



An MRINetwork® Communication

ADVANCES IN BIOTECHNOLOGY AND I.T. TRANSFORM PHARMACEUTICAL INDUSTRY

- » The pharmaceutical and medicine manufacturing industry consists of about 2,500 places of employment, located throughout the country.
- » These include establishments that make pharmaceutical preparations or finished drugs; biological products, such as serums and vaccines; bulk chemicals and botanicals used in making finished drugs; and diagnostic substances such as pregnancy and blood glucose kits.
- » Within biotechnology, scientists have learned a great deal about human genes, but the real work — translating that knowledge into viable new drugs — has only recently begun.

EARNINGS IN THE PHARMACEUTICAL AND MEDICINE MANUFACTURING INDUSTRY ARE HIGHER THAN THE AVERAGE FOR ALL MANUFACTURING INDUSTRIES.

MEDIAN HOURLY EARNINGS OF THE LARGEST OCCUPATIONS IN PHARMACEUTICAL AND MEDICINE MANUFACTURING VS. ALL INDUSTRIES:

- Medical Scientists \$36.92 vs. \$10.67**
- Sales Reps \$30.69 vs. \$26.95**
- Chemists \$27.43 vs. \$29.48**
- Business Operations Specialists \$26.76 vs. \$15.97**
- Line Managers & Supervisors \$25.46 vs. \$13.66**
- Biological Techs \$18.62 vs. 13.51**

DID YOU KNOW?

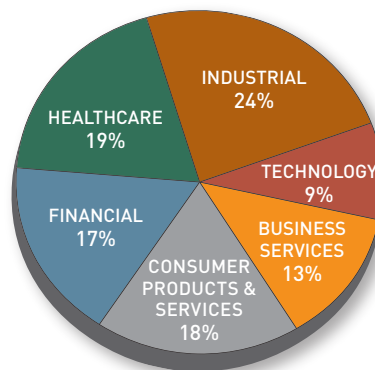
- » The pharmaceutical services industry ranks among the fastest growing manufacturing industries.
- » Pharmaceutical and medicine manufacturing provides about 291,000 wage and salary jobs.
- » More than 6 out of 10 workers have a bachelor's, master's, professional, or Ph.D. degree—twice the proportion for all industries combined.
- » Pharmaceutical and medicine manufacturing provides about 291,000 wage and salary jobs. Fifty-nine percent of all jobs are in large establishments employing over 500 workers.
- » Earnings are much higher than in other manufacturing industries.

Planning the Future of Your Workforce

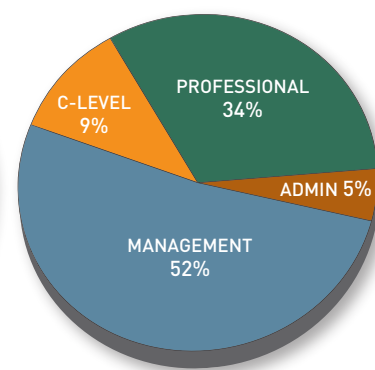
Make sure that your company is ready to meet the challenges of tomorrow:

- Build pools of prospects by job function and contact them as positions become available.
- Develop formal career plans for employees based on what motivates them to grow, excel and contribute.
- Select people based on broader criteria than industry experience, technical competency, personality and intuition.
- Groom managers for future senior-level roles – there will be few qualified mid-managers available for promotion.
- Work toward developing a workforce consisting of full-time employees supplemented with flexible contractors and consultants.

MRINETWORK 2007 PLACEMENTS BY INDUSTRY



MRINETWORK PLACEMENTS BY LEVEL



WHERE ARE THE JOBS?

Most jobs are in California, Illinois, Texas, Indiana, New Jersey, New York, North Carolina, and Pennsylvania.



EMPLOYMENT OUTLOOK

- » The number of jobs in pharmaceutical and medicine manufacturing is expected to increase by about 26% over the 2004-14 period, compared with 14% for all industries combined.
- » Strong demand is anticipated for professional occupations—especially for life and physical scientists engaged in R&D.
- » Strong demand is projected for production occupations.
- » Employment of office and administrative support workers is expected to grow more slowly than the industry as a whole, as companies streamline operations and increasingly rely on computers.
- » In an effort to curb research and technological development costs, many companies have merged. As companies consolidate and grow in size, so do their marketing and sales departments.
- » Sales forces at pharmaceutical and medicine manufacturing firms should continue to experience strong growth as companies promote and sell their products to doctors at hospitals and private clinics.
- » The pharmaceutical and medicine manufacturing industry is not highly sensitive to changes in economic conditions. Even during periods of high unemployment, work is likely to be relatively stable in this industry.

EMPLOYMENT OF WORKERS IN PHARMACEUTICAL AND MEDICINE MANUFACTURING BY OCCUPATION AND PROJECTED CHANGE, 2004-14 (EMPLOYMENT IN THOUSANDS)

OCCUPATION	EMPLOYMENT 2004		PERCENT CHANGE 2004-2014
	NUMBER	%	
TOTAL – ALL OCCUPATIONS	291	100.0	26.1
MANAGEMENT, BUSINESS & FINANCIAL	53	18.2	31.7
TOP EXECUTIVES	4	1.5	27.8
MARKETING & SALES MANAGERS	4	1.3	34.1
INDUSTRIAL PRODUCTION MANAGERS	4	1.3	28.9
NATURAL SCIENCES MANAGERS	5	1.6	28.9
MANAGERS – ALL OTHER	5	1.6	28.9
BUSINESS OPERATION SPECIALISTS – ALL OTHER	7	2.3	41.8
ACCOUNTANTS & AUDITORS	3	1.0	28.9
MANAGEMENT, BUSINESS & FINANCIAL	85	29.3	31.7
COMPUTER SYSTEMS ANALYSTS	4	1.3	41.7
INDUSTRIAL ENGINEERS, INCLUDING HEALTH & SAFETY	3	1.0	28.4
INDUSTRIAL ENGINEERING TECHNICIANS	3	0.9	29.1
BIOCHEMISTS AND BIOPHYSICISTS	4	1.2	28.9
MICROBIOLOGISTS	3	1.0	28.9
MEDICAL SCIENTISTS (NOT EPIDEMIOLOGISTS)	10	3.5	41.8
CHEMISTS	14	5.0	23.6
BIOLOGICAL TECHNICIANS	8	2.8	28.2
CHEMICAL TECHNICIANS	5	1.6	28.9

TRENDS AFFECTING EMPLOYMENT

- » Many new drugs will be developed in the coming years as advances in technology result in a more efficient drug discovery process and allow scientists to test millions of drug candidates more rapidly.
- » There is a direct relationship between gene discovery and identification of new drugs, which leads to new diagnostics for the early detection of disease.
- » New genetic technology will result in vaccines to prevent or treat diseases that have eluded traditional vaccines, such as AIDS, malaria and tuberculosis.
- » The average time for the FDA to review “nonpriority” drug applications is longer, delaying the time a drug comes to market.
- » Drug producers will place more emphasis on cost effectiveness, due to concerns about the cost of healthcare, including prescription drugs.
- » Growing competition from generic drugs is exerting cost pressures on many firms as brand-name drug patents expire.