Health Physics
Enrollments and Degrees Survey, 2021 – 2022 Data

Number 85 Oak Ridge Institute for Science and Education October 2023

Survey Universe

The 2023 survey includes degrees granted for the academic years September 2020 – August 2021 and September 2021 – August 2022 and enrollments for Fall 2022. Nineteen health physics academic programs were surveyed with all 19 responding. Degree data were provided by 13 programs for 2021 and 2022, and 12 programs reported positive levels of enrollment in 2022. Six schools indicated their programs either had already phased out or were in the process of doing so: Bloomsburg University, Georgetown University, San Diego State University, University of Cincinnati, University of Maine, and University of Tennessee. Additionally, University of Nevada, Las Vegas did not provide numeric data but noted that the School of Integrated Health Sciences provides health physics curricula for B.S. and M.S. degrees and a health physics option for Ph.D. degrees. The enrollments and degrees data include students majoring in health physics or in an option program equivalent to a major.

Degree Data

Bachelor's Degrees. The number of B.S. degrees in 2022 awarded by health physics programs is 11% higher than reported in 2021, 48% lower than in 2019, and 46% lower than in 2018. Since data collection began in 1966, the last time numbers this low were reported was in 1973 (61 degrees). Health physics majors accounted for 71% of all B.S. degrees in 2022 and 42% in 2021 (Table 1).

Graduate Degrees. The number of M.S. degrees awarded by health physics programs in 2022 decreased by 27% and 25% from 2021 and 2019 levels, respectively. The number of M.S. degrees reported for 2022 is the lowest reported since the beginning of the collection of these data in 1966. The number of doctorate degrees awarded in 2022 decreased by 40% from 2021 awards, continuing a pattern of fluctuating award numbers since 2002, with an average annual percentage change exceeding 10%. The number of Ph.D. degrees awarded in health physics in 2022 is the second-lowest number reported since the survey was first administered in 1966. Health physics majors accounted for 83% of M.S. degrees in 2022 and 93% in 2021; health physics majors represented 50% of Ph.D. degrees awarded in 2022 and 60% in 2021 (Table 1).

TABLE 1 | HEALTH PHYSICS DEGREES BY CURRICULUM, 2021 AND 2022[1]

	2021			2022		
Curriculum	**B.S.**	**M.S.**	**Ph.D.**	**B.S.**	**M.S.**	**Ph.D.**
Health Physics	8	66	6	15	43	3
Medical/Other Health Physics Option	11	5	4	6	9	3
TOTALS	**19**	**71**	**10**	**21**	**52**	**6**

Source: Oak Ridge Institute for Science and Education.

[1] Table 3 and Table 4 provide degree data reported by responding academic institutions for 2021 and 2022, respectively.

Enrollment Trends and Short-Term Outlook for Degree Trends

Undergraduate Students. In 2022, about 180 juniors and seniors were reported to be enrolled in health physics programs, a decrease of 10% from the enrollment level reported in 2018 and about the same level as reported in 2016. Undergraduate enrollment reported for 2022 is the lowest reported since 2004 and is slightly below the average level from 2013 – 2022. The decrease in undergraduate enrollments since 2018 may result in modest decreases in the number of bachelor's degrees earned over the next year or two, so the number of B.S. degrees may remain below 30 in 2023.

Graduate Students. Graduate enrollment in 2022 was around 230 students, an 11% decrease compared to graduate enrollments reported in 2018 and an 18% increase compared to graduate enrollments reported for 2016. Recent graduate enrollments continue to be among the lowest levels experienced since 1973, the first year for which enrollment in health physics programs was reported. The only reported graduate enrollment levels lower than 2022 occurred in 2016. The level of graduate enrollments in 2022 indicates that the total number of graduate degrees awarded in the near future is likely to remain near or below the levels of the last few years.

Employment or Other Post-Graduation Status

The career plans for graduates provided by respondents are shown in **Table 2**. Several caveats should be noted when interpreting this information. One academic program that provided degree data did not provide post-graduation plan data. Also, post-graduation plan data reported for graduates receiving bachelor's and master's degrees exceeded the total number of degrees for either 2021 or 2022 (reported in Table 1), implying the post-graduation plan data reported by some programs represents multiple years or may include part-time students in the continued study category as well as in an employment category.

With these caveats, the reported post-graduation plans indicate that employment at medical facilities accounted for the largest share at almost 32%, followed by continued study/postdoctoral appointment at around 20%, government (federal, state, and local) and DOE contractor employment at approximately 13%, and nuclear utilities and other nuclear-related employment at close to 10%. It is noteworthy that no graduates, regardless of degree level, were reported as still seeking employment.

TABLE 2 | EMPLOYMENT OR OTHER POST-GRADUATION STATUS

	All Degrees
Continued Study/Postdoctoral Appointment	20.2%
Academic Employment	<3%*
Federal Government Employment	7.9%
DOE Contractor Employment	<3%
State and Local Government Employment	<3%
Medical Facilities Employment	31.6%
Nuclear Utility Employment	<3%
Other Nuclear-Related Employment	7.0%
Other Business Employment	10.5%
Foreign (non-US) Employment	<3%
US Military, Active Duty	7.0%
Other Employment	<3%
Still Seeking Employment	0.0%
Unknown/Not Reported	3.5%
TOTALS	**100%**

Source: Oak Ridge Institute for Science and Education.
Note: Post-graduation plans were reported for 29 bachelor's degree recipients, 79 master's degree recipients, and 6 Ph.D. degree recipients.
* Three or fewer individuals.

Degree Data by Academic Institution

TABLE 3 | HEALTH PHYSICS DEGREES, 2021, BY ACADEMIC INSTITUTION

State	Name of Institution	Degrees (Sept. 1, 2020 – Aug. 31, 2021) B.S.	M.S.	Ph.D.
AL	University of Alabama at Birmingham	0	4	0
CO	Colorado State University	0	5	2
DC	Georgetown University	0	1	0
ID	Idaho State University	2	2	2
IL	Illinois Institute of Technology	0	8	0
IN	Purdue University	5	4	1
LA	Louisiana State University	0	3	2
MA	University of Massachusetts Lowell	1	3	1
NC	Duke University	0	0	0
NJ	Thomas Edison State University	6	0	0
OR	Oregon State University	4	40	0
SC	Clemson University	0	1	2
SC	Francis Marion University	1	0	0
TOTALS		**19**	**71**	**10**

Source: Oak Ridge Institute for Science and Education.

TABLE 4 | HEALTH PHYSICS DEGREES, 2022, BY ACADEMIC INSTITUTION

State	Name of Institution	Degrees (Sept. 1, 2021 – Aug. 31, 2022) B.S.	M.S.	Ph.D.
AL	University of Alabama at Birmingham	0	4	0
CO	Colorado State University	0	3	0
DC	Georgetown University	0	3	0
ID	Idaho State University	2	2	1
IL	Illinois Institute of Technology	0	7	0
IN	Purdue University	3	5	1
LA	Louisiana State University	0	6	0
MA	University of Massachusetts Lowell	7	1	1
NC	Duke University	0	0	0
NJ	Thomas Edison State University	4	0	0
OR	Oregon State University	2	19	0
SC	Clemson University	0	2	3
SC	Francis Marion University	3	0	0
TOTALS		**21**	**52**	**6**

Source: Oak Ridge Institute for Science and Education.

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