

# C A M P E P

Commission on Accreditation of Medical Physics Education Programs, Inc.

## Graduate Program Report

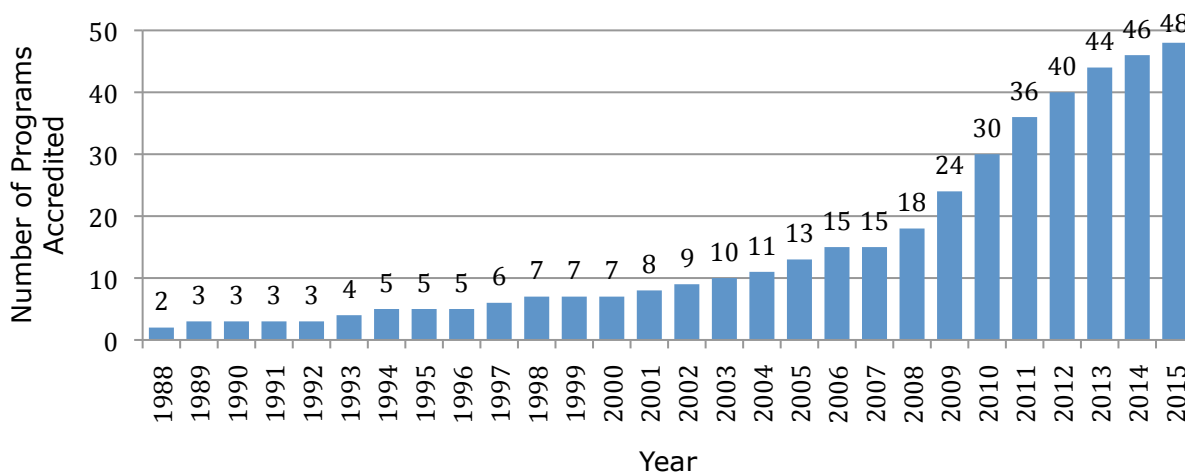
AAPM Anaheim, 11 July 2015

B Clark, PhD, FCCPM, FAAPM, FCOMP  
Chair, CAMPEP GEPRC

### Current Status

|                                       | 2014 | 2013                  |
|---------------------------------------|------|-----------------------|
| # Accredited graduate programs:       | 48   | 45                    |
| # Accredited DMP programs:            | 2    | 1 (included in total) |
| # Programs in initial review process: | 3    | (2 graduate, 1 DMP)   |
| # Accredited certificate programs:    | 17   | 12                    |
| # Residency certificate programs      | 2    | +1                    |
| # Accredited programs in:             |      |                       |
| –US                                   | 35   |                       |
| –Canada                               | 12   |                       |
| –Outside North America                | 1    |                       |

### Growth of Accredited Programs



**Sponsoring Organizations:** American Association of Physicists in Medicine, American College of Radiology, American Society for Radiation Oncology, Canadian Organization of Medical Physicists, Radiological Society of North America Inc.

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## ***Annual Reports***

- Submission of an annual report is a condition of accreditation

Disclaimer:

- *These data were submitted “voluntarily” and is ??% accurate ??% of the time!*

## ***2014 Data***

- 48 institutions responded, 47 accredited programs, 1 non-accredited
- 36 entire program accredited, 11 some tracks not accredited
- 40 programs do not accept students with missing physics courses
- 8 programs accept students with missing physics courses and remediate

| # Programs offering: | 2010 | 2011 | 2012 | 2013 | 2014 |
|----------------------|------|------|------|------|------|
| MS Degrees           | 31   | 32   | 39   | 43   | 43   |
| PhD Degrees          | 22   | 24   | 29   | 30   | 34   |
| MS & PhD Degrees     | 19   | 20   | 27   | 28   | 30   |
| MS Degree Only       | 12   | 9    | 11   | 13   | 13   |
| PhD Degree Only      | 3    | 2    | 2    | 2    | 3    |
| DMP                  | 1    | 1    | 1    | 1    | 2    |

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## ***Graduate Program Applicants***

|                         | 2010 | 2011 | 2012    | 2013    | 2014    |
|-------------------------|------|------|---------|---------|---------|
| # applications reviewed | 1668 | 1604 | 2061    | 1801    | 1953    |
| # offered admission     | 501  | 484  | 570     | 545     | 602     |
| # matriculated          | 276  | 258  | 311     | 289     | 324     |
| Average GPA (MS/PhD)    | 3.46 | 3.56 | 3.5/3.6 | 3.5/3.6 | 3.5/3.6 |

## ***Entering Class***

|               | 2010 | 2011 | 2012 | 2013 | 2014 |
|---------------|------|------|------|------|------|
| MS/MSc – Male | 70%  | 72%  | 68%  | 64%  | 69%  |
| PhD – Male    | 78%  | 80%  | 70%  | 71%  | 69%  |
| DMP - Male    |      |      |      |      | 60%  |

| Nationality                                    | 2010 | 2011 | 2012 | 2013 | 2014 |
|--|------|------|------|------|------|
| MS/MSc – Domestic                              | 91%  | 82%  | 82%  | 91%  | 80%  |
| PhD – Domestic                                 | 82%  | 75%  | 84%  | 80%  | 77%  |
|  |      |      |      |      |      |
| From under-represented racial or ethnic groups |      |      | 14%  | 22%  | 12%  |

| # Programs | Ethnic % |
|------------|----------|
| 19         | 0%       |
| 13         | <25%     |
| 5          | 25%-50%  |
| 5          | > 50%    |
| 42         | Total    |

## ***Premature Departure***

- 19 Programs reported 25 (2.3%) students left prior to completion
  - Up from 22 (2.0%) in 2013
  - 7 left for medical or personal reasons
  - 7 found the topic not to be a match for their interests
  - 6 left to take a job
  - 5 left as a result of poor performance

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## *Enrollment and Graduates*

|             | 2009 | 2010 | 2011 | 2012 | 2014 |
|-------------|------|------|------|------|------|
| Enrollment  |      |      |      |      |      |
| MS/MSc      | 431  | 450  | 466  | 467  | 458  |
| PhD         | 458  | 465  | 534  | 572  | 559  |
| DMP         |      |      | 20   | 20   | 25   |
| Certificate |      |      | 18   | 34   | 49   |
| Total       | 889  | 915  | 1038 | 1093 | 1091 |
| Graduates   |      |      |      |      |      |
| MS/MSc      | 168  | 148  | 198  | 162  | 164  |
| PhD         | 69   | 67   | 80   | 113  | 107  |
| DMP         |      |      |      | 4    | 5    |
| Certificate |      |      |      | 9    | 21   |
| Total       | 237  | 215  | 278  | 288  | 297  |

### MS/MSc Graduate Destination

|                        | 2011     | 2012     | 2013     | 2014     |
|------------------------|----------|----------|----------|----------|
| Entered RT residency   | 33 (24%) | 44 (22%) | 37 (23%) | 40 (25%) |
| Entered IP residency   | 1 (1%)   | 1 (<1%)  | 4 (3%)   | 5 (3%)   |
| Junior MP position     | 53 (38%) | 62 (31%) | 48 (30%) | 39 (24%) |
| Another degree         | 20 (14%) | 49 (25%) | 27 (17%) | 39 (24%) |
| Position in industry   | 12 (9%)  | 6 (3%)   | 17 (11%) | 14 (19%) |
| Position in government |          |          |          | 4 (2%)   |
| Still seeking position |          | 16 (8%)  | 16 (10%) | 8 (5%)   |
| Other                  | 20 (14%) | 17 (9%)  | 12 (7%)  | 15 (9%)  |

### PhD Graduate Destination

|                          | 2011     | 2012     | 2013     | 2014     |
|--------------------------|----------|----------|----------|----------|
| Entered RT residency     | 23 (34%) | 24 (30%) | 28 (25%) | 31 (29%) |
| Entered IP residency     | 5 (7%)   | 6 (8%)   | 4 (4%)   | 7 (7%)   |
| Junior MP position       | 15 (22%) | 18 (23%) | 26 (24%) | 16 (15%) |
| Post-doc                 | 15 (22%) | 11 (14%) | 18 (16%) | 14 (13%) |
| Another degree           | 2 (3%)   | 1 (1%)   | 3 (3%)   | 0        |
| Position in industry     | 4 (6%)   | 9 (11%)  | 9 (8%)   | 5 (5%)   |
| Position in government   |          |          |          | 2 (2%)   |
| Still seeking a position |          | 6 (8%)   | 5 (5%)   | 2 (2%)   |
| Other                    | 4 (6%)   | 4 (5%)   | 11 (10%) | 0        |

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## Other Graduate Destination

|                          | DMP      | Certificate |
|--------------------------|----------|-------------|
| Entered RT residency     | N/A      | 10 (48%)    |
| Entered IP residency     | N/A      |             |
| Junior MP position       | 5 (100%) | 3 (14%)     |
| Post-doc                 | N/A      | 5 (24%)     |
| Another degree           |          |             |
| Took job in industry     |          |             |
| Still seeking a position |          | 2 (10%)     |
| Other                    |          | 1 (5%)      |

## *Plans for DMP*

|                                  | 2010 | 2011 | 2012 | 2013 | 2014 |
|----------------------------------|------|------|------|------|------|
| No                               | 22   | 22   | 26   | 29   | 32   |
| Under consideration              | 6    | 4    | 5    | 4    | 4    |
| In preparation                   | 3    | 4    | 5    | 4    | 5    |
| Waiting for institution approval | 1    | 3    | 1    | 3    | 2    |
| Awaiting CAMPEP accreditation    | 0    | 0    | 0    | 2    | 2    |
| CAMPEP accredited                | 1    | 1    | 1    | 1    | 2    |

## *Plans for Clinical Residency*

|                                  | 2011 | 2012 | 2013 | 2014 |
|----------------------------------|------|------|------|------|
| No                               | 7    | 9    | 10   | 17   |
| Under consideration              | 3    | 7    | 6    | 6    |
| In preparation                   | 5    | 2    | 2    | 1    |
| Waiting for institution approval | 0    | 0    | 1    | 0    |
| Awaiting CAMPEP accreditation    | 5    | 4    | 2    | 2    |
| CAMPEP accredited                | 14   | 19   | 20   | 21   |
| # Positions/year                 | 15   | 25   | 17   | 16   |

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## Certificate Programs

17 programs accredited, 9 reporting student numbers in 2014

|                 | # Applicants | # Students Currently Registered | # Students Graduated | # Residency Positions | # PostDoc Positions |
|-----------------|--------------|---------------------------------|----------------------|-----------------------|---------------------|
| Calgary         | 4            | 2                               | 1                    |                       | 1                   |
| Chicago         | 7            | 4                               | 2                    | 2                     |                     |
| Columbia        | 4            | 4                               | 0                    |                       |                     |
| Florida         | 20           | 12                              | 4                    |                       | 2                   |
| Louisiana State | 0            | 1                               | 1                    |                       | 1                   |
| McGill          | 1            | 0                               | 0                    |                       |                     |
| Pennsylvania    | 12           | 19                              | 9                    | 6                     | 1                   |
| UCLA            | 0            | 2                               | 2                    | 2                     |                     |
| Wayne State     | 15           | 5                               | 2                    |                       |                     |
| 2014 Total      | 63           | 49                              | 21                   | 10                    | 5                   |
| 2013 Total      | 53           | 36                              | 9                    | 7                     | 1                   |

## Faculty

|  | 2010           | 2011           | 2012           | 2013           | 2014           |
|--|----------------|----------------|----------------|----------------|----------------|
| Mean # Faculty/Program<br>(formal affiliation) | 20.7<br>(1-71) | 20.2<br>(3-65) | 20.0<br>(5-70) | 18.9<br>(3-66) | 17.5<br>(3-66) |

## Student Productivity

43 Programs reported academic activity (up from 37 in 2013)  
417 peer reviewed publications, 939 presentations by students, range 0 -105  
Plot below normalised to output per student

