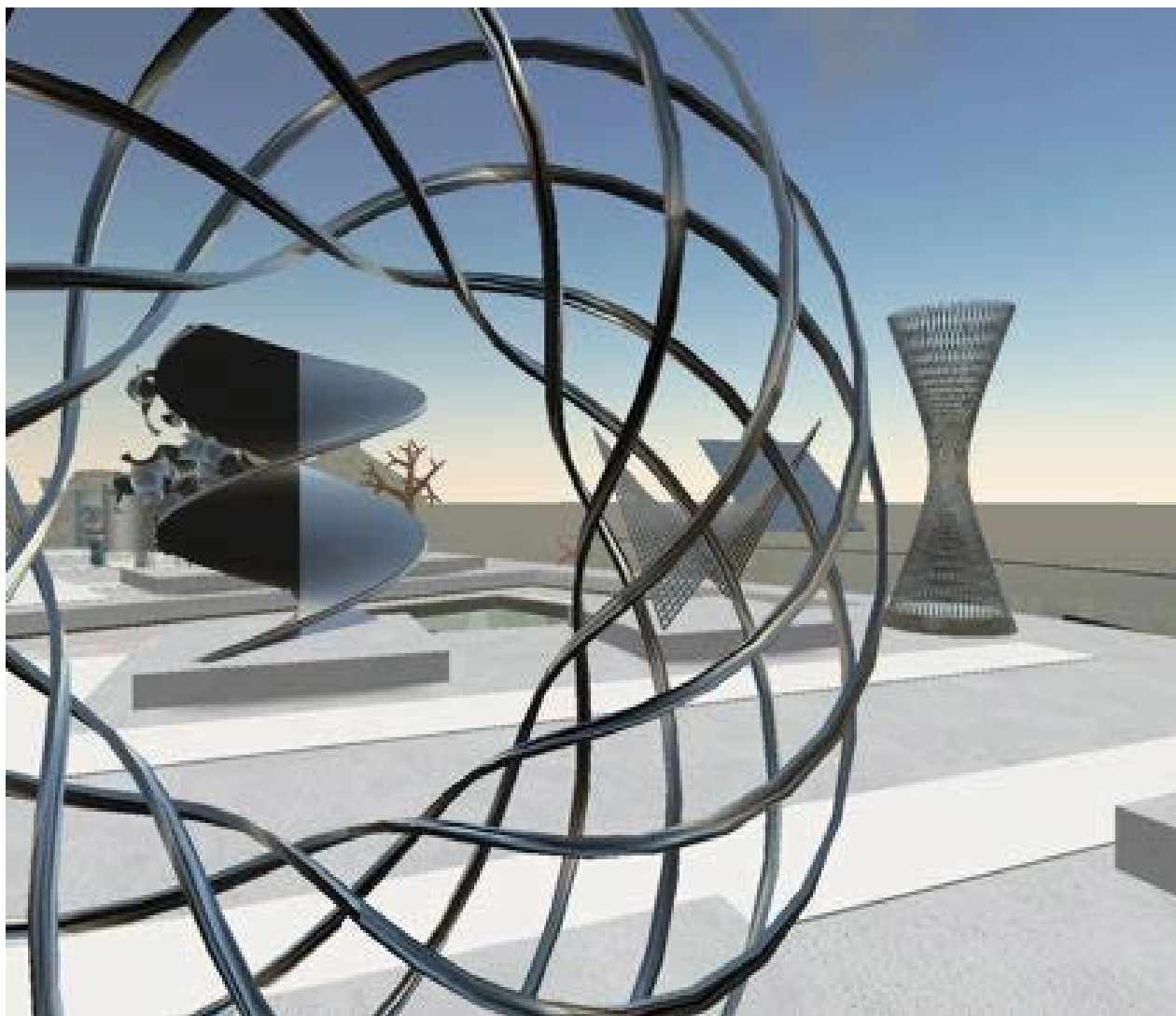


Faculty Development Needs Assessment – 2015

A Survey of ASRT Faculty
Conducted by the American Society of Radiologic Technologists

April 2015



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American Society of Radiologic Technologists

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Executive Summary

In January 2015, invitations to participate in the ASRT Faculty Development Needs Assessment were sent to 996 radiography, radiation therapy, nuclear medicine and sonography educational program directors. Program directors were asked to share the survey invitation with full-time and part-time program faculty. A total of 341 full-time and 61 part-time surveys were received for tabulation.

The ASRT had conducted an initial Faculty Development Needs Assessment survey in 2004. Where applicable, trends or forecasts based on data from the two surveys will be provided. The results are reported in three sections; demographics, educational program details and faculty development.

At the end of this document is a compilation of verbatim responses received to survey items where additional insight or detail was important to obtain. The extensive list of responses is not presented in any form of rank order, but presented in order these sections appeared in the survey instrument.

Demographics Section

The predominant number of program director, full-time and part-time faculty positions are being held by Caucasian women who are married and have been in the field for more than 20 years. This is in keeping with data from the 2004 study. In fact, women have made gains across program director and full-time faculty positions compared to male colleagues in the past 10 years. Among ethnic groupings, individuals identifying themselves as Hispanic exhibited positive gains across all positions compare to 2004 (program directors 1.7% to 3.3%, full-time faculty 0.7% to 2.6%, and part-time faculty 1.5% to 10.0%). African-Americans exhibited gains at the part-time faculty position (1.5% to 2.5%), while losses were seen in program director (3.3% to 0.7%) and full-time faculty (4.3% to 2.6%) positions.

Over 90% of program directors have earned a doctoral (12.8%) or master's (82.6%) degree. Most full-time faculty hold a bachelor's (35.9%) or master's (48.7%) degree. Over three-quarters of part-time faculty have earned either an associate (41.5%) or bachelor's (36.6%) degree. Increases in academic achievement compared to 2004 are seen across all survey categories. Most program directors (91.8%), full-time faculty (76.3%) and part-time faculty (71.4%) are not currently pursuing an advanced academic degree. Individuals who are taking coursework to earn an advanced degree are taking courses primarily via distance learning (57.6%).

A forecast made based on data from the 2004 study predicted that about half of the program director, slightly less than half of full-time faculty and over half of part-time positions would need to be filled because of individuals leaving education. It appears that this forecast has proven to be accurate. Across all positions the overall mean number of years involved in education increased from 2004 to 2015 (program directors 16.7 to 21.7 years, full-time faculty 10.8 to 14.8 years and part-time faculty 5.4 to 14 years). All positions recorded slight increases in the number of consecutive years in their current position (program director from 9.9 to 12.9 years, full-time from 7.1 to 9.5 years and part-time from 5.5 to 7.9 years). The median value recorded for consecutive years in a current position for program directors in this study was 10.6 years. This confirms a turnover of half of all reported program director positions in the decade between studies. The turnover of full-time and part-time faculty positions actually exceeded the 2004 forecast. Half of reported full-time positions were filled with new faculty in the last 7.5 years, and half of all reported part-time positions were filled in the past 6.2 years. Applying the mean or midpoint values

to frequency tables for consecutive years employed in a current position for each study group reveals a slight skewing of individuals who are few in number, but with many years of experience in their current position.

Response data from questions seeking to identify in how many years individuals plan to leave R.T. education suggest that current study groups plan on leaving their current positions in fewer years than the 2004 population (program directors 8.1 years compared to 11.0 years, full-time faculty 13.2 years compared to 13.1 years and part-time faculty 11.8 years compared to 12.7 years). A scatter plot has been generated aligning the years when individuals plan on leaving R.T. education and study respondent age. A vertical line drawn on the plot represents a mean or average age value reported at 54 years for the study population. Horizontal lines added to the plot at 5 years and 10 years produce quadrants representing the concentration of potential job vacancies within the educator population. The density of data points in lower right quadrants (ages greater than 54 years and time periods of 5 and 10 years) would once again support the forecast that a sizable number of positions associated with educational programs will turn over in the coming decade.

Educational Program Details

This section addresses the differences among program types, numbers of full-time and part-time faculty, trends associated with program applicants, salaries and weighting of the part-time role in annual evaluations.

In the current study, 171 programs are represented: (Radiography = 125, Radiation Therapy = 20, Nuclear Medicine = 21, Other = 5). Eighty-one percent (81.4%) of programs report being accredited through a programmatic accreditation mechanism. Over half of the programs conduct formal meetings with their program advisory committee twice a year (52.5%). A sizable decrease in the percent of reported one- and two-year certificate programs was seen in the current study compared to 2004 (9.3% vs. 28.4%). More than half of the certificate programs do not require students to have an academic degree prior to being considered for enrollment (53.8%). The percent of reported programs structured to award a bachelor's degree more than doubled (22.8% vs. 9.9%). More than half of all programs in the current study are associate degree programs (54.9%).

Program admission decisions typically are made by a committee consisting of program staff (56.5%). Over three-quarters of programs (77.2%) in the current study do not offer an advanced placement option for individuals with prior diagnostic imaging or radiation therapy experience. Over 96% of programs do not currently offer students an option to attend part-time.

The average age of students enrolled in programs was calculated at 25.4 years. This compares well to the average age of 26 seen in the 2004 study population. In response to questions about recent trends in program applicants, half of all programs indicate that the age of the pool of applicants has remained the same (51.3%) over the past three years. Programs were split between the percent reporting an increase in the number of applicants with college degrees (47.2%) to those reporting no change in the number of applicants with college degrees (41.6%). Programs were also split in regard to the percent reporting a change in the number of "Career Change" individuals applying for admission; 45.6% report experiencing an increase while 43.8% report the number of career change applicants has remained the same.

Average student enrollments in radiography programs are reported as being slightly higher in this study compared to 2004 (31.5 to 29). Enrollments in all other modalities exhibit a slight decline; Radiation Therapy (10.7 to 13), Nuclear Medicine (9.4 to 10) and Sonography (14.4. to 17).

Radiography programs report employing an average of 2.7 full-time and 2.58 part-time faculty members. Radiation Therapy programs average 1.45 full-time and 1.0 part-time faculty. Nuclear Medicine programs report 1.75 full-time and 4.3 part-time faculty and Sonography programs employ an average of 1.75 full-time and part-time faculty.

Educator salaries reported by salary range produced data showing that over half (57.5%) of program directors indicate they earn a salary of \$76,000 or more. Full-time faculty salaries were, for the most part, split across three categories; 26% = \$46-55,000, 27% = \$56-65,000 and 27% = \$76,000 or higher. Sixty percent (60%) of part-time faculty reported earning a salary of \$45,000 or less. In response to questions to compare current salary to the average salary earned by graduates in their first job, only 3 program directors and 2 part-time faculty indicated their salary as being lower than that of recent graduates. The number of responses for these two groups was too low to conduct any testing. In general, salaries for program directors and full-time and part-time faculty was reported as greater than that of recent program graduates.

Part-time faculty were asked to break down their full-time equivalent activities. Respondents indicate that slightly less than half (48.2%) of their full time equivalent activities were devoted to their role as part-time educator, with 54% of that time devoted to instruction activities and 53.9% devoted to supervising students in the clinical setting. The average part-time faculty member receives an additional \$2,720 for their role with this being paid to them by their hospital or clinic. In response to a question about the weight their role as a clinical educator carries in their annual evaluation, 36.6% of respondents indicated their clinical educator role contributes 100% to their annual evaluation. Respondents indicating their clinical educator role contributes very little weight in their annual evaluation was 26.6%, while 12.2% of clinical educators in the study indicated their clinical educator duties do not carry any weight in their annual evaluation.

Faculty Development

This section addresses personal development activities as well as needs, wants and desires expressed by educators to enhance student learning experiences and personal career development. The initial set of questions asked educators to rate their degree of comfort in select aspects of their role as a facilitator of student learning. Using the five-point scale ranging from (1) very uncomfortable to (5) very comfortable, program directors and full-time and part-time faculty are generally comfortable to very comfortable in their role as a facilitator of student learning. Respondents rating their personal comfort level at a (2) uncomfortable or (1) very uncomfortable were asked for contributors to their lack of comfort. The most frequently selected items were “extreme variability in the backgrounds and capabilities of students,” “rapid pace of technological developments in the modalities you teach,” and “not having practiced in the modalities you teach for too long.”

Over the period of the next year, respondents indicated that topics for personal improvement as an educator would be focused on improving knowledge of and experience with technological developments (33.9%) and improving familiarity with and skill in using educational technology (23.3%).

When faced with students who, after admission, don't appear suited in terms of ability or interest in the program, the majority of respondents indicated that they try to remediate academic or clinical deficiencies via individual tutoring, forming self-help groups and directing students to supplementary materials (67.4%).

Program directors and full-time faculty selected “a formal outcome-assessment program” followed by “evaluations by former students” as the two most frequently used approaches to measure the academic effectiveness of their program. Over 80% of program directors and full-time faculty respondents view outcomes assessment as being somewhat to very helpful in improving their teaching methods and student outcomes. Approximately 80% of responders employed qualitative data as part of their procedures for evaluating the effectiveness of courses and their overall program. Qualitative data is used to help understand what underlies the quantitative data used to measure program effectiveness. Qualitative data is included as part of the permanent record that is tracked from year to year.

Both program directors and full-time faculty primarily use radiologic technology newsletters and professional, archival journals (85.9%, 91.8%), ASRT Web sites (74.2%, 70.6%) and workshops at state and regional conferences (61.3%, 64.7%) to find out what innovators in medical imaging and radiation therapy are up to. Part-time faculty also rely on radiologic technology newsletters and professional, archival journals (89.4%) and ASRT Web sites (55.3%), but indicate a higher use of online CE materials (53.2%) than attending state and regional workshops (36.2%).

Full-time and part-time faculty were asked to select from a list of resources they use in their teaching efforts. Two of the three top choices for both groups were “fellow educators in the field for guidance and reflection” (full-time = 87.2%, part-time = 90.7%) and “articles in professional journals” (full-time = 91.4%, part-time = 88.1%). The third most frequent resource chosen by full-time faculty was “articles in professional newsletters” (81.9%). For part-time faculty the second resource with the highest frequency of use is “access to radiology PACS system” (88.6%). In this same section of the survey, both faculty groups were asked to identify resources they currently do not use but would if it were available and cost were not a barrier. Both full-time and part-time faculty listed “videotaped lectures of content experts or guest lecturers” (full-time = 50.3%, part-time = 47.2%) and “AEIRS Quarterly” (full-time = 46.9%, part-time = 54.8%) in the top three selection of resources not currently being used, but likely to use. The most frequent choice of resource full-time faculty indicated they would use if cost were not a barrier was “Web-based simulators (ECG, breath sounds...)” (full-time = 54.2%). Part-time faculty selected using the “Chronicle of Higher Education” as their second most frequent resource not currently being used but would use if cost were not a barrier (part-time = 53.3%).

Educators were asked if they believe that the current five-year cycle of revision for educational curricula is the appropriate time frame. Responding “yes” to this question were 85.3% of program directors, 88.2% of full-time and 91.3% of part-time faculty.

Survey responders were asked to identify courses that, in their opinion, could be provided to students using distance learning without jeopardizing the integrity of their program. Written responses ranged from “none” to “all courses.” When individual courses or areas of study were listed, common titles included; Ethics, Patient Care, Medical Terminology, Radiation Physics, Radiobiology, Radiation Protection and Cross-Sectional Anatomy.

Over 80% of program directors and full-time faculty identified that performing research for publication is not an expectation of their current position (program directors and full-time = 81.8%). Less than half of respondents indicated they were interested in performing research in the radiologic sciences (program directors and full-time = 45.9%). At first these numbers seem low, but they show an increase in interest in conducting some form of research compared with the 2004 population (program directors and full-time = 37.2%). In the current study

program directors and full-time faculty are almost equally split on their expressed interest in being able to access information on how to conduct a research project (yes = 49.2%, no = 50.8%).

Over 80% of the total study population who belong to a professional organization indicate that they personally pay the cost of their membership (program directors = 83.9%, full-time = 79.8% and part-time = 83.9%). Both program directors and full-time faculty rate the degree to which they promote student involvement and participation in organizations associated with the profession as “considerable” or to a “very high degree.” The combined rating for promoting student participation in the state-level organizations was rated highest (72.3%) followed by national (71.3%) and local (55.4%) levels.

Verbatim comments

Given the opportunity to make out a wish list of resources to assist faculty in their educator role, responses cluster around the following topics: on-campus lab facilities, in particular, upgrades to include digital imaging technologies and body phantom resources; simulation software and media resources to enhance instruction; digital imaging resources such as textbooks; instructional media (e.g., videos, learning modules) and lab instruction models; and improvements or enhancements to instructional technology resources in the classroom. Faculty also expressed the need to be given time to learn about new technologies, attend meetings to connect with colleagues and explore new approaches to teaching.

Demographics

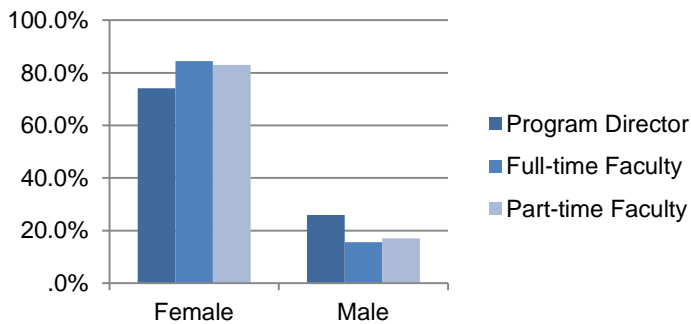
In January 2015 the ASRT surveyed the community of radiologic sciences educators in an attempt to identify strategies for improving ASRT resources and services to educators and students. A total of 341 full-time and 61 part-time surveys were submitted. This is the first of three summaries of survey results that focus on the demographics of the educator population.

What is your gender?

		Program Director	Full-time Faculty	Part-time Faculty	Total
Female	<i>n</i>	106	65	34	205
	%	74.1%	84.4%	82.9%	78.5%
Male	<i>n</i>	37	12	7	56
	%	25.9%	15.6%	17.1%	21.5%
Total	<i>n</i>	143	77	41	261
	%	100.0%	100.0%	100.0%	100.0%

The percentage differences were not statistically significant.

What is your gender?

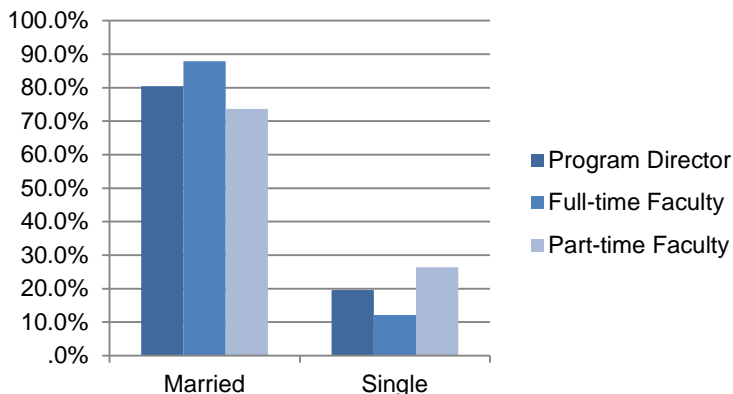


What is your marital status?

		Program Director	Full-time Faculty	Part-time Faculty	Total
Married	<i>n</i>	115	65	28	208
	%	80.4%	87.8%	73.7%	81.6%
Single	<i>n</i>	28	9	10	47
	%	19.6%	12.2%	26.3%	18.4%
Total	<i>n</i>	143	74	38	255
	%	100.0%	100.0%	100.0%	100.0%

The percentage differences were not statistically significant.

What is your marital status?



Age

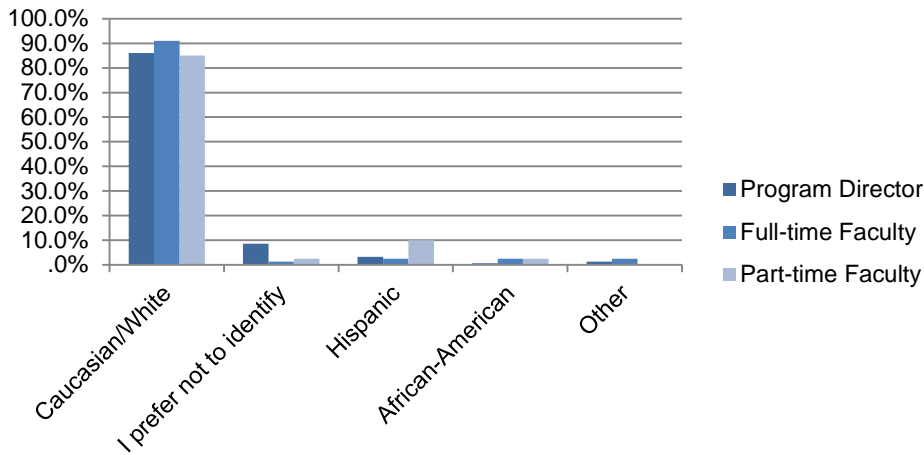
	n	Mean	SD	Median	Min	Max	Statistical Significance
Program Director	139	53.9	8.8	56.4	31	68	
Full-time Faculty	75	46.5	9.8	46.5	29	68	
Part-time Faculty	38	47.0	13.2	46.6	25	73	
Total	252	50.7	10.5	52.9	25	73	

Which of the following best describes your ethnic background?

		Program Director	Full-time Faculty	Part-time Faculty	Total
Caucasian/White	<i>n</i>	130	71	34	235
	%	86.1%	91.0%	85.0%	87.4%
I prefer not to identify	<i>n</i>	13	1	1	15
	%	8.6%	1.3%	2.5%	5.6%
Hispanic	<i>n</i>	5	2	4	11
	%	3.3%	2.6%	10.0%	4.1%
African-American	<i>n</i>	1	2	1	4
	%	.7%	2.6%	2.5%	1.5%
Other	<i>n</i>	2	2	0	4
	%	1.3%	2.6%	.0%	1.5%
Total	<i>n</i>	151	78	40	269
	%	100.0%	100.0%	100.0%	100.0%

The percentage differences were not statistically significant.

Which of the following best describes your ethnic background?

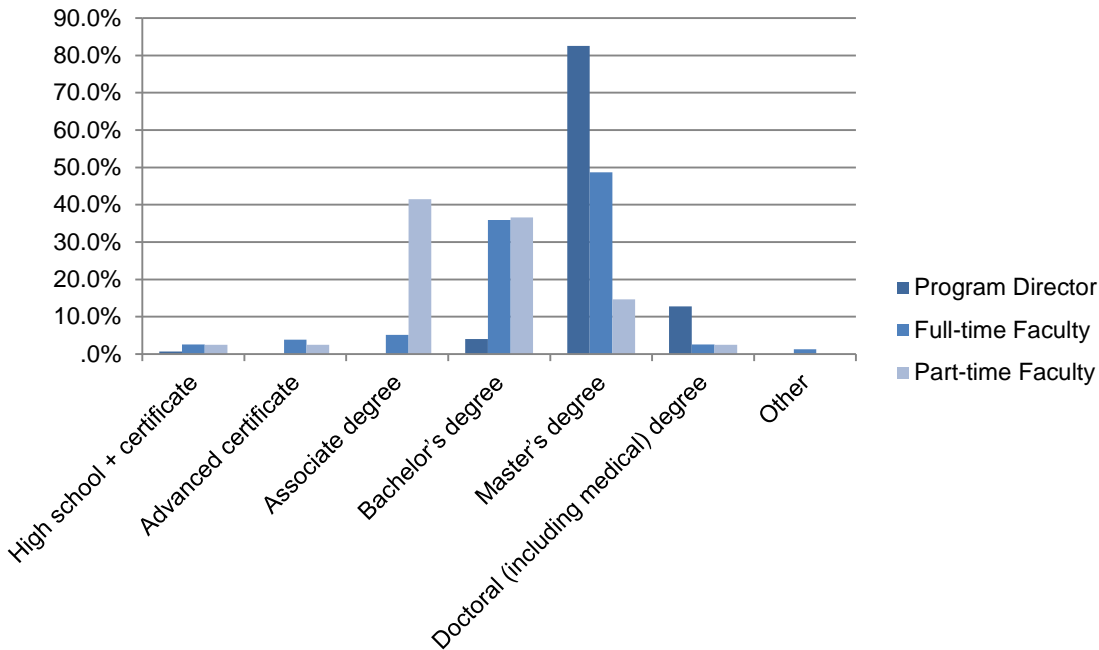


What is the highest level of education you have attained?

		Program Director	Full-time Faculty	Part-time Faculty	Total
High school + certificate	n	1	2	1	4
	%	.7%	2.6%	2.4%	1.5%
Advanced certificate	n	0	3	1	4
	%	.0%	3.8%	2.4%	1.5%
Associate degree	n	0	4	17	21
	%	.0%	5.1%	41.5%	7.8%
Bachelor's degree	n	6	28	15	49
	%	4.0%	35.9%	36.6%	18.3%
Master's degree	n	123	38	6	167
	%	82.6%	48.7%	14.6%	62.3%
Doctoral (including medical) degree	n	19	2	1	22
	%	12.8%	2.6%	2.4%	8.2%
Other	n	0	1	0	1
	%	.0%	1.3%	.0%	.4%
Total	n	149	78	41	268
	%	100.0%	100.0%	100.0%	100.0%

The percentage differences were statistically significant, $\chi^2(12, n = 268) = 153.7, P > .001$.

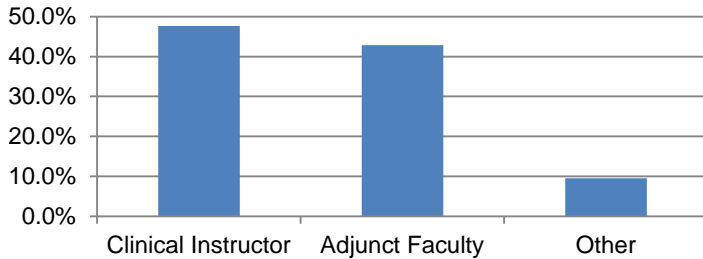
What is the highest level of education you have attained?



What is your position within this educational program?

	Frequency	Percent
Clinical Instructor	20	47.6%
Adjunct Faculty	18	42.9%
Other	4	9.5%
Total	42	100.0

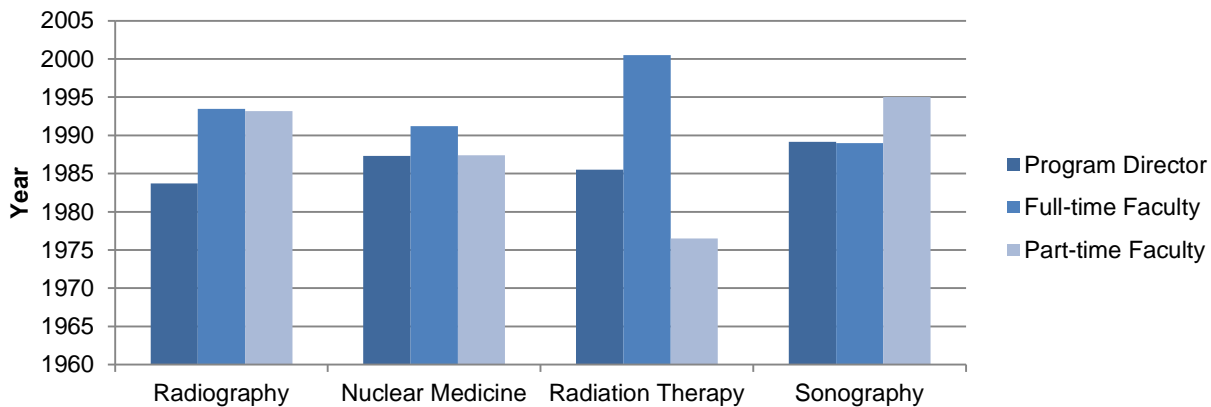
What is your position within this educational program?



In what year did you obtain your certificate in each of the following modalities?

Modality		n	Mean	SD	Median	Statistical Significance
Radiography	Program Director	116	1984	9.4	1981	PD < FT&PT, (P < .001)
	Full-time Faculty	61	1993	10.4	1997	
	Part-time Faculty	39	1993	13.7	1995	
	Total	216	1988	11.6	1987	
Nuclear Medicine		n	Mean	SD	Median	None
	Program Director	17	1987	12.1	1984	
	Full-time Faculty	5	1991	15.5	1990	
	Part-time Faculty	5	1987	17.6	1987	
	Total	27	1988	13.3	1987	
Radiation Therapy		n	Mean	SD	Median	PT & PD < FT, (P = .025, .030)
	Program Director	17	1986	8.8	1984	
	Full-time Faculty (Not PD)	4	2001	6.8	2002	
	Part-time Faculty	2	1977	20.5	1977	
	Total	23	1987	11.3	1988	
Sonography		n	Mean	SD	Median	None
	Program Director	6	1989	6.2	1988	
	Full-time Faculty	2	1989	12.7	1989	
	Part-time Faculty	2	1995	1.4	1995	
	Total	10	1990	6.8	1990	

In what year did you obtain your certificate in each of the following modalities?



If this is not the only position in education you've had, overall how many years have you been involved in student education?

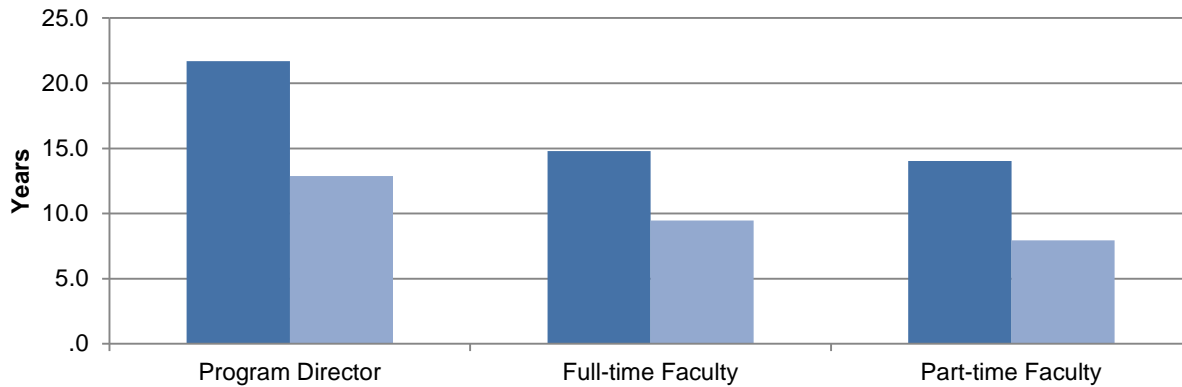
	<i>n</i>	Mean	SD	Median	Min	Max	Statistical Significance
Program Director	113	21.7	9.6	22.1	4	42	PD < FT&PT, (<i>P</i> < .001)
Full-time Faculty	43	14.8	8.3	14.6	2	32	
Part-time Faculty	23	14.0	10.0	10.7	2	38	
Total	179	19.1	10.0	18.3	2	42	

For how many (consecutive) years have you held your current position?

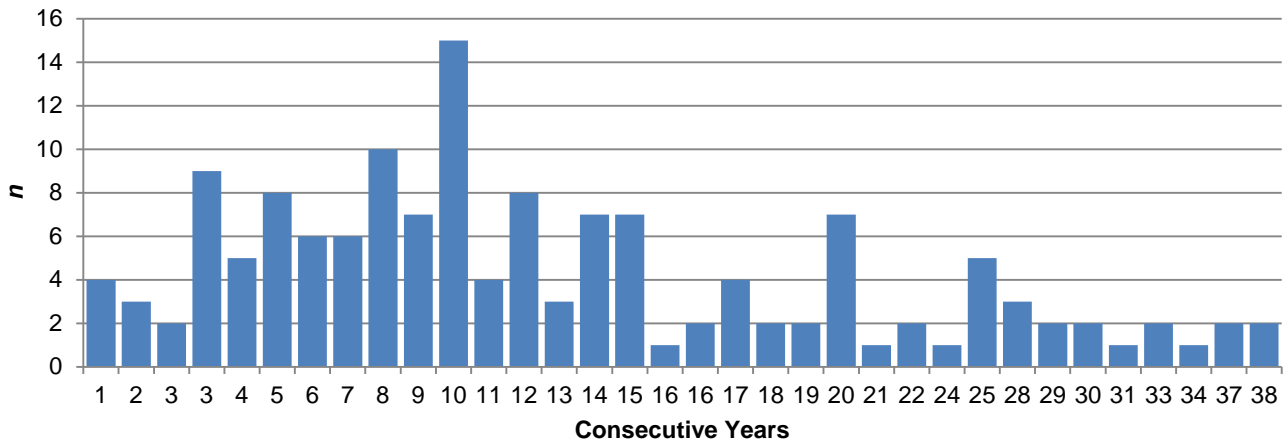
	<i>n</i>	Mean	SD	Median	Min	Max	Statistical Significance
Program Director	146	12.9	8.9	10.6	1	38	PD < FT & PT, (<i>P</i> < .001, =.002)
Full-time Faculty	78	9.5	7.5	7.5	1	28	
Part-time Faculty	41	7.9	6.4	6.2	0	26	
Total	265	11.1	8.3	9.4	0	38	

■ If this is not the only position in education you've had, overall how many years have you been involved in student education?

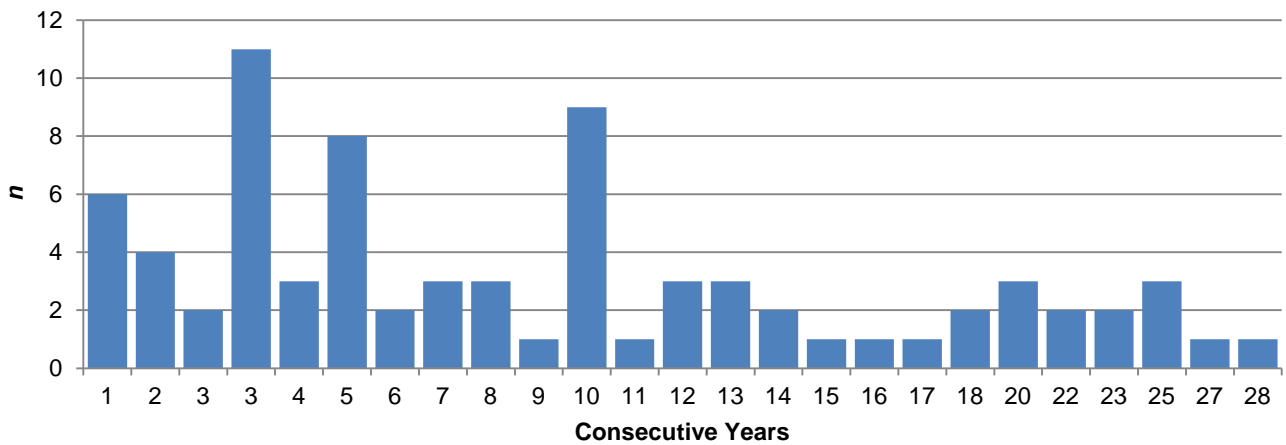
■ For how many (consecutive) years have you held your current position?



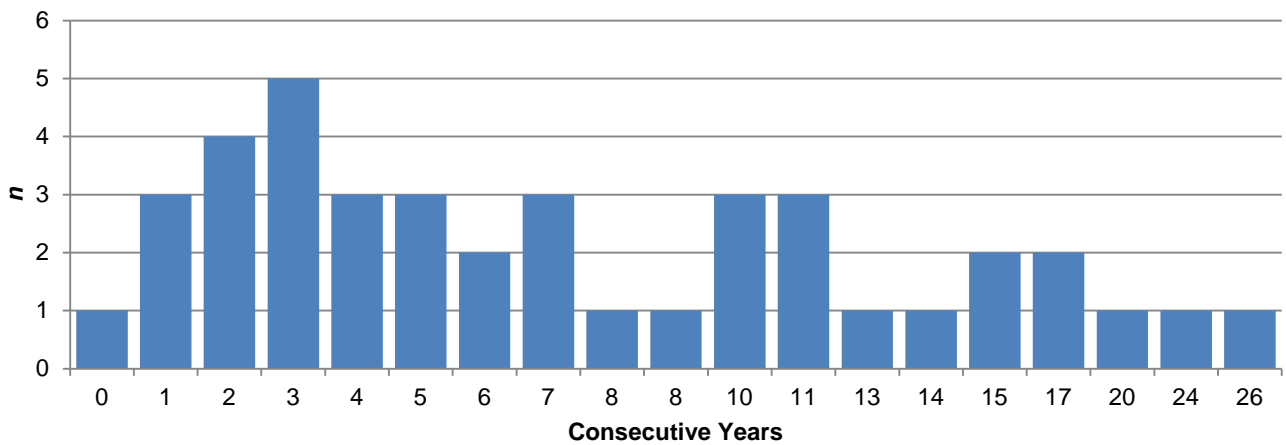
**For how many (consecutive) years have you held your current position?
(Program Director)**



**For how many (consecutive) years have you held your current position?
(Full-time Faculty (Not PD))**



For how many (consecutive) years have you held your current position? (Part-time Faculty)



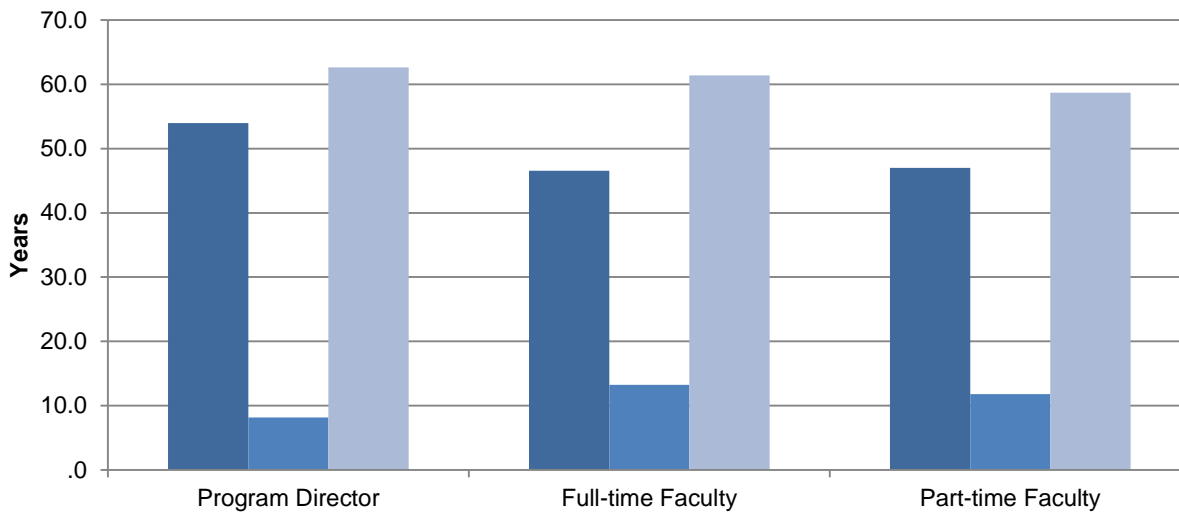
In how many years do you plan to leave R.T. education?

	<i>n</i>	Mean	SD	Median	Min	Max	Statistical Significance
Program Director	134	8.1	5.5	6.4	1	25	PD < FT & PT, (<i>P</i> < .001, =.030)
Full-time Faculty	60	13.2	8.1	11.3	0	31	
Part-time Faculty	29	11.8	9.3	9.8	1	30	
Total	223	10.0	7.2	9.5	0	31	

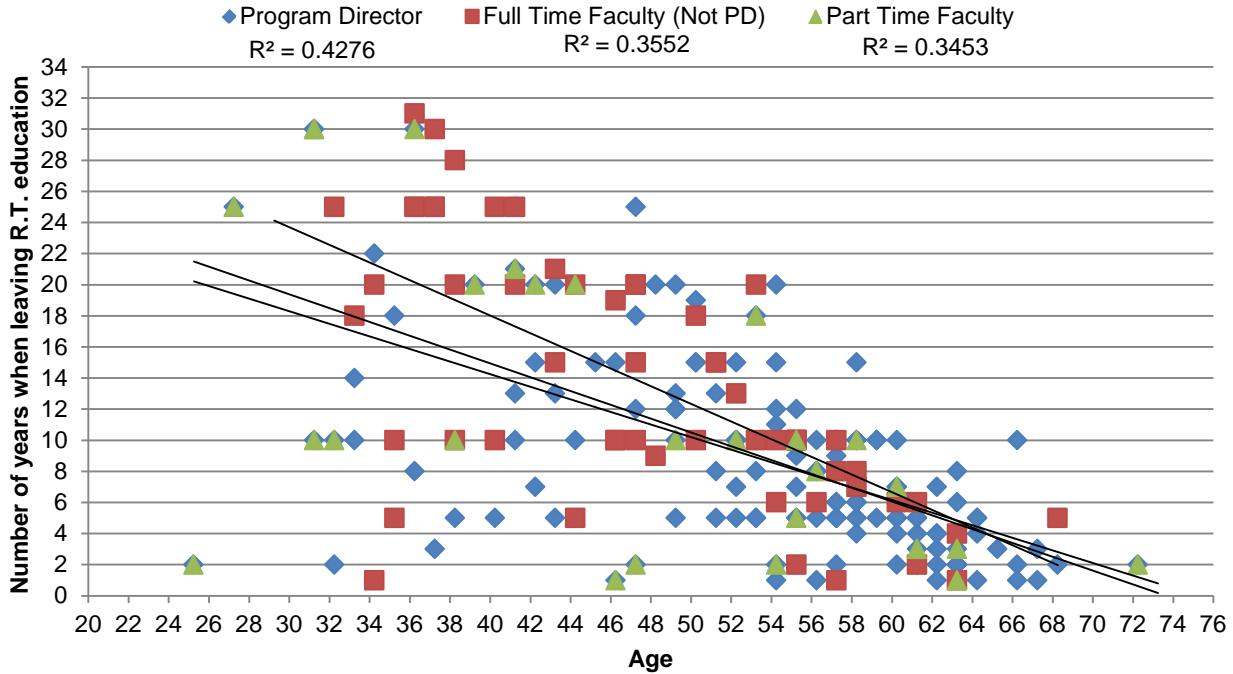
Estimated age when leaving R.T. education (derived from "Age" + "In how many years do you plan to leave R.T. education?")

	<i>n</i>	Mean	SD	Median	Min	Max	Statistical Significance
Program Director	126	62.6	7.0	64.2	34	76	PD > PT, (<i>P</i> = .046)
Full-time Faculty	58	61.4	7.3	63.9	35	73	
Part-time Faculty	27	58.7	10.4	61.9	27	74	
Total	211	61.8	7.6	63.9	27	76	

- Age
- In how many years do you plan to leave R.T. education?
- Estimated age when leaving RT education (Derived from "Age" + "In how many years do you plat to leave R.T. education?")



Estimated years when leaving R.T. education by Age

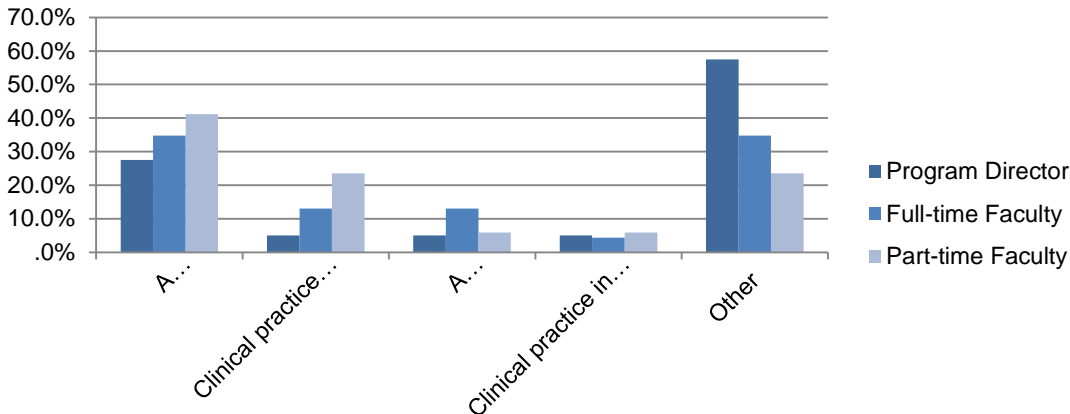


If leaving education other than for retirement, what will be your new career?

		Program Director	Full-time Faculty	Part-time Faculty	Total
A managerial/supervisory position in the radiologic sciences	n	11	8	7	26
	%	27.5%	34.8%	41.2%	32.5%
Clinical practice within the radiologic sciences	n	2	3	4	9
	%	5.0%	13.0%	23.5%	11.3%
A managerial/supervisory position in another allied health profession	n	2	3	1	6
	%	5.0%	13.0%	5.9%	7.5%
Clinical practice in another allied health profession	n	2	1	1	4
	%	5.0%	4.3%	5.9%	5.0%
Other	n	23	8	4	35
	%	57.5%	34.8%	23.5%	43.8%
Total	n	40	23	17	80
	%	100.0%	100.0%	100.0%	100.0%

When factoring out "Other," the percentage differences were not statistically significant.

If leaving education other than for retirement, what will be your new career?

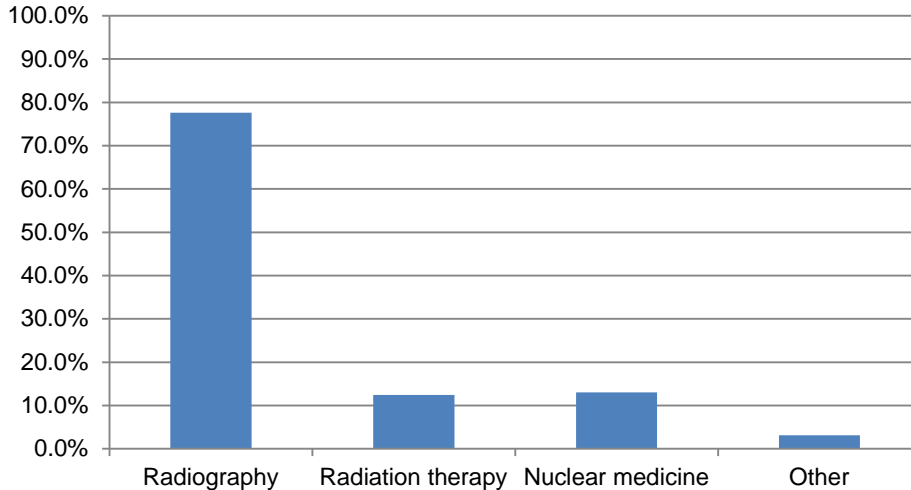


Educational Program Details

What disciplines does your program offer?

	<i>n</i>	Valid Percent
Radiography	125	77.6%
Radiation Therapy	20	12.4%
Nuclear Medicine	21	13.0%
Other	5	3.1%
Total	171	100.0%

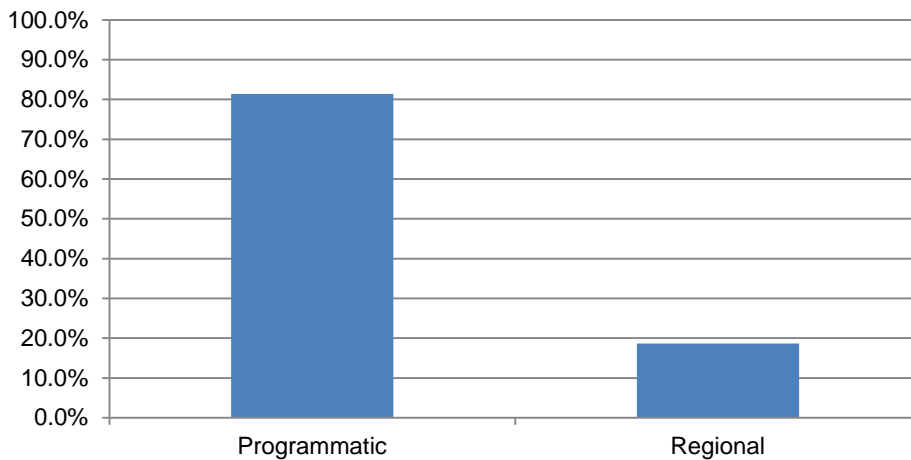
What disciplines does your program offer?



Identify the form of accreditation associated with your program:

	<i>n</i>	Valid Percent
Programmatic	131	81.4%
Regional	30	18.6%
Total	161	100.0%

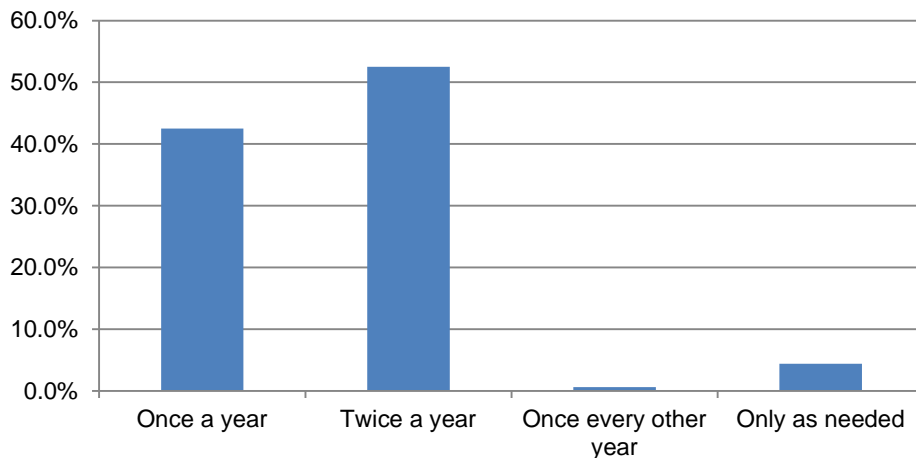
Identify the form of accreditation associated with your program:



How frequently do you conduct formal sessions of your program advisory committee?

	<i>n</i>	Valid Percent
Once a year	68	42.5%
Twice a year	84	52.5%
Once every other year	1	0.6%
Only as needed	7	4.4%
Total	160	100.0%

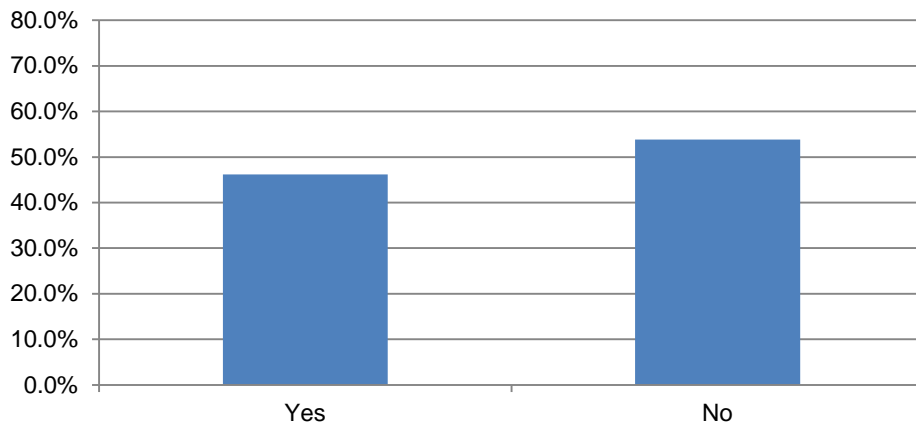
How frequently do you conduct formal sessions of your program advisory committee?



If your program is a certificate program, do you require students to have an academic degree to be considered for program admission?

	<i>n</i>	Valid Percent
Yes	24	46.2%
No	28	53.8%
Total	52	100.0%

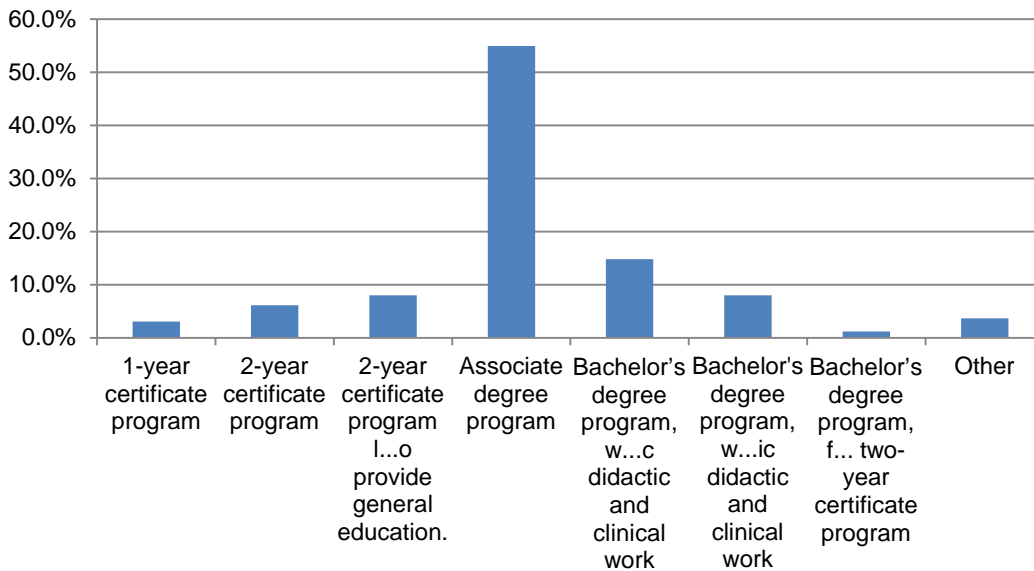
If your program is a certificate program, do you require students to have an academic degree to be considered for program admission?



Which of the following best describes your program structure?

	<i>n</i>	Valid Percent
1-year certificate program	5	3.1%
2-year certificate program	10	6.2%
2-year certificate program linked to a college to provide general education	13	8.0%
Associate degree program	89	54.9%
Bachelor's degree program, with general education requirements satisfied after modality-specific didactic and clinical work are completed	24	14.8%
Bachelor's degree program, with general education requirements satisfied prior to beginning modality-specific didactic and clinical work	13	8.0%
Bachelor's degree program, followed by a one- or two-year certificate program	2	1.2%
Other	6	3.7%
Total	162	100.0%

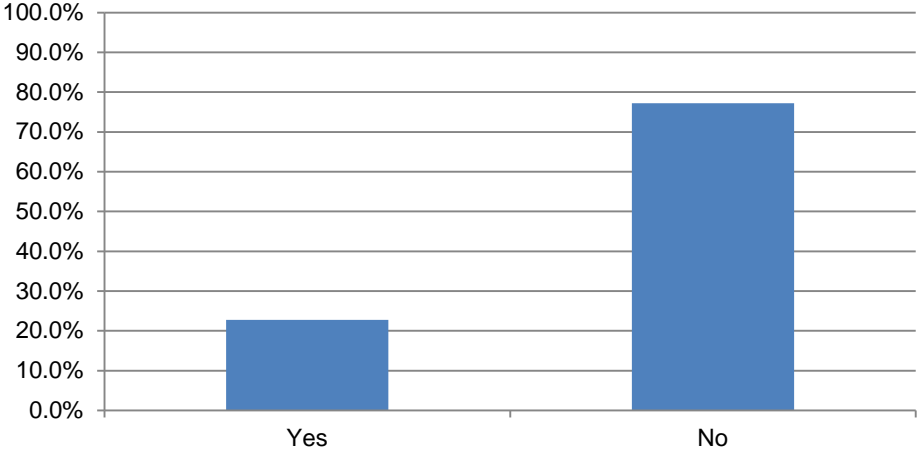
Which of the following best describes your program structure?



Does your program offer: -- An advanced placement option

	<i>n</i>	Valid Percent
Yes	36	22.8%
No	122	77.2%
Total	158	100.0%

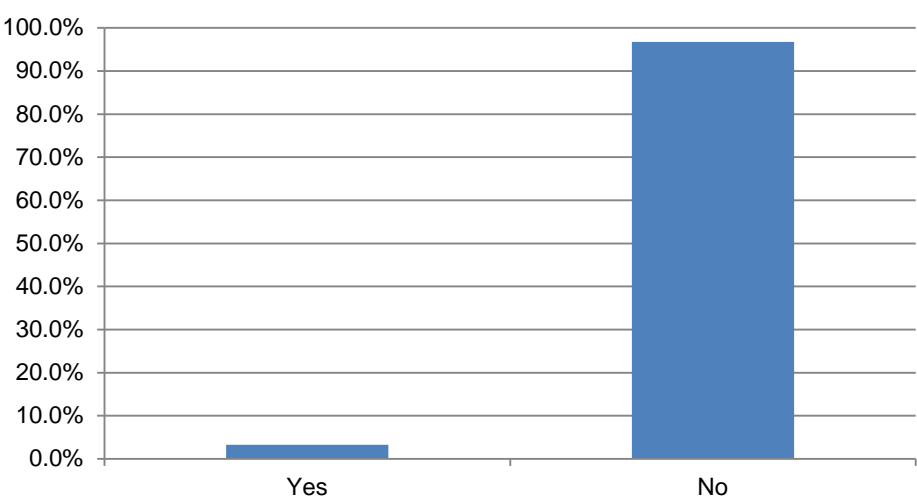
Does your program offer an advanced placement option?



Does your program offer: -- A part-time option

	<i>n</i>	Valid Percent
Yes	5	3.2%
No	149	96.8%
Total	154	100.0%

Does your program offer: -- A part-time option



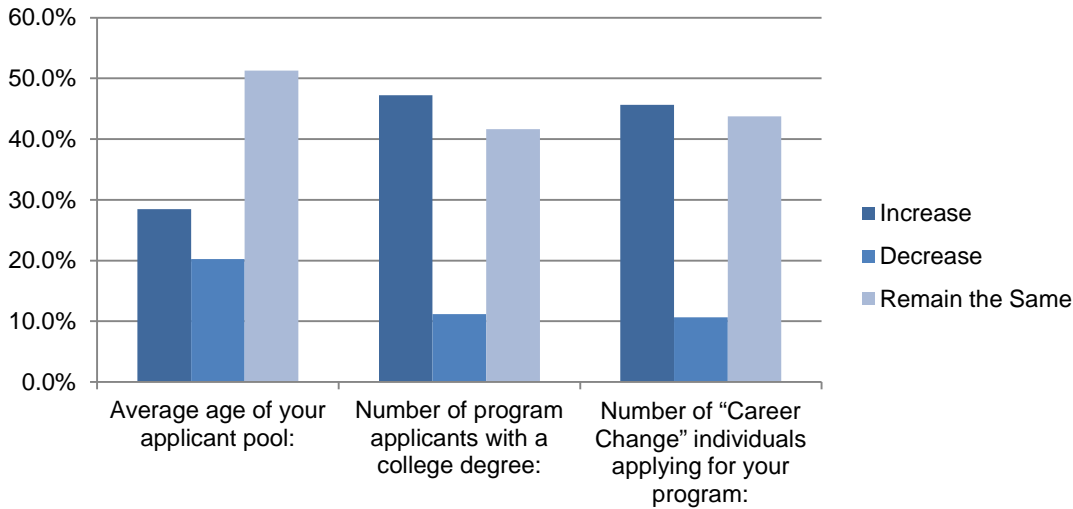
What is the average age of the students in your program?

	Age
Mean	25.4
<i>n</i>	144
<i>SD</i>	3.8
Median	25.0
Minimum	17.0
Maximum	45.0

Indicate the trends have you seen over the past three years for the following:

	Average age of your applicant pool		Number of program applicants with a college degree		Number of "Career Change" individuals applying for your program	
	<i>n</i>	Valid Percent	<i>n</i>	Valid Percent	<i>n</i>	Valid Percent
Increase	45	28.5%	76	47.2%	73	45.6%
Decrease	32	20.3%	18	11.2%	17	10.6%
Remain the Same	81	51.3%	67	41.6%	70	43.8%
Total	158	100.0%	161	100.0%	160	100.0%

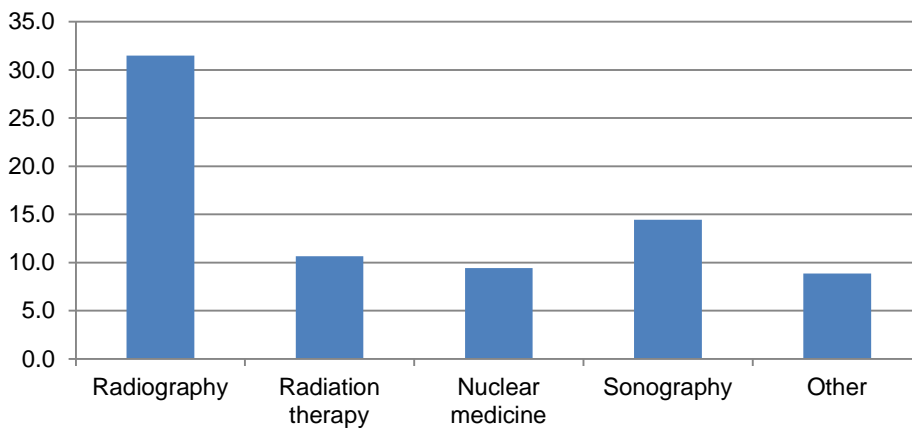
Over the past three years what trends have you seen for the following:



On average, how many students are enrolled in your program during a typical academic session (e.g., semester)?

	<i>n</i>	Mean	<i>SD</i>
Radiography	137	31.5	20.1
Radiation Therapy	42	10.7	10.8
Nuclear Medicine	39	9.4	13.1
Sonography	35	14.4	15.0
Other	23	8.9	12.2

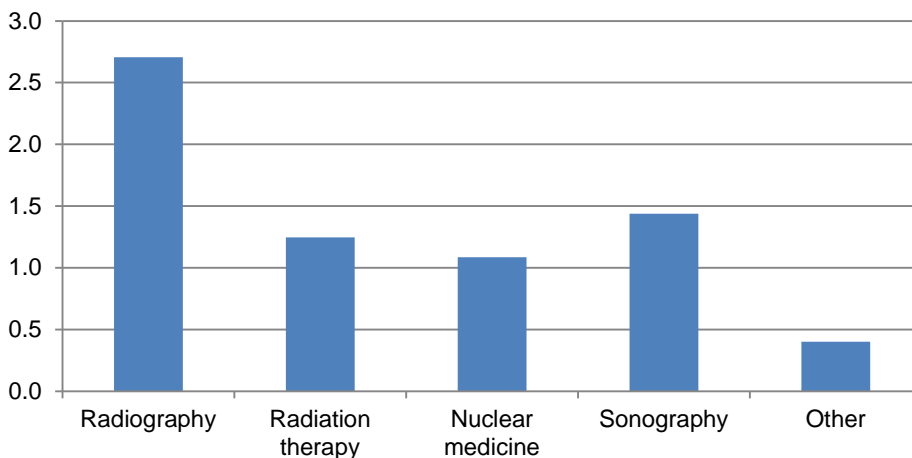
On average, how many students are enrolled in your program during a typical academic session (e.g., semester)?



Please enter the number of full-time faculty members who teach in each of these modalities.

	<i>n</i>	Mean	<i>SD</i>
Radiography	139	2.7	1.4
Radiation Therapy	53	1.3	1.4
Nuclear Medicine	47	1.1	1.1
Sonography	48	1.4	1.5
Other	25	.40	.71

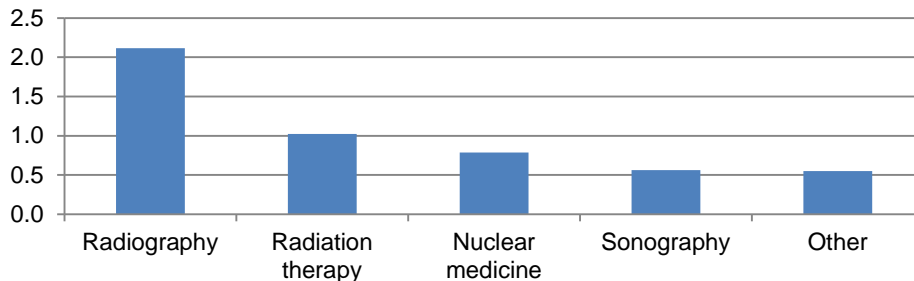
Please enter the number of full-time faculty members who teach in each of these modalities.



Please enter the number of part-time faculty members who teach in each of these modalities.

	<i>n</i>	Mean	SD
Radiography	113	2.1	2.7
Radiation Therapy	47	1.0	1.9
Nuclear Medicine	42	.79	1.6
Sonography	39	.56	.88
Other	29	.55	1.1

Please enter the number of part-time faculty members who teach in each of these modalities.

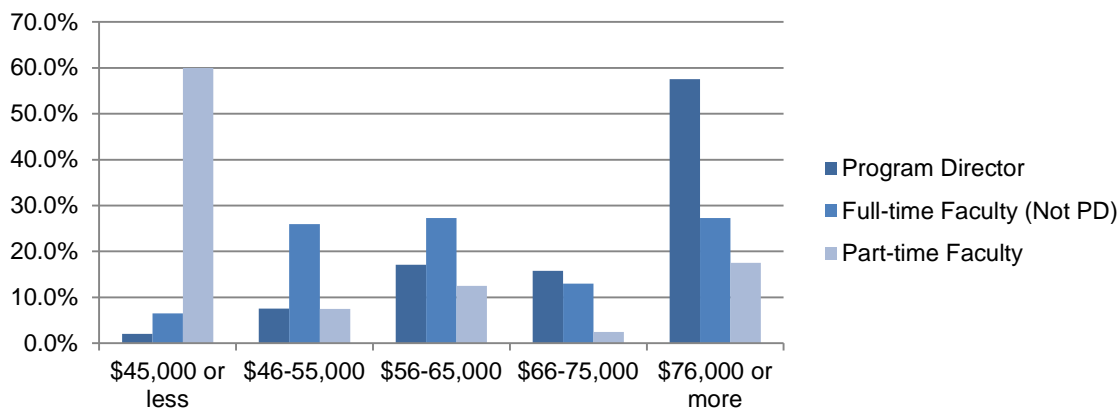


Within what range does your current salary fall?

		Program Director	Full-time Faculty (Not PD)	Part-time Faculty	Total
\$45,000 or less	<i>n</i>	3	5	24	32
	%	2.1%	6.5%	60.0%	12.2%
\$46-55,000	<i>n</i>	11	20	3	34
	%	7.5%	26.0%	7.5%	12.9%
\$56-65,000	<i>n</i>	25	21	5	51
	%	17.1%	27.3%	12.5%	19.4%
\$66-75,000	<i>n</i>	23	10	1	34
	%	15.8%	13.0%	2.5%	12.9%
\$76,000 or more	<i>n</i>	84	21	7	112
	%	57.5%	27.3%	17.5%	42.6%
Total	<i>n</i>	146	77	40	263
	%	100.0%	100.0%	100.0%	100.0%

The percentage differences were statistically significant $\chi^2(8, n = 263) = 129.8, P < .001$.

Within what range does your current salary fall?



How does your present salary compare to the average salary (or equivalent hourly wage) received by recent graduates of your program in their first job?

Higher by about

		<i>n</i>	Mean	SD	Significance
In a dollar amount:	Program Director	59	\$ 31,383	\$ 15,485	PD > FT & PT (<i>P</i> = .048, .013)
	Full-time Faculty (Not PD)	19	\$ 21,433	\$ 11,401	
	Part-time Faculty	10	\$ 16,080	\$ 20,302	
As a percentage:	Program Director	30	51.8%	47.3%	None
	Full-time Faculty (Not PD)	12	33.3%	16.4%	
	Part-time Faculty	1	73.0%	.	

About the same

		<i>n</i>	Mean	SD	Statistical Significance
In a dollar amount:	Program Director	3	\$ 43,920	\$ 7,179	None
	Full-time Faculty (Not PD)	4	\$ 50,290	\$ 4,568	
	Part-time Faculty	2	\$ 31,240	\$ 26,530	
As a percentage:	Program Director	1	0.0%	.	n too low to conduct testing.
	Full-time Faculty (Not PD)	2	100.0%	0.0%	
	Part-time Faculty	0	.	.	

Lower by about

		<i>n</i>	Mean	SD	Statistical Significance
In a dollar amount:	Program Director	5	\$ 27,144	\$ 20,359	n too low to conduct testing.
	Full-time Faculty (Not PD)	0	.	.	
	Part-time Faculty	3	\$ 20,533	\$ 18,244	
As a percentage:	Program Director	3	23.3%	25.2%	n too low to conduct testing.
	Full-time Faculty (Not PD)	0	.	.	
	Part-time Faculty	2	22.5%	10.6%	

How does your present salary compare to the salary you believe you could earn (here or at another facility) if 100% of your FTE were devoted to clinical practice?

Higher by about

		<i>n</i>	Mean	SD	Statistical Significance
In a dollar amount:	Program Director	16	\$ 22,981	\$ 12,550	None
	Full-time Faculty (Not PD)	5	\$ 16,000	\$ 13,873	
	Part-time Faculty	7	\$ 23,348	\$ 19,745	
As a percentage:	Program Director	9	35.3%	45.9%	None
	Full-time Faculty (Not PD)	3	15.2%	10.0%	
	Part-time Faculty	3	33.3%	14.4%	

About the same

		<i>n</i>	Mean	SD	Statistical Significance
In a dollar amount:	Program Director	6	\$ 28,333	\$ 44,907	None
	Full-time Faculty (Not PD)	3	\$ 45,333	\$ 40,066	
	Part-time Faculty	2	.	.	
As a percentage:	Program Director	6	50.0%	54.8%	n too low to conduct testing.
	Full-time Faculty (Not PD)	2	75.0%	35.4%	
	Part-time Faculty	0	.	.	

Lower by about

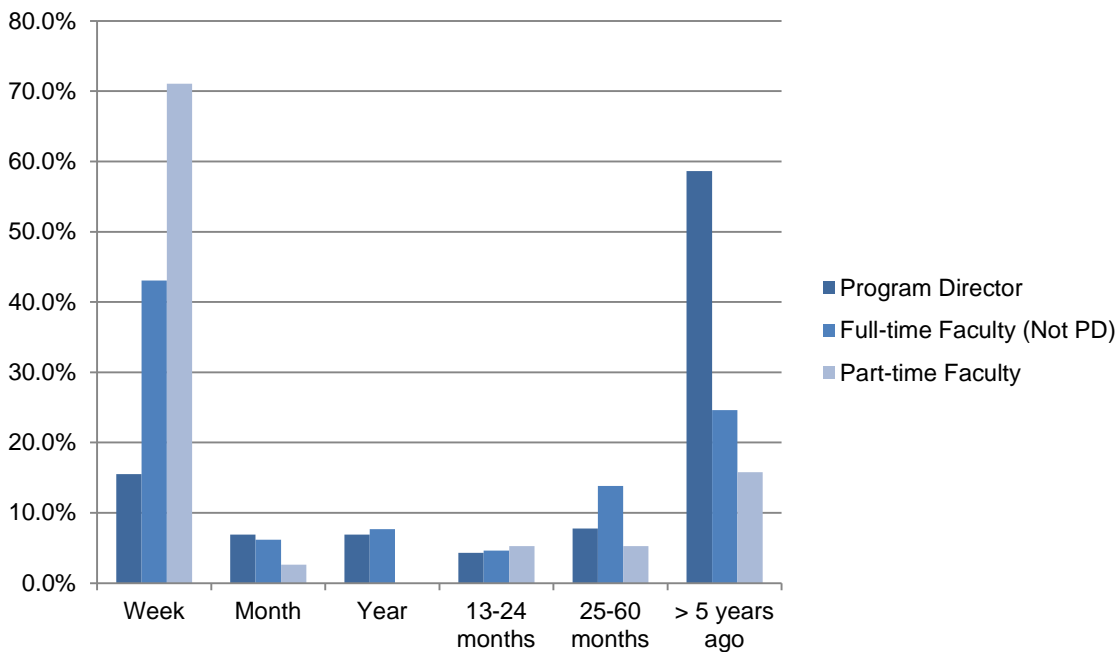
		<i>n</i>	Mean	SD	Statistical Significance
In a dollar amount:	Program Director	20	\$ 22,684	\$ 13,100	PD > FT (<i>P</i> = .026)
	Full-time Faculty (Not PD)	12	\$ 11,556	\$ 5,843	
	Part-time Faculty	2	\$ 12,700	\$ 3,252	
As a percentage:	Program Director	17	27.9%	16.3%	n too low to conduct testing.
	Full-time Faculty (Not PD)	6	30.0%	22.8%	
	Part-time Faculty	1	15.0%	.	

How recently have you practiced each of the modalities you teach in a clinical setting? – Radiography

		Program Director	Full-time Faculty (Not PD)	Part-time Faculty	Total
Week	<i>n</i>	18	28	27	73
	%	15.5%	43.1%	71.1%	33.3%
Month	<i>n</i>	8	4	1	13
	%	6.9%	6.2%	2.6%	5.9%
Year	<i>n</i>	8	5	0	13
	%	6.9%	7.7%	0.0%	5.9%
13-24 months	<i>n</i>	5	3	2	10
	%	4.3%	4.6%	5.3%	4.6%
25-60 months	<i>n</i>	9	9	2	20
	%	7.8%	13.8%	5.3%	9.1%
> 5 years ago	<i>n</i>	68	16	6	90
	%	58.6%	24.6%	15.8%	41.1%
Total	<i>n</i>	116	65	38	219
	%	100.0%	100.0%	100.0%	100.0%

The percentage differences were statistically significant, $\chi^2(10, n = 219) = 54.2, P < .001$.

How recently have you practiced each of the modalities you teach in a clinical setting? -- Radiography

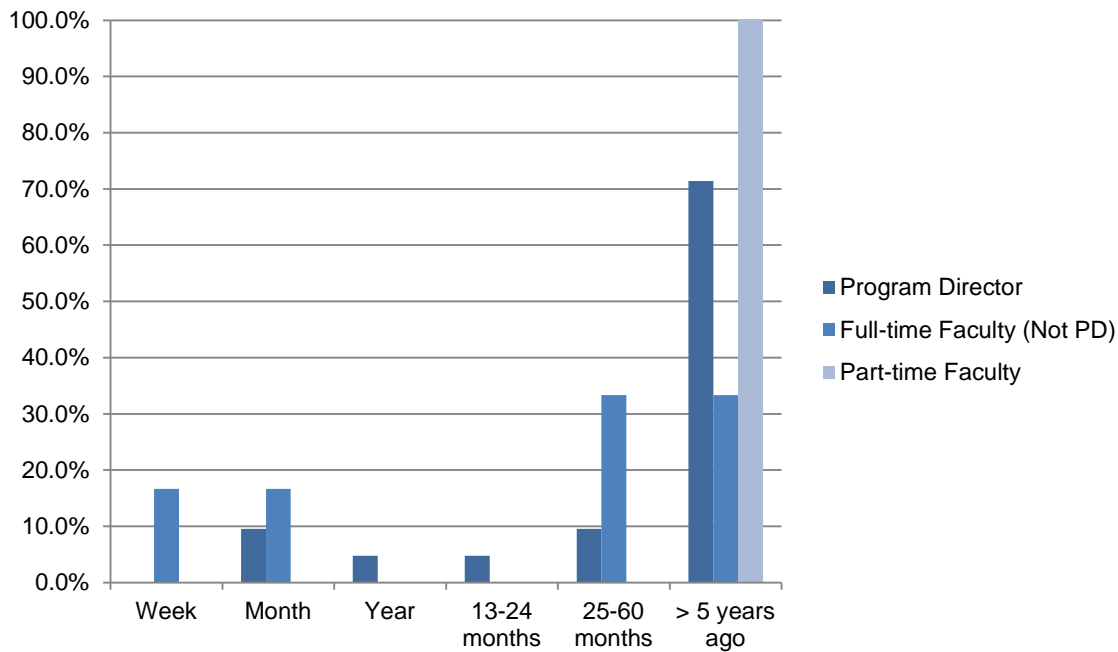


How recently have you practiced each of the modalities you teach in a clinical setting? -- Radiation Therapy

		Program Director	Full-time Faculty (Not PD)	Part-time Faculty	Total
Week	<i>n</i>	0	1	0	1
	%	0.0%	16.7%	0.0%	3.4%
Month	<i>n</i>	2	1	0	3
	%	9.5%	16.7%	0.0%	10.3%
Year	<i>n</i>	1	0	0	1
	%	4.8%	0.0%	0.0%	3.4%
13-24 months	<i>n</i>	1	0	0	1
	%	4.8%	0.0%	0.0%	3.4%
25-60 months	<i>n</i>	2	2	0	4
	%	9.5%	33.3%	0.0%	13.8%
> 5 years ago	<i>n</i>	15	2	2	19
	%	71.4%	33.3%	100.0%	65.5%
Total	<i>n</i>	21	6	2	29
	%	100.0%	100.0%	100.0%	100.0%

The percentage differences were not statistically significant. (Please note the low *n*.)

How recently have you practiced each of the modalities you teach in a clinical setting? -- Radiation Therapy

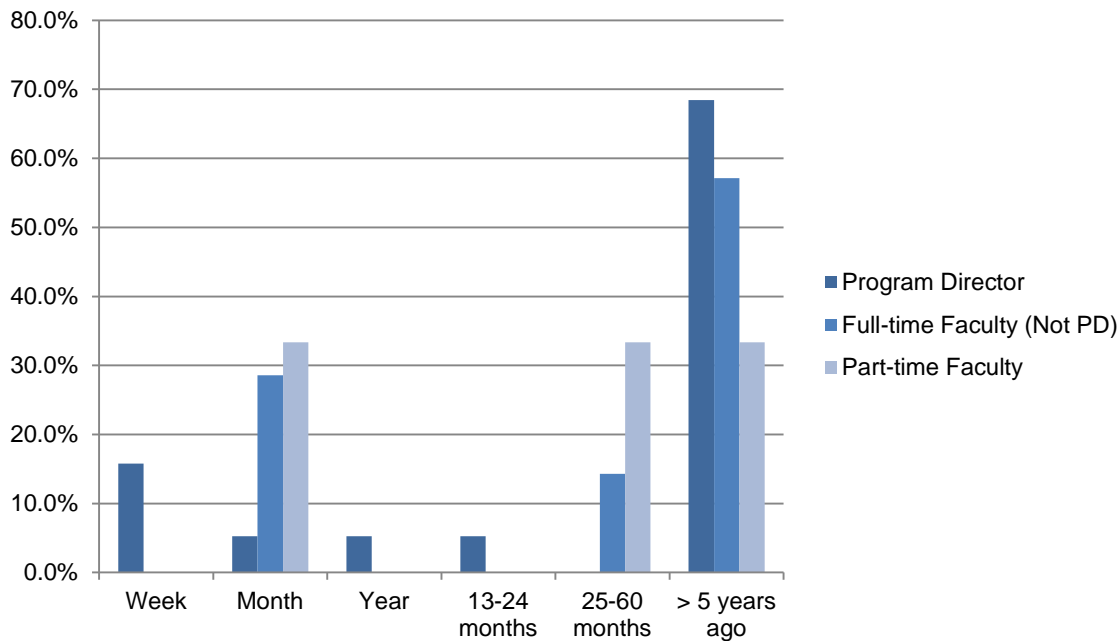


How recently have you practiced each of the modalities you teach in a clinical setting? -- Nuclear Medicine

		Program Director	Full-time Faculty (Not PD)	Part-time Faculty	Total
Week	<i>n</i>	3	0	0	3
	%	15.8%	0.0%	0.0%	10.3%
Month	<i>n</i>	1	2	1	4
	%	5.3%	28.6%	33.3%	13.8%
Year	<i>n</i>	1	0	0	1
	%	5.3%	0.0%	0.0%	3.4%
13-24 months	<i>n</i>	1	0	0	1
	%	5.3%	0.0%	0.0%	3.4%
25-60 months	<i>n</i>	0	1	1	2
	%	0.0%	14.3%	33.3%	6.9%
> 5 years ago	<i>n</i>	13	4	1	18
	%	68.4%	57.1%	33.3%	62.1%
Total	<i>n</i>	19	7	3	29
	%	100.0%	100.0%	100.0%	100.0%

The percentage differences were not statistically significant. (Please note the low *n*.)

How recently have you practiced each of the modalities you teach in a clinical setting? -- Nuclear Medicine

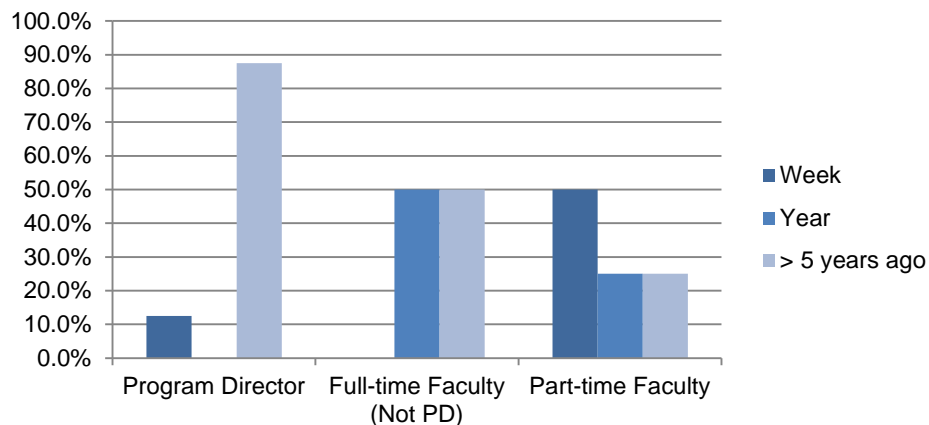


How recently have you practiced each of the modalities you teach in a clinical setting? – Sonography

		Program Director	Full-time Faculty (Not PD)	Part-time Faculty	Total
Week	<i>n</i>	1	0	2	3
	%	12.5%	0.0%	50.0%	21.4%
Year	<i>n</i>	0	1	1	2
	%	0.0%	50.0%	25.0%	14.3%
> 5 years ago	<i>n</i>	7	1	1	9
	%	87.5%	50.0%	25.0%	64.3%
Total	<i>n</i>	8	2	4	14
	%	100.0%	100.0%	100.0%	100.0%

The percentage differences were not statistically significant. (Please note the low *n*.)

How recently have you practiced each of the modalities you teach in a clinical setting? -- Sonography

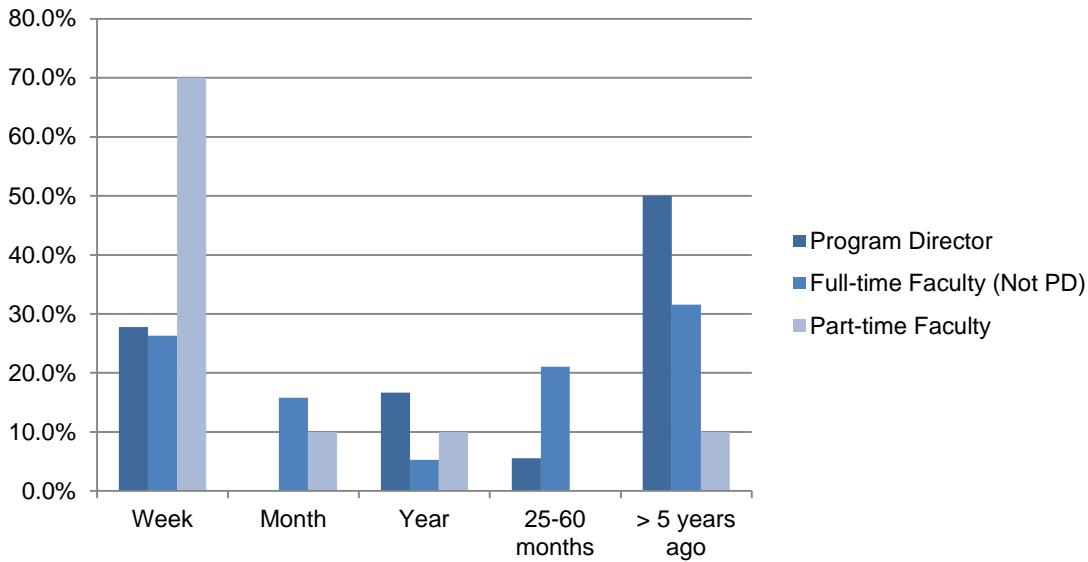


How recently have you practiced each of the modalities you teach in a clinical setting? -- Other

		Program Director	Full-time Faculty (Not PD)	Part-time Faculty	Total
Week	<i>n</i>	5	5	7	17
	%	27.8%	26.3%	70.0%	36.2%
Month	<i>n</i>	0	3	1	4
	%	0.0%	15.8%	10.0%	8.5%
Year	<i>n</i>	3	1	1	5
	%	16.7%	5.3%	10.0%	10.6%
25-60 months	<i>n</i>	1	4	0	5
	%	5.6%	21.1%	0.0%	10.6%
> 5 years ago	<i>n</i>	9	6	1	16
	%	50.0%	31.6%	10.0%	34.0%
Total	<i>n</i>	18	19	10	47
	%	100.0%	100.0%	100.0%	100.0%

The percentage differences were not statistically significant. (Please note the low *n*.)

How recently have you practiced each of the modalities you teach in a clinical setting? -- Other

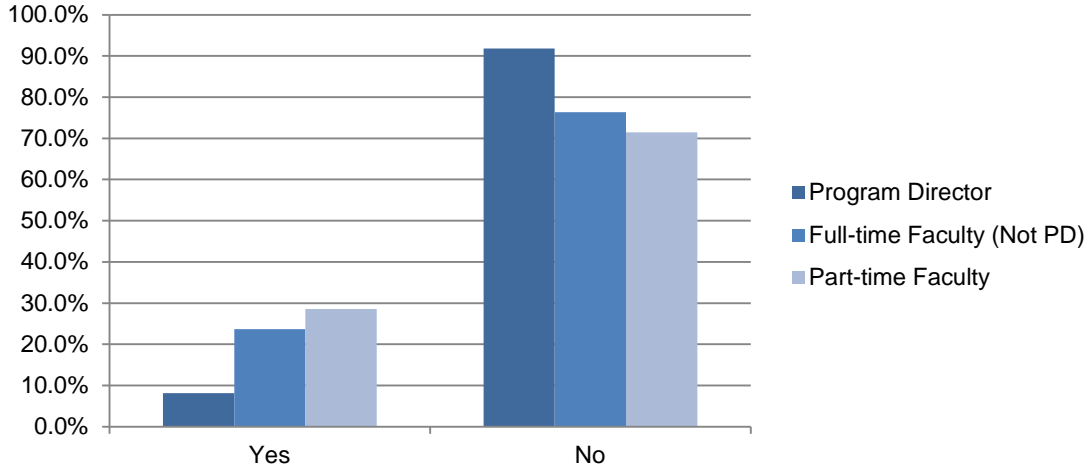


Are you pursuing an advanced degree in or closely related to the radiologic sciences?

		Program Director	Full-time Faculty (Not PD)	Part-time Faculty	Total
Yes	n	12	18	12	42
	%	8.2%	23.7%	28.6%	15.8%
No	n	135	58	30	223
	%	91.8%	76.3%	71.4%	84.2%
Total	n	147	76	42	265
	%	100.0%	100.0%	100.0%	100.0%

The percentage differences were statistically significant, $\chi^2(2, n = 265) = 15.1, P = .001$.

Are you pursuing an advanced degree in or closely related to the radiologic sciences?

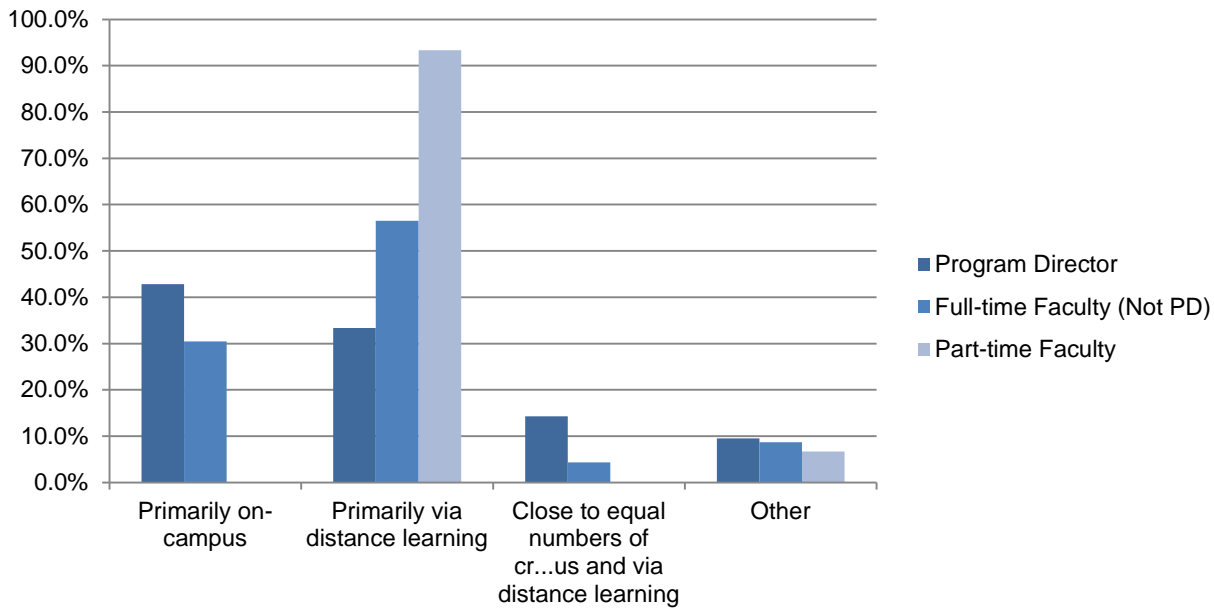


If "Yes," is this primarily an on-campus or a distance-learning program?

		Program Director	Full-time Faculty (Not PD)	Part-time Faculty	Total
Primarily on campus	n	9	7	0	16
	%	42.9%	30.4%	0.0%	27.1%
Primarily via distance learning	n	7	13	14	34
	%	33.3%	56.5%	93.3%	57.6%
Close to equal numbers of credit hours on campus and via distance learning	n	3	1	0	4
	%	14.3%	4.3%	0.0%	6.8%
Other	n	2	2	1	5
	%	9.5%	8.7%	6.7%	8.5%
Total	n	21	23	15	59
	%	100.0%	100.0%	100.0%	100.0%

The percentage differences were statistically significant, $\chi^2(6, n = 59) = 14.6, P = .02$.

If "Yes," is this primarily an on-campus or a distance-learning program?

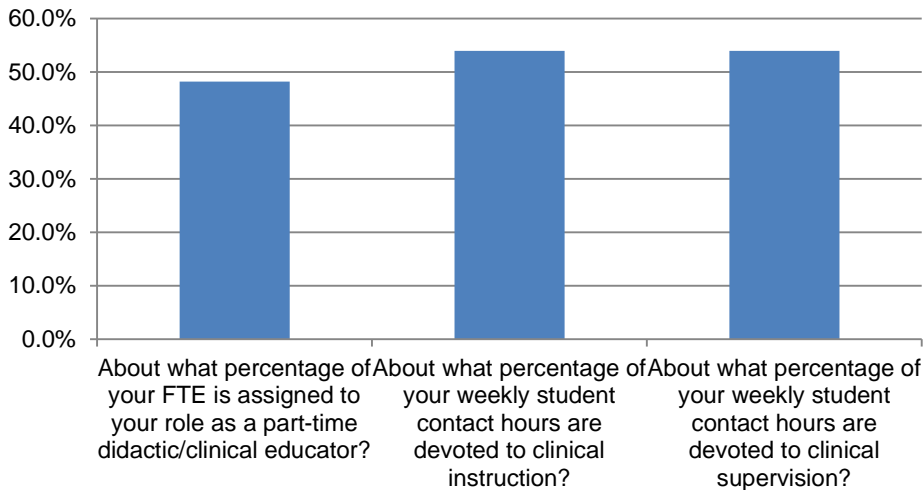


Questions for Part-time Faculty Only

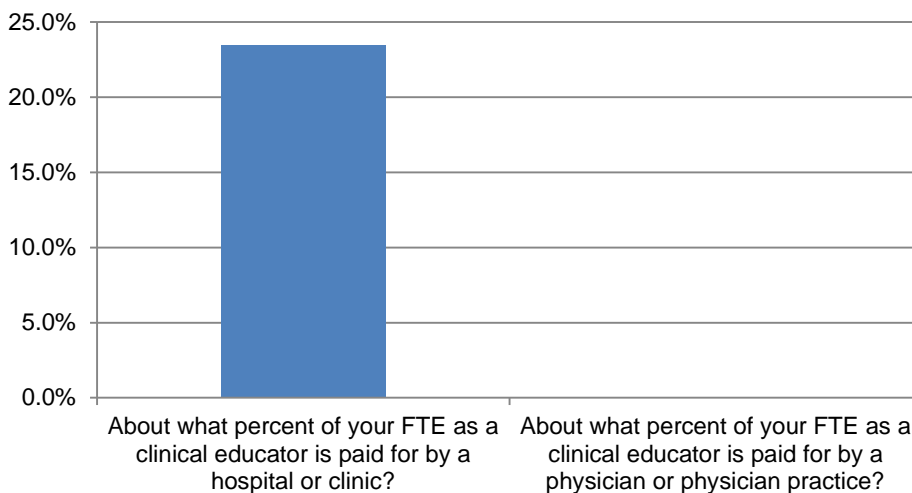
Breakdown of Part-time Faculty FTE:

	<i>n</i>	Mean	SD	Median
About what percentage of your FTE is assigned to your role as a part-time didactic/clinical educator?	31	48.2%	30.2%	50.0%
About what percentage of your weekly student contact hours are devoted to clinical instruction?	39	54.0%	33.3%	50.0%
About what percentage of your weekly student contact hours are devoted to clinical supervision?	38	53.9%	37.0%	55.0%
About what percentage of your FTE as a clinical educator is paid for by a hospital or clinic?	38	23.5%	42.8%	0.0%
About what percentage of your FTE as a clinical educator is paid for by a physician or physician practice?	38	0.0%	0.0%	0.0%
If you receive additional compensation, please specify how much (as a dollar amount):	5	\$ 2,720	\$ 4,406	\$ 400

Educational portion of FTE



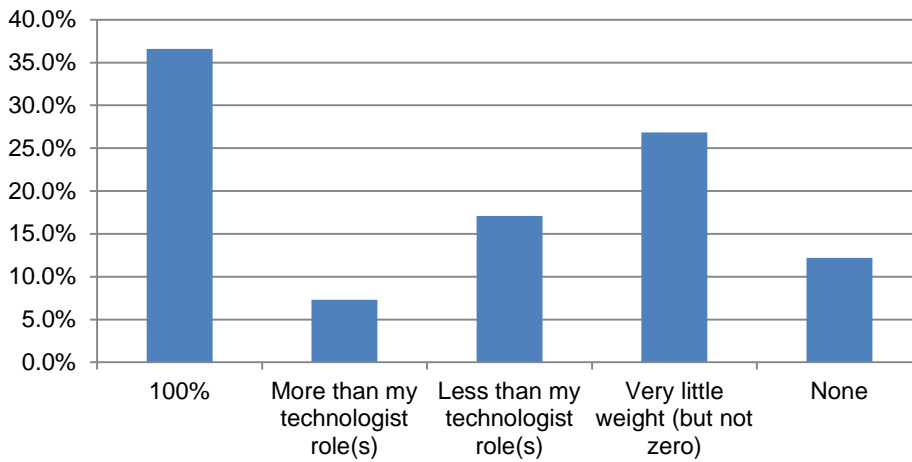
Non-educational portion of FTE



How much weight does your role as a clinical educator carry in your annual evaluation?

	<i>n</i>	Valid Percent
100%	15	36.6%
More than my technologist role(s)	3	7.3%
Less than my technologist role(s)	7	17.1%
Very little weight (but not zero)	11	26.8%
None	5	12.2%
Total	41	100.0%

How much weight does your role as a clinical educator carry in your annual evaluation?



Faculty Needs

How comfortable are you with each of the following aspects of your role as a facilitator of student learning?

Ability to Keep Up With Technological Developments

	Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty	Total
Very Uncomfortable	1.8%	0.0%	0.0%	0.0%	.8%
Uncomfortable	6.1%	3.4%	2.3%	1.6%	4.0%
Neutral	21.8%	25.3%	19.8%	8.2%	20.1%
Comfortable	44.2%	40.2%	45.3%	44.3%	43.6%
Very Comfortable	26.1%	31.0%	32.6%	45.9%	31.6%
<i>n</i>	165	87	86	61	399

Personal Experience With The Procedures and Technologies (E.G., PACS, CR/DR) Whose Theory and Application You Are Helping Your Students Learn

	Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty	Total
Very Uncomfortable	2.4%	2.3%	0.0%	0.0%	1.5%
Uncomfortable	17.7%	12.6%	7.0%	3.3%	12.1%
Neutral	29.3%	23.0%	18.6%	5.0%	21.9%
Comfortable	34.8%	39.1%	39.5%	35.0%	36.8%
Very Comfortable	15.9%	23.0%	34.9%	56.7%	27.7%
<i>n</i>	164	87	86	60	397

Knowledge and Command of Teaching Techniques

	Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty	Total
Very Uncomfortable	.6%	1.1%	2.3%	0.0%	1.0%
Uncomfortable	2.4%	0.0%	2.3%	1.7%	1.8%
Neutral	9.1%	5.7%	18.6%	15.0%	11.3%
Comfortable	31.1%	35.6%	40.7%	36.7%	35.0%
Very Comfortable	56.7%	57.5%	36.0%	46.7%	50.9%
<i>n</i>	164	87	86	60	397

How comfortable are you with each of the following aspects of your role as a facilitator of student learning?

Ability to Use Current Multimedia Techniques (e.g., Web-based supplementary and review materials; audio and video clips in PowerPoint presentations) Effectively

	Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty	Total
Very Uncomfortable	.6%	2.3%	2.3%	1.7%	1.5%
Uncomfortable	4.3%	5.7%	8.1%	3.3%	5.3%
Neutral	14.6%	10.3%	19.8%	20.0%	15.6%
Comfortable	34.1%	31.0%	32.6%	43.3%	34.5%
Very Comfortable	46.3%	50.6%	37.2%	31.7%	43.1%
<i>n</i>	164	87	86	60	397

Ability to Tailor Curriculum, Materials And Mode Of Presentation to the Needs of All the Students Taking a Given Course in a Given Semester

	Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty	Total
Very Uncomfortable	.6%	0.0%	1.2%	0.0%	.5%
Uncomfortable	3.7%	1.1%	7.0%	3.3%	3.8%
Neutral	11.0%	13.8%	18.6%	25.0%	15.4%
Comfortable	32.3%	33.3%	43.0%	35.0%	35.3%
Very Comfortable	52.4%	51.7%	30.2%	36.7%	45.1%
<i>n</i>	164	87	86	60	397

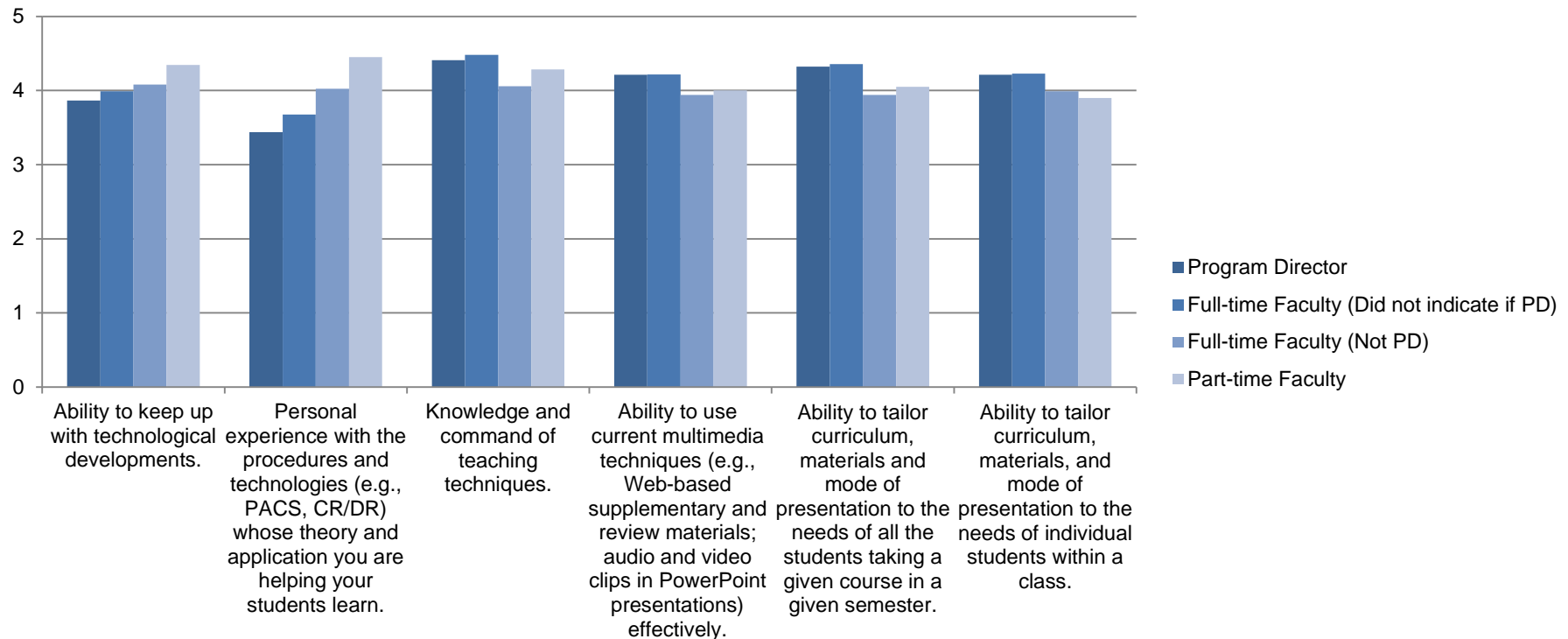
Ability to Tailor Curriculum, Materials, and Mode of Presentation to the Needs of Individual Students Within a Class

	Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty	Total
Very Uncomfortable	.6%	0.0%	0.0%	0.0%	.3%
Uncomfortable	4.3%	3.4%	8.1%	5.0%	5.0%
Neutral	15.9%	12.6%	17.4%	28.3%	17.4%
Comfortable	31.7%	41.4%	41.9%	38.3%	37.0%
Very Comfortable	47.6%	42.5%	32.6%	28.3%	40.3%
<i>n</i>	164	87	86	60	397

**How comfortable are you with each of the following aspects of your role as a facilitator of student learning?
(1 = Very Uncomfortable...5 = Very Comfortable)**

		<i>n</i>	Mean	SD	Statistical Significance
Ability to keep up with technological developments	Program Director	165	3.9	.93	PD < PT, (<i>P</i> < .001)
	Full-time Faculty (Did not indicate if PD)	87	4.0	.84	
	Full-time Faculty (Not PD)	86	4.1	.79	
	Part-time Faculty	61	4.3	.70	
	Total	399	4.0	.86	
Personal experience with the procedures and technologies (e.g., PACS, CR/DR) whose theory and application you are helping your students learn		<i>n</i>	Mean	SD	Statistical Significance
	Program Director	164	3.4	1.03	PD < FT & PT, (<i>P</i> < .001)
	Full-time Faculty (Did not indicate if PD)	87	3.7	1.04	
	Full-time Faculty (Not PD)	86	4.0	.91	
	Part-time Faculty	60	4.5	.75	
Total	397	3.8	1.03		
Knowledge and command of teaching techniques		<i>n</i>	Mean	SD	Statistical Significance
	Program Director	164	4.4	.80	PD & FT (?) > FT & PT, (<i>P</i> = .008, = .004)
	Full-time Faculty (Did not indicate if PD)	87	4.5	.71	
	Full-time Faculty (Not PD)	86	4.1	.92	
	Part-time Faculty	60	4.3	.78	
Total	397	4.3	.82		
Ability to use current multimedia techniques (e.g., Web-based supplementary and review materials; audio and video clips in PowerPoint presentations) effectively		<i>n</i>	Mean	SD	Statistical Significance
	Program Director	164	4.2	.89	None
	Full-time Faculty (Did not indicate if PD)	87	4.2	1.00	
	Full-time Faculty (Not PD)	86	3.9	1.06	
	Part-time Faculty	60	4.0	.90	
Total	397	4.1	.96		
Ability to tailor curriculum, materials and mode of presentation to the needs of all the students taking a given course in a given semester		<i>n</i>	Mean	SD	Statistical Significance
	Program Director	164	4.3	.86	PD & FT (?) > FT, (<i>P</i> = .006, = .01)
	Full-time Faculty (Did not indicate if PD)	87	4.4	.76	
	Full-time Faculty (Not PD)	86	3.9	.94	
	Part-time Faculty	60	4.1	.87	
Total	397	4.2	.87		
Ability to tailor curriculum, materials, and mode of presentation to the needs of individual students within a class		<i>n</i>	Mean	SD	Statistical Significance
	Program Director	164	4.2	.91	None
	Full-time Faculty (Did not indicate if PD)	87	4.2	.80	
	Full-time Faculty (Not PD)	86	4.0	.91	
	Part-time Faculty	60	3.9	.88	
Total	397	4.1	.89		

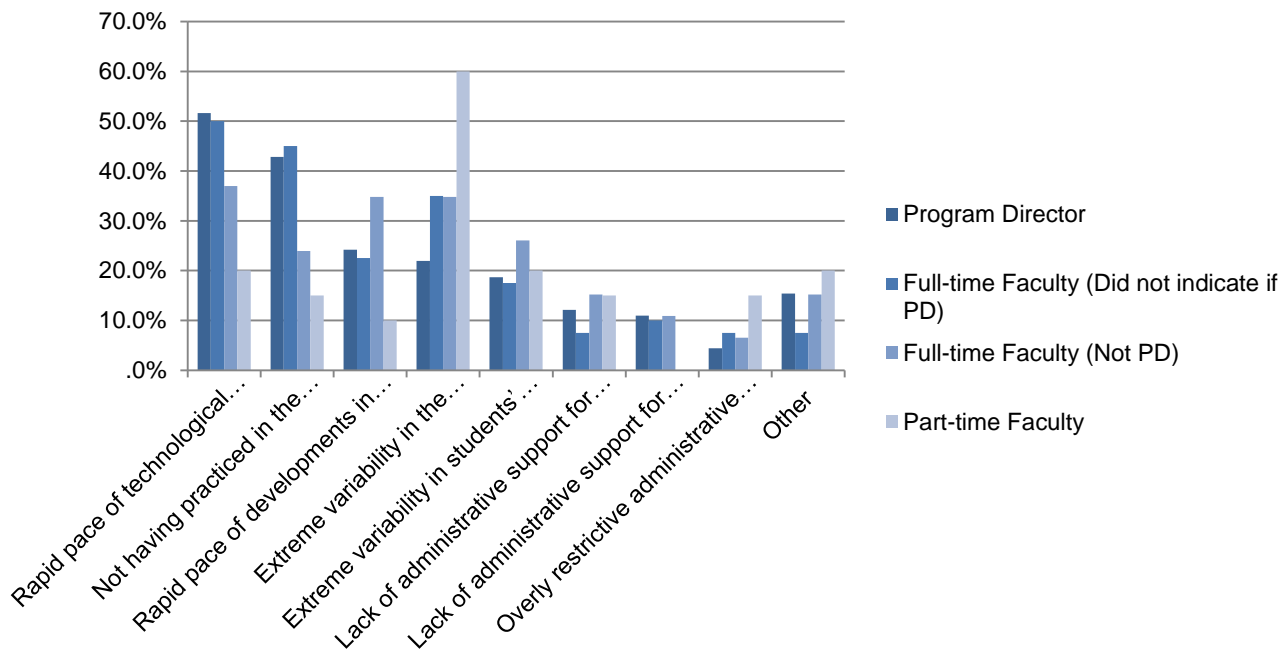
How comfortable are you with each of the following aspects of your role as a facilitator of student learning? (1 = Very Uncomfortable...5 = Very Comfortable)



Consider the aspects of your role to which you gave a comfort rating of “1” or “2.” What do you believe contributes to your lack of comfort with these aspects?

		Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
Rapid pace of technological developments in the modalities you teach	n	47	20	17	4
	%	51.6%	50.0%	37.0%	20.0%
Not having practiced in the modalities you teach for too long	n	39	18	11	3
	%	42.9%	45.0%	23.9%	15.0%
Rapid pace of developments in educational technology (e.g., audio and visual clips in presentations)	n	22	9	16	2
	%	24.2%	22.5%	34.8%	10.0%
Extreme variability in the backgrounds and capabilities of students	n	20	14	16	12
	%	22.0%	35.0%	34.8%	60.0%
Extreme variability in students' preferences for particular media and styles of learning	n	17	7	12	4
	%	18.7%	17.5%	26.1%	20.0%
Lack of administrative support for professional development in educational technology	n	11	3	7	3
	%	12.1%	7.5%	15.2%	15.0%
Lack of administrative support for professional development in your modality(ies)	n	10	4	5	0
	%	11.0%	10.0%	10.9%	.0%
Overly restrictive administrative specifications as to curriculum of presentation	n	4	3	3	3
	%	4.4%	7.5%	6.5%	15.0%
Other	n	14	3	7	4
	%	15.4%	7.5%	15.2%	20.0%
Total	n	91	40	46	20

Consider the aspects of your role to which you gave a comfort rating of “1” or “2.” What do you believe contributes to your lack of comfort with these aspects?

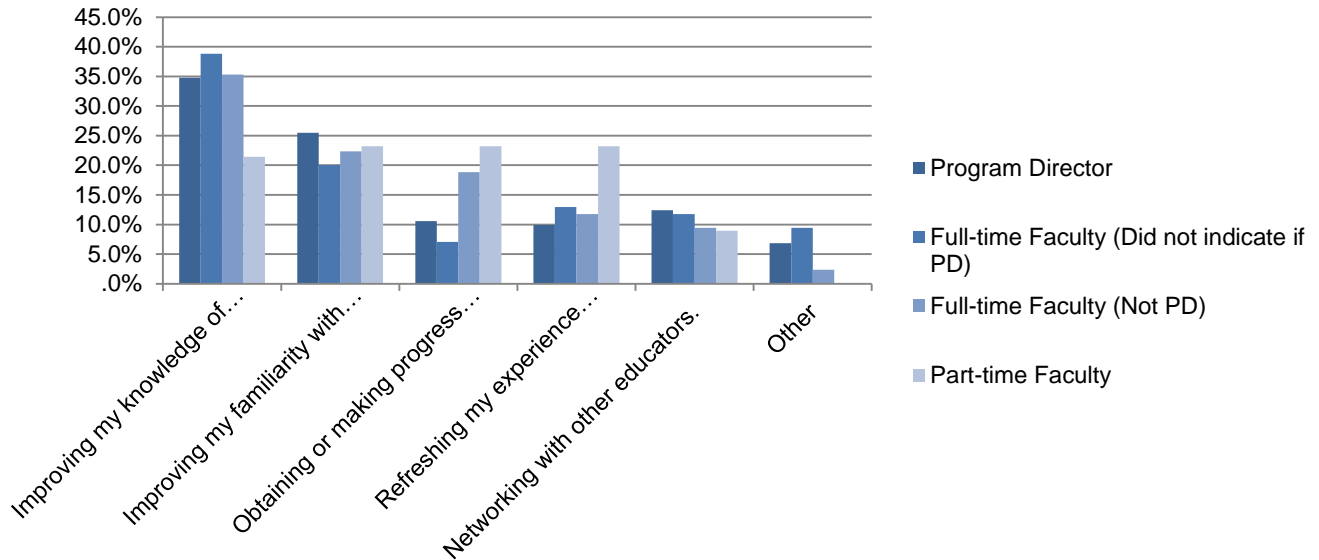


What is your number one priority for personal improvement as an educator this year?

		Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty	Total
Improving my knowledge of and experience with technological developments in the modality(ies) I teach	n	56	33	30	12	131
	%	34.8%	38.8%	35.3%	21.4%	33.9%
Improving my familiarity with and skill in using educational technology	n	41	17	19	13	90
	%	25.5%	20.0%	22.4%	23.2%	23.3%
Obtaining or making progress toward achieving a higher academic degree	n	17	6	16	13	52
	%	10.6%	7.1%	18.8%	23.2%	13.4%
Refreshing my experience with the procedures I teach	n	16	11	10	13	50
	%	9.9%	12.9%	11.8%	23.2%	12.9%
Networking with other educators	n	20	10	8	5	43
	%	12.4%	11.8%	9.4%	8.9%	11.1%
Other	n	11	8	2	0	21
	%	6.8%	9.4%	2.4%	.0%	5.4%
Total	n	161	85	85	56	387
	%	100.0%	100.0%	100.0%	100.0%	100.0%

The percentage differences were statistically significant, $\chi^2(15, n = 387) = 27.5, P = .02$.

What is your number one priority for personal improvement as an educator this year?

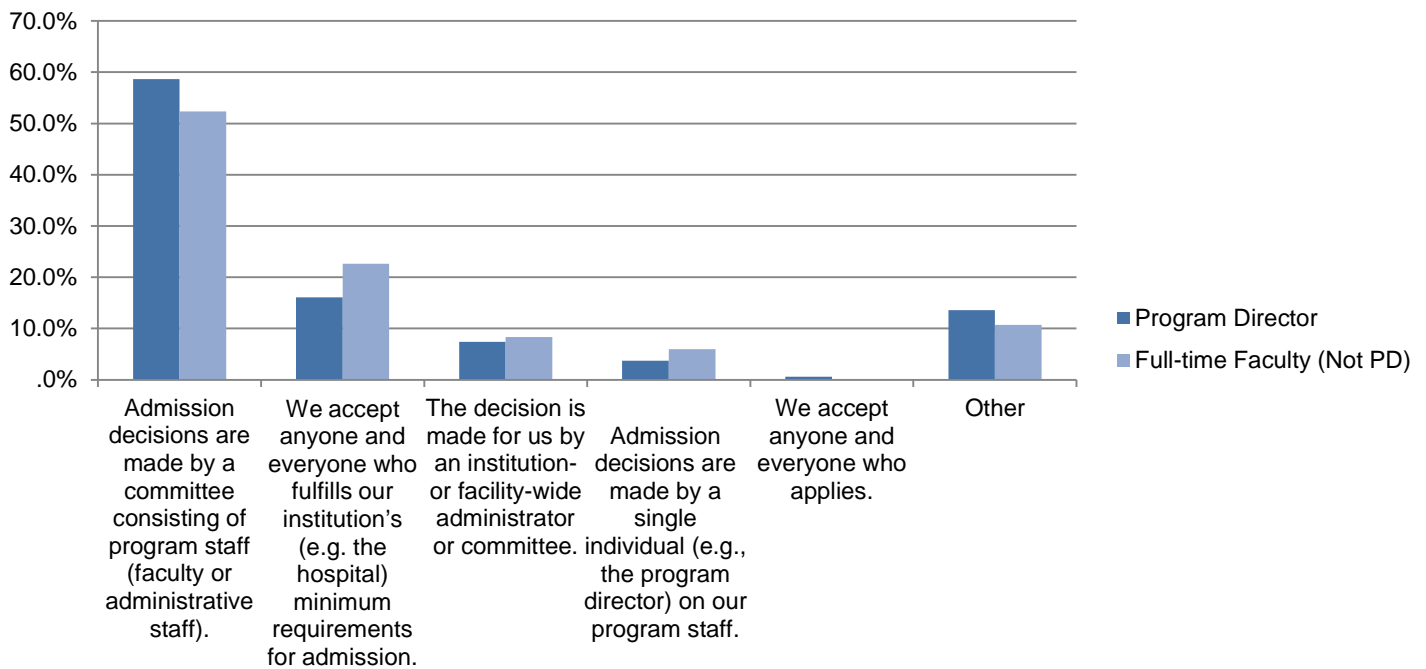


How do you select your students for your program?

		Program Director	Full-time Faculty (Not PD)	Total
Admission decisions are made by a committee consisting of program staff (faculty or administrative staff).	<i>n</i>	95	44	139
	%	58.6%	52.4%	56.5%
We accept anyone and everyone who fulfills our institution's (e.g. the hospital) minimum requirements for admission.	<i>n</i>	26	19	45
	%	16.0%	22.6%	18.3%
The decision is made for us by an institution- or facility-wide administrator or committee.	<i>n</i>	12	7	19
	%	7.4%	8.3%	7.7%
Admission decisions are made by a single individual (e.g., the program director) on our program staff.	<i>n</i>	6	5	11
	%	3.7%	6.0%	4.5%
We accept anyone and everyone who applies.	<i>n</i>	1	0	1
	%	.6%	.0%	.4%
Other	<i>n</i>	22	9	31
	%	13.6%	10.7%	12.6%
Total	<i>n</i>	162	84	246
	%	100.0%	100.0%	100.0%

The percentage differences were not statistically significant.

How do you select your students for your program?

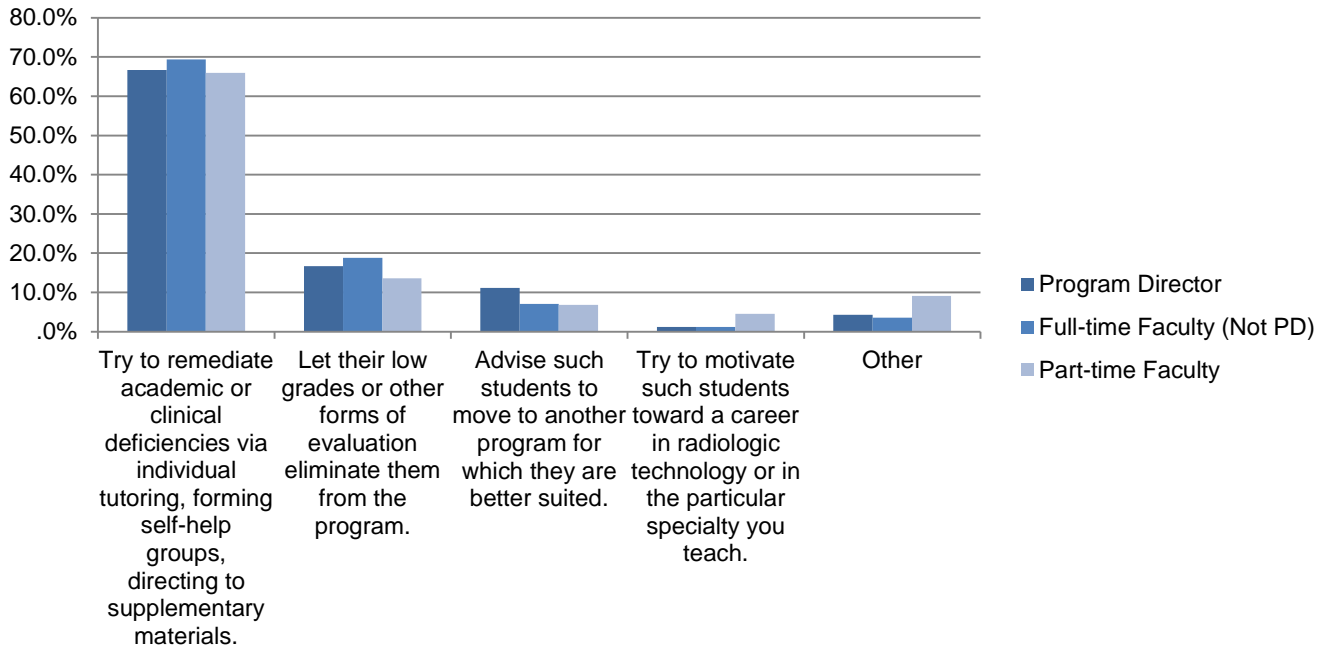


What do you do about students who after admission don't appear to be suited (in terms of ability or interest) for your program?

		Program Director	Full-time Faculty (Not PD)	Part-time Faculty	Total
Try to remediate academic or clinical deficiencies via individual tutoring, forming self-help groups, directing to supplementary materials.	n	108	59	29	196
	%	66.7%	69.4%	65.9%	67.4%
Let their low grades or other forms of evaluation eliminate them from the program.	n	27	16	6	49
	%	16.7%	18.8%	13.6%	16.8%
Advise such students to move to another program for which they are better suited.	n	18	6	3	27
	%	11.1%	7.1%	6.8%	9.3%
Try to motivate such students toward a career in radiologic technology or in the particular specialty you teach.	n	2	1	2	5
	%	1.2%	1.2%	4.5%	1.7%
Other	n	7	3	4	14
	%	4.3%	3.5%	9.1%	4.8%
Total	n	162	85	44	291
	%	100.0%	100.0%	100.0%	100.0%

The percentage differences were not statistically significant.

What do you do about students who after admission don't appear to be suited (in terms of ability or interest) for your program?

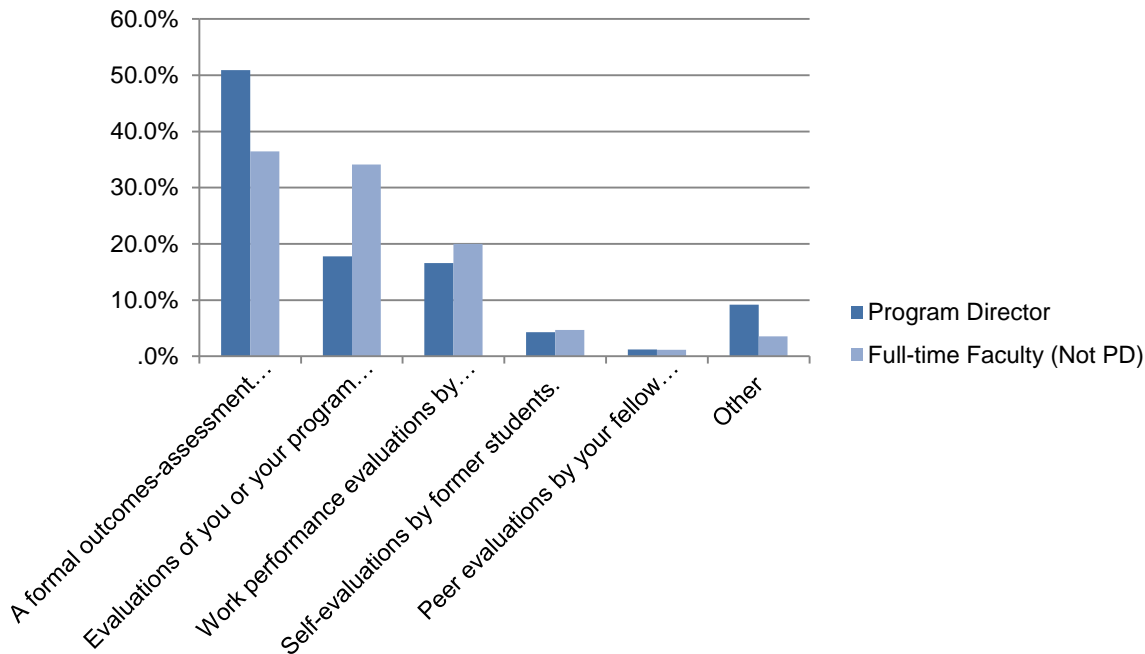


Other than looking at your students' ARRT registry exam results and looking at how your program graduates performed compared to other programs in the ARRT annual report of examinations, what methods or techniques do you use to evaluate the academic effectiveness of your program or the particular courses you teach?

		Program Director	Full-time Faculty (Not PD)	Total
A formal outcomes-assessment program	<i>n</i>	83	31	114
	%	50.9%	36.5%	46.0%
Evaluations of you or your program by former students	<i>n</i>	29	29	58
	%	17.8%	34.1%	23.4%
Work performance evaluations by former students' supervisors	<i>n</i>	27	17	44
	%	16.6%	20.0%	17.7%
Self-evaluations by former students	<i>n</i>	7	4	11
	%	4.3%	4.7%	4.4%
Peer evaluations by your fellow faculty members	<i>n</i>	2	1	3
	%	1.2%	1.2%	1.2%
Other	<i>n</i>	15	3	18
	%	9.2%	3.5%	7.3%
Total	<i>n</i>	163	85	248
	%	100.0%	100.0%	100.0%

The percentage differences were statistically significant, $\chi^2(15, n = 248) = 11.8, P = .04$.

Other than looking at your students' ARRT registry exam results and looking at how your program graduates performed compared to other programs in the ARRT annual report of examinations, what methods or techniques do you use to evaluate the academic effect

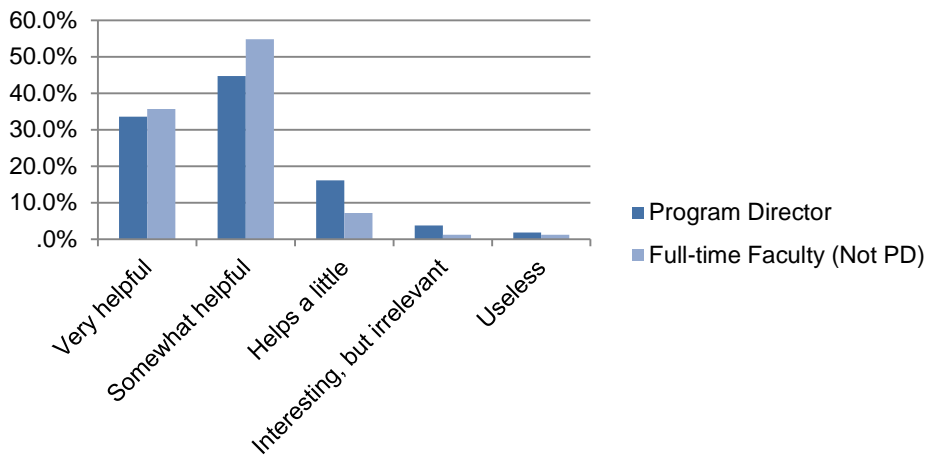


How helpful to you is outcomes assessment in improving your teaching methods and outcomes?

		Program Director	Full-time Faculty (Not PD)	Total
Very helpful	<i>n</i>	54	30	84
	%	33.5%	35.7%	34.3%
Somewhat helpful	<i>n</i>	72	46	118
	%	44.7%	54.8%	48.2%
Helps a little	<i>n</i>	26	6	32
	%	16.1%	7.1%	13.1%
Interesting, but irrelevant	<i>n</i>	6	1	7
	%	3.7%	1.2%	2.9%
Useless	<i>n</i>	3	1	4
	%	1.9%	1.2%	1.6%
Total	<i>n</i>	161	84	245
	%	100.0%	100.0%	100.0%

The percentage differences were not statistically significant.

How helpful to you is outcomes assessment in improving your teaching methods and outcomes?

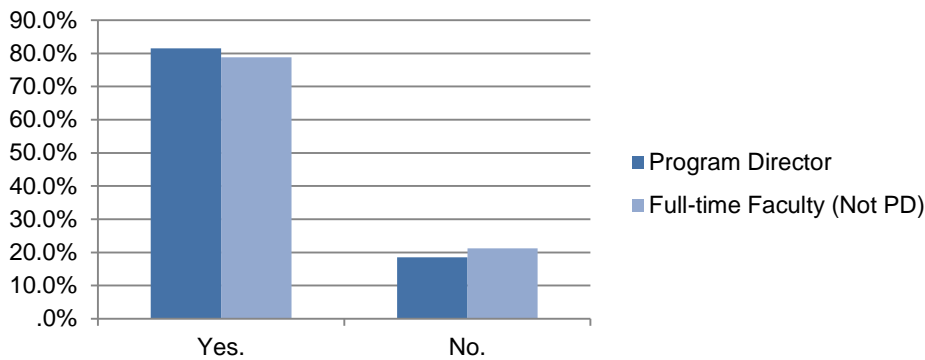


Do you use qualitative data (e.g., students' responses to open-ended questions or transcriptions of comments during assessment "focus groups") as a part of your procedures for evaluating the effectiveness of your program and courses?

		Program Director	Full-time Faculty (Not PD)	Total
Yes.	<i>n</i>	132	67	199
	%	81.5%	78.8%	80.6%
No.	<i>n</i>	30	18	48
	%	18.5%	21.2%	19.4%
Total	<i>n</i>	162	85	247
	%	100.0%	100.0%	100.0%

The percentage differences were not statistically significant.

Do you use qualitative data (e.g., students' responses to open-ended questions or transcriptions of comments during assessment "focus groups") as a part of your procedures for evaluating the effectiveness of your program and courses?

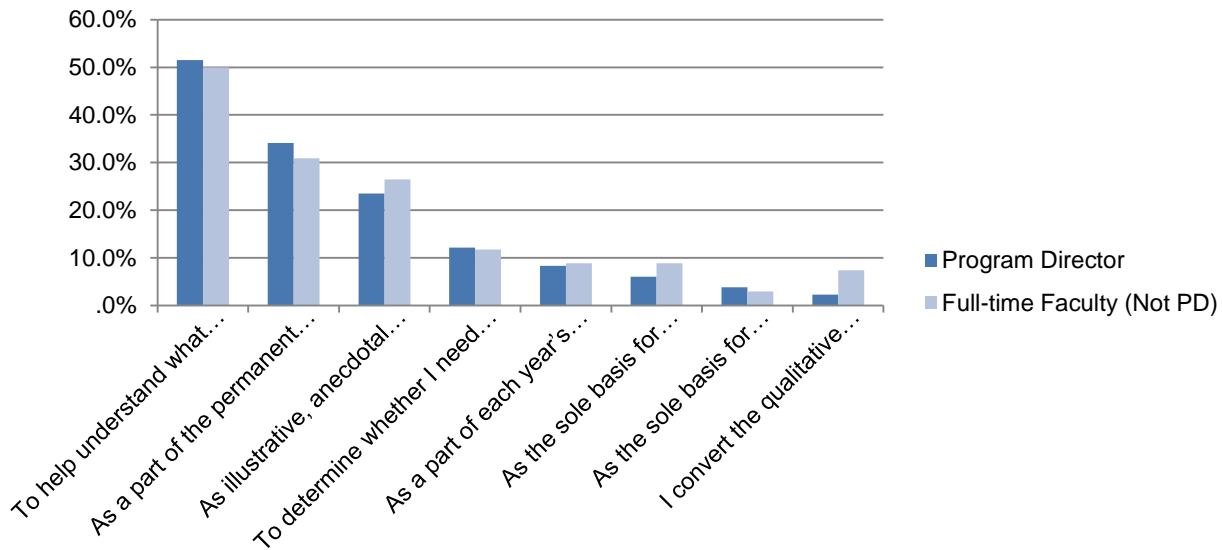


If you use qualitative data, in which of the following ways do you use it?

		Program Director	Full-time Faculty (Not PD)
To help understand what underlies the quantitative data	<i>n</i>	68	34
	%	51.5%	50.0%
As a part of the permanent record that is tracked from year to year	<i>n</i>	45	21
	%	34.1%	30.9%
As illustrative, anecdotal material in assessment reports	<i>n</i>	31	18
	%	23.5%	26.5%
To determine whether I need to expand the set of response alternatives in subsequent versions	<i>n</i>	16	8
	%	12.1%	11.8%
As a part of each year's report, but not in comparing assessments from year to year	<i>n</i>	11	6
	%	8.3%	8.8%
As the sole basis for evaluating my program	<i>n</i>	9	4
	%	6.8%	5.9%
As the sole basis for evaluating the courses I teach	<i>n</i>	8	6
	%	6.1%	8.8%
I convert the qualitative responses to quantitative summaries such as frequency tables	<i>n</i>	5	2
	%	3.8%	2.9%
Other	<i>n</i>	3	5
	%	2.3%	7.4%
Total	<i>n</i>	132	68

The percentage differences were not statistically significant.

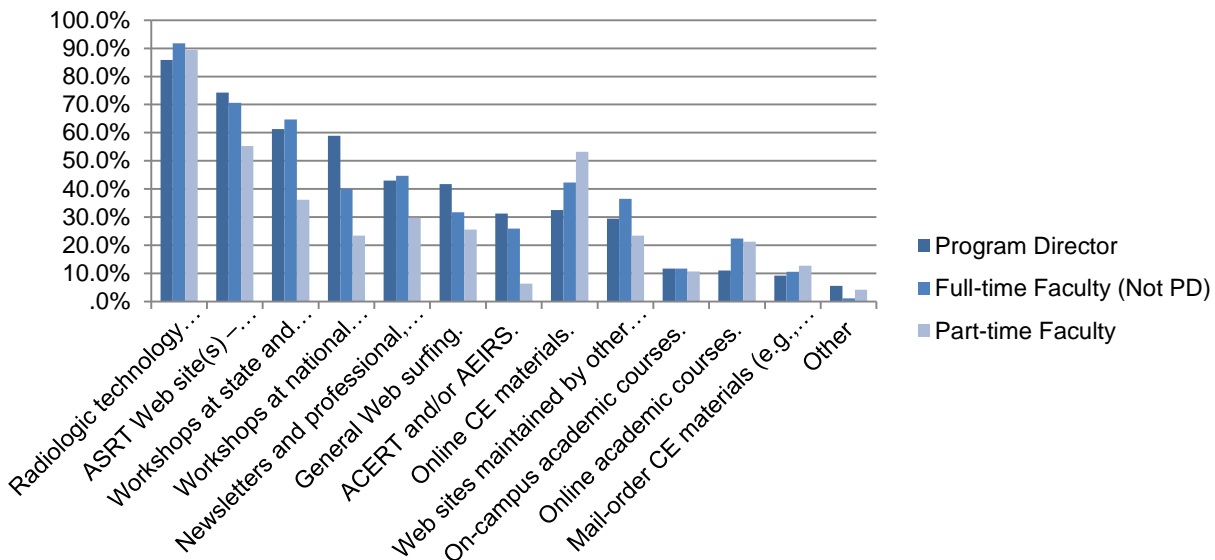
If you use qualitative data, in which of the following ways do you use it?



What resources do you rely on to find out what the innovators in medical imaging and radiation therapy education are up to?

		Program Director	Full-time Faculty (Not PD)	Part-time Faculty
Radiologic technology newsletters and professional, archival journals	n	140	78	42
	%	85.9%	91.8%	89.4%
ASRT Web site(s) – www.asrt.org and/or www.radsciresearch.org	n	121	60	26
	%	74.2%	70.6%	55.3%
Workshops at state and regional conferences	n	100	55	17
	%	61.3%	64.7%	36.2%
Workshops at national conferences	n	96	34	11
	%	58.9%	40.0%	23.4%
Newsletters and professional, archival journals published by physician societies	n	70	38	14
	%	42.9%	44.7%	29.8%
General Web surfing	n	68	27	12
	%	41.7%	31.8%	25.5%
ACERT and/or AEIRS	n	51	22	3
	%	31.3%	25.9%	6.4%
Online CE materials	n	53	36	25
	%	32.5%	42.4%	53.2%
Web sites maintained by other radiologic technology organizations (e.g., SNM, SDMS)	n	48	31	11
	%	29.4%	36.5%	23.4%
On-campus academic courses	n	19	10	5
	%	11.7%	11.8%	10.6%
Online academic courses	n	18	19	10
	%	11.0%	22.4%	21.3%
Mail-order CE materials (e.g., written homestudies, CD-ROM offerings)	n	15	9	6
	%	9.2%	10.6%	12.8%
Other	n	9	1	2
	%	5.5%	1.2%	4.3%
Total		163	85	47

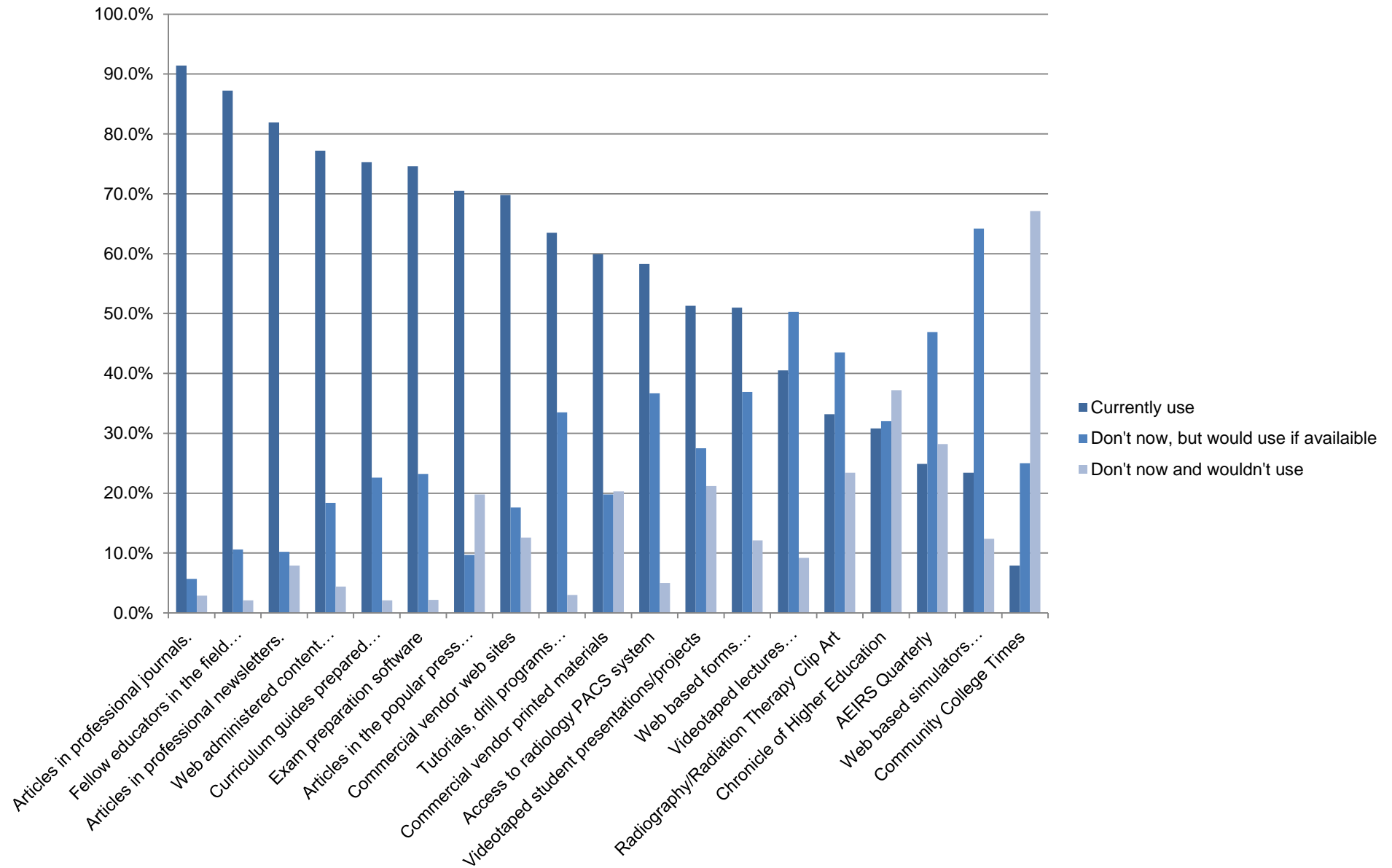
What resources do you rely on to find out what the innovators in medical imaging and radiation therapy education are up to?



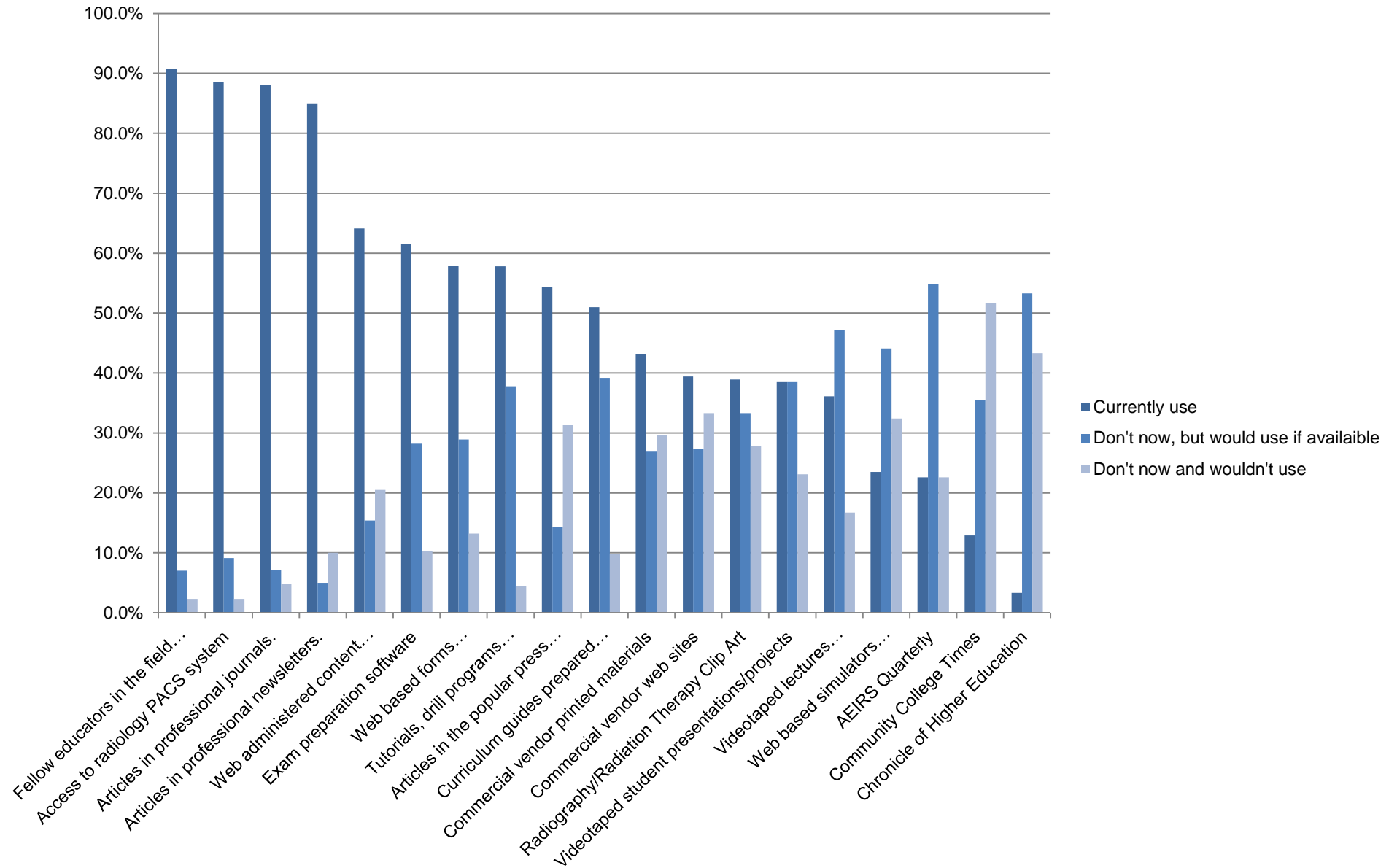
Please indicate which of the following resources you use in your teaching efforts. Further, for each resource you do not currently employ, please indicate whether you would use that resource if it were readily available and cost were not a barrier.

	Full-time Faculty				Part-time Faculty			
	<i>n</i>	Currently Use	Don't Now, but Would Use if Available	Don't Now and Wouldn't Use	<i>n</i>	Currently Use	Don't Now, but Would Use if Available	Don't Now and Wouldn't Use
Curriculum guides prepared by a national or regional professional society(ies)	283	75.3%	22.6%	2.1%	51	51.0%	39.2%	9.8%
Tutorials, drill programs, and other instructional materials students can access on the Web	233	63.5%	33.5%	3.0%	45	57.8%	37.8%	4.4%
Articles in professional journals	245	91.4%	5.7%	2.9%	42	88.1%	7.1%	4.8%
Articles in professional newsletters	215	81.9%	10.2%	7.9%	40	85.0%	5.0%	10.0%
Articles in the popular press (including newsmagazines)	207	70.5%	9.7%	19.8%	35	54.3%	14.3%	31.4%
<i>AEIRS Quarterly</i>	177	24.9%	46.9%	28.2%	31	22.6%	54.8%	22.6%
<i>Chronicle of Higher Education</i>	172	30.8%	32.0%	37.2%	30	3.3%	53.3%	43.3%
<i>Community College Times</i>	152	7.9%	25.0%	67.1%	31	12.9%	35.5%	51.6%
Radiography/Radiation Therapy Clip Art	184	33.2%	43.5%	23.4%	36	38.9%	33.3%	27.8%
Commercial vendor printed materials	192	59.9%	19.8%	20.3%	37	43.2%	27.0%	29.7%
Commercial vendor web sites	199	69.8%	17.6%	12.6%	33	39.4%	27.3%	33.3%
Videotaped student presentations/projects	189	51.3%	27.5%	21.2%	39	38.5%	38.5%	23.1%
Videotaped lectures of content experts or guest lecturers	195	40.5%	50.3%	9.2%	36	36.1%	47.2%	16.7%
Exam preparation software	228	74.6%	23.2%	2.2%	39	61.5%	28.2%	10.3%
Web administered content management service (Blackboard, Web CT)	228	77.2%	18.4%	4.4%	39	64.1%	15.4%	20.5%
Fellow educators in the field for guidance and reflection	235	87.2%	10.6%	2.1%	43	90.7%	7.0%	2.3%
Access to radiology PACS system	218	58.3%	36.7%	5.0%	44	88.6%	9.1%	2.3%
Web based forms for receipt of student data	206	51.0%	36.9%	12.1%	38	57.9%	28.9%	13.2%
Web based simulators (EKG, breath sounds ...)	201	23.4%	64.2%	12.4%	34	23.5%	44.1%	32.4%

Please indicate which of the following resources you use in your teaching efforts. Further, for each resource you do not currently employ, please indicate whether you would use that resource if it were readily available and cost were not a barrier. (Full



Please indicate which of the following resources you use in your teaching efforts. Further, for each resource you do not currently employ, please indicate whether you would use that resource if it were readily available and cost were not a barrier. (Part

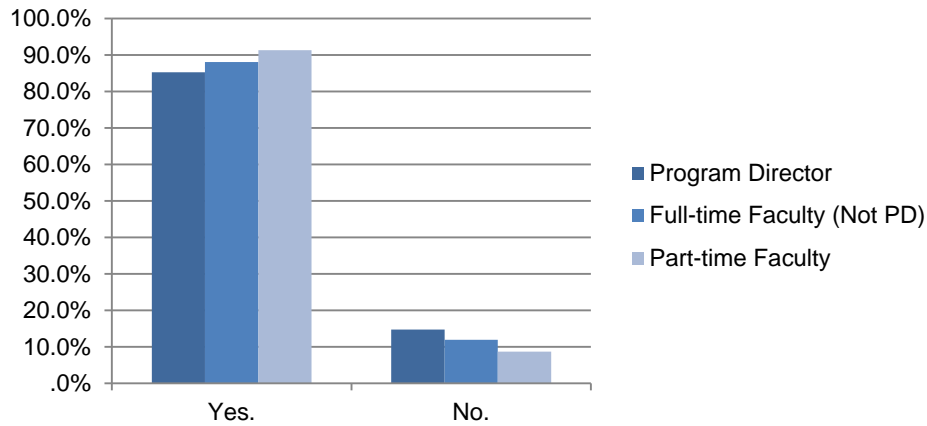


Do you believe that the current five-year cycle of revision for educational curricula is the appropriate time frame?

		Program Director	Full-time Faculty (Not PD)	Part-time Faculty	Total
Yes.	<i>n</i>	139	74	42	255
	%	85.3%	88.1%	91.3%	87.0%
No.	<i>n</i>	24	10	4	38
	%	14.7%	11.9%	8.7%	13.0%
Total	<i>n</i>	163	84	46	293
	%	100.0%	100.0%	100.0%	100.0%

The percentage differences were not statistically significant.

Do you believe that the current five-year cycle of revision for educational curricula is the appropriate time frame?



In your opinion, what courses in your curriculum could be provided to students using distance learning without jeopardizing the integrity of your program?

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
1. anatomy; pathology; physics	A great majority of them. Currently all of our course work in our MRI program is on line except the clinical which is considered a hybrid.	Advanced Imaging Modalities. Digital Imaging. Quality Management	A virtual learning tutorial for positioning would aid in educational development. This could be something that the students have with them as long as they have access to the web.
1. Physics 2. Image Analysis	All courses. The clinical training must be supervised by a Clinical Coordinator at least twice a month.	all classes except for labs	All students at the beginning of their radiology career need hands on for most of their learning.
1. Cross sectional anatomy 2. Possibly clinical oncology	All didactics courses online except positioning, physics and clinical training	All courses are currently online for both local and distance students using Blackboard and Blackboard Collaborate., All courses are currently online for both local and distance students using Blackboard and Blackboard Collaborate.	Anatomy and Physics
1) Medical Terminology 2) Radiation Protection	All except the procedures and clinical aspect could be distance learning	All courses are delivered via distance learning.	anatomy, it is more memorization than understanding a theory such as physics.
A&P resources that give more in depth x-ray imaging detail, machine simulation, practice scenarios that allow interactive "play" for patient simulation	All of our 2nd year courses are in a hybrid/online environment with successful completion of the boards.	Alternative modality (CT, MR, NM, US) courses and cross sectional anatomy.	Both the courses I teach could be done on-line.
absolutely none. All courses are embedded into the work of a therapist. I would like to see a lab for each course to ensure proper transfer of knowledge obtained in the classroom to appropriate clinical situations. Scenarios are an important component of radiation therapy education. In my opinion, this is lost with distance learning.	All of them.	Anatomy, medical terminology, cross-sectional anatomy(most of our courses require some hands-on practical learning necessitating being present on campus)	Courses that are directly related to the rad tech major should only be taught in the classroom. Other courses may be taught using distance learning.
Absolutely none. Every course is directly linked to the practice standards for radiation therapy. There should be a lab for every course. I would also like to see a practical exam administered with the ARRT written exam. Scenarios are very important to understanding how to critically think in radiation therapy.	any non-NM didactic curriculum -e.g. anatomy and physiology. Maybe patient care topics, research courses, administration course. Any course that may include some lab experiences should not be fully DL - perhaps a hybrid style could be considered.	Biology and Protection, Physics (Equipment), Medical Term,	CT intro class
Advanced imaging modalities	cross sectional anatomy -- CT physics-- MRI Physics-- radiographic physics-- almost anything except patient contact items	Blended (flipped classroom): Image Analysis, Radiographic Pathology & Online: Introduction to CT, Radiography Registry Review	Distance learning is great for areas of general understanding so I do not feel this is suited for the RT associates program, however, any supported material to help reinforce what is already covered is wonderful!

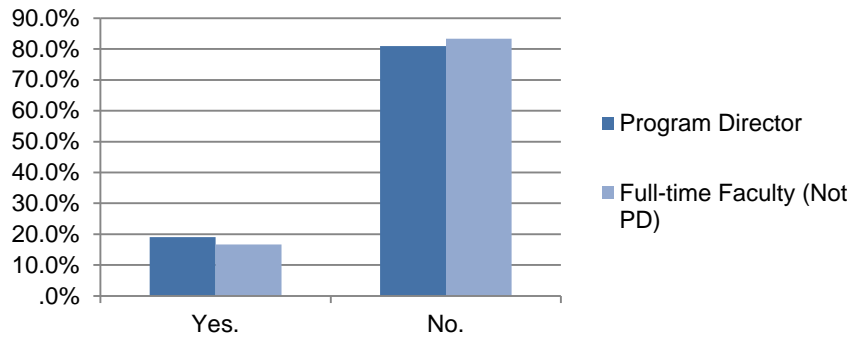
(NOTE: See page 89 for the full list of verbatim responses)

Is performing research for publication an expectation of your current position?

		Program Director	Full-time Faculty (Not PD)	Total
Yes	<i>n</i>	31	14	45
	%	19.0%	16.7%	18.2%
No	<i>n</i>	132	70	202
	%	81.0%	83.3%	81.8%
Total	<i>n</i>	163	84	247
	%	100.0%	100.0%	100.0%

The percentage differences were not statistically significant.

Is performing research for publication an expectation of your current position?

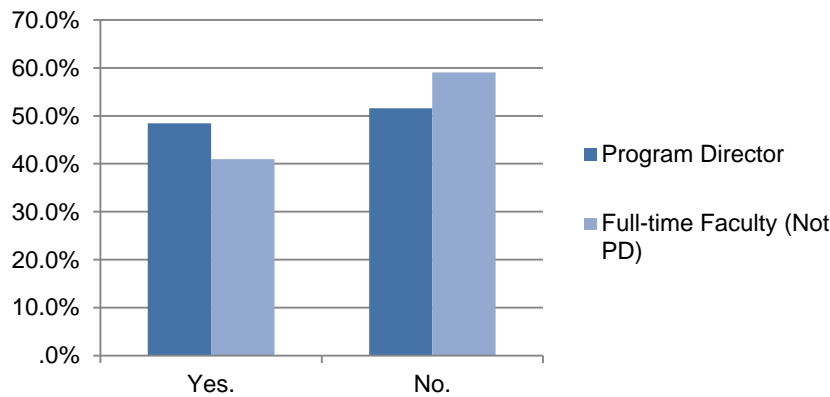


Are you interested in performing research in the radiologic sciences?

		Program Director	Full-time Faculty (Not PD)	Total
Yes	<i>n</i>	78	34	112
	%	48.4%	41.0%	45.9%
No	<i>n</i>	83	49	132
	%	51.6%	59.0%	54.1%
Total	<i>n</i>	161	83	244
	%	100.0%	100.0%	100.0%

The percentage differences were not statistically significant.

Are you interested in performing research in the radiologic sciences?

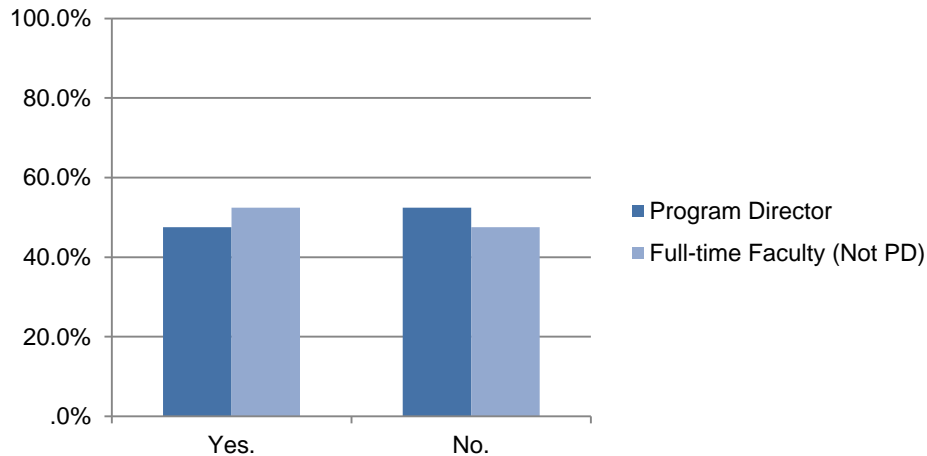


Are you interested in being able to access information on how to conduct a research project?

		Program Director	Full-time Faculty (Not PD)	Total
Yes	<i>n</i>	77	43	120
	%	47.5%	52.4%	49.2%
No	<i>n</i>	85	39	124
	%	52.5%	47.6%	50.8%
Total	<i>n</i>	162	82	244
	%	100.0%	100.0%	100.0%

The percentage differences were not statistically significant.

Are you interested in being able to access information on how to conduct a research project?

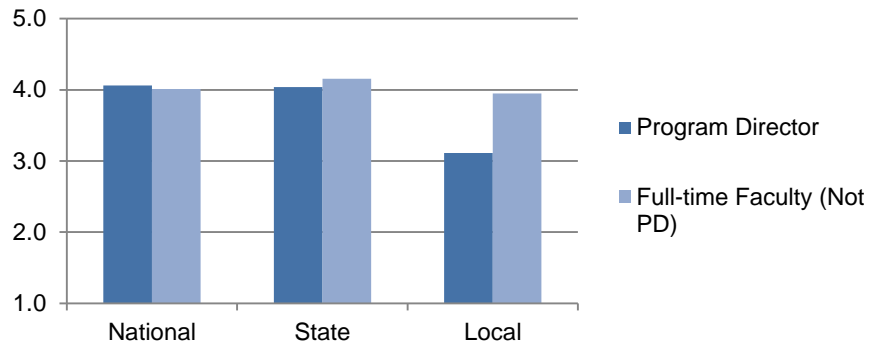


Identify the degree to which you promote student involvement/participation in organizations associated with the profession:

(1 = Not at all...5 = To a very high degree)

		<i>n</i>	Mean	<i>SD</i>	Statistical Significance
National	Program Director	160	4.1	1.1	None
	Full-time Faculty (Not PD)	80	4.0	1.1	
	Total	240	4.0	1.1	
		<i>n</i>	Mean	<i>SD</i>	Statistical Significance
State	Program Director	159	4.0	1.2	None
	Full-time Faculty (Not PD)	83	4.2	1.1	
	Total	242	4.1	1.2	
		<i>n</i>	Mean	<i>SD</i>	Statistical Significance
Local	Program Director	144	3.1	1.6	PD < FT, (<i>P</i> < .001)
	Full-time Faculty (Not PD)	80	4.0	1.3	
	Total	224	3.4	1.6	

Identify the degree to which you promote student involvement/participation in organizations associated with the profession:

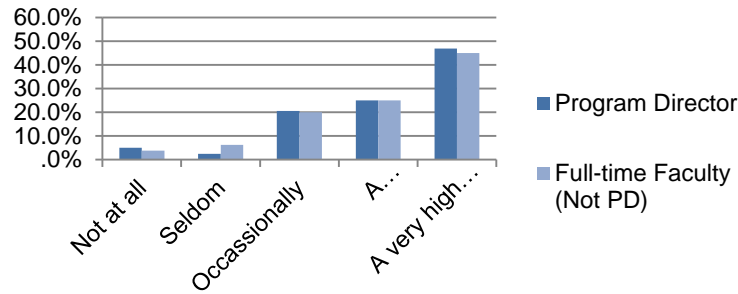


Identify the degree to which you promote student involvement/participation in organizations associated with the profession:

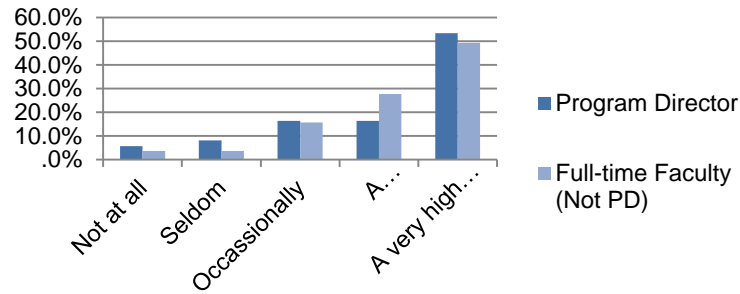
National					State					Local				
		Program Director	Full-time Faculty (Not PD)	Total			Program Director	Full-time Faculty (Not PD)	Total			Program Director	Full-time Faculty (Not PD)	Total
Not at all	%	5.0%	3.8%	4.6%	Not at all	%	5.7%	3.6%	5.0%	Not at all	%	31.9%	8.8%	23.7%
Seldom	%	2.5%	6.3%	3.8%	Seldom	%	8.2%	3.6%	6.6%	Seldom	%	3.5%	3.8%	3.6%
Occasionally	%	20.6%	20.0%	20.4%	Occasionally	%	16.4%	15.7%	16.1%	Occasionally	%	16.0%	20.0%	17.4%
A considerable degree	%	25.0%	25.0%	25.0%	A considerable degree	%	16.4%	27.7%	20.2%	A considerable degree	%	18.8%	18.8%	18.8%
A very high degree	%	46.9%	45.0%	46.3%	A very high degree	%	53.5%	49.4%	52.1%	A very high degree	%	29.9%	48.8%	36.6%
Total	<i>n</i>	160	80	240	Total	<i>n</i>	159	83	242	Total	<i>n</i>	144	80	224

The percentage differences were statistically significant for local, $\chi^2(4, n = 224) = 17.2, P = .002$.

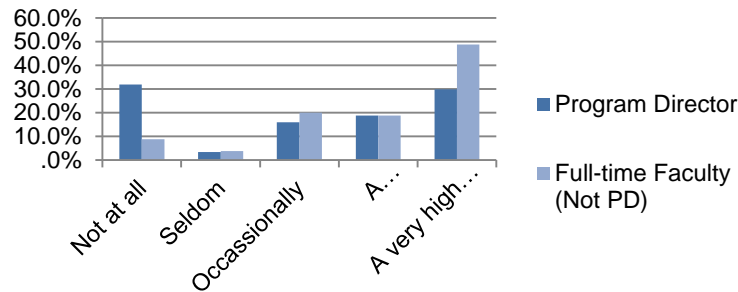
National



State



Local

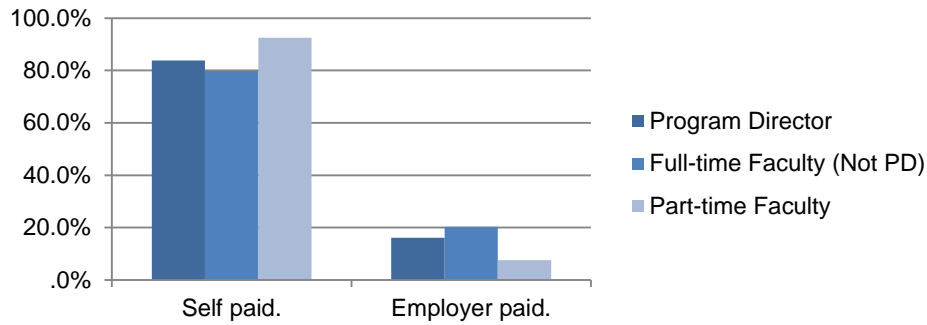


If you are a member of a professional organization, who pays the cost of membership?

		Program Director	Full-time Faculty (Not PD)	Part-time Faculty	Total
Self-paid	<i>n</i>	135	67	37	239
	%	83.9%	79.8%	92.5%	83.9%
Employer paid	<i>n</i>	26	17	3	46
	%	16.1%	20.2%	7.5%	16.1%
Total	<i>n</i>	161	84	40	285
	%	100.0%	100.0%	100.0%	100.0%

The percentage differences were not statistically significant.

If you are a member of a professional organization, who pays the cost of membership?



Summary and Conclusion

The demographics section of the Faculty Development Needs Assessment yielded data that supports an increase in women across program director and full- and part-time faculty positions. Caucasian women still dominate program director positions. Hispanic educators have made gains across all positions; while African-American's in program director and full-time educator positions exhibit a slight decline. In general, educators in this survey exhibit higher academic achievement than in the 2004 study. Within the past decade, half of all positions in education have been filled with new faculty. Of special note is the number of educators with over twenty or thirty years of experience in their current position. This once again emphasizes the importance of including education in discussions of future career planning with professionals in the field.

In the educational program details section, gains in bachelor's and associate degree programs were seen compared to 2004. One- and two-year certificate programs declined. Program admission decisions are typically made by a committee that includes program staff. The current average age of students is 25.4 years. Over the past three years programs report the age of program applicants primarily remaining constant, along with an almost equal number of programs indicating no change in number of applicants with college degrees or applicants considered career changers to the number of programs that saw increases in both categories in their applicant pool. The average number of enrolled students was slightly higher for radiography programs while slightly lower for radiation therapy, nuclear medicine and sonography programs. Overall, salaries for program directors and full-time and part-time faculty are higher than in 2004, and are greater than recent program graduates. Part-time faculty indicate that approximately half of their allotted full time equivalent is dedicated to their role as a part-time educator with this time being devoted almost equally between instructional activities and supervising students in the clinical setting. Approximately one-third of part-time faculty indicate that their role as a clinical educator contributes very little to no weight in their annual performance evaluation.

Analysis of the data in the faculty development section indicate that program directors and full-time faculty are generally comfortable to very comfortable in their role as a facilitator of student learning. The extreme variability in the background and capabilities of students, the rapid pace of technological development in modalities and not having practiced in the modalities faculty teach, are the three greatest contributors to faculty feeling uncomfortable to very uncomfortable in their role as a facilitator of student learning. Most educators plan on focusing their attention on improving knowledge with technical developments and improving familiarity with and skill in using educational technology as a means of professional development. Remediation, individual tutoring and directing students to supplementary materials are strategies used most often to help remediate students with academic clinical deficiencies. Program directors find program outcomes assessment somewhat to very helpful in improving teaching methods and student outcomes. Along with relying on fellow educators to aid teaching efforts, program directors and full- and part-time faculty rely on radiologic technology newsletters, professional journals, and Web sites to learn what innovators in the medical imaging and radiation therapy are up to. The general consensus among educators is that the current five-year cycle of revision for educational curricula is an appropriate time frame. Individual courses or areas of study cited as being potential online offerings without jeopardizing the integrity of a given program included ethics, patient care, medical terminology, radiation physics, radiobiology, radiation protection and cross-sectional anatomy. The majority of educators are members of a professional organization and personally pay the cost of their membership. Program directors and full-time faculty promote student involvement in professional

organizations to a considerable to very high degree, with involvement at the state level given the greatest attention.

As with the initial Faculty Development Needs Assessment conducted in 2004, a primary motivator for the current study was to use data for strategic planning purposes. Data gathered is of great value in helping to set priorities in support of present and future educators in the radiologic sciences, with the goal of deepening the relationship and interdependencies of the ASRT and the professional community.

Verbatim Responses

Please elaborate on your answer to the previous question. For example, on what particular technological developments, aspects of educational technology, academic degree, etc. will you focus? How will you go about developing this aspect of your professional repertoire?

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
1. While I know about (and do) the basics about on-line instruction, I would like to learn more about this educational avenue beyond these basics, toward a more professional and sophisticated level of instruction. The Community College of Denver has a Teaching and Learning Center that does provide classes on distance learning. What would be better would be a budget set aside for instructor training in courses outside of the in-house courses.	Although I feel like I have a good command of digital imaging knowledge, it seems there continues to be added information to the curriculum, while we are still required to cover older topics such as film and processing - there are not enough hours within the curriculum to cover it all sufficiently, and most colleges are asking us to cut units, not add more. I am using an online platform to enhance my face to face classroom, I could utilize more time in class, by assigning quizzes on line. The time it takes to develop these exams on line is very extensive, and there just are not enough hours in the day to do it all. My college sees program director or clinical coordinator as "additional duties" and therefore there is no release time as we have to carry a full time + overload assignment, while still completing our responsibilities as PD or CC.	Adding more MRI and learning more about it	Actively looking to increase my knowledge in the field I teach by working on my bachelor's degree of science in radiologic sciences. I feel this will not only refresh and enforce what I already know but also update my understanding.
ACADEMIC DEGREE NOT TOO PROBABLE BUT ALL OTHER AREAS I USUALLY WORK IN ALL OF THOSE AREAS TO IMPROVE	As a physics instructor, the equipment topics for CR and DR are a challenge for me. The best way to gain practical experience is to go to the clinical sites and work hands on with the equipment. But, I know that I'll only go if time allows. The administrative tasks of the college are required and very time consuming.	Advanced imaging methods and image critique, more comprehensive knowledge of advanced treatment delivery methods	Although I am a clinical instructor in general radiography, I think it's important that I can get up to date on advances in other modalities as well as the one with which I am involved.
acquire more information from texts and vendors. it is not the working knowledge lacking, but lack of teaching materials that agree with each other	As I am approaching retirement, I will challenge myself by active involvement in NYSSRS and ASRT grass roots policy endeavors	Always trying to learn a new refreshing way to teach what needs to be learned	As a supervisor for diagnostic imaging at the hospital I work at, I am not always doing direct patient care anymore. My priority is to get some time back on the floor refreshing and practicing what I am teaching. I have been setting apart designated times of the day or week where I am doing direct patient care and interacting with the students at our site.

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
Adding more videos, graphics, and simulations to presentations of curriculum; leveraging social media by creating a Facebook page/group for discussion of homework assignments, etc.; including web links to legitimate sites that can be used as additional study tools.	Attend meetings	Attending professional meetings/conferences	Attend Webinars and conferences or courses where possible to improve my abilities to use the e-technology to deliver the info and communicate with the students in clinical.
Additional reading in new teaching techniques. Possible return to school for a certificate in adult education	Attending CEU courses and looking at radiography books	By getting some hands on experience and networking with clinical technologists	Attending a digital seminar
As imaging and treatment technologies are introduced into the clinical setting, I am not able to insert myself into the training process.	Because I am not a working technologist, problems that may arise at the workplace, technical or otherwise, I cannot experience them	Completing the CAMRT Dosimetry 3 course as well as increasing my IMRT planning skills	Basically keep up with new transitions that happen in x-ray world, learn the new equipment that comes in the facilities so we can teach the students and also answer all their queries in a satisfactory way.
Attendance at Continuing education programs to remain up to date with changes in technology and teaching	Computed Radiology/ Digital Radiology	Continue to develop a better understanding of all of the technologies which I teach every day.	Business or healthcare management
Attending conferences, working with peers, looking at ways to not re-invent the wheel.	Continue to attend professional meetings and increase involvement in / service to Professional Societies	Continue to use technology to update courses within program.	DR is an area that I am least familiar with. Gain experience from technologists that do use it, read information
Attending meetings	continue to review positioning and technical skills. keep up with changing technology.	Currently working on a Doctorate Degree in Education, will be conducting research	Getting ready to start comps for CT.
ATTENDING SEMINARS AND KEEPING UP TO DATE WITH NEW DEVELOPMENTS	Continuing to improve my understanding of digital imaging, esp. related to various manufacturer's equipment and Exposure Indicators, etc.	D2L platform	Going back to school
Attending seminars for any new rad protection or info regarding CR/DR	creating skill sets to assist students and returning technologists	Doctoral Degree in Education.	I am currently enrolled in school for my MBA. This academic accomplishment will allow me to become a full time educator within my Rad program.
BlackBoard 9	department meeting with other teachers on specifics aspects	Finishing Master's degree	I am currently pursuing a master's degree in Adult Education and Training
Clinical visits to observe more procedures	Digital imaging; attending workshops	Health Science educators tend to be isolated on campus. Our curriculum, clinical experiences and educational goals are slightly different than most other degrees on campus. I feel networking with educators in other curriculum areas could help me to improve on some of my classroom/lecture practices.	I am hoping to transition into full time teaching.

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
comfort in using technology attend classes offered on campus	I am always searching for better approaches which utilize both textbook information and work experience. I make it a point to stress the importance of both.	I am interested in learning more about competency based learning as an alternative way to deliver our curriculum. I will continue my research and seek out others that have implemented similar programs.	I am interested to get better at adapting teaching techniques towards different personality and knowledge levels students so that they feel more enthusiastic and motivated to learn and improve.
CR/DR and PACS	I am in my final semesters of my Master's Degree in Adult and Continuing Education. I am on track to obtain the degree by the end of 2015.	I am always looking for new and innovative ways to present material to students to best meet their learning needs/preferences. I plan to attend a local conference involving other colleges in all modalities to gain from their experiences and successes. In my experience students choosing radiologic technology as their career field tend to be hands-on/visual learners that respond best to hands-on/visual teaching and so I am always looking for ideas to make lessons more interactive. I am also looking for ideas to teach concepts using discovery learning as this has been a successful teaching approach according to my assessments and student feedback.	I am learning how to become a clinical coordinator and sharing responsibilities with 2 other coordinators who are available to answer questions and guide me through the process during the semester if I have questions. I can also rely on my program director to support my growth within the teaching realm.
Currently working on a Ph.D. in Educational Studies.	I am involved in leadership in my local and state RT organizations	I am currently enrolled and taking courses to get my Master's of Education for Health Professionals. I am also attending a several seminar across the nation this year to see what other educators are doing.	I am personally working on video clips for positioning labs for routine exams to share with my freshman interns. Since they rotate, I spend a lot of time repeating the info. Once completed, I want to have a way to have each student watch, comment and sign off on "attendance" to this online training. Mainly I need to find a user friendly app that all students can access to view off hours.
Digital Imaging issues	I am learning new computer technology such as software programs to teach with. I also am learning more about digital radiography.	I am currently enrolled in classes to work toward a Master's degree in Education. All my undergraduate degrees are in radiologic sciences, but I need to learn better teaching strategies now.	I am still trying to get information about CR/DR that will be consistent with the guidelines and easily deciphered. I plan to attend educator's seminars and network to find out what other programs are doing to obtain this information.

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
Digital Radiography	I am planning to spend a few days in clinical during my spring break and summer break to catch up on some of the changes in clinical and surgery.	I am currently in an online course design course.	I am very new to the clinical instructor field. I am learning as much as I can with all of what is expected from me with this job. I know that I have so much to offer the students but I need to make sure that I am also learning everything from the LIT side also and doing what all needs to be done.
Experiment with new educational technology to see which one works the best for me and my students.	I attended the JRCERT Outcomes Assessment and Accreditation Seminar.	I am currently redesigning the computed tomography course and want to add content on the cutting edge of this modality and do some return to practice time to refresh clinical skill sets.	I currently am studying for MRI boards
Focusing my continuing education in the Image Guidance modalities so I better able to speak to and instruct about them.	I believe it would be beneficial to have a group of educators that I can learn and communicate with. I think we can all benefit from each other's experience.	I am currently researching doctoral programs in educational leadership to find a program that meets my professional needs.	I find it important to interact with other educators, to share instructional techniques and explore modes and methods of teaching by sharing our experiences.
Go to conferences, spend time in clinical	I don't feel that the use of technology is always the answer here but I'm always looking for ways to enhance, improve or redo what I am already doing to increase my students' understanding of the material.	I am going to shadow different radiology departments to increase my knowledge regarding what the technologists teach the students.	I have not worked with Digital equipment before. It is wonderful but need to find classes to feel more comfortable with equipment.
Goal is to spend more time in clinic.	I keep up with the new camera systems that we purchase, as well as any new developments in the research our NM department is involved.	I am in the dissertation phase of my PhD in Information Sciences and Learning Technology and am actively conducting 4 different research projects. I believe research is critical to the advancement of our field. It is necessary for understanding the usefulness and effectiveness of the available educational technology and for moving our profession toward evidence-based practice.	I need more education regarding DR. hope to have techs that have been trained show me and /or read information
Going to a conference specific to a topic that I want to improve my knowledge in.	I need to remember to ask other educators what they do. When I initially entered the field to teach I did not have good role models to follow so I was left to my own devices and have had a difficult time leaving that mindset behind.	I am in the process of achieving my master's degree in business through an online state university.	I plan to obtain my MBA master's degree. This will advance my career and allow me to be more qualified for director positions within the University.

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
<p>Have had antiquated equipment for some time now. In the process of installing a television and computer set up to use in the teaching environment. As opposed to drawing on a board, computer programs will be utilized for visual learning. These programs can be changed and updated as years go on and material changes.</p>	<p>I will focus on incorporating the smart board more in the classroom, using different activities to get the class involved. I also would like to learn how to learn how to record lessons at the recording studio to be able to develop an online class. In order to develop these skills, I will talk with my co-workers and other professionals about how they use educational technology in the classroom and we have already scheduled a day to go learn at the recording studio.</p>	<p>I am in the process of earning a Master's degree in Radiologic Science Education in order to eventually obtain a Program Director position.</p>	<p>I really need to spend some time in the clinical setting to refresh and not in my role as an instructor, but as a student.</p>
<p>Have time to better learn use of educational technologies</p>	<p>I will focus on MRI, so I can transfer my knowledge to the students.</p>	<p>I am in the process of updating all my material for all my courses. I am seeking information regarding new techniques to deliver the course information more effectively. I am attending seminars and other presentations regarding new technology for the classroom.</p>	<p>I visit multiple hospital sites with students and I would like to be more familiar with the various types of equipment, and learn more myself each week.</p>
<p>High frequency generators, developments in CT</p>	<p>I will spend more time on CR/DR...I would like to get a textbook for each section of the registry or an e-book which we could use in our classes that would cover all the information required by the ARRT. Sometimes it is difficult to find all of the topics listed in the ARRT handbook for the Registry. A lot of us older instructors can teach film and exposure factors with no problem, but have problems with things in CR/DR.</p>	<p>I am new to this position, so I need to become more comfortable with the material that I teach. I will do this by reviewing and re-evaluating my lectures each semester and trying to stay on top of any changes.</p>	<p>I will continue education</p>
<p>I'm going to learn more about the PACS system .</p>	<p>I will work toward completion of my PhD; I would also like to spend some time in the clinical setting to observe in MRI, CT, and surgery. These areas that I enjoy and that I like to use as teaching examples in the classroom.</p>	<p>I am taking courses towards earning a graduate degree.</p>	<p>I will focus on completing a graduate degree in leadership.</p>
<p>I am always looking at methods to update my teaching files and to improve my classes for the students. That means refreshing, relearning and constant updating.</p>	<p>I would like to be a better presenter when using PowerPoint and our 3D imaging technology that the school has.</p>	<p>I am very interested in technology. I received my MS in Instructional Technology and use what I learned in my degree in my courses. I teach quite a few online courses and am always looking for new interactive software to enhance the students' learning experience. There is always something new to learn.</p>	<p>I will focus on DR/CR technologies and the ability for the students to have a better command of what changes need to be made when images are suboptimal. While I am a practicing (for many, many years) and am comfortable with the technologies, I am not as comfortable with the "whys" behind the changes I make to techniques. I just know they work!</p>

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
<p>I am attending an educators conference in Florida and another conference in Maine</p>	<p>I would like to be able to take some time off my teaching duties to be able to volunteer in an imaging facility to gain more experience with Digital Imaging (CR and DR both)</p>	<p>I desire to pursue an Education Technology master's degree, but the tuition cost and time constraints of my position make this unlikely. I hope to find opportunities to gain familiarity with technology such as screen casting, voice thread and</p>	<p>I would like to improve my ability to adjust to the students' needs, personality variance, and knowledge level differences so that I can make them more enthusiastic regarding their learning.</p>
<p>I am comfortable in what I have been doing for the past 10 years, but the world has not stood still for all that time. Looking at new approaches for the material.</p>	<p>I would like to continue my education in several areas. I would like to obtain additional modality certifications which will help me better prepare my students to enter the field of radiology as it continues to evolve and become more technologically advanced. I would also like to continue my education in the field of distance learning. I am a distance learning students and I believe more and more students will seek this option when advancing within the career field and for base level radiology programs. Understanding how to best reach student and increasing their learning potential will ensure the field of radiology staff members remains strong in the future.</p>	<p>I feel that the new low dose x-ray technology is changing the rules of taking x-rays. I feel my experience as a tech is now 15 years old and I am not proficient in the newer technology.</p>	<p>I would like to incorporate different types of educational technology in order to effectively aid in students learning. I am interested in virtual learning. I find that there are many people who are virtual learners and if there were more tools for that aspect it would help students to learn.</p>
<p>I am getting ready for retirement... I need to mentor faculty on student centered education and move them away from "I am the supreme source do not question me" education</p>	<p>I would like to improve my understand of digital technology to better serve my students. Will also continue to improve my knowledge of Radiation physics and Biology to be able to increase student learning</p>	<p>I find that many of my younger colleagues are very familiar and comfortable with the use of social media as a teaching tool in the classroom, I would like to explore this option. There are so many learning styles and as a radiography educator we barely scratch the surface in exploring this. Most of us came from the hospital/clinical area into a college classroom because of our credentials, not because we had any real knowledge of pedagogy.</p>	<p>I would like to take a course on advanced power point production.</p>

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
<p>I am less worried about the delivery of what I teach, but more concerned about keeping up with the technological advancements of my profession. (Nuclear Medicine). Furthermore, in nuclear medicine, there continues to be more technology incorporated into our curriculum. As an example CT and now MRI. So on top of what we already teach the information continues to grow, put the hours to teach remain the same.</p>	<p>I would like to work with some of the equipment I have not used since the early 1990s.</p>	<p>I have not worked with a digital portable machine and as we just purchased one I want to be familiar with so I can explain it to the students.</p>	<p>I'd like to be able to use power point more accurately. Take a PowerPoint class.</p>
<p>I am paying out of pocket to go to educational seminars and purchase my own materials to learn more. I would like to learn more by practicing but work 80 to 90 hours per week and do not have time to work in the field.</p>	<p>Including staff at clinical sites to help integrate academic concepts with actual clinical practice.</p>	<p>I hope to attend several seminars to share and network with other educators</p>	<p>Improving my PowerPoint skills, learning applications beyond making a slide. In house education/self-paced learning modules.</p>
<p>I am really working to review and refresh my mastery of the basic sciences in physics and physiology. I have assumed some new course content and really want to provide more foundational information for BS students in Radiation Therapy, Sonography, and Radiography.</p>	<p>It is hard to keep up with the changes associated with setting techniques for CR and DR versus film. For the most part, my techniques seem to work just fine with the new technology, but I find it very frustrating that it is virtually impossible to change the way the image looks by varying the technique (like in the 'old days' when we could produce bone or soft tissue images by changing the technique). It's also very hard to create/demonstrate a lot of things like grid errors or overexposure because the computer corrects for these mistakes. Very frustrating.</p>	<p>I mainly teach positioning, and although protocols are different at each of our clinical sites, positioning does not change much. However, all our clinical sites have different equipment (sometimes different within the same site) and I have a difficult time keeping up with and/or identifying the subtle differences from brand to brand. It is even more frustrating when the technologists can't answer questions (and sometimes don't care). Sometimes even the "Senior Imaging Specialist" (aka sales person) is clueless.</p>	<p>learning more about different modalities.</p>
<p>I am so busy with administrative requirements and teaching curriculum that I cannot spend adequate time in the clinical rotations with my students to keep up. This is essential, since much of the information presented in books is outdated and does not mirror current practice. The students do not even view the educational process in the classroom as credible if I cannot spend time with them in the clinical environment.</p>	<p>It seems that the CR/DR technology is changing quicker than we can incorporate the information into the classroom. Online resources and reviewing new text books is essential.</p>	<p>I maintain a presence in the clinical setting so I can use the equipment along with the students. Actually, having a student "teach" me about a particular piece of equipment re-enforces their confidence in themselves.</p>	<p>Networking with other educators will help me learn a variety of methods of teaching as well as keep me abreast with "current affairs" of the education world.</p>

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
I am starting my Ed.D. in Organizational Leadership in March at Grand Canyon University.	Keeping up with progress, including CT. Network with other instructors and Moorpark college staff.	I need to learn more of the key turns used in digital imaging. I need to be able to answer their questions on how this works. I will do a lot of reading and questioning to reps and repair personnel in our area.	Obtaining my BS.
I am teaching an online class this semester. I am learning how to deliver content on an online only manner.	Keeping with the ARRT exam as it pertains to digital imaging	I need to reconnect with the clinical environment, specifically specialty areas to stay current with clinical advances.	Pedagogical underpinning and "HOW" we assess
I am teaching radiography physics now. With the addition of digital technologies I am having to really scramble to get up to the level I need to be at for my students.	making a flipped classroom so I can have more time for depth	I need to take a class in education technology.	Plan on attending Instructor seminar, furthering my knowledge in CT and cross sectional anatomy.
I am using an online platform to enhance my face to face classroom, I could utilize more time in class, by assigning quizzes on line. The time it takes to develop these exams is very extensive, and there just are not enough hours in the day to do it all. Although I feel like I have a good command of digital imaging knowledge, it seems there continues to be added information to the curriculum, while we are still required to cover older topics such as film and processing - there are not enough hours within the curriculum to cover it all sufficiently, and most colleges are asking us to cut units, not add more.	Master's Degree Distance Learning	I recently started my Master's degree. This degree will give me more insight into the different aspects of teaching and how my students learn.	Refreshing my knowledge of the different tests and regulations that are mandated in order to maintain proper machine function and department continuity.
I am working on a doctorate in higher education leadership	Master's Degree Distance Education	I teach computed tomography as well as general imaging courses. The advances in computed tomography and the resulting change in the way CT technologists perform exams is a challenge with regards to didactic instruction. My goal every semester is to spend time out in the clinical environment with my students to directly observe changes in practice. Attending professional CT lectures/seminars is also part of my development plan.	Review developments which are limited in experience level due to limited access of procedures.
I am working on my Doctorate in Higher Ed Leadership.	More familiar with computer technology. Practice on a regular basis skills learnt.	I teach digital radiography. There are several topics that I want to understand more in depth. I have several books on digital radiology that I am reading to achieve that.	Right now it is adapting newer techniques with digital. I ask other instructors/and use the internet to download the lowest techniques (Alara). I am already using them now.

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I am working on my Master of Science degree in radiological sciences through Midwestern State University	no short cuts , all book knowledge when it comes to positioning	I think talking with other instructors will give me a more open perspective on new materials that I teach in the class	Since I am a clinical instructor, I will continue to teach care of the patient as well as guide my students to obtain the best possible images for the radiologist to make a diagnosis for the patient.
I do not teach dosimetry and physics but have Virtual Environment Radiotherapy Training (VERT) in my classroom. I am attending all treatment planning and physics courses to refresh my knowledge of treatment plans and see how I can incorporate the VERT Physics module into treatment planning and physics.	Our clinical site just upgraded all CR to DR and this is quite a drastic change in the area of manual techniques. I would like to work to develop ways to educate the students on technical factors rather than simply trusting what the manufacturer has provided.	I want to focus on technology in the classroom so that I can supplement my course material. I would like to also be more creative in the classroom and inspire critical thinking.	Since the book used in class is so out of date, would like to find a new one to use to be applicable now. Finding any supplemental books to use in the course to elaborate more. Using media products to illustrate the lecture. Taught this class for over 25 years and need more updates, seeking new materials for it.
I enjoy networking with my colleagues and frequently pick up great ideas from them on most anything related to teaching. Often, from those interactions, I may be inclined to seek out specific continuing education.	Physics, Dosimetry, and Treatment Planning Techniques.	I want to publish a scholarly article by the end of the year. I have been studying state societies to include what they offer, what they charge, and how involved are students.	There are several ways to improve. I like to see how I can personally improve new themes where I can explore our technology changes and pass on such knowledge to our students. Mostly, educating myself in all new topics that are coming to us very fast in this fast pace changing career.
I feel it is important to build relationships between students and their professional societies. Our students cannot afford a trip to the national meeting but more cost effective to travel within their own state.	Researching more info on PACS, CR and DR technology as well as updating our current system to DR in the lab.	I will continue to build upon my wealth of knowledge in the radiology field. I will keep up with the ASRT and ARRT recommendations along with continuing education. I will also attend a conference for teaching in the spring to enhance my teaching style and method to an increased networking of students and technologists.	Trying to use the computer to demo 3D of each body part to help students visualize how it lies within the body and how positioning/angles impact their resulting image. Issue is not being able to download material on work computers or knowing which program is specific to teaching what is needed in diagnostic imaging
I finished the PhD. last year. This year I 'm planning to take the MRI exam to transfer my knowledge to the students.	return to obtain higher education so to work in the school environment, to be sure the students learn correctly	I will continue to explore new teaching practices and current topics in education through educational websites.	Want to learn more about the basics behind digital radiography that have advanced since I was in school.
I have found that meeting other educators and getting their feedback helps me to come up with ideas on ways to improve my program	Sharing experiences would be the most helpful because it helps give me a new teaching perspective different from my own.	I will go to seminars in mammography and radiology administration. I also hope to get the required repetitions in Bone Density with the technologist (if time allows). I will also continue to read, read and read.	Working as a clinical coordinator allows me opportunities to work with students at multiple clinical sites. I am working on becoming more familiar and comfortable working with different systems in these various sites so that I can better work with students. The faculty at my school uses "Dropbox" as a way to communicate on clinical issues. It has been a very valuable resource and I'm working on becoming more comfortable with its use.

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I have never worked on digital equipment. I will continue to read, research and go to clinical areas to learn more about this equipment.	Since I just finished my first self-study for JRCERT, I am more knowledgeable with their program requirements but I lack sufficient time to prepare my analysis.	I would like to set up the courses I teach to use more on-line resources through evolve.	working towards my PhD
I have recently enrolled in a PhD program.	Students today are learning by multimedia and not the black board or even PowerPoint. We need to be at the place they are to reach them.	Keeping up with current clinical practices booth locally and at a distance instead of hearing from students "we do not see it done that way here"., Keeping up with current clinical practices booth locally and at a distance instead of hearing from students "we do not see it done that way here".	Would like to be more familiar with on-line course work and how to build my courses on line.
I have tried to give students a choice of course assignments according to their learning styles and skills. I would like to expand on this by offering more than 2 or 3 options for each project.	The digital advancements are extremely difficult to teach especially techniques. It seems that there are numerous books and numerous thoughts as to this and how everyone interprets it differently. It would be nice for ASRT to develop some sort of guideline as to who they suggest to follow. In the digital world each vendor is different.	Looking for more tips/hints on how to position difficult/tricky views. Continue to read more available information, use CR equipment to radiograph phantoms.	
I have Virtual Environment Radiotherapy Training (VERT) in my classroom. I can do hand calculations but need to have a better understanding of treatment planning procedures. I am attending all treatment planning and physics courses this semester to see how I can incorporate VERT Physics into each course.	The informatics aspect of the field is a challenge to me as I have not worked intricately with RIS or PACS. Some of the dual energy imaging I feel I need to read more about and I definitely need to attend RSNA.	Monitoring and participating in online groups, like those found in LinkedIn	
I hope to take a sabbatical and do a literature review related to cohorting and student retention, with an anticipated outcome of a journal article and/or talk for one of the professional organizations.	Took ASRT Cross-Sectional Anatomy series to improve my own personal knowledge and ability to present the material better for my students.	My college just switched to Moodle and I am ok, but still have much to learn using it. I am still not comfortable with some of the other software platforms that are available. I do have good support from our college to help with this.	
I need to become more comfortable and proficient in the many technological developments that are available to all educators.	Understanding the complexity of the linear accelerators and the imaging and treatment techniques we are now using such as Vision RT, Calypso, Rapid Arc, to name a few.	New equipment within the department, and introduction of techniques such as TBI and SBI/SRI	
I need to improve with new technology	While I am comfortable teaching CR/DR I feel I would benefit from additional knowledge.	One area that I teach is processing and QA/QC. With less and less processing available for students to see, I have had to get creative trying to teach the class in a way that the students can understand and remember.	

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I need to work in the department without the students to improve my clinical abilities	Why reinvent the wheel? I find great value in working/networking with others in the field.	Our field is well placed for e-learning. We need to expand this. There are multiple opportunities to learn more about e-learning. Just need to access them.	
I PAD use in classroom	Would love to redo Power Points and offer more distance information.....	Pursuing a master's degree - almost complete, currently enrolled in classes	
I plan on going to some classes to get better equipped		Researching new technologies. Attending workshops.	
I plan to attend the SNMMI annual conference this summer in an effort to obtain information concerning new technology and imaging developments.		reviewing the ASRT CT modules	
I teach a CT course and will attend a conference on CT physics and procedures. I was not overly pleased with the CT materials provided by the ASRT.		some students want a job- not a career- they do not know that one is part of the other- a job you like is a career. My administration has graduation requirements - not competency goals.	
I teach Radiation Protection		Starting a Master's Program	
I want to become more familiar with technologies that enhance hybrid/ on-line courses. I plan to work with the university's technology resources to improve my skills.		Studying/learning more about DR and how the old "kvp controls contrast, mAs controls density" plays into the new presentation of images (since that older mantra doesn't really apply as equally as it used to).	
I want to learn more about and become better versed on my ability to use web-based communication systems for use outside the classroom. I would like to use the "flipped-classroom" teaching technique, but don't have, or am unfamiliar with techniques for taking the lecture outside the classroom. The issues I face are not having the time it takes to implement the web-based communication systems, and students' discomfort and increased stress levels toward learner centered versus teacher-centered activities. In general, students are far more comfortable with a complete dependence upon the instructor.		Technology is not always the best answer but I'm always looking for ways to improve, change or redo my lessons and labs	

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I want to look into how Blackboards work. Possibly think about a Smartboard for the classroom and how to incorporate HESI testing into the program as entrance testing and even towards end of program for registry testing.		Try to learn and integrate more web-based technology	
I want to pursue my Doctorate		We are expanding the use of Blackboard and adjusting our course outlines to reflect learning objectives.	
I will be spending/scheduling more time in the clinical settings at my program affiliates.		We just had a new DR / fluor room installed and I would like to spend time in that room with the applications instructor and biomed engineers to full understand its capabilities. I would also like to become knowledgeable about trouble shooting this new room.	
I will begin the Doctor of Education degree.		Where I currently work classroom is taught on the university campus and clinics in surrounding clinics. Because of this, since I am strictly a didactic instructor I have not been in the clinic in a while and I know technology is advancing and things are changing and I sometimes feel out of touch with that. However, most of what I teach are basic and fundamental aspects of the field that do not change. I know that the people teaching the clinical aspects are up to date so I feel that the students are getting a high quality education, just sometimes it would be nice to get back to the clinic for an update.	
I would like to be able to adapt all lectures to make sure all students are understanding the materials. I need to be able to present the materials in more than one way.		Working on a Masters of Education in Allied Health.	

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
I would like to better understand DR and how a technologist knows whether they have under or over exposed an image. I have worked with CR but not with DR and even when I speak to supervisors or clinical instructors in our facilities I don't think they really understand whether they have under or over exposed an image. It makes me crazy! Maybe it's the technology itself or poor education by the vendors, but it's difficult to explain to the students when no one really knows.		Working on doctorate and continuing education courses	
I would like to improve my skill with the technology available for the classroom, but our small program cannot afford to purchase the equipment. e.g. blackboard, D2L, etc.		working on pacs update and new digital fluoroscopy room, bone dexa and much more	
I would like to increase my knowledge of the latest imaging equipment. I will be attending our state annual meeting, taking webinars, and attending seminars. I also read the ASRT's publications and trade publications (e.g., Radiology Today).			
I would like to learn how to teach online			
I would like to pursue a doctoral degree in education; I have already done a bit of research to find a program that suits my needs. Although I am not opposed to on line learning, I feel I would benefit more in a classroom; however the time commitment may be a deterrent.			
I would love to know how to "flip" the classroom and cut out some/most of lecturing. I would like to improve my familiarity and skill with educational technology in order to promote the flip.			
I'm always looking for new innovative teaching styles			
I'm always looking to learn more about CR/DR.			
iBooks, iTunes U			
Incorporating more video clips and media into my power point presentations			
Increasing my understanding of Digital Imaging.			

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Informatics, dual energy imaging physics, new imaging equipment on the horizon			
It is difficult to spend adequate time working with the new equipment (completing patient examinations) in a diagnostic imaging department.			
It is important at the university where I teach to do yearly research. This could be writing articles or speaking at seminars.			
It is self-explanatory			
It seems that the technology is changing faster than we can keep it updated in the course. New textbooks are reviewed often as well as time spent at clinical facilities with update DR equipment.			
Just keeping pace with the newest in digital imaging equipment			
keep adding to my knowledge of digital imaging			
Lateral Entry Teaching Degree			
Making all of our clinical documents paperless to reduce storage space and to increase access to student files. .			
Need assistance and practice learning to use the computer to pull up audio & video clips, Power point, etc.			
Need new ideas to bring back to institution.			
Need to have more practice with CR, DR, and PACs. we recently purchased new CR and PACs equipment and I intend to learn all the aspects about this equipment.			
Network with other educators at conference.			
networking for tools and other ideas to bring in to enhance lectures and lab activities. Conferences			

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Networking in current days facilitates ways to improve educational practices in the Academic Program. Right now, sharing experiences and effective educational techniques with other colleagues allow fulltime and clinical faculty to improve students' performance in the board and fulfilling the competencies required in order to be competent. I believe, the inclusion of forums, continuing education and educational modules will be excellent ways to improve networking among faculty and programs directors nationwide.			
New equipment and new treatment techniques is my focus for the current year. My goal is to allot more time to spend in the clinic.			
No goals this year as I plan to retire at the end of the year. I think I constantly look at ways to improve technical development in my teaching so it's what I do, not a goal., No goals this year as I plan to retire at the end of the year. I think I constantly look at ways to improve technical development in my teaching so it's what I do, not a goal.			
Not so much for instructional presentation, but for class management; e.g. Blackboard			
Not sure how I could possibly address my lack of experience using CR/DR equipment.			
Obtain additional knowledge in PACS and Digital Radiography technologies.			
Our program will be going to eBooks in the classroom and moving the students towards an all-electronic based technology in the classroom. I am planning on going to conferences and learning from other instructors on campus how this is being done in his/her classroom.			

If you were asked to make out a “wish list” of resources to assist you in your faculty role, what would be the top items on your list? (List up to five, in order from most important to least important.)

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
(1) State of the art NMT simulation lab (2) NMT mock registry preparation program, either hard copy or on-line (similar to the St. Catherine program for Radiologic Science students) (3) NMT textbook with teaching and student resources	(1) DR room at school. (2) More radiation protection methods shown on a power point presentation (3) More info on the different imaging systems with reference to changing technical factors for each system. (4) More phantoms in lab. (5) The process on a pp to show the money aspect from top to bottom and how the technologist role fits into the grand scheme of things.	(1) A lab to practice positioning simulations and technique lab experiments. We currently use hospital radiology department rooms. (2) A well written textbook for Digital Radiography. Some textbooks are too technical while others are too basic.(3) More videos - not too long in length (4) Computer simulator so students can see the post processing features. (5) Patient simulator	1, Time off from my hospital work so I can focus on teaching.
1. Funding for continuing education. 2. Availability of human resources with a knowledge of digital imaging 3. Availability of educational resources (slides, videos, textbooks, websites) regarding digital imaging	(1) Tools, texts, and resources on the latest in digital imaging technology	*no more bontrager's books for students *Merrills should be book of choice	1. Get familiar with the Facility that I am in. 2. Learn all of the LIT instructor handbook 3. Teach every student everything that I can 4. Make sure that I can answer every question that the students have. 5. Continue to learn in the process of becoming a great instructor
1	1 Energized labfull 2 body phantom	#1 Prep time to update courses #2 Software to update courses #3 Courses to better prepare me to teach	1. lab equipment and accessories 2. supplemental software for courses
1. Allowed time to "work" in a radiology facility to improve my comprehensive understanding of information systems.	1. A large screen T.V. for viewing videos, etc. 2. The Fundamentals of CT Series from ASRT 3. A Radiologist dedicated to setting and maintaining protocols so teaching of procedures and positioning will be consistent. 4. iPads for Clinical Instruction documentation	1. A technical expert to help insert technology in my classes and presentations. 2. A mentor to help me perfect my teaching skills.	1. More time to spend with each individual student 2. Access to a multitude of websites (at the hospital access is limited)
1. Digital equipment in the lab 2. another part time faculty allowing me some release time	1. Access to simulation software so students can learn imaging processing , quality assurance and quality control. 2.Easier way to keep up with changing regulations and guidelines. 3. Ability to network with experts in the various areas I teach.	1. Administrative Assistant for clinical 2. Teaching assistant 3. A second energized lab 4. Working portable 5. Computer accessories and software.	1. More time with the students. 2. Having the first years more often.

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<p>1. Every radiation therapy program should have VERT. This is a safety issue. Students should be able to understand the operation and patient data a linear accelerator offers. VERT puts a linear accelerator in the classroom. Brands and models can be compared and contrasted to give a better understanding of operation and procedures. 2. I would like to have a treatment planning lab in my classroom as part of my program. Again, VERT and VERT Physics module will help with this. Also, DOSE, recently released will also help with this task. A lab for students to practice these modules would be helpful. 3. I would like for each student to have a tablet so that in clinical, they can practice treatment plans on the DOSE software and ask questions while in the clinical setting.</p>	<p>1. Complete Digital System 2. More technology resources such as laptops for students 3. More time for teacher development</p>	<p>1. Areas to improve assessments techniques that matches with accreditation 2. More information or modules about advanced modalities.</p>	<p>1. Classes to understand any new equipment the students use. Be able to explain any information they made need so I know they understand .Feel comfortable in knowing the student understand what I try to get across</p>
<p>1. I have VERT but EVERY radiation therapy program SHOULD HAVE VERT. THIS IS A SAFETY ISSUE AND STUDENTS SHOULD HAVE PRACTICE PRIOR TO ENTERING CLINICAL. 2. I would like to have a treatment planning lab where students can plan and learn about important treatment planning parameters while practicing. http://dosimetrypractice.com/ The DOSE website and software will help with this task. 3. I would like tablets for my students to have tablets in the clinical area. This would allow for imaging treatment plan information that is part of a case study but are not being printed now due to paperless departments. 4. I would like a classroom with lasers set-up to practice leveling and aligning of the patient.</p>	<p>1. More faculty-we are spread too thin 2. funding for paid guest speakers 3. Resources for acquiring and LEARNING new educational technology.</p>	<p>1. Decrease faculty expectations for committee assignments. 2. Support and fund an electronic system for clinical tracking and recording of all related documentation to reduce unnecessary manual efforts with paper work. 3. Incorporate the use of Radiographic teaching software applications such as Shaderware early in the curriculum. 4. Develop a functional image database for use throughout the curriculum.</p>	<p>1. Improved computer (this one is old as dirt!) 2. Hands on training and time spent one on one with someone who has been using and is fluent with some of the technology that is out there. 3.The approval to make changes without having to go through the " committee" process where only the strongest personalities in the room get their way!!</p>

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
<p>1. More computers for virtual radiology, so each student could have one. 2. Have a live radiology room. 3. More clinical sites to allow earlier clinical experience.</p>	<p>1. More time available to help out on the accelerators to learn the new systems. 2. Virtual, so students can visually see what the treatment beam is doing internally. Since CT Sim and IMRT, the students don't understand the content of the treatment fields as well. 3. Educational seminars or videos that help train educators on new equipment and techniques.</p>	<p>1. Energized lab in the classroom, 2. new classroom with modern technology - computers, Audiovisual equipment, 3. New dry skeletons for teaching anatomy</p>	<p>1. online access to course books 2. more time to spend with students 3. student office 4.</p>
<p>1. Overview of national trends in the Diagnostic Imaging industry. 2. Overview of new technologies in the field, updated annually. 3. Overview of scope of practice issues as they arise across the country. Overview of ethical and legal issues as they arise nationally.</p>	<p>1. Time in the clinical setting on a regular basis. 2. expanded lab facilities. 3. Additional human resources. 4. Additional classroom technology, such as ipads. 5. Additional web-based resources that were reliable and accurate.</p>	<p>1. I would like to have good DVDs available with good graphics and explanations for more topics. More educational opportunity for myself. 2. I often feel as though I have forgotten a lot of information and there is always new information that sometimes I don't really understand from just reading the book. Especially involving imaging and physics. 3. How to teach certain topics. I think many of us are RTs who now teach with little or no knowledge about how to teach. I can teach procedures all day, but I struggle with things like pharmacology, quality control and some imaging and physics topics that I haven't really actively studied for years. 4. An educator's book on lab activity ideas to help reinforce topics learned in lecture. 5. Instruction on how to handle certain situations such as how to help a student learn how to express an opinion without being out of line, or how to help students gain confidence.</p>	<p>1. Training (classes, videos, conferences) about teaching methods to reach different types of learners. 2. Training (classes) about how to use multimedia techniques in the classroom</p>
<p>1. Simulation Room</p>	<p>1. Time to develop additional computer skills 2. Apply new methods of teaching 3. Familiarity in using current teaching methods for adjunct faculty.</p>	<p>A machine with active 3D/4D capabilities. We have a mechanical sweep 3D probe but a machine capable of 4D would be better.</p>	<p>1. Training for DR/CR, the technology behind algorithms and adjustments to techniques</p>
<p>1. Access to better video teaching sources for procedures that are not common to our facilities. 2. Computer teaching aids in positioning. 3. More clinical sites for surgical and trauma experience. 4. A diagnostic suite on campus.</p>	<p>1. Up-to-date technology for the classroom. 2. An energized lab</p>	<p>A tab on the website for basic requirements i.e. competency exam requirements.</p>	<p>1. Visual programs 2. tablet</p>

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
<p>1. access to teaching methods specific to my discipline 2. improved lab aids such as mannequins</p>	<p>1. Up-to-date videos to help with instruction. 2. Additional resources to help with student learning 3. Repeat radiographs for students to evaluate 4. Math worksheets for all of the different formulas. I get tired of trying to make up new ones. :-) 5. Radiology iPad apps</p>	<p>Access to a clinical lab, having HR support for technological tools for teaching</p>	<p>1) An Audio-Visual team to produce educational content. 2) A common library of clinical images to work from.</p>
<p>1. Additional Energized Labs with CR?DR Equipment 2. IT personnel just for our program that could look into setting up online learning modules etc... 3. Smart Board 4. Monitors for classroom / image display 5. More faculty / CI's</p>	<p>1. Updating information on DR and CR. 2. On-line resources on Introduction to Digital Imaging. 3. Ability to go perform patient work in a DR/CR facility.</p>	<p>Actual films demonstrating specific image characteristics discussed in class. Video demonstrating specific film processing</p>	<p>A better text book of images that maybe has a transparent top sheet of labeled anatomy with an x-ray printed behind it.</p>
<p>1. additional faculty 2. more opportunities to be hands on in a "return to industry" option 3. more cooperative clinical sites</p>	<p>1) Projectors in each classroom, 2) CR/DR equipment in our x-ray lab, 3) Whiteboard in the x-ray lab. 4) MiniPACS system for the students to practice, 5) Able to attend three radiology conferences every year.</p>	<p>Additional simulation labs for both CT and general diagnostic imaging.</p>	<p>A course (online or class) on how to be an effective clinical instructor where it talks about methods of teaching and instructing students with various learning styles.</p>
<p>1. Advanced distance learning training 2. Improved and paid opportunities to attend conventions that feature technological innovations, like ASTRO for instructors. 3. The President and Provost must be knowledgeable and supportive of Career and Technical Education.</p>	<p>1) Support & recognition of PD and CC duties - hiring more qualified faculty, so there can be release time for these duties. 2) More training and online support of programs used at the college. Many do not work correctly, or have too much down time. 3) More educational models offered by ASRT to assist educators with new information (like ODIA) -</p>	<p>Administrative help</p>	<p>Access to college computer systems from home. Learn more about teaching radiology curriculum classes and labs. Have access to learn more teaching techniques to become more successful in the classroom. Learn how to build class frameworks within the college's Intranet.</p>
<p>1. ASRT modules on Radiation Biology and Protection</p>	<p>An additional instructor so I could spend more time performing Program Director duties.</p>	<p>An assistant in the lab to help with radiographic positioning portion of the class.</p>	<p>Assistance in integrating various technology into lectures to make them more engaging.</p>
<p>1. Better digital imaging textbook; 2. accreditation standards that limit the amount of work a program director can do to enable time to practice in the field; 3. educational resources that do not require cost to faculty</p>	<p>Better method to track students time in the clinic, financial support for program faculty education/seminars, financial support to purchase technology and software to enhance clinical experience, financial support to purchase software to enhance didactic presentations/lecture, Financial support for program advertising.</p>	<p>An energized digital x-ray lab for the classroom</p>	<p>Better AV equipment. Better physical classroom. Training on on-line course development. More time to prepare for class. More choice over curriculum.</p>

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
1. Better technology in the classroom. Some of the equipment here is very antiquated.	Better phantoms for positioning and exposure. More time to spend in clinical with students and less time spent on paperwork for JRCERT. Computer programs from ARRT or ASRT which were not so expensive. Mock Registries from ARRT or ASRT (one of these said several years ago that they were going to develop some for us to buy.	Apple Products and apps - I am looking into these now; nursing faculty at my institution recommended that. Also, straight-forward information on Digital radiography. The material is very difficult to understand and teach.	Clarity of the "how" to keep up professional development New skills lab, Computer screens, New VR software
1. Clinical Coordinator 2. Full-Time Instructors	control panel simulators for each of the different name brands of machines.	availability of new DR technique charts, more information on CR/DR technology and how they are utilized for image production, information on IT/PACS/Informatics in order to better prep students for "real world" issues	Clinical coordinator-better equipment at the hospital.
1. Digital Technology 2. Updated videos to utilize in class for student learning 3. Additional resources to help with student success and retention 4. Patient Care issues 5. Resources to help students with Image Production I think it's important for educators to understand that students learn differently that we did. We need to "flip the classroom" more and keep students engaged. There is a TON of technology out there to keep students informed and engaged. My new one is a REMIND app. Remind.com	CR/ DR equipment	better phantoms, more reliable x-ray equipment, a CT simulator	clinical wish list for teaching-decub sponge
1. energized lab 2. phantoms/models to image	Digital direction and educational books and such.	Continued training , support from school, digital monitors, fresh staff, administrative support	Different QC/QA testing equipment so the students can see, touch, and experience the equipment first hand.
1. Evaluate- a way to manage clinical evaluations 2. 3 D simulation of treatment delivery and setup 3. iPads for all faculty and students 4. Dedicated student computers and classroom space 5. QA modules for the students; more imagery and hands on activities	DR equipment, Portable Machine, Tailored clinical videos, Time Management Training, an assistant instructor	Course on how to involve all learning styles into a lecture,	E books
1. Fully functional lab room with a digital plate reader. 2. A new allied health building 3. computer lab 4. more registry review materials 5. more clinical coverage.	DR receptor, lab assistant, more computers in the lab, new phantoms	digital equipment, as wells as a c-arm, a fluoro table, and a projector to call my own	Full arm model for venipuncture, a pixie for positioning labs, laptops/computers in the classroom for the students to use.

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
<p>1. HD big screen TV 2. Computer lab 3. Energized lab, 4. Additional clinical faculty</p>	<p>easier route to ordering equipment, digital imaging workshops, networking with other RADT faculty,</p>	<p>Digital Teaching techniques, financial support for doctoral studies, lab teaching techniques, online teaching techniques, classroom teaching techniques</p>	<p>Higher faculty pay</p>
<p>1. Information on what makes a great educator 2. information and videos on student centeredness 3. video examples of good and bad educational tactics 4. engagement strategies in the classroom... 5. mini exercises for the classroom to refocus the student</p>	<p>education dept. within the imaging dept. in my hospital, ability to spend more time with students</p>	<p>education on how to use current educational technology</p>	<p>I don't know at this time.</p>
<p>1. modern radiation protection/radiation biology video clips 2. lab experiments for teaching digital imaging and effect or lack of effect on brightness etc.</p>	<p>I don't have a "wish list" at the moment. I've only been in this position for almost a year, so I don't really know for sure what that would be right now.</p>	<p>educational seminars, more time to work on courses</p>	<p>I have no wish list. All necessary and items needed to assist in teaching students is provided for by the University.</p>
<p>1. More time to implement web-based learning procedures. 2. Institutionally supported reporting of student learning outcomes. 3. A research department that could assist with gathering data for student learning outcomes and program effectiveness factors. 4. Clerical support. 5. More institutional support for equipment needs/costs.</p>	<p>I wish the images for that series was more affordable because they would have been great for my students. The ASRT graphics were excellent.</p>	<p>electronic student competency records, DDR System, Access to a mock CT scanner</p>	<p>More courses in subjects that are related to our career on-line.</p>
<p>1. Purchase tablets for all enrolled students and allow use during class for them to interact with the lecture and record questions etc. 2. Purchase an application that will allow me to make our documentation electronic only 3. A stick to prod part time faculty to do more to use technology during their courses (full time faculty are more invested)</p>	<p>I would love to attend a seminar on digital technology and technical factors.</p>	<p>examples of what other programs do for curriculum and credit hours (efficiency is of concern)</p>	<p>More knowledge of the technology in the class room-Black board, etc. Being able to go to more teaching seminars. get more experience with the clinical latest technologies. More than just part time with the students.</p>
<p>1. Resources to help with data collection for accreditation purposes. 2) Resources that assist with new teaching technologies. 3) Refresher courses for instructors who have been out of clinical practice for a while.</p>	<p>increasing budget for professional development</p>	<p>Funding, technology upgrades, additional faculty resources</p>	<p>More lab time with the students. Developing a program that would involve the Clinical site and the students going to those clinical sites, in using phantoms to narrow down best technical factors for different X-ray equipment, and manage different scenarios to achieve easier and better imaging techniques.</p>

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
1. Resources on how the "cloud" works.	more time	funds to complete degree; ceiling mounted x-ray tube	More time in the lab with the students. Launching a program to allow CI to use the Medical Imaging Program phantoms to narrow down better techniques and positioning scenarios for each X-ray piece of equipment.
1. Videos of high quality that I could review and post as educational resources. 2. More hands on demonstration guides that allow students to interact with experiments linked to content. 3. Affordable simulations that nursing has for students so that they could interact with basic concepts in a virtual world. 4. More clerical support so that I could devote more time to classroom prep. 5. Video streaming capability for recording lectures so that students with difficult listening to English could replay and watch for deeper understanding.	More time	Graduate assistants to help maximize my efforts in the classroom and research lab.	n/a
1. Wi-Fi in the classroom; 2. More computers for student use; 3. Full-time administrative assistant; 4. Greatly improved program website	More time - but since we can't create that...Information on how to better motivate the students to work hard. It seems like we have more resources at our fingertips than ever before and we have lower motivation levels than ever. We share expectations from the time we begin to interact with potential students, through the application process, and orientation but over the years the student motivation levels and choice to actually work for success has diminished. Any and all training that can be provided in this area would be wonderful. Information about how to transition on ground classes to online and ensuring the rigor remains the same. Secure online testing options/ideas that will ensure the integrity of online classes.	have a updated & refresher session of tools available for the classroom prior to the beginning of the semester also to have all the students in the class access to a laptop	new computer. Ipad. strong enough WIFI to use advanced technology

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
1. Digital equipment in our Lab 2. Tablets for all students to use in the classroom for interactive classes 3. Radiologic Technology apps 4. Associate faculty who were more interested in teaching at their highest ability (not just a part time attitude) 5. The ability to make students take more personal responsibility for their education and use initiative to dig deeper into concepts instead of only wanting to know what is needed to know (no natural learning curiosity)	More time to prepare for class, increased appreciation and support from clinical sites, additional faculty	Having dedicated simulation and lab space would be at the top of my list. Second would be to get more radiographic accessories to teach labs and sims with.	New digital equipment with DR PACS capabilities
1) Digital Imaging	More time with the students.	I pads for students to keep clinic competencies	Our hospital being a teaching institute, it has most of the teaching tools that are required.
1) A larger classroom with more whiteboards 2) projector mounted on the ceiling	More/better MRI principle animations	I would like to have additional suggestions of different interactive ways to review with the students-- change things up and not have it boring.	Our Program Director is very good at making sure what we need and listens openly to new ideas and requests.
1) Support for PD & CC duties, release time by college. 2) More availability of instruction in use of educational technologies. 3) More information & teaching modules provided to educators by ASRT on current and emerging technologies (like ODIA) that align with ARRT content standards.	N/A	I would love an ASRT created online program to teach digital radiography. (Similar to your sectional anatomy/imaging program)	Paid seminars
A cloud-based education platform (such as what is used for on-line learning). Education on how to use, or software for interactive presentations. Virtual learning.	New electronic medicat for teaching New resource books	I'm not sure. I'm new and just want to learn all the ways to utilize what we currently have right now.	Provide comprehensive information about CR/DR that will prove useful to students when taking the registry exam. Affordable CE credits
A web page specific for the program, a site for student portfolios, more technical knowledge about software programs, review information on digital radiography, update library resources.	Phantoms	I'm so new at this I don't even know what to wish for.	Time, technology instruction, clinical setting refresher, education methodology refresher
A wireless DR system	Radiologist support, technologist support	Interactive software, technology (hardware - tablets, etc. for classroom use)	Training in iUniversity, time,
ACADEMIC ASSISTANCE FOR ADVANCED DEGREE, MORE RESOURCES FOR MY STUDNETS IE BOOKS COMPUTER PROGRAMS,	Release time to work on program director responsibilities.	journal writing help, JRCERT standards review, CR and PACS education	updated technology, computer skills, refresher on procedures that may be limited to our facility

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
Access to more formal presentations on topics, more instructional ideas	secretary, accreditation specialist, tutor, & faculty advisor	Mini-courses to assist proficiency in learning technologies	Used to be a modern classroom, but the college has updated all the classrooms with current technologies, so easier just walking into room with a thumb drive. Having a newer book for the class for the college level not doctorate level.
Access to relevant clinical software such as an EMR, record and verify system, etc., access to learning modules that can be shared with students online, example of ensuring inter-rater reliability in competency testing, discussion of effective teaching technique.	simulation equipment, better technology for "online" meetings, greater sharing of ideas	More actual procedures in diagnostic radiography at various clinical sites. The ARRT and others want the students to know so much, but the procedures are not as common now. After the graduate is employed may be the 1st opportunity to actually see a real situation.	Virtual resources
accessible IT department, more staff to help with daily operations of the program, funding for travel, funding for equipment	Standardization in the industry of Exposure Indicators. Resources to help clinical staff better understand digital imaging. Resources such as the Bontrager Procedures series in digital form.	More faculty to allow for adequate time to prepare and give the time the course needs to execute well. More professional development on teaching styles and skills for working with all types of students.	
additional clinical sites, energized lab, better classroom facility,	Time	More information on what resources are out there to enhance my classes. Training on how to incorporate the on-line aspect into my courses.	
All of the tools that are created by the ASRT are wonderful or look wonderful. However working within a very limited budget, we are unable to afford the resources.	Time off for attending more seminars on advanced imaging, troubleshooting etc.	more lab time in clinical setting for students	
Blackboard	We are lucky in that we have a good many resources at our disposal. We have a dosimeter, phantoms, positioning aids, etc. - plenty of books, too.	more materials on or technology	
Board Review material (interactive)		More opportunities to use educational technology. I often attend education sessions to learn how to use them but then have trouble applying it later to my own work. We also have very restrictive technology barriers in our classroom due to firewalls and Wi-Fi that seems to not work very well	
Clinical Coordinator, bigger budget, radioactive material license		More phantoms.	

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
Computer based clinical records system. Library of digital images. Availability to instruct more courses online vs. in class.		More resources to use for initial and remediation of course materials. I tried Ziltron but found it lacking also not user friendly for the instructor. Often textbook test banks are just as lacking. 10 or less question for a Chapter.	
Computer generated experiments that reinforce physics concepts, virtual positioning software, and resources containing standardized rubrics, learning outcomes, and testing techniques.		More technical support from institution. Time to explore educational technology and become more familiar with it. Opportunities to network with those using these methods in the class. Hands-on experience in the use of some of the technology	
Conference on educational technology by ASRT		N/A - we are in the process of developing a degree program and our current program will cease to exist after graduation.	
continuing educ. sessions on BlackBoard 9		New Equipment.	
CR/DR equipment		new skeleton, positioning sponges, digital images	
CR/DR equipment for my students.		New x-ray equipment with a ceiling tube to be able to teach cross table imaging. New mannequin to radiograph. Digital unit.	
Decreased course load/increase faculty delivering courses; continuing instruction on educational methodology; continuing education on leadership; continuing education on educational technology skills; networking with other educators		Our school currently has 2 labs (one energized lab with CR equipment and one non-energized lab originally set-up for film-screen imaging. The equipment constantly breaks down. 1. DR equipment. 2. Updated CR equipment. 3. New patient tables for each lab. 4. Digitizer. 5. Accessory equipment such as grid holders (for cross-table imaging), sponges, etc.	
designated energized lab full time administrative assistant		Paid sabbatical leave to refresh in the field, flexible training sessions	
Digital Equipment. CR/DR		Professional development classes in educational technology and digital imaging	
Digital Imaging and processing and simulation.		Real bone abdomen phantom, Direct digital radiography room on campus	
digital lab,		Simulators, both mannequin (like SimMan 3G) and online simulators. iPads for all students. Case studies data bases. Monies for application licenses (i.e. Nearpod, etc.)	
Digital portable		Simulation Lab	
energized digital equipment, full body phantom, a second classroom, larger classrooms		Time for faculty development	

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
Energized lab with full body positioning mannequin		Time to be able explore different educational technologies. Ability to have and purchase white board technology.	
Energized lab, mini PACS		Video's or images to help explain principles instead of spending hours looking online for something that will work.	
Freedom to teach without being encumbered by layer after layer of busy-work unrelated to teaching.		Virtual Simulator Clinical location that all faculty could visit and hold classes in Better up to date textbooks that are not written by physicists.	
Full Body Phantom, CT demonstration		We need to provide educational technical training on a state wide level.	
Greater availability of qualified instructors in Radiography.		WEB access is limited by bandwidth, cross sectional anatomy tools that work up to the level our imaging capabilities	
Help with CR/PACS human like simulator			
I wish I could purchase every online resource available.....not possible despite my institution being quite generous. I would love to update my equipment in my lab. 1.An additional digital unit and 2. an additional CR and 3. digital portable.			
I'm lucky to have everything from CR, an energized x-ray room, a portable and a c-arm with a vascular package at my facility. What I need it more time! So, 1 - 5, more time!			
In depth radiation safety in current issues/overdoses			
Individualized instruction on how to use social media & multimedia in the classroom.			
Innovative tools for the learning management systems. A mock hot lab for practice. Animated videos for learning. Interactive tools for collaborations.			
iPads for all students or equivalent tablet, iPads for all students or equivalent tablet			
IPDS, Apple TV or other similar media viewer for the classrooms, more computer software and more phantoms			
ITV X-ray lab			
Laboratory space, better pool of students,			
Larger facilities			

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
Learning Modules already produced; Power Points for review, which are already constructed; computer viewing of images via television set up; simulation lab			
modern videos on radiation protection, radiation biology, and emergency response to radiation accidents/attacks			
Modules (free ideally) dealing with any current trends in the field, including radiation dose concerns and modifications to equipment to bring down dosage. CR versus DR exposures and positioning adjustments.			
Money to attend our annual national conference and RSNA.			
more access to and knowledge of technology			
More access to updated teaching materials from the ASRT- at a more affordable cost.			
More budget; more faculty members;			
More educational technological support. Critical thinking exercises. Lab experiments for CR/DR. Overview and examples of use for current educational technology methods and websites. Overview of technological advancements in radiology.			
More modern equipment More digital monitors			

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
<p>More money to be able to buy some of the great tools out there to make our teaching easier and in turn helps the students. 2. Alist of all of the free available tools out there to be able to get and use for teaching. Would love to have the money to go to more Educators trainings around the country to see how other Educators do things the same or different then we do at our Program. 4. Really can't come up with 4 and 5... We really are pretty fortunate to have many great things. One of the best things we do get to do is go to the West Coast Educators Seminar every year. We do learn many great things from ARRT, ASRT, Educators, Radiographers, Students and many others in the field of Radiography.</p>			
<p>More monies for capital equipment to purchase more state of the art technology for implementation in the lab. Have time and resources to develop special tracks: MRI, CT.</p>			
<p>More professional development opportunities: additional computers for lab to assist with both CR/DR technologies. Additional adjunct faculty,</p>			
<p>more sharing of resources between schools</p>			
<p>More technical help with online classes. Simulators. More lab assistants.</p>			
<p>More time away from the university to practice the art and science of radiology with my students.</p>			
<p>More time, access to application specialists, access to an engineer or someone that can explain the intricacies of machine and computers</p>			
<p>Most important would be upgrading our Radiologic Science classroom/lab to include energized radiographic equipment that matches the equipment used by our students in clinical education.</p>			
<p>My push will be educational technology, and my University offers great support and learning opportunities</p>			

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
Need another f/t faculty.			
Need to be 12 month and not nine month positions. Need advising help with support staff. Need dedicated classroom with appropriate technology.. ARRT needs to eliminate curriculum that is out dated and not relevant in today's practice. No fill screen developer, and certain QC things on content specs is by far not and RT scope of practice.			
Network - ability to meet with and collaborate with other educators;			

In your opinion, what courses in your curriculum could be provided to students using distance learning without jeopardizing the integrity of your program?

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
1. anatomy; pathology; physics	A great majority of them. Currently all of our course work in our MRI program is on line except the clinical which is considered a hybrid.	Advanced Imaging Modalities. Digital Imaging. Quality Management	A virtual learning tutorial for positioning would aid in educational development. This could be something that the students have with them as long as they have access to the web.
1. Physics 2. Image Analysis	All courses. The clinical training must be supervised by a Clinical Coordinator at least twice a month.	all classes except for labs	All students at the beginning of their radiology career need HANDS ON FOR MOST OF THEIR LEARNING.
1. Cross sectional anatomy 2. Possibly clinical oncology	All didactics courses online except positioning, physics and clinical training	All courses are currently online for both local and distance students using Blackboard and Blackboard Collaborate., All courses are currently online for both local and distance students using Blackboard and Blackboard Collaborate.	Anatomy and Physics
1. Medical Terminology 2. Radiation Protection	All except the procedures and clinical aspect could be distance learning	All courses are delivered via distance learning.	anatomy, it is more memorization than understanding a theory such as physics.
A&P resources that give more in depth x-ray imaging detail, machine simulation, practice scenarios that allow interactive "play" for patient simulation	All of our 2nd year courses are in a hybrid/online environment with successful completion of the boards.	Alternative modality (CT, MR, NM, US) courses and cross sectional anatomy.	Both the courses I teach could be done on-line.
ABSOLUTELY NONE. All courses are embedded into the work of a therapist. I would like to see a lab for each course to ensure proper transfer of knowledge obtained in the classroom to appropriate clinical situations. Scenarios are an important component of radiation therapy education. In my opinion, this is lost with distance learning.	All of them.	Anatomy, Medical Terminology, cross-sectional anatomy(most of our courses require some hands-on practical learning necessitating being present on campus)	Courses that are directly related to the Rad Tech Major should only be taught in the classroom. Other courses may be taught using distance learning.
Absolutely NONE. Every course is directly linked to the practice standards for radiation therapy. There should be a lab for every course. I would also like to see a practical exam administered with the ARRT written exam. Scenarios are very important to understanding how to critically think in radiation therapy.	Any non-NM didactic curriculum -e.g. anatomy and physiology. Maybe patient care topics, research courses, administration course. Any course that may include some lab experiences should not be fully DL - perhaps a hybrid style could be considered.	Biology and Protection, Physics (Equipment), Medical Term,	CT intro class
Advanced imaging modalities	cross sectional anatomy -- CT physics-- MRI Physics-- radiographic physics-- almost anything except patient contact items	Blended (flipped classroom): Image Analysis, Radiographic Pathology & Online: Introduction to CT, Radiography Registry Review	Distance learning is great for areas of general understanding so I do not feel this is suited for the RT associates program, however, any supported material to help reinforce what is already covered is wonderful!

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
All 'didactic' courses could be done on-line. Clinical courses-- clinical instruction, however, must be done with the close attention and support of the school instructor. Also, class room instruction must be a part of clinical instruction to allow the space and opportunity for student reflection on their clinical experience.	Cross-sectional anatomy, patient care	Camera's attached to all students computers, making sure they are there and learning	Ethics, Radiation Protection, Advanced Modalities
ALL BUT DISTANCE LEARNING IN MY OPINION AS WELL AS MY STUDENTS IS NOT EFFECTIVE	Ethics & Medical Law, Pathology, Radiation Protection & Biology	clinical oncology	Human diseases and pathology
all course except Procedures and clinical -- Although I do not believe that it would ever happen to that extreme	Ethics, Medical Terminology. Components of Patient Care, Cross-sectional Anatomy, Quality Assurance and Registry Review might be able to be blended into a Hybrid course.	Clinical Radiography,	I like the one on one with the students. It gives the ability to adapt to their needs.
All courses could be provided to students using distance learning except, the clinical training.	General Education courses	Conceivably any course that did not require a lab and/or simulation component i.e. Procedures could be delivered on-line. However the quality of on-line instruction varies considerably.	I still feel that student interaction is necessary for all of the radiology based courses. Now that students are required to obtain a minimum of an Associate Degree perhaps some of those courses could be offered online
All of them	General Education Courses	Cross sectional anatomy, ethics, professionalism studies, procedures, radiation physics, radiation protection, radiation biology.	I think an ethics course could be offered online with scenarios and various presentations with reflections on cultural differences, professionalism and customer service. A debriefing might need to be done in person with a staff member to go over the reflections and initiate any further development that needs to take place.
All of them, we have incredible technology we use and a great team of people able to provide high quality education in the online environment.	I am a very visual person, so in my opinion, I really can't think of any except possibly Pathology and parts of the Seminar course (registry review). I have been writing an on-line cross-sectional anatomy class for our CT program and it's been very challenging to find ways to help the students retain the material without being face-to-face.	Cross sectional anatomy, Introduction to Radiologic Technology, Medical Terminology	I think pathology could be a two part course instead of one semester. Critical thinking skills are build based upon vital knowledge of pathology.

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
All the courses can be offered using distance learning. The clinical courses will need a Clinical Coordinator to visit the students at least twice a month. The CC will evaluate the student, the Clinical Instructor and the clinical site.	I don't feel that any of our classes could be delivered using only distance learning and not jeopardize the integrity of the program.	Cross Sectional Anatomy, quality assurance	I think students in Radiography learn best by hands on approach. The only course that I would recommend to be taught by distance learning is med-terminology which is mainly memorization and takes little on hands training.
All the curriculum but the procedures course that require hands on instruction.	I don't think we have gotten to that point YET!!!	Cross-sectional anatomy	I think the school has done a very good job on this subject.
Anything that does not rely on a hands on approach; i.e. physics, medical terminology, radiation protection, radiation biology, diversity.	Intro courses and radiation biology	CT Physics	Intro to contrast media and pharmacology.
At this time we really aren't set up to do distance learning and it would not work with how we have our curriculum set up at this time.	Intro to RAD	equipment operation	introductory classes
Basic Concepts in Radiology????	Intro to Rad Tech, Exposure	Ethics, Intro, Medical Terminology	Medical terminology
Basic CT	Introduction to Radiologic Technology	I believe all didactic learning could be delivered online and then reinforced in a lab setting...but only for students that work well independently.	Medical terminology and most aspects of Patient Care, i.e. medical law, ethics, human diversity.
Basic CT or MRI course; Rad Bio / Rad Safety	Law and ethics and history of the profession, RAD 101. Patient care but only content, labs would still be needed for hands on application, RAD 102. RAD 230 Radiographic Procedures III, but again, labs would need to augment just a few of the modules on campus.	I believe that the radiographic pathology course could be offered online strictly.	n/a
Basic introduction courses, Radiation Protection, Radiation Biology, Intro Physics	Management	I currently conduct healthcare organization and leadership, and a problem-based learning course that stresses information literacy and a holistic understanding of several common disease processes in a wholly online format. Our program also offers CT and MR Physics and Procedures courses, Sectional Anatomy, Medical Terminology, Research and Pharmacology as online courses. I feel like patient care, procedures, exposures, and physics classes really need a face-to-face environment to effectively encourage student understanding, although technology integration definitely enhances the learning in all courses.	None

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
BASIC MRI, BASIC CT, BASIC RADIOPHARMACY. JUST THE CLASSROOM MATERIAL	Medical terminology	I feel that any course can be offered through distance learning as long as appropriate and advanced educational technologies are used to aid in instruction.	None since we are a hands-on internship
Clinical Procedure courses and possibly instrumentation courses to some degree and with the right assignments or simulations	medical terminology, CT/MRI, radiographic exposure, Digital imaging	I have a difficult time with this question. Sure, a few classes could be offered using distance learning, possibly pathology, but students lose out on other non-assessable information: interaction with other students (which helps future interactions with co-workers), sharing of information from different clinical sites such as research study treatments, team building, sharing of accomplishments and/or frustrations, etc. I think student interaction is a critical part of the learning process.	None- I'm at the clinical site
cross section anatomy, introduction, law and ethics	medical terminology, ethics and law, courses listed under "Humanities, math."	I only teach Procedures and I feel that distance learning would NOT be beneficial at all. It needs to be hands-on learning, written and visual.	None. Students learn better in a visual and active environment to comprehend the skills needed to perform in the medical field.
Cross Sectional Anatomy & Digital	Medical Terminology, Ethics, Career Prep	I think most have to the potential to be at least partially offered as distance courses. Obviously, procedures labs would need to be offered in on campus labs, but through the use of technology many classroom activities can be completed at home.	Online simulation programs for the pertaining modality. Case studies which require modifications from standard techniques in order to improve patient outcome.
Cross sectional anatomy; some nursing procedures (but would need labs for parts); medical terminology	Medical Terminology, Introduction to Radiography	I think most of our curriculum needs to be at least hybrid (not totally online). Pathology, medical terminology, parts of patient care/ethics, parts of image quality, and sectional anatomy. All with the understanding that you have good resources and images.	Our Integrity software that records our class sessions.
Cross-sectional Anatomy, Medical Ethics and Law,	more positioning within the school program	Image Analysis/Critique - online discussions and tests work great. Possibly pathology. Online lectures, discussions, case studies, and tests would work for this material. Medical terminology as it is really predominantly memorization and repetition.	Pathology
don't use distance learning.	most, the only concerning ones are procedures courses and labs and even those may be able to have a hybrid with the right technology	Into to radiology,	Pathology, Radiation Protection

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
everything except the patient contact component	N/A	Introduction to Radiography Profession Medical Terminology	pharmacology
healthcare systems, ethics in healthcare, imaging technology, anatomy	None	Medical terminology	Positioning lectures
I am of the belief that most if not all of our Radiologic Science courses must include a face-to-face component associated with it; a hybrid course approach would be the best means incorporating techniques such as flipping the classroom and including more group activities in class. Medical Terminology is probably the one course that could be safely delivered in a total online format.	None, I feel one of our greatest assets is working together both in and out of the clinical setting. Although most curriculum can be taught online, I feel the classroom atmosphere for Radiology is essential.	Medical Terminology	Radiologic physics - if the proper infrastructure is put into place.
I don't feeling any of the courses should conducted through distance learning.	Only the core courses, English, history, phy. etc.	Medical terminology, cultural diversity,	Simulation programs and case studies discussions.
I feel that all classes benefit from at least 50% face to face interactions. While some content areas lend themselves better to distance learning, none are better for it.	Orientation to Radiologic Technology, Radiation Protection, Imaging Equipment, Radiation Biology, Pathology, Sectional Anatomy, Pharmacology, Registry Review. I think most didactic classes can be converted to the distance learning format but it requires us, as educators, to change our patterns of thinking. Since we are so busy already, we tend to have an easier time saying "no" to distance learning because it would take a lot of time, effort, and documentation changes (along with a change in our own mindset) to convert many of the on ground radiology classes to a distance learning format while ensuring the integrity of each individual course and the overall program.	Medical terminology, Introduction to Radiologic Technology, Radiation Protection and Biology	Some of the pre-requisite courses can be offered online, but I personally believe students need and deserve the opportunity to take "core" classes in a traditional classroom setting.
I like hybrid courses that allow for some face to face and distance assignments. I find students do not care for a total distance education course. Adult learners are more apt to request this kind of course but find it boring and ultimately do not master content in the same way that hybrid students do.	Pathology	Medical Terminology, Radiation protection and Biology	Sorry do not like distance learning, old method of teaching is best, so student has your full attention.
I would not use distance learning	Pathology and any core/prerequisite courses	medical terminology, radiographic pathology, radiation protection & radiobiology	This is a question that I feels that needs to be answered by a full time faculty member.

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
If done well, online education holds the same integrity as traditional classrooms and may actually better meet the learning needs of various learners.	pathology and maybe patient care	Medical Terminology(currently distance in my program)	We have an integrity program that records all classes
Image Acquisition and Evaluation, Physics	Pathology, Patient care, some basics of "rad physics" (film, screens, circuitry, some rad protection) - but there would still need to be a on campus lab component	Most	
Into to Radiology - RTE 101. Customer Service - HPR 101.	Pathology, sectional anatomy, radiobiology and intro to Radiology (which includes medical terminology).	Most with today's technology, except for Positioning. Really need your hands on the equipment and "patient" to be prepared for clinical education.	
Introduction to Radiography, Radiation Protection, Radiobiology, Pathology	Patient Care, Radiobiology, Special Imaging	None	
Introduction to Radiologic Technology; Radiation Protection, Radiobiology, Radiographic Pathology, Professional Issues, Special Modalities	Perhaps, certain aspects of Intro to Radiology such as the Medical Terminology portion. CT Basics , Maybe Pathology and Diversity.	NONE	
Introduction, radiographic pathology, some imaging courses, radiation biology & protection, cross-sectional anatomy	Quality Management Statistics for the Social Sciences	None as we utilize a lot of hands on learning and role playing in our courses.	
It's not the integrity I'm worried about. I teach pre-program medical terminology and quality management online and based on the wide range of grades I believe the way I set up my courses up keeps the integrity. However, with x-ray students, I really believe that they need to have the in-class testing environment just for the discussion aspects, immediate answers to questions, and demonstrations if I see they don't get it (putting it another way - drawing on the board . . . and I have a slinky to explain mutual induction.	Radiation Biology, Radiation Safety, Radiation Physics	None. The students in the program become such a close-knit group that I think all integrity would be thrown out the window as they would all be "collaborating" on all the online work.	
med term	Radiation protection	Pathology	
Medical Terminology	radiation protection, pathology	Pathology, intro class	
medical terminology pathology	radiobiology	physics	
Medical Terminology Anatomy/Physiology Image Analysis and Pathology	Radiographic pathology, cross sectional anatomy, perhaps patient care or intro to radiography.	Possibly radiation physics, medical terminology, pathology, multiplannar imaging.....however, I feel very strongly that students need a teacher to fully understand most of the material delivered in a radiology program.	
Medical Terminology, Advanced Imaging	Registry Review	quality management, pathology, physics II	

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medical terminology, advanced imaging modalities, radiation protection and biology	We already offer Intro to Radiography, Medical Terminology, Basic Computed Tomography, and some Patient Care online. I think that Quality Assurance/Control could be offered online also. I do not think Positioning, Emergency Care or Radiation Protection should be online ever!	Radiation protection and pathology for distance education. Physics and imaging are good for hybrid courses.	
medical terminology, anatomy and physiology, ethics	We are already teaching with distance learning courses (Hybrid classroom courses)	Radiobiology Equipment (physics) Pathology	
medical terminology, image analysis,	We are eventually going to develop at online CT physics class.	Radiographic Pathology	
Medical Terminology, Medical Ethics and Law, Pathology, Anatomy & Physiology, Radiographic Processing		radiographic pathology, medical terminology	
medical terminology, patient care, positioning lectures with keeping the labs,		Radiologic Physics, Radiobiology and Protection.	
Medical Terminology, radiation protection, radiation biology, radiographic pathology, digital imaging, introduction to radiology, Equipment operation and QA, contrast media		Review class, Anatomy, general and X-sectional, Film/Screen lectures - would still need lab time though, ditto with QC. I already do Mammography and management classes on line and X-sectional for some students. Other classes are already hybrid.	
medical terminology, radiobiology, pathology		Same as 6	
Medical Terminology; Computer Applications; Pathology		Special Procedures and Advanced procedures Patient care can be a hybrid course.	
Medical terminology. Cross-sectional. Intro to CT and Intro to PET/CT. Radiation Biology. Radiation Safety.		Stats, ethics, diversity, research methods, cross sectional anatomy	
Most of the classes can be put on-line but the percentage of students who are disciplined enough to do distance learning is at best 65-75%. With the extreme pressure being put on us to have high registry pass rates and low attrition rates I find it best to have all the students in a traditional classroom setting. We lose fewer that way.		supplemental courses such as intro to sectional anatomy	
Most of them. We already have curriculum about 30% online not counting clinical education.		we already have about 50% of our courses via distance. T	

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
My first answer is none. But we could probably put Rad Pathology online, and possibly physics. I'm not a big proponent of online education, especially in applied sciences.		We already have several: Introduction to Radiologic Technology (which includes medical terminology), Pathology, Sectional Anatomy, and Advanced Procedures. We feel those work well online, but the rest we would like in person, at this point.	
N/A		We are a distance education program and utilize Polycom video conferencing technology in order to present and interact with students on both campuses equally. So...nearly all of it? That being said, you may mean "distance learning" as in "all online". There are definitely parts that would be jeopardized (positioning in the lab setting, as an example).	
none		We teach intro to radiology, pathology, sectional anatomy, and procedures IV online and our students are still performing well and we hit our benchmark assessments each year.	
None		We teach Pharmacology on-line and we have talked about using on-line delivery for Pathology and our Ethic and the Law for Radiographers courses.	
None at this time			
None, our program is local and small			
None; NMT curriculum needs to be a taught in a face-to-face (traditional) setting.			
None!			
none. Not for initial certification. The more institutions try to move away from the classroom setting to save money, the more difficult it will be to properly build foundational bases of knowledge for initial certification areas like radiography. For additional certification, some online presentations would be fine.			
not too many... perhaps Patient Care, Intro to Med.IMaging, and Med. Terminology.			

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
Nuclear medicine is too complicated for strictly on-line. A combination of on-line and face to face is the best. Providing on-line audio power points for review and exams on-line is very helpful.			
Nuclear physics and radiation safety, radiobiology, instrumentation, system review			
Oncology and pathology			
pathology			
Pathology & Medical Terminology.			
Pathology, Patient Care, and Intro. to Rad.			
Pathology, Patient care, some basics of "rad physics" (film, screens, circuitry, some rad protection) - but there would still need to be a on campus lab component			
Pathology, registry review,			
Pathology, Special modalities.			
Pathology; Pharmacology; Cross-sectional Anatomy; Quality Management; Advanced Imaging Equipment			
Patient Care and Cross-sectional Anatomy			
Patient care, image analysis			
Patient care, medical ethics and darkroom			
Patient Care. Radiation Protection and Biology. Medical Terminology. Physics			
pharmacology, A&P, physics, rad bio and protection, law and ethics, pathology, all gen ed courses,			
Pharmacology,, Radiobiology and Radiation Protection, Pharmacology,, Radiobiology and Radiation Protection			
Physics			
Physics, radiation safety and biology, basics of oncology, medical ethics			
Positioning skill class and Pathology.			
Principles of Radiographic Imaging and Radiation Biology possibly			
Production and Characteristics; Image Production; Radiation Biology; Imaging Equipment (Advanced Modalities); I would say these could be solely distance learning or hybrid formats.			

Program Director	Full-time Faculty (Did not indicate if PD)	Full-time Faculty (Not PD)	Part-time Faculty
Professional Development.....but I strongly prefer the classroom interaction.			
Protection, Radiation Biology & Exposure / Image Acquisition			
Quality Assurance, Radiologic Review Seminar			
RAD 101, law and ethics (history of the profession), RAD 102, patient care but still need labs on site, RAD 230 Radiographic Procedures III, but, still have on campus labs for hands on.			
Rad Pathology lends itself to on-line. Patient care and education could with the understanding that there be a face to face lab on campus to practice and demonstrate skills. However, I don't think the same model could work for procedures and positioning.			
Rad. Protection & Bio.			
Radiation Biology ----- Anatomy and Physiology ----- Introduction to Pathology			
Radiation Biology and Protection and Pathology			
radiation biology; medical terminology; pathology			

If your program uses a formal outcomes-assessment program, please describe it briefly:

Program Director	Full-time Faculty (Not PD)
A series of statistics, evaluations and surveys are used to assess and measure outcomes.	All courses and faculty members are evaluated by students. Graduates are surveyed 6 months to a year after graduation, employers are surveyed about one year after new grads are hired. Preceptors in the clinical environment are surveyed after each extensive clinical rotation.
Already previously described	All JRCERT accredited programs should be following a formal outcomes-assessment program. Our program identifies 2-3 different indicators for each of our student learning outcomes goals. Indicators are selected to give us a broad view of those student skills across the program curriculum and are used as the basis for curricular change. Data collection is on-going and the results are reviewed for particular indicators each semester, at which time the effectiveness of the curriculum and evaluation tool are analyzed to determine if changes to the assessment plan are warranted.
AMC	Checking on former students and their passing of the boards and employment status
Annually, we evaluate our program outcomes. Each outcome is tied to a specific course within the program. We utilize a tool for measurement of each of the program outcomes and summarize our findings and report them to our communities of interest.	consists of statistics of passing ARRT scores, completion of graduate and employee surveys and also reviews certain criteria of competency scores as well as assignment averages.
As a JRCERT institution, we must have an Outcomes Assessment plan, where data is collected based on selected goals. As data is collected, trends can be visible from year to year. If data remains consistent, than tools are changed or new items for assessment are chosen.	Employer satisfaction surveys.
As prescribed by the JRCERT	it includes most of the things mentioned in the above question, self-evaluations by students, student evaluations of faculty, employee and graduate surveys
As required by the JRC	JRCERT template
Based on detailed employer surveys, graduate surveys, ARRT performance.	n/a
College Surveys, program Surveys, Mid-term assessments, courses evaluation by students	Our college requires SLOs to be reported. This assessment process is very involved and requires us to evaluate our courses thoroughly.
Data driven outcomes based on specific goals, learning outcomes and defined benchmarks.	Outcomes assessment are performed for not only JRCERT standards goals, but every course that is taught within the program
Divided into goals, three outcomes for each goal and benchmarks and measuring tools for the outcomes. Year after year the scores are compared to each other. When benchmarks are not met, a reason or reason for this is found or approximated. Attempts are made to counteract the probable reason(s) for not meeting the benchmarks.	Pre-graduation program evaluation; 1-yr post-graduation program evaluation; local employers & potential employers evaluation; individual course evaluations; student comments within generalized discussions; previous student anecdotal comments when meet at seminars; other
Each student learning outcome is evaluated with quantitative measures against a benchmark. Any deficiencies are addressed as a group and improvements implemented.	Program outcomes; course outcomes; semester evaluations
Employer survey, graduate surveys.	SAAC -student academic assessment report
Employer surveys; graduate surveys; course evaluations; calculated graduation or retention rates in addition to 1st time ARRT pass rates.	SLO
Evaluation of the following: completion rate, first attempt registry passing rate, registry average score exceeding the national average, employer evaluation of the graduate, graduate evaluation of the program	Students fill out survey- however this is only done in courses where faculty are probationary. It is not a requirement and is generally not performed in courses taught by tenured faculty.
Extensive program assessment process of program outcomes, largely following JRCERT model.	Surveys of both employers and graduates.

Program Director	Full-time Faculty (Not PD)
First we do an evaluation by student graduates/then we look at board scores/ then we do outcomes by surveying employer's supervisors of our graduates.	Using many of the evaluations mentioned above, the program monitors specific set of outcome that helps us to evaluate our goals. We have an outcomes assessment committee that meets several times throughout the year to monitor these assessments and report back to our EAC. The outcomes assessment committee is also responsible for making recommendations for changes to our Goals and Outcomes that are monitored. We also perform a SWOT analysis biennially.
Follow JRCERT recommendations.	We analyze data taken from several sources such as mid-program and terminal program student evaluations to access the student understanding and improvement. We also take data from several courses and clinical to access the critical thinking skills of the students. Graduate surveys are done from both the students and employers.
Follow-up questionnaires with program graduates plus tracking employment and NMTCB results. BTW question 10 should allow more than one response to be keyed in.	We complete benchmarking at both the college level and for the JRCERT. Between the two, we have 10 goals, with at least two outcomes per goal. It is quite a bit of data to track, but it really helps in identifying areas in which we excel and where we need improvement.
For each syllabus, there are objectives and assessed outcomes pertaining to those objectives	We do a yearly employer and graduate survey, generic abilities assessment, and we do a large 6 year assessment
Incorporates program effectiveness elements (attrition rates, boards pass rates, program quality evaluations, and job placement rates) and standards related to clinical competency, written and oral communication, critical thinking, and professionalism. Specific course rubrics, test questions, discussion questions, projects or presentations as well as clinical competencies, professional development evaluations, employer surveys and graduate surveys are used to gather the data.	We do employer evaluations (of graduates), we do self-evaluations by graduates, we have graduates evaluate our program.
It conforms to the requirements of the JRCERT, it is extensive, formative and summative, and reviewed and revised on a regular basis to ensure relevance.	We have 6 program goals, several of which have multiple outcomes that are measured. Our assessment includes tools used, benchmark scores, time frames, personal responsible for gathering specific date, results and then actions that will be taken after the results are reviewed.
It is mandated by JRCERT and our institution. We have 5 outcomes with several assessment means for each one.	We have a formal outcomes assessment program that conforms to JRCERT Standards. In addition, our institution requires a formal student learning outcomes process.
It is required for accreditation by the JRCERT	we have an outcomes assessment plan that measures both formative and summative areas of coursework throughout the program
items are chosen throughout the program in all areas of affective, cognitive and psychomotor domain	We have identified specific measurement tools we use to measure both program and college outcomes.
JRCERT - 4 goals and 2-3 student outcomes for each goal, build assessment/measurement tools around those	We have set an assessment program to meet the requirements of JRCERT/ Middle States. We have a schedule of assessment per semester and an annual committee meeting.
JRCERT directed assessment. 4 goals, at least 2 student outcomes per goal, at least 2 measuring tools per outcome, course, clinical, exit, graduate, employer, & student satisfaction surveys.	We have specific goals that we try to achieve throughout the academic year. Annually we compile our data and ensure we have met our benchmarks set for each of these goals. If we do not meet the benchmark, we see what can be done to improve the program and meet the goal in the future.
JRCERT goals and outcomes weighed by various tools	We have student learning outcomes and program learning outcomes with benchmarks, methods of evaluation, results for formative and summative evaluation, action plan
JRCERT requires 4 goals related to Clinical competence, Critical Thinking, Professionalism and Communication. There are student learning outcomes for each goal that our program looks at to assess the effectiveness of the program.	We measure program and course effectiveness along with clinical education outcomes and compare them with previous year's results. From there we decide if we need to revise, eliminate or create new outcomes-assessment tools. However, we are a sonography program and encourage our graduates to sit for the ARDMS registry exams and not the ARRT due to the rigor of the ARDMS exams in comparison to the ARRT exams. Most hospital department heads have stated that they will not hire an individual holding an ARRT sonography credential.

Program Director	Full-time Faculty (Not PD)
look at the JRCERT requirements	We survey our graduates 1 year and 5 years after completion of our program to see if our program prepared them for the workforce and the responsibilities they need to perform on a daily basis.
match goals to outcomes	We use a variety of methods and technique which include all of the above lusted to assess all program outcomes annual along with the required JRCERT program effectiveness data. In addition to that we assess all program courses individually on a rotating basis by looking at two to four learning outcomes within the course using the same variety of methods and techniques.
Matrix of both programmatic outcomes and learning outcomes.	We use a variety of employer surveys, employee surveys of the graduates and outcome learning. We have key outcomes that we have developed a formative assessment in the first year and then a summative assessment in the senior year to demonstrate the growth and improvement.
Meets JRCERT standards	We use particular SLO's to measure our program learning outcomes. We use measures at different intervals throughout the program. We use these measures to see deficiencies in the program and to create improvement plans.
N/A	We use quarterly grades, exam competency, graduate surveys, employer surveys
Our outcomes assessment plan has several items that are scored based on employer surveys, graduate surveys, performance evaluations of students within the clinical portion and also from courses within the program on campus. I feel this gives us input from a variety of sources, giving us more valid information.	We use what SACS requires.
Our program conducts a student outcomes-assessment program and program effectiveness outcome assessment program as prescribed and required by the JRCERT.	Yes, it is currently being redesigned (consisted of 44 tools and was not accurate)
Our program uses a formal outcomes- assessment program as outlined by the JRCERT.	
Outcomes assessment plan consists of 4 major goals with multiple outcome measurements associated with each goal. Data collected is reviewed regularly by a wide variety of people concerned with the quality of our education program. When an area for improvement is identified, program officials ask for input from communities of interest and an improvement plan is implemented.	
Outcomes assessment aligned with JRCERT Standards	
Outcomes Assessment is based on JRCERT requirements. We also compare grades with previous classes. This is not necessarily limited to data assessed through Outcomes Assessment Plan.	
Outcomes assessment is performed by the program director, faculty and Advisory Committee.	
outcomes, goals, at least 2 tools to measure each goal, assessment at year one and year 2	
pass rate, job rate, completion rate, graduate surveys, employer surveys, course evaluations, instructor evaluations, etc...	
PLO & SLO for school, and JRCERT outcomes assessment provides tracks many aspect of student learning and program effectiveness. When there are areas that fall below, or just meet benchmark, the results are reviewed and discussed by faculty and RT committee to seek solutions for improvements.	
Students are evaluated at multiple intervals throughout the program in didactic and clinical courses to assess their performance levels. Prior to graduation, students take an exit exam using a standardized exam similar to the ARRT to assess their level of preparedness.	
The formal outcomes-assessment program is the one we developed in conjunction with the JRCERT.	
The JRCERT is pretty clear on this. Our assessments are at www.lorainccc.edu/radtech under "program effectiveness"	

Program Director	Full-time Faculty (Not PD)
The outcomes assessment program evaluates student learning outcomes in 4 areas as required by the JRCERT. In addition, students complete course and faculty evaluations each semester, graduates are surveyed 6-9 months after graduation, and graduates' employers are surveyed to evaluate program effectiveness.	
The outcomes assessment program is constructed using JRCERT guidelines. The data is examined and changes to the program are made based on this data, as well as input from our advisory committee and graduate surveys.	
the program defines four goals and student learning outcomes. This data is kept and evaluated on a yearly basis by the communities of interest.	
The program measures student communication, critical thinking, professional development, competence in knowledge of image production and evaluation	
This is a PDCA plan that is completed with the use of Task Stream.	
Trac-dat	
TracDat	
typical.	
Use the JRCERT guidelines for the outcomes assessment.	
We are accredited by JRCERT so we are required to do an outcome assessments. This keeps us in touch of great things happening in the program and if there is something falling out we need to know, usually we see it by this yearly assessment.	
We are part of a JRCERT accredited program. We have an outcome assessment plan based on student learning outcomes related to the goals of our program as well as program effectiveness data.	
We ask the student how they feel prepared clinically for simulation, treatment planning, treatment, and patient care aspects.	
We assess our goals yearly. We use such things as the ARRT results, graduate and employer surveys, and the Generic Abilities assessment to asses our goals. The department goals are linked to the College's goals in the assessment. If we are deficient in something then we devise an action plan to improve.	
We assess student learning outcomes related to our four goals. Our four goals are based on competence, critical thinking, communication, and professional development. The plan uses a variety of measurement tools.	
We choose areas of classes to evaluate, such as specific embedded exam questions in tests based on previous exit HESI results that we have the students take, focus on areas based on ARRT exams results. Also some rubrics for positioning courses.	
We collect data on program goals and student learning outcomes annually	
We evaluate different goals and learner outcomes. We have an employer survey and former student survey, as well.	
We follow the assessment outcomes that was developed with the JRCERT.	
We gather survey data on all our students as they exit the program and also we conduct employer surveys. Our advisory committee meetings are also devoted to focused input on our curriculum and clinical internships. We also have peer-evaluation of teaching during the year by outside faculty.	
We have 5 different goals that we measure which include knowledge, professionalism, communication, ethical behavior, technical skills, critical thinking and board pass rates.	
We have a goals and SLO that are evaluated on a yearly basis in accordance of JRCERT standards.	
We have a program compliant with JRCERT standards	

Program Director	Full-time Faculty (Not PD)
We have an assessment committee that reviews graduate exit evaluations, employer evaluation of graduations, and evaluations by graduates 1 year out.	
We have an assessment plan and collect data with regard to program goals and student learning outcomes. Our assessment committee meets twice during each cohort year. the first meeting is to assess data collected for the first part of the year and discuss it for changes, etc. At the second meeting we do the same but then also look at the specific measurement tools for possible changes, etc. and look at our overall assessment plan, mission and goals.	
We have an assessment plan that has goals and learning outcomes. We use these to assess the success of our students as well as areas to improve on for program improvement.	
We have an assessment program on campus that we call "Program Planning and Effectiveness". We meet every term with the VP of Academic Affairs and evaluate different criteria that is beneficial to program completion and boards pass rates.	
We identify goals, student learning outcomes and benchmarks for performance. Assessment of performance occurs on an annual basis, however a 3 year assessment cycle if typically followed before goals and SLOs are introduced or revised.	
We identify outcomes to assess at the beginning of each academic year. Outcomes are measured according to student learning and program effectiveness	
We look at areas approved by JRCERT. We also use University SLO requirements.	
We look at set benchmarks, indicating student success in the professional setting	
We look at the 4 standard objectives given by the JRCERT utilizing various measurement tools	
We set goals and objectives according to JRCERT guidelines, monitoring each cohort to assess for trends and analyze data for performance, ethics, professionalism, skill level, etc. to evaluate the program for improvement and student success.	
We take the annual benchmarks for student and program assessment and analyze the data and do an action plan.	
We use a detailed outcomes assessment plan, in accordance with JRCERT requirements. The plan uses surveys, average grades, etc. to assess oral/written communication, professionalism, knowledge/competence, and other baseline criteria.	
We use a program which is based on the JRCERT requirements	
We use a standardized and approved assessment program which uses learning outcomes, goals, rubrics benchmarks and time frames.	
We use an assessment plan that is updates yearly to make changes to better assess a variety of aspects.	
We use assessment guidelines provided by the JRC, our college is involved with TK20 assessment	
we use assessment recommended by JRCERT	
We use Compliance Assist at the college, and our program has to use that also.	
We use our program goals to drive the formal outcomes assessment, which is modeled after the format established by JRCERT. Assessment is performed using a variety of tools, semester evaluations, resource surveys, student exit evaluations, graduate surveys, in addition to attrition rates, ARRT 1st pass rates, etc. We evaluate our tool annually and make program improvements based on these outcomes.	
We use program outcomes assessment as prescribed by the JRCERT.	

Program Director	Full-time Faculty (Not PD)
We use SLO's in all classes. We do not grade students in their individual assessments, but instead grade students on Their performance and evaluations	
We use the JRCERT mandated outcomes assessment plan along with the institutions' assessment plan. We measure program-specific learning outcomes and institutional outcomes such as critical thinking, oral and written communication. Some of our institutional learning objectives are under construction.	
We use the Outcome Assessment Plan required by JRCERT We use the outcomes assessment program in use by our University affiliate	
We use the outcomes assessment recommended by the JRCERT.	
We use this but the previous question only allowed one answer. We assess throughout the program in writing, and mathematical computations to identify student who need remediation BEFORE it impacts their learning in the imaging courses. We compare cohort to cohort outcomes but ALSO compare within he same cohort to demonstrate the level of progress and improvement over time within the same group. Each group starts at a varied level from a benchmark perspective, documenting their progress within their own group provides us with useful data on validation of methods and outcomes sequentially.	
We use tracdat to record and assess formal outcomes in addition to the above mention methods.	
We uses the Assessment plan as solicited by the JRCERT. The plan includes competencies per area as Patient Care, Exposition, Clinical competencies, Quality and Image Evaluation, Communication, among others areas.	
Well look at a lot of data: grades in certain courses, technologist assessments of students, employer surveys, graduate surveys, etc.	

If you don't use qualitative data as part of your procedures for evaluating the effectiveness of your program and courses, why not?

Program Director	Full-time Faculty (Not PD)
Already submitted	I believe that we should. We haven't dedicated time/resources to this in the past.
Easier to complain than offer real life responses or good suggestions.	I guess we never thought of doing this.
Have not ever thought about it. Something to ponder. Graduates are invited to advisory board meetings, however there has never been a response.	It has never been discussed
I'm not sure	It may be done at the college level however, it is not done within the program. We are trying to restructure many components since we were left in a poor state by the former PD.
Many other tools used.	Not really sure of why not
N/A	Other methods are more effective
N/A	Student input
Not familiar with it	The college is very quantitative data driven. Sometimes, I think they miss the importance of qualitative data.
Open ended questions asking for feedback and suggestions for improvement.	The director is in charge of all of that. I have no say in the matter.
Seems difficult, time-consuming, inefficient, and potentially less valid.	Too subjective
Students do not want this	
They can add comments at the end of the surveys.	
This has been done in the past. For the most part, it is difficult to reap useful data. To be more meaningful, more faculty need to participate. Often faculty members become defensive. Unfortunately, some faculty members lack the ability to step outside themselves enough to view such procedures as working toward program improvement. Instead, it is viewed as an attack on their ability or integrity.	
Time requirements to conduct such qualitative data review analysis.	
Too subjective	
Too time consuming.	
USING OTHER DATA, INSTRUCTOR PERFORMANCE ANALYSIS, GRADUATE EVALUATIONS WORK WELL	
We get that information from quantitative data taken from clinical instructor and clinical coordinator evaluations.	
With open enrollment stats are up and down with the different cohorts. Data not useful when students only want to pass the class and move on.	

What topic(s) in the radiologic sciences would you be interested in researching?

Program Director	Full-time Faculty (Not PD)
Admission criteria and The evolving role of the RT.	admissions, mammography topics
Any topics related to NMT and/or teaching in the radiologic sciences	Aduana Protocols
As indicated above - I am actively preparing for retirement by winding down my activities. As I hold both an FCAMRT and a doctorate - "Been there, done that".	Anatomy, Positioning
Biological effects	Are admission practices a factor in program effectiveness data?
Clinical instruction: How to help technologists become better front line instructors	computed tomography
Clinical site perceptions of student learning. Many digital topics.	Digital Imaging, Radiation Protection, Effective Teaching Methods
Competency performance objective evaluation	e-learning in radiologic sciences, student radiation doses,
Concept mapping across the curriculum , Nursing Education is using this teaching strategy	education, radiation therapy, fertility, students understand and knowledge of cancer
Currently no specific in mind, in the process of looking into possible topics.	educational aspects. Such as distance education and success/outcomes. Limitations/barriers to using electronic evaluations/competencies in the clinical setting, Use of new/other technologies for distance education teaching.
Digital image quality	Educational technology/teaching strategies
dose issues, radiation risk	Healthcare communication; radiation protection
Dose reduction in CT; Efficacy of contact shielding for dose reduction in radiography and/or CT; Communicating dose/risk to patients	History
Dose reduction techniques	How does HIPAA affect the integration of technology in radiology,
DR Imaging. Student interaction in a working radiology department.	Inter professional education
Education	Item # 20. is difficult to answer. I would prefer a "depends" option.
Education methodologies, radiation safety, radiation physics	My research interests focus on human information behavior related to diagnostic medical imaging, including medical image perception, collaborative information search, the opportunistic discovery of information, and information support for increasing research capacity.
Education topics	N/A
Educational success factors. Lowering patient dose using CR/DR equipment.	not interested at the moment due to my master's studies down, the road this may be something I would like to look into more.
educationally related	not sure
Emotional Intelligence - for my dissertation.	Not sure
Ergonomics	Nuclear medicine
Explore how can faculty members motivate the new generation to study and pass the ARRT certification.	patient care related topics and safety
How to connect clinical and classroom information to improve student learning.	Radiation biology
I have published research in the field.	Radiation protection
I am currently supplying relief for other faculty researchers.	Shielding practices
I don't have the time to do it, but in my Master's program I found one tiny research study on the effect on blood cells from a CT exam. This was done on a single sample from a researcher, placed the blood cells in a phantom and saw a significant change. This was an "in vitro" study. I would love to do an "in vivo" study using blood counts drawn on patients prior to CT scans and blood counts drawn on the same patient within a short time following barring specific conditions. Talk about a time consuming venture! My concern is does a chest/abdomen and or pelvic CT scan reduce a patient's white blood cell count and make them at higher risk for infection following the scan.	State societies, the decrease of fluoroscopic examinations, student competency, domestic violence, clinical environment
If I was doing research I would look into shielding myths and reality, and use of shielding in the clinic.	Topics related to what enhances students learning - use of technology, mentoring, etc.

Program Director	Full-time Faculty (Not PD)
If I was, one would be how students learn with all of the new e learning available to them - Example -why do they still need to print out power points slides, when they are available for them on their computer or tablet to take notes.	
image production and patient dose. dose reduction techniques	
Imaging with new contrast media preparations.	
impact of resources on performance in developing nations	
increasing student participation	
Instrumentation. Patient outcomes. PET.	
latex allergies	
molecular imaging	
Molecular imaging	
MRI/PET	
Not sure	
Not sure, but if I found a doable project for the students, I would like that.	
Nuclear Medicine, PET/CT or MRI, SPECT/CT, CT	
online education effectiveness, information transfer issues and their impact on patient safety, information behavior of adult cancer patients, information needs of cancer survivors.	
Online education, critical thinking	
Open/don't know	
Pathology; student retention; digital imaging/exposure	
Patient fear to x-ray.	
Patient safety issues--especially dose reduction/preventing dose creep. Quality Management, especially reject analysis/productivity rates of technologists with the use of digital technology.	
Physics	
Quality control, Patient care and educational practices assessment	
Quality Management, Improving ARRT exam scores	
Radiation Safety. CT dose control.	
Radiation protection in a digital imaging environment; Perception of radiation risk (patient, technologist, radiologist)	
radiation protection practices	
Radiation Protection- Basic Patient Care	
Radiation Protection/Radiation Biology Imaging Exposure Principles Imaging-related Pathologies	
Radiation safety, environmental risk assessment comparing medical imaging radiation exposure to environmental radiation exposure, Command and control dichotomy between radiologists and technologists as compared to that of architects and engineers, radiologic engineering and environmental health.	
radiation therapy	
retention and progression, future of	
Student Success	
The differences between rural and urban radiology.	
The feasibility of a practical exam for ARRT Certification to go along with the written exam.	
The lack of diversity in healthcare.	
The need for a practical exam in radiation therapy.	
training and education of future faculty, particularly those persons who have no previous educational experience	
Undecided at this time.	

What do you see as barriers to engaging in a research project of personal interest?

Program Director	Full-time Faculty (Not PD)
Am close to retiring	Access to resources, time, experience.
An extremely heavy workload	financial constraints
Availability of time to do so.	Having time to perform the research. Getting "buy in" from the staff involved with the research project.
Barriers are usually the time needed to perform research and funding.	I don't know where to begin.
Constantly changing technology	Lack of experience
Cost and no institution support	Lack of time given course load.
Cost and time.	more computer software to increase my research capabilities
Finding topics that are most interesting for researching.	my current barriers are is time and energy because I am completing my Master's degree
Funding to support the level of time it takes to execute a quality study and replace my classroom teaching.	N/A
How to get started	none
I have done one. I did one for a master's thesis. It was student radiographer specific.	not enough time
I just don't like it!	Not enough time with teaching and my own schooling.
I will be retiring in a few years so this is not something I would start at this point in my career.	the time needed to complete
I will be retiring in less than two years.	time
I will be retiring this year.	Time
lack of motivation	Time and administrative support. Teach 8 courses each year no time to do research and expectation is to do research in your free time. Workloads will not be lightened to enable participation in research
Lack of time	Time and equipment resources to perform experiments.
Lack of time!	Time and knowing how to go about it.
Lack of time.	Time and money
Lack of time. I work at a teaching institution that is short staffed where research and publishing is not seen as a priority, and in fact is seen as interfering with teaching.	Time commitment and funds
money	time commitment; paperwork and/or navigating the research process with IRB and other paperwork items at our University; limitations of own understanding of statistics and how to know what is relevant.
more researched based at hospital setting	Time constraints at work will not allow this. I am very active in professional societies both locally and on a state level so my outside home time is limited due to this.
NA	Time element and personal issues.
No time. Too busy managing current responsibilities.	Time required
None	Time, money, energy
Not interested at this point in my career.	Time, money, release time from work
Not really. It's just that we do not receive NIH funding, which is really what the University would like to see.	time, support, finances
Not sure what to research, but I would like to do it.	time, teaching load is high
Number one item is time commitment involved. Barley have enough prep time for classes, let alone additional time for research.	Time; So only yes to 22 if there was such a thing as time.....
personal desire, time constraints	Time. The teaching loads carried by radiologic technology faculty members are quite demanding and finding time to conduct research can be very difficult. Funding can help ease this issue by providing course buyouts for the faculty members or funding for hiring graduate assistants, however, the level of funding currently available through the ASRT is insufficient for supporting most intensive research agendas. It can facilitate surveys or small-scale interview studies, but is too small to support the personnel costs of course buyout or graduate assistant funding.
Release time to do so	Time.....I teach on an overload with no clerical help at all. I have no time!
Teaching load	timer, money, energy
time	
Time	

Program Director	Full-time Faculty (Not PD)
Time	
TIME	
Time and access to research data	
Time and cost	
Time and current responsibilities.	
Time and interest.	
time and MONEY	
Time and money.	
TIME AND PERSONEL CONSTRAINTS	
Time and resources	
Time and resources.	
Time constraints	
TIME CONSTRAINTS	
time constraints, lack of knowledge	
Time limitations	
time limits	
Time restraints	
Time to do the project	
Time, Resources, Ignorance of the process	
Time, resources, interest.	
Time, support, "quiet".	
Time, time, time	
time, time, time....	
Time, topics, not attached to clinic setting, etc.	
Time, with teaching requirements and clinical duties, leaves little daytime	
TIME!!!	
Time.	
Time. Program Directors spend most of their free time doing paperwork for the program, college, or accreditation agencies. You hardly have time to teach.	
Time....	
TIME/MONEY	
To investigate with patients their reaction to x-rays	
To many task to fulfills as a program director.	
too old	
Work load at current position	
workload	

Do you provide any incentives for your students to attend meetings or conferences? If so, in what form?

Program Director	Full-time Faculty (Not PD)
A few are going to the ACERT conference. We provided the conference cost and transportation. Our RAD group provides fundraising opportunities.	A monetary scholarship requiring demonstration of leadership (one suggestion to meet requirement is to participate in a professional organization). Students' organization is provided with local professional organization meeting information and encouraged to participate. Students are made aware of meetings for local physics group and given bonus points for attending by adjunct physics instructor in her class.
a small amount of deferred clinical time	bonus points on tests; time off clinical
All students in the program have all expenses paid to attend the state conference.	clinical banked hours are granted
Allow students to earn time for attending meetings that they can use if they miss clinical due to sickness.	Clinical time
Allow time away from clinical assignments to attend meetings. Support fundraising efforts to attend meetings. Our organization budgets funds to supplement students efforts to attend professional meetings.	clinical time for attendance
clinical credit	Comp time from clinic for appointments or when out sick.
compensation for time at conference/seminar	Comp time may be earned.
Compensatory time for hours attended	day off
course assignment with grade attached	Extra credit
Currently, budget restrictions has taken all travel out of our budget. Therefore, costs incurred are paid by the individual. Even if we use program incentives as in extra credit for course work; it is not affordable for the student to pay registration, hotel, travel expenses, etc.	Hotel, Travel, Fun, Time off campus/clinical
Days off clinical.	It is part of their grade
days off of clinical	most are cost prohibitive, but locally we often give bonus marks by using questions directly related to the education sessions on exams.
email	N/A
Encouragement and time to attend is pretty much where we are with available funding.	no
Encouragement. Use material for semester presentation. To learn.	No
excused from clinical to attend	NO
excused time off from clinical education	No- part of their grade
Extra credit	No, it is mandatory
Extra credit / extra personal comp time hours	no, they are typically too far away and would place a financial burden on them. If there were scholarships that would be a different story
Faculty work with student groups to help raise money to defray the costs with attending meetings like RSNA and state meetings.	Nothing other than their missed time is excused.
Free attendance (waiver of registration fee)	Our program encourages each junior student to attend our state convention each year. The membership and convention fees are paid for them by our institution.
Fundraising	Our students attend a professional conference during their last semester in the program. It is optional, but the majority of students attend. The incentive is the experience they gain from the sessions and the networking with other students.
Grade	Our students attend the state conference as part of their clinical education requirements. They complete learning objectives and the completion of those objectives is included in the clinical course grade.
I encourage students to attend ASRT/ASTRO meeting as a class. If they do not see it as a student, they may not have the opportunity as a new therapist.	Pay for conference with college funds.
I have but this past year we lost funding	Pay registration if students are not free.
I offer clinical time 1 to 1 for hours at a conference or meeting provided the student submits a paper (reflection) of what they gained from the experience.	Personal Leave Time, Personal Leave Time

Program Director	Full-time Faculty (Not PD)
I provide the information and try to get the money from the school to pay for the students' conferences	Release hours
I want them to attend the national ASRT/ASTRO meeting because as therapists they may not get to see it.	Release time, Earned time off
I would allow students time off from their clinical rotation to attend relevant conferences and meetings.	Required for course grade.
If their abstract or manuscript are accepted, I apply for grants or college funds to attend free of charge.	Requirement of program to complete 12 hours before graduation.
If they attend National State or Local educational meetings and conferences they are granted additional release time for personnel use and or clinical time missed.	some reimbursement for expenses
Incentive provided is the opportunity to add professional activities to their portfolio and to demonstrate to employers their commitment to the profession.	Sometimes. We pay for the meeting or conference.
letter grade assigned for participation	State ISRT convention
LOCAL MEETING THEY MUST PRESENT	Students lack of funds and free-time tends to lead them to the local organizations first.
Merits which can be used to remove demerits or to earn gift certificates at graduation	Students may attend the regional seminar instead of attending clinical.
Minimal financial support; release time for attendance; cash awards are available for student competition winners.	The college pays for their registration and hotel at our state annual meeting. Members of my department sponsor student membership to the ASRT. We put their names in a hat and draw 3 or 4 names each year then each of us personally pays for the student's membership.
News, announcements, email	They are required to attend a registry review of their choice. They are required to subscribe to ASRT Radiologic Technology and do activities with directed readings. They are offered extra credit opportunities at times to attend state society board meetings or other state society functions.
no	They gain benefit days for attendance
No	they get additional vacation time for attending.
No extra incentives.	time off from clinic
No, it is a requirement for professional development.	Time off from clinical and class. They can use their activity fees to pay for conferences. Can use for course requirements
No.	We fund registration and lodging.
No. I would love to have them participate in the "Student Bowl" but it is always during finals week.	we give them clinical time
Not at this time.	We give them clinical time.
Not really. If students are participating in the conference student competitions, I will try to assist them with expenses, but otherwise, I don't.	We give them the time to attend conferences.
Our College provides some funding for students to attend conferences	We provide a membership to the SDMS. We do not provide specific incentives for students attending conferences, but we strongly encourage them to do so if they are able.
Our facility pays registration, transportation and hotel fees.	We require them to go to our state conference as part of their clinical education experience.
Our state conference is built in to their schedule and they get class time and clinical time for attending.	Yes, all seniors go to the national conference each year
Our students are required to attend the state conference. We give them time off from clinical rotations and class for this. We have developed specific assignments they must complete while at the conference. This counts as part of their clinical education grade.	Yes, Student are given credit in their clinical education classes for attending continuing education meetings. The Programs sponsoring institution provides funding to send all of the students and two instructors to the annual conference of the state's professional society. This includes travel, meals, registration, and hotel.
Our students receive comp time away from the clinic to attend conferences and in-services.	Yes! They do not have to attend clinical for those days!
Paid registration to meeting	Yes. I give extra time off from clinical if they attend this other type of educational experience. I also require participation in scientific display contests and article writing for our state organization as part of one of my courses. Everyone is expected to join the ASRT and the CSRT (California Society of Rad Techs)

Program Director	Full-time Faculty (Not PD)
Personal time off from clinical. For example, if a student attends a conference, they can earn personal time off in proportion to the number of actual hours the conference was in session.	Yes. Our program does fund-raisers to enable all students to attend the MoSRT annual conference. Personally, I offer bonus points for students entering the Scientific Display competition and the Essay competition. I also coach a team of students to participate in the Student Bowl competition.
Professional development and/or comp time credit	
Release time	
require state participation as part of the clinical courses	
Required	
required, incentive days off from clinical	
Student government pays for hotel accommodations.	
Student organization is encouraged to attend the TSRT annual symposium	
Students are encouraged to attend the Texas Society Radiologic Technologists annual Symposium.	
Students are given comp time for attending professional meetings.	
Students are required to attend	
There aren't any in the close area for students to attend they are allowed time off that equals the time they spend at a conference.	
This year we asked for students interested in the educational conference in Orlando in February. We asked the Student Government for funds for student's hotel and registration. Three students agreed, incentives are waiving clinical attendance and class attendance (plus their fees are paid) and travel will be by me in a college provided vehicle per college rules.	
time off from clinic	
Time off from clinical	
Time off from program	
Time off from school, professional awards	
Time off to attend meetings	
time off to attend. Radiology Club incentive program.	
We allow time for attendance at a boards review seminar.	
We attend the state convention each year with all students in our radiologic technology program. They get release time from lectures but learn the value of interacting in the profession as well as how to collect CME in the future.	
We have a buzz bowl team that participates at our State Conference, and pay all fees for them to do so, as well as pay for a coach for them.	
We have fundraisers to be able to bring all of our Senior students to the West Coast Educators convention every year... Very good convention for all, educators, radiographers , and students.	
We have no local society Yes - I provide extra credit for students attending meetings.	
We have none in our district.	
We have not been doing so as our local / regional society has been inactive. We recently discussed the revitalization of this group at a local educator's meeting. When the meetings are resumed, we will give students comp time for attending.	
We help student fundraise to attend. Students are not required to attend meetings but if they don't they stay in their regularly scheduled clinical rotations and provide an assignment for missed class time. In 13 years, I have only had one student not attend our annual meeting trip.	
We let it count as class and/or clinical time	
We require student attendance at our state annual meeting and have graded assignments they must complete.	
We take 20 students per year to state conference	
yes	
Yes - Additional "time off"	
Yes - clinical time & financial support.	

Program Director	Full-time Faculty (Not PD)
Yes - funding and time to attend provincial association conference annually	
yes - the students have a club sponsored by the associated student body and receive partial funding from the institution through this.	
Yes - time off from clinical rotations.	
YES IF THEY DO THEY GET A DAYOUT OF CLINIC	
Yes- time off for the time spent at conferences with documentation. Students Attendance is required and can be used in their portfolio project. They are given an assignment to reflect upon what they learned and why it is important for a specific presentation (which they choose) and they receive a grade for it which counts toward their class grade.	
Yes, clinical days off	
Yes, Credit for attendance towards clinical hours.	
Yes, earned additional P time if it is outside of normal clinic or class time.	
Yes, extra credit	
Yes, extra point or time off	
Yes, I apply for grants to enable students to attend the state conference.	
Yes, one path way for honor society	
Yes, pay for cost of transportation, hotel rooms.	
Yes, take them every year to either the West Coast Educators conference in Florida or the Atlanta Student conference.	

If you answered "no" to the above question, please indicate how often you think revision of the curricula should occur: every 3 years, every 7 years, every 10 years, or some other number of years (please specify)?

Program Director	Full-time Faculty (Not PD)
3	2 or 3 years. Technology changes too rapidly in our field even from 1 year to the next.
3 years	3 years
5 is a barely acceptable minimum; every 3 years would be better if feasible.	3 years would be better to make sure we are staying current
5 years is inadequate to keep pace with technology changes. Exams such as IVU and myelography that are seldom seen as full blown exams and exams that are reemerging such as SI joints and mastoids need modified at a quicker pace.	At least every 3 years, are field is so vastly changing at a quick pace. A lot changes in 3 years.
7 years or as changes occur	Every 10 years
7 years; at college we need to go through a 2 year revision and catalog cycle before we can implement and then 3 years later we are revising again.	every 2 to 3 years
Any revision period of less than 5 years could create issues. For example, at our education institution we need about two years lead time to make a change official	every 3 years as technological advancements are greatly changing relevant content and practice in the fields
appropriate	I don't mind the 5 year cycle but I would like for the ASRT and ARRT cycles to coincide
Changes in real world happen so quickly, that 3 years may be more appropriate. However, textbooks don't keep pace with technology so it becomes difficult to provide the best educational materials to students. Maybe it's time for the profession to make things happen more quickly so that publishers do update sooner as they do for nursing. It shouldn't take 10 years to have a technology like CT become part of the entry-level technologists every day practice. So yes, curriculum changes more quickly to keep pace with the change of practice.	It isn't so much the revision time frame as the continuity of revision throughout the document. The depth of detail is not consistent from section to section and some things that are completely outdated and irrelevant to the current technologist knowledge base remain in the curriculum far longer than they should. (ex. plumbicon, vidicon, the function of CRT monitors, non-digital recording devices for fluoroscopy...)
Depends on the subject matter - too frequent, not often enough depending on the topic and its rate of change.	It's a yes/no answer. 5 is *probably* adequate, but in the current environment of digital advancements, a quicker turnaround time of curriculum updates would likely be recommended (something closer to 3 years?).
every 3 years	N/A
Every 3 years	With the changing technology I think 3 years would be more appropriate for revisions
every 3 years - at maximum	
every 3 years would be more effective due to the rapid changes in technology and techniques as related to radiation therapy	
every 7 years	
I believe 5 years was reasonable in the past, but with more rapid technological change in the imaging sciences occurring now than in its entire history, I believe the cycle should be changed to every three (3) or four (4) years if possible.	
I feel every 3 yrs. would be good	
it SHOULD BE An ONGOING PROCESS, THOUGH EVERYTHING DOES NOT CHANGE SOME THINGS DO	
Some aspects of curriculum, especially related to technological development, are worthy of review on a 3 year basis. Other curriculum components do not require regular review and would be adequately accommodated by a 7-10 year cycle.	
Technology is changing faster than the curriculum. By the time it is out in textbooks, some of it is obsolete. However, changing the curriculum without current text material is not reasonable. Both of these must be done together to support instructors.	
Technology is changing so fast right now - you cannot lock a timeline of changing the curricula. It needs to be changed to meet the need of the profession. There is still too much old, outdated material being taught that needs to out. If a graduate ends up working with older equipment, the employer can teach them.	

Program Director	Full-time Faculty (Not PD)
While Nuc Med is growing considerably compared to other modalities, it would be wise to evaluate every three years for now.	

What do you believe are the top three needs to enhance the educational preparation of students for entry into the profession? Things you just don't feel are covered with enough depth, things faculty have a difficult time transferring to students, things students don't have a chance to experience in the clinical setting enough.

Program Director	Full-time Faculty (Not PD)
"Customer satisfaction" skills which are so important in the ultra-competitive health care market. Lifelong commitment to learning. Appreciation of the power they hold to make the changes necessary in our profession.	<ol style="list-style-type: none"> 1. Getting rid of the teaching of old technology that is in the current curriculum...film, processing etc. It takes up too much valuable time, they could do something else. 2. Fluor and IVUs 3. TJC requirements and other radiology management concerns like coding, cost of exams, etc.
<ol style="list-style-type: none"> 1. Importance of professionalism and making sure the students realize that imaging is a profession of service to others, not themselves. 2. Students lack of actual clinical experience on many types of exams covered in class. 3. Too many students/programs and not enough clinical sites for students to get a variety of imaging procedures for clinical experience and competency purposes. 	<ol style="list-style-type: none"> 1. Lack of standardization of equipment. 2. Difficult to cover film-screen information because this is no longer used at any of our clinical site.
<ol style="list-style-type: none"> 1. Application of technique and dose reduction in the clinical setting. Many techs do not take the time to think about technique, but rely on AEC and digital technology to provide an appropriate image. Students suffer from this, and need more application of technique. They get it in the school labs and in didactic, but not consistently in clinical. 	<ol style="list-style-type: none"> 1. Course needs to be longer 2. Tougher entrance requirements 3. Better simulation equipment / resources
<ol style="list-style-type: none"> 1. Exams that are most likely performed in other modalities. 2. How the ends and outs of the computer and the hardware portions. 3. IV Therapy 	<ol style="list-style-type: none"> 1. Diagnostic radiography is a field in & of itself - too much expectation by ARRT, ASRT, and others to include "Advanced" skills within an ever reduced time frame 2. Comprehension / Application of technical factors due to increased automatic consoles/equipment 3. Students don't get to experience fluoroscopy overheads
<ol style="list-style-type: none"> 1. More active learning/critical thinking exercises-some students just want to memorize the information without understanding it well. 2. Image evaluation-not enough time spent on the evaluation of images at the clinical education settings. 3. Better communication skills-students are not as communicative today. 	<ol style="list-style-type: none"> 1) Information literacy skills - how to locate, evaluate, summarize and apply clinically relevant information 2) Image analysis 3) technical factor selection
<ol style="list-style-type: none"> 1. Surgery 2. Trauma such as things going to CT. 	<ol style="list-style-type: none"> 1) Preparation at the high school level 2) Knowing technology 3) Group activities
<ol style="list-style-type: none"> 1. Bachelor's degree as the entry-level requirement 2. Curriculum has depth but, resource guides for faculty would be helpful as to what text, authors, etc. we can research. 3. Clinical sites have become so restrictive to faculty and students experiences, it is a national issue in all areas of health training. Students aren't given enough time to think things through due to patient loads and culture in some cases. 	adapting to clinical experience in a variety of settings, more experience with QC and digital technology, i.e. understanding the workings of CT and post processing
<ol style="list-style-type: none"> 1. Fluoro exams - not enough performed to get students competent and then technologists complain that they can't do the exams fast enough. Gone is the day we did 10-15/day. Students are lucky to see 10 in a year at some of our facilities. One facility doesn't do fluoro anymore. :-) 2. Special procedures.....arthrograms, ERCPs, etc. 3. Patient Care - we stress this in the program and some facilities and technologists are HORRIBLE with how they care for patients. 	C-arm/surgery
<ol style="list-style-type: none"> 1. How to understand concepts instead on trying to merely memorizer information 2. Critical thinking skills 3. How to be more curious about information (not to be passive learners) 	Communication skills for millennials to insure success in the workplace. Simply a lack of college preparation, students are arriving unprepared for the expectations of college.

Program Director	Full-time Faculty (Not PD)
<p>1. Interactions with co-workers. 2. Problem solving (technical problem/ trouble - shooting) 3. Fluoroscopy examinations.</p>	<p>Communication skills, critical thinking and problem-solving</p>
<p>1. More procedure experience. CT has taken over many of the imaging procedures. 2. Better writing skills. Our program requires a lot of writing; however written communication can never be over-done. 3. Critical thinking skills; experience is the best teacher, however the opportunity to build skill and critical thinking is limited.</p>	<p>Computer material - digital image acquisition - material is very involved and technical;</p>
<p>1. Students need to be more aware and engage critically with the demands of their workplace. The various personalities and pressures of the typical radiation therapy workplace require a professional attitude and approach. Students also need to cultivate career goals beyond being Therapists and look into other related fields like management, being a Physician Assistant and clinical research.</p>	<p>critical thinking, work ethics, lifelong learning</p>
<p>1. We need to present many theoretical concepts that are difficult for students to grasp and I feel like we need more creative ways to demonstrate these concepts. 2. I also feel like sectional anatomy is huge skill that we try to teach and we need more access to human anatomy sections to compare with CT or MRI images. Some e-resources that are low cost are helpful but more access and side by side comparisons. 3. I would like to have some high definition video or camera shots of electromagnetic radiation emission to use as an illustration for physics.</p>	<p>Currently we are concerned with some clinical sites numbers of radiographic exams; thus the repetitions students are able to get for mastery. Example, fluoroscopy, skull/head work, etc.</p>
<p>1) Professionalism 2) Patient assessment 3) Time to gain true clinical competence. Many programs in our state have shortened the program of study to 4 semesters. I have no idea how a student can be truly competent in that short period of time.</p>	<p>Curriculum revised to match student clinical experiences; none of our facilities use film, only a few even use CR. Yet, we are still teaching density, contrast as based on films. Students don't get that reinforced anywhere, yet they still have to learn it in depth. Some students have a difficult time with trauma situations. The OR is also an area they need more time in.</p>
<p>1). More hands on experience especially with console. 2). Students often don't see all of the competencies required by the ARRT. 3). Students often learn more from simulation at the educational setting than in the actual clinical setting.</p>	<p>Digital imaging principles, surgery and fluoro</p>
<p>A c-arm for my lab, more OR experience, and more OR experience</p>	<p>Employability skills, stress management, positive working environment</p>
<p>A practical exam to go along with the written exam. VERT, DOSE, and use of other simulators would help with this process. Also, collaboration with radiation oncologists and medical physicists on this project would ensure that all aspects are covered.</p>	<p>Employment / job ethics along with health care ethics. Patient care comes so natural for certain students and is more difficult for others.</p>
<p>access to technology</p>	<p>Fluoro, skull work</p>
<p>According to our Employer survey this would be in technical factor selection. We cover this material in great depth, students just don't rely on technical factor selection for good images. What I am trying to "beef" up in our curriculum is an understanding of patient exposure doses and how to communicate information to the patient or physician with confidence.</p>	<p>Fluoroscopy due to limited procedures being performed.</p>
<p>Again, each program should have VERT. It puts a linear accelerator in the classroom and offers discussion on every topic from equipment to treatment to side effects to treatment planning.</p>	<p>fluoroscopy and or</p>
<p>All the different types of digital equipment, surgical procedures, trauma procedures</p>	<p>Fluoroscopy, c-arm,</p>

Program Director	Full-time Faculty (Not PD)
An understanding of accreditation without the full force of JRCERT as being the only "acceptable" accrediting agency. A respect of the views and beliefs of all organizations involved with educating and registering students or at least a respectful dialog. The organizations ACERT and AEIRS being better known to the educators community as well as state or regional and similar respect seen between groups. The time spent on curriculum is institutional driven and in control of the institution.	Good foundation of anatomy, patient care, and medical terminology
Any type of skull procedures, Trauma radiography (in the truest sense) and fluoroscopy is declining. These are all weaknesses in the clinical setting.	Health system as a whole, insurance/reimbursement
Better writing skills, Critical Thinking Skills, Research skills.	image informatics; professionalism studies, digital image processing
C ARM	Invasive procedures. Better quality phantoms.
C-arm procedures, surgery experiences in the clinical setting	It is hard that film is no longer used but the registry still asks these questions. and many of the digital book have conflicting info.
Changes to the field	lab hands on
Clinical competencies are sometimes difficult to obtain in a rural clinical setting.	medical assisting has been a task that many of our graduates have had to learn on the job.
Clinical exposure in high stress environments such as trauma and OR; Role of imaging as part of the bigger picture within an institution - understanding financial implications, reimbursement, regulatory requirements, etc.;	medical education prior to starting x-ray program, work ethics, dealing with the public
clinical, more time in classroom with studies to pass registry, live labs	Mobile, surgical and trauma radiography
Communication, interacting appropriately, professionalism	need more surgery clinical time, headwork is a challenge anymore
computed tomography	OR,, Fluoroscopy, Trauma
Confidence, Conflict, Pride	Patient Care, Image Acquisition, Radiation Protection
CR/DR Education	Processor & film
Critical thinking (not enough opportunity to experience); practical experience with examinations that are not readily available.	Radiation protection practices
Critical thinking skills , Work Ethic , love of learning	Reading, writing and math
Critical thinking.	Simulation programs for those rarer exams. It our area, IVPs are almost obsolete because they send everyone to CT. When a student graduates and begins working, they may have never even seen and IVP. There needs to be a way to prepare them for exams like this by using a real world type simulation.
Digital Imaging- technical factors grid usage, 15% rule	Soft skills at times. Some technologists are not good role models for positive skills. They are wonderful at displaying the negative skills most often. True cross table work is needed more. Many technologists will roll patients to get images they really shouldn't get due to the injury. They have taken the skill out of some examinations.
Digital radiography - the students are taught the content while technologists have not acquired the knowledge. Technologists are using the technology and do not understand how it works. Film processing - It is taught in the classroom without hand on exposure, The students find it hard to understand something they cannot see.	Sometimes students have difficulty with the physics of radiography, including CT and MRI. Just not enough time
Eliminate outdated subjects so more time can be spent modern technology. Just reducing the number of questions on the Boards in a certain subject doesn't help since the entire subject area must still be taught.	Students need to have completed a pre-req general physics course.
Emotional Intelligence with the younger students coming into the program.	Surgical radiography/C-arm, fluoroscopic exams, learner-centered teaching
Enhance -	TeamSTEPPS; SBAR; interprofessional education to reduce medical errors
Ethical Values, Professionalism and Knowledge of every department in radiology	The areas that are not tangible. (processing, QA/QC, sensitometry)

Program Director	Full-time Faculty (Not PD)
Exam numbers are down compared to what old-timers are used to. Even our busiest sites have down time.	The top need to enhance the educational preparation of students for entry into the profession is clinical experience with techs that actually know what they are doing. These techs need to maintain the knowledge that was taught to them, which will allow our students a better learning environment. The students cannot be strong if the techs in the work field are not reinforcing the information that the students are taught in the classroom setting. The techs also need to be more detail and work oriented.
Exposure to the field through conferences etc. students don't have the money to attend	Tutorial videos of exam that are infrequently performed. Fluoro exams at rural sites.
fluoroscopic exams for the GI tract	We no longer have any facilities that use film/screens and automatic processors. It is difficult to teach about this technology when it is so outdated and the students never get to see it. Having to still teach the terminology associated with film/screen is ridiculous, but they have to know it to pass the registry. We have a processor at the school but our budget has been slashed so badly that we are unable to maintain it.
For Radiation Therapy, the Virtual system would be of profound benefit to students, but the cost is far beyond what most school budgets will ever allow. Development of a tool such as this that is more reasonably priced would be a dream come true for radiation therapy education.	
Health Care Management (how hospitals/clinics work);	
Healthcare reform and management	
Here in Quebec, more time for practical stage in needed	
I believe questions involving film and processors need to be removed from the registry exam requirements. Students need more practice thinking, and as much as I hate to use the much maligned term, critical thinking. Even with prerequisites in place for our program, student preparation in this area is dismal at best.	
I think that the amount of content in circuitry, film and FS cassettes, film processing and to some extent the amount of cell biology covered is not necessary to develop our students into excellent techs. There is a lot of rote memory that does not translate to the clinical setting. The digital area as well as grown to be an overabundance of information. This theory can be stream lined to provide more time for procedures and positioning that is applicable.	
I would like to see FUNDAMENTAL CT and FUNDAMENTAL cross sectional anatomy as entry level knowledge	
In the area of equipment and maintenance, due to technology advances technologist do not really work on equipment or do as much maintenance as in the 1970s ARRT boards should make better alignment with material tested in this regards.	
Including too much in the required curriculum that has no clinical correlation	
increased use of educational software, increased quality of professional/ethical behavior of students, increased ability to perform research	
Instrumentation (components within the imaging system and how they affect QC)	
Insufficient opportunity to experiment with CR/DR equipment leads to students misunderstanding of technical factor selection & manipulation. Access to such equipment, or high-quality simulators would improve student understand of the importance of proper technical factor selection on noise, recorded detail, distortion, artifacts, etc.	
Interpersonal communication	
Interprofessional education	

Program Director	Full-time Faculty (Not PD)
It would be very neat if there were more good videos available showing the workings of the equipment (for the ARRT more so). The students love a You Tube video I found of a CT scanner spinning with the cover off. A breakdown of actual equipment broken apart to show the parts would help our registry scores. Our students are clinically very prepared - we keep the clinical hours required as high as possible. I would like more "x-ray errors" available for students to view. We have some in the lab, and we've learned how to make some JPEG images with phantoms, but real life errors are the best lessons.	
Manual techniques help them understand what needs are necessary to produce the best image, professionalism, career development	
Many exams are just not performed as frequently as in the past. This causes gaps in the students' education. So many have been taken over by other modalities.	
Meeting all accreditation standards and then some	
More professionalism, teamwork components,	
More simulation labs for NMT; greater availability of textbooks and learning resources for NMT students;	
More structured image evaluation, technical factor selection and manipulation, especially in a filmless environment	
more support in image evaluation and appropriate patient care for the young and elderly	
non-routine, critical decision making situations are difficult to replicate. Exposure to various equipment (different manufacturers).	
not sure	
Operating room experience is our biggest deficit. The second biggest complaint from students involves technique selection. They want me to force them to learn it.	
OR procedures, pathology, digital imaging	
OR work is difficult to get sufficient experience because so much needs to be taught before they can safely go and then time is limited. Work ethic is almost impossible to transfer. They expect everything from faculty, but have very low expectations of themselves.	
Our grads are fully prepared.	
Our students do not get to experience fluoroscopy studies (not including C-arm) very much.	
Past procedures which are the basis for what is seen in clinic today.	
pathology and the radiation sciences -equipment and exposure	
Patient care - become a CNA before an RT. Can't think of anything else.	
Patient care skills including EKG, venipuncture, etc.. need additional time.	
people skills	
plain old experience- we don't do enough clinical time. Can't have enough clinical time	
portable and surgery rotations - that is why I want a digital portable. Fluoroscopy	
practice with technical factors, don't turn the profession into button pushers.	
professionalism	
Professionalism- Patient Care	
radiation physics and biology, machine operation and patient care	
Remove Screen/Film from ARRT Exam	
Research opportunities, Writing capabilities. More chemistry and biology upfront.	
Resume writing and interview techniques, patient care techniques, effective patient communication skills	

Program Director	Full-time Faculty (Not PD)
Simulation in performing various types of high level examinations such as trauma cases; simulation of patient care interactions (student to have opportunity to role play as the patient); opportunity to perform OR and trauma cases on own or with another student as partner with only indirect supervision of technologist; opportunity to sit with PACS administrator, DI supervisor or radiologist as they read	
Skull positioning, proper technique selection, motivation soft skills... work ethic, ethical behavior and honor	
Some of the procedures we are required to teach and the students are required to competency test on are just not done in the clinical settings anymore. That time would be better spent elsewhere on procedures and concepts they will see. Also, film/processing information is optional in the curriculum now, but still fair game on the boards, how can that be?	
staying up with new advanced technologies and what the department managers now want	
Stop teaching film screen, expand film analysis - students don't get as much on digital systems as they did with film screen. We need to stop teaching film screen and processing and focus solely on digital imaging and analysis of those images.	
Students are no longer doing many GIs, or skull work. Also, I believe students could benefit greatly if educators have better teaching skills. It is not enough to know what we teach, we also need to know how to share the information.	
Students are not prepared for the intensity of the learning or the amount of information that must be mastered and retained. Clinical hours are too short for students to build any real proficiency	
Students do not usually come with a broad/deep background in science and math; are uncomfortable questioning what they are told and admitting what they do not know.	
Students need more time in the clinical environment to thoroughly learn their skills.	

What do you perceive as the greatest need of new clinical instructors?

Program Director
A background in teaching and evaluation skills. Huge need for this.
A better understanding of Radiation Protection/ More of a desire to attend Clinical meetings and be a part of the decision process.
A concise web based course in how to be an effective clinical instructor
A mentor
A true understanding of the program policies and assistance with one-on-one instructional techniques.
A way of encouraging them to preceptor a student while they balance an increasing workload clinically. It is getting harder for them to strike a balance and reimbursement is driving this push to do more with less.
A work ethic. The need to go out to clinical to help the students - it is the number one thing that reduces attrition.
Ability and want to teach students.
Ability to engage all ages and need for some diversity training.
Ability to work with students of differing skill sets
Ability to work/counsel a student having difficulty
access to resources
acquiring continuing educational requirements in regards to student interactions
Attracting them and retaining those we do attract.
Backbone , guidance , assistance with documentation , friends outside of clinic so that the students are not considered to be their friends , impartiality , wisdom and compassion
Because academic culture (even at a community college) is so much different than healthcare culture, new clinical instructors need to be mentored for at least the first year.
Being a good liaison between students and clinical staff.
book knowledge- exposure theory, tools theory such as grids, AEC, digital. It is difficult to teach the proper use of our tools when the technologists don't know or follow it. With the forgiveness of digital, technologists in general are doing poor behavior. They do not follow ALARA anymore. The constraints of the film world are gone. This is why I am a strong believer on having ALL technologists recertify. I am extremely frustrated by the ARRT's decision to grandfather in technologists. They do not know what they are doing with use of our tools and make it extremely difficult to teach. I have technologists using the same technique for portable cxr with and without a grid. The forgiveness of digital makes techs sloppy, unethical, and bad examples for my students.
CI's need to be recognized as supervisors and provided release time from day to day patient duties to work, mentor, supervisor, and evaluate the students' needs and scope of learning. JRCERT must step up and require the CIs to have a minimum number of hours per week with each student. Many year ago they had in the standard a highly recommend that one hour of Ci release time per student ratio. The managers then used that requirement to put the CI's hours not performing exams in as educational and it helped with the productivity numbers. Per the Standards. If they don't we will continue to have CI's abused or more often performer due to lack of job recognition and accountability.
Classes on effective teaching skills. How to successfully manage technologists who do not practice technical skills they were taught while in a radiography program.
clear understanding responsibilities and expectations regarding students
Clinical Instructors Workshop
Common ground among the Exposure Indices regardless of the Manufacturer.
Communicating with the Program Director, CIs and students and how to mentor students so they understand.
Communication training, having crucial conversations with students who struggling. Time management and self-care information.
Confidence building in how to shift practical clinical knowledge into academic/teaching knowledge.
conform to clinical policies and procedures
Cooperation from staff technologists and hospital management.
Curriculum needs
DESIRE TO WORK HARD AND BE FLEXIBLE
Development of a nurturing attitude, moving from production mode to teaching mode.
Education on effective instruction and evaluation
Education on how to interact with the students to provide constructive criticism.
Education on teaching and evaluation methods, supervisory skills, communication skills; computer skills
Education on teaching in the clinical setting
Education on the basic tenets of teaching
Education.
EDUCATIONAL DOMAINS
Educational resources
Educational resources on working with new students
Enthusiasm to work with students
evaluation guidance
Excellent understanding of digital imaging technology
experience
experience and education
Experience with clinical skills and dealing with adult students.
Explaining why they do what they do

Fairness in grading/evaluating the students. Not letting personal issues cloud their professional judgment.
familiarity (thorough) with curriculum and means of engaging students
Familiarity with all program policies, particularly in sites that host multiple programs. Consistency in evaluation, and not being afraid to constructively criticize student performance.
Formal education on how to train students in the clinical environment and classroom setting.
Full-time Program clinical instructors need to be able to work with hospital staff to promote student learning. They need to be able to multi-task, understand the protocols and methods used at clinical site(s) they are working in; have a good understanding of the education requirements described by ASRT, ARRT, and JRCERT. These do provide all the guidelines necessary to teach the principles of radiography. Hospital staff Clinical Instructors need many of the same mentioned with the added layer of working as a technologist for their hospital. Being able to help their fellow technologists understand what it is to teach a student. It is not necessarily the same as when they went through their program.
getting formal training in clinical instruction and evaluation
Good examples
Guidance on how to teach.
Have some background in education or teaching methods, Bachelor's degree preferred.
Having a teaching mentality; receiving recognition for the time and effort required.
How to effectively evaluate.
How to feel comfortable giving constructive criticism and how to manage students they don't feel are meeting their expectations.
How to give constructive feedback.
How to handle difficult students.
Implement Policies
Information
Information for grading and assessing students
Instruction on basic education concepts.
instruction on how to work with the younger generation
Instructional videos for the clinical instructor
KEEP UP WITH THE CHANGES
Keeping current with the changing educational requirements.
Knowing how to teach students and be a positive role model
Knowledge of the program and skills to be a successful clinical instructor.
learn how to communicate and motivate the student without discouraging them
Learning new advancements
learning policies and allowing students to do procedures by the book.
Learning to accept a first year student who is just beginning their career
maintaining high standards
Mastery of student handbook and policies. Also transition from "friend" to "instructor" is difficult sometimes.
Mentorat
Mentoring
Mentoring and educational methodologies.
Mentorship and Workshops.
N/A
Need to consistent and objective evaluation
NONE
objectivity
patience, honesty, and dedication to improving the profession
Providing enough time in PET/CT and PET/MR
Remember what it was like to be a student,
Resources about the process of learning, the need for students to have repeated exposure/opportunities to gain proficiency, understanding of the importance of feedback, direction about giving effective feedback, the difference between feedback and assessment.
skill dealing with students
skill in objective evaluation and a continual need for professionalism
skills in understanding learning styles
Supervision and evaluation techniques, along with some understanding of student learning outcomes. Teaching/learning techniques.
supervisory skills
Support
support from managers
Support from the site they work;
teaching methodologies and understanding of learning disabilities and learning styles
Teaching tactics and coaching.

What resources do you use to help new clinical instructors satisfy JRCERT requirements for clinical instructors?

Program Director
1 on 1 instruction with clinical coordinator
1. Discussion of CI role and job description as defined by the JRCERT. 2. Overview of ASRT standards for an accredited program. 3. Orientation held by Clinical Coordinator or new CIs, 4. Monthly CI meetings with discussion of student issues/concerns, ideas for program improvement, discussion of student outcomes, etc.. 5. Participation on Advisory Board for Program. 6. Clinical Instructor Academy course from ASRT. 7. Sharing of Student Evaluations of Clinical Instructors, with follow up discussion individually on how to improve and be more effective, as needed.
A "course" designed for clinical instructors. The program through ASRT is too expensive.
A new CI check list
Academic Review - Assessment forms - JRCNMT requirement review
access to supervisory workshops and computer skills courses; time to review accreditation requirements with faculty on an annual basis
Advisory meetings
advisory meetings - provide information & carry to clinical with one on one section.
annual all day educational methodology workshop
ASRT
ASRT
ASRT Clinical Instructor Academy Modules
ASRT clinical academy online modules
ASRT Clinical Instructor Academy
ASRT Clinical Instructor Academy & personalized training with full-time faculty
ASRT Clinical Instructor Academy; Also, we hold a 3 CE workshop each year and offer educational topics that assist with their role
ASRT Clinical Instructor Academy. Clinical faculty instruction.
ASRT Clinical Instructor CD series.
ASRT clinical instructor materials.
ASRT Clinical Instructor module.
ASRT Clinical Instructor modules
ASRT Clinical Instructors Academy, free CE opportunities
ASRT documents and personal Continuing Education presentations from our college
ASRT Program, one on one time with the Program Director; mentoring with current CI's
Bi-annual training workshops including teaching methods, ongoing weekly support visits by program CI to answer questions, check-in, give guidance, we do initial training sessions with a checklist of items we cover with all new CIs for our program.
Bill Mulkey Clinical Education Book
Clinical Adjuncts CI Meetings CD and quiz about policies
Clinical Instructor Manual
Clinical instructor meetings
Clinical Instructor Symposium; one-on-one clinical coordinator in-servicing with new clinical instructors.
Clinical Instructor workshops and JRCERT Standards.
Clinical Instructors Academy from ASRT
Close and continuous support, Professional development and courses
Conferences and seminars geared to CIs
Conferences, college orientations, articles.
Continuing education session on an annual bases. Access to general online resources via Blackboard.
Creation of a program clinical instructor handbook. ASRT clinical instructor resources, attend state meetings.
Education, mentoring
Experience
experience and a handbook for them to use when they work with students and for any questions they may have.
experience as clinical instructor ASRT Clinical Instructor Academy DVD
Face-to-face workshop
Faculty meetings , Teaching tips , free articles , one on one counseling
Faculty meetings. Providing instructors with articles and CD's, promoting professional development seminars
Follow a mentor
Formal CI workshop (not mandatory) not limited to CI's. Approved for CE
Have used Radiologic Technology journal articles . Recently purchased ASRT clinical instructor series.
Hold in house seminars, attend workshops & seminars, and shadow a "seasoned" clinical instructor.
I have not had a new CI in many years.
In house training sessions.
Independent study educational modules; faculty orientation
Information
In-services

In-services using ASRT, ARRT and JRCERT documentation. Specific Program documents and handbook. Workshops and individual sessions for Q/A.
instructional program
JRCERT resources
Meet with CI's to discuss policies and procedures. Sign acknowledgement forms.
Meet with department staff. Allow them to observe evaluations for a while prior to executing them.
Meeting with clinical coordinator. Degree and work experience requirements.
meetings with them
Mentoring and the various and sundry sets of published guidelines etc.
Mentoring, encouraging attendance at ACERT and other seminars. On campus individual sessions on teaching and learning, understanding the evaluation process.
mentoring, workshop
mentorship
Mentorship and Workshops.
Mulkey's Clinical Instructor's Guide
n/a
N/A
n/a
NA
No new clinical instructors; therefore no formalized structure
None
None. Just out policies and interactions.
one on one mentoring
One on one mentoring. NJERI CI workshop
Online Evaluations and effective communication via email, face to face, telephone calls.
Orientation on student evaluation and online documentation of student progress
Our clinical education coordinator holds personal conferences with clinical instructors.
Our program has created a training program for new clinical instructors. They must first complete a power point presentation with a current faculty member, and then are involved in hands-on training in evaluation. The new CI is not allowed to competency test a student without performing repeated mock testing and signing off by a current faculty member.
Preceptorship program
Program Handbook, ASRT modules, Articles and open lines of communication
Program presentation and test. do's and don'ts
Provide clinical instructor training workshops
Recommend ACERT clinical track. Our college has a Clinical Instructor Enhancement program annually in spring where all clinical faculty can come and tweak their skills and network with other clinical instructors/preceptors from all allied health.
regular email correspondence; forward appropriate journal articles with areas of key emphasis highlighted; annual face to face meeting as a group; role playing
routine evaluation and counseling
The clinical coordinator is the greatest resource we have to have CIs understand what their responsibility to the student is. Several of our new CIs are program graduates and they know the program standards and expectations.
The Clinical instructor's academy and CD is of benefit but occasionally is very dry in its presentation.
THEY ALL HAVE TO KEEP UP WITH STATE AND REGISTRY CONTINUING ED
They are listing as "acting" CI for appropriate amount of time.
THEY MUST MEET JRCNMT REQUIREMENTS
Time and flexibility in allowing instructors to pursue advanced degrees.
Training
Unfortunate that you ask about JRCERT and not the other accreditation bodies. Not the way to make the other modalities feel included.
used to use seminars but got too expensive- will try to use ASRT clinical instructor academy if can get funding
Various.
Watch the ASRT video for clinical instructors which is very boring... so most are only required to do Chapter 4.
We are under JRCNMT and we meet the requirements. Experience is the key.
We bring them some materials, and we are trying to increase their education by making our own materials. ASRT modules were not well received and we had poor cooperation. I thought it was a great things, CEUs included!

Would you recommend the specific program through which you are pursuing your degree to other R.T. educators interested in obtaining the same degree?

Program Director	Full-time Faculty (Not PD)
College has become money hungry and not caring for students.	all online, complete in less than 2 years full time
DEPENDENT ON WHAT THE PROFESSIONAL WANTS TO PURSUE	Counseling is a degree that focuses on listening more and talking less. students need to be able to come to instructors for assistance and need to be heard.
discontinuing program	I did a master's degree in business solely for my own interest. It has been a great benefit to me, but not really related to work.
Does it matter? The concern seems to be, you need to have to have a higher degree. That is all. That said, I would think web designing might be an area of appropriate development.	I learned so much by completing my MS degree
Even though this is not a radiologic sciences degree it develops the whole person and provides leadership skills that are empowering for anyone.	I think it is a good program and the information is very current.
Excellent	I would highly recommend the degree I already obtained. It was an MS in Instructional Technology and was entirely online. The degree covers both instructional strategies and the use of technology. It was invaluable.
Excellent research skills	It is actually a Masters in Career and Technical Education. It is perfect for someone who has been practicing in the industry for many years and just became an educator.
good program	It is all online and has is education focused. Helps with assessment and curriculum design.
Good program; well-rounded faculty.	It is Master's in Health Science degree with an emphasis in Education, very relevant for instructing within a HC program or as a clinical instructor at a site.
Grand Canyon University has an Ed.D. in Education or Hospital Administration. The ease of working with them and online makes me recommend it.	Large focus on teaching adults
have families to support	not in a program
Health Studies (Health Education) is not specific to radiology. It can be as it is an umbrella type course of study. It is primarily focused on education of health related topics and the research of these topics. I would suggest technologists look into this one closely before pursuing the degree. It may not be what you think.	Not very structured
I believe that new graduates need to get an advanced degree in Business or Health Administration	Outstanding faculty, some on-campus learning time, specialized track for educators
I completed by Master's degree but I would recommend my program to others.	The facility that I am working with gives me credit for my radiography training toward my degree.
I have a Human Resource Masters	this is a leadership and management program, with courses in conflict management, interprofessional teams, management which includes managing employees and budgeting.
I receive my PhD in health education at a university in which the program faculty are all retiring and the program may be downsized or eliminated due to university budget cuts.	totally online program
I strongly believe that Rad Sci faculty should have degrees in Rad. Sci. so I only recommend the MSRS degrees.	Tuition is reasonable, program is manageable with teaching schedule, and course work directly applies to my faculty position.
It is a good program if you like in class or on line work, as the university has both types of classes. It is very structured. Classes are not cancelled. There are an appropriate number of students in the classes. The majority of the instructors are great.	Was very expensive and communication via distance learning was not always efficient
It is a program that requires a lot of dedication and motivation of its students.	yes it will make them more well rounded
It is fully a distance learning program with excellent student resources.	Yes, it is GREAT! Very helpful and interdisciplinary. Dissertation components are built into the program.
It was a doctorate in Education with a focus on Post-Secondary Administration	
n/a	
no because of cost - did online program	
not pursuing	
Not too expensive Competency-based	
sorry not pursuing	

Program Director	Full-time Faculty (Not PD)
The degree is a PhD in Health Science and includes research, health, education and management. It provides for a broader future opportunity.	
The degree is in education, not radiologic sciences. It is important to gain from pure educator's techniques and ideas for integration into radiologic sciences education.	
The PhD is in library and information management. The information management is very connected to knowledge and learning. It also has an strong research component.	
They offer a wide variety of electives.	
We are very proud of the graduate technologists we are producing. Excellent teaching and outstanding clinical sites.	
Yes - they offer several tracks for the MSRS. Administrative, PET/CT, Educational and Radiologist Assistant (RA).	

Appendix A: 2004 and 2015 Comparisons

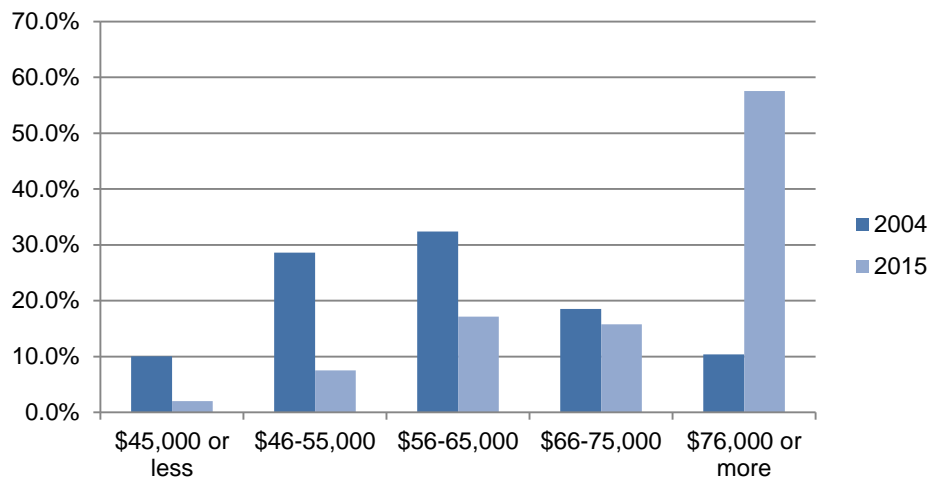
This appendix to the 2015 Faculty Development Needs Assessment provides tables and significance test results for all comparable questions that were found to have statistically significant differences between the 2004 and 2015 surveys. Please note that only analogous questions were compared; if a question had different possible responses, or if the analysis was different between 2004 and 2015, no significance testing was conducted. It is also worth noting that the response rate for the 2015 survey was far lower than the response rate for the 2004 survey. Caution should be taken when considering the differences between the two samples, even where they are statistically significant.

Within what range does your current salary fall? (Program Directors)

		2004	2015	Total
\$45,000 or less	<i>n</i>	32	3	35
	%	10.1%	2.1%	7.5%
\$46-55,000	<i>n</i>	91	11	102
	%	28.6%	7.5%	22.0%
\$56-65,000	<i>n</i>	103	25	128
	%	32.4%	17.1%	27.6%
\$66-75,000	<i>n</i>	59	23	82
	%	18.6%	15.8%	17.7%
\$76,000 or more	<i>n</i>	33	84	117
	%	10.4%	57.5%	25.2%
Total	<i>n</i>	318	146	464
	%	100.00%	100.00%	100.00%

The percentage differences were statistically significant $\chi^2(4, n = 464) = 126.0, P < .001$.

Within what range does your current salary fall? (Program Directors)

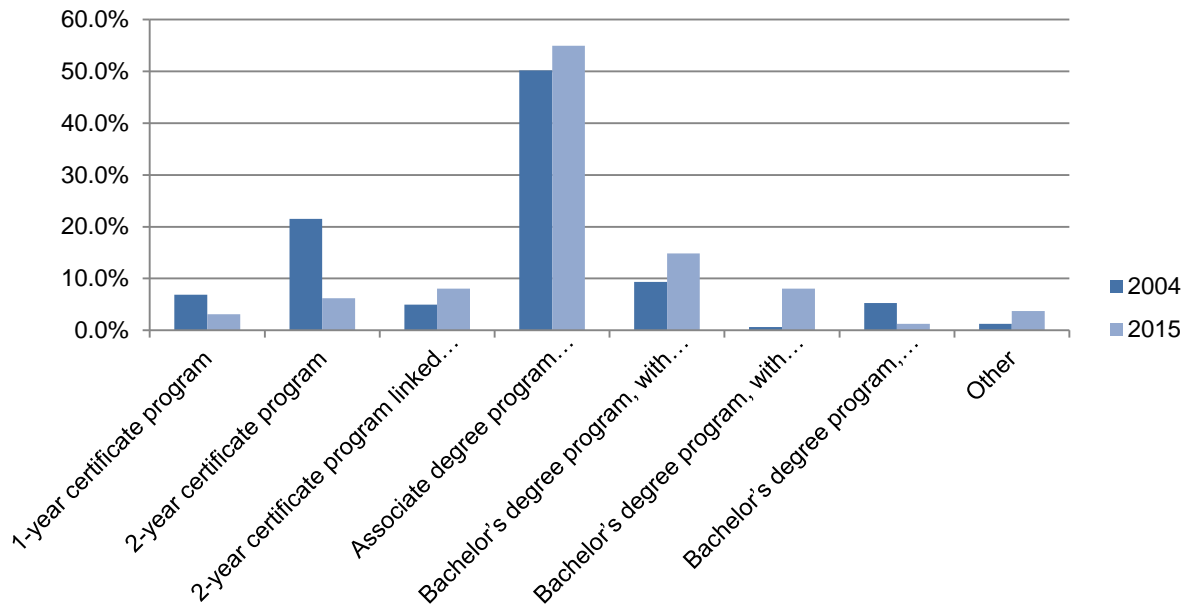


Which of the following best describes your program structure?

		2004	2015	Total
1-year certificate program	n	22	5	27
	%	6.9%	3.1%	5.6%
2-year certificate program	n	69	10	79
	%	21.5%	6.2%	16.4%
2-year certificate program linked to a college to provide general education	n	16	13	29
	%	5.0%	8.0%	6.0%
Associate degree program	n	161	89	250
	%	50.2%	54.9%	51.8%
Bachelor's degree program, with general education requirements satisfied after modality-specific didactic and clinical work are completed	n	30	24	54
	%	9.3%	14.8%	11.2%
Bachelor's degree program, with general education requirements satisfied prior to beginning modality-specific didactic and clinical work	n	2	13	15
	%	0.6%	8.0%	3.1%
Bachelor's degree program, followed by a one- or two-year certificate program	n	17	2	19
	%	5.3%	1.2%	3.9%
Other	n	4	6	10
	%	1.2%	3.7%	2.1%
Total	n	321	162	483
	%	100.00%	100.00%	100.00%

The percentage differences were statistically significant $\chi^2 (7, n = 483) = 49.8, P < .001$.

Which of the following best describes your program structure?

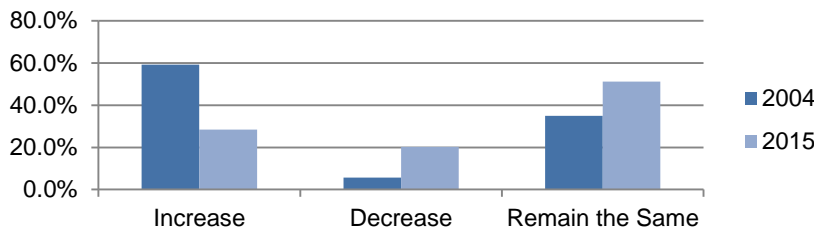


Over the past three years what trends have you seen for the following—Average age of your applicant pool:

		2004	2015	Total
Increase	<i>n</i>	188	45	233
	%	59.3%	28.5%	49.1%
Decrease	<i>n</i>	18	32	50
	%	5.7%	20.3%	10.5%
Remain the Same	<i>n</i>	111	81	192
	%	35.0%	51.3%	40.4%
Total	<i>n</i>	317	158	475
	%	100.0%	100.0%	100.0%

The percentage differences were statistically significant $\chi^2 (2, n = 475) = 48.6, P < .001$.

Over the past three years what trends have you seen for the following—Average age of your applicant pool:

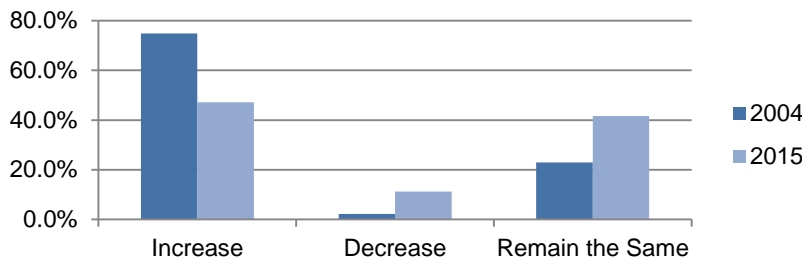


Over the past three years what trends have you seen for the following— Number of program applicants with a college degree:

		2004	2015	Total
Increase	<i>n</i>	239	76	315
	%	74.9%	47.2%	65.6%
Decrease	<i>n</i>	7	18	25
	%	2.2%	11.2%	5.2%
Remain the Same	<i>n</i>	73	67	140
	%	22.9%	41.6%	29.2%
Total	<i>n</i>	319	161	480
	%	100.0%	100.0%	100.0%

The percentage differences were statistically significant $\chi^2 (2, n = 480) = 42.0, P < .001$.

Over the past three years what trends have you seen for the following— Number of program applicants with a college degree:

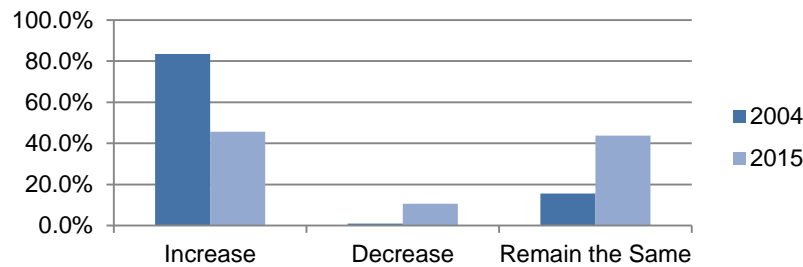


Over the past three years what trends have you seen for the following— Number of “Career Change” individuals applying for your program:

		2004	2015	Total
Increase	<i>n</i>	267	73	340
	%	83.4%	45.6%	70.8%
Decrease	<i>n</i>	3	17	20
	%	0.9%	10.6%	4.2%
Remain the Same	<i>n</i>	50	70	120
	%	15.6%	43.8%	25.0%
Total	<i>n</i>	320	160	480
	%	100.0%	100.0%	100.0%

The percentage differences were statistically significant $\chi^2 (2, n = 480) = 79.3 P < .001$.

Over the past three years what trends have you seen for the following— Number of “Career Change” individuals applying for your program:



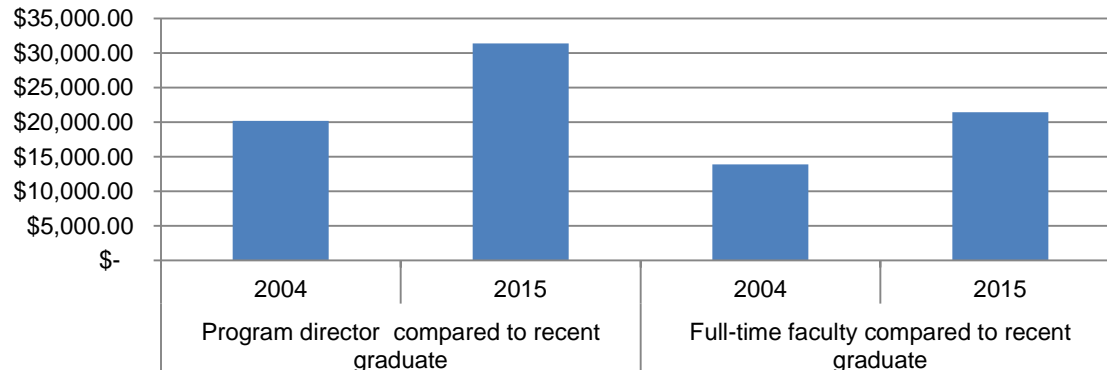
How does your present salary compare to the average salary (or equivalent hourly wage) received by recent graduates of your program in their first job?—Higher by about:

	Program director compared to recent graduate		Full-time faculty compared to recent graduate	
	2004	2015	2004	2015
N	122	59	91	19
Mean	\$ 20,171	\$ 31,383	\$ 13,895	\$ 21,433
SD	\$ 8,842	\$ 15,485	\$ 7,905	\$ 11,401

PD: 2015 > 2004, $t(181) = 6.19, P < .001$

FT: 2015 > 2004, $t(110) = 3.48, P < .001$

How does your present salary compare to the average salary (or equivalent hourly wage) received by recent graduates of your program in their first job?—Higher by about:

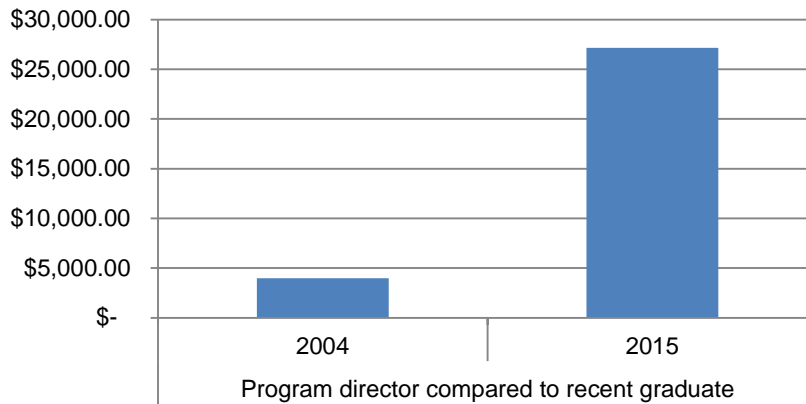


How does your present salary compare to the average salary (or equivalent hourly wage) received by recent graduates of your program in their first job?—Lower by about:

Program director compared to recent graduate		
	2004	2015
N	9	5
Mean	\$ 4,000	\$ 27,144
SD	\$ 2,136	\$ 20,359

2015 > 2004, $t(14) = 3.49, P = .004$

How does your present salary compare to the average salary (or equivalent hourly wage) received by recent graduates of your program in their first job?—Lower by about:

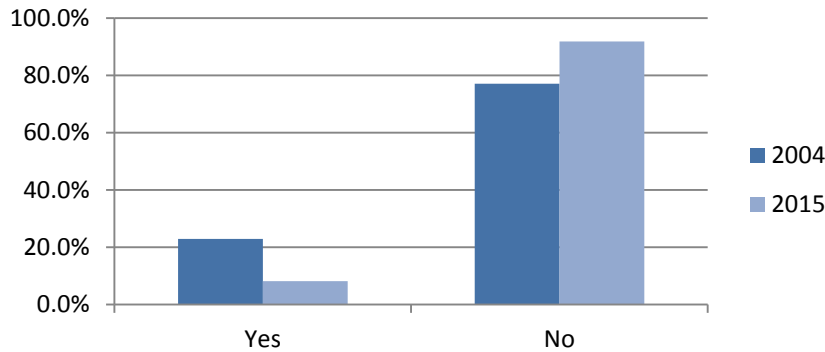


Are you pursuing an advanced degree in or closely related to the radiologic sciences?

		Program directors		Total
		2004	2015	
Yes	n	69	12	81
	%	22.9%	8.2%	18.1%
No	n	232	135	367
	%	77.1%	91.8%	81.9%
Total	n	301	147	448
	%	100.0%	100.0%	100.0%

The percentage differences were statistically significant $\chi^2(1, n = 448) = 14.5 P < .001$.

Are you pursuing an advanced degree in or closely related to the radiologic sciences?

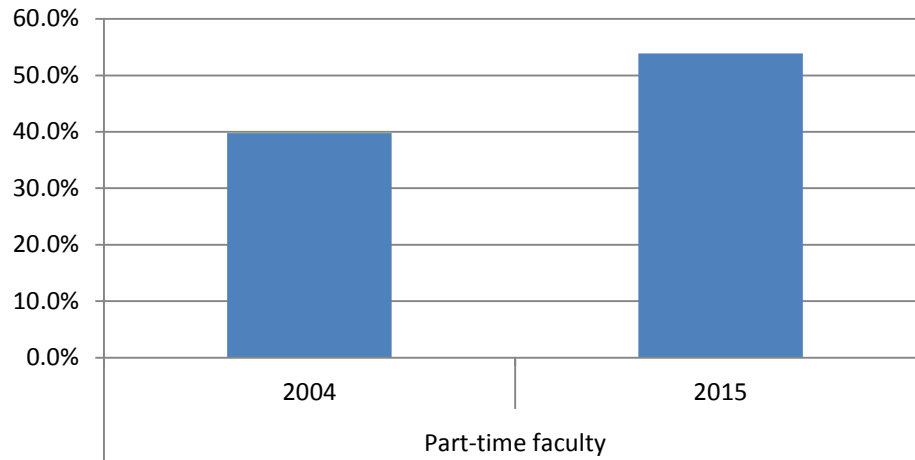


About what percentage of your weekly student contact hours are devoted to clinical supervision?

	Part-time faculty	
	2004	2015
N	190	38
Mean	39.8%	53.9%
SD	37.9%	37.0%

2015 > 2004, $t(218) = 2.10$, $P = .04$

About what percentage of your weekly student contact hours are devoted to clinical supervision?

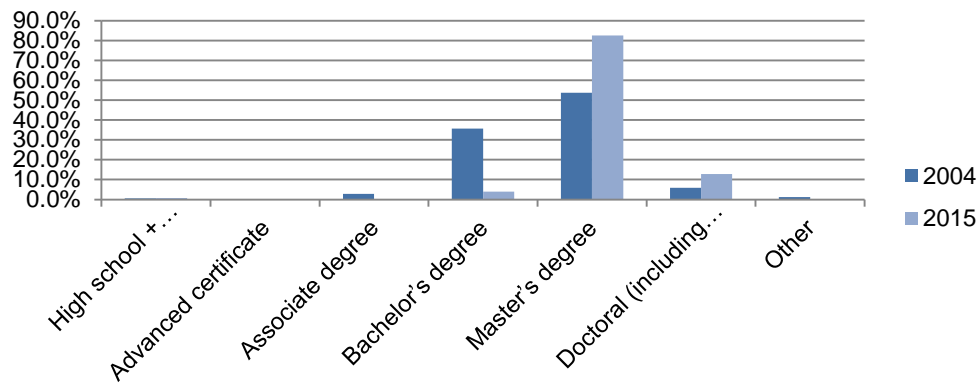


What is the highest level of education you have attained?

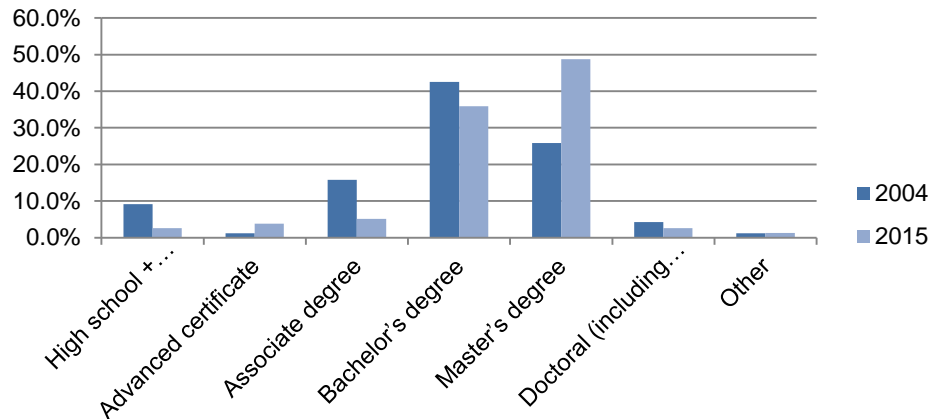
		Program Director			Full-time Faculty		
		2004	2015	Total	2004	2015	Total
High school + certificate	n	2	1	3	30	2	32
	%	0.6%	0.7%	0.6%	9.1%	2.6%	7.9%
Advanced certificate	n	0	0	0	4	3	7
	%	0.0%	0.0%	0.0%	1.2%	3.8%	1.7%
Associate degree	n	9	0	9	52	4	56
	%	2.8%	0.0%	1.9%	15.8%	5.1%	13.8%
Bachelor's degree	n	114	6	120	140	28	168
	%	35.6%	4.0%	25.6%	42.6%	35.9%	41.3%
Master's degree	n	172	123	295	85	38	123
	%	53.8%	82.6%	62.9%	25.8%	48.7%	30.2%
Doctoral (including medical) degree	n	19	19	38	14	2	16
	%	5.9%	12.8%	8.1%	4.3%	2.6%	3.9%
Other	n	4	0	4	4	1	5
	%	1.3%	0.0%	0.9%	1.2%	1.3%	1.2%
Total	n	320	149	469	329	78	407
	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The percentage differences were statistically significant $\chi^2(6, n = 406) = 25.1 P < .001$.

What is the highest level of education you have attained? -Program Directors



What is the highest level of education you have attained? -Full-time faculty

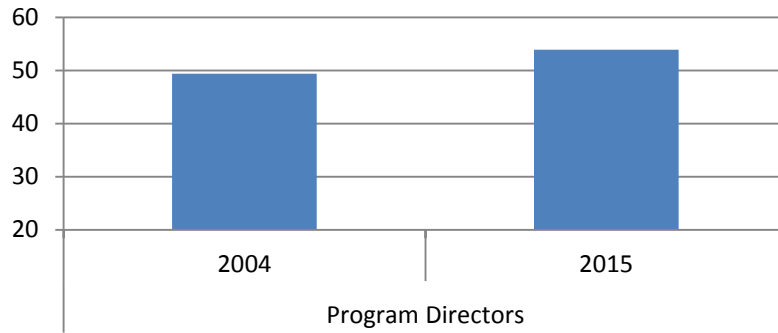


Age

	Program Directors	
	2004	2015
N	367	139
Mean	49.4	53.9
SD	8.3	8.8

2015 > 2004, $t(506) = 5.35, P < .001$

Age



For how many (consecutive) years have you held your current position?

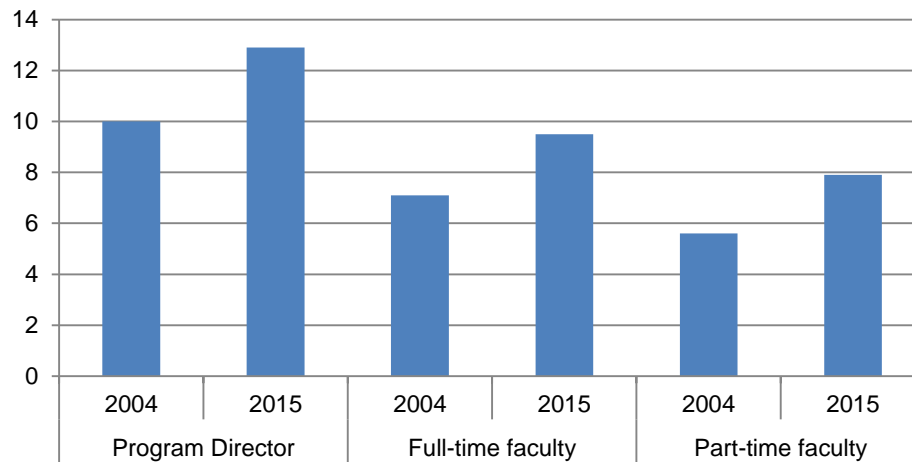
	Program Director		Full-time faculty		Part-time faculty	
	2004	2015	2004	2015	2004	2015
N	375	146	326	78	196	41
Mean	10	12.9	7.1	9.5	5.6	7.9
SD	8.6	8.9	7.2	7.5	5.5	6.4

PD: 2015 > 2004, $t(521) = 3.42, P < .001$

FT: 2015 > 2004, $t(404) = 2.62, P = .009$

PT: 2015 > 2004, $t(237) = 2.36, P = .019$

For how many (consecutive) years have you held your current position?



If this is not the only position in education you've had, overall how many years have you been involved in student education?

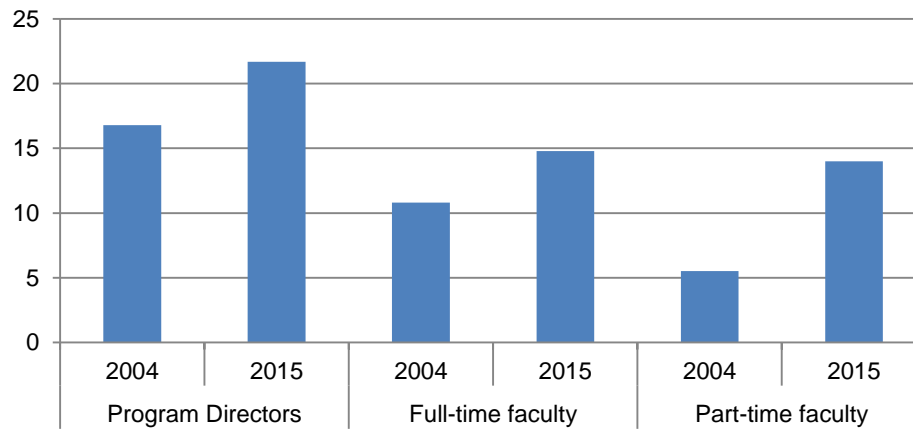
	Program Directors		Full-time faculty		Part-time faculty	
	2004	2015	2004	2015	2004	2015
N	387	113	334	43	153	23
Mean	16.8	21.7	10.8	14.8	5.5	14
SD	9.6	9.6	9.4	8.3	5.6	10

PD: 2015 > 2004, $t(500) = 4.77, P < .001$

FT: 2015 > 2004, $t(377) = 2.66, P = .008$

PT: 2015 > 2004, $t(176) = 6.01, P < .001$

If this is not the only position in education you've had, overall how many years have you been involved in student education?



In how many years do you plan to leave R.T. education?

	Program Directors	
	2004	2015
N	285	134
Mean	11	8.1
SD	7.7	5.5

2004 > 2015, $t(419) = 3.91$, $P < .001$

In how many years do you plan to leave R.T. education?

