## CAMPEP Graduate Program Report

AAPM, Nashville, 31 July 2018

B Clark, PhD Chair, CAMPEP GEPRC

# 2017 Status (2016)

<ul> <li># Accredited graduate programs (institutions): 52</li> <li># Accredited DMP programs: 5</li> <li># Programs in initial review process: 3</li> <li># Accredited programs in:</li> </ul>	<b>(52)</b> (4)
<ul> <li>US</li> <li>Canada</li> <li>Outside North America</li> </ul>	
Accredited Certificate Programs  • # in Graduate programs: 20  • # in Residency programs: 4  • # Residency programs w approved courses: 2	(20)

#### **Annual Report Data**

- 53 institutions responded
  - 1 non-accredited graduate program (Mexico)

N.B.: The following analysis excludes the non-accredited program

- 36 entire program accredited
- 16 some tracks not accredited
- 40 programs do not accept students lacking basic physics qualifications
- 12 programs accept students without full physics qualifications and remediate

#### Program Response / Degree Offerings

# Programs offering:	2013	2014	2015	2016	2017
MS Degrees	43	43	46	47	47
PhD Degrees	30	34	34	36	37
MS & PhD Degrees	28	30	30	31	32
MS Degree Only	13	13	13	16	15
PhD Degree Only	2	3	3	5	5
DMP	1	2	3	4	5

## **Graduate Program Applicants**

	2013	2014	2015	2016	2017
# applications reviewed	1801	1953	1836	1921	2012
# offered admission	545	602	577	608	594
# matriculated	289	324	294	325	314
Average GPA (MS/PhD)	3.5/3.6	3.5/3.6	3.5/3.6	3.5/3.7	3.4/3.6

## Entering Class – Gender

	2013	2014	2015	2016	2017
MS/MSc – Male	64%	69%	67%	61%	62%
PhD – Male	71%	69%	68%	63%	58%
DMP - Male		60%	85%	58%	58%

## **2017 Application Process**

Interview required		20 (38%)
Interview recommended, not required		18 (35%)
No interview		14 (27%)
-	Total	52
Interview (38 Programs)		
In person		4 (11%)
Telephone		3 (8%)
Either in person or telephone		23 (60%)
Video		6 (16%)
Not specified		2 (5%)

## **Entering Class - Nationality**

Nationality	2013	2014	2015	2016	2017
MS/MSc – Domestic	91%	80%	80%	77%	80%
PhD – Domestic	80%	77%	78%	73%	74%

Under-Represented Ethnic Groups (5 programs chose not to respond)

• 25 institutions reported 47 students (14% of new students)

Black/ African-American	12
Latino/ Hispanic	11
Pacific Islanders	1
Other	23
Total	47

#### **Enrollment and Graduates**

	2013	2014	2015	2016	2017
Enrollment					
MS/MSc	467	458	449	402	416
PhD	572	559	572	577	583
DMP	20	25	35	35	40
Total	1059	1042	1056	1014	1039
Graduates					
MS/MSc	162	164	202	139	159
PhD	113	107	99	89	94
DMP	4	5	6	6	10
Total	279	276	307	234	263

## Premature Departure

15 Programs reported 26 (2.5%) students left prior to completion  $_{\rm 27}$  (2.8%) last year

Medical or personal reason	ıs	13
Poor academic performanc	e	3
Not a match for interests		6
Left to take job		1
Other		3
	Total	26

## MS/MSc Graduate Destination

2013	2014	2015	2016	2017
				79 (50%)
				54 (34%)
37 (23%)	40 (25%)	46 (23%)	42 (30%)	45 (28%)
4 (3%)	5 (3%)	10 (5%)	5 (4%)	8 (5%)
48 (30%)	39 (24%)	26 (13%)	24 (17%)	12 (8%)
27 (17%)	39 (24%)	51 (25%)	48 (35%)	60 (38%)
17 (11%)	14 (19%)	19 (9%)	11 (7%)	11 (7%)
	4 (2%)	5 (3%)	3 (2%)	2 (1%)
16 (10%)	8 (5%)	9 (5%)	3 (2%)	7 (4%)
12 (7%)	15 (9%)	32 (16%)	8 (5%)	15 (9%)
	37 (23%) 4 (3%) 48 (30%) 27 (17%) 17 (11%)	37 (23%) 40 (25%) 4 (3%) 5 (3%) 48 (30%) 39 (24%) 27 (17%) 39 (24%) 17 (11%) 14 (19%) 4 (2%) 16 (10%) 8 (5%)	37 (23%) 40 (25%) 46 (23%) 4 (3%) 5 (3%) 10 (5%) 48 (30%) 39 (24%) 26 (13%) 27 (17%) 39 (24%) 51 (25%) 17 (11%) 14 (19%) 19 (9%) 4 (2%) 5 (3%) 16 (10%) 8 (5%) 9 (5%)	37 (23%) 40 (25%) 46 (23%) 42 (30%) 4 (3%) 5 (3%) 10 (5%) 5 (4%) 48 (30%) 39 (24%) 26 (13%) 24 (17%) 27 (17%) 39 (24%) 51 (25%) 48 (35%) 17 (11%) 14 (19%) 19 (9%) 11 (7%) 4 (2%) 5 (3%) 3 (2%) 16 (10%) 8 (5%) 9 (5%) 3 (2%)

## PhD Graduate Destination

2013	2014	2015	2016	2017
				51 (54%)
				52 (55%)
28 (25%)	31 (29%)	44 (47%)	33 (37%)	39 (41%)
4 (4%)	7 (7%)	6 (6%)	8 (9%)	10 (11%)
26 (24%)	16 (15%)	8 (8%)	13 (15%)	9 (10%)
18 (16%)	14 (13%)	20 (20%)	17 (19%)	23 (24%)
9 (8%)	5 (5%)	7 (7%)	3 (3%)	1 (1%)
	2 (2%)	2 (2%)	3 (3%)	3 (3%)
5 (5%)	2 (2%)	2 (2%)	3 (3%)	1 (1%)
11 (10%)	0	8 (8%)	7 (8%)	9 (10%)
	28 (25%) 4 (4%) 26 (24%) 18 (16%) 9 (8%) 5 (5%)	28 (25%) 31 (29%) 4 (4%) 7 (7%) 26 (24%) 16 (15%) 18 (16%) 14 (13%) 9 (8%) 5 (5%) 2 (2%) 5 (5%) 2 (2%)	28 (25%) 31 (29%) 44 (47%) 4 (4%) 7 (7%) 6 (6%) 26 (24%) 16 (15%) 8 (8%) 18 (16%) 14 (13%) 20 (20%) 9 (8%) 5 (5%) 7 (7%) 2 (2%) 2 (2%) 5 (5%) 2 (2%) 2 (2%)	28 (25%) 31 (29%) 44 (47%) 33 (37%) 4 (4%) 7 (7%) 6 (6%) 8 (9%) 26 (24%) 16 (15%) 8 (8%) 13 (15%) 18 (16%) 14 (13%) 20 (20%) 17 (19%) 9 (8%) 5 (5%) 7 (7%) 3 (3%) 2 (2%) 2 (2%) 3 (3%) 5 (5%) 2 (2%) 2 (2%) 3 (3%)

#### **DMP** Graduate Destination

		DMP
Junior MP position		9 (90%)
Still seeking a position		1 (10%)
	Total	10

## Plans for DMP

	2013	2014	2015	2016	2017
No	29	32	39	38	38
Under consideration	4	4	3	6	5
In preparation	4	5	1	2	4
Waiting for institution approval	3	2	4	2	0
Awaiting CAMPEP accreditation	2	2	1	1	1
CAMPEP accredited	1	2	3	4	5

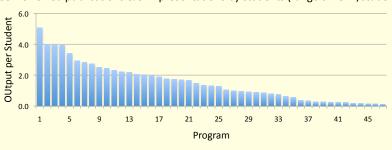
## **Faculty**

	2013	2014	2015	2016	2017
Mean # Faculty/Program (formal affiliation)	18.9	17.5	18.3	19.2	19.2
	(3-66)	(3-66)	(2-66)	(2-66)	(2-79)

#### **Student Productivity**

47/52 graduate programs reported academic activity.

485 peer reviewed publications & 974 presentations by students (range 0 – 5.1 /student)



## **Certificate Programs**

26 programs accredited

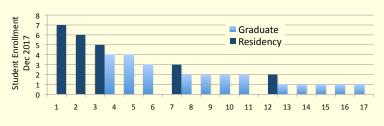
- 20 within graduate programs
- 6 within residency programs

17 programs reporting student numbers in 2017

- 6 programs reporting no student numbers in 2017
- 3 programs graduated students in 2017 and did not recruit

61 students enrolled in 2017

- 24 in 12 graduate programs
- 13 in a program that is closed to new enrollment
- 24 in 5 residency programs



## **Certificate Programs**

	# Applicants	# Students Enrolled	# Students Graduated
2017 Graduate	50	24	17
2017 Residency	14	24	9
2017 Total	64	48 (61*)	26 (35*)
2016	107	110	24
2015	110	113	28
2014	63	49	21
2013	53	36	9

<sup>\*</sup> Includes program that has closed to new enrollment

#### **Certificate Graduate Destination**

	Certificate
Entered RT residency	13 (50%)
Entered IP residency	1 (4%)
Junior MP position	3 (12%)
Academic position	2 (8%)
Still seeking a position	0
Other	7 (27%)
Total*	26

<sup>\*</sup>excludes data from program that has closed to new enrollment

#### Premature Departure

No certificate students left prior to completion of progam