2003 Wage and Vacancy Survey of Medical Laboratories

Colette A. Steward, PhD,[1] Kory Ward-Cook, PhD, MT(ASCP), CAE,[2] Suzanne Tannar[3]

([1]The Steward Group, Chicago, IL, [2]former Executive Director of the ASCP Board of Registry, Chicago, IL, [3]MORPACE International, Detroit, MI)

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In 2003, the ASCP Board of Registry (BOR) conducted the ninth in a series of surveys to provide the profession with current information about wage scales and staff vacancies. Routinely conducted every 2 years, the BOR scheduled this special survey to track the rapid changes in these areas. We found a continuation of the trends that were identified in 2002; despite wide regional and practice setting differences, wages were increasing across all staff position categories and vacancies were decreasing.

This report highlights the findings of the 2003 survey. These findings, however, may mask the difficulties that many facilities are still experiencing. To add perspective, we have profiled the experiences of laboratory managers in recruiting and retaining qualified staff.

Methods

Under the supervision of Kory Ward-Coo, who until recently was the ASCP Board of Registry Executive Director, sampling and data collection were conducted by MORPACE International. A representative sample of clinical laboratories by facility type was drawn from the Centers for Medicare and Medicaid (CMS) database of all legally operating licensed clinical laboratories in the United States. Of the 33,674 laboratories in this database, 9,738 facilities were selected to participate in the survey.

A total of 1,682 laboratories responded to the survey yielding a response rate of 17%. This number of respondents provides an overall sampling margin of error of ±2.4% at the 95% confidence level for total sample statistics at the national level. (Since not all laboratories employ staff at each of the position levels, the margin of sampling error for statistical significance at the subgroup level varies and was generally lower.) Responses were weighted by both laboratory type and region. See **Table 1** for response rate by laboratory type.

As in previous years, we examined the wage and salary trends for medical technologists (MT), MT supervisors, MT managers, cytotechnologists (CT), CT supervisors, histotechnicians (HT), histotechnologists (HTL), HT/HTL supervisors, medical laboratory technicians (MLT), MLT supervisors, phlebotomists (PBT), and PBT supervisors. Demographics such as laboratory type [hospital, private clinic or independent laboratory, physician office laboratory (POL) or community/outpatient clinic], size (number of hospital beds), and location were also collected.

Table 1_Response Rate by Laboratory Type

Laboratory Type	Surveys Mailed	Surveys Returned	Percentage Responded
Total	9,738	1,682	17%
Hospital	4,925	1,211	25%
Private C/L	1,913	196	10%
POL	1,540	189	12%
Community/Outpatient	1,360	86	6%

A number of new questions were added this year. Respondents were asked to report how many of their current full-time staff were temporary employees. They were also asked whether per diem staff costs were folded into budget for permanent staff. A section on annual laboratory testing volume was added this year.

Key Terms

Certified employees. The questionnaire defines certified employees as those who received certification from a national organization, including but not limited to ASCP.

Geographic Regions. South Central Atlantic: Alabama, Delaware, District Of Columbia, Florida, Georgia, Kentucky, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. Far West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. West North Central: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota. East North Central: Illinois, Indiana, Michigan, Ohio, and Wisconsin. West South Central: Arkansas, Louisiana, Oklahoma, and Texas. Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Median Wage. The statistical median was used to measure wage. This particular measure of central tendency eliminates biases caused by the abnormally low or high responses that skew means. Median wage was the wage at the 50th percentile when pay rates for a given position are ordered from lowest to highest. Pay rates are daytime wages and do not take into account differential or shift pay, bonuses, or benefits. Median wage was categorized into median lowest wage, median average wage, and median highest wage.

Test Volume. Laboratories that report conducting 1 million or more tests per year are categorized as high volume. Mid-volume laboratories conduct 101,000 to 1 million tests annually. Low-volume laboratories conduct 100,000 or less tests per year.

Vacancy Rate. Each surveyed laboratory with a particular position (eg, staff level medical technologist) that responds to the 'number of budgeted positions' and 'number of vacant positions' was included in the certified vacancy rate computation. The mean of budgeted positions was calculated, as was the mean of vacant positions. The vacancy rate was the mean for vacancies divided by the mean for budgeted positions for any given position.

Findings

In regards to wages, MT managers continued to earn the highest salaries. **Figure 1** illustrates wage comparisons across position.

Arizona Health Sciences Center

AHSC is a small teaching hospital. We have a laboratory staff of approximately 200. We do most of our own testing.

About 7 years ago, as a result of across the board budget cuts at our hospital, our labs went through a downsizing. A quarter of the laboratory staff were laid off despite the fact that we already spending within our salary lines. More layoffs were followed by another downsizing.

These jobs never returned—these budgeted vacancies disappeared—the slots were taken away. This is the silent statistic. Laboratory administrators are simply told to do more work with the same number of people.

The result is that our staff must work harder, take fewer breaks, and experience more stress. Many techs are now covering 2 or more hospitals.

Anna R. Graham, MD
Arizona Health Sciences Center
Tucson, AZ

High salaries for all positions were most likely to be found at high test volume, 300+ bed hospitals that were located in a large city or suburbs in the Far West region of the United States. On the other end, staff-level phlebotomist salaries remained the lowest. Low-end wages were typical to hospitals with less than 100 beds located in rural areas in the South Central Atlantic and West South Central states.

Trends in laboratory staff vacancies were consistent with 2002 findings. Across all 12 positions, the number of budgeted positions increased from 2002 to 2003. The average number of budgeted positions increased, while the number of vacant positions decreased. These staffing changes resulted in lower vacancy rates overall for 2003 compared to 2002.

Certified vacancy rates were the highest for front-end staff; HT staff (6%), MLT staff (5.9%), and PBT staff (6.6%). Similar to what occurred in 2002; upper level positions had the lowest vacancy rates; MT managers (1.9%), CT supervisors (1.6%) and MLT supervisors (2.0%). Vacancy rates also declined for phlebotomists; however, their rates were highest across the 12 positions surveyed. The following sections detail the state of wage and vacancies for each of these positions. Refer to **Tables 2, 3, and 4** for more detail.

Medical Technologists (MT)

Wages. During 2003, average wages increased for all MT positions. Small hospitals with less than 100 beds offered the lowest wages. Medical technologists working in larger hospitals had a higher (19%) low-end rate and high-end rate (10%), while high-end pay for smaller hospitals (less than 300 beds) showed an increase of 35% or less. Medical technologists' salaries continued to be highest in the Far West. Hourly rates increased with annual volume testing.

MT Staff. Wages were an average of $20.00/hour, supervisors averaged $24.50/hour, and managers were paid an average of $30.00/hour. Medical technologists realized a 3% to 7% wage increase between 2002 and 2003. Hourly rates were 8% to 11% higher in high volume testing laboratories (1 million or more test annually).

MT Supervisors. Wages increased by 5% to 7% for low-, average-, and high-end rates from the previous year. Supervisor rates were at least 8% higher in laboratories that conducted more than 1 million tests annually.

University of Virginia Health Science Center

Anatomic pathology has 30 FTEs and conducts approximately 95,000 billable tests. We have 560 hospital beds. The annual test volume for clinical lab is probably several million.

As a state academic facility, our salaries are competitive for our peer group. But people can earn 5%, 10%, or 15% more from the guy down the street. This is analogous to what happened in the nursing field. There just aren't enough candidates to go around.

It takes from 6 to 12 months to recruit entry level histotechs. You can't hire a cytotech in less than a year. The numbers we see don't catch the real shortages—the shortages that are compensated by part-time people, double shifts, and moonlighters.

This is a shortage that will not go away. Look in the labs—the workforce is graying. More than 50% of the staff in some of the labs are in their 50s. This kind of talent is hard to replace and the restructuring of the laboratory with focus on cross-training has facilitated the tearing down of the profession. We are sacrificing specialty expertise.

Mark H. Stoler, MD
University of Virginia Health Science Center
Charlottesville, VA

MT Managers. Wages increased by 5% over 2002 and low-end wages increased 7%. Managers working in high-volume testing laboratories were paid as much as 22% more than managers working in low-volume laboratories.

Vacancies. Certified vacancy rates dropped for all MTs, with the MT manager rate being the lowest of all the positions surveyed. The overall non-certified vacancy rate appeared to increase. This finding, however, does not meet our requirement for statistical validity as only 5 of the 22 employer groups had a sufficient item

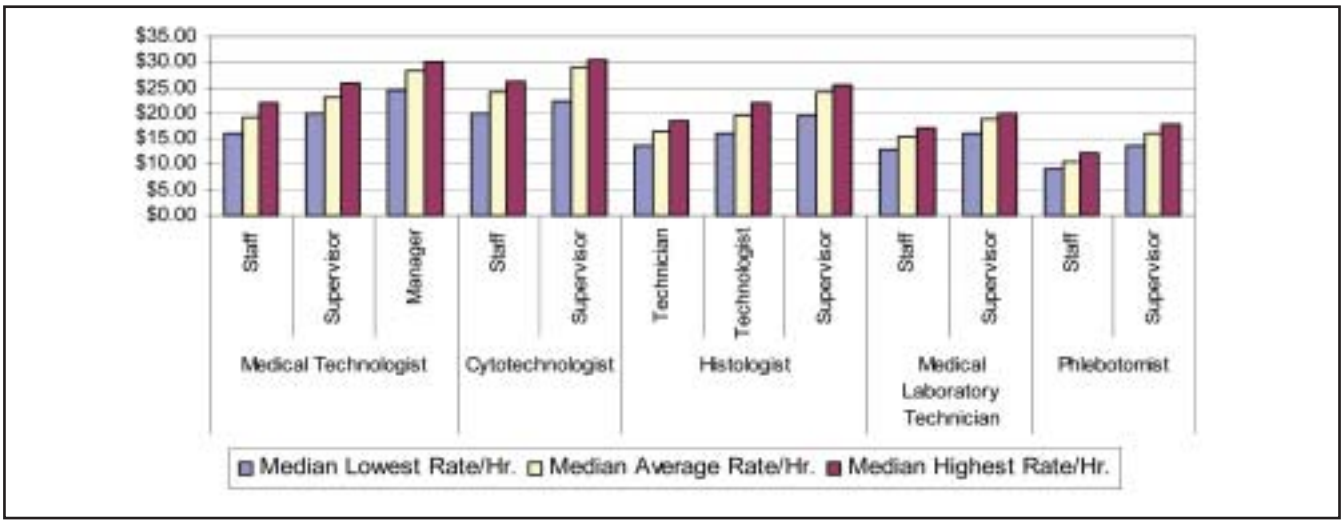

Figure 1_Median low-end, average and high-end wage rates by position (Source: MORPACE International. 2003 Wage and Vacancy Survey, April 2004).

Table 2_Position by Laboratory Type and Hospital Bed Size

	Laboratory Type				Hospital Bed Size			
Position	Hospital	Private C/L	POL	Community/ Outpatient	<100	100-299	300-499	500+
MT Staff (n)	1089	110	88	55	456	385	156	92
Low End	$16.52	$15.80	$16.00	$17.00	$16.02	$16.57	$16.62	$16.66
Median Average	$20.40	$19.00	$18.00	$20.00	$18.65	$20.36	$21.00	$21.81
High End	$23.19	$21.00	$19.96	$23.00	$20.88	$23.12	$24.22	$25.00
Vacancy Rate	4.3	4.9	2.8	4.4	7.1	5.0	4.5	3.8
MT Supervisors (n)	741	79	52	32	184	331	141	85
Low End	$20.98	$22.00	$19.00	$23.50	$19.50	$20.70	$22.00	$21.19
Median Average	$25.04	$24.00	$21.00	$25.00	$21.50	$24.40	$26.40	$26.00
High End	$27.66	$24.76	$23.00	$26.71	$23.47	$26.61	$29.00	$29.18
Vacancy Rate	3.3	3.7	3.6	1.5	5.3	2.7	4.4	2.8
MT Managers (n)	717	67	59	21	298	236	113	70
Low End	$26.78	$26.92	$22.00	$25.00	$23.50	$28.00	$28.50	$27.40
Median Average	$30.81	$28.53	$25.00	$25.22	$25.96	$31.82	$33.00	$33.00
High End	$33.19	$32.43	$26.00	$30.05	$27.00	$34.00	$36.27	$37.60
Vacancy Rate	2.2	0.8	1.7	0.0	2.9	3.0	2.9	1.3
CT Staff (n)	236	42	7	4	6	98	71	61
Low End	$20.28	$21.49	$24.55	$20.66	$22.85	$20.20	$19.25	$20.41
Median Average	$24.70	$24.07	$25.66	$25.82	$25.72	$23.90	$24.00	$25.43
High End	$26.79	$26.87	$28.00	$24.68	$26.63	$25.16	$26.95	$27.26
Vacancy Rate	4.1	5.1	2.4	0.0	0.0	3.6	2.1	4.9
CT Supervisors (n)	124	31	7	1	1	47	33	43
Low End	$24.09	$26.46	$25.51	$27.16	$18.50	$25.00	$23.31	$24.62
Median Average	$29.30	$28.05	$28.50	$27.16	$23.50	$26.94	$30.00	$30.00
High End	$30.31	$30.00	$31.09	$27.16	$29.60	$29.25	$30.63	$30.38
Vacancy Rate	1.0	2.2	7.6	0.0	0.0	1.8	3.0	0.0
HT Staff (n)	403	42	15	2	35	206	103	59
Low End	$14.00	$14.25	$16.00	$14.51	$13.25	$13.76	$14.51	$13.75
Median Average	$16.97	$16.13	$20.00	$18.08	$16.20	$16.50	$17.50	$16.97
High End	$19.09	$18.04	$21.00	$19.76	$18.22	$18.30	$19.50	$19.46
Vacancy Rate	5.3	6.3	19.1	3.7	6.0	4.9	4.2	6.0
HLT Staff (n)	260	26	5	0	16	117	76	51
Low End	$16.30	$16.86	$17.86	$0.00	$14.19	$16.50	$16.71	$16.18
Median Average	$19.88	$19.22	$20.50	$0.00	$18.52	$19.00	$20.22	$19.97
High End	$22.57	$22.43	$21.21	$0.00	$19.20	$21.10	$22.79	$22.82
Vacancy Rate	3.1	8.7	0.0	0.0	0.0	6.7	3.7	1.9
HT/HLT Supervisors (n)	242	29	11	1	6	105	80	51
Low End	$20.30	$23.08	$25.20	$20.72	$15.31	$19.32	$20.73	$20.03
Median Average	$24.00	$25.60	$29.00	$20.72	$19.35	$22.56	$24.80	$24.64
High End	$26.71	$27.05	$32.82	$20.72	$21.07	$24.00	$27.66	$27.33
Vacancy Rate	5.5	3.5	0.0	0.0	0.0	4.9	3.6	7.4
MLT Staff (n)	886	100	95	42	362	309	137	78
Low End	$13.52	$12.80	$13.00	$14.00	$13.44	$13.77	$13.45	$13.40
Median Average	$16.12	$15.00	$14.75	$15.50	$15.43	$16.49	$16.65	$16.93
High End	$18.18	$16.20	$16.00	$17.85	$17.00	$18.38	$18.75	$19.20
Vacancy Rate	6.1	6.1	3.7	5.6	8.1	5.2	5.1	6.8
MLT Supervisors (n)	107	22	15	7	44	41	13	9
Low End	$18.17	$16.00	$13.00	$14.50	$16.04	$18.42	$21.27	$18.60
Median Average	$20.15	$18.25	$16.39	$16.00	$17.74	$19.20	$23.82	$24.23
High End	$22.08	$19.00	$17.00	$16.00	$18.10	$21.47	$25.06	$25.00
Vacancy Rate	1.2	6.9	0.0	0.0	1.6	0.0	2.3	0.0
PBT Staff (n)	951	98	101	46	373	347	150	81
Low End	$9.15	$9.00	$9.50	$10.00	$8.50	$9.24	$9.56	$9.29
Median Average	$11.13	$10.57	$10.50	$11.70	$10.00	$11.06	$11.70	$11.60
High End	$13.00	$12.69	$11.76	$13.00	$11.40	$12.88	$13.88	$14.21
Vacancy Rate	6.3	8.3	7.9	7.3	7.1	7.5	9.2	4.9
PBT Supervisors (n)	301	32	17	2	44	119	77	61
Low End	$14.43	$15.00	$12.00	$10.75	$10.11	$13.68	$15.73	$14.58
Median Average	$16.51	$16.88	$14.63	$13.94	$12.00	$15.25	$17.59	$17.00
High End	$18.15	$15.33	$15.75	$12.03	$12.80	$16.70	$19.64	$19.00
Vacancy Rate	3.4	1.2	0.0	0.0	0.0	2.1	7.0	2.9

Table 3_Position by City Size and Annual Test Volume

	City Size				Annual Test Volume		
Position	Rural	Suburb	Small/Med City	Large City	LE 100K	101K - 1M	1M +
MT Staff (n)	492	132	490	214	423	642	237
Low End	$15.80	$17.00	$16.22	$17.93	$16.50	$16.32	$16.59
Median Average	$18.60	$21.20	$20.00	$21.38	$19.25	$19.52	$21.08
High End	$20.62	$23.47	$23.00	$24.10	$21.70	$22.50	$24.18
Vacancy Rate	6.4	2.9	4.2	4.5	4.8	4.6	4.2
MT Supervisors (n)	230	99	398	170	217	442	214
Low End	$19.19	$21.92	$20.69	$22.40	$20.00	$20.73	$22.29
Median Average	$22.00	$25.84	$24.36	$26.51	$23.00	$23.79	$26.00
High End	$23.74	$27.11	$26.95	$29.17	$25.66	$26.00	$29.18
Vacancy Rate	3.1	3.5	3.8	2.6	3.0	3.7	3.0
MT Managers (n)	312	80	333	131	250	414	169
Low End	$23.94	$28.00	$26.24	$28.48	$23.00	$26.48	$28.40
Median Average	$26.00	$30.94	$30.18	$32.70	$26.50	$30.00	$32.69
High End	$27.88	$33.60	$32.50	$36.19	$29.45	$31.25	$36.04
Vacancy Rate	24.0	25.0	16.0	2.0	1.2	2.0	2.2
CT Staff (n)	30	33	139	81	50	101	130
Low End	$20.54	$21.26	$20.00	$20.92	$20.17	$20.76	$20.50
Median Average	$23.00	$27.00	$24.38	$25.00	$23.95	$25.00	$24.70
High End	$25.02	$28.00	$26.61	$27.54	$26.43	$26.65	$27.00
Vacancy Rate	1.6	8.8	4.4	3.4	2.0	4.8	4.5
CT Supervisors (n)	11	21	83	46	35	49	73
Low End	$23.50	$30.50	$24.62	$25.00	$24.97	$25.00	$25.97
Median Average	$24.09	$32.70	$28.39	$29.30	$27.69	$27.71	$29.93
High End	$27.08	$32.70	$30.00	$30.73	$29.67	$29.24	$30.49
Vacancy Rate	0.0	4.4	1.7	0.9	3.8	0.0	1.6
HT Staff (n)	80	55	226	97	80	219	155
Low End	$13.39	$15.85	$13.50	$15.00	$14.25	$14.00	$14.28
Median Average	$15.25	$19.06	$16.17	$18.00	$18.00	$16.50	$17.08
High End	$17.38	$20.98	$18.56	$20.41	$19.25	$18.38	$19.61
Vacancy Rate	4.3	2.3	5.7	7.7	7.7	7.2	4.1
HLT Staff (n)	39	38	139	70	37	142	105
Low End	$14.97	$17.00	$16.30	$16.63	$16.59	$16.57	$16.30
Median Average	$17.50	$21.79	$19.30	$20.40	$19.00	$19.30	$20.00
High End	$19.67	$23.60	$22.18	$23.37	$21.21	$21.80	$22.76
Vacancy Rate	5.2	3.2	5.7	1.7	4.3	4.0	5.3
HT/HLT Supervisors (n)	29	43	135	70	47	117	112
Low End	$18.57	$22.09	$20.00	$21.19	$21.87	$20.44	$20.55
Median Average	$21.90	$25.10	$24.00	$26.21	$25.00	$24.00	$24.00
High End	$22.74	$28.27	$26.43	$28.00	$27.86	$25.58	$26.94
Vacancy Rate	2.7	7.2	5.9	2.7	2.5	5.5	6.0
MLT Staff (n)	426	99	417	166	356	506	219
Low End	$13.00	$14.15	$13.27	$14.00	$13.06	$13.50	$13.50
Median Average	$15.00	$17.09	$15.82	$16.65	$15.00	$15.98	$16.54
High End	$16.91	$18.85	$17.81	$18.87	$17.01	$17.60	$18.89
Vacancy Rate	6.5	4.5	4.0	9.1	6.2	5.0	6.3
MLT Supervisors (n)	66	16	51	13	58	59	25
Low End	$16.58	$19.19	$15.35	$17.24	$15.70	$16.00	$19.00
Median Average	$18.26	$21.80	$18.70	$18.00	$18.10	$18.26	$23.66
High End	$18.96	$24.80	$19.40	$22.43	$17.68	$19.97	$24.80
Vacancy Rate	0.9	0.0	4.2	0.0	1.6	0.6	5.5
PBT Staff (n)	417	123	471	172	334	601	216
Low End	$8.44	$10.37	$9.05	$10.34	$9.20	$9.03	$9.38
Median Average	$10.00	$12.50	$10.93	$12.59	$10.94	$10.78	$11.60
High End	$11.40	$13.81	$12.90	$14.50	$12.42	$12.62	$13.88
Vacancy Rate	6.5	9.8	4.9	10.4	5.5	10.4	8.6
PBT Supervisors (n)	59	47	173	69	58	165	120
Low End	$11.77	$15.85	$13.64	$15.16	$14.36	$13.64	$15.00
Median Average	$13.50	$18.00	$16.00	$17.11	$17.00	$15.00	$17.15
High End	$14.85	$18.28	$17.14	$20.27	$19.64	$15.93	$19.00
Vacancy Rate	0.0	8.6	1.6	4.1	8.0	1.0	2.4

Table 4_Position by Region

Position	Region					
	North East	South Central Atlantic	East North Central	West North Central	West South Central	Far West
MT Staff (n)	144	323	225	189	190	271
Low End	$16.90	$15.73	$16.50	$16.00	$15.43	$19.21
Median Average	$20.04	$19.13	$20.00	$19.44	$18.55	$23.00
High End	$22.75	$22.16	$22.75	$22.22	$21.82	$26.00
Vacancy Rate	3.6	5.6	2.9	2.9	4.6	5.9
MT Supervisors (n)	120	239	145	97	129	174
Low End	$23.00	$19.92	$20.61	$19.00	$19.50	$24.29
Median Average	$25.36	$23.00	$24.54	$24.00	$22.90	$27.96
High End	$27.00	$25.95	$26.50	$26.00	$25.54	$30.72
Vacancy Rate	3.5	4.4	2.7	4.1	1.2	3.4
MT Managers (n)	90	224	128	117	128	177
Low End	$27.07	$25.00	$25.50	$24.00	$25.48	$30.00
Median Average	$31.23	$29.00	$29.81	$28.00	$28.50	$35.00
High End	$32.28	$31.25	$31.56	$30.21	$30.99	$37.71
Vacancy Rate	3.6	15.0	2.0	2.5	1.3	1.5
CT Staff (n)	58	61	69	30	29	42
Low End	$20.00	$18.71	$20.72	$20.26	$19.25	$23.00
Median Average	$25.00	$22.96	$24.72	$24.07	$23.86	$28.36
High End	$27.00	$25.04	$26.32	$27.81	$26.50	$29.00
Vacancy Rate	1.8	5.6	5.3	5.4	7.8	1.6
CT Supervisors (n)	37	39	28	14	16	29
Low End	$26.18	$22.55	$24.97	$26.46	$24.70	$27.00
Median Average	$30.15	$26.50	$28.16	$29.30	$28.75	$33.56
High End	$30.30	$29.17	$29.67	$30.90	$29.60	$32.11
Vacancy Rate	2.3	0.0	1.6	0.0	0.0	5.2
HT Staff (n)	66	105	103	44	64	80
Low End	$14.56	$14.02	$14.43	$13.50	$13.11	$14.83
Median Average	$18.00	$17.03	$17.00	$16.12	$15.77	$17.79
High End	$19.61	$19.23	$18.82	$18.59	$17.74	$20.00
Vacancy Rate	3.1	8.8	3.8	5.4	6.8	7.6
HLT Staff (n)	45	89	53	24	32	48
Low End	$18.00	$16.00	$16.56	$16.21	$15.81	$16.38
Median Average	$21.00	$19.00	$19.22	$19.30	$17.25	$20.22
High End	$23.17	$21.71	$22.69	$22.57	$20.00	$22.75
Vacancy Rate	6.3	6.4	1.7	3.6	1.7	2.9
HT/HLT Supervisors (n)	50	73	51	24	42	43
Low End	$23.39	$19.56	$20.14	$20.48	$19.00	$22.00
Median Average	$26.12	$23.79	$24.21	$25.97	$22.26	$25.59
High End	$27.10	$26.18	$26.94	$27.58	$24.12	$27.14
Vacancy Rate	20.0	2.5	4.3	0.0	3.0	2.8
MLT Staff (n)	127	302	193	183	168	150
Low End	$14.50	$12.80	$14.00	$13.37	$12.27	$14.31
Median Average	$17.75	$15.13	$16.73	$15.66	$14.70	$16.48
High End	$18.89	$17.08	$18.85	$17.55	$16.32	$18.30
Vacancy Rate	4.3	4.6	4.4	7.4	7.6	9.3
MLT Supervisors (n)	14	42	31	33	24	7
Low End	$21.07	$14.35	$18.42	$16.58	$15.50	$17.00
Median Average	$26.10	$17.91	$20.19	$18.00	$18.25	$22.00
High End	$27.90	$18.75	$22.10	$18.58	$18.49	$23.00
Vacancy Rate	0.0	3.4	0.0	0.0	0.0	16.1
PBT Staff (n)	125	314	207	138	172	240
Low End	$11.00	$8.75	$9.70	$9.00	$8.06	$10.65
Median Average	$12.36	$10.33	$11.30	$10.75	$9.50	$12.75
High End	$14.43	$12.12	$13.00	$12.72	$11.05	$14.60
Vacancy Rate	7.4	9.3	4.5	14.8	7.8	3.8
PBT Supervisors (n)	52	97	55	24	52	72
Low End	$17.10	$12.50	$14.15	$13.28	$13.46	$15.16
Median Average	$18.25	$15.00	$16.91	$15.67	$15.00	$17.31
High End	$18.84	$15.93	$18.44	$17.99	$15.00	$19.72
Vacancy Rate	2.8	2.1	3.2	0.0	3.3	4.0

response rate. Ninety percent of laboratories reported difficulties filling at least 1 shift for MT staff. It took 6 months for 66% of laboratories to fill these positions. Twenty percent of laboratories indicated that the turnover rate for MT staff had increased.

MT Staff. The overall certified vacancy rate was 4.3%, a decline from 7% between 2002 and 2003. Certified vacancy rates were highest in the South Central Atlantic region (5.6% compared to 6.6% in 2002); and the Far West (5.9% compared to 6.0% in 2002). Vacancies were also highest among: hospitals with less than 100 beds (7.1% compared to 11.1% in 2002); rural areas (6.4% compared to 10.4% in 2002); South Central Atlantic region (5.6% compared to 6.6% in 2002); and the Far West (5.9% compared to 6.0% in 2002).

MT Supervisors. The certified vacancy rate was 3.3%, significantly below the 5.9% reported in 2002. Vacancies were highest in hospitals with 100 beds or less. Community/outpatient clinics and laboratories in the West South Central who once claimed among the highest vacancy rates in 2002 reported the lowest in 2003.

MT Managers. Vacancy rates were among the lowest across all 12 positions for 2003 (1.9% compared to 3.7% in 2002). Private clinics/independent laboratories and laboratories in the West South Central account for the majority of this decline in vacancy rate for 2003. The lowest vacancy rates were also found in community/outpatient clinics and hospitals with 500+ beds.

Cytotechnologists (CT)

Wages. Cytotechnologist wages were comparable to MT wages; however, wages remained constant or only increased slightly. Rates for staff level CTs did not appear to be dependent on laboratory test volume. Supervisor level CT wages were slightly higher in laboratories with an annual test volume of 1 million or more.

CT Staff. The average wages increased only 2% to 3% in 2003. However, with a 14% increase in low-end wages over 2002, rural hospitals paid comparable low-end wages as the small/medium and large cities and suburbs. Wages at suburban facilities were higher; however, this was partially due to a decline in salaries in the large cities. The Far West continued to pay the highest wages for this position and the West North Central area paid comparable wages to the Northeast and East North Central.

CT Supervisors. Low-end wage rates increased by 10%, while the average- and high-wage rates did not change from 2002. Average and high-end rates declined by 3% since 2002. Low-end rates in the hospitals; however, rose 10% from 2002, closing the gap between clinics and independent laboratories (a 9% gap in 2003 compared to an 18% gap in 2002). Low-end wages in hospitals with 100 to 299 beds increased 22% from 2002.

Vacancies. Vacancies decreased from 2002; supervisor-level vacancies showed a decline from 5.8% in 2002 to 1.6% in 2003. This was the lowest vacancy rate across all positions. Thirty-three percent of laboratories were having difficulty filling at least 1 shift for staff level cytotechnologists. The time required to fill this position was from 3 to 12 months. Turnover rates remained constant.

CT Staff. The vacancy rate decreased from 7.6% in 2002 to 4.3% in 2003. The most significant decreases were in the South Central Atlantic region. The lowest certified vacancy rates were found in hospitals with 300 to 499 beds (2.1%), rural areas (1.6%), the Northeast (1.8%), and the Far West (1.6%) regions.

CT Supervisors. The decline in certified vacancy rate was most attributed to declines in rates for hospitals and laboratories in the South Central Atlantic region. The highest vacancy rates for this position were found in hospitals with 300 to 499 beds (3.0% compared to 7.0% in 2002).

Dana-Farber Cancer Institute

We are a hybrid lab working mostly with stem-cell products for bone marrow transplants. Our staff of 12 FTEs manufactures about 1,000 products per year. The general lab sees approximately 700 accessions per day. There are probably another 300 draws that are just research samples and handled else where. The volume coming through the Institute was about 4,000 outpatients daily. We currently have 2 quality control and two tech vacancies. It will be almost impossible to find the people we want.

Competition for qualified staff is very stiff in Boston. Our competition is not just with hospitals. High tech companies are offering salaries that are hard to ignore. All of the area hospitals are ncreasing salaries and adding incentives to recruit staff.

These new recruits have starting salaries that are comparable to the salaries of people who have been working for twenty-years. It affects morale. People don't want to work overtime.

But it is not all about salary. Today's laboratory was not as attractive to students. Training programs are closing. We need to take some notes from other ancillary professions. Nursing, for example, is attracting great students.

My belief is that we are nearing a severe lab staffing shortage. When I walk through the general clinical lab here at DFCI, as well as Brigham & Women's, and The Children's Hospital, 80% of the staff are nearing retirement.

Olive Sturtevant, MPH, MT(ASCP)SBB/SLS
Dana-Farber Cancer Institute
Boston, MA

Histotechnician/Histotechnologist (HT)/(HTL)

Wages. While supervisors enjoyed at most a 5% increase over 2002, wages remained constant in 2003. Rates were lowest in rural areas. Suburban facility wages have increased 6% for low-end rates and 12% for average rates. Rates varied across the HT and HTL positions in regards to geographic region and annual testing volume.

HT Staff. Low- and high-end rates increased 3% in 2003 compared to 2002; average rates increased a modest 2% during that same time period. Pay rates for 2003 were comparable for all facility types. Generally, pay increased with bed size. On the average, the West North Central and the West South Central paid the lowest wages; however, in 2003, the West South Central region low-end pay rates increased 9% and average rates increased 13%. These increases considerably narrowed the gap between pay rates across all regions. Average wage rates were highest, 5% to 9% higher, in low-volume laboratories than in higher volume laboratories.

HLT Staff. Only modest increases in low-end and high-end wages (3% or less) occurred between 2002 and 2003 for HTL

staff. Wages were constant across hospital bed size. The Northeast region continued to be the highest paying region for this category, especially for low-end rates. The lowest rates can be found in the West South Central region. Wages in high volume laboratories were 6% to 7% higher than in low volume laboratories.

HT/HTL Supervisors. Low- and high-end wages increased somewhat (5% between 2002 and 2003); however, average rates did not change in the 1-year period. Average wage rates and high-end rates in the suburbs climbed 8% and 9%, respectively, between 2002 and 2003, now making the rates between larger hospitals and small/medium comparable. The gap between pay in the suburbs and large cities closed in 2003, as pay rates in the suburbs soared from 2002 (14% increase in low-end rates and a 9% in high-end rates). The Northeast pays the highest low-end rate. Low-end and average rates were the lowest in the South Central Atlantic and the West South Central regions. Low testing volume laboratories generally paid higher wages.

Vacancies. Staff rates were higher than supervisor rates. For HLTs, vacancy rates were highest in laboratories located in large cities (7.7%) and in the South Central Atlantic (8.8%) and Far West (7.6%) regions. Histotechnician rates were highest in hospitals with 100-299 beds (6.7%) and in the South Central Atlantic (6.4%) region. Between 35% and 41% of laboratories report difficulty recruiting HT and HLT staff. It requires up to 6 months for the majority of laboratories (55% to 60%) to fill these positions. Ten percent to 16% of laboratories report an increase in HT and HTL turnover.

HT Staff. The vacancy rate for certified HT staff dipped in 2003 to 6.0% from 8.7% in 2002. The lowest vacancy rates were found in the suburbs (2.3%) and laboratories in the Northeast region (3.1%). Higher vacancy rates for this position were found in large cities (7.7% compared to 7.4% in 2002); the South Central Atlantic region (8.8% compared to 10.2% in 2002); and the Far West region (7.6% compared to 13.5% in 2002). Overall the non-certified vacancy rate increased from 3.7% in 2002 to 7.8% in 2003.

HTL Staff. The vacancy rate for certified HTL staff was 3.6%, significantly below the rate of 10.7% last year. The lowest vacancy rates were found in hospitals with 500+ beds, large cities, and the East North Central and West South Central regions of the country. Higher vacancy rates were seen in hospitals with 100 to 299 beds (6.7% compared to 16.2% in 2002); small/medium cities (5.8% compared to 14.25 in 2002); the Northeast region (6.3% compared to 6.1% in 2002); and the South Central Atlantic region (6.45 compared to 11.6% in 2002).

HT/HTL Supervisors. The HT/HTL supervisor's vacancy rate was 4.9% in 2003 compared to 5.9% in 2002. The Northeast region experienced a sharp increase in the certified vacancy rate (20.0% in 2003 compared to 2.3% in 2002). Certified vacancy rates appeared to be the highest for hospitals with 500+ beds (7.4% in 2003 compared to 6.7% in 2002) and the suburbs (7.2%).

St. John's Health System

It took us 14 months to hire a cytotech and over 18 months to fill one histotech position; recruiting MTs and MLTs will become just as difficult as more of them retire over the next 3 years. Fewer locals are interested in this field and there are few opportunities for training.

We advertise nationwide but it is hard to get people to relocate; but the smaller hospitals in our system have it hardest. They can't compete with the salaries that places such as Little Rock, Kansas City and St. Louis can afford.

Often the response from hospital administration is that 'you've gotten along without the staff for this long' and budgeted vacancies are eliminated. This thinking, however, has an impact on the overall budget. Understaffing leads to increased overtime and temporary expenses. Understaffing also makes it harder for the lab to meet the needs of the pathologist and the patient.

Jo Anne Edwards, MEd, MT(ASCP)
St. John's Health System
Springfield, MO

Medical Laboratory Technicians (MLT)

Wages. The average wage for MLT staff was $15.96/hour; MLT supervisors earned an average of $18.79/hour. Wages were 4% higher compared to the last survey. Smaller hospitals reported the largest increases in pay rates.

MLT Staff. Low-, average-, and high-end wages increased slightly from 2002 (3% to 4%). Average- and low-end wages were generally comparable across laboratory type. High-end wages were at least 9% lower in private clinics/independent laboratories and physician office laboratories, than in hospitals and outpatient clinics. Hospital size does not appear to have much of an impact on wages; however, smaller hospitals reported larger increases in wages between 2002 and 2003. Suburbs and large cities continued to pay the higher wages for this category. Wages in the Northeast, East North Central, and Far West were all higher than similar wages found in the South Central Atlantic, West North Central, and West South Central.

MLT Supervisors. Low-end wages increased slightly over 2002 rates (4%), while average and high-end rates showed no change. There was an increase (22%) in low-end wages for hospitals with 100 to 299 beds; at the same time there was a decrease in the average (3%) and high-end wages (7%) in the small hospitals (less than 100 beds). Wages in the hospitals with 100 to 299 beds were higher in 2003 than wages in small hospitals. Rural areas and small/medium cities pay comparable wages for MLT supervisors. The East North Central region paid the highest rates among the regions. The South Central Atlantic paid considerably lower rates by 13% to 22%.

Vacancies. Overall rates decreased with the greatest difference for MLT staff (8.6% in 2002 to 5.9% in 2003). Medical laboratory technician supervisor vacancy rates were the least reported across all positions, currently at 2%, down from 7.1% in 2002. Staff rates were lowest in hospitals with less than 100 beds (8.1), laboratories in large cities (9.1%) and in laboratories located in the Far West region (9.3%). Sixty-four percent of laboratories have problems meeting shift requirements. Greater than 75% of laboratories need 6 months to fill these positions. The turnover rate remained constant.

MLT Staff. The highest vacancy rates for this position were from hospitals with less than 100 beds (8.1% compared to 11.7% in 2003); large cities (9.1% compared to 10.7% in 2002); and the Far West region (9.3% compared to 5.5% in 2002).

MLT Supervisors. Medical laboratory technician supervisors were among the lowest vacancy rates (2.0%) of the 12 positions. The 2003 vacancy rate was significantly below the 2002 rate of 7.1%, owing to the decline in hospital vacancy rates (1.2% in 2003 compared to 7.2% in 2002).

Phlebotomists (PBT)

Wages. Of all of the positions surveyed, PBTs earned the lowest wages. The average staff wage was $11.03/hour; and the average supervisor wage was $16.40/hour. Median high-end rates increased by as much as 7% in 2003.

PBT Staff. Average- and high-end pay rates increased 5% and 7%, respectively, while low-end rates stayed the same. Wages rates across facility type were comparable. Wages in the larger size hospitals were generally higher and larger cities and suburbs pay more than rural areas. The highest wages were in the Northeast and the Far West. The lowest wages were in the West South Central regions.

PBT Supervisors. Low-end wages increased 5% between 2002 and 2003. The gap in wage rates narrowed between private clinics/independent laboratories and hospitals from 2002 and 2003 for low-end rates. In 2002, low-end rates and average rates in private clinics/independent laboratories were 13% and 15% lower than in hospitals. In 2003, however, low-end rates increased 25% and average rates increased 16%. The wage differential between the smallest and the largest hospitals was at least 29%; a similar gap was reported in 2002. Larger cities paid much higher wages than smaller/medium cities and rural areas. The South Central Atlantic and the West South Central continued to pay the lowest wages, despite a rise in low-end and average rates (17% and 10%, respectively). Northeast region rates were comparable or higher than the Far West.

Vacancies. Vacancies declined particularly among PBT supervisors, yet staff vacancies were the highest across all positions surveyed. A majority of laboratories (66%) reported problems filling at least 1 shift for staff level PBTs. These positions were typically filled within 3 months. A total of 33% of laboratories indicated an increase in turnovers.

PBT Staff. The overall vacancy rate for certified PBT staff was 6.6%—a decline from the 9.1% in 2002. Certified vacancy rates were lowest in the East North Central (4.5%) and Far West (3.8%) regions. Certified vacancy rates were higher in large cities (10.4% compared to 7.1% in 2002); and the West North Central region (14.8% compared to 11.8% in 2002).

PBT Supervisors. The vacancy rate in 2003 was 2.7% compared to 7.5% in 2002. Vacancy rates was highest for hospitals with 300 - 499 beds (7.0% compared to 5.1% in 2002) and in the suburbs (8.6%).

Memorial Hospital at Colorado Springs

We are a full service, 24/7 city hospital laboratory providing tertiary care for most of Southern Colorado. Our annual test volume is approximately 1.25 million. We have 145 FTEs of which 77 are bench techs.

Our policy has been to be proactive in keeping salaries at market level. In the past two and a half years, the hospital made market adjustments for all certified techs, including histotechs, cytotechs, med techs and MLTs. This was done twice for med techs, all in an effort to ensure market pay rates. Market adjustments have been made for all positions twice in the last two years. Yet, there just aren't enough people to fill vacancies, especially for histology and cytotechnology. It takes a 9 to 12 month national search to recruit a qualified cytotech - and this is at the entry level. Also, in many instance, the lab was forced to hire MLTs when we really wanted Med Techs.

Because of the maturity of Memorial's workforce, we expect a mass exodus of techs in the next 3 to 5 years. And there aren't enough people to replace them. We are currently working with the University of Colorado at Colorado Springs to open a training program but enrollment is a real concern.

Quality of life is an issue for the people who are just entering the profession. Why put up with working double shifts and weekends when salaries are just as good at biotech firms? The need for qualified staff, however, does not go away. We have to deal with our needs as they exist here and now.

Barbara Caro, MT, MBA
Memorial Hospital
Colorado Springs, CO

Hiring Strategies

Despite the increase in wages and decrease in vacancies, 46% medical laboratories reported problems in recruiting qualified staff. Small hospitals and laboratories located in rural areas or small cities were hit the heaviest. The Northeast, West South Central, and Far West were also affected. Most of the facilities reporting an annual test volume of greater than 1 million were having difficultly recruiting. Staff level MT, MLTs, and phlebotomists positions were hardest to fill. On the average it takes from 3 to 12 months to fill any vacancy.

Increasing starting salaries were the most routinely applied strategy to recruit candidates. Twenty-nine percent of laboratories paid for tuition or other educational expenses. Twenty-two percent offer signing bonuses; 20% pay relocation expenses. Another strategy was to hire temporary or per diem staff. Twenty-seven percent rely on temporary staff when adding or replacing permanent staff.

New Insights

The Wage and Vacancy Surveys provide unique insights into the experiences of the profession, but new insights are needed. One trend that the survey does not measure adequately is the hiring of non-certified staff to fill positions that once required certification. Thirty-three percent of the laboratories indicated that applicants did not have the necessary skills or education. Poor item response rates on questions about non-certified vacancies limit the validity of these data. Subsequent surveys must be designed to improve our understanding this trend.

We also need better insight about how vacancy is defined. Systemic factors appear to be changing the environment in which these vacancies occur. Nearly every laboratory profiled described a scenario of disappearing vacancies. After budget cuts or lengthy recruitment searches, budgeted vacancies were cut. Students are not attracted to the long hours of laboratory work. Not enough certified staff will enter the workforce to replace the number of laboratory staff expected to retire in the next 3 to 5 years. The nature of laboratory work is changing. Scientific research is adding complexity to the testing process while automation is redefining the skill requirements for laboratory staff. Incorporating these factors into subsequent analyses should help us shed more light on the root cause of these trends and lead to strategies to preserve the quality of laboratory services. LM