



AAMI's Salary Survey...

How Does Your Salary Measure Up?

May Piotrowski and Steve Campbell

Salaries for biomedical equipment technicians, clinical engineers, and other medical technology professionals increased by 3.2% over the last year, according to the results of a new survey commissioned by AAMI.

For the nine specific job title categories surveyed, the median base salary increased from \$60,000 in 2004 to \$62,000 in 2005, with salaries ranging from \$29,700 for BMET I to \$78,000 for a department director or manager.

The survey—which was conducted by a Maryland-based research firm, Westat—was designed to provide up-to-date salary information to help benchmark career information. The survey provides insights on issues ranging from income by education level, job title, employer, and specialty; to trends in fringe benefits, certification, and retention.

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While the survey was not designed to establish or recommend salary levels or job responsibilities, it can help employers and employees gauge how their salaries measure against others in the field.

Among the findings:

- Fewer employers pay the full cost of their employees' health insurance. Only 11% of those surveyed said their employers pay 100% of their health insurance, compared to 23% who received full healthcare insurance in AAMI's 2003 Employment Survey.
- Manufacturers generally pay significantly more than hospitals or independent service organizations (ISOs), although hospitals are more apt to offer employees overtime, call-back pay, life insurance, and employer-provided pensions.
- It pays to be certified. On average, respondents who are certified reported earning 5.7% more than those who are not certified.
- Geography matters. BMETs and CEs living in the western part of the United States earned more than their counterparts in other regions of the country.

Survey Background

The 2005 Employment Survey was sent by mail in September to a random sample of AAMI members who were medical technology professionals, of which 328 responded. The survey was sent only to those living in the United States.

Participants were asked 45 questions about their background, employer, work experience, compensation, and other employment-related issues. Individuals were also asked to select a job title that most closely described their own, and were given descriptions of each position (see sidebar titled “Job Titles Defined”). Respondents were promised confidentiality.

Of those who responded, 93% were male and the median age was 48. About 34% worked for multi-hospital systems, 34% work in a single hospital, 11% at ISOs, and 7% for manufacturers (see Figure 1). The remainder worked for the government, universities, the military, and at other healthcare facilities. Employees on average said they worked 42 hours a week.

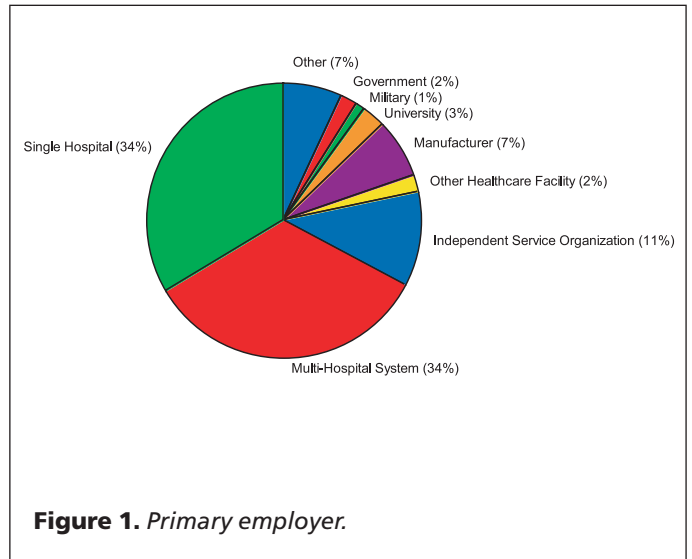


Figure 1. Primary employer.

Compensation: 2004 vs. 2005

Participants were asked to provide their base salaries for 2004 and 2005. While the base salary increased for all

Job Titles Defined

Although job titles vary widely in the industry, the following job titles and descriptions were provided to survey respondents for the purpose of this survey.

BMET I—An entry-level or junior biomedical equipment technician (BMET). Works under close supervision. Performs skilled work on preventive maintenance (PM), repair, safety testing, and recording functional test data. Not certified. Usually has less than four years of experience.

BMET II—A BMET usually has a two-year degree or higher. Has good knowledge of schematics and works independently on repairs, safety testing, and preventive maintenance. Maintains records, writes reports, and coordinates outside repairs. Average experience is eight years.

BMET III—A highly experienced or specialized BMET who usually has a two-year degree or higher. Has substantial experience and may be certified. Does highly skilled work of considerable difficulty. Has comprehensive knowledge of practices, procedures, and types of equipment. Average experience is 12 years.

Equipment Specialist—A highly specialized BMET having special training or equivalent experience in lab equipment (LES) or radiology equipment (RES). Usually has a two-year degree or higher. Performs highly skilled work of

considerable difficulty and may hold certification as CLES or CRES.

BMET Supervisor—A BMET who supervises others. Has a significant amount of training or education or equivalent experience. Most have a four-year degree or higher. Schedules and assigns work to subordinates, but also continues to do highly skilled repairs. Has comprehensive knowledge of practices, procedures, and types of equipment. Average experience is 13 years.

Clinical Engineer—A graduate engineer holding a BS, MS, or PhD. Performs engineering-level work of considerable difficulty. Has the ability to modify devices, and conduct analysis of devices and systems.

Clinical Engineering Supervisor—A clinical engineer (CE) who supervises BMET/peer/subordinate CEs; may also supervise equipment specialists. Usually degreed engineer at BA, MS, or PhD level. Average experience is 21 years.

Director/Department Manager—Most are educated or experienced as clinical engineers or BMET, but others may be trained in administration or business or have extensive healthcare supervisory experience. Most have a significant amount of technical or management experience, and have the skills to select, acquire, maintain, and repair high-tech equipment. Supervises BMEs, CEs, and support personnel. May also be the chief technology officer or vice president for healthcare technology.

<u>Job Title</u>	2004 Base Salary**	2005 Base Salary**	% Increase
BMET I	\$27,000	\$29,750	10.2%
BMET II	\$35,433	\$37,750	6.5%
BMET III	\$49,815	\$51,850	4.1%
Equipment Specialist	\$55,000	\$58,000	5.5%
BMET Supervisor	\$53,566	\$55,500	3.6%
Clinical Engineer	\$65,800	\$70,000	6.4%
Clinical Engineer Supervisor	\$65,175	\$72,250	10.9%
Director/Department Manager	\$74,228	\$78,000	5.1%
Educator	\$67,000	\$69,000	3.0%
Other	\$75,000	\$78,000	4.0%

Table 1. Base salaries. **All figures represent a median base salary.

<u>Job Title</u>	2004 Total Salary	2005 Total Salary	% Increase
BMET I	\$27,000	\$29,600	9.6%
BMET II	\$38,000	\$41,985	10.5%
BMET III	\$55,000	\$60,000	9.1%
Equipment Specialist	\$60,000	\$62,000	3.3%
BMET Supervisor	\$60,000	\$60,487	0.8%
Clinical Engineer	\$68,000	\$70,500	3.7%
Clinical Engineer Supervisor	\$75,000	\$76,500	2.0%
Director/Manager	\$78,000	\$81,724	4.8%
Educator	\$67,000	\$69,000	3.0%
Other	\$80,500	\$83,000	3.1%

Table 2. Total compensation.

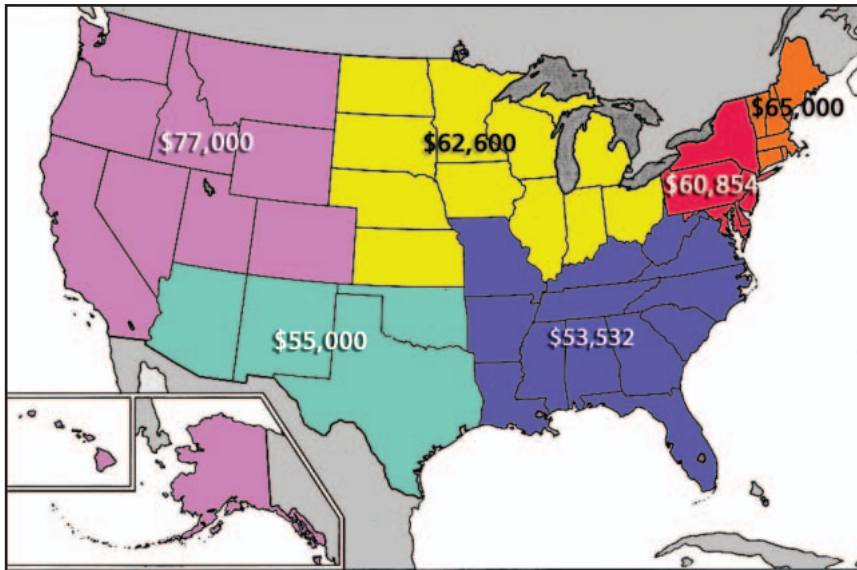


Figure 2. Salary by region.

job categories evaluated averaged 3.2%, the salary increases fluctuated by job title. For example, a BMET I received a 10.2% base salary increase, while educators in the field saw a 3% salary increase (see Table 1).

Participants were also asked to provide their total income from their primary employer. The total income included their base salary as well as any additional compensation received such as overtime, on-call pay, call-back pay, and bonuses. The total income did not include secondary or part-time compensation received from another employer.

For the nine specific job title categories surveyed, the median total income increased from \$64,500 in 2004 to \$66,300 in 2005. The additional compensation increased base salaries by nearly 7% on average (see Table 2).

Income also varied significantly by region of the country. For the nine specific job title categories surveyed, the median base salary in 2005 was \$53,500 in the South, \$55,000 in the Southwest, \$60,900 in the Mid-Atlantic, \$62,600 in the Midwest, \$65,000 in New England, and \$77,000 in the West (see Figure 2).

Who Writes the Biggest Checks?

The survey results found that employees who work for manufacturers on average earned \$10,500 more each year than those

who work for hospitals. As Table 3 shows, medical technology professionals who work for manufacturers on average earned a base salary of \$78,500 in 2005, while those who work for hospitals earned \$60,000 a year on average. Employees who work for ISOs fell in the middle of that range at \$70,000, as did those who work for the government and military, at \$68,200.

“Manufacturers have been increasing salaries and benefits to try to stop losing talent to the field, and to try to bring back some of the employees who left for a less-traveled lifestyle,” says Larry Hertzler, PE, CCE, vice president of

program management at ARAMARK Clinical Technology Services.

So what prevents more hospital-based biomed and clinical engineers from jumping ship to work for manufacturers?

“The low turnover rate in our department has nothing to do with salaries but rather the challenge of the job and location to home,” says David Stiles, CBET, biomedical engineering supervisor at Long Beach Memorial Medical Center in California.

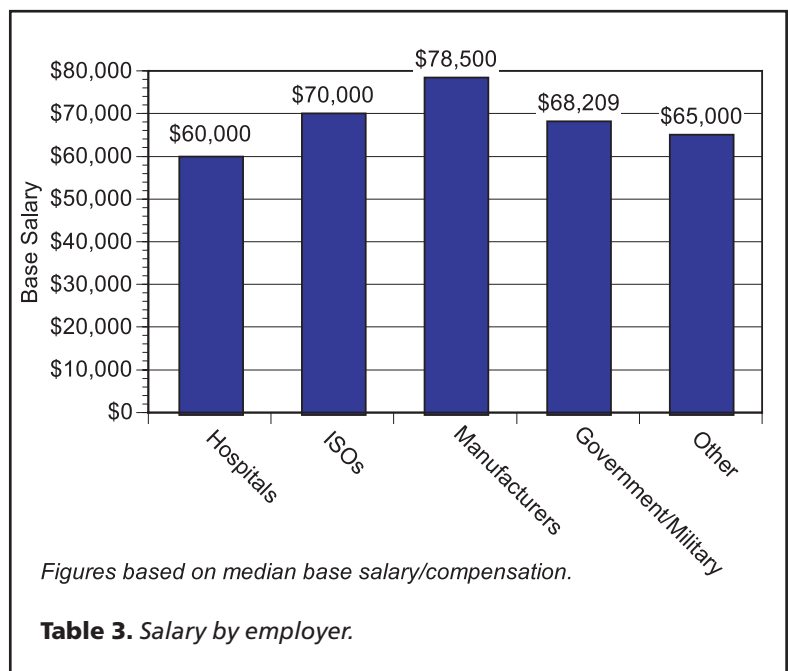


Table 3. Salary by employer.

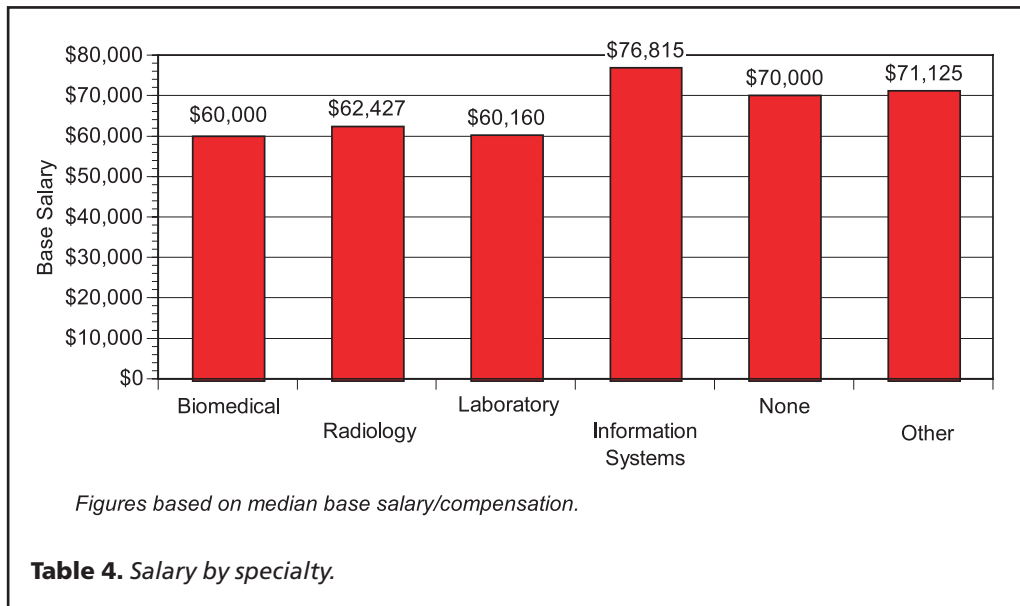


Table 4. Salary by specialty.

Although managers cannot always control the pay range for their staff, they “can control the work environment” which also helps retention, says David Braeutigam, CBET, corporate manager of clinical technology services at Baylor Health Care System.

“Managers should ask their staff if they have the right tools to do their job, the right amount of training, and whether they get along with their co-workers and management,” Braeutigam adds.

Does It Pay to Specialize?

About 64% of respondents identified their specialty as biomedical. Those with biomedical as a specialty earned a median base salary of \$60,000 in 2005, while those specializing in laboratory equipment received a base salary of \$60,200 and those specializing in radiology earned \$62,400 (see Table 4).

What’s of particular interest, however, is that participants who said they did not have a specialty earned more—a base salary of \$70,000 in 2005.

“This is a little surprising. However, I believe that many employers need people who are willing to be jacks of all trades,” says Carol Davis-Smith, senior consultant, Capital Lifecycle Solutions at Premier Inc. “This is especially true in supervisory, management, and staff engineering type positions. Meeting the expectations of a wider span of responsibility is challenging and apparently being rewarded by employers.”

“The more you know, the more valuable you are,” adds Stiles. For that reason, Stiles doesn’t encourage staff

members in his department to focus on specific specialties. “I want my staff to acquire all the skill sets from the clinical/diagnostic areas that we can reasonably learn,” he says.

That said, those who declared “information systems” as a specialty earned far more than those with other specialties or did not have a specialty, according to the survey results. Those with an information systems

specialty earned a base salary of \$76,800 in 2005.

“IT pay scales have increased dramatically for many years with the growth of networking and computer hardware,” says Hertzler. “Skilled biomed are already well educated in this arena due to the equipment technology they work on daily. More progressive employers are realizing the value of their technicians and are beginning to increase salaries to avoid losing staff.”

Exposure to and familiarity with IT issues may not only improve a person’s salary, but it can also help a biomed from becoming obsolete, says Greg Gilmore, CBET, associate biomedical engineer at St. Vincent Health System of Erie in Pennsylvania. “Technology changes so rapidly that you are always updating hardware and software, which requires additional training,” he says.

Does Certification Matter?

About 50% of the respondents identified themselves as certified biomedical equipment technicians (CBET), while 22% said they were not certified. The remainder held other certifications.

Although the level of importance placed on certification varies by employer, the survey results showed that certification can have a direct impact on salaries. The median 2005 salary for certified medical technology professionals was \$62,350 compared to \$59,000 for someone who was not certified.

“Certification can increase your salary because you are more valuable to the organization you work for,” says

Mitch Hoffman, CBET, biomedical engineer at Parkview Whitley Hospital in Indiana. “Certification shows you are serious about your profession. It also shows that you are competent in your field. Even though it is not a requirement at my facility, you are looked upon in more of a professional way by fellow employees in your field and other departments.”

At Baylor University Medical Center, certification is required to become a senior BMET. “I think certification is beneficial to both the employee and the employer,” says Braeutigam. “The employee now has a ‘stamp of approval’ on their skills and the employer now has a form of an independent competency assessment for their employees.”

Still, the debate about the value of certification may be everlasting. “I believe everyone knows superior biomedes who are certified as well as superior biomedes who are not certified,” says Hertzler. “I think the additional salary may be due to the fact that the biomedes who choose to become certified may be more motivated and therefore more likely to get higher raises. There are a few employers who actually pay more for certification, but most do not, so one cannot conclude that biomedes get certified solely for the purpose of getting higher pay.”

Education Makes a Difference

Of those surveyed, 40% had associate’s degrees and 23% had bachelor’s degrees. Like certification, there was a correlation between education level and income level. Those who had a master’s degree earned a median salary of \$82,700 in 2005. By contrast, those with a technical school diploma earned a median salary of \$53,000 in 2005.

Even though a relationship between salary and education exists, some don’t see an increase in hospital-based biomedes seeking higher degrees.

“For many of them, it may not make a difference with their current employer. Within many hospitals, the career paths have always been rather limited,” says Larry Fennigkoh, PhD, PE, CCE, associate professor at the Milwaukee School of Engineering.

At Long Beach Memorial Hospital, Stiles says he hasn’t witnessed a trend in colleagues seeking higher education. “When most of our tasks are related to preventive maintenance and repairs, higher degreed staff would be over qualified until given the chance to improve the program system wide,” he says.

But when seeking a promotion, for example into management, an education can pay dividends. “As a manager, you are involved in more business decisions and additional formal education could better prepare you for this role,” says Braeutigam.

Popular Benefits

Survey participants were asked to identify which fringe benefits they receive from their current employer. About 87% of the respondents said they received “more than two weeks of vacation,” which ranked as the most common benefit. Other common benefits included dental insurance, life insurance, 401(k) employer contribution, and subsidized health insurance. The benefits least frequently provided by employers included automobile loaners, car allowance, and 100% paid health insurance (see Table 5).

About 78% of respondents said they receive subsidized healthcare as a fringe benefit, while only 11% said they receive 100% paid health insurance. It’s noteworthy that the majority of the respondents who work for healthcare facilities have to pay more out of pocket for their healthcare needs than those who work for manufacturers.

“Employers in all industries are asking employees to carry more of this financial load for health insurance,” says Davis-Smith. “Having worked in the hospital and moved outside to a consulting position, I would suspect that the actual costs paid by hospital employees are still less than those of us paying retail.”

With healthcare prices increasing rapidly, healthcare facilities can only absorb so much before passing the expenses along to employees, according to Hoffman. Still Hoffman urges colleagues to carefully examine fringe benefits before accepting a new job. “One of the first things I would ask a new employer before accepting a position would be ‘what out of pocket expenses will I have to pay for healthcare,’” he says.

The survey also showed that benefits vary by employer. For example, a larger percentage of hospital-based employees received overtime, call-back pay, life insurance, and employer-provided pension.

By contrast, a larger number of employees who work for ISOs and manufacturers received on-call pay, vision insurance, long-term care, bonuses and profit sharing, and flexible work hours.

Issue of Retention

The AAMI Employment Survey also asked participants about their future career plans. Nearly 8% anticipate

leaving the profession within the next year. Of that 8%, 22% said they would leave to find a higher paying job, 17% to retire, 17% to find a new challenge in healthcare, and 11% for a new challenge outside of healthcare.

The medical technology field “might look at periodic bonuses to help with retention. Healthcare employers might look at providing compensation for transportation especially when looking at the price of fuel to get to work. Of course, a discount in healthcare premiums would also be great,” says Hoffman.

So what more can supervisors do to minimize the number of employees leaving the profession? Braeutigam suggests that managers make sure biomed enjoy their jobs, and “supervisors should work closely with human resources to make sure their pay scale is competitive with the local market.”

Biomed and IT Unite

Although much discussion has occurred about the merging of IT and biomed departments in healthcare facilities,

about 89% of respondents say clinical/biomedical engineering and IT remain separate departments. Only 3% said clinical/biomedical engineering and IT are merged.

“The consolidation trend of biomed and IT will increase in the next 10 years. Until then, both sides have too much on their plates to consider merging,” says Stiles.

But for Davis-Smith, the consolidation of the two departments is not as crucial compared to whether they work effectively separately or jointly to meet the needs of the healthcare community. “The two departments should optimize each other’s strengths in an age when most medical technologies require some form of information technology,” says Davis-Smith.

The biomed and IT teams “need to find a lot of common ground in their attitudes and mindset,” says Gilmore. “Right now, the only thing they have in common is the avalanche of technology in the IT world crashing into hospitals.” ■

