2013 Salary Survey Results

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Introduction

During the summer of 2013, the Nuclear Medicine Technology Certification Board (NMTCB) conducted a salary survey. Invitations to participate in this 20 minute online survey were sent by email to 21,943 NMTCB certificants via their email address on file. The survey itself was delivered online using Open Source LimeSurvey software (http://www.limesurvey.org/). 3,121 responses were received, resulting in an overall response rate of 14%. Of the responses received, 58% identified themselves as staff technologists (including PET and NCT), 24% classified themselves as being in non-technologist positions (administrators, educators, private sector), 1% work in another modality in radiology (general radiographer, MRI, etc.), and 17% left the question blank. Of the staff technologists who identified their employment status, 80% were full-time employees, 12% were part-time, and 8% worked PRN. Female respondents constituted 57% of the full-time staff technologists and 78% of the part-time technologists. There were only 3% of all respondents that identified themselves as currently unemployed.

Data analysis

The returned survey results were entered into a Microsoft Excel workbook and analysis was performed using standard Excel database functions. All entries in the database were evaluated for errors and completeness. Miscodes were considered invalid responses and eliminated from the file. Blank cell entries were maintained but individual records containing blank cells were not used in any analysis that required the missing data. As a result, any cross-tabulated statistics reported here do not use any information provided by those respondents who did not complete the appropriate items needed to make that analysis. Their record may, however, have been used in the analysis of other questions for which the responses were deemed appropriately sufficient. It should be recognized that since the records used in any one specific analysis may differ from those used in another analysis, output values for the same statistic may vary somewhat from one table to another. Salary data crossed referenced with different demographic variables may produce differing median or mean salaries for any given group of CNMTs. There were several reported salaries well above 3 standard deviations of the mean value which were not used in this analysis as well as seven reported full time incomes of less than $1000 that were not used. As extreme outliers, it was felt that they were not representative typical technologist salaries (or were most likely miscoded cells or bogus entries). Inclusion of these extreme values would have significantly skewed the overall mean values. It should also be mentioned that any conclusions drawn on this data should be done considering the appropriateness of the sample size.

Salary by Job Classification

Table 1 provides the median, mean, and range of the annual full-time base salaries for the various nuclear medicine-related positions sorted in terms of highest to lowest median salaries. The overall (across all NMT positions) statistics are listed at the bottom of the chart. An hourly equivalent of the median salaries is also listed. Assuming that the industry-wide standard for NMT salary comparisons is the hospital-based general imaging technologist, it appears that the current median market value for general nuclear medicine technology skills is approximately $66,000 or $31.73 per hour. This is a $7,000 increase in annual salary from the 2006 salary survey. The range of salary for people in these positions is extremely wide ($12,000 to $235,000 per year).

Table 1 – Annual Base Salaries by position

	Median	Mean	Max	Min	n=	Median $/hr
Radiology Administrator: responsible for all areas of radiology	107,827	108,971	190,000	65,000	38	51.84
Administrative Professional	99,000	104,567	175,000	69,000	18	47.60
Clinical Supervisor - Administrator: no longer actively involved in performing routine clinical procedures	98,000	95,215	144,000	59,000	49	47.12
Applications Specialist	97,500	98,617	120,000	80,900	12	46.88
Educator: Nuclear Medicine Other	97,500	128,486	235,000	65,000	7	46.88
Sales/Marketing Professional	96,000	89,291	115,000	57,200	11	46.15
Staff Radiologic Technologist - Sonographer	95,000	95,000	95,000	95,000	1	45.67
Nuclear Medicine Technologist: self-employed	89,500	92,750	180,000	12,000	5	43.03
Nuclear Medicine-Related Position in the Private Sector: Other	87,000	83,429	100,000	57,000	7	41.83
Staff Nuclear Medicine Technologist: research (NM or P.E.T.) – private research laboratory	86,500	89,833	103,000	80,000	3	41.59
Radiology Specialty Administrator: responsible for a single non-nuclear medicine area of radiology	84,475	90,043	115,000	65,000	6	40.61
Medical/Health Physicist	82,000	93,936	162,000	58,000	7	39.42
Clinical Supervisor - Chief Tech: performs routine procedures & administrative duties	79,100	79,717	140,000	12,300	298	38.03
Other	79,000	77,927	109,000	48,256	23	37.98
Systems Analyst/Programmer	79,000	76,933	80,000	71,800	3	37.98
Educator in another radiologic discipline (sonography, MRI, CT, radiation oncology, etc.)	78,500	78,500	78,500	78,500	1	37.74
Specialty Supervisor: supervising routine clinical procedures in a specific area of NM (cardiac, SPECT, PET, etc.)	78,400	80,737	120,000	55,000	59	37.69
Educator: Nuclear Medicine Clinical Instructor (hired specifically to instruct students in the clinical setting)	78,000	68,763	85,000	51,290	4	33.65
Educator: Nuclear Medicine Program Director	75,800	77,036	105,000	45,000	36	37.50
Staff Nuclear Medicine Technologist: mobile P.E.T. – hospital/clinic base	74,640	70,800	94,500	40,000	12	36.44

Staff Nuclear Medicine Technologist: P.E.T. only - clinic/private office	73,000	73,864	102,000	29,100	43	35.88
Staff Nuclear Medicine Technologist: P.E.T. only – hospital base	71,500	74,330	100,000	56,250	39	35.10
Staff Nuclear Medicine Technologist: research (NM or P.E.T.) – hospital/clinic/educational institution base	70,000	75,252	102,000	48,000	19	34.38
Educator: Nuclear Medicine Classroom Instructor/Adjunct Lecturer (hired specifically to instruct students in the classroom)	70,000	68,763	85,000	51,290	4	33.65
Staff Nuclear Medicine Technologist: cardiac only - cardiac clinic/private office	68,000	69,341	125,000	30,675	201	32.69
Staff Nuclear Medicine Technologist: cardiac only – hospital base	68,000	68,587	101,900	44,500	68	32.69
Pharmacy/Nuclear Pharmacy Tech	67,816	67,816	77,848	57,783	3	32.60
Staff Nuclear Medicine Technologist: general imaging (may include some Cardiac and/or PET) – hospital base	66,000	68,571	160,513	30,000	847	31.73
Staff Nuclear Medicine Technologist: mobile NM – hospital/clinic base	66,000	63,000	72,000	48,000	5	31.73
Staff Nuclear Medicine Technologist: mobile P.E.T. – private mobile imaging service	64,000	66,732	100,000	24,900	19	30.77
Staff Radiologic Technologist – MRI	63,500	61,833	67,000	55,000	4	30.53
Staff Nuclear Medicine Technologist: general imaging - clinic/private office	61,200	63,423	102,000	31,200	74	29.42
Employed but no longer working in a nuclear medicine or radiology-related field	58,950	58,950	61,000	56,900	2	28.34
Staff Nuclear Medicine Technologist: mobile NM – private mobile imaging service	56,171	57,276	85,000	28,000	14	27.01
Staff Radiologic Technologist – General Radiography	52,575	51,513	58,000	42,900	4	25.28
Staff Radiologic Technologist – Computed Tomography	48,000	48,000	48,000	48,000	1	23.08
Nuclear Medicine Technologist: private manufacturer	45,000	46,667	55,000	40,000	3	21.63

Based upon the responses from hospital-based staff technologists, those who work in specialty areas are compensated somewhat better; approximately $7,000 per year for PET (table 2) and $2,000 per year for nuclear cardiology (table 3), although this spread in salary is considerably less than what was reported on the 2006 salary survey (which was $10,000 for PET and $3,000 for nuclear cardiology at that time.

Table 2 – Annual Base PET Salaries by position

	Median	Mean	Max	Min	n=	Med $/hr
Staff technologist- PET only - Hospital based	$73,000	$74,330	$100,000	$56,250	39	$35.10
Staff technologist- PET only - clinic/private office	$74,640	$73,864	$102,000	$29,100	43	$35.88
Staff technologist - mobile PET - hospital/clinic base	$75,800	$70,800	$94,500	$40,000	12	$36.44
Staff technologist - mobile PET - private mobile img.	$64,000	$66,732	$100,000	$24,900	19	$30.77
Combined	$71,480	$70,465	$98,833	$31,333	74	$34.37

Table 3 – Annual Base Cardiac Salaries by position

	Median	Mean	Max	Min	n=	Med $/hr
Staff technologist cardiac only - clinic/private	$68,216	$72,486	$650,000	$30,675	201	$32.80
Staff technologists cardiac only - hospital base	$68,000	$68,587	$101,900	$44,500	68	$32.69
Combined	$68,108	$70,537	$375,950	$37,588	269	$33.00

When compared to the specialty technologist, educator's salaries are similar to or slightly higher than PET and nuclear cardiology specialties. Classroom instructors and clinical instructors reported average salaries of $70,000-$71,000 which falls right between PET ($73,000) and nuclear cardiology technologist ($68,000). Program directors bring in an average of $78,000. Administrative roles such as Chief Techs and Specialty Supervisors average $79,000 and $78,000 respectively. Amoung the highest paid positions are the Clinical Supervisors who report an average salary of $98,000, Administrative Professionals who bring in $ 99,000 and Radiology Administrators that are responsible for all areas of radiology have the highest average salary at $108,000.

A comparison was made for entry level technologists (those who graduated from a NMT program within the years of 2009-2013) to get an idea of what the market value difference is between subspecialties. Because of the overall low number of responses, these groupings included hosptial-based staff technologists and clinic/private offices as well as mobile PET. Table 4 shows that recent graduates in general imaging and nuclear cardiology earn approximately $55,000/year, almost $10,000 less than those who have entered into the PET modality.

Table 4 – Annual Base Salaries by Position (grad years 2009-2013)

	Median	Mean	Max	Min	n=
Staff technologist- hospital based & private clinic	$55,242	$53,760	$111,080	$30,000	113
PET-hospital, private office, and mobile	$64,854	$63,000	$100,000	$43,000	14
Cardiac -hospital based & private clinic	$55,746	$56,000	$75,000	$30,675	10
Overall 2009-2013 Grads	$58,614	$57,587	$95,360	$34,558	137

Geographic Location and General Population Base

The average annual base salaries for the hospital-based general imaging category sorted by population base are listed in Table 5. Those working in urban settings earn about $5,000 more than those in suburban/small city settings and urban salaries outweigh rural salaries by almost $9,000, this spread has increased approximately $4,000 when compared to urban versus rural salaries from the 2006 survey, which reported median annual incomes of $61,110 for suburban, $60,185 for urban, and $55,000 for rural areas.

Table 5 – Annual Hospital-Based General Imaging Salaries by regional population

	Median	Mean	Max	Min	n=	Med $/hr
Urban	$70,000	$72,126	$160,513	$30,000	347	$33.65
Suburban/Small City	$65,000	$66,821	$135,200	$32,500	347	$31.25
Rural	$61,750	$66,821	$135,200	$32,500	104	$29.69

Table 6 shows the median salaries earned by full-time hospital-based general imaging technologists sorted by each U.S. State. The highest salaries were reported by those working in California (~$50/hr), Washington ($41/hr), and Rhode Island ($40/hr) and the states with the lowest average salaries included Kentucky ($26/hr), South Dakota ($25/hr) and West Virginia ($24/hr).

Table 6 – Annual Hospital-Based General Imaging Salaries by State

	Median Salary	Mean Salary	Max	Min	n=	Mean $/hr
California	$103,000	$102,234	$160,513	$62,000	52	$49.52
Washington	$86,216	$88,757	$112,606	$60,000	22	$41.45
Rhode Island	$83,200	$83,200	$83,200	$83,200	1	$40.00
Connecticut	$80,400	$76,798	$93,600	$49,895	13	$38.65
Massachusetts	$79,500	$81,955	$105,000	$62,400	17	$38.22
Alaska	$79,100	$79,100	$81,200	$77,000	2	$38.03
Colorado	$78,500	$74,469	$102,000	$44,800	13	$37.74
Hawaii	$78,252	$78,252	$78,252	$78,252	1	$37.62
New Hampshire	$76,540	$76,540	$82,000	$71,080	2	$36.80
New Mexico	$75,500	$73,892	$85,000	$59,568	4	$36.30
Arizona	$75,000	$72,569	$93,500	$57,000	16	$36.06
New Jersey	$75,000	$78,708	$100,400	$68,000	7	$36.06
Nebraska	$74,000	$68,596	$78,000	$53,788	3	$35.58
North Dakota	$73,840	$73,840	$73,840	$73,840	1	$35.50
Maryland	$73,500	$73,192	$92,000	$38,358	16	$35.34
Wisconsin	$72,872	$73,611	$104,000	$55,000	28	$35.03
Delaware	$72,500	$69,507	$78,000	$53,040	6	$34.86
Idaho	$72,500	$72,500	$75,000	$70,000	2	$34.86
Missouri	$72,000	$68,737	$86,320	$44,116	17	$34.62
Minnesota	$69,572	$68,309	$86,000	$42,000	14	$33.45
Montana	$68,750	$70,025	$80,600	$62,000	4	$33.05
Illinois	$68,500	$70,053	$98,000	$49,000	34	$32.93
New York	$68,437	$68,899	$92,000	$32,000	24	$32.90
Georgia	$68,000	$66,086	$88,000	$45,000	17	$32.69
Utah	$67,500	$69,450	$84,000	$54,700	6	$32.45
Oregon	$67,000	$74,427	$87,362	$62,000	7	$32.21
Texas	$67,000	$66,460	$95,000	$39,900	51	$32.21
Louisiana	$66,690	$62,514	$78,000	$48,000	10	$32.06
Iowa	$65,500	$67,462	$81,000	$55,000	14	$31.49
Vermont	$64,358	$64,358	$69,659	$59,057	2	$30.94
Florida	$64,300	$63,396	$99,500	$30,000	42	$30.91
Arkansas	$64,074	$61,448	$72,800	$46,000	6	$30.80
Wyoming	$64,000	$64,000	$64,000	$64,000	1	$30.77
Oklahoma	$63,012	$62,323	$76,000	$45,000	14	$30.29
Michigan	$63,000	$61,256	$86,000	$7,600	45	$30.29
Mississippi	$62,700	$65,063	$81,200	$51,285	8	$30.14
South Carolina	$62,000	$60,393	$72,500	$49,920	9	$29.81
Tennessee	$62,000	$58,411	$75,000	$32,500	29	$29.81
Virginia	$62,000	$64,191	$104,000	$45,000	19	$29.81
Ohio	$61,107	$60,958	$82,195	$42,500	48	$29.38

Indiana	$60,000	$68,601	$120,000	$40,000	26	$28.85
North Carolina	$60,000	$61,023	$79,000	$40,069	33	$28.85
Alabama	$59,744	$60,002	$75,920	$48,000	12	$28.72
Pennsylvania	$59,000	$59,719	$90,000	$33,488	40	$28.37
Maine	$57,500	$61,963	$82,000	$45,500	12	$27.64
Nevada	$56,080	$56,080	$82,000	$30,160	2	$26.96
Kansas	$55,500	$57,173	$86,300	$44,494	9	$26.68
Kentucky	$53,500	$56,617	$73,000	$42,500	18	$25.72
South Dakota	$51,197	$54,636	$66,000	$50,150	4	$24.61
West Virginia	$49,400	$52,372	$67,500	$43,000	10	$23.75
National	$68,257	$68,482	$86,779	$50,823	793	$32.82

Table 7 groups the average salary data into traditional geographic regions. Technologists from the Pacific Region report the highest full-time salaries with median value of $79,100 which is $13,000 above the national mean. The North East region has the next highest at $76,540. The Southern region reports the lowest median annual salary of $62,000 which is $4,000 below the national average.

The North East	CT, MA, ME, NY, RI, VT
The Mid-Atlantic	DE, MD, NJ, PA, VA, WV
The Industrial Mid-West	IL, IN, OH, WI
The South	AL,FL, GA, KY, MS, NC, SC
The Plains States	IA, KS, MN, MO, ND, SD, NE
The Oil Patch States	AR, LA, OK, TX
The Rocky Mountain States	AZ, CO, ID, MT, NM, NV, UT, WY
The Pacific States	AK, CA, HI, OR, WA

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

	Median	Mean	Max	Min	n=
The Pacific States	$79,100	$84,554	$160,513	$60,000	84
The North East	$76,540	$73,388	$105,000	$32,000	71
The Mid-Atlantic	$72,500	$69,063	$104,000	$33,488	98
The Rocky Mountain States	$70,625	$69, 063	$102,000	$30,160	48
The Plains States	$67,536	$65,003	$86,300	$42,000	62
The Oil Patch States	$65,382	$63,186	$95,000	$39,900	81
The Industrial Mid-West	$63,811	$67,200	$120,000	$40,000	181
The South	$62,000	$61,374	$99,500	$30,000	168

Average Salaries Based on Years of Experience and Age

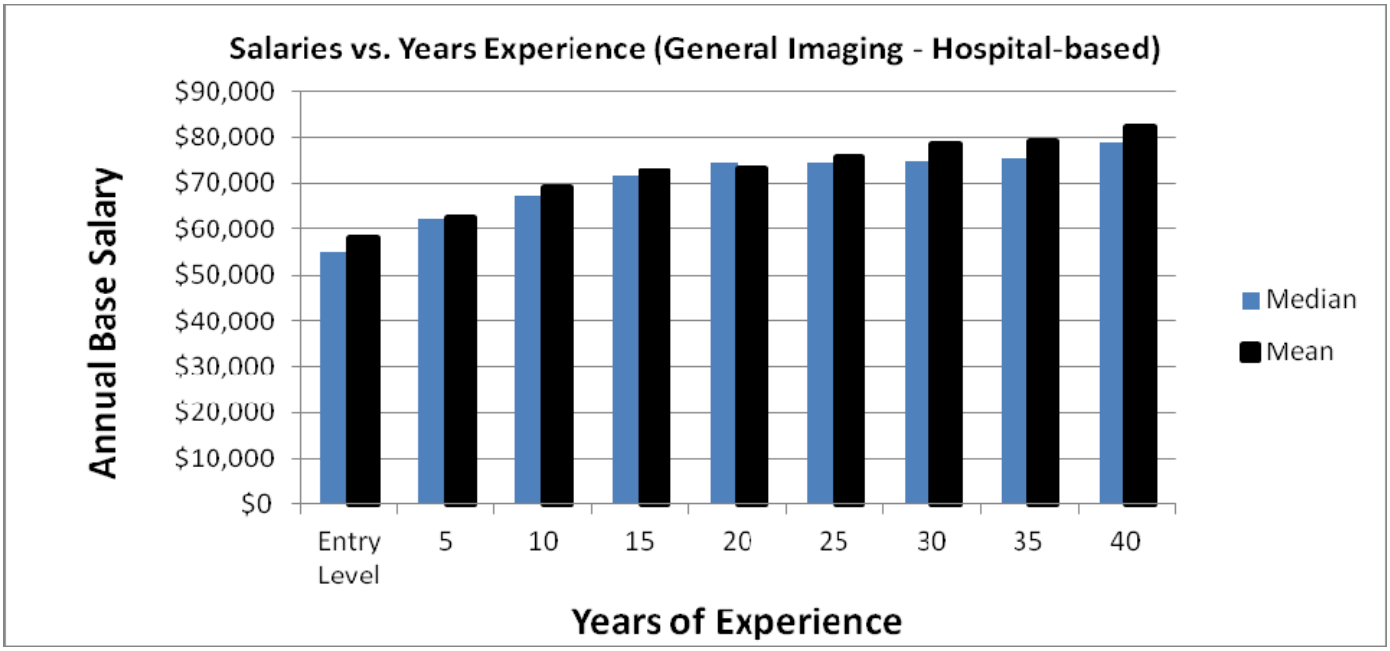
Once again, the largest group of respondents belongs to the hospital-based general imaging positions and since most NMT graduates start off in this category, analyzing this group of CNMTs would most likely provide the insight into the current market value of new graduates and the relative standing of experienced technologist salaries. The data in Table 8 suggests that a new NMT program graduate might expect to be offered base salaries right around $55,000 per year (which equates to $26.44/hr). This is an increase of approximately $5,000 compared to the salaries reported from an entry level technologist in the 2006 survey.

Table 8 – Annual Base Salaries by years of experience in hospital-based general imaging

	Median	Mean	Max	Min	n=
Entry Level	$55,000	$58,242	$120,000	$30,160	122
5 years	$62,400	$62,516	$110,000	$30,000	209
10 years	$67,309	$69,338	$122,700	$36,000	142
15 years	$71,540	$72,781	$120,000	$43,000	72
20 years	$74,492	$73,314	$160,513	$32,000	76
25 years	$74,628	$75,917	$129,000	$42,500	69
30 years	$75,000	$78,464	$135,200	$49,800	66
35 years	$75,500	$79,056	$115,000	$60,000	36
40 years	$78,900	$82,501	$120,000	$57,000	18

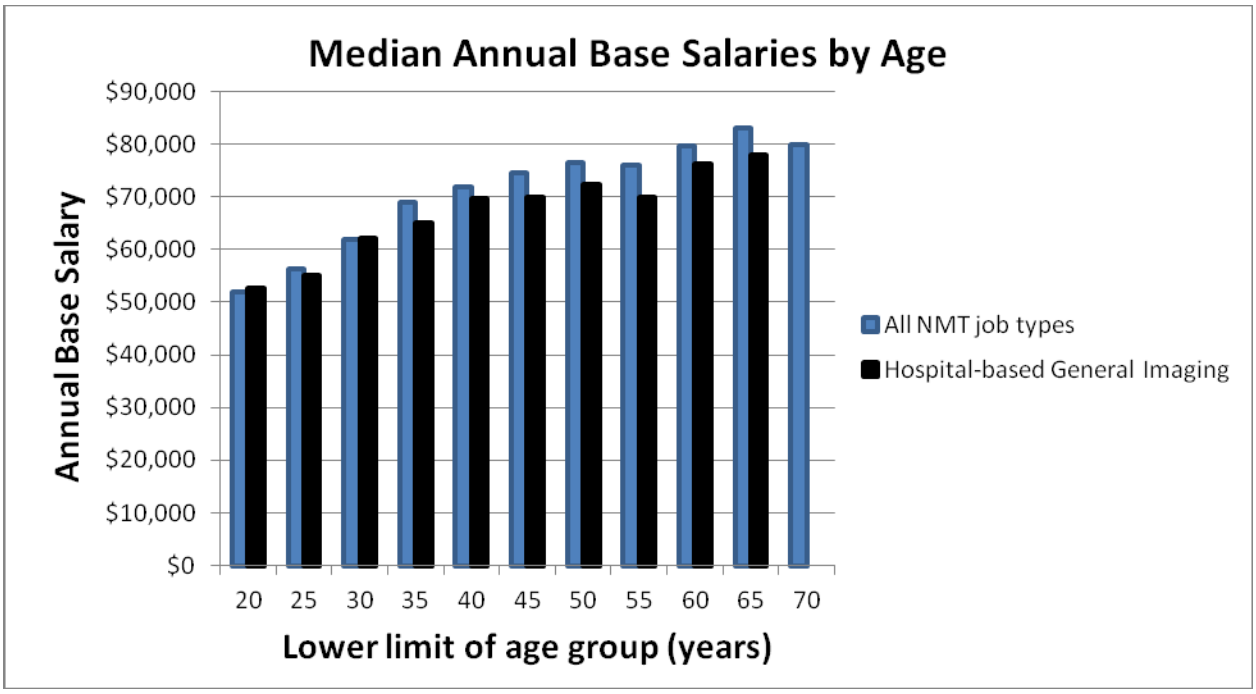
Graph 1 shows average salaries for hospital-based technologists based on their years of experience. Technologists are compensated for years of experience with the greatest increases during the first 20 years of employment. The average salary range difference from 1 to 40 years of experience is reported to be $23,000, up from the $13,000 difference reported 7 years ago. A technologist with at least 5 years of experience can expect to earn approximately $7,000 more than an entry level technologist. Salary increases during the 10, 15, and 20 year intervals is $5,000, $4,000, and $3,000 respectively and then significantly tapering off at the 25, 30, 35, and 40 year increments. A meager total increase of $4,000 in salary is seen between 25 years and 40 years.

Graph 1



The median age of NMTs across all jobs types is 45 years and for those working in hospital-based general imaging the median age is 43 years. This is one year greater than the median age reported in 2006. Those working in the cardiac subspecialty reported a median age of 46 years and for PET was 49 years, both of which are higher than the values reported in 2006 (43 years for cardiac techs, 41 years for PET techs). The oldest respondents were 72 years and the youngest were 22. The employment groups with the oldest respondents were those that are self-employed (median age of 58 years, n=5), medical/health physicists (median age 54 yrs, n=7), and administrators (median age 51 years, n=101).

Graph 2



Gender and Ethnicity Analysis

If it can be assumed that survey returns represent a random sample from the total number of CNMTs surveyed and that CNMTs represent a cross-section of the total number of nuclear medicine technologists working in the field, the statistics (Table 9) show that the profession is approximately 59% female and 41% across all reported positions.. These salary statistics were calculated using only full-time staff responses across all NMT job categories. There is evidence of a gender gap when comparing median salaries across all positions, approximately $4,500 in favor of males (vs. a $6,000 gap reported on the 2006 Salary Survey). Again, this difference can be partially, but not totally, explained by the preponderance of males in the higher paying positions where the top paying 5 jobs consist of 63% males vs 37% female. The gap is less, but still significant, when just looking at hospital-based general imaging salaries (see Table 10) where this is just over a $2,700 difference.

Table 9 – Median Annual Base Salaries by Gender and Ethnicity
(total number, n, is shown in parentheses)

	Male	Female	Item left Blank	Combined
African American and Black	$67250 (22)	$67984 (26)	--	$67,309
American Indian or Alaska Native	no data (0)	$68500 (13)	--	$68,500
Asian or Pacific Islander	$75000(40)	$70000 (46)	65875 (2)	$71,672
Latino or Hispanic	$74880 (49)	$70000 (38)	$62663 (2)	$72,300
White	$73840(720)	$69144 (922)	$63740 (18)	$71,000
Mixed-parents from mixed racial/ethnic/cultural heritage	$81000 (18)	$62000 (11)	$75400 (3)	$74,200
Item left Blank	$70500 (27)	$82000 (21)	--	$73,840
Combined	$73,752	$69,947	$66,920	$71,260

Table 10 – Annual Hospital-Based General Imaging Salaries by Gender

	Median	Mean	Max	Min	n=
Male	$74,000	$76,536	$235,000	$24,900	881
Female	$69,500	$72,207	$650,000	$28,000	1080
				Total	1961

A breakdown of all respondents shows that of those that identified their race/ethnic background, 78% identified themselves as White. The next largest group (4.5%) was those of Latino descent closely followed by those of Asian descent (4.3%). African Americans made up 2.6% of the total, the Mixed ethnic group reported 1.8%, and the remaining 0.6% are Native Americans. Because of the low numbers of individuals in each non-white category, caution should be used in interpreting any discrepancies in the salary statistics. According to the analysis, Asians and Latin certificants report average salaries comparable to those in the White category. African Americans and Native Americans appear to bring in $2,500 to $4,000 less than Whites.

When only looking at the hospital-based general imaging data (Table 11), those in the Asian, Latin American, and Mixed Heritage categories surpass the national median salary for individuals in that position ($66,000 – see Table 1). American Indians and African Americans continue to remain below the national mean by approximately $1,000. This difference might be explained by regional salary variations relative to the current geographic distribution of each group. 71% of African Americans and American Indians live in the Oil Patch, Industrial Mid-West, and Southern regions while a mere 15% live in the regions that reported salaries above the national mean (Pacific, North East, Mid-Atlantic, and Rocky Mountain). The greater variance across all NMT job categories suggests that there is an under-representation of Black certificants in the higher paying positions (administrators, supervisors, chief techs, educators, etc.)

Table 11 – Annual Hospital-based General Imaging Salaries by Racial/Ethnic Background

	Median	**Mean**	**Max**	**Min**	**n=**
American Indian or Alaskan Native	$65,000	$60,343	$75,000	$42,500	7
African American and Black	$64,260	$65,330	$110,000	$45,000	26
Asian or Pacific Islander	$69,500	$72,305	$120,000	$44,000	44
Latino or Hispanic	$70,000	$69,278	$110,250	$30,000	33
Mixed - Parents from different racial/ethnic/cultural heritage.	$70,000	$71,823	$120,000	$45,000	15
White	$66,000	$68,199	$160,513	$30,000	667
				total	792

Salaries vs. Education Background

An educational breakdown of certificant responses from all NMT job types shows that 51% have bachelor's degrees while 9% have master's and less than 1% have a doctorate. The distribution of educational backgrounds in the hospital-based general imaging job types shows that 52% have bachelors's degrees, 5% have master's degrees, and less that 0.5% have doctoral degrees. According to the statistics in Table 12, the market value of a technologist with a bachelor's degree is approximately $1,500 higher than one with a two-year degree (all NMT job types) and that difference is smaller, only $1,000, when looking at those working in the general-imaging category. For all job types, those who have earned their master's and doctoral degrees can expect to earn between $10,000 and $15,000 more than those with a bachelor's degree. When comparing these figures to median salaries based on age from Graph 2, a NMT with a master's degree will earn about $5,000 more than someone who has not earned their master's from the same median age group. That figure is significantly higher for the doctorate degree category, $20,000 more than someone with the same experience. In the hospital-based general imaging group, a technologist with a master's degree will earn about the same as someone in that median age group who does not, which suggests that any differences in salary are more of a function of the respondent's experience level rather than their education level. A technologist from the hospital-based imaging group with a doctoral degree will earn aprroximately $3,000 more than someone with the same experience level and no doctoral degree.

Table 12 – Annual Base Salaries by Highest Degree Obtained (all NMT job types)

	Median	Mean	High	Low	N	Median Age	Median Grad Year
High School	$66,280	$77,838	$140,000	$54,340	8	60	1971
Certificate	$75,000	$75,872	$120,000	$38,358	170	53	1978
Associates degree	$68,570	$70,064	$180,000	$29,100	538	45	1987
Baccalaureate degree	$70,000	$73,787	$650,000	$7,600	942	43	1988
Master's degree	$80,000	$82,667	$190,000	$36,000	176	48	1983
Doctorate	$95,680	$90,629	$106,000	$66,560	11	51	1980
Post-Doctorate	$235,000	$235,000	$235,000	$235,000	1	52	1983

Table 13 – Annual Base Salaries by Highest Degree Obtained (Hospital-based general imagining)

	Median	Mean	High	Low	n=	Median Age	Median Grad Year
High School	$54,340	$54,340	$54,340	$54,340	1	55	1976
Certificate	$71,360	$71,995	$120,000	$38,358	68	52	1986
Associates degree	$65,000	$66,261	$120,000	$30,000	267	42	2003
Baccalaureate degree	$66,000	$69,151	$160,513	$30,000	415	39	2004
Master's degree	$69,100	$71,563	$123,494	$36,000	40	44	2004
Doctorate	$75,000	$79,853	$98,000	$66,560	3	54	2002

Table 14 compares salaries of recent graduates from the different types of NMT programs. A comparison of the median average salary shows that those who graduated from a hospital or medical center based program have about a $5,000 higher income than a technologist graduating from any of the other programs. University-associated teaching hospital graduates have a lower median average income than those that graduate from a community college or four year college or university, but that order flip flops when mean values are used.

Table 14 – Annual Base Salaries by Type of NMT Program Graduated
(2003-2006 graduates only)

	Median	Mean	Max	Min	n=
Hospital or medical center	$58,220	$58,780	$94,000	$35,000	14
Military-based	$38,358	$38,358	$38,358	$38,358	1
Community College or Tech School	$53,040	$54,050	$71,448	$30,000	33
Four year college or university	$53,000	$55,070	$90,000	$36,500	43
University-associated teaching hospital	$49,340	$56,527	$95,000	$38,000	7

Salaries and Certification in Radiography

Of the respondents occupying NMT positions (of any type), 20% currently hold dual certification in nuclear medicine technology and radiologic technology (RT(R)). A high percentage of those have administrative roles: radiology administrators (41%), administrators (35%), clinical supervisors (34%), and chief technologists (27%). The highest percentage of dual certified staff technologists can be found in the PET related fields: PET only clinic/private office (39%), mobile PET hospital-based (38%), and PET only hospital-based (36%). This certainly would be reflected by the trend of increasingly widespread use of PET/CT scanners throughout the country and the fact that a number of states will only permit registered radiographers to run the CT portion of PET/CT imaging devices. There are also an increasing number of nuclear medicine programs that are preparing their students for this trend by building CT training into the nuclear medicine curriculum.

Table 15-Median annual Base Salaries by Radiography Certification (2009-2012 graduates only)

	RT(R) Certified?		
	Yes	**No**	**Difference**
General Imaging	$54,380	$53,540	$840
Cardiac	n/a	$56,000	n/a
PET	$85,500	$63,300	$22,200
Overall	$69,940	$57,613	$11,520

On Call Analysis

Of the full-time general imaging hospital staff NMT respondents who replied to the on-call survey items, 75% said they routinely take call as part of their job-related responsibilities. Of those who perform cardiac imaging in a hospital setting, 20% report taking call and 30% of those who perform PET in the hospital setting take call. According to all of the NMT respondents who took the survey, 78% receive time-and-a-half call back pay for their hours worked. Straight time was the next highest reported pay for hours worked on call at 11%. A fixed rate-per-hour was by far the most common stand-by pay rate identified by those who were compensated. The median dollar pay for stand-by figured to be $3.00/hr with the most common reported value being $2/hr. The majority of technologists who take call (65%) report being paid a minimum of 2 hours when called in.

Employment

While salary information such as is described above may prove interesting for those that work in the field, there is a lot of anecdotal discussion about the availability of jobs for nuclear medicine technologists as well. This survey did include some questions seeking to better understand some employment trends. We asked the question "Within the past five years, have you been laid off due to economic reasons from a position related to your nuclear medicine certification?" Of those that chose to respond, 10.5% claimed that they had. Unfortunately, 26% of all those that participated in the survey chose to not answer this question. Nearly 40% of those who answered the question told us that their hours per week worked have been reduced by an average of nine (9) hours due to economic reasons but, again, 26% of all those that participated in the survey chose not to answer. We also asked whether any full-time or part-time positions had been eliminated or purposefully not filled within the past five years. More than 52% answered yes, with two-thirds (66%) stating that full-time positions had been eliminated. One more time, 26% of all participants chose not to answer.

Hybrid Imaging and Licensure

Conducting this salary survey provided a good opportunity to try and understand some of the trends affecting the field. We asked working technologist that have one or more hybrid PET/CT or SPECT/Ct devices to tell us who performs the CT portion of the hybrid examinations and 72% percent responded that the nuclear medicine technologist does. We asked these same respondents whether their state requires radiography or CT certification/licensure to operate the CT portion of the device and 28% stated that such licensure is required. We asked the same questions about PET/MRI devices. Only 181 of all respondents (13%) stated that they worked with PET/MRI and only 8% of those claimed they performed the MRI portion of the hybrid examination and 23% claimed their state requires radiography or MRI certification/licensure to operate such a device.

It is interesting to note that many respondents are not completely familiar with the regulations in their state. For example, in one state, 54 respondents stated they perform CT on their hybrid machines. However, when asked if that state requires separate CT certification to operate the CT portion of the hybrid machine, 25% said yes. The fact is that in this state, nuclear medicine technologists that have been trained and have demonstrated competency with the equipment and procedures are permitted to perform the CT portion of the scan when done in conjunction with a hybrid

scan. They are not, however, permitted to perform a diagnostic CT alone, even if they have ARRT CT credentials. Only a registered radiographer is permitted to perform diagnostic CT. In another state 93% of respondents claimed that their state does not permit a nuclear medicine technologist with ARRT CT credentials to operate the CT portion of a hybrid device, while the fact is that this state does permit a person holding “radiography or post primary certification in computed tomography” to operate the CT portion of hybrid imaging. Clearly, there is some confusion about the individual state regulations.

Conclusion

These survey results have helped to identify current market salary ranges for most nuclear medicine technology related job categories. Cross-tabulation with a number of demographic variables has provided segmental salary data that may be useful to technologists, administrators, and educators within the field. As with any statistical data, caution should be exercised when interpreting the final statistics. Small sample size in a number of the categories created here make the output mean and range values especially susceptible to the influence of atypical and/or extreme values. It is also unlikely that the respondents to this survey represent a completely random sample of the total population of nuclear medicine technologists. Factors that play a part in an individual's ability (or motivation) to respond to a bulk email invitation and then complete or not complete a survey of this length may have had some unidentifiable influence on the results.