

Occupational Profile: Biological Technicians

GENERAL OCCUPATION DESCRIPTION

Assist biological and medical scientists in laboratories. Set up, operate, and maintain laboratory instruments and equipment, monitor experiments, make observations, and calculate and record results. May analyze organic substances, such as blood, food, and drugs.

Source: O*NET online. <http://online.onetcenter.org>

REQUIRED EDUCATION

As shown in the table to right, over 78% of interviewed employers reportedly require a four-year degree or more.

Required Education	
Percent of Employers Requiring HS Diploma or Less	14.32%
Percent of Employers Requiring 2-Year Degree or Equiv	6.81%
Percent of Employers Requiring BS Diploma or More	78.88%

Source: Bureau of Labor Statistics

WAGES

Biological Technician is considered a medium-wage occupation, with moderate possibility for wage advancement with experience. Employers in the State of Arizona generally pay lower as compared with Greater Phoenix or the overall United States.

Location	Pay Period	2005				
		10%	25%	Median	75%	90%
United States	Hourly	\$10.81	\$13.14	\$16.47	\$20.94	\$26.21
	Yearly	\$22,500	\$27,300	\$34,300	\$43,600	\$54,500
Greater Phoenix	Hourly	\$10.03	\$12.04	\$16.36	\$20.99	\$24.64
	Yearly	\$20,872	\$25,055	\$34,045	\$43,680	\$51,276
Arizona	Hourly	\$9.55	\$11.11	\$13.15	\$16.95	\$21.60
	Yearly	\$19,900	\$23,100	\$27,400	\$35,300	\$44,900

Source: Bureau of Labor Statistics

As shown in the table to right, a national comparison of wages for this occupation reveals Arizona ranks 39th in terms of median wages.

RANK	Location	Median Wage 2005	
		Hourly	Annual
1	Massachusetts	\$20.37	\$42,400
2	New Jersey	\$19.89	\$41,400
3	Connecticut	\$19.11	\$39,700
4	California	\$18.84	\$39,200
5	District of Columbia	\$18.70	\$38,900
39	ARIZONA	\$13.15	\$27,400

Source: Bureau of Labor Statistics

The table below provides a comparison of wages by sub-industry for the Greater Phoenix region (2005). As shown, information was only available for one employment sector, "Public Administration."

Wages by Industry: Greater Phoenix MSA (2005)	Rounded Employment	Mean Wage	10th Percentile Wage	25th Percentile Wage	Median Wage	75th Percentile Wage	90th Percentile Wage
Public Administration	70	\$16.63	\$10.03	\$12.04	\$16.36	\$20.99	\$24.64

EMPLOYMENT

As shown in the table below, this occupation has a projected 22% growth rate over 10 years (between 2003 and 2013) for the Greater Phoenix region. There are an average projected 4 job openings each year, comprised of 2 new jobs and 2 positions vacated by individuals leaving the field (due to retirement, death, career changes, or other reasons).

	10-YEAR CHANGE			AVERAGE ANNUAL		
	Employment		Percent Change	Job Openings	Growth	Separations
	2004	2014				
United States						
Biological technicians	64,400	75,500	17%	2,200	n/a	n/a
Arizona						
Biological technicians	260	300	16%	10	n/a	n/a
Greater Phoenix						
Biological technicians	95	116	22%	4	2	2

Source: Bureau of Labor Statistics

*Job Openings refers to the average annual job openings due to growth and net replacement.

Source: Bureau of Labor Statistics

**N/A is displayed in cases where data is not available or cannot be published because of federal data privacy standards.

Comparison of employment projections for top five regions for Biological Technician

As shown in the table to right, a national comparison reveals the State of Arizona ranks 12th in terms of projected 10-year growth for this occupation (16%).

RANK	Location	Employment		Percent Change
		2004	2014	
1	Nevada	100	130	34%
1	Utah	1,360	1,820	34%
2	Colorado	1,640	2,150	31%
3	Alabama	450	570	29%
4	North Carolina	3,030	3,870	28%
5	Montana	280	360	27%
12	ARIZONA	260	300	16%

Source: Bureau of Labor Statistics

Employment by Industry

The table below shows the industries that most commonly employ Biological Technician, and the proportion of employment accounted for at the national level. As shown, “Research and development in the physical, engineering, and life sciences” is the largest employer for this occupation (22.7%).

Percent of Employment Nationally by Industry	
Percent	Industry
22.7%	Research and development in the physical, engineering, and life sciences
18.6%	Federal Government, excluding Postal Service
12.5%	Pharmaceutical and medicine manufacturing
12.5%	State government educational services
4.7%	State government, excluding education and hospitals
3.6%	General medical and surgical hospitals, private
3.1%	Testing laboratories

Source: Bureau of Labor Statistics

Geo-Location Overlay of Employers with 10 or More Employees that Potentially Employ Occupation (n = 121)

