NMTCB 2022 Technologist Salary Survey Results

Submitted by:
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Introduction

The Nuclear Medicine Technology Certification Board (NMTCB) conducted a salary survey during the fall of 2022. All of NMTCB's 21,849 active certificants were invited to participate in this 20-minute online survey via their email address on file. The survey itself was delivered online using Open Source LimeSurvey software (http://www.limesurvey.org/). A total of 4,957 responses were received, equating to an overall response rate of 22.7%. Statistical analyses of returned survey results were conducted using IBM SPSS Statistics (Version 27). Each entry in the database was evaluated for errors and completeness. Miscodes were eliminated from the file. Individual records containing blank cells were not used in any analysis that required the missing data. Observations with missing salaries were excluded from the data. Some observations were missing hourly rate but were still included in the analyses. Thus, median hourly rates should be interpreted with caution. Additionally, salaries and hourly rates entered as 0 or other obvious errors were removed from the data. Salaries were calculated for observations with hourly rates, but missing salaries using the calculation (hourly rate*40 hours*52 weeks=annual salary). The survey reporting template and comparisons to 2018 outcomes were drawn from the NMTCB *2018 Salary Survey Results* publication by Gregory Passmore, PhD, CNMT, NMTCB(RS). Conclusions extrapolated from this data should be done considering the appropriateness of the sample sizes for each assessment's grouping.

Description of the Survey Respondents

Technologists identifying themselves as staff technologists, which included PET and NCT, accounted for 68% of all responding technologists. Of those, 7% of technologists identified themselves as PET technologists, and 11% identified themselves as nuclear cardiology technologists. Another 6% classified themselves as being in non-technologist positions, such as administrators, educators, and applications/sales. About 1% work in another modality in radiology, describing themselves as working in general radiography, MRI, physics, and pharmacy, and 24% did not complete the question. Most staff nuclear medicine technologists reported working with four (4) or fewer other technologists. 18.6% reported working with student nuclear medicine technologists, however only 1.1% claimed to receive compensation for this effort. Sixty two percent (62%) of staff technologists identified themselves as full-time employees, 8% were part-time, and 4% worked as needed (PRN). <1% of all respondents identified themselves as currently unemployed, which is similar to the unemployment noted in the 2018 survey.

Collectively, 64% of the nuclear medicine technologist workforce reported as female, with 34% reporting as male, and the balance (2%) not reporting as either. When considering full-time staff technologists, the same general proportions found in the collective workforce were reported, 63% were female (increased from 61% in 2018), 36% were male, with the balance (1%) not reporting as either. However, 78% of the part-time technologists were female, compared to 20% male. It is unclear if this distribution is due to life-style choices or some gender selectivity attributed to the employers.

The average length of employment for all technologists with the current employer is 10 years, the median length is 6 years. About 11% of respondents changed employers in the last 12 months in order to achieve an increase in salary. A total of 24% of the respondents credentialed as CNMT by the NMTCB are also registered as nuclear medicine technologists by the ARRT and credentialed as RT(N). 11% of responding CNMT's are also registered by the ARRT as radiographers RT(T). About 28% of technologists

hold specialty certifications. This includes 15% of CNMTs who report holding a dual certification in NMT and CT (9% ARRT(CT) and 6% NMTCB(CT)). Three percent of respondents report having the NCT specialty credential. A slightly higher percentage of NMTs (4%), report having the PET specialty credential. The remainder includes radiation safety (RS), NMAA, MRI, interventional radiography, radiation therapy, DEXA, and Canadian credentialed technologists.

Salary by Job Description

The median, mean (sd), and range of the annual full-time base salaries for the nuclear medicine-related job descriptions sorted in terms of highest to lowest median salaries are described in Table 1. The results of a Kruskal-Wallis test determined that statistically significant differences existed in salaries among the job descriptions ($p<0.001$). An hourly equivalent of the medial salaries is also included. The current median salary for general nuclear medicine technology skills is $80,000 or $41 per hour, using the hospital-based general imaging technologist as the standard for NMT salary comparisons. This is about a $9,000 increase in annual salary from the 2018 salary survey. The range of salary for technologists in these positions is wide, ranging from $5,000 to $220,000 per year.

Table 1 – Annual Base Salaries by Position

Primary Job Description	N	Median	Mean	(sd)	Max	Min	Median $/hr*
Administrative Professional	16	$109,756	$118,111	$32,606	$230,054	$88,900	$52.50
Applications Specialist	17	$103,400	$104,931	$12,515	$125,000	$80,000	$48.97
Clinical Supervisor - Administrator: no longer actively involved in performing routine clinical procedures	52	$108,750	$114,538	$24,487	$195,000	$27,000	$53.00
Clinical Supervisor - Chief Tech: still actively involved in performing routine clinical procedures as well as having significant administrative duties	344	$96,485	$100,118	$23,560	$201,000	$43,200	$48.00
Educator: Nuclear Medicine Classroom Instructor/Adjunct Lecturer (hired specifically to instruct students in the classroom)	6	$83,200	$94,150	$25,650	$145,000	$78,000	$48.00

Educator: Nuclear Medicine Clinical Instructor (hired specifically to instruct students in the clinical setting)	3	$82,700	$77,748	$15,862	$90,544	$60,000	$30.00
Educator: Nuclear Medicine Program Director	31	$96,000	$95,308	$21,786	$170,000	$49,500	$47.11
Educator: Nuclear Medicine Other	2	$81,500	$81,500	$34,648	$106,000	$57,000	$36.81
Employed - but no longer working in a nuclear medicine or radiology-related field	9	$82,000	$88,277	$43,788	$150,000	$24,000	$40.50
Medical/Health Physicist	14	$104,000	$108,912	$37,144	$200,000	$71,200	$54.16
Nuclear Medicine Technologist: private manufacturer	1	$170,000			$170,000	$170,000	$42.50
Nuclear Medicine Technologist: self-employed	8	$66,500	$69,500	$27,656	$102,000	$27,000	$46.25
Nuclear Medicine Technologist: temporary staffing service	14	$75,500	$89,521	$36,597	$187,500	$44,720	$43.75
Nuclear Medicine-Related Position in the Private Sector: Other	15	$95,000	$105,313	$22,193	$160,000	$85,000	$45.10
Other	42	$88,334	$85,178	$43,788	$150,000	$24,000	$44.28
Pharmacist/Nuclear Pharmacist							
Pharmacy/Nuclear Pharmacy Tech	5	$80,000	$93,140	$32,324	$150,000	$71,200	$37.40
Physician – Nuclear Medicine							

Private Sector position in another radiologic discipline (sonography, MRI, CT, radiation oncology, etc.)	2	$123,990	$123,990	$21,199	$138,981	$109,000	$59.20
Radiology Administrator: responsible for all areas of radiology	31	$115,000	$117,480	$35,055	$211,000	$33,000	$56.16
Radiology Specialty Administrator: responsible for a single non-nuclear medicine area of radiology	1	$91,000			$91,000	$91,000	$40.28
Sales/Marketing Professional	15	$125,000	$139,562	$50,003	$260,000	$85,000	$51.68
Specialty Supervisor: supervising routine clinical procedures in a specific area of nuclear medicine (cardiac, SPECT, PET, etc.)	41	$101,004	$104,574	$25,112	$195,000	$50,600	$48.74
Staff Nuclear Medicine Technologist: cardiac only - cardiac clinic/private office	356	$80,493	$78,865	$22,514	$180,000	$20,000	$42.00
Staff Nuclear Medicine Technologist: cardiac only – hospital base	118	$84,000	$83,534	$21,236	$132,000	$8,000	$43.20
Staff Nuclear Medicine Technologist: general imaging - clinic/private office	121	$78,000	$78,047	$23,350	$152,000	$14,500	$42.25
Staff Nuclear Medicine Technologist: general imaging (may include some Cardiac and/or PET) – hospital base	1585	$80,000	$81,489	$24,639	$220,000	$5,000	$41.24

Staff Nuclear Medicine Technologist: mobile NM – hospital/clinic base	23	$80,000	$83,740	$18,047	$130,000	$56,000	$45.78
Staff Nuclear Medicine Technologist: mobile NM – private mobile imaging service	23	$83,000	$84,828	$28,570	$138,500	$30,000	$40.50
Staff Nuclear Medicine Technologist: mobile PET – hospital/clinic base	25	$75,000	$81,048	$20,038	$136,500	$50,000	$45.75
Staff Nuclear Medicine Technologist: mobile PET – private mobile imaging service	49	$84,000	$83,226	$17,782	$124,000	$20,800	$42.00
Staff Nuclear Medicine Technologist: PET only - clinic/private office	128	$85,394	$87,094	$25,761	$164,320	$32,000	$43.14
Staff Nuclear Medicine Technologist: PET only – hospital base	89	$91,707	$94,064	$25,361	$180,000	$42,500	$45.75
Staff Nuclear Medicine Technologist: research (NM or PET) – private research laboratory	5	$86,000	$87,800	$5,848	$95,000	$80,000	$45.00
Staff Nuclear Medicine Technologist: research (NM or PET) – hospital/clinic/educational institution base	45	$88,200	$89,603	$19,388	$132,000	$45,000	$42.70
Staff Radiologic Technologist – Computed Tomography	14	$72,500	$75,089	$21,638	$130,000	$38,000	$36.03
Staff Radiologic Technologist – General Radiography	3	$70,000	$65,000	$8,660	$70,000	$55,000	$37.38

Staff Radiologic Technologist – MRI	7	$65,000	$67,611	$11,625	$90,000	$56,800	$36.57
Staff Technologist (in another radiologic discipline not listed above)	4	$74,250	$77,125	$13,053	$95,000	$65,000	$38.25
Systems Analyst/Programmer	1	$125,000			$125,000	$125,000	$60.00

***All hourly rates were not provided by participants.**

Those hospital-based staff technologists who work in specialty areas are compensated with an additional $5,000 per year for PET (Table 2) and $4,000 per year for nuclear cardiology (Table 3). This difference in salary is slightly less than what was reported on the 2018 salary survey for PET, which was $8,000, and remained the same for nuclear cardiology, which was $4,000 at that time.

Table 2 – Annual Base PET Salaries by Position

Primary Job Description	N	Median	Mean	(sd)	Max	Min	Median $/hr*
Staff Nuclear Medicine Technologist: mobile PET – hospital/clinic base	21	$80,000	$84,081	$20,150	$136,500	$50,000	$42
Staff Nuclear Medicine Technologist: mobile PET – private mobile imaging service	44	$84,911	$84,753	$15,988	$124,000	$52,000	$43
Staff Nuclear Medicine Technologist: PET only - clinic/private office	112	$88,855	$90,836	$24,363	$164,320	$33,000	$45
Staff Nuclear Medicine Technologist: PET only – hospital base	81	$93,479	$95,731	$25,048	$180,000	$49,000	$48
Combined	258	$88,812	$90,786	$23,316	$180,000	$33,000	$45

***All hourly rates were not provided by participants.**

Table 3 – Annual Base Cardiac Salaries by Position

Primary Job Description	N	Median	Mean	(sd)	Max	Min	Median $/hr*
Staff Nuclear Medicine Technologist: Cardiac only - cardiac clinic/private office	279	$85,000	$84,894	$18,739	$180,000	$49,000	$42.47
Staff Nuclear Medicine Technologist: cardiac only – hospital base	96	$86,187	$88,361	$16,564	$132,000	$53,000	$43.82
Combined	375	$85,000	$85,782	$18,248	$180,000	$49,000	$43

***All hourly rates were not provided by participants.**

The results of a Kruskal-Wallis test comparing Cardiac Combined and PET Combined determined that statistically significant differences did exist in salaries between these two groups (p=.007). The PET Combined group (median salary=$88,812) had a statistically significantly higher salary than the Cardiac Combined group (median salary=$85,000).

Educator's salaries are similar to specialty technologists' salaries. Classroom instructors and clinical instructors reported average salaries of $78,000-$94,000 respectively, which align with average salaries for PET ($89,000) and nuclear cardiology technologist ($85,000). Program directors earn an average annual salary of $96,000.

Sales/Marketing Professionals reported the highest average annual salary at $139,000. Radiology Administrators reported an average annual salary of $117,000, which is lower than the $122,000 reported in 2018. Clinical Supervisors reported an average salary of $114,000, an increase from $107,000 reported in 2018. Administrative roles such as Chief Techs and Specialty Supervisors, who average $100,000 and $104,000, respectively. Both roles increased from 2018 by $11,000 and $14,000 respectively.

Because of the broad salary ranges cited above, the salary differences between specialties was examined with a comparison of entry level technologists' salaries (with entry level defined as technologists who graduated from an NMT program within the years of 2018-2022) as the basis for salary comparison. In order to have an adequate sample size, this analysis required grouping hospital-based staff technologists and clinic/private office staff, in addition to mobile PET staff, into one group. Table 4 shows that entry level technologists in general imaging and nuclear cardiology earn approximately $73,000/year, almost $4,000 less than those who have entered into the PET specialty. These salary differences are not statistically different between PET, nuclear cardiology, and general nuclear medicine (p=0.156). Entry level technologists earn comparable salaries regardless of practice setting.

Table 4 – Annual Entry Level Base Salaries by Position (Graduation Years 2018-2022)

Primary Job Description	N	Median	Mean	(sd)	Max	Min	Median $/hr*
Staff Nuclear Medicine Technologist (All above except cardiac only or PET only)	241	$70,000	$72,771	$17,890	$160,000	$36,804	**$34.63**
PET only - Staff Nuclear Medicine Technologist (hospital based, private clinic, and mobile)	55	$73,300	$77,236	$19,726	$145,000	$33,000	**$36.00**
Cardiac Only - Staff Nuclear Medicine Technologist (Hospital based and private clinic)	42	$73,000	$73,336	$13,597	$106,000	$49,000	**$36.75**
Combined	338	$71,062	$73,568	$17,761	$160,000	$33,000	**$35.00**

***All hourly rates were not provided by participants.**

Population Base and Geographic Location

Table 5 describes the average annual base salaries for the hospital-based general imaging technologist category sorted by population base. Technologists employed in major cities earn on average about $5,000 more than those in suburban/small city settings. Major city salaries are greater than rural salaries by approximately $17,000. A comparison of urban based technologists and rural based technologists shows that the $3,000 advantage the urban technologists receives is statistically significant ($p<0.001$). Those employed in larger major cities earn on average approximately $10,000 per year more than those in smaller major cities. This pattern of salary differences is similar to the 2018 survey. In general, it can be said that technologists who practice in the rural setting earn significantly less than urban based technologists.

Table 5– Annual Hospital-Based General Imaging Salaries by Regional Population

Geographic Distribution	N	Median	Mean	(sd)	Max	Min	Median $/hr*
Major city with greater than 3 million people	130	$94,500	$98,964	$27,890	$220,000	$45,000	**$48.10**
Major city with 1-3 million people	309	$85,000	$89,486	$22,826	$180,000	$40,000	**$42.47**
Suburban/Small City	397	$82,500	$83,771	$20,090	$191,360	$40,800	**$41.00**
Urban	455	$81,000	$84,159	$20,697	$171,163	$38,400	**$40.85**
Rural	165	$80,724	$81,541	$18,388	$145,600	$36,804	**$39.83**

***All hourly rates were not provided by participants.**

Full-time, hospital-based, general imaging technologists' median salaries sorted alphabetically by each U.S. state/territory are described in Table 6. The highest median salaries were reported by those employed in California ($137,000), District of Columbia ($130,750), and Oregon ($107,000). The lowest median salaries included Arkansas ($70,000), West Virginia ($70,000), and Puerto Rico ($45,000). The national median nuclear medicine technologists' annual salary is $86,600.

Table 6 – Annual Hospital-Based General Imaging Salaries by State (National Median=$86,600)

State or Territory	N	Median	Mean	(sd)	Max	Min	Median $/hr*
Alaska	8	$105,300	$107,950	$11,169	$125,000	$97,500	$52.25
Alabama	66	$74,198	$73,968	$13,429	$111,500	$46,800	$35.50
Arkansas	33	$70,000	$70,331	$14,411	$95,698	$47,000	$36.16
Arizona	58	$89,720	$88,414	$14,355	$117,520	$58,000	$43.50
California	153	$137,000	$137,057	$30,147	$220,000	$62,000	$69.35
Colorado	45	$98,000	$97,133	$16,834	$149,219	$62,500	$49.50
Connecticut	36	$105,500	$109,398	$25,333	$170,000	$63,785	$52.81
Delaware	13	$90,000	$92,056	$16,285	$133,120	$73,000	$41.79
Florida	233	$80,000	$82,035	$19,739	$260,000	$38,000	$39.85
Georgia	99	$87,000	$87,681	$15,775	$130,000	$52,000	$42.00
Hawaii	8	$101,500	$104,565	$11,200	$124,800	$92,000	$53.83
Iowa	35	$83,000	$83,192	$15,820	$120,279	$52,000	$41.49
Idaho	10	$95,250	$95,476	$19,803	$135,000	$70,000	$46.00
Illinois	87	$93,000	$93,181	$18,525	$160,000	$45,000	$45.00
Indiana	68	$83,950	$89,623	$24,794	$200,000	$55,000	$42.13
Kansas	34	$85,000	$85,631	$12,606	$117,000	$59,000	$42.00
Kentucky	52	$88,846	$86,348	$16,664	$146,600	$41,000	$42.33
Louisiana	38	$82,750	$80,393	$13,144	$109,000	$50,000	$40.91
Massachusetts	46	$93,280	$97,687	$18,121	$146,000	$60,000	$48.93
Maryland	49	$97,700	$96,927	$18,420	$170,000	$59,904	$47.87
Maine	11	$90,000	$83,178	$15,361	$98,426	$48,000	$45.00
Michigan	107	$81,016	$81,310	$14,216	$140,000	$45,000	$39.41
Minnesota	59	$89,500	$91,114	$17,975	$174,000	$52,000	$47.00
Missouri	73	$93,200	$84,245	$14,069	$111,960	$58,000	$40.82

Mississippi	24	$78,823	$81,186	$14,427	$110,000	$49,000	$39.66
Montana	5	$97,360	$89,775	$12,779	$107,000	$72,519	$43.10
North Carolina	75	$75,774	$80,168	$23,554	$230,054	$40,000	$38.26
North Dakota	9	$83,000	$84,269	$14,540	$109,000	$65,000	$40.00
Nebraska	25	$83,000	$82,305	$13,309	$100,880	$56,000	$44.12
New Hampshire	12	$91,220	$90,453	$11,915	$108,000	$69,000	$44.95
New Jersey	56	$106,500	$106,736	$20,888	$149,000	$45,480	$50.50
New Mexico	22	$81,894	$77,686	$15,286	$105,000	$49,000	$41.13
Nevada	19	$100,068	$102,962	$11,918	$125,000	$84,664	$49.71
New York	154	$93,800	$96,985	$18,400	$175,000	$60,500	$47.50
Ohio	116	$82,881	$83,968	$15,608	$145,000	$42,328	$40.64
Oklahoma	38	$82,000	$81,069	$16,333	$120,000	$48,000	$40.00
Oregon	23	$107,000	$102,629	$17,739	$133,000	$55,000	$52.00
Pennsylvania	124	$80,000	$82,906	$20,501	$198,000	$42,650	$39.19
Rhode Island	5	$81,120	$88,384	$14,003	$112,320	$79,040	$42.50
South Carolina	43	$79,040	$81,341	$22,654	$196,000	$52,000	$38.50
South Dakota	18	$72,500	$75,593	$12,013	$100,000	$62,599	$35.00
Tennessee	89	$75,000	$77,259	$18,751	$160,000	$36,804	$37.00
Texas	210	$85,598	$88,791	$21,461	$211,000	$43,200	$42.28
Utah	14	$103,500	$102,220	$15,155	$130,000	$78,500	$49.50
Virginia	77	$87,000	$88,945	$17,559	$143,000	$43,038	$43.40
Vermont	3	$94,000	$83,000	$33,867	$110,000	$45,000	$45.25
Washington	46	$106,831	$110,006	$23,091	$170,000	$60,000	$52.75
Wisconsin	92	$85,140	$87,987	$21,909	$150,058	$49,000	$44.50
West Virginia	23	$70,000	$73,292	$16,270	$106,000	$40,000	$37.60
Wyoming	6	$101,753	$99,937	$24,960	$140,000	$32,400	$49.75
District of Columbia	6	$130,750	$126,950	$25,982	$153,000	$95,600	$63.55
Puerto Rico	24	$45,000	$54,621	$33,559	$200,000	$32,640	$23.00
Combined	2779	$86,600	$90,113	$24,099	$260,000	$32,640	$43.00

***All hourly rates were not provided by participants.**

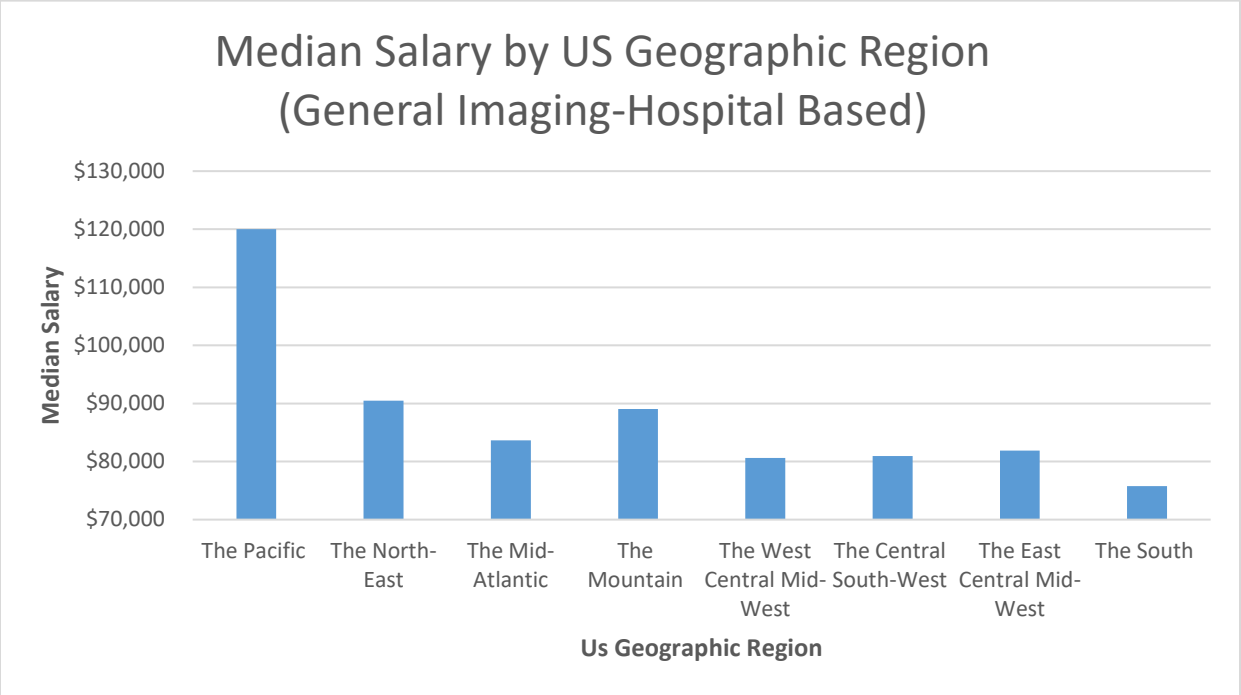
In addition to state-to-state salary differences, we find that there are significant regional differences as well. Table 7 sorts the median and average salary data into geographic regions. Similar to the 2018 survey, technologists from the Pacific region report the highest full-time salaries with median value of about $120,000 which is $33,000 above the national median. The North-East region has the next highest at $90,000. The South region reports the lowest median annual salary of $76,000 which is $11,000 below the national median. The results of a Kruskal-Wallis test determined that statistically significant differences existed in median salaries among regions in Table 7 ($p<.0.001$). These differences are visually depicted in Figure 1.

Table 7– Annual Hospital-Based General Imaging Salaries by U.S. Region

U. S. Region/States	N	Median	Mean	(sd)	Max	Min	Median $/hr*
The Pacific AK, CA, HI, OR, WA	127	$120,000	$123,683	$30,726	$220,000	$55,000	**$63.00**
The North-East CT, MA, ME, NY, RI, VT, NH	137	$90,480	$93,146	$17,729	$135,200	$45,000	**$46.61**
The Mid-Atlantic DE, MD, NJ, PA, VA, WV	184	$83,626	$85,764	$19,957	$145,000	$42,650	**$41.00**
The Mountain AZ, CO, ID, MT, NM, NV, UT, WY	96	$89,064	$89,409	$16,865	$135,000	$49,000	**$45.00**
The West Central Mid-West IA, KS, MN, MO, ND, SD NE	146	$80,633	$80,879	$13,030	$108,755	$52,000	**$40.06**
The Central South-West AR, LA, OK, TX	167	$80,954	$81,860	$16,439	$130,000	$48,000	**$39.67**
The East Central Mid-West IL, IN, OH, WI, MI	291	$81,900	$82,793	$15,685	$160,000	$42,328	**$41.27**
The South AL, FL, GA, KY, MS, NC, SC. TN	339	$75,774	$75,559	$14,685	$118,000	$36,774	**$38.00**

***All hourly rates were not provided by participants.**

Figure 1. Median Hospital-Based General Imaging Salaries by U.S. Region



Gender and Ethnicity

Table 8 describes a profession that is approximately 63% female and 36% male (from reported responses, with 1% not reporting). Using only full-time staff responses across all NMT job descriptions, a gender gap is evident when comparing median salaries across all positions, with approximately $4,000 in favor of males. This difference is median salaries among males and females is statistically significant ($p<0.001$). The gap is similar when just looking at hospital-based general imaging salaries (Table 9) where the difference is just over a $3,000. This difference in median salaries among males and females is statistically significant ($p<0.001$). However, the gap has been reduced from $7,000 to $4,000 for all job descriptions, and $5,000 to $3,000 for hospital-based imaging when compared to 2018 data.

Table 8 – Median Annual Base Salaries by Gender and Ethnicity
(total number, n, is shown in parentheses)

Self-Reported Ethnicity and Gender	Male	Female	Prefer not to answer	Total
African American or Black	$89,000 (33)	$84,285 (38)		$85,000 (71)
American Indian or Alaskan Native	$83,480 (4)	$70,000 (6)		$73,480 (10)
Asian or Pacific Islander	$95,111 (36)	$95,000 (36)		$95,000 (72)
Latino or Hispanic	$83,000 (33)	$79,000 (71)		$80,000 (104)

2 or more Heritages	$87,000 (11)	$78,842 (22)		$80,000 (33)
White	$85,000 (388)	$81,120 (717)		$82,300 (1105)
Prefer not to answer	$96,000 (17)	$91,000 (23)	$99,840 (13)	$96,000 (53)
Total	$85,000 (522)	$81,300 (913)	$99,840 (13)	$83,000 (1448)

Table 9 –Annual Hospital-Based General Imaging Salaries by Gender

Gender	N	Median	Mean	(sd)	Max	Min
Male	532	$85,315	$89,455	$21,981	$210,000	$36,804
Female	934	$81,905	$83,752	$21,265	$220,000	$36,774
Prefer not to answer	14	$98,920	$109,436	$26,274	$168,000	$78,500
Total	1480	$83,200	$86,045	$21,851	$220,000	$36,774

Table 10 tells us that 76% of respondents working in general nuclear medicine imaging identified their ethnic background as White. The next largest group (7.2%) were technologists of Latino descent, followed by technologists of Asian descent (5%). African American technologists made up 5% of the total, those identifying two or more heritages reported 2.3%, and the remaining 0.7% were Native Americans. Results of a Kruskal-Wallis test indicate that statistically significant differences existed in median salary by ethnicity ($p<0.001$), favoring Asian or Pacific Islanders by $12,000 more than the overall median. However, due to the low numbers of individuals in each non-white category, caution is advised when interpreting any discrepancies in the ethnicity salary statistics.

Table 10 – Annual Hospital-Based General Imaging Salaries by Ethnic Background (National Median=$86,600)

Reported Ethnicity	N	Median	Mean	(sd)	Max	Min
African American or Black	71	$85,000	$87,671	$24,540	$210,000	$50,000
American Indian or Alaskan Native	10	$73,480	$79,136	$15,251	$110,000	$62,400
Asian or Pacific Islander	72	$95,000	$100,525	$31,581	$180,000	$48,000
Latino or Hispanic	104	$80,000	$80,486	$22,575	$149,000	$36,774
Two or more Heritages	33	$80,000	$88,356	$31,561	$165,000	$42,650
White	1107	$82,350	$84,657	$19,775	$220,000	$36,804
Total	1452	$83,000	$85,842	$21,856	$220,000	$36,774

Table 11 would also support differences in median salaries based on regional differences as opposed to racial differences. Results of an ANOVA test determined statistical significant differences between groups ($F(6, 1441) = [10.490]$, $p<0.001$). Similarly, as above, due to the low numbers of individuals in each non-white category, caution is advised when interpreting any discrepancies in the ethnicity salary statistics.

Table 11 – Median Annual Base Salaries by Region and Ethnicity (total number, n, is shown in parentheses)

Ethnicity	The Pacific	The North-East	The Mid-Atlantic	The Mountain	The West Central Mid-West	The Central South-West	The East Central Mid-West	The South
African American or Black	$145,500 (4)	$87,000 (10)	$90,024 (12)	$110,345 (2)	$79,327 (6)	$84,535 (12)	$83,000 (3)	$75,000 (22)
American Indian or Alaskan Native	$110,000 (1)					$70,000 (4)	$65,000 (1)	$78,980 (4)
Asian or Pacific Islander	$150,000 (18)	$85,000 (8)	$100,000 (11)	$96,116 (4)	$68,500 (4)	$83,000 (11)	$95,000 (7)	$75,000 (9)
Latino or Hispanic	$106,250 (16)	$82,825 (11)	$97,500 (6)	$74,000 (6)	$68,600 (1)	$80,640 (23)	$75,955 (8)	$68,000 (33)
Two or more Heritages	$145,000 (7)	$86,000 (3)	$62,400 (3)	$78,000 (3)	$97,097 (3)	$75,000 (5)	$66,914 (3)	$68,675 (6)
White	$116,500 (70)	$90,637 (92)	$80,924 (138)	$89,128 (73)	$80,412 (125)	$80,400 (102)	$81,120 (252)	$77,376 (251)

Salaries Based on Years of Experience and Age

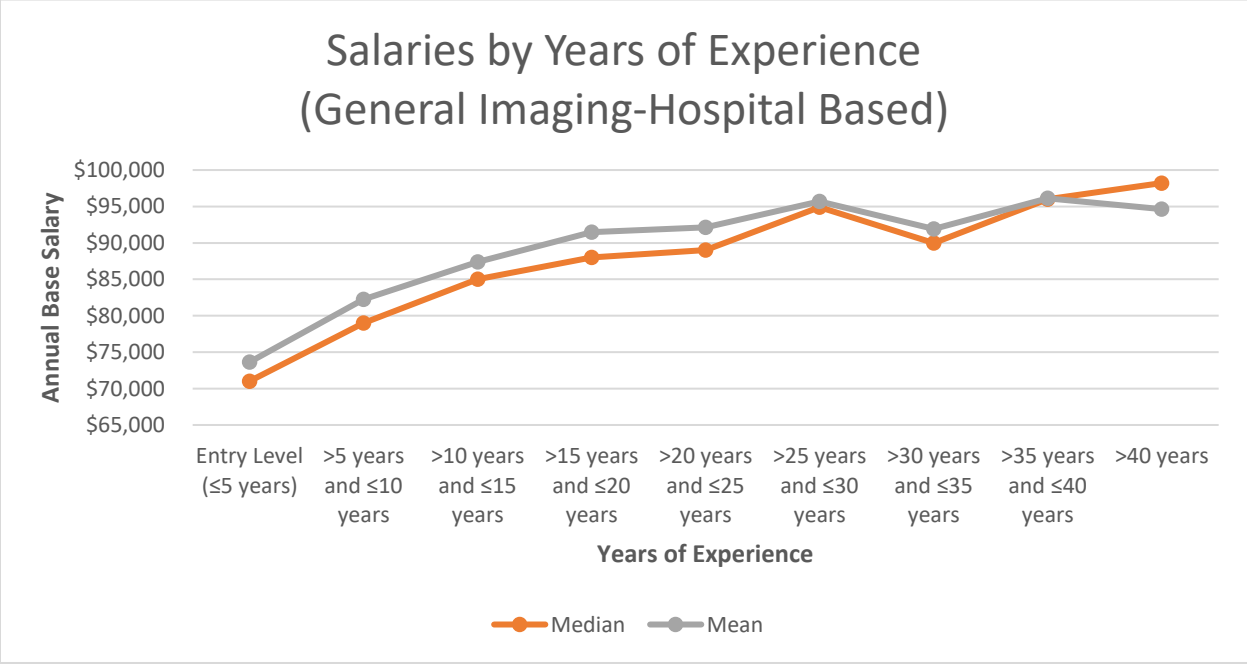
Table 12 indicates that a recent NMT graduate or entry level nuclear medicine technologist in a hospital based general imaging position will earn a median salary of $71,000 per year (approximately $34/hr). This is an increase of $11,000 annually (or $5.29/hr) compared to the entry level salaries reported in the 2018 survey.

Table 12 – Annual Base Salaries by years of experience in hospital-based general imaging

Years of Experience	N	Median	Mean	(sd)	Max	Min
Entry Level (≤5 years)	250	$71,020	$73,643	$17,367	$160,000	$36,804
>5 years and ≤10 years	186	$79,000	$82,265	$20,873	$171,163	$45,000
>10 years and ≤15 years	199	$85,000	$87,384	$22,516	$180,000	$40,800
>15 years and ≤20 years	188	$88,000	$91,487	$2,124	$191,360	$45,000
>20 years and ≤25 years	101	$89,000	$92,130	$21,358	$210,000	$47,800
>25 years and ≤30 years	95	$94,900	$95,692	$23,567	$180,000	$50,000
>30 years and ≤35 years	45	$90,000	$91,930	$20,233	$150,000	$36,774
>35 years and ≤40 years	52	$96,000	$96,116	$23,399	$170,560	$42,650
>40 years	22	$98,213	$94,655	$21,018	$134,000	$41,000

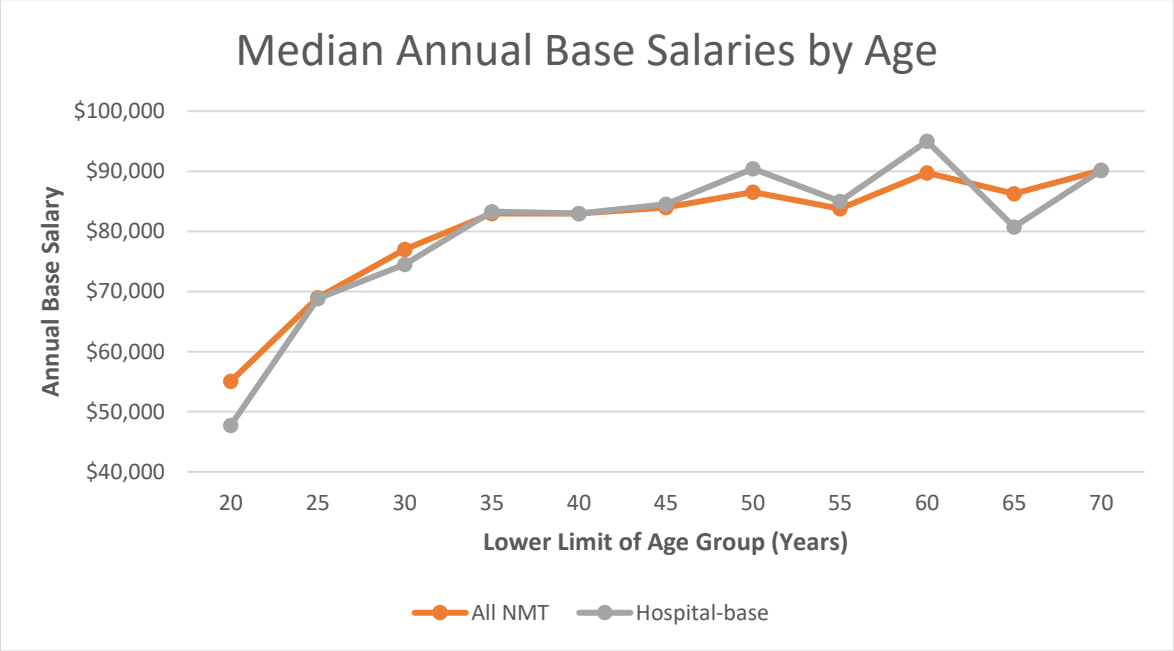
Figure 2 describes median and average salaries for hospital-based technologists compared to their years of experience. The median salary range from entry level to 40 years or more of experience is reported to be about $27,000, which is up from the $19,000 difference reported in 2018. The greatest increases in compensation for years of experience are seen by technologists during the 5 years of employment. Technologists with at least 5 years of experience reportedly earn about $8,000 more than an entry level technologist. Reported salary increases during the 10, 15, 20, 25, 35, and 40 year intervals are approximately $6,000, $3,000, $1,000, $5,000, ,$6,000, and $2,000 respectively. Those at the 30-year interval reported a decrease in median salary of approximately $5,000.

Figure 2. Average Salaries for Hospital-based Technologists Based on Their Years of Experience



The median age of nuclear medicine technologists across all job descriptions is 45 years old, the same as in 2018. For technologists working in hospital-based general imaging the median age is 43 years, one year older than 2018. PET technologists reported a median age of 41 years. Technologists working in the nuclear cardiology specialty reported a median age of 51 years. Median values for these specialties remained the same for PET at 42 years, while nuclear cardiology increased from 47 years to 51 years. The youngest respondents were 20 years old. The oldest respondents were 81 years old. The salaries reported by all groups increase with age. The salary increases for age parallel the increases seen in years of experience (Figure 2), up to age 50, which is equivalent to 25-30 years of experience. It appears that the rate of salary change in the later years of one's professional life is less than the rate of salary change seen earlier in one's career. A salary plateau begins around the age of 35 and becomes more variable as one approaches 50 years of age and older.

Figure 3. Median Base Salary by Age



Education Background and Salaries

An analysis of certificant responses about the highest level of formal education from all NMT job descriptions (Table 13) shows that 28% have associate's degrees, 56% have bachelor's degrees, 10% have master's degrees, less than 1% have a doctorate, with the balance consisting of certificate program graduates. This was similar to data reported on the 2018 survey. The educational backgrounds in the hospital-based general imaging job description (Table 14) similarly shows a distribution where 29% have associate's degrees, 59% have bachelor's degrees, 5% have master's degrees, less than 1% have doctoral degrees, with the balance consisting of certificate program graduates. According to the statistics in Table 13 (all NMT job descriptions) the difference between annual base salaries were statistically significant ($p=0.001$). Technologist with a bachelor's degree reported an average of approximately $1,000 less than those with a two-year degree. Technologists who have earned their master's and doctoral degrees

reported earning an average of $5,000 and $18,000 more, respectively, than those with a bachelor's degree.

The average earnings difference is similar when comparing degrees earned for technologists working in the general-imaging category (Table 14). Graduate degrees increase average earning potential for hospital-based technologists, as well as those identifying other job descriptions.

Table 13 – Annual Base Salaries by Highest Degree Obtained (All Full-Time NMT Job Descriptions)

Highest Degree Obtained	N	Median	Mean	(sd)	Max	Min	Median Age*	Median Grad Year*
Certificate of Completion	119	$85,000	$88,308	$21,827	$180,000	$42,650	56	1982
Associate's Degree	588	$84,000	$86,051	$21,615	$220,000	$40,000	47	2001
Baccalaureate Degree	1117	$83,200	$85,204	$21,584	$191,360	$32,640	43	2005
Master's Degree	107	$86,000	$90,215	$20,970	$180,000	$49,920	47	2001
Doctorate Degree or higher	6	$88,000	$103,166	$26,693	$138,000	$83,000	55	1998

*All participants did not provide this information.

Table –4 - Annual Base Salaries by Highest Degree Obtained (Hospital-based General Imaging)

Highest Degree Obtained	N	Median	Mean	(sd)	Max	Min	Median Age*	Median Grad Year*
Certificate of Completion	86	$85,000	$87,347	$20,887	$157,300	$42,650	55	1982
Associate's Degree	412	$83,100	$86,235	$22,934	$220,000	$40,000	46	2003
Baccalaureate Degree	838	$83,100	$85,436	$21,518	$191,360	$36,774	41	2006
Master's Degree	73	$86,000	$90,560	$22,373	$138,000	$83,000	41	2005
Doctorate Degree	6	$88,000	$103,166	$26,693	$138,000	$83,000	57	2007

Salaries of recent graduates from different types of NMT programs were compared in Table 15. This comparison of the median average salary shows that technologists who graduated from a hospital or medical center-based program have a minimum of about $1,000 higher median income than a technologist graduating from any of the other programs. University-associated teaching hospital graduates have a higher median income than those that graduate from a community college or four year college or university. Results of a Kruskal-Wallis test showed that there were statistically significant differences in median salaries among the types of NMT educational programs ($p<0.001$).

Table 15 – Annual Base Salaries by Type of NMT Program Graduated

Program Type	N	Median	Mean	(sd)	Max	Min
Hospital or medical center	223	$86,860	$91,791	$23,674	$191,360	$42,328
Military-based	28	$84,832	$88,246	$21,156	$128,960	$45,000
Community College or Tech School	383	$81,300	$84,484	$21,356	$22,000	$40,000
Four year college or university	572	$82,050	$83,751	$19,852	$180,000	$36,774
University-associated teaching hospital	134	$85,100	$90,086	$25,828	$171,163	$45,480
None, on the job trained	53	$85,000	$86,984	$17,711	$140,000	$50,000

Dual Certification Characteristics for NMT's and Hybrid Imaging Licensure

A total of 36% of the respondents credentialed as CNMT by the NMTCB are also registered as nuclear medicine technologists by the ARRT and credentialed as RT(N). 18% of responding CNMT's are also registered by the ARRT as radiographers RT(R). Approximately 22% of CNMT's also hold a CT certification; 8% are NMTCB(CT) certified, 13% are RT(CT) certified, and about 1% hold both certifications. Similar to the 2018 results, 4% of respondents report having the NCT specialty credential, and 6% report having the PET specialty credential, and 1% report holding both credentials. Forty-eight percent of those PET certified technologists are additionally certified with either an RT(CT) credential (28%) or an, NMTCB(CT) credential (20%).

On-Call Analysis

Sixty-seven percent of the full-time general imaging hospital staff NMT respondents who responded to the on-call survey items said they routinely take call as part of their job-related responsibilities, which falls between 75% reported in 2013 and 48% reported in 2018. Twenty-one percent of technologists who perform cardiac imaging in a hospital setting and 22% of those who perform PET in the hospital setting report taking call. These numbers are half of those reported in 2018. Of the NMT respondents who reported taking call, 81% receive time-and-a-half call back pay for their hours worked. The next

highest reported pay for hours worked on call was straight time at 9%. These are the same percentages as reported in 2018. The median dollar pay for stand-by was $3.00/hr, similar to that in 2018. Most technologists who take call (73%) report being paid a minimum of 2 hours when responding to a call.

Employment

This 2022 survey not only inquired about salary information, it also inquired about employment trends as well. Six percent of respondents claimed that they had been laid off from a position related to their nuclear medicine certification within the last 5 years due to economic reasons. The response is similar to the 5% reported in 2018. Approximately twice as many full-time jobs were added than eliminated in the last 5 years. About 14% of respondents reported that their hours per week have been reduced. The average reduction was 10 hours per week. This is less than the 23% who had a similar experience in 2018. When asked about positions being eliminated or purposefully not filled within the last 5 years, more than 24% answered yes, with 74% of those stating that full-time positions had been eliminated. The percentage of respondents answering yes to position elimination is down from 2018 by 17%, and the percentage of full-time positions eliminated has remained approximately the same. In summary, it would appear that the discipline is more stable with fewer layoffs than it was 5 years ago.

Summary and Conclusion

These survey results have helped to describe the current demographics and current salary ranges of certified nuclear medicine technologists and their related job descriptions. 68% of responding technologists identified themselves as staff technologists. Sixty-two percent of staff technologists identified themselves as full-time employees, 8% were part-time, and 4% worked PRN. About 28% of technologists hold specialty certifications. This includes 15% of CNMT's who report holding a dual certification in NMT and CT. Three percent of respondents report having the NCT specialty credential and 4% report having the PET specialty credential.

The current median salary for hospital-based general imaging nuclear medicine technology skills is $80,000 or $41 per hour. This is about a $9,000 increase in annual salary from the 2018 salary survey. Those staff technologists who work in specialty areas are compensated somewhat more than the median salary; approximately $5,000 per year for PET and $4,000 per year for nuclear cardiology.

Technologists who practice in the rural setting earn significantly less (about $3,000) than urban based technologists, lower than $5,000 reported in 2018. Major city salaries outweigh rural salaries by almost $17,000, up from $13,000 in 2018. We found that there were statistically significant differences reported between state and regional salaries. The highest median salary was reported by California ($137,000). The state with the lowest median salary was West Virginia ($70,000). Similar to the 2018 survey, technologists from the Pacific region report the highest full-time salaries with median value of about $120,000 and the South region reports the lowest median annual salary of $76,000.

Sixty-three percent of the nuclear medicine technologist workforce reported as female, which is 1% more than reported in 2018. The survey suggests that a $4,000 gender gap favoring males was evident when comparing median salaries of hospital-based general imaging technologists. This difference in median salaries among males and females is statistically significant ($p<0.001$) and is smaller than the $5,000 difference reported in 2018. Seventy-six percent of respondents working in general nuclear medicine imaging identified their race/ethnic background as White, which is 8% less than that in 2018. Asian or Pacific Islanders reported median salaries of $12,000 more than the overall median. Due to the

low numbers of individuals in each non-white category, caution is advised when interpreting any discrepancies in the ethnicity salary statistics.

The median age of nuclear medicine technologists across all job descriptions is 45 years old. For technologists working in hospital-based general imaging the median age is 43 years. Technologists working in the nuclear cardiology subspecialty reported a median age of 51 years. PET technologists reported a median age of 41 years. Technologists are compensated with the greatest increases in salary during the first 15 years of employment. Salary increases fall off significantly as the technologist moves past the 20th year work anniversaries. The salary increases for age parallel the increases seen in years of experience, up to age 50, which is equivalent to 25-30 years of experience. It appears that the rate of salary change in the later years of one's professional life is less than the rate of salary change seen earlier in one's career.

Twenty-eight percent of all NMT's have associate's degrees, 56% have bachelor's degrees, 10% have master's degrees, and less than 1% have a doctorate. The salary of a technologist with a bachelor's degree is approximately $1,000 less than one with a two-year degree. Further comparing all job descriptions, technologists who have earned their master's and doctoral degrees can expect to earn between $5,000 and $18,000 more, respectively, than those with a bachelor's degree.

It would appear that the discipline is more stable, with 6% fewer layoffs than 5 years ago. Approximately twice as many full-time jobs were added than eliminated in the last 5 years. Sixty-seven percent of the full-time general imaging hospital staff NMT respondents routinely take call as part of their job-related responsibilities, which falls between 75% reported in 2013 and 48% reported in 2018. However, PET and cardiology call percentages are both decreased since 2018. Of the NMT respondents who reported taking call, 81% receive time-and-a-half call back pay for their hours worked.

In conclusion, compared to 2018, technologists' salaries are higher, especially for those working in PET. Also, the elimination of positions continues to be low, and more technologists are women. There does exist a salary gap based on gender, and geographic region and location. The reader should not assume that the respondents to this survey represent a true random sample of the total population of nuclear medicine technologists. The length of the survey and personal motivation to respond and complete a lengthy survey probably had un-measurable reliability and/or validity influences on the outcomes. Additionally, the process of analysis and cross-tabulation can result in descriptors and comparisons of groups with small sample sizes where the output median, mean, and range values can be influenced by extreme or atypical data values. Therefore, as with any survey analysis, some caution should be used when interpreting and inferring from the reported statistics. However, the NMTCB believes this data is significant, and therefore is reporting this cross-sectional salary data so that it may serve as a valuable reference for educators, administrators, and technologists.

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