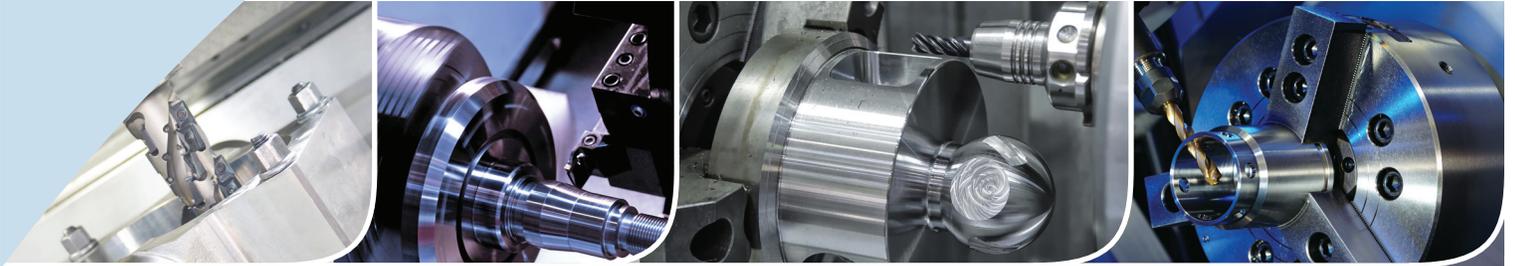




**GARDNER  
RESEARCH**

2015 CAPITAL SPENDING SURVEY



# TOOLING & WORKHOLDING Executive Summary



# \$4.882 Billion

According to the 2015 Capital Spending Survey by Gardner Research, U.S. metalworking facilities will spend \$4.882 billion on tooling and workholding, an increase of almost 7% compared to our latest estimate for 2014.

## METALWORKING BUSINESS INDEX LEADS TOOLING AND WORKHOLDING CONSUMPTION

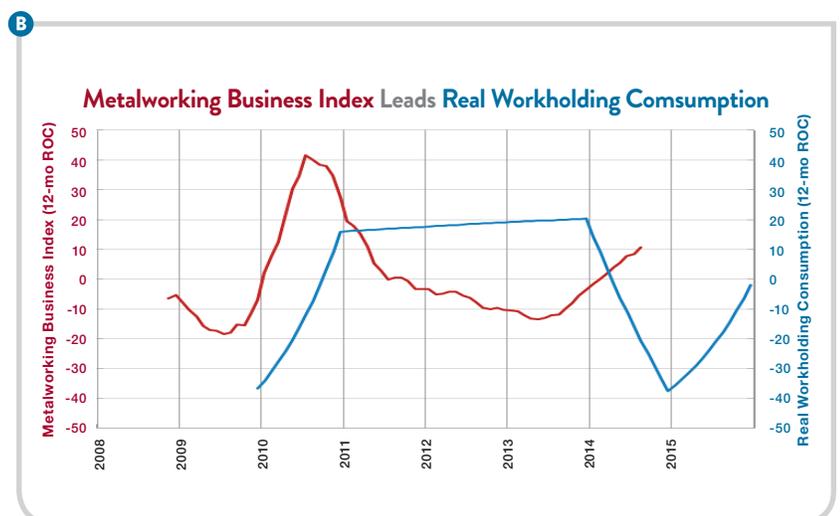
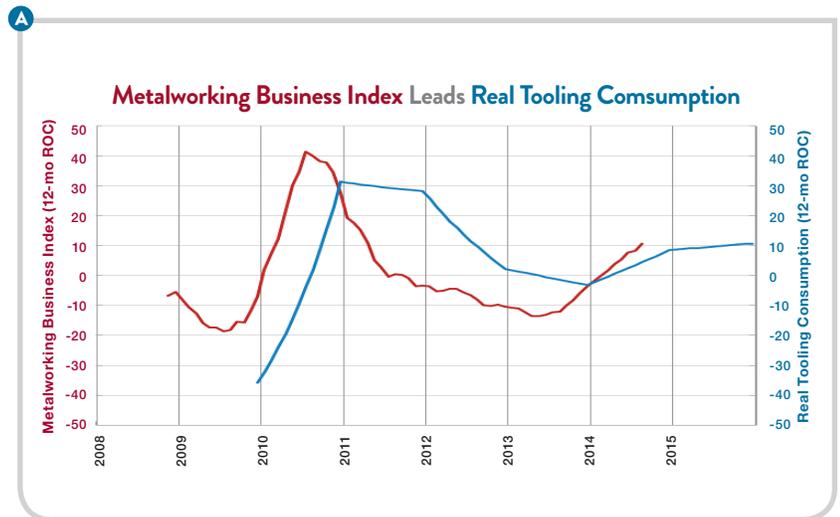
There are a number of important leading indicators of capital equipment spending: money supply, capacity utilization, and industrial production. These same indicators can be used to forecast tooling and workholding spending. However, tooling and workholding act more like consumables, even though they are capital equipment. Therefore, current business conditions play an important role in forecasting the consumption of tooling and workholding. The metalworking industry has been improving since the summer of 2013 and growing at an accelerating rate for most of 2014. Therefore, there should be significant improvement in tooling and workholding consumption in 2015.

Tooling spending is forecast to increase just over 10% in 2015 after increasing almost 10% in 2014. The trend in tooling spending has closely followed the trend in business conditions in the metalworking industry.

SEE CHART **A**

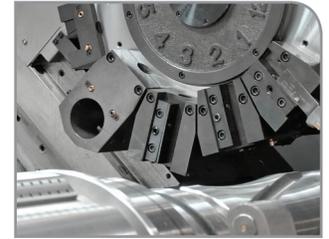
While tooling is projected to increase, workholding spending is forecast to contract slightly in 2015. This is likely because workholding spending continued to grow at a significant rate in 2012 even though the industry was contracting. This relative over spending is resulting in lower spending in 2014 and 2015 than might be expected based on business conditions.

SEE CHART **B**



## Top Industries

Spending by Industry	2009	2014	2015
Metalcutting Job Shops	683.1	1,453.9	1,747.5
Other Manufacturing	47.4	207.2	604.4
Machinery/Equipment Manufacturing	424.2	378.4	554.3
Industrial Motors/Hydraulic/Mechanical Components	82.6	142.1	318.8
Medical	35.1	210.0	199.7
Non-Manufacturing	5.8	161.9	196.8
Electronics/Computers/Telecommunications	186.3	228.3	191.8
Custom Processors	135.7	34.6	181.8
Aerospace	162.0	281.4	181.7
Off-Road/Construction Machinery	40.6	110.0	150.8
Forming/Fabricating (non-auto)	176.5	285.5	144.7
Automotive	382.5	418.4	126.0
Primary Metals	46.9	100.7	120.3
Oil/Gas Field/Mining Machinery	71.2	103.7	52.5
Pumps/Valves/Plumbing Products	223.6	292.1	50.8
HVAC	16.6	24.7	26.5
Plastic/Rubber Products	18.3	16.2	16.3
Hardware	13.2	21.6	11.0
Petrochemical Processors	12.6	13.4	2.6
Power Generation	64.4	13.0	2.6
Military	49.7	14.8	0.0
Printing	1.9	22.1	0.0





## Tooling Spending (\$Millions)

	2009	2014	2015
<b>Total Tooling</b>	<b>1,794.1</b>	<b>3,238.4</b>	<b>3,584.1</b>
<b>Milling Tools</b>	<b>279.1</b>	<b>1,049.9</b>	<b>761.5</b>
Milling, High-Speed Steel Cutters	49.6	287.2	122.1
Milling, Indexable Cutters	95.6	191.3	167.0
Milling, Other Cutters	4.3	131.6	124.6
Milling, Solid Carbide Cutters	129.6	439.8	347.8
<b>Drills</b>	<b>229.6</b>	<b>572.0</b>	<b>697.7</b>
Drills, High-Speed Steel	76.6	206.3	159.9
Drills, Other	3.6	54.8	134.0
Drills, Solid Carbide	104.5	172.8	273.1
Drills, Spades	13.5	43.9	28.1
Drills, Indexable	31.4	94.2	102.6
<b>Stationary Tool Inserts</b>	<b>373.1</b>	<b>267.4</b>	<b>495.2</b>
Stationary Tool Inserts, Carbide	292.3	229.7	420.2
Stationary Tool Inserts, CBN or Diamond Film	22.1	14.2	38.1
Stationary Tool Inserts, Ceramic	39.7	12.0	20.0
Stationary Tool Inserts, Cermet	9.0	7.8	14.4
Stationary Tool Inserts, Other	10.0	3.7	2.5
<b>Turning Tools</b>	<b>132.6</b>	<b>205.9</b>	<b>336.3</b>
Boring Tools	38.6	89.9	119.7
Form/Special Tools	33.1	50.2	128.1
OD/Facing Tools	60.9	65.8	88.5
<b>Rotary Tool Inserts</b>	<b>329.9</b>	<b>268.6</b>	<b>320.9</b>
Rotary Tool Inserts, Carbide	276.4	188.6	231.9
Rotary Tool Inserts, CBN or Diamond Film	10.5	38.6	21.0
Rotary Tool Inserts, Ceramic	26.4	18.9	15.0
Rotary Tool Inserts, Cermet	6.4	5.3	20.6
Rotary Tool Inserts, Other	10.2	17.2	32.4
<b>Grinding Wheels and Other Abrasives</b>	<b>49.1</b>	<b>171.4</b>	<b>168.0</b>
<b>Toolholders</b>	<b>152.2</b>	<b>240.4</b>	<b>151.3</b>
Toolholders, HSK	15.5	68.6	38.5
Other Milling Toolholders	17.4	86.7	44.0
Toolholders, Traditional V-Flange	119.3	85.1	68.8
<b>Tool Presetters</b>	<b>0.0</b>	<b>33.0</b>	<b>52.5</b>
<b>Other Tooling</b>	<b>248.5</b>	<b>429.8</b>	<b>600.7</b>
Boring Tools	66.7	79.4	89.5
Broaches	1.4	6.3	18.8
Gearcutters	11.3	14.7	18.3
Other Cutting Tools	30.8	69.6	54.3
Saw Blades	46.5	135.0	135.2
Taps	91.8	124.8	284.6



## Workholding Spending (\$Millions)

	2009	2014	2015
<b>Total Workholding</b>	<b>1,092.1</b>	<b>1,325.1</b>	<b>1,297.5</b>
<b>Milling/Drilling Workholding</b>	<b>624.5</b>	<b>819.7</b>	<b>910.3</b>
Automated Systems and Transfer Lines	58.9	144.9	247.0
Dedicated Fixtures	264.1	315.0	311.3
Flexible Fixtures	121.0	98.9	82.5
Indexing Devices	79.8	53.5	58.0
Other Milling/Drilling Workholding	50.2	111.1	115.9
Pallet and Pallet-Handling Devices	50.5	96.3	95.6
<b>Turning Workholding</b>	<b>310.7</b>	<b>290.2</b>	<b>220.0</b>
Bar Feeders	37.6	131.2	72.9
Chucks	110.2	73.5	75.2
Load/Unload Devices	0.0	39.7	14.9
Other Turning Workholding	162.9	45.8	57.0
<b>Grinding Workholding</b>	<b>80.9</b>	<b>58.5</b>	<b>40.1</b>
Grinding, Load/Unload Devices	27.3	20.8	14.4
Grinding, Other	37.9	31.5	11.6
Grinding, Rotating Chucks	15.7	6.2	14.1
<b>EDM Workholding</b>	<b>12.9</b>	<b>32.0</b>	<b>23.3</b>
<b>Other Workholding</b>	<b>63.1</b>	<b>124.7</b>	<b>103.8</b>





## Growth Areas

### REGION

More than 60% of projected spending will come from just two regions: North Central–East and North Central–West. All other regions will see a decline from 2014.

Spending by Region	2009	2014	2015
North Central - East	606.6	1,136.6	1,702.3
North Central - West	647.3	926.7	1,352.1
Northeast	598.3	967.3	778.3
West	304.8	598.6	472.8
Southeast	430.9	500.8	291.4
South Central	298.3	433.5	284.7
All (+)	2,886.2	4,563.5	4,881.6

#### East North Central

IN, KY, MI, OH, TN

#### West North Central

IA, IL, KS, MN, MO, ND, NE, SD, WI

#### Northeast

CT, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VT, WV

#### Southeast

AL, DC, FL, GA, MS, NC, SC, VA

#### South Central

AR, LA, NM, OK, TX

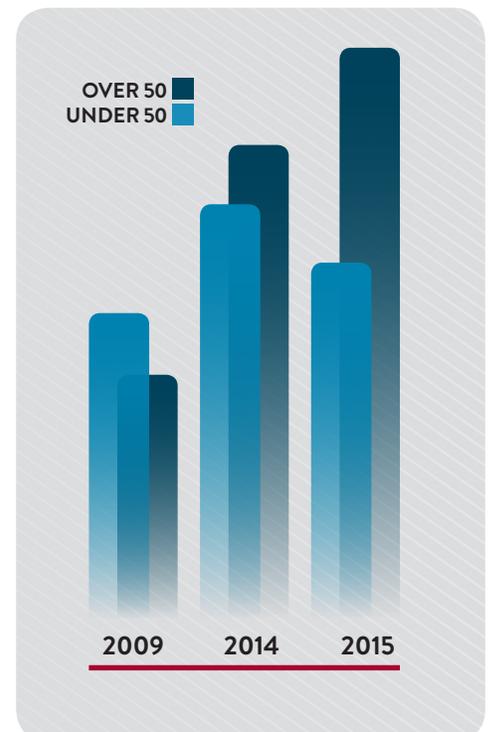
#### West

AK, AZ, CA, CO, HI, ID, NV, OR, UT, WA, WY

### PLANT SIZE

According to the Gardner Business Index, plants with more than 50 employees have been expanding in 2014 while smaller facilities have been contracting. Hence, spending is up in larger facilities while down in smaller facilities.

Spending by Plant Size	2009	2014	2015
100-249	600.2	846.8	1,221.6
250+	646.0	1,499.2	1,192.9
50-99	335.1	523.7	1,000.5
1-19	541.4	896.1	741.4
20-49	763.5	797.7	725.2
All	2,886.2	4,563.5	4,881.6



# Tools for Manufacturing Forecasting and Analysis

## GARDNER RESEARCH WEBSITE

Gardner Research is the preeminent source of economic information for anyone concerned with durable goods manufacturing. Here you'll find a variety of tools for forecasting and trend analysis, precisely focused for the people who sell and consume capital equipment. Besides Gardner's well known reports, this site includes interactive tools to dig deeply into the data that matter most to you and your business.

### Manufacturing Forecaster

View up-to-date data on the main economic indicators that impact capital equipment spending in the major durable goods manufacturing industries in countries around the world.

### Gardner Business Index

Much like the Purchasing Managers Index, the Gardner Business Index monitors the current health of major manufacturing sectors, sortable by region of the US and by plant size.

### Capital Spending Survey

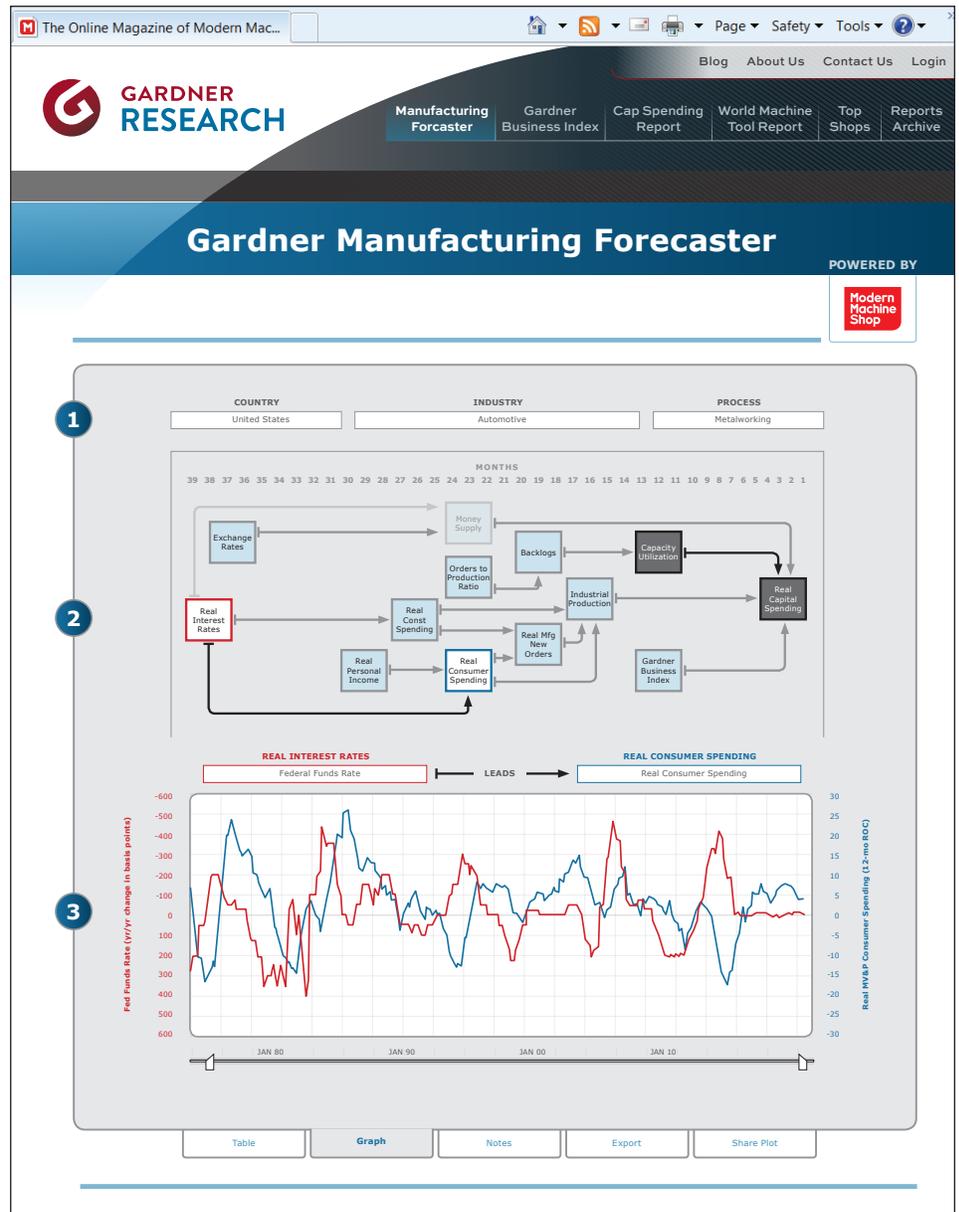
Industry's most comprehensive annual study detailing future spending on capital equipment, tooling, and software.

### World Machine Tool Survey

How the major industrialized countries of the world rank in terms of production, trade and consumption of machine tools.

### Top Shops Benchmarking Survey

A comprehensive benchmarking program for machine shops of all types and sizes.



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## 2015 CAPITAL SPENDING SURVEY

### Methodology

Gardner Research's 2015 Capital Spending Survey for tooling and workholding was sent to 10,000 subscribers of *Modern Machine Shop*, *Production Machining*, *Moldmaking Technology*, and *Automotive Design & Production* magazines. The survey was conducted in the month of August. Respondents were asked to answer detailed questions about their budgeted spending on tooling and workholding equipment. The responses are projected across the metalworking industry based on plant size. The survey has an error factor of +/- \$1,000,000 at a 95% confidence level for the total spending projection.

### Other Gardner Research

Capital Spending Survey for Machine Tools  
World Machine Tool Survey  
Capital Spending Survey for Plastics Processing  
Media Usage in Manufacturing Facilities  
Gardner Business Index  
Top Shops Benchmarking Survey

View these and other Gardner Research reports at [gardnerweb.com](http://gardnerweb.com)

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