

Evidence 2023.1.3.3: General PCMAS Data Analysis 2020-2023

Evidence Overview

This document provides information on the General PCMAS (Puerto Rico Teacher Certification Exam) results from 2020 to 2023. The General PCMAS is designed to assess teachers' knowledge and skills, incorporating content from basic university courses offered across higher education institutions. The exam includes Fundamental Knowledge and Professional Skills exercises, covering subjects like Social Sciences, Humanities, Natural Sciences, Math, Spanish, and English. Professional Competencies, such as Methodology, Evaluation and Research, Educational Philosophy, Educational Sociology, Human Development, Educational Psychology, and Analysis of a Pedagogical Situation, are also evaluated.

CAEP Standards Alignment

Initial

1.3, 1.4

Advanced

The Evidence

The evidence shows a complete analysis of UPRM teacher candidate scores on specialty licensure area exams compared to all teacher candidate scores and a topic performance analysis.

Puerto Rico Teacher Certification Exam – General PCMAS Results 2020--2023

The General PCMAS test measures teachers' knowledge and skills to perform efficiently. The content of the basic university courses offered in the various higher education institutions is considered in its preparation. The Fundamental Knowledge and Professional Skills exercises are multiple selections and last approximately two hours and twenty minutes. In addition, the test includes a pedagogical situation with discussion exercises that are answered in thirty-five minutes. The content areas of the test are as follows.

Fundamental Knowledge:

- Social Sciences
- Humanities
- Natural Sciences
- Math
- Spanish
- English

Professional Competencies:

- Methodology
- Evaluation and Research
- Educational Philosophy
- Educational Sociology
- Human development
- Educational psychology

Analysis of a pedagogical situation

The General PCMAS is offered at Secondary (middle and high school) and Elementary levels. The exams are offered on a Saturday in March of each calendar year. A subsequent table provides a year-by-year comparison in greater detail. See 2023.1.3.4 for the current PRDE Circular Letter 04-2022-2023 regulating PCMAS administration and purposes.

The average passing rate for UPRM teacher candidates taking the General PCMAS test over the past three years is 94% for the Secondary Level and 100% for the Elementary level. This reflects the UPRM EPP emphasis on breadth and depth of content knowledge, the rigor of UPRM general education requirements, and the teaching professional competencies. The following table compares the passing rates of UPRM graduates on the Puerto Rico Teacher Certification exam, General PCMAS over the past three years with all test takers.

Table 1. General PCMAS Data 2020-2023

General PCMAS Certification Exam	Data 2020-2023	UPRM	PR
Elementary Level	N	8	2,165
	# Passing	8	1,695
	% Passing	100%	78%
Secondary Level	N	135	1,338
	# Passing	127	1,233
	% Passing	94%	92%

**General PCMAS - Puerto Rico Teacher Certification Exam Results
2020--2023**

Historically, a UPRM teacher candidate scored highest on the yearly General PCMAS - Puerto Rico Teacher Certification exams. Given that UPRM teacher candidates account for 20% of the test takers for the certification exam, this attests to their consistent quality. A UPRM teacher candidate has made one of the top three scores on the Secondary Level Professional Skills Exam for the past three years. The following table compares UPRM candidate performance with all Puerto Rico on the General PCMAS - Puerto Rico Teacher Certification Exams over the past three years. The minimum passing scale score established for the General PCMAS (General at the elementary level and General at the secondary level) is 89.

Table 2. Data Comparison UPRM all other higher education programs in Puerto Rico

General PCMAS	Data	2021		2022		2023	
		UPRM	PR	UPRM	PR	UPRM	PR
Elementary Level	N	-	907	2	658	6	600
	# Passing	-	776	2	504	6	415
	% Passing	-	86%	100%	77%	100%	70%
	Average	-	104	95	99	111	107
	Median	-	104	95	100	112	109
	SD	-	13	0	12	8	14
Secondary Level	N	54	560	41	402	40	376
	# Passing	52	522	40	376	35	335
	% Passing	96%	93%	98%	94%	88%	89%
	Average	113	110	113	110	112	107
	Median	112	111	113	110	114	101
	SD	12	13	10	13	16	14

General PCMAS March 2021

The individual results report of the General PCMAS offers the score according to the level:

Secondary Level. The score, which expresses performance on the test, is reported on a scale that ranges from a minimum score of 40 points to a maximum of 160. The table below is a summary of the results obtained by the population examined in March 2021. In the first column of the table, the score appears on a scale in intervals of 10 points, and then the frequency (number of examinees) in each interval. The minimum passing scale score established for the PCMAS (General at the elementary level and General at the secondary level) is 89.

Descriptive statistics of the General PCMAS by content areas

Table 3 presents the descriptive statistics by the PCMAS General content areas for the administration in March 2021. The content areas are presented on a scale of 20 to 80 points, with a theoretical average of 50 points and a theoretical standard deviation of 10 points.

Table 3. Distribution of scores of candidates examined in the General PCMAS and level.

March 2021 Scale score	Puerto Rico			UPRM		
	Elementary	Secondary	Total	Elementary	Secondary	Total
160	0	0	0	0	0	0
150-159	0	0	0	0	0	0
140-149	3	3	6	0	0	0
130-139	20	24	44	0	4	4
120-129	88	118	206	0	14	14
110-119	201	158	359	0	14	14
100-109	257	146	403	0	14	14
90-99	207	73	280	0	6	6
80-89	108	34	142	0	2	2
70-79	21	4	25	0	0	0
60-69	2	0	2	0	0	0
50-59	0	0	0	0	0	0
40-49	0	0	0	0	0	0
Average	104	110	106	0	113	113
Median	104	111	107	0	112	112
Standard Deviation	13	13	13	0	12	12
N	907	560	1467	0	54	54

Table 4. of Descriptive statistics by content areas in the PCMAS General

General PCMAS content areas March 2021		Average	Median	SD	Minimum	Maximum	N
Puerto Rico	Social Sciences/Humanities	50	48	10	20	80	1,467
	Science and Mathematics	53	53	10	20	80	1,467
	English	51	52	12	20	80	1,467
	Spanish	49	50	10	20	79	1,467
	Methodology/Evaluation	50	50	10	20	80	1,467
	Sociological and Philosophical Foundations	53	51	10	20	80	1,467
	Human Development and Psychology	50	50	10	20	74	1,467
	Pedagogical Situation	53	54	8	31	76	1,467
UPRM	Social Sciences/Humanities	53	56	9	29	67	54
	Science and Mathematics	62	61	8	44	80	54
	English	55	60	11	29	67	54
	Spanish	52	53	10	35	75	54
	Methodology/Evaluation	54	54	9	31	76	54
	Sociological and Philosophical Foundations	55	56	10	28	80	54
	Human Development and Psychology	51	50	9	25	74	54
	Pedagogical Situation	55	55	7	42	69	54

PCMAS General - March 2022

The individual results report of the PCMAS General offers the score according to the level: Elementary Level and Secondary Level. The score, which expresses performance on the test, is reported on a scale that ranges from a minimum score of 40 points to a maximum of 160. Table 5 below summarizes the results obtained by the population examined in March 2022. In the first column of the table, the score appears on a scale in intervals of 10 points, and then the frequency (number of examinees) in each interval is offered.

Table 5. Distribution of scores of candidates examined in the PCMAS General and level

Scale score 2022	Puerto Rico			UPRM		
	Elementary	Secondary	Total	Elementary	Secondary	Total
160	0	0	0	0	0	0
150-159	0	0	0	0	0	0
140-149	0	2	2	0	1	1
130-139	2	20	22	0	1	1
120-129	28	77	105	0	8	8
110-119	113	117	230	0	18	18
100-109	187	103	290	0	9	9
90-99	172	57	229	2	3	5
80-89	128	20	148	0	1	1
70-79	26	6	32	0	0	0
60-69	2	0	2	0	0	0
50-59	0	0	0	0	0	0
40-49	0	0	0	0	0	0
Average	99	110	103	95	113	112
Median	100	110	103	95	113	113
Standard Deviation	12	13	12	0	10	11
N	658	402	1060	2	41	43

Descriptive statistics of the General PCMAS by content areas 2022

Table 6 presents the descriptive statistics by content areas of the PCMAS General for the administration in March 2021. The content areas are presented on a scale of 20 to 80 points, with a theoretical average of 50 points and a theoretical standard deviation of 10 points.

Table 6. Descriptive statistics by content areas in the PCMAS General

2022	PCMAS General content areas	Average	Median	SD	Minimum	Maximum	N
Puerto Rico	Social Sciences/Humanities	49	49	10	22	80	1,060
	Science and Mathematics	52	54	10	25	80	1,060
	English	50	50	13	20	80	1,060
	Spanish	49	50	10	20	74	1,052
	Methodology/Evaluation	49	47	10	20	76	1,060
	Sociological and Philosophical Foundations	51	54	11	20	80	1,060
	Human Development and Psychology	49	47	10	20	77	1,056
	Pedagogical Situation	52	51	7	32	80	1,060
UPRM	Social Sciences/Humanities	53	56	10	30	71	43
	Science and Mathematics	59	58	9	45	74	43
	English	55	57	13	33	80	43
	Spanish	52	50	9	30	68	43
	Methodology/Evaluation	51	51	9	40	76	43
	Sociological and Philosophical Foundations	56	54	10	37	77	43
	Human Development and Psychology	50	47	8	32	67	43
	Pedagogical Situation	58	57	6	44	68	43

PCMAS General - March 2023

The individual results report of the PCMAS General offers the score according to the level: Elementary Level and Secondary Level. The score, which expresses performance on the test, is reported on a scale that ranges from a minimum score of 40 points to a maximum of 160. Table 7 below summarizes the results obtained by the population examined in March 2023. In the first column of the table, the score appears on a scale in intervals of 10 points, and then the frequency (number of examinees) in each interval is offered.

Table 7 Distribution of scores of candidates examined in the PCMAS General and level

2023 Scale score	Puerto Rico			UPRM		
	Elementary	Secondary	Total	Elementary	Secondary	Total
160	0	0	0	0	0	0
150-159	0	0	0	0	0	0
140-149	0	5	5	0	1	1
130-139	2	14	16	0	4	4
120-129	21	58	79	0	7	7
110-119	88	106	194	5	10	15
100-109	152	75	227	0	9	9
90-99	153	77	230	1	4	5
80-89	138	32	170	0	5	5
70-79	44	9	53	0	0	0
60-69	2	0	2	0	0	0
50-59	0	0	0	0	0	0
40-49	0	0	0	0	0	0
Average	97	107	101	111	112	111
Median	104	109	101	112	114	114
Standard Deviation	13	14	14	8	16	15
N	600	376	976	6	40	46

Descriptive statistics of the General PCMAS by content areas

Table 6 presents the descriptive statistics by content areas of the PCMAS General for the last administration in March 2023. The content areas are presented on a scale of 20 to 80 points, with a theoretical average of 50 points and a theoretical standard deviation of 10 points.

Table 8 Descriptive statistics by content areas in the PCMAS General

PCMAS General content areas		Average	Median	DE	Minimum	Maximum	N
Puerto Rico	Social Sciences/Humanities	48	48	10	23	78	977
	Science and Mathematics	50	49	11	23	80	977
	English	49	49	13	23	80	977
	Spanish	47	48	11	20	80	977
	Methodology/Evaluation	50	51	10	22	79	977
	Sociological and Philosophical Foundations	50	51	11	20	80	977
	Human Development and Psychology	49	50	10	20	80	977
	Pedagogical Situation	51	51	8	20	73	976
UPRM	Social Sciences/Humanities	55	52	12	31	77	46
	Science and Mathematics	60	62	11	37	80	46
	English	55	61	12	28	73	46
	Spanish	52	55	12	20	69	46
	Methodology/Evaluation	57	58	9	40	72	46
	Sociological and Philosophical Foundations	55	57	11	29	79	46
	Human Development and Psychology	53	59	12	29	80	46
	Pedagogical Situation	52	51	8	36	67	46