

The Seventh Annual International Employment Survey

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The seventh annual international employment survey conducted by *Pharmaceutical Technology* and *Pharmaceutical Technology Europe* reports on the issues directly related to those working in the pharmaceutical industry, including demographic information, education and work experience, salary and benefits, and attitudes toward current employment. In addition, survey participants indicated the importance of particular educational backgrounds and skills when evaluating new employment candidates. In most cases, results are provided for employees working in the United States, including Puerto Rico, and those working in Europe.

When comparing salary and benefits information, readers should take into account factors such as a region's cost of living, economy, and exchange rate to US currency (the questionnaire required all salary information in US dollars). In addition, geographic location, years of experience, job function, and highest level of education should be considered. No one statistic fairly and accurately represents the state of the industry.

Methodology and statistics

We invited readers to participate in a questionnaire posted on www.pharmtech.com from 2 August through 30 September 2004. We received a total of 1552 responses, of which 1031 came from employees working in United States, including Puerto Rico, and 422 from respondents working in Europe (Table I profiles the average respondent in the United States and Europe). This article describes these and other results in detail, reporting results as raw re-

sponse, mean values, or percentages of the total number of respondents to a particular question. We welcome comments about this year's survey as well as suggestions for next year's questionnaire.

Demographics

Sex and age. Of the 1528 respondents, 70% overall were men—two-thirds of the US respondents and three-quarters of the European (see Figure 1). The average respondent age is 42 years, unchanged from previous surveys.

Work location. As noted, 1031 respondents work in the United States, and 114 work in the United Kingdom. At least three responses came from each of the following nations:

- Austria: 4
- Belgium: 15
- Canada: 29
- Croatia and Czech Republic: 5 each
- Denmark, Finland, Greece, and Portugal: 8 each
- France: 26
- Germany: 47
- Hungary and India: 9 each
- Ireland: 35
- Italy: 27
- Mexico: 6
- The Netherlands: 28
- Norway: 3
- Spain: 23
- Sweden: 13
- Switzerland: 19

Readers should note the number of responses received from each region when considering the results of this survey, especially reported salaries.

Education and professional work experience

Most respondents hold graduate-level degrees (51% in the United States and 63%

While labor-industry pundits debate the current health of global job markets, more than 1500 participants of this year's pharmaceutical industry survey prove that the industry continues to provide high salaries and a positive work environment.

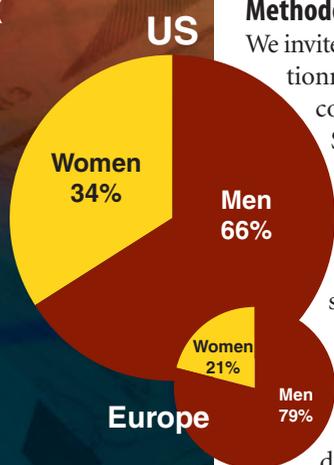


Figure 1: Survey participants by sex.

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"I believe my work is fully valued by my employer."

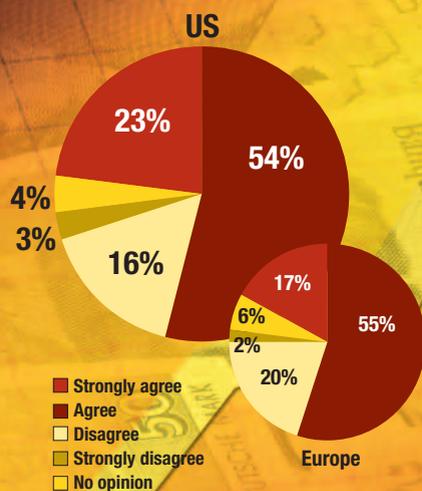


Table I: Profile of the typical pharmaceutical industry employee working in the United States and in Europe.

	United States	Europe
Sex*	Male	Male
Age**	42	42
Years of professional work experience**	16.7	16.7
Type of employer*	Private industry	Private industry
Job function	QA/QC	QA/QC
Years at current employer**	7	9.5
Hours worked per week**	46	45
Vacation days taken per year**	13	25
Starting base annual salary**	\$62,154	\$39,419
Current base annual salary**	\$87,888	\$67,893

* mode
** mean

in Europe; see Figure 2). One-third of European respondents have completed a doctorate degree, compared with 24% in the United States.

Varied academic background. Analytical chemistry was the most common academic background of US survey participants, at 14%, while 24% of European respondents majored in "pharmaceutics/pharmacy." A quarter of US respondents (versus an eighth in Europe) reported that they had earned their highest qualification in fields not listed in the questionnaire.

Work experience. Overall, pharmaceutical industry employees reported an average of 16.7 years of professional work experience, including postdoctoral study.

Table II: Top five job functions.

- Quality control/quality assurance (20%)
- Pharmaceutical development (13%)
- Pharma. analytical development (7%)
- Engineering/engineering management (6%)
- Validation/regulatory compliance (5.6%)

Employment

Type of employer. The great majority of respondents work in private industry (90% in the United States and 87% in Europe). Approximately one-third of all respondents (37% US and 32% European) work for organizations that employ more than 10,000 people. Academic institutions employed 5% of European and only 2% of US respondents. The remaining 8% of each sample serve in local or national government positions.

Industry. Of private-industry employees working in the United States, 79% work in pharmaceuticals and 11% in contract services. Similarly, 82% of European private-industry employees work in pharmaceuticals and 9% in contract services.

Academia. Of the respondents working in academic institutions, 39% of Americans and 67% of Europeans hold full, associate, or assistant professorships. Most respondents employed in academia hold either no administrative title or a title other than department head or dean.

Job description. Of the most common job descriptions (see the Table II), "quality assurance/quality control" was the most frequent response. As in previous surveys, this year's results indicate that US and Eu-

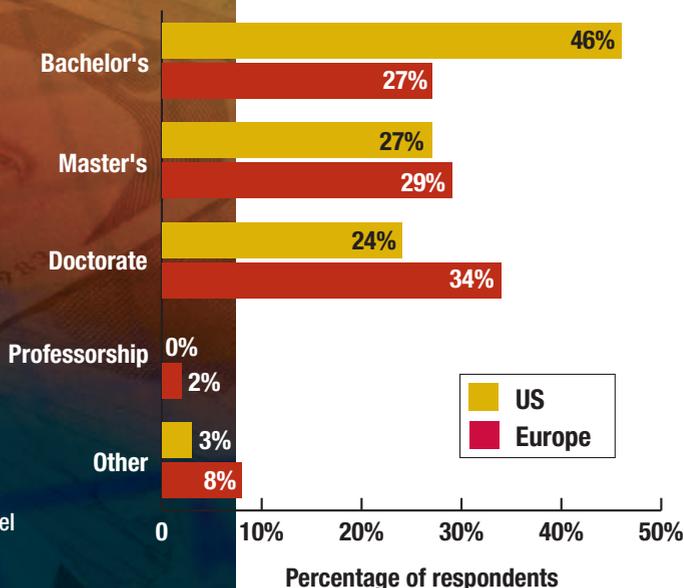


Figure 2: Highest level of education.

"I believe my present job is secure."

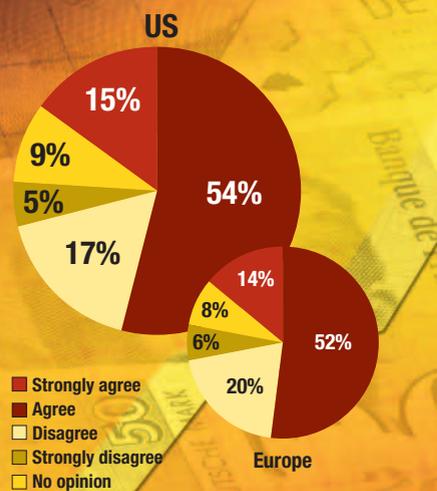


Figure 3: Mean base annual salary according to geographic location of employer.



Table III: Top employer-provided benefits in addition to salary.

United States

1. Health insurance for self
2. Employer contributions to pension
3. Health insurance for family
4. Share options
5. Training fees paid

Europe

1. Employer contributions to pension
2. Health insurance for self
3. Mobile phone
4. Training fees paid
5. Health insurance for family

European pharmaceutical employees share similar working conditions. Ninety-seven percent of US respondents and 95% of European respondents work full-time. On average, the nominal US work week is 39 hours, but respondents reported that they actually put in 46 hours; Europeans work an average 44 hours in a nominal 38-hour work week. Few get paid for putting in the extra time: 90% of US and 87% of European employees work the overtime without additional pay.

On average, US employees have worked for their current employers for nearly 7

Table IV: Most important factors when considering a job change.

1. Income
2. Geographic location
3. Professional advancement
4. Intellectual challenge
5. Job environment/job security (tie)

years, compared with 9.5 years for Europeans. Once again, 53% of US respondents have changed employer or job title during the past two years (the same percentage reported our 2003 survey). Only 26% of those reporting a change attributed it to mergers, acquisitions, or downsizing. In Europe, fewer than half (43%) have changed title or company in the past two years. Of these, 35% said the change resulted from a merger, acquisition, or cutbacks.

Salary and benefits

Overall results. *Pharmaceutical Technology* asked respondents to report their annual salaries in US dollars. (Ambiguous responses, and those in other currencies, were excluded from the calculations.) The mean base annual salary of those employed in the United States was \$87,888. This value does not include bonuses, overtime, salary from a second job, or other supplemental income. Employees in the United States reported an average additional income from their principal employer of \$9239, including bonuses, summer work, and grants, and average additional income from other professional work of \$1844.

The mean base annual salary for those employed in Europe was \$67,893 (again, excluding bonuses, overtime, salary from a second job, or other supplemental income). Employees in Europe reported an average \$8012 in additional income from their principal employer, including bonuses, summer work, and grants, and average additional income from other professional work of \$1917.

Survey data from 1998 through the present show remarkably consistent salary growth in the United States, averaging 4.0% per year over the whole period, with a 4.0% increase from 2003 to 2004. The results from Europe have fluctuated over the same period, showing an average annual increase of 3.8% but a decrease of 3% from 2003 to 2004 (see Figure 7).

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"Given the opportunity, I would leave my present job."

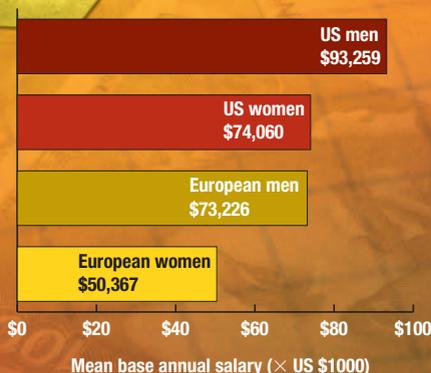
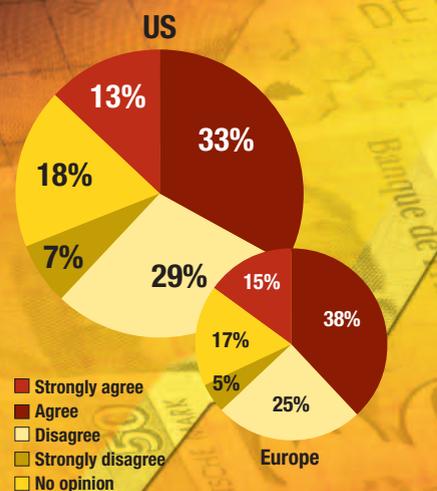


Figure 4: Mean base annual salary of US and European men and women.

Figure 6: Mean base annual salary according to US region.



For the first time, we asked participants to indicate their starting salaries. Overall, US employees reported that they had started working for their current employer 7 years ago at an average \$62,154. European respondents said they had started at their current employer 9.5 years ago at an average \$39,419. Interestingly, in the United States, pharmaceutical industry employees who have worked no more than five years at their current position have seen an increase of nearly \$10,000 during that time period (from a starting salary of \$74,410 to a current salary of \$84,068). For European respondents employed 5 years or less with their current employer, these values are a starting salary of \$51,842 and a current salary of \$59,979.

Salary by location. Employees working in Switzerland, Germany, and the United States reported the highest average annual salaries (see Figure 3). (Please note that low numbers of responses from some areas may skew the averages.) Within the United States, those employed in the northeastern region reported the highest annual salaries (see Figure 6).

Salary by sex. On average, US women working full time earn about 80% of what US men working full time earn (see Figure 4). As was the case last year, this value matches the overall 79.8% value reported by the US Department of Labor for 2003 for life-science occupations (Report 978, "Highlights of Women's Earnings of 2003," US Department of Labor Bureau of Labor Statistics, September 2004, <http://stats.bls.gov/cps/>). This gap of more than \$19,000

remains unchanged from previous surveys. Similarly, European women working full time earn about 31% less on average than their male colleagues working full time (a \$23,000 gap).

Salary by job function. The highest paying US jobs were in consulting, bulk pharmaceutical chemicals, and information science and technology (see Figure 5). In Europe, technology transfer earned

	US	Europe
Biopharmaceutics	\$81,483	\$66,670
Bulk pharmaceutical chemicals	\$102,384	\$80,480
Computer IS/IT	\$102,258	*
Consultant	\$109,683	\$74,319
Drug delivery	\$99,028	\$73,458
Drug metabolism	\$70,340	*
Drug stability	\$76,943	*
Education	\$73,731	\$46,970
Engineering/engineering management	\$89,819	\$70,117
Finished dosage-form manufacturing	\$96,102	\$73,573
Packaging	\$92,763	\$65,383
Pharma analytical development	\$75,019	\$45,039
Pharmaceutical development	\$96,741	\$69,818
Preformulation	\$83,900	\$65,000
Production management	\$98,191	\$69,932
Production R&D	\$78,068	\$86,667
Quality control/assurance	\$83,439	\$61,202
Regulatory compliance	\$91,120	\$52,227
Technology transfer	\$99,094	\$96,800
Validation	\$75,853	\$48,256

* Insufficient data

Figure 5: Mean base annual salary according to job function.

the highest paycheck, followed by production research and development.

Benefits. The most common employer-provided benefits include employer contributions toward employee pensions (and 401k plans) and health insurance (see Table III). Other benefits included life insurance and educational assistance. US employees received an annual average of 10 paid holidays and 17 paid vacation days (of which they reported taking only 13). By comparison, European respondents averaged 15 paid holidays and 27 paid vacation days (of which they took 25) during 2003.

Attitudes toward current employment

Survey participants indicated how strongly they agreed or disagreed with the following statements:

- I believe my work is fully valued by my employer.
- I believe my present job is secure.
- In my present job, I use my skills and training to the fullest extent.
- Given the opportunity, I would leave my present job.

Pie charts distributed throughout this article summarize the overall responses. Most US and European respondents feel secure in their jobs, agree that their em-

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"In my present job, I use my skills and training to the fullest extent."

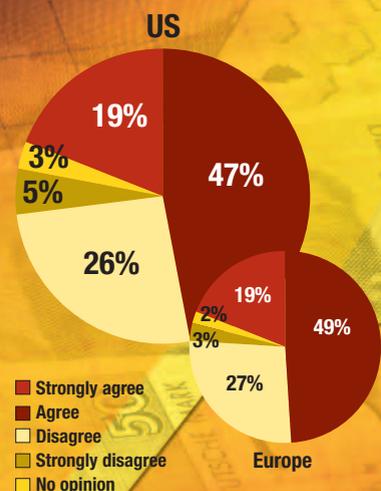


Table V: Percentage of respondents indicating the following skills and coursework are important when evaluating new employee candidates.

Coursework	US	Europe
Regulatory issues	59%	62%
Process validation	48%	68%
Sterile products	29%	35%
Isolation technology	17%	15%
Skills		
GMPs and GLPs	86%	89%
Chemistry	72%	68%
Ethics issues	60%	34%
Statistical process control	43%	45%
Biotechnology	39%	24%
Computer database management	39%	46%
Microbiology	28%	33%
Bioengineering	16%	14%

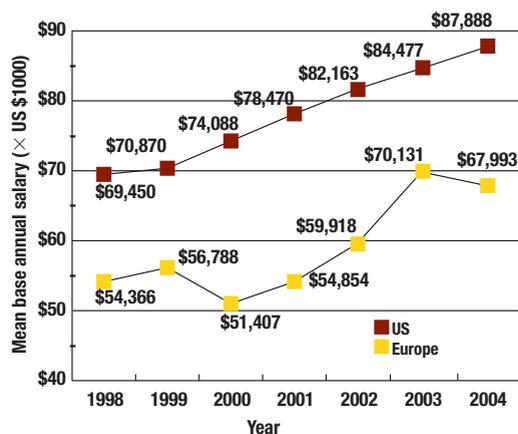


Figure 7: Mean base annual salary trend from 1998 to 2004.

ployer values their work, and believe that they use their skills to the fullest extent in their present jobs.

About two-thirds of respondents feel secure or very secure in their jobs. A review of the data since 1998 shows, however, that the proportion who feel very secure is down considerably from confidence peaks in 1999 and 2001 (see Figure 8).

With high salaries and an apparently steady job market, about half of the respondents would consider changing jobs; increasing income was the major motivator (see Table IV for a list of top factors).

Preferred employer. Although they might entertain the notion of changing jobs, most workers expect to stay right where they are during the next year. In the United States, 61% of respondents said it was unlikely or very unlikely they would change employment during the next 12 months, and 57% of European employees responded the same. Even if they were to change jobs, US and European private-industry employees said overwhelmingly that they would prefer to remain in the private sector (86% and 90%, respectively).

Evaluating employment candidates

The survey asked participants to rate the importance of various skills and educational backgrounds when evaluating new job candidates (see Table V). Knowledge of good manufacturing practices and good laboratory practices continues to be the most important factor when evaluating employment candidates. Employers also

emphasized knowledge of regulatory issues and chemistry skills. US and European respondents clearly differed in the importance they attach to new-hires' knowledge of biotechnology, process validation, and ethics. Emphasis on ethics in the US industry, for example, increased dramatically, with 60% of respondents indicating its importance, almost double last year's value of 34%.

Conclusion

Overall, the survey shows that employment in the pharmaceutical industry is stable. Industry employees in the United States reported an average 4% increase in their annual salaries. Employees in Europe reported salaries slightly lower (approximately 3%) than those reported last year. Women, in aggregate, still earn less than their male col-

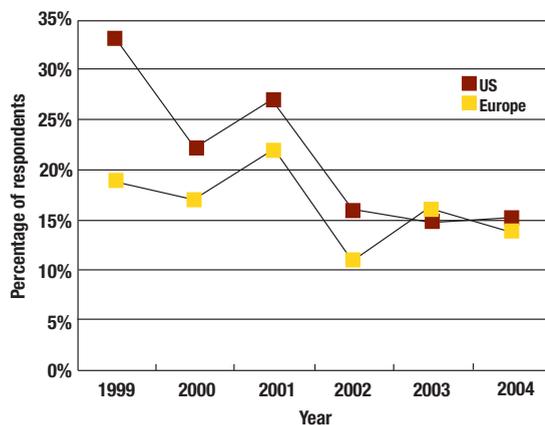


Figure 8: Industry trend: percentage of respondents that "strongly agree" their job is secure.

leagues. Emphasis on corporate productivity continues to increase, as pharmaceutical workers continue to pass up vacation time and work unpaid overtime. At the same time, compensation is substantial and increasing, and most employees feel valued and secure in jobs they intend to keep.

The editors of *Pharmaceutical Technology* and *Pharmaceutical Technology Europe* sincerely thank all survey participants. **PT**

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