

2006 Salary Survey Results

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Introduction

The Nuclear Medicine Technology Board conducted another salary survey this past summer. Surveys were mailed out to all 18,304 NMTCB certificants working in the United States and 5690 of those surveys were returned yielding an excellent response rate of 31%. Respondents identified themselves as staff nuclear medicine or PET technologists on 4150 (73%) of the returned surveys. The remaining 27% were a mixture of those working in non-technologist positions within the field (administrators, educators, private sector positions), those working in jobs outside the field of nuclear medicine, and those who did not choose to identify a current employment category. Of the staff technologist respondents who also identified their employment status, 84% were full-time employees and 13% were part-time. A full 90% of the part-time respondents were female, while 58% of the full-time respondents identified themselves as female. 3% identified their current status as “unemployed” (3/4 of which were female). Less than 2% of the all respondents failed to list their salary information.

Data Analysis

All returned surveys were scanned using a bubble-sheet scanner and coding software. The output data was converted to a Microsoft Excel file and analysis of the data was performed using 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 cross referenced with different demographic variables may produce differing median or mean salaries for any given group of CNMTs. There were 22 reported salaries well above 3 standard deviations of the mean value which were not used in this analysis. As extreme outliers, it was felt that they were not representative typical technologist salaries (or were in fact 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 sizes.

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 \$59,000 – just over \$28.00 per hour. The range of salaries for people in these positions is extremely wide however (\$20,984 to \$115,000 per year).

Table 1 – Annual Base Salaries by position

	Median	Mean	Max	Min	n =	Median \$/hr.
Self Employed	\$92,500	\$100,121	\$245,505	\$29,000	33	\$44.47
Administrator	\$78,348	\$78,467	\$175,000	\$40,000	164	\$37.67
Specialty Supervisor	\$72,779	\$73,790	\$110,000	\$45,000	169	\$34.99
Research - Private Research Inst	\$72,000	\$69,054	\$97,000	\$30,000	15	\$34.62
Mobile PET - Hospital Based	\$71,850	\$69,047	\$80,000	\$53,997	10	\$34.54
Chief Tech	\$71,250	\$72,488	\$190,000	\$30,000	524	\$34.25
PET Only - Private Office	\$70,000	\$72,049	\$120,000	\$40,000	130	\$33.65
Mobile PET- Private Imaging Serv	\$69,424	\$70,115	\$160,000	\$41,000	88	\$33.38
Program Director	\$67,000	\$67,895	\$110,500	\$50,000	46	\$32.21
Temporary Staffing Service	\$66,560	\$68,273	\$90,000	\$48,000	35	\$32.00
Research - Hospital Based	\$63,000	\$64,218	\$98,000	\$34,142	31	\$30.29
PET Only - Hospital Based	\$62,868	\$66,079	\$97,700	\$40,000	57	\$30.23
Cardiac Only - Hospital Based	\$62,212	\$64,318	\$148,000	\$42,806	93	\$29.91
Cardiac Only - Private Office	\$62,000	\$64,446	\$160,000	\$24,000	705	\$29.81
Mobile NM - Private Imaging Serv	\$61,200	\$64,646	\$88,400	\$42,000	42	\$29.42
Classroom Instructor	\$60,550	\$64,759	\$120,100	\$25,000	36	\$29.11
General Imaging - Private Office	\$60,000	\$61,801	\$149,000	\$27,000	248	\$28.85
General Imaging Hospital Based	\$58,968	\$59,818	\$115,000	\$20,984	1,953	\$28.35
Mobile NM - Hospital Based	\$57,600	\$57,576	\$75,300	\$36,000	17	\$27.69
Clinical Instructor	\$55,000	\$61,556	\$78,000	\$49,000	9	\$26.44
Overall	\$62,700	\$65,538	\$245,505	\$20,984	4,405	\$30.14

The data does suggest that NMTs are compensated somewhat better for specialty skills; approximately \$3000 per year for nuclear cardiology (table 3), and \$10,000 year for P.E.T. positions (table 2). Technologists working for themselves via contract or with private staffing agencies are making as much as \$10,000 to \$20,000, on average, more than those technologists working as hospital staff employees.

Table 2 – Annual Base PET Salaries by position

	Median	Mean	Max	Min	n =	Median \$/hr.
PET Only - Hospital Based	\$62,868	\$66,079	\$97,700	\$40,000	57	\$30.23
PET Only - Private Office	\$70,000	\$72,049	\$120,000	\$40,000	130	\$33.65
Mobile PET - Hospital Based	\$71,850	\$69,047	\$80,000	\$53,997	10	\$34.54
Mobile PET- Private Imaging Service	\$69,424	\$70,115	\$160,000	\$41,000	88	\$33.38
Combined	\$69,000	\$70,153	\$160,000	\$40,000	285	\$33.17

Table 3 – Annual Base Cardiac Salaries by position

	Median	Mean	Max	Min	n =	Median \$/hr.
Cardiac Only - Hospital Based	\$62,212	\$64,318	\$148,000	\$42,806	93	\$29.91
Cardiac Only - Private Office	\$62,000	\$64,446	\$160,000	\$24,000	705	\$29.81
Combined	\$62,065	\$64,431	\$160,000	\$24,000	798	\$29.84

Average educational program directors salaries are comparable to the specialty technologist salaries with Program Director salaries averaging approximately \$67,000 per year (on average, about \$2000 less than PET technologists and \$5000 more than cardiac techs). Dedicated clinical instructors, however, rank at the bottom of the list, earning a median annual salary of \$55,000. Clinical Supervisors who are primarily administrators are earning in the neighborhood of \$78,500 while Chief Techs and Specialty Supervisors are making around \$73,000 per year.

In order to get an idea of what the market value difference between subspecialties might be at entry-level, the salary data of those respondents who have graduated from an NMT program within the years of 2003 through 2006 was grouped together and analyzed (analysts felt that using fewer years worth of data would result in a sample size that would have been too small to yield any valid conclusions). Table 4 shows that neophyte NMTs who have gone into PET-only positions earn a base salary of, on average, \$7,000 per year more than their colleagues who hold general imaging positions (regardless of work setting). Those in cardiac-only positions are seeing salaries in between – roughly \$4,000 more than those in general imaging.

Table 4 – Annual Base Cardiac Salaries by position (grad years 2003-2006)

	Median	Mean	Max	Min	n =
General Imaging	\$52,000	\$53,315	\$97,000	\$25,500	509
Cardiac	\$56,000	\$57,081	\$140,000	\$24,000	121
PET	\$59,000	\$61,320	\$82,500	\$40,000	51
Overall 2003-2006 Grads	\$53,000	\$57,081	\$140,000	\$24,000	681

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. Not surprisingly, in most cases, those working in urban and suburban settings earn slightly more than those working in the other two categories. On average, the urban/suburban salaries are about \$5000 per year higher than for small city and rural positions.

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

	Median	Mean	High	Low	n =
Suburban	\$61,110	\$62,035	\$110,240	\$27,900	395
Urban	\$60,185	\$61,852	\$115,000	\$25,500	652
Small City	\$56,181	\$57,811	\$106,080	\$30,000	568
Rural Town	\$55,000	\$56,546	\$100,000	\$20,984	311

Table 6 shows the median salaries earned by full-time hospital-based general imaging technologists sorted by each U.S. State. The highest salaries (in the \$38 - \$39 per hour range) were reported by those working in the California and the District of Columbia. The states with the lowest average salaries were West Virginia, Nebraska, and South Dakota (\$22 - \$24 per hour range). Puerto Rico reported the lowest median earnings (\$15 - \$16 per hour).

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

Rank	State	Median Salary	Mean Salary	High	Low	n =
1	California	\$80,000	\$80,776	\$115,000	\$48,000	98
2	District of Columbia	\$80,000	\$75,555	\$91,000	\$51,000	7
3	Nevada	\$74,500	\$78,069	\$110,240	\$53,840	11
4	Rhode Island	\$71,450	\$71,992	\$92,000	\$56,000	12
5	Connecticut	\$70,000	\$70,588	\$97,000	\$53,049	30
6	Massachusetts	\$69,899	\$68,321	\$87,000	\$45,000	43
7	New Jersey	\$68,650	\$69,237	\$86,840	\$30,000	50
8	Oregon	\$66,560	\$64,423	\$76,500	\$44,000	19
9	Hawaii	\$64,000	\$63,196	\$80,000	\$43,000	7
10	Maryland	\$63,440	\$63,620	\$88,000	\$38,500	41
11	Georgia	\$63,050	\$62,983	\$88,770	\$40,000	36
12	Washington	\$63,039	\$62,663	\$86,000	\$40,000	34
13	Colorado	\$62,250	\$63,227	\$79,000	\$52,000	21
14	Idaho	\$61,921	\$60,778	\$75,000	\$42,500	5
15	Utah	\$61,880	\$58,263	\$72,000	\$40,500	8
16	Iowa	\$61,076	\$60,607	\$80,000	\$45,000	34
17	Arizona	\$60,570	\$63,738	\$79,200	\$49,920	15
18	Indiana	\$60,000	\$60,406	\$83,200	\$40,000	52
19	Texas	\$60,000	\$59,639	\$100,000	\$27,900	93
20	Wisconsin	\$60,000	\$59,867	\$90,000	\$43,000	77
21	Kansas	\$59,600	\$57,958	\$68,000	\$45,801	20
22	Illinois	\$59,378	\$60,855	\$93,000	\$38,272	78
23	New York	\$58,656	\$59,264	\$86,650	\$41,000	100
24	Louisiana	\$58,500	\$59,875	\$85,100	\$43,680	28
25	Missouri	\$58,365	\$58,654	\$79,800	\$37,000	60
26	Florida	\$58,200	\$58,416	\$89,500	\$38,160	103
27	South Carolina	\$57,943	\$58,188	\$88,000	\$41,600	32
28	New Hampshire	\$57,810	\$59,282	\$82,000	\$47,700	10
29	Montana	\$57,190	\$56,528	\$68,000	\$44,000	10
30	Michigan	\$57,167	\$57,468	\$74,880	\$38,000	84
31	Oklahoma	\$57,000	\$55,181	\$69,867	\$42,000	17
32	Minnesota	\$56,560	\$60,829	\$80,000	\$49,000	18
33	Wyoming	\$56,160	\$55,144	\$59,400	\$50,900	5
34	Maine	\$55,162	\$55,889	\$67,600	\$45,385	11
35	Alabama	\$55,000	\$54,432	\$73,000	\$45,500	17
36	Alaska	\$55,000	\$62,882	\$78,645	\$55,000	3
37	New Mexico	\$55,000	\$55,383	\$78,125	\$25,500	7
38	Ohio	\$55,000	\$55,222	\$80,000	\$31,000	128
39	Tennessee	\$55,000	\$57,200	\$94,000	\$40,000	67
40	Delaware	\$54,746	\$57,796	\$73,000	\$48,880	8
41	Arkansas	\$54,000	\$57,919	\$75,300	\$43,776	25
42	Mississippi	\$54,000	\$55,425	\$75,000	\$42,000	26
43	North Carolina	\$53,955	\$55,035	\$80,000	\$30,000	83
44	Virginia	\$53,803	\$55,939	\$90,000	\$36,200	53
45	Vermont	\$53,690	\$52,850	\$62,000	\$42,000	6
46	Pennsylvania	\$53,000	\$54,081	\$91,200	\$30,000	157
47	Kentucky	\$52,000	\$52,398	\$80,000	\$40,000	36
48	North Dakota	\$52,000	\$52,890	\$59,100	\$49,753	7
49	South Dakota	\$51,350	\$50,975	\$61,464	\$41,568	16
50	Nebraska	\$49,250	\$50,820	\$64,500	\$41,600	14
51	West Virginia	\$47,100	\$46,951	\$64,000	\$30,000	23
52	Puerto Rico	\$32,000	\$32,997	\$46,996	\$20,984	6
	National	\$58,968	\$59,818	\$115,000	\$20,984	1,953

Table 7 groups the average salary data in traditional geographic regions. Technologists from the Pacific Region report the highest annual full-time salaries with median value of \$72,000 which is nearly \$13,000 above the national mean. The North East region has next highest at \$62,950 per year. The Southern Region reports the lowest median annual salary of \$55,450 which is roughly \$3,500 below the national average.

The North East:	CT, MA, ME, NH, NY, RI, VT
The Mid-Atlantic:	DC, DE, MD, NJ, PA, VA
The Industrial Mid-West:	IL, IN, MI, OH, WI
The South:	AL, FL, GA, KY, MS, NC, SC, TN
The Plain States:	IA, KS, MN, MO, ND, SD
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 Salary	Mean Salary	High	Low	n =
The Pacific States	\$72,000	\$73,923	\$115,000	\$40,000	161
The North East	\$62,950	\$63,068	\$97,000	\$41,000	212
The Rocky Mountain States	\$60,000	\$61,224	\$110,240	\$25,500	82
The Oil Patch States	\$58,060	\$58,951	\$100,000	\$27,900	163
The Industrial Mid-West	\$57,928	\$58,218	\$93,000	\$31,000	419
The Plain States	\$57,000	\$57,900	\$80,000	\$41,568	155
The Mid-Atlantic	\$56,500	\$57,769	\$91,200	\$30,000	339
The South	\$55,450	\$56,998	\$94,000	\$30,000	400

Average Salaries Based on Years of Experience and Age

Since most NMT graduates start off in hospital-based general imaging positions, and because this group has the largest number of respondents, analyzing this category of CNMT 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 \$50,000 per year (just over \$24.00 per hour).

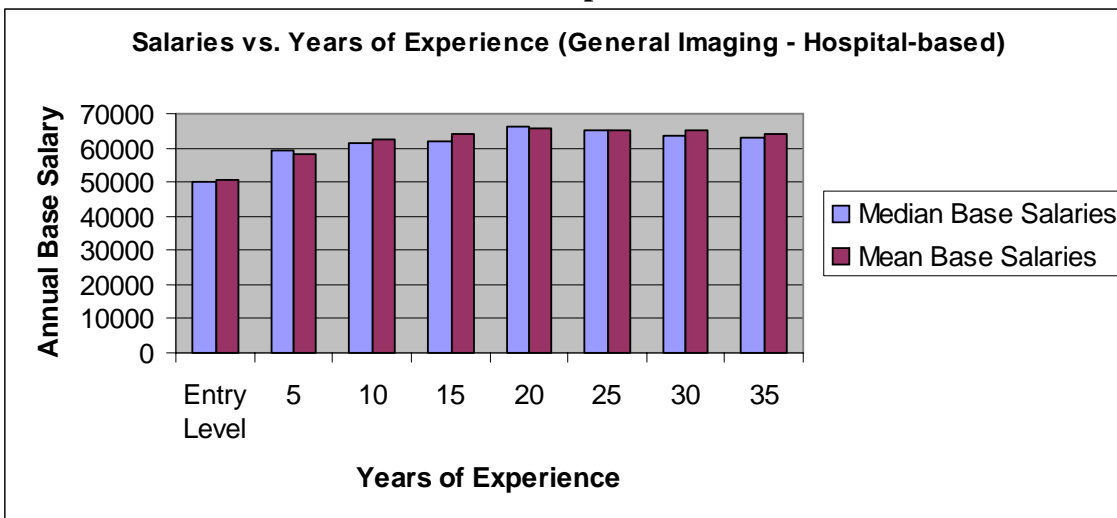
Salary compression is a term used to identify a market condition which results from upwardly adjusting the lower end of salary ranges (which typically dictate the salaries being offered to new and often inexperienced hires) without an equalizing adjustment to the high end of the range and to the salaries of those who have been employed at an institution in the same position for a much longer period of time. Salary compression typically occurs in times of manpower shortages and effectively discounts work experience in the job market. The data shown in table 8 would suggest that, although overall salaries for NMTs has dramatically increased over the last few years, many experienced nuclear medicine technologists may likely be suffering from the demoralizing effects of the salary compression.

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

Years of Experience	Median	Mean	Max	Min	n =
Entry Level	\$49,920	\$50,821	\$80,000	\$25,500	156
5	\$59,390	\$57,999	\$97,344	\$33,300	90
10	\$61,300	\$62,592	\$101,920	\$29,000	69
15	\$62,000	\$64,203	\$115,000	\$40,000	73
20	\$66,000	\$65,615	\$93,600	\$40,000	61
25	\$65,000	\$65,129	\$97,000	\$38,500	46
30	\$63,500	\$65,118	\$100,000	\$38,215	51
35	\$63,024	\$64,133	\$92,000	\$40,000	21

Graph 1 shows that, for the most part, technologists are being differentially compensated for their experience on the job. However the total range of that difference, from 1 to more than 30 years of experience, only amounts to approximately \$12,000 - \$13,000. It appears that one might expect to earn about \$9000 - \$10,000 more than entry-level after obtaining 5 years of experience on-the-job, but thereafter, additional experience would not be relatively rewarded by the market.

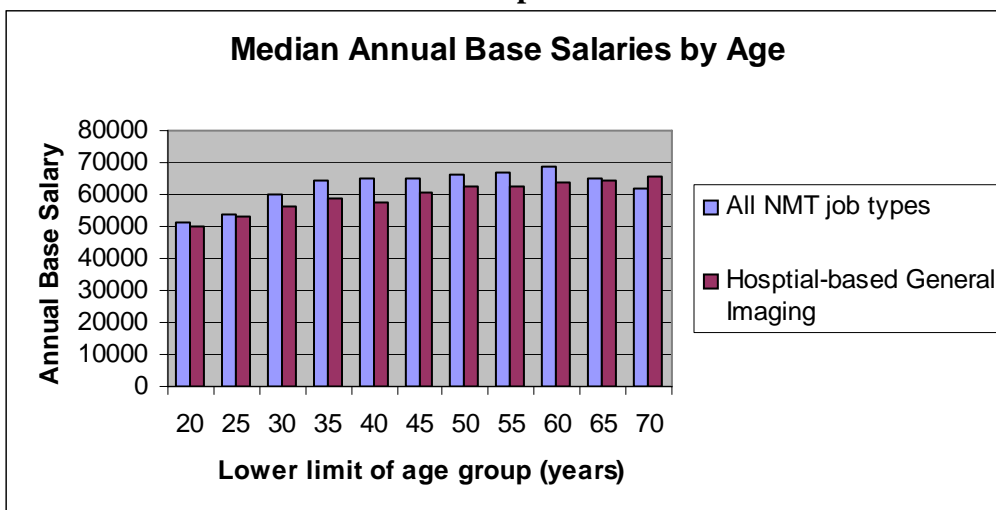
Graph 1



This research shows that the median age of CNMTs across all job types is 44 years and 42 years for those working in hospital-based general imaging. There were only slight group differences in age between the technologist subspecialties (43 years for cardiac techs, and 41 years for PET techs). The oldest respondents were 73 and the youngest were 21. The oldest groups were those self-employed (median of 53 yrs, n=34), program directors (median of 51 yrs, n=46), and administrators (median of 50 yrs, n=16)

The age-related analysis reveals the same salary compression as the years-of-experience findings (see graph 2). Although not as high as someone unfamiliar with the fact that employee entry into the NMT workforce traditionally contains a significant number of second career graduates might expect, correlations between age and experience are strongly positive ($r = 0.63$ for all NMT job types, $r = 0.71$ for hospital-based general imaging techs) and so observing the same general trend is not surprising. The correlations between age and salaries, although positive, is considerably smaller in magnitude ($r = 0.28$ for all NMT job types, $r = 0.35$ for hospital-based general imaging techs). These low correlations indicate that knowing one's age is a very poor predictor of one's salary within the NMT salary ranges.

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 58% female and 42% male across all reported positions. These salary statistics were calculated using only full-time staff responses across all NMT job categories. There is evidence of gender gap when comparing median salaries across all positions (approximately \$6,000 in favor of the males). This difference can be partially, but not totally, explained by the preponderance of males in the higher paying positions. 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 \$2,600 difference.

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

	Male	Female	Item left Blank	Combined
American Indian or Alaskan Native	\$77,650 (14)	\$63,000 (19)	--	\$66,000
African American and Black	\$62,050 (88)	\$59,500 (67)	\$53,061 (2)	\$60,320
Asian or Pacific Islander	\$70,000 (135)	\$63,825 (110)	--	\$67,000
Latino or Hispanic	\$66,425 (86)	\$57,000 (91)	\$110,000 (1)	\$60,750
White	\$66,550 (1569)	\$60,360 (2316)	\$63,900 (8)	\$62,500
Item left blank	\$69,200 (50)	\$59,280 (56)	--	\$65,000
Combined	\$66,560 (1942)	\$60,320 (2659)	\$56,904 (11)	\$62,700

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

	Median	Mean	Max	Min	n =
Male	\$60,125	\$62,141	\$115,000	\$29,000	789
Female	\$57,430	\$58,209	\$114,400	\$20,984	1,159
				Total	1,948

This analysis provides further proof that nuclear medicine professionals are not a very diverse group. 85% of all respondents identified themselves as White. The next largest group (5%) was those of Asian descent. Both African- and Latin-American CNMTs made up less than 4% of the respondent group while Native Americans were less than 1%. 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 this analysis, Black and Latin certificants report average salaries less than those of their White and Asian counterparts in every staff technologist job category (approximately \$2000 below the overall combined median). When only looking at the hospital-based general imaging data, Latin certificants' salaries actually move above the national overall median salaries for individuals in that position (\$58,968 – see table 1). While the difference is less, on average, the hospital-based general imaging salaries (Table 11) of African American CNMTs remain below the national mean by about \$1000. This difference might be explained by regional salary variations relative to the current geographic distribution of each group. 61% of Black respondents live in the Southern, Mid-Atlantic, and Industrial Midwestern States while 21% live in the Pacific, North East, and Rocky Mountain regions. The greater variance across all NMT job categories suggests that there is an under-representation of Black and Latin certificants in the higher paying positions (administrators, supervisors, chief techs, program directors, PET techs, etc.).

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

	Median	Mean	Max	Min	n =
American Indian or Alaskan Native	\$64,235	\$64,435	\$93,600	\$46,072	12
African American and Black	\$57,000	\$60,344	\$102,731	\$30,000	85
Asian or Pacific Islander	\$62,750	\$64,693	\$106,080	\$40,000	124
Latino or Hispanic	\$59,490	\$60,360	\$106,300	\$20,984	88
White	\$58,281	\$59,256	\$115,000	\$25,500	1,593
				Total	1,902

Salaries vs. Educational Background

48% of the respondents have bachelor's degrees while 8% have a master's and 1% a doctorate. 50% of those working in hospital-based general imaging positions have a bachelor's degree and 4% have a master's and 1% a doctorate. According to the statistics shown in Table 12, the market value of technologist with a bachelor's degree is only, on average, worth \$2,000 more than someone with a two-year degree (when considering all NMT job types). Table 13 shows that that difference is even smaller when considering only hospital-based general imaging salaries (just over \$600). The slightly higher salaries attributed to the high school, master's, and doctorate categories prove to be more a function of the respondent's experience level than their education level.

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	\$62,685	\$64,540	\$125,000	\$29,000	436	52	1984
Associate's degree	\$60,739	\$63,287	\$160,000	\$25,500	1,554	44	1995
Bachelor's degree	\$62,788	\$65,436	\$245,505	\$20,984	2,206	41	1995
Master's degree	\$72,800	\$76,371	\$195,000	\$30,500	351	49	1988
Doctorate	\$72,000	\$76,672	\$140,000	\$48,000	34	51	1994

Table 13 - Annual Base Salaries by Highest Degree Obtained (hospital-based general imaging)

	Median	Mean	High	Low	n =	Median Age	Median Grad Year
High School	\$60,000	\$60,313	\$107,000	\$30,000	171	52	1986
Associate's degree	\$58,046	\$59,312	\$114,400	\$25,500	696	43	1997
Bachelor's degree	\$58,628	\$59,587	\$115,000	\$20,984	972	38	1999
Master's degree	\$63,580	\$65,497	\$100,000	\$33,300	86	49	1993
Doctorate	\$62,950	\$64,573	\$97,000	\$48,000	14	53	2000

Based on the salaries they award, employers do not appear to show any major preference on what type of NMT program from which an individual graduates. The values are so close that when analyzing the salaries of those CNMTs who graduated in 2003 or later, the rank order of those salaries by program type differs depending on what statistic one chooses to look at (see Table 14) - which implies that any inference that there's a real difference between them would not be valid. For instance, although the community college median salary is higher than the four-year college median, that order flip-flops when mean values are used. Also, while the median for the salaries of university-associated teaching hospital graduates is lower than 3 of the 4 other groups, its mean value is slightly higher because of the higher starting and ending points of its overall range. And, although, both the highest median and mean salaries is seen in the hospital/medical center graduates, this group also produces individuals garnering the lowest salaries of any group. The same patterns are seen when the analysis uses only data from the hospital-based general imaging data set.

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

	Median	Mean	Max	Min	n =
Hospital or medical center	\$54,000	\$56,510	\$97,000	\$24,000	122
Military-based	\$51,000	\$52,508	\$85,000	\$30,000	13
Community College or Tech School	\$53,760	\$54,180	\$80,000	\$25,500	247
Four yr college or university	\$53,000	\$54,937	\$99,230	\$36,000	238
University-associated teaching hospital	\$52,000	\$55,858	\$140,000	\$38,272	101

Salaries and Certification in Radiography

Just under 30% of the respondents holding NMT positions (of any type) currently hold dual certification in nuclear medicine technology and radiologic technology (RTR). The highest percent of dual certified techs can be found in the

private clinic PET-only group (38%). This should not be all that surprising given the increasingly widespread use of PET/CT scanners throughout the country. The fact that a number of states will only allow certified radiographers to run the CT portion of PET/CT imaging devices is also most likely a major contributing factor to this difference. In addition, many private physicians' offices hire cross-trained individuals so that they can staff more than one modality. The private company mobile PET-only group has the next highest percentage of dual certified individuals (34%). By contrast, 29% of those working in hospital-based general nuclear imaging positions are dual certified.

It does appear that the current market does reward nuclear medicine technologists for being cross-trained in radiologic technology. When averaged over all NMT job types and all levels of experience, those CNMTs with dual certification earn only slightly more than those without x-ray certification (a median annual salary difference of \$600 is seen, favoring those who are dual certified). But when only the data of recent NMT program graduates is analyzed, the difference is significant. Although only 17% of the respondents graduating from NMT schools in the years 2003-2006 were certified radiographers, the median annual salaries of that group is \$2,500 more than their classmates (see Table 15). However, those higher salaries are only seen in the subspecialty groups. PET-only median salaries were nearly \$4000 more for cross-trained individuals, and the cardiac-only median salaries were \$2,600 more. There were no differences seen, on average, in the salaries of general nuclear imaging groups. Again, this pattern would most likely be due to the increasing use of PET/CT and SPECT/CT in these specific areas and the state licensing issues revolving around the operation of these instruments.

**Table 15 - Median Annual Base Salaries by Radiography Certification
(2003-2006 graduates only)**

	RTR Certified?		Difference
	Yes	No	
General Imaging	\$52,000	\$52,000	\$0
Cardiac	\$57,650	\$55,000	\$2,650
PET	\$62,767	\$58,790	\$3,977
Overall	\$55,000	\$52,479	\$2,521

On Call Analysis

Most (83%) of the full-time general imaging staff NMT respondents who replied to the on-call survey items said that they routinely pull call as part of the job-related responsibilities. Only 11% and 13% of cardiac and PET techs, respectively pull call as part of the job duties. 85% of the staff NMT respondents (across all NMT positions) who replied to the on-call survey items said that they are being paid time-and-a-half for their time working on-call. All other on-call rates-of-pay were identified with much less frequency. Straight time was the next more frequently mentioned at 7%, followed by double time at 2%. Only 6% of the respondents are not getting stand-by pay when on-call. 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 rate for stand-by figured to be \$2.50 per hour with the most commonly reported value being \$ 2.00 per hour. Most technologists were guaranteed of being paid a minimum number of hours once they are called in. The most commonly reported minimum hours paid was 2 (by 51% of the respondents).

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 complete and return or not complete a survey of this length may have had some unidentifiable influence on the results.