

Occupational Profile: Microbiologist

GENERAL OCCUPATION DESCRIPTION

Investigate the growth, structure, development, and other characteristics of microscopic organisms, such as bacteria, algae, or fungi. Include medical Microbiologist who study the relationship between organisms and disease or the effects of antibiotics on microorganisms.

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

REQUIRED EDUCATION

As shown in the table to right, over 96% of interviewed employers reportedly require a four-year degree or more.

Required Education	
Percent of Employers Requiring HS Diploma or Less	0%
Percent of Employers Requiring 2-Year Degree or Equiv	3.56%
Percent of Employers Requiring BS Diploma or More	96.44%

Source: Bureau of Labor Statistics

WAGES

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

Location	Pay Period	2005				
		10%	25%	Median	75%	90%
United States	Hourly	\$16.57	\$20.64	\$27.34	\$37.63	\$50.24
	Yearly	\$34,500	\$42,900	\$56,900	\$78,300	\$104,500
Greater Phoenix	Hourly	\$19.23	\$21.79	\$24.46	\$26.80	\$28.35
	Yearly	\$40,018	\$45,345	\$50,901	\$55,771	\$58,996
Arizona	Hourly	\$15.71	\$20.61	\$25.16	\$28.14	\$32.53
	Yearly	\$32,700	\$42,900	\$52,300	\$58,500	\$67,700

Source: Bureau of Labor Statistics

As shown in the table to right, a national comparison of wages for this occupation reveals Arizona ranks 19th in terms of median wages.

RANK	Location	Median Wage 2005	
		Hourly	Annual
1	Maryland	\$40.22	\$83,700
2	District of Columbia	\$37.92	\$78,900
3	Georgia	\$32.60	\$67,800
4	New Hampshire	\$32.44	\$67,500
5	California	\$31.34	\$65,200
19	ARIZONA	\$25.16	\$52,300

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, "Hospitals."

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
Hospitals	10	\$24.17	\$19.23	\$21.79	\$24.46	\$26.80	\$28.35

EMPLOYMENT

As shown in the table below, this occupation has a projected 20% 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						
Microbiologists	15,100	17,700	17%	730	n/a	n/a
Arizona						
Microbiologists	80	100	24%	10	n/a	n/a
Greater Phoenix						
Microbiologists	74	89	20%	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 Microbiologist

As shown in the table to right, a national comparison reveals the State of Arizona ranks 8th in terms of projected 10-year growth for this occupation (24%).

RANK	Location	Employment		Percent Change
		2004	2014	
1	Utah	180	260	42%
2	Nevada	50	70	40%
3	Montana	90	130	34%
4	Colorado	320	420	33%
5	Idaho	110	140	32%
8	ARIZONA	80	100	24%

Source: Bureau of Labor Statistics

Employment by Industry

The table below shows the industries that most commonly employ Microbiologist, and the proportion of employment accounted for at the national level. As shown, "Pharmaceutical and medicine manufacturing" is the largest employer for this occupation (20.2%).

Percent of Employment Nationally by Industry	
Percent	Industry
20.2%	Pharmaceutical and medicine manufacturing
19.9%	Research and development in the physical, engineering, and life sciences
15.8%	Federal Government, excluding Postal Service
8.8%	State government, excluding education and hospitals
7.3%	State government educational services
4.1%	General medical and surgical hospitals, private
3.8%	Testing laboratories

Source: Bureau of Labor Statistics

Geo-Location Overlay of Employers with 10 or More Employees that Potentially Employ Occupation (n = 90)

