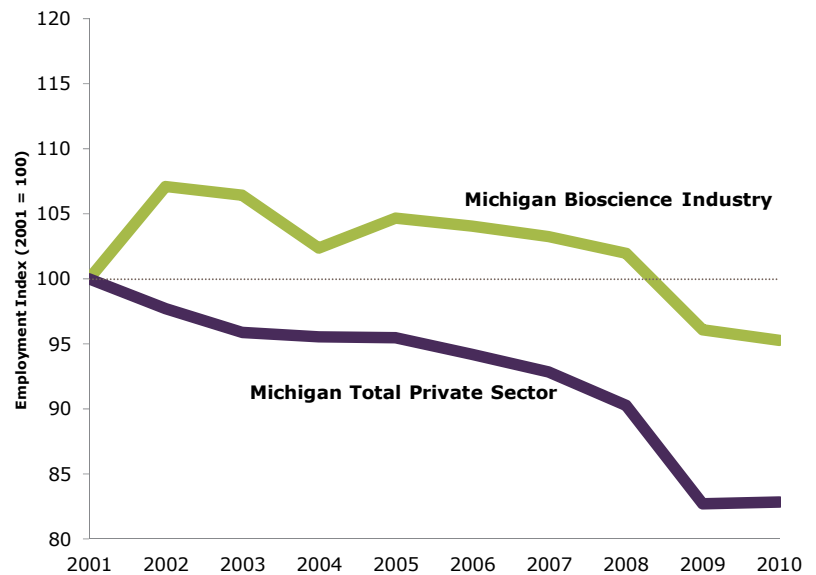




**MICHIGAN** • The Michigan bioscience industry employs more than 39,000 across 1,595 individual business establishments. Its largest major subsector is bioscience-related distribution with more than 11,000 jobs in 2010 and growth of 13 percent overall since 2001, well above the national growth rate. Two other subsectors—medical devices and equipment and agricultural feedstock and chemicals—have each added jobs in Michigan in recent years despite employment declines at the national level.



**Bioscience Employment Tier**



**Summary of State Performance in Industry Related Metrics**

Metrics	Michigan	United States	Rank*
<b>Bioscience Industry, 2010</b>			
Total Bioscience Industry Employment	39,282	1,605,533	II
Bioscience Industry Location Quotient	0.82	n/a	III
Biosciences Industry Establishments	1,595	70,006	II

\*State ranking figures for bioscience industry employment metrics are calculated as quintiles (I=Top Quintile; V=Bottom Quintile).

## Bioscience Industry Base, 2010

### Michigan Highlights:

INDUSTRY SUBSECTOR	Michigan			United States		
	2010	2001-10 Change	2007-10 Change	2010	2001-10 Change	2007-10 Change
<b>AGRICULTURAL FEEDSTOCK &amp; CHEMICALS</b>						
Establishments	28	-6.0%	54.6%	1,760	2.2%	4.5%
Employment	802	96.6%	13.0%	72,988	-5.9%	-5.5%
Location Quotient	0.37			n/a		
Direct-Effect Employment Multiplier	4.4			5.6		
Total Employment Impact	3,492			405,197		
Average Annual Wage (constant 2010 dollars)	\$57,069	-12.2%	7.9%	\$70,869	8.7%	1.5%
<b>DRUGS &amp; PHARMACEUTICALS</b>						
Establishments	60	5.3%	-9.1%	2,908	11.3%	6.5%
Employment	7,305	-34.8%	-11.5%	296,759	-3.1%	-7.0%
Location Quotient	0.83			n/a		
Direct-Effect Employment Multiplier	4.9			5.3		
Total Employment Impact	35,890			1,464,492		
Average Annual Wage (constant 2010 dollars)	\$81,271	-0.4%	-5.8%	\$99,486	15.3%	1.1%
<b>MEDICAL DEVICES &amp; EQUIPMENT</b>						
Establishments	211	-1.4%	3.9%	6,957	11.7%	7.7%
Employment	10,328	1.6%	8.1%	343,468	-0.3%	-0.8%
Location Quotient	1.01			n/a		
Direct-Effect Employment Multiplier	2.8			2.9		
Total Employment Impact	29,024			956,767		
Average Annual Wage (constant 2010 dollars)	\$63,629	16.9%	2.2%	\$72,301	13.9%	1.0%
<b>RESEARCH, TESTING, &amp; MEDICAL LABORATORIES</b>						
Establishments	408	50.3%	20.1%	22,212	48.9%	20.1%
Employment	9,802	1.3%	-21.7%	451,923	23.8%	6.1%
Location Quotient	0.73			n/a		
Direct-Effect Employment Multiplier	3.0			2.6		
Total Employment Impact	29,047			1,178,741		
Average Annual Wage (constant 2010 dollars)	\$84,817	-5.7%	-13.4%	\$84,065	12.3%	1.5%
<b>BIOSCIENCE-RELATED DISTRIBUTION</b>						
Establishments	887	-3.5%	-7.5%	36,170	-1.1%	-0.3%
Employment	11,045	13.0%	-4.2%	440,394	6.0%	-4.2%
Location Quotient	0.84			n/a		
Direct-Effect Employment Multiplier	2.5			2.4		
Total Employment Impact Multiplier	27,204			1,046,594		
Average Annual Wage (constant 2010 dollars)	\$81,151	13.2%	-2.7%	\$80,049	12.2%	-0.4%
<b>TOTAL BIOSCIENCE INDUSTRY</b>						
Establishments	1,595	6.9%	0.5%	70,006	12.8%	6.7%
Employment	39,282	-4.7%	-7.7%	1,605,533	6.4%	-1.4%
Location Quotient	0.82			n/a		
Direct-Effect Employment Multiplier	3.2			3.2		
Total Employment Impact	124,657			5,051,791		
Average Annual Wage (constant 2010 dollars)	\$76,989	3.5%	-7.2%	\$82,697	13.1%	0.6%
<b>TOTAL PRIVATE SECTOR</b>						
Establishments	240,789	-4.6%	-3.5%	8,752,494	12.5%	0.1%
Employment	3,178,935	-17.1%	-10.8%	106,863,403	-2.9%	-6.9%
Average Annual Wage (constant 2010 dollars)	\$43,632	-5.6%	-3.8%	\$46,317	4.4%	-0.4%

**Note:** U.S. employment metrics include Puerto Rico. Estimates of total employment impacts do not include Puerto Rico.

**Employment, Establishment, and Wage Data:** U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW); enhanced file from IMPLAN.

**Employment Multipliers:** U.S. Bureau of Economic Analysis RIMS II Employment Multipliers, 2008 (most current available).