 | 1 | 9 | 11 |
| Sums | $\mathbf{3 0 2}$ | $\mathbf{4 3 0}$ | $\mathbf{1 6 3}$ | $\mathbf{5 0 8}$ | $\mathbf{1 4 0 3}$ |
| SchSxn | Non-Admit | Certificate | ACE | Degree | Sum |

## Gender differentials

Gender differentials were explored for the essay average and math sum average by state. Given the large underlying $n$, differences may be significant from a frequentist statistical point of view, but the size of the effect is generally small.

| State - Essay | Female | Male | Differential |
| :--- | ---: | ---: | ---: |
| Chuuk | 27.18 | 26.17 | 1.01 |
| Kosrae | 35.26 | 28.97 | 6.29 |
| Pohnpei | 36.63 | 33.39 | 3.24 |
| Yap | 35.97 | 31.12 | 4.85 |
| Overall | 33.25 | 30.30 | 2.95 |

The largest difference in average performance on the essay was seen in Kosrae state, with the smallest difference seen in Chuuk. Last year Yap had the largest difference and Kosrae the smallest. This suggests that the differences are not stable year-on-year in terms of rank order and hints that these differences are perhaps random.

| State - Math | Female | Male | Differential |
| :--- | ---: | ---: | ---: |
| Chuuk | 14.75 | 14.73 | 0.02 |
| Kosrae | 21.05 | 18.74 | 2.32 |
| Pohnpei | 24.57 | 23.36 | 1.21 |
| Yap | 23.90 | 19.46 | 4.44 |
| Overall | 20.84 | 19.62 | 1.22 |

Differences on the math subsection were smaller and less meaningful.
These differences in average performance are reflected in differences in the admissions placement of students by gender.

| Gender | Non-Admit | Certificate | ACE | Degree | Sum |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Female | 144 | 198 | 99 | 301 | 742 |
| Male | 158 | 232 | 64 | 207 | 661 |
| Sums | 302 | 430 | 163 | 508 | 1403 |

## Upward Bound summary statistics

| Upward Bound | Statistic |
| :--- | ---: |
| sample size n | 22 |
| Essay avg | 42.64 |
| Vocabulary avg | 42.45 |
| Comprehension avg | 27.00 |
| Math sum avg | 37.00 |
| Non-Admit | 0 |
| Certificate | 1 |
| ACE | 0 |
| Degree | 21 |

If Upward Bound were a section in a school the section would be fifth rank on the essay behind Pohnpei SDA, third rank on vocabulary behind Xavier High School, sixth rank on composition behind Pohnpei SDA, and second rank on the math sum subsection behind only Madolehnihmw High School section A. The Pohnpei UB students attend PICS, NMHS, and MHS.

## Diversity

The College of Micronesia-FSM was founded by an act of the FSM congress and is thus effectively the national college of the Federated States of Micronesia. The degree granting programs provide a path to positions of leadership in business, government, education, and other fields. Differentials in admission to degree programs by state can have long term impacts on opportunities for residents of a particular state.

| State | Population | Pop \% | Degree <br> admits | Deg \% | Share of pop | Parity |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Chuuk | 48654 | $47.3 \%$ | 88 | $17.3 \%$ | $37 \%$ | $100 \%$ |
| Kosrae | 6616 | $6.4 \%$ | 63 | $12.4 \%$ | $193 \%$ | $100 \%$ |
| Pohnpei | 36196 | $35.2 \%$ | 282 | $55.5 \%$ | $158 \%$ | $100 \%$ |
| Yap | 11377 | $11.1 \%$ | 75 | $14.8 \%$ | $133 \%$ | $100 \%$ |
| Sums: | 102843 |  | 508 |  |  |  |

The population data is from the 2010 census and is no longer accurate. Anecdotal reports are that the national population is now under 100,000. Kosrae is estimated to be as low as 5200 as of late 2017.

The number of admissions by state to degree granting programs is based on the state in which the high school is located. As Xavier High School recruits nationwide, students known to this author to be from other states who are attending Xavier were credited to their home state instead of Chuuk to provide a more realistic degree admits count for Chuuk state.

## Representation as a share of national population

Degree admission only


While Chuuk state residents are underrepresented in degree admissions at the college, the other three states are each over-represented as a share of the national population. Note that the above numbers are invitations to the degree program at the college and do not represent the number who accept those invitations and attend the college. While the college operates from six sites in the four states, the national site has the most programs. The national site is arguably the lead campus.

The above differentials in the share of degree admissions increase when one looks at the enrollment by state of origin at the national campus spring 2018. Note these numbers are only for the national campus and do not include state campus enrollment.

| Origin | National Sp 18 | Percent | As a share of pop |
| :--- | ---: | ---: | ---: |
| Chuuk | 62 | $7.5 \%$ | $16 \%$ |
| Kosrae | 67 | $8.1 \%$ | $126 \%$ |
| Pohnpei | 608 | $73.7 \%$ | $209 \%$ |
| Yap | 88 | $10.7 \%$ | $96 \%$ |
|  | 825 |  |  |
| Sum: |  |  |  |

There are complex contributing factors that lead to the differential increasing. The national campus is located on Pohnpei, a Pohnpeian student can remain at home and attend the national campus. Students from other states have to leave home to attend the national campus. Once a decision is made to leave one's home island, then there are other options. Guam Community College is a a single hop by air from Chuuk for a Chuukese student. For Kosraean students, there are more Kosraeans living abroad than on the home island. They have the option to continue on in schools stateside while staying with relatives there. And Yapese students can remain closer to their home island by attending Palau Community College.

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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 are 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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## Appendix A

COMET Sub-Test 3 (Writing) Analytic Scale [Essay rubric]

## Syntax

5 Grammar and word order nearly perfect.
4 Some errors of grammar or word order but communication not impaired.
3 Errors of grammar or word order fairly frequent; occasional re-reading necessary for full comprehension.
2 Errors of grammar or word order frequent; efforts of interpretation sometimes required on reader's part.
1 Errors of grammar or word order very frequent; reader often has to rely on own interpretation.
0 Errors of grammar or word order so severe as to make comprehension virtually impossible.

## Vocabulary

5 Wide and correctly used vocabulary.
4 Occasionally uses inappropriate terms or relies on circumlocution; expression of ideas not impaired.
3 Uses wrong or inappropriate words fairly frequently; expression of ideas may be limited because of inadequate vocabulary.
2 Limited vocabulary and frequent errors clearly hinder expression of ideas.
1 Vocabulary so limited and so frequently misused that reader must often rely on own interpretation.
0 Vocabulary limitations so extreme as to make comprehension virtually impossible.

## Organization

5 Extremely well organized.
4 Material fairly well organized; links could occasionally be clearer but communication not impaired.
3 Some lack of organization; re-reading required for clarification of ideas.
2 Little or no attempt at connectivity, though reader can deduce some organization. 1 Individual ideas may be clear, but very difficult to deduce connection between them. 0 Lack of organization so severe that communication is seriously impaired.

## Cohesion

5 Strong cohesion with smooth transitions both within and between paragraphs.
4 Occasional lack of consistency in choice of cohesive structures and vocabulary but overall ease of communication not impaired.

3 'Patchy', with some cohesive structures or vocabulary items noticeably inappropriate to general style.
2 Cohesive structures or vocabulary items sometimes not only inappropriate but also misused; little sense of ease of communication.
1 Communication often impaired by completely inappropriate or misused cohesive structures or vocabulary items.
0 A 'hotchpotch' of half-learned misused cohesive structures and vocabulary items rendering communication almost impossible.

## Content

5 Full and complete answer, inclusive of all parts of the task.
4 Relevant and adequate answer to the task set.
3 For the most part answers the task set, though there may be some gaps or redundant information.
2 Answer of limited relevance to the task set. Possibly major gaps in treatment of topic and/or pointless repetition.
1 Answer bears little relation to the task set.
0 No evidence of assigned task.

