Health Physics
Enrollments and Degrees Survey, 2017 – 2018 Data

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Survey Universe

The 2018 survey includes degrees granted for the academic years September 2016 – August 2017 and September 2017 – August 2018 and enrollments for fall 2018. Twenty-three health physics academic programs were surveyed with all 23 responding. Enrollments and degrees data were provided by 20 programs for 2017 and 19 for 2018. Four schools indicated their programs either had already or were in the process of phasing out—University of Missouri, Rensselaer Polytechnic Institute, Texas A&M, and Vanderbilt. The enrollments and degrees data include students majoring in health physics or in an option program equivalent to a major. Enrollment information refers to fall term 2018. Some nuclear engineering programs have indicated that health physics option enrollments and degrees are also reported in the nuclear engineering survey.

Degree Data

Bachelor's Degrees. The number of B.S. degrees in 2018 awarded by health physics programs is 17 and 30 percent lower than levels reported for 2017 and 2016, respectively, and 20 percent lower than the number awarded in 2015 (Table 1). The number of B.S. degrees awarded in 2018 and 2017 are lower than any numbers reported since 2001 (37 B.S. degrees awarded). Health physics majors accounted for nearly 72 percent of all B.S. degrees (Table 2).

Graduate Degrees. The number of M.S. degrees awarded by health physics programs in 2018 increased by 14 percent from 2017 and is only 3 percent lower than the number awarded in 2016. The number of M.S. degrees reported in 2018 was lower than any of the numbers reported since the beginning of the decade and is also lower than the numbers of M.S. degrees awarded since 2004, when 64 M.S. health physics degrees were likewise awarded. The number of doctorate degrees increased by 46 percent in 2018 over 2017 awards, continuing a pattern of fluctuating award numbers since 2002. The number of Ph.D. degrees awarded in health physics in 2018 is the second highest number reported since 2007, when 28 health physics degrees were awarded. Health physics majors accounted for 80 percent of M.S. degrees and 58 percent of Ph.D. degrees in 2018 (Table 2).

TABLE 1 | Health Physics Degrees, 2009-2018

Year	B.S.	M.S.	Ph.D.
2018	39	64	19
2017	47	56	13
2016	56	66	23
2015	49	84	18
2014	67	81	10
2013	88	86	14
2012	82	91	15
2011	64	85	5
2010	62	89	15
2009	77	83	9

Source: Oak Ridge Institute for Science and Education.

TABLE 2 | Health Physics Degrees by Curriculum, 2018			
Curriculum	**B.S.**	**M.S.**	**Ph.D.**
Health Physics	28	51	11
Medical Health Physics Option	0	11	3
Other Health Physics Option	11	2	5

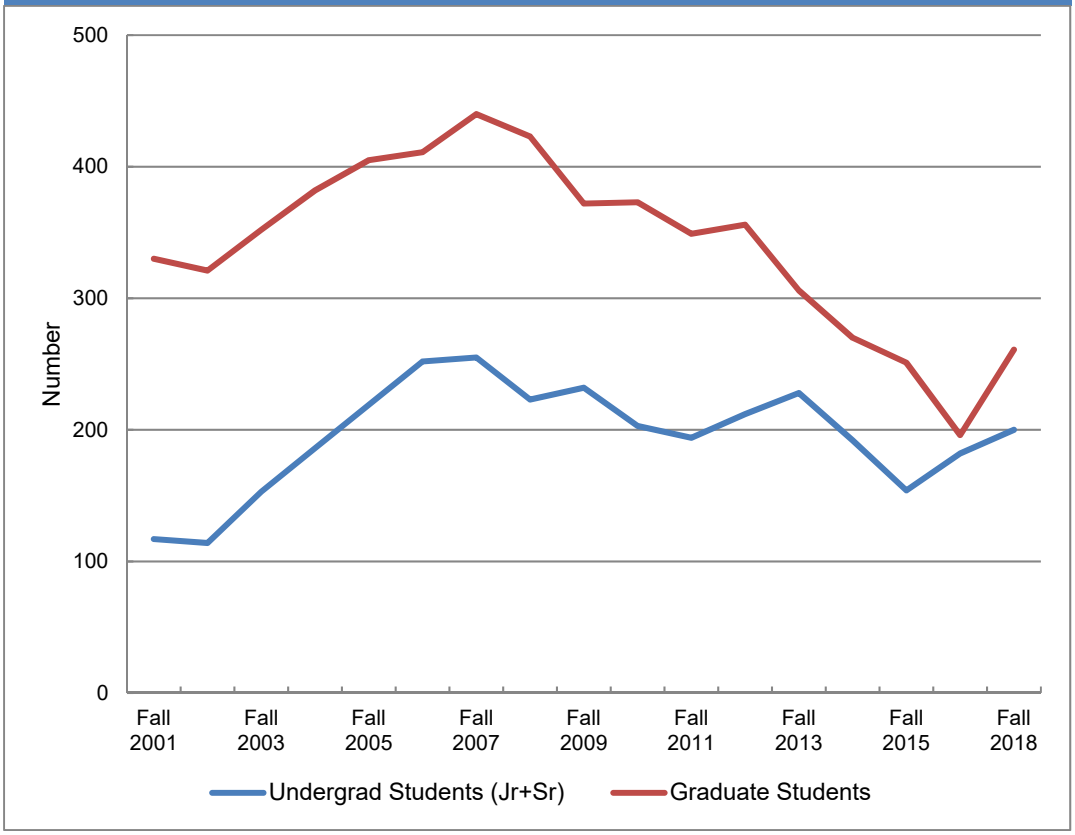
Source: Oak Ridge Institute for Science and Education.

Enrollment Trends and Short-Term Outlook for Degree Trends

Undergraduate Students. In 2018, 200 juniors and seniors were reported to be enrolled in health physics programs, an increase of almost 10 percent from the enrollment level reported in 2016, 30 percent more than reported in 2015, and also higher than the level reported for 2014 (Figure 1). Undergraduate enrollment reported for 2018 is the third highest undergraduate enrollment reported since 2010. Undergraduate enrollment appears to be returning to levels experienced for the previous 5 to 10 years. The increase in undergraduate enrollments since 2016 may result in modest increases in the number of bachelor's degrees earned over the next year or two, so the number of B.S. degrees may rebound above 40 by 2020.

Graduate Students. Graduate enrollment in 2018 was 260 students, one-third greater than graduate enrollments reported in 2016 and almost 4 percent higher than graduate enrollments reported for 2015 (Figure 1). Recent graduate enrollments continue to be among the lowest levels experienced since 1973, the first year for which health physics enrollment was reported. The only reported graduate enrollment levels that were lower than 2018 occurred in 2015 and 2016. The rebound in graduate enrollment in 2018 indicates that the total number of graduate degrees awarded in the near future is likely to remain near (or may even exceed) the levels of the last few years.

FIGURE 1 | Health Physics Enrollment Trends, Fall 2001 – Fall 2018



NOTE: Enrollment data for fall 2017 was not collected in the 2018 survey.

Source: Oak Ridge Institute for Science and Education.

Employment or Other Post-Graduation Status

Data on employment or post-graduation status for those graduating in 2018 are shown in Table 3. The unknown/not reported category accounts for 36 percent of the B.S.-level graduates, 25 percent of the M.S.-level graduates, and 26 percent of the Ph.D.-level graduates. Excluding the unknown/not reported, continued study was the largest post-degree activity for the B.S.-level graduates. For Ph.D. graduates, continued study/postdoctoral appointments accounted for 10.5 percent of post-graduation plans.

For B.S. graduates reporting their post-graduation plans, other than continued study, employment in the other nuclear-related sector had the largest number followed by those reporting academic employment, DOE contractor employment, medical facilities employment, and other business employment (with each accounting for two graduates). The number of new B.S. graduates reporting nuclear utility employment is the lowest reported since 2006, while the number reported for other nuclear-related employment is the same as in 2015, which are the largest numbers reported for the category since 2008.

For M.S. graduates reporting as employed, other business employment, federal government employment, U.S. military, medical facilities employment, and academic employment accounted for the majority of employment plans. The number of new graduates reporting plans for active U.S. military duty has averaged nearly 5 M.S. health physics degree recipients since 1996. The share of new M.S. graduates reporting planned employment by nuclear utilities, other nuclear-related organizations, and DOE contractors accounted for about 15 percent of employed M.S. graduates in 2018.

For Ph.D. graduates, academic employment, federal government employment, state and local government employment, and foreign employment accounted for 2 each. The number reported for medical facilities employment is at the lowest since 2012, while the number of Ph.D. graduates still seeking employment (0) is consistent with numbers reported since 1996 that range from 0 to 2.

TABLE 3 | Employment or Other Post-Graduation Status, 2018

	B.S.	M.S.	Ph.D.
Continued Study/Postdoctoral Appointment	8	5	2
Academic Employment	2	4	2
Federal Government Employment	1	6	2
DOE Contractor Employment	2	3	1
State and Local Government Employment	1	2	2
Medical Facilities Employment	2	5	1
Nuclear Utility Employment	1	2	0
Other Nuclear-Related Employment	4	1	1
Other Business Employment	2	10	0
Foreign (non-U.S.) Employment	0	2	2
U.S. Military, Active Duty	0	6	1
Other Employment	1	0	0
Still Seeking Employment	1	2	0
Unknown/Not Reported	14	16	5
TOTALS	**39**	**64**	**19**

Source: Oak Ridge Institute for Science and Education.

TABLE 4 | Health Physics Degrees, 2017, by Academic Institution

State	Name of Institution	Degrees (Sept. 1, 2016 – Aug. 31, 2017) B.S.	M.S.	Ph.D.
AL	University of Alabama at Birmingham	0	0	0
CA	San Diego State University	0	2	0
CO	Colorado State University	0	7	1
DC	Georgetown University	0	4	0
ID	Idaho State University	3	5	3
IL	Illinois Institute of Technology	0	7	0
IN	Purdue University	8	2	0
LA	Louisiana State University	2	0	0
MA	University of Massachusetts Lowell	2	6	1
ME	University of Maine	0	1	0
MO	University of Missouri	0	0	1
NC	Duke University	0	1	0
NJ	Thomas Edison State University	5	0	0
NV	University of Nevada, Las Vegas	1	2	0
OH	University of Cincinnati	0	0	1
OR	Oregon State University	8	13	4
PA	Bloomsburg University	5	0	0
SC	Francis Marion University	1	0	0
SC	Clemson University	0	5	0
TN	University of Tennessee	12	1	2
Totals		**47**	**56**	**13**

Source: Oak Ridge Institute for Science and Education.

TABLE 5 | Health Physics Degrees, 2018, by Academic Institution

State	Name of Institution	Degrees (Sept. 1, 2017 – Aug. 31, 2018) B.S.	M.S.	Ph.D.
AL	University of Alabama at Birmingham	0	1	0
CA	San Diego State University	0	7	0
CO	Colorado State University	0	6	2
DC	Georgetown University	0	3	0
ID	Idaho State University	4	5	2
IL	Illinois Institute of Technology	0	7	0
IN	Purdue University	0	2	1
LA	Louisiana State University	2	0	0
MA	University of Massachusetts Lowell	6	3	2
ME	University of Maine	0	0	0
NC	Duke University	0	1	1
NJ	Thomas Edison State University	8	0	0
NV	University of Nevada, Las Vegas	0	6	1
OH	University of Cincinnati	0	0	1
OR	Oregon State University	11	21	5
PA	Bloomsburg University	4	0	0
SC	Francis Marion University	1	0	0
SC	Clemson University	0	2	1
TN	University of Tennessee	3	0	3
Totals		**39**	**64**	**19**

Source: Oak Ridge Institute for Science and Education.

Prepared by: Oak Ridge Institute for Science and Education, April 2019.

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