# An Analysis of Nuclear Medicine Technologist Salaries 

Anthony W. Knight, MBA, CNMT; and Bhaskar Dawardi, PhD

Thhe Nuclear Medicine Technology Board conducted a membership survey during the summer of 2001 designed to assess the state of the profession. A significant portion of that survey focused on current CNMT salaries. Although other information was collected, the scope of this article concerns the salary analysis.

Surveys were mailed out to all 14,754 NMTCB certificants working in the United States and Canada and 5,153 of those surveys were returned yielding an excellent response rate of $35 \%$. Respondents identified themselves as staff nuclear medicine technologists on $4,015(78 \%)$ of the returned surveys. The remaining $22 \%$ were a mixture of those working in nontechnologist positions (administrators, educators, or industry positions) and those who did not choose to identify their current employment category. Of the staff technologist respondents who identified their employment status, $84.5 \%$ were full-time employees and $15.5 \%$ were part-time. Of the part-time staff technologists, $98 \%$ were female, while $59.4 \%$ of the full-time NMTs were female. Only $1.2 \%$ of all respondents failed to list their salary information. Of the staff technologist respondents, only $1 \%$ failed to identify their current salaries.

## Data Analysis

All returned surveys were scanned using a bubblesheet scanner and coding software. The output datal was T 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 candty completeness. Miscodes were considered/inyalid responses and eliminated from the file. Blank cell entries were maintained, but individual records containing blankicin cells were not used in any analysis that required the missing data. For example, salary statistics do not include any information provided by those respondents who did not complete the salary-related items. Their records may have been used in the analysis of other parameters such as demographics. It should be recognized that since the records used in any one specific analysis may differ from those used in another, output values for the same statistic may vary somewhat from table to table. Salary data cross-referenced with different demographic variables may produce differing average or mean salaries for any
given group of CNMTs. It should also be mentioned that any conclusions drawn on this data should be done considering appropriateness of the sample sizes. For example, because of the low sampling numbers, it would be an invalid use of the data to assume that, on average, male hospital or clinic-based mobile PET techs are paid more than male PET techs who work for private imaging companies even though the reported mean values in Table 9 suggest this might be true.

## Salary by Job Classification

Table 1 provides the mean, median, and range of the annual full-time base salaries for the various nuclear med-icine-related positions. An hourly equivalent of the mean 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 mean market value for general nuclear medicine technology skills is $\$ 45,791$. However, the range of salaries for people in these positions is extremely wide ( $\$ 19,000$ to $\$ 98,000$ per year). This large spread in salaries is more than likely a reflection of the market adjusting itself in response to the staffing shortages of the last few years.

The data does suggest that NMTs are compensated slightly better for specialty skills; approximately $\$ 1,000$ per year for nuclear cardiology, and $\$ 3,000$ to $\$ 4,000$ per year for PET positions. Not surprisingly, the data also csupportgthe conclusion that techs working in private offices or clinics are being paid slightly better than their counterparts in hospital settings. Technologists working for themselves via contract or with private staffing agencies are making as much as $\$ 10,000$ to $\$ 20,000$ more, on average, than those technologists working as traditional staff employees.
${ }^{2}$ Average educator salaries are comparable to the specialty technologist salaries with program director salaries averaging approximately $\$ 54,000$ per year and clinical instructors earning around $\$ 48,000$. Clinical supervisors who are primarily administrators are earning in the neighborhood of $\$ 65,000$ while chief technologists and specialty supervisors are making around $\$ 53,500$ per year.

## Average Salaries Based on the Number of Years Worked at Current Institution

Salary compression is a term used to identify a market condition which results from upwardly adjusting the lower end

TABLE 1
Salary by Job Classification

|  | Mean salary | Number of respondants | Hourly equivalent | Median salary | Range |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | High | Low |
| General imaging-hospital based | \$45,791 | 1953 | \$22.01 | \$45,000 | \$ 98,000 | \$19,000 |
| General imaging-private clinic or office | \$47,718 | 227 | \$22.94 | \$47,840 | \$ 73,300 | \$22,320 |
| Mobile NM-private mobile imaging service | \$46,611 | 50 | \$22.41 | \$44,950 | \$ 93,600 | \$30,000 |
| Mobile NM-hospital or clinic based | \$49,986 | 19 | \$24.03 | \$50,000 | \$ 61,152 | \$34,000 |
| Average for general imaging NMTs | \$47,526 | 2249 | \$22.85 | \$46,948 |  |  |
| Cardiac NM—hospital based | \$47,079 | 107 | \$22.63 | \$46,750 | \$ 90,000 | \$25,000 |
| Cardiac NM-private office | \$49,787 | 501 | \$23.94 | \$48,942 | \$105,000 | \$19,872 |
| Average for cardiac NMTs | \$48,433 | 608 | \$23.28 | \$47,846 |  |  |
| PET—hospital based | \$49,666 | 24 | \$23.88 | \$47,720 | \$ 96,700 | \$38,000 |
| PET-private office | \$54,229 | 27 | \$26.07 | \$54,000 | \$ 75,000 | \$33,280 |
| Mobile PET—private mobile imaging service | \$54,439 | 27 | \$26.17 | \$53,000 | \$ 85,500 | \$32,500 |
| Mobile PET-hospital or clinic based | \$51,385 | 6 | \$24.70 | \$47,405 | \$ 80,000 | \$39,500 |
| Average for PET NMTs | \$52,430 | 84 | \$25.21 | \$50,531 |  |  |
| Research—hospital/clinic/educational institution based | \$49,873 | 45 | \$23.98 | \$48,900 | \$ 79,400 | \$32,000 |
| Research-private research laboratory | \$37,750 | 2 | \$18.15 | \$37,750 | \$ 42,500 | \$33,000 |
| Average for research NMTs | \$43,812 | 47 | \$21.06 | \$43,325 |  |  |
| Self-Employed NMTs | \$71,035 | 26 | \$34.15 | \$67,500 | \$135,000 | \$30,000 |
| Temporary staffing service based | \$60,641 | 96 | \$29.15 | \$60,000 | \$104,000 | \$33,000 |
| All full time NMTs | \$51,142 | 3110 | \$24.59 | \$49,830 |  |  |
| Minus self-employed/temp agency NMTs | \$48,847 | 2988 | \$23.48 | \$49,726 |  |  |
| Supervisor-administrator | \$64,913 | 88 | \$31.21 | \$63,043 | \$150,000 | \$35,000 |
| Supervisor-chief tech | \$53,525 | 858 | \$25.73 | \$52,000 | \$135,000 | \$40,400 |
| Specialty supervisor (e.g., cardiac, PET) | \$53,151 | 184 | \$25.55 | \$52,150 | \$104,000 | \$30,000 |
| Program director | \$53,830 | 40 | \$25.88 | \$52,000 | \$115,000 | \$35,000 |
| Clinical instructor | \$48,084 | 19 | \$23.12 | \$47,500 | \$ 68,600 | \$34,000 |
| Classroom instructor | \$64,194 | 16 | \$30.86 | \$53,250 | \$130,000 | \$22,800 |

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 at an institution in the same position for a much longer period of time. The data shown in Table 2 supports the conclusion that experienced nuclear medicine technologists are most likely suffering from the demoralizing effects of salary compression. Table 2 provides ayerage full-time salaries of hospital-based, general imaging technologists sorted by the number of years the individual has workedon at his or her current place of employment. The salaries being offered to new hires (less than 1 year at an institution) are actually greater than that of someone working at an institutionear for as much as 7 or 8 years. The new hire salaries average $\$ 46,480$ and are nearly $\$ 3,000$ per year more than that of people hired just 1 year before. A similar analysis of the other technologist job classifications was attempted, but low sampling numbers in many of the categories for those positions precluded the attainment of reliable results.

## Average Salaries Based on the Number of Years in a Specific Job Category

The discussion in the previous section identified estimated market salaries for new hires. That statistic includes both experienced and inexperienced hires. In an attempt to assess the starting salary of someone taking a staff NMT job for the first time, a survey item asked for feedback on the number of years the CNMT has worked in his or her current pösition. As before, only the hospital-based, general imaging technologist category provided a large enough sample to warrant this kind of analysis. Since most NMT graduates start off in general imaging positions, the less than 1-year average salary in this category can probably be seen as the current market value of new graduates. The data in Table 3 support the conclusion that new NMT program graduates might expect to be offered base salaries in the $\$ 40,000$ range. Table 3 shows that, for the most part, technologists are being differentially compensated for their experience on

TABLE 2
Average Salaries Based on the Number of Years Worked at Current Institution

|  | $<1$ year | $\mathbf{1}$ year | $\mathbf{2 - 5}$ years | $\mathbf{6 - 1 0}$ years | 11-15 years | 16-20 years | $>\mathbf{2 0}$ years |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| General imaging—hospital based | $\$ 46,480$ | $\$ 43,607$ | $\$ 43,985$ | $\$ 46,018$ | $\$ 49,161$ | $\$ 49,046$ | $\$ 51,636$ |

TABLE 3
Average Salaries Based on the Number of Years Worked in Current Position

|  | $<1$ year | $\mathbf{1}$ year | $\mathbf{2 - 5}$ years | $\mathbf{6 - 1 0}$ years | $\mathbf{1 1 - 1 5}$ years | $\mathbf{1 6 - 2 0}$ years | $>\mathbf{2 0}$ years |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| General imaging—hospital based | $\$ 39,629$ | $\$ 39,174$ | $\$ 42,154$ | $\$ 44,814$ | $\$ 46,905$ | $\$ 48,343$ | $\$ 49,405$ |

TABLE 4
On-Call Analysis

| Rate of pay | Number of individuals | Percentage of those who pull call | Mean dollar amount per hour | Hours guaranteed paid/call back | Number of individuals | Percentage of those who pull call |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Straight time | 213 | 8.2\% | \$21.88 | 9 | 1 | 0.04\% |
| Time-and-a-half | 2,146 | 83.0\% | not available | 8 | 16 | 0.60\% |
| Double time | 35 | 1.4\% | not available | 7 | 0 | 0.00\% |
| Fixed rate-per-hour-not related to base salary | 32 | 1.2\% | \$37.69 | 6 | 2 | 0.19\% |
| Fixed rate-per-study | 63 | 2.4\% | \$65.02 | 4 | 249 | 9.28\% |
| Other | 97 | 3.8\% |  | 3 | 296 | 11.03\% |
| Total | 2,586 | 100\% |  | 2 | 1,395 | 51.99\% |
| Compensation for carrying the beeper | Number of individuals | Percentage of those who pull call | Mean dollar amount per hour | 0 | 273 | 10.18\% |
| No compensation | 61 | 2.3\% | - | Total | 2,683 | 100.00\% |
| A fixed rate-per-hour | 2,261 | 86.5\% | \$ 2.88 |  |  |  |
| A percentage of hourly wage | 175 | 6.7\% | \$ 7.17 |  |  |  |
| Full hourly base salary rate | 29 | 1.1\% | \$25.24 |  |  |  |
| Other | 88 | 3.4\% | \$ 5.58 |  |  |  |
| Total | 2,614 | 100\% |  |  |  |  |

the job. However the total range of that difference only amounts to approximately $\$ 9,000-\$ 10,000$.

## On Call Analysis

Table 4 shows that most ( $83 \%$ ) of the full-time staff NMT respondents 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-paywereTechnologist

Average Full-Time Staff NMT Salaries by Community Size identified with much less frequency. Straight time was the next most frequently mentioned at $8.2 \%$. Only $2.3 \% 0$ n of the respondents are not getting (stand-by pay when on-call. A fixed rate-per-hour was by far the most common $(86.5 \%)$ stand-by pay rate identified by those wholear were compensated. The mean dollar pay rate for stand-by was $\$ 2.88$ per hour. The most frequently mentioned rate was $\$ 3.00$ per hour. Most technologists (just under $90 \%$ ) are guaranteed a minimum number of hours once they are called in. The most commonly reported ( $51 \%$ ) minimum hours paid was two.

## Community Size

The average salaries for each staff NMT category sorted by community size are listed in Table 5. Not surprisingly, in most cases, those working in urban settings earn slightly more than those working in the other two categories; the exceptions being the mobile and private office-based car-
diac positions. The only categories that show a significant difference between suburban/small city and rural average salaries are the hospital-based general imaging positions, where suburban/small city salaries are about \$1,500 per year higher than rural, and private mobile general imaging posi-

TABLE 5

|  | Urban | Suburban or small city | Rural |
| :---: | :---: | :---: | :---: |
| General imaging-hospital based | \$46,784 | \$45,728 | \$43,348 |
| General imaging-private clinic or office | \$48,084 | \$47,351 | \$47,717 |
| Mobile NM—private mobile imaging service | \$43,012 | \$46,969 | \$48,318 |
| Cardiac NM—private office | \$49,272 | \$50,359 | \$50,101 |
| Cardiac NM—hospital based | \$48,828 | \$43,502 | \$43,454 |
| PET—hospital based | \$49,957 | \$48,560 | - |
| PET-private office | \$56,024 | \$51,253 | - |
| Mobile PET—private mobile imaging service | \$53,344 | \$54,324 | - |
| Temporary staffing agency | \$59,429 | \$60,351 | \$51,400 |
| Self-Employed | \$75,292 | \$65,167 | \$63,220 |

TABLE 6
Average Full-Time Salaries by State

| General imaging NMT-hospital based |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rank | State | Region ${ }^{1}$ | Annual salary | Number of respondents | Hourly wage |
| 1 | Alaska | PA | \$57,710 | 2 | \$27.75 |
| 2 | California | PA | \$54,886 | 127 | \$26.39 |
| 3 | Washington | PA | \$54,723 | 33 | \$26.31 |
| 4 | New Jersey | MA | \$53,959 | 49 | \$25.94 |
| 5 | Rhode Island | NE | \$52,762 | 10 | \$25.37 |
| 6 | Hawaii | PA | \$51,239 | 7 | \$24.63 |
| 7 | District of Columbia | MA | \$50,760 | 3 | \$24.40 |
| 8 | Connecticut | NE | \$50,637 | 19 | \$24.34 |
| 9 | Nevada | RM | \$50,147 | 8 | \$24.11 |
| 10 | Massachusetts | NE | \$50,037 | 46 | \$24.06 |
| 11 | Kansas | PL | \$49,888 | 16 | \$23.98 |
| 12 | Oregon | PA | \$48,937 | 16 | \$23.53 |
| 13 | Colorado | RM | \$48,806 | 23 | \$23.46 |
| 14 | Maryland | MA | \$48,398 | 27 | \$23.27 |
| 15 | Minnesota | PL | \$47,802 | 28 | \$22.98 |
| 16 | Delaware | MA | \$47,699 | 5 | \$22.93 |
| 17 | New Mexico | RM | \$47,435 | 6 | \$22.81 |
| 18 | Indiana | MW | \$47,056 | 63 | \$22.62 |
| 19 | Arizona | RM | \$47,007 | 15 | \$22.60 |
| 20 | Alabama | SO | \$46,426 | 25 | \$22.32 |
| 21 | Montana | RM | \$46,295 | 12 | \$22.26 |
| 22 | Missouri | PL | \$46,213 | 48 | \$22.22 |
| 23 | New York | NE | \$46,210 | 128 | \$22.22 |
| 24 | lowa | PL | \$46,103 | 24 | \$22.16 |
| 25 | Georgia | SO | \$46,070 | 31 | \$22.15 |
| 26 | Texas | OP | \$46,028 | 79 | \$22.13 |
| 27 | Florida | SO | \$46,013 | 99 | \$22.12 |
| 28 | Illinois | MW | \$45,803 | 85 | \$22.02 |
| 29 | Oklahoma | OP | \$45,742 | 15 | \$21.99 |
| 30 | Maine | NE | \$45,675 | 8 | \$21.96 |
| 31 | New Hampshire | NE | \$45,674 | 14 | \$21.96 |
| 32 | Wisconsin | MW | \$45,492 | 69 | \$21.87 |
| 33 | South Carolina | SO | \$45,483 | 35 | \$21.87 |
| 34 | Michigan | MW | \$44,733 | 97 | \$21.51 |
| 35 | Louisiana | OP | \$44,656 | 27 | \$21.47 |
| 36 | North Dakota | PL | \$44,221 | 6 | \$21.26 |
| 37 | Mississippi | SO | \$44,145 | 17 | \$21.22 |
| 38 | Vermont | NE | \$43,879 | 7 | \$21.10 |
| 39 | Virginia | MA | \$43,434 | 53 | \$20.88 |
| 40 | Nebraska | PL | $\$ 42,629$ | 11 | \$20.49 |
| 41 | Ohio | MW | The $\$ 42,446^{10 l o g i s t}$ | 138 | \$20.41 |
| 42 | Arkansas |  | $\text { Sectit } \$ 42,354$ | 26 | \$20.36 |
| 43 | North Carolina | SO | Secti\$42,299 the | 65 | \$20.34 |
| 44 | Idaho | RM | $\text { Socis } \$ 42,200$ | 6 | \$20.29 |
| 45 | Tennessee |  | Socie \$42,066 | 61 | \$20.22 |
| 46 | Pennsylvania |  | Nucl \$41,281 | 154 | \$19.85 |
| 47 | Wyoming | RM | Nucl $\$ 41,200$ | 3 | \$19.81 |
| 48 | Utah | RM | $\text { Med } \$ 41,107$ | 13 | \$19.76 |
| 49 | Kentucky | SO | Med $\$ 39,392$ | 42 | \$18.94 |
| 50 | West Virginia | MA | \$38,770 | 25 | \$18.64 |
| 51 | South Dakota | PL | \$37,666 | 11 | \$18.11 |
| 52 | Puerto Rico |  | \$24,256 | 8 | \$11.66 |
|  |  |  |  | 1945 |  |
|  | Mean: |  | \$45,882 |  | \$22.06 |
|  | Median: |  | \$46,020 |  | \$22.13 |

${ }^{1}$ PA-Pacific, NE-North East, MA-Mid-Atlantic, RM-Rocky Mountain, PL-Plains, SO-South, OP-Oil Patch.

TABLE 7
Regional Average Salaries

| General imaging NMT-hospital based |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Region | Annual salary | Difference from the mean | Hourly wage | Difference from the mean |
| The Pacific states | $\$ 53,499$ | $\$ 6,962$ | $\$ 25.72$ | $\$ 3.35$ |
| The North East | $\$ 47,839$ | $\$ 1,302$ | $\$ 23.00$ | $\$ 0.63$ |
| The Mid-Atlantic | $\$ 46,329$ | $-\$ 208$ | $\$ 22.27$ | $-\$ 0.10$ |
| The Rocky Mountain states | $\$ 45,525$ | $-\$ 1,012$ | $-\$ 0.49$ |  |
| The Plains states | $\$ 45,315$ | $-\$ 1,221$ | $-\$ 0.59$ |  |
| The Industrial Mid-West | $\$ 45,106$ | $-\$ 1,431$ | $\$ 21.79$ | $-\$ 0.69$ |
| The Oil Patch states | $\$ 44,695$ | $-\$ 1,842$ | $\$ 21.69$ | $-\$ 0.89$ |
| The South | $\$ 43,987$ | $-\$ 2,550$ | $\$ 21.49$ | $-\$ 1.23$ |
| Mean: | - | $\$ 46,537$ | - |  |
| Median: | $\$ 45,420$ |  |  | $\$ 21.37$ |

tions, where rural salaries are approximately $\$ 1,000$ higher than those found in suburban/small city locations.

## State and Regional Averages

Table 6 shows the average salaries earned by full-time hospital-based general imaging technologists for each U.S. state. The responses from Canadian certificants were too few to include in this analysis. The highest average salaries (in the $\$ 26$ to $\$ 27$ per hour range) were reported by those working in Alaska, California, and Washington. The states with the lowest average salaries were Kentucky, West Virginia, and South Dakota (\$18 to $\$ 19$ per hour range). Puerto Rico reported the lowest average earnings (\$11.66 per hour).
Table 7 groups the average salary data into traditional geographic regions. Technologists from the Pacific region report
the highest annual full-time salaries averaging \$53,499, nearly $\$ 7000$ above the national mean. The North East region has next highest average at $\$ 47,839$ per year. The Southern region reports the lowest average annual salary of $\$ 43,987$, roughly $\$ 2,500$ below the national average.

## Ethnicity and Age Analysis

This analysis provides further proof that nuclear medicine professionals are not a very diverse group (see Table 8). Eighty-seven percent of all respondents identified themselves as white. The next largest group (4.64\%) were CNMTs of Asian descent. Because of the low numbers of individuals in each nonwhite category, caution should be used in interpreting any discrepancies in the salary statistics. According to this analysis, white and Asian certificants

TABLE 8
Culture/Ethnicity/Age Data (All Respondants)

|  | Number of individuals | Percent of respondants | Average age | Median age | Minimum age | Maximum age |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| American Indian or Alaskan | $\begin{array}{r} 34 \\ 231 \end{array}$ | $\mathrm{T}_{4.64 \%}^{0.68 \%} \text { echnol }{ }_{39.7}^{42.6}$ |  | 45.0 | 24.0 | 59.0 |
| Asian or Pacific Islander |  |  |  | 39.0 | 23.0 | 64.0 |
| Black or African American |  | $\mathrm{S}_{2.87 \%}^{2.31 \%} \text { n of th }{ }_{37.1}^{40.7}$ |  | 41.5 | 22.0 | 58.0 |
| Latino or Hispanic |  |  |  | 36.5 | 23.0 | 57.0 |
| White |  | $\begin{gathered} 87.61 \% \\ 0.94 \% \end{gathered}$ | 40.1 | 40.0 | 21.0 | 69.0 |
| Mixed Heritage |  |  | 36.1 | 34.0 | 23.0 | 58.0 |
| Other Total: |  | $\begin{array}{r} 0.94 \% \\ 100.0 \% \end{array}$ | 42.3 | 43.5 | 21.0 | 63.0 |
| Grand Mean |  | Medicine 40.0 |  | 39.9 |  |  |

Culture/Ethnicity/Age Salaries (General imaging NMT-hospital based)

|  | Average <br> salary | Number of <br> individuals | Percent of <br> group | Hourly <br> wage | Average age <br> (years) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| American Indian or Alaskan | $\$ 42,011$ | 10 | $0.52 \%$ | $\$ 20.20$ | 36.1 |
| Asian or Pacific Islander | $\$ 48,990$ | 103 | $5.31 \%$ | $\$ 23.55$ | 43.8 |
| Black or African American | $\$ 43,939$ | 48 | $2.48 \%$ | $\$ 21.12$ | 41.5 |
| Latino or Hispanic | $\$ 42,564$ | 48 | $2.48 \%$ | $\$ 20.46$ | 40.4 |
| White | $\$ 45,709$ | 1,686 | $86.95 \%$ | $\$ 21.98$ | 39.9 |
| Mixed Heritage | $\$ 47,523$ | 21 | $1.08 \%$ | $\$ 22.85$ | 41.1 |
| Other | $\$ 46,280$ | 23 | $1.19 \%$ | $\$ 22.25$ | 39.0 |
| Total: |  | 1,939 | $100 \%$ |  | 40.1 |
| Grand Mean: | $\$ 45,288$ |  |  | $\$ 21.77$ | 40.1 |

report average salaries higher than those of their counterparts in every staff technologist job category. This difference might be explained by regional salary variations relative to the current geographic distribution of each group. Sixty percent of American Indian or Alaskan respondents live in the Southern, Oil Patch, and Industrial Mid-West States while $27 \%$ live in the Pacific, North East, and MidAtlantic Regions of the country.

As noted previously, the former regions tend to provide lower average salaries while the latter regions offer the highest. Sixty-five percent of African American or black respondents live in the Southern, Oil Patch, and Industrial Mid-West while 34\% live in the Pacific, North East, and Mid-Atlantic regions. Forty-nine percent of Latino or Hispanic respondents live in the Southern, Oil Patch, and Industrial Midwestern States while 31\% live in the Pacific, North East, and Mid-Atlantic regions. Sixty two percent of respondents of Asian descent live in the Pacific, North East, and Mid-Atlantic regions; 35\% live in the South, Oil Patch, and Industrial Mid-West.

The age-related information reveals the average staff NMT to be 40 years of age. The youngest respondents were 21 while the oldest was 69.

## Gender Analysis

If it can be assumed that the 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 presented in Table 9 show that the profession is approximately $60 \%$ female and $40 \%$ male. These salary statistics were calculated using only full-time staff responses. If a respondent failed to identify a sex category,
their record was not used to calculate frequency or salary statistics. In every staff NMT category except hospitalbased PET and mobile PET techs working for private companies, female salaries are considerably lower than their male counterparts. That difference in mean salaries for hospital-based general imaging technologists was nearly $\$ 3000$. In most other categories this difference is even higher.

## Salaries vs. Level of Education

Table 10 shows that $47.3 \%$ of the CNMTs working in staff technologist positions have completed a bachelor's degree. Only $4.8 \%$ hold a graduate degree of some kind. The data from this analysis undermines any argument for making the bachelor's degree the terminal degree required to be credentialed in nuclear medicine technology. The market value for technologists with $\mathrm{BA} / \mathrm{BS}$ degrees is only $\$ 1,200$ more than that of technologists who have 2-year degrees. Those with only a high school diploma have garnered positions paying them, on average, $\$ 46,612$ per year. If degreed technologists do have more value, it should be significantly reflected in the marketplace. It should be noted that the certificate category is most likely convoluted data due to the fact that many certificate holders have already earned baccalaureate degrees. This may explain the higher average salary for certificate holders relative to the associate degree graduates.

The group with the largest number of individuals earning graduate degrees is program directors ( $64.3 \%$ have earned masters degrees). This is not unexpected since many educational institutions require program directors to attain degrees at the master's level or beyond in order to teach at the undergraduate level. However, master's-level program director sal-

TABLE 9
Salary by Job Classification and Gender:


TABLE 10
Full-Time Salaries vs. Level of Education

| Staff NMT's |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | High school | Certificate | AA | BA/BS | Masters | Doctorate | Post doctorate | Total | Grand mean |
| Average salary | \$46,612 | \$47,419 | \$46,718 | \$47,937 | \$53,968 | \$49,249 | \$52,671 | - | \$49,225 |
| Number of individuals | 78 | 415 | 1037 | 1511 | 142 | 10 | 3 | 3196 |  |
| Percentage | 2.4\% | 13.0\% | 32.4\% | 47.3\% | 4.4\% | 0.3\% | 0.1\% | 100\% | \% |
| Nuclear medicine administrators |  |  |  |  |  |  |  |  |  |
|  | High school | Certificate | AA | BA/BS | Masters | Doctorate | Post doctorate | Total | Grand mean |
| Average salary | \$64,617 | \$56,084 | \$62,660 | \$68,239 | \$65,585 | - | - | - | \$63,437 |
| Number of individuals | 3 | 6 | 20 | 27 | 10 | - | - | 66 |  |
| Percentage | 4.5\% | 9.1\% | 30.3\% | 40.9\% | 15.2\% | 0.0\% | 0.0\% | 100\% |  |
| Nuclear medicine program directors |  |  |  |  |  |  |  |  |  |
|  | High school | Certificate | AA | BA/BS | Masters | Doctorate | Post doctorate | Total | Grand mean |
|  | - | \$51,839 |  |  |  |  | - | - | \$52,924 |
| Number of individuals | - | $1$ | $2$ | $6$ | $18$ | $1$ | - | 28 |  |
| Percentage | 0.0\% | 3.6\% | 7.1\% | 21.4\% | 64.3\% | 3.6\% | 0.0\% | 100\% |  |
| Radiology administrators |  |  |  |  |  |  |  |  |  |
|  | High school | Certificate | AA | BA/BS | Masters | Doctorate | Post doctorate | Total | Grand mean |
| Average salary | \$58,000 | \$61,420 | \$63,152 | \$66,023 | \$72,706 | - | - | - | \$64,260 |
| Number of individuals | 1 | 10 | 7 | 26 | 18 | - | - | 62 |  |
| Percentage | 1.6\% | 16.1\% | 11.3\% | 41.9\% | 29.0\% | 0.0\% | 0.0\% | 100\% |  |

aries are not significantly different from those directors who have only completed lower-level degrees. Despite having a higher average level of education, program director salaries are approximately \$10,000 a year less than those of administrators.

## CONCLUSION

These survey results have helped to identify current market salary ranges for most nuclear medicine technologyrelated job categories. Cross-tabulation with several demographic variables has provided segmental salary data that may be useful to technologists, administrators, and educa-
tors within the field. As with any statistical data, caution should be exercised when interpreting the final statistics. Small sample size in several the categories created here makes the output values especially susceptible to the influence of atypical 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 ecabilityo(or motivation) to complete and return a survey of this length may have had some unidentifiable influence on the results.

