

# Ohio's Gross State Product

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## **What is Gross State Product?**

Gross state product (GSP) is the final market value of goods and services produced by labor and property located in a state. It is the state counterpart to the nation's gross domestic product (GDP).

The U.S. Bureau of Economic Analysis estimates GSP by summing state-level estimates for 63 industries. In concept, an industry's contribution to GSP is equal to sales **minus** goods and services purchased from other U.S. industries or imported from other countries.

GSP is approximately equal to the monetary returns to labor in the form of compensation (primarily, wages and salaries) and returns to property (e.g., corporate profits and proprietor's income).

## **Why study GSP?**

GSP is the most comprehensive measure of a state's economy. Estimates for each of the 63 industries can be compared to the state total to determine an industry's contribution to the state economy.

Estimates— based on a uniform methodology— can be used to compare one state with another or a state to the nation.

GSP estimates are one of the few economic time series with an alternative inflation-adjusted series. This inflation-adjustment measure can be used to study changes in the volume of output over time.

## **What years are available?**

In June 2002, the U.S. Bureau of Economic Analysis released GSP estimates for 2000 and revised estimates for 1998 and 1999. Estimates are now available for each year from 1977 through 2000. This report covers the ten years from 1991 to 2000.

## **What industries are available?**

Estimates are available for 63 industries and several summary groupings— all 1-digit and many two-digit industries based on the Standard Industrial Classification (SIC) code system.

For the first time, this report contains estimates for detailed— selected 3- and 4-digit— industries based data purchased from MIG, Inc.

GSP estimates based on the new North American Industrial Classification System (NAICS) will be published beginning in 2004 and will cover the period from 2000 – 2002.

## **How to access data**

Summary data and an overview of broad national and regional trends are available at:  
<<http://www.bea.gov/bea/pub/0602cont.htm>>

The full data set can be accessed at:  
<<http://www.bea.gov/bea/regional/gsp/>>

## Growth Trends

- Ohio's GSP rose from \$236 billion in 1991 to \$373 billion in 2000. The Office of Strategic Research estimates that Ohio's GSP for 2001 was \$386 billion.
- Ohio's GSP increased 33.7 percent from 1991 to 2000, after adjusting for inflation. U.S. GSP increased 40.8 percent during the same ten-year period.
- The higher national GSP growth rate can be attributed to a higher population growth rate. From 1991 to 2000, the U.S. population grew 11.5 percent compared to 3.8 percent for Ohio.
- On a per capita basis— which removes the advantage of faster population growth, Ohio's GSP grew 28.8 percent. This was 3.5 percentage points higher than the national rate of 26.3 percent.
- However, throughout the nineties, U.S. per capita GSP remained higher than Ohio per capita GSP. For 2000, the Ohio estimate was \$32,803 compared to the U.S. figure of \$35,239.

# Ohio's Gross State Product: 1991 - 2001

(in Billions of Current Dollars)



Source: U.S. Bureau of Economic Analysis. \* - Estimated by the Office of Strategic Research.

## Ohio's Position in the World and U.S. Economies

- Ohio's GSP was \$373 billion in 2000— 3.7 percent of the nation's GSP and seventh largest among the states. If Ohio were a separate country, its total economic output in 2000 would have ranked 23<sup>rd</sup> in the world— just behind Taiwan and ahead of South Africa (The World Factbook, 2002).
- Ohio ranks third among the 50 states in manufacturing GSP— on the basis of its strength in durable goods. Ohio accounts for 5.7 percent of the nation's manufacturing output and 6.5 percent of U.S. durable goods production. (California with its \$1.3 trillion economy is first in both categories.)
- Ohio leads the nation in the production of primary metals (12.8 percent of the U.S. primary metals industry) and rubber and miscellaneous plastics (8.7 percent). Ohio ranks second in producing fabricated metals (9.7 percent) and motor vehicles and equipment (12.6 percent).
- In addition, Ohio ranks among the top five states in coal mining; industrial machinery and equipment; stone, clay and glass products; and trucking and warehousing services.

The Top 25 Economies in the World and the U.S., 2000  
(in billions of current dollars, except percentages and ranks)

Rank	Totals, 2000		Totals, 2000			Manufacturing, 2000			Durable Goods, 2000		
	Area	GDP/GSP	Area	GSP	Percent of U.S.	Area	GSP	Percent of U.S.	Area	GSP	Percent of U.S.
	GDP only	\$9,963	U.S.	\$9,941.6	100.0%	U.S.	\$1,567	100.0%	U.S.	\$902	100.0%
1	<b>U.S.-minus-Ohio*</b>	<b>\$9,590</b>	California	\$1,345	13.5%	California	\$190	12.1%	California	\$127	14.1%
2	China	\$4,500	New York	\$799	8.0%	Texas	\$101	6.4%	Michigan	\$64	7.1%
3	Japan	\$3,150	Texas	\$742	7.5%	<b>Ohio</b>	<b>\$89</b>	<b>5.7%</b>	<b>Ohio</b>	<b>\$60</b>	<b>6.7%</b>
4	India	\$2,200	Florida	\$472	4.7%	Michigan	\$85	5.4%	Texas	\$57	6.3%
5	Germany	\$1,936	Illinois	\$467	4.7%	New York	\$82	5.2%	Indiana	\$41	4.5%
6	France	\$1,448	Pennsylvania	\$404	4.1%	Pennsylvania	\$75	4.8%	Illinois	\$40	4.4%
7	United Kingdom	\$1,360	<b>Ohio</b>	<b>\$373</b>	<b>3.7%</b>	Illinois	\$73	4.7%	New York	\$39	4.3%
8	Italy	\$1,273	New Jersey	\$363	3.7%	North Carolina	\$68	4.3%	Pennsylvania	\$36	4.0%
9	Brazil	\$1,130	Michigan	\$325	3.3%	Indiana	\$59	3.8%	North Carolina	\$29	3.2%
10	Russia	\$1,120	Georgia	\$296	3.0%	New Jersey	\$50	3.2%	Oregon	\$26	2.9%
11	Mexico	\$915	Massachusetts	\$285	2.9%	Georgia	\$50	3.2%	Wisconsin	\$26	2.9%
12	Canada	\$775	North Carolina	\$282	2.8%	Wisconsin	\$44	2.8%	Massachusetts	\$24	2.7%
13	South Korea	\$765	Virginia	\$261	2.6%	Massachusetts	\$38	2.4%	Georgia	\$21	2.3%
14	Spain	\$721	Washington	\$220	2.2%	Tennessee	\$36	2.3%	Tennessee	\$21	2.3%
15	Indonesia	\$654	Indiana	\$192	1.9%	Missouri	\$33	2.1%	Arizona	\$20	2.2%
16	Argentina	\$476	Maryland	\$186	1.9%	Florida	\$33	2.1%	Minnesota	\$20	2.2%
17	Australia	\$446	Minnesota	\$185	1.9%	Minnesota	\$32	2.0%	Kentucky	\$19	2.1%
18	Turkey	\$444	Missouri	\$179	1.8%	Virginia	\$32	2.0%	Florida	\$18	2.0%
19	Thailand	\$413	Tennessee	\$178	1.8%	Kentucky	\$32	2.0%	Washington	\$18	2.0%
20	Iran	\$413	Wisconsin	\$173	1.7%	Oregon	\$31	2.0%	Missouri	\$17	1.9%
21	Netherlands	\$388	Colorado	\$168	1.7%	Washington	\$27	1.7%	Connecticut	\$16	1.8%
22	Taiwan	\$386	Connecticut	\$159	1.6%	Connecticut	\$25	1.6%	Virginia	\$13	1.4%
23	<b>Ohio</b>	<b>\$373</b>	Arizona	\$156	1.6%	Arizona	\$24	1.5%	Alabama	\$13	1.4%
24	South Africa	\$369	Louisiana	\$138	1.4%	South Carolina	\$24	1.5%	New Jersey	\$12	1.3%
25	Poland	\$328	Alabama	\$120	1.2%	Alabama	\$23	1.5%	South Carolina	\$12	1.3%

Note: The U.S. GSP--sum of the 51 GSPs--is close, but not identical, to the U.S. GDP.

Sources: U.S. Bureau of Economic Analysis (2002) and U.S. Central Intelligence Agency (2002) <http://www.odci.gov/>.

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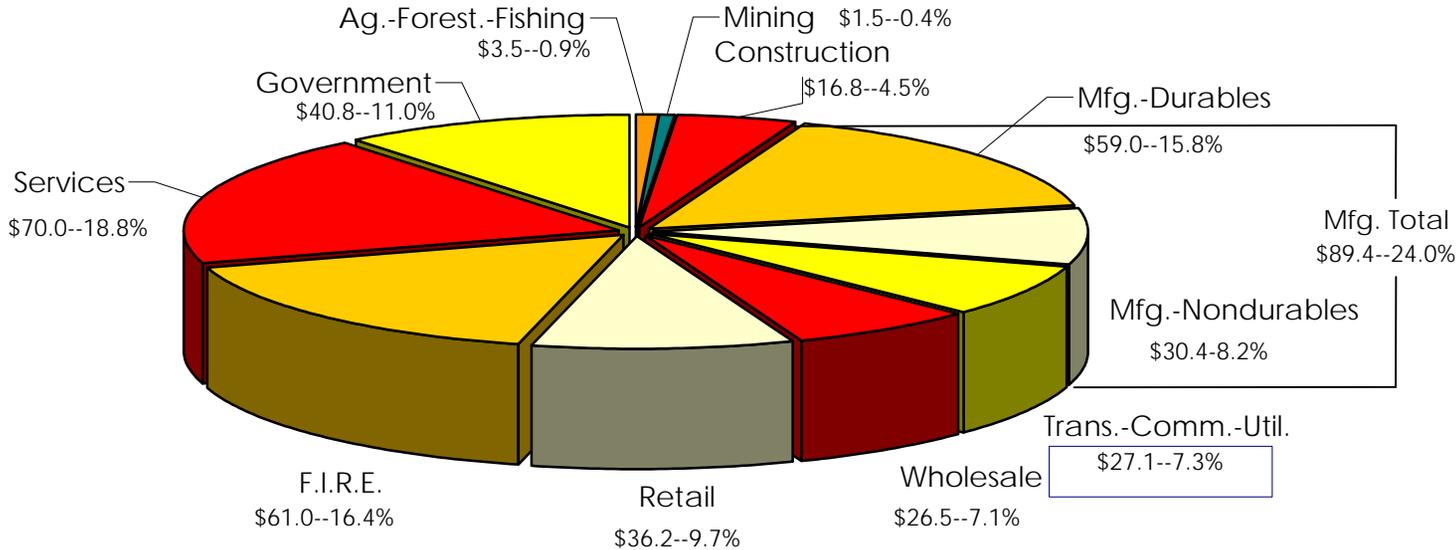
## The Makeup of Ohio's Economy, 2000

- The federal government divides each state economy into ten sectors: Agriculture, forestry and fishing; Mining; Construction; Manufacturing; Transportation, communication and utilities; Wholesale trade; Retail trade; Finance, insurance and real estate; Services; and Government. The first nine comprise the private sector. The contributions of each of these sectors to Ohio's economy are illustrated in the pie chart below.
- The goods-producing group— agriculture-forestry-fishing, mining, construction, and manufacturing— combined to produce 29.8 percent of Ohio's GSP. The remainder came from the service-producing sector, which includes government.
- Manufacturing is the largest sector followed by services and finance, insurance, and real estate. By contrast, services is the largest sector in the national economy followed by finance, insurance, and real estate and manufacturing.

# Ohio's Gross State Product by Sector, 2000

(in Billions of Dollars, Except Percentages)

**Total: \$372.6--100%**  
**Private Industries: \$331.8--88.4%**



Source: U.S. Bureau of Economic Analysis

## GSP and Employment, 1991 - 2000

- The table on the page below illustrates the varying relationships between change in GSP— after adjustments for inflation— and change in employment.
- From 1991 to 2000, the state's economy added approximately one million full- and part-time jobs— a 17 percent increase. Production increased at an even more rapid pace— 34 percent.
- Manufacturing employment changed little over the course of this ten-year period. By contrast, manufacturing GSP grew 37 percent— reflecting increases in productivity and increases in average hours worked per worker.
- Mining— which includes oil and gas production— lost 7.1 thousand workers, while mining GSP grew by more than 50 percent.
- Within agriculture, farm sector employment declined 1.3 percent, while employment in the smaller agriculture services sector grew 39 percent. The composite result was a 10.8 percent increase. Agriculture GSP varied year-to-year reflecting changes in harvest and market conditions.
- The trade sectors (retail and wholesale) experienced steady growth in employment and even larger increases in GSP. Services employment grew faster than trade sector employment, but output increased at a much slower rate. (This is partially the result of difficulty measuring services GSP where there are few tangible units of output.) Based on current dollars, the services sector grew faster than the state economy (71 percent compared to 58 percent), indicating services' ability to place strong claims on the economy's resources.

**Percent Change in Ohio GSP and Employment, 1991 - 2000**  
**(GSP percent change based on chained 1996 dollars)**

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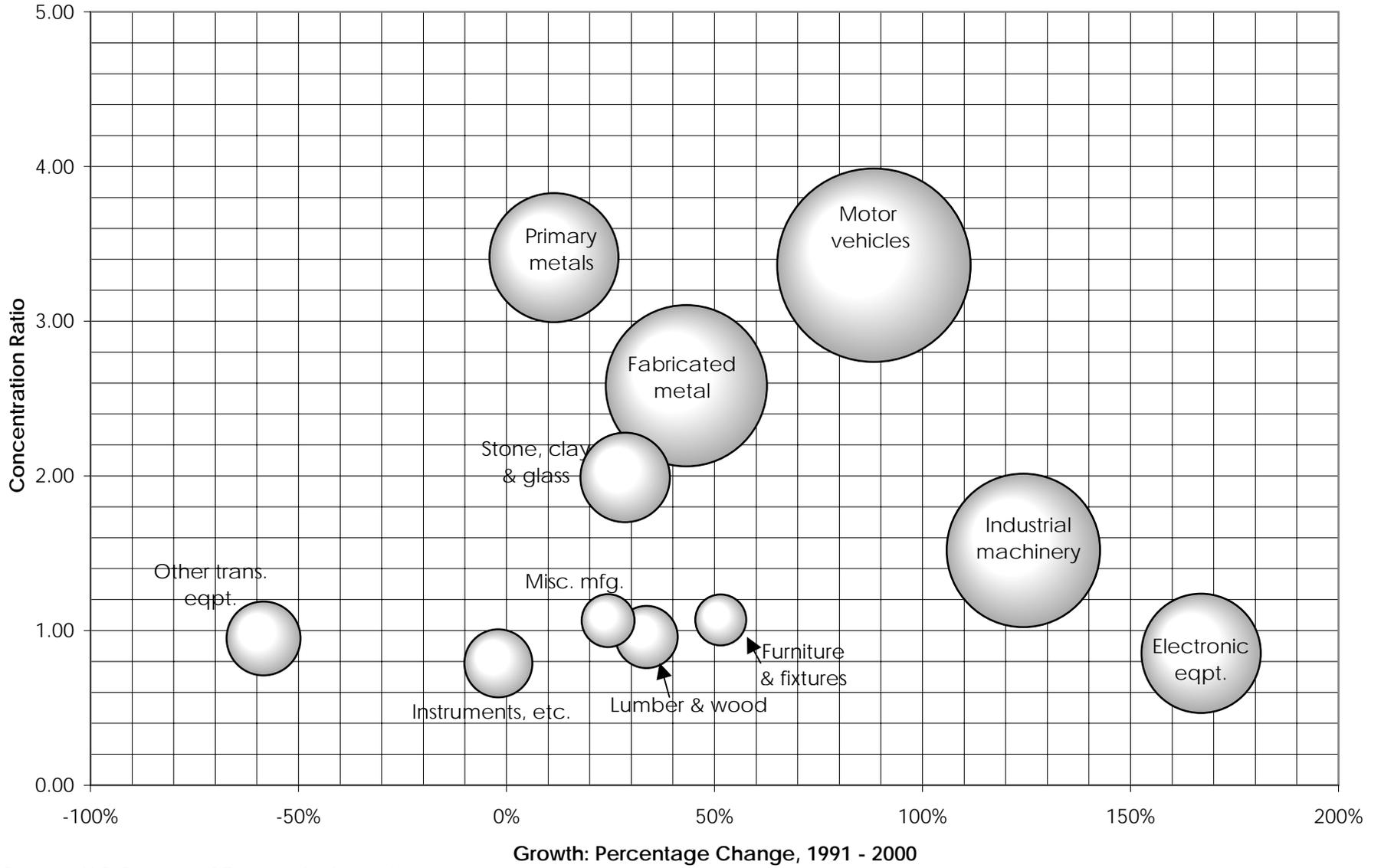
	GSP	Employment
Total	33.7%	16.8%
Agriculture, forestry, fishing	43.4%	10.8%
Farms	49.1%	-1.3%
Agriculture services, forestry, fishing	34.1%	39.0%
Mining	50.7%	-25.1%
Construction	35.9%	35.4%
Manufacturing	37.4%	1.3%
Transportation, Communication, and utilities	20.1%	20.0%
Wholesale trade	66.5%	15.1%
Retail trade	62.4%	17.0%
Finance, insurance, and real estate	32.7%	29.5%
Services	22.6%	27.2%
Government	11.8%	6.0%
Federal	-0.5%	-14.5%
Federal, civilian	4.5%	-7.3%
Federal, military	-20.3%	-27.7%
State and local	15.4%	10.6%

Source: U.S. Bureau of Economic Analysis

## Size, Growth, and Concentration

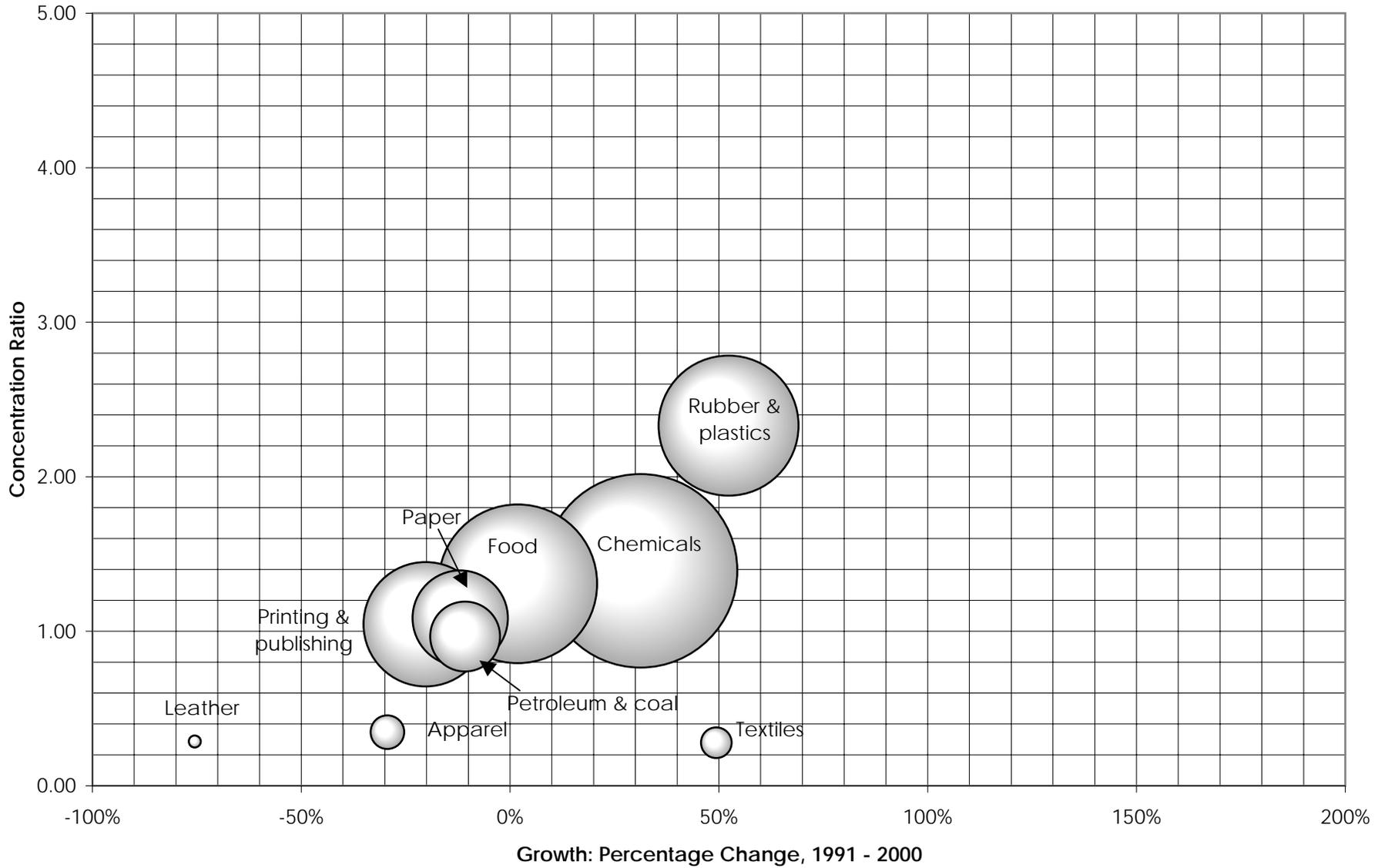
- The three bubble charts that follow compare industries on the basis of size, growth, and relative concentration.
  - ◆ size - larger circles indicate larger 2000 GSPs;
  - ◆ growth - the horizontal axis shows percentage change in chain-weighted dollars from 1991 to 2000;
  - ◆ concentration (the vertical axis) is measured as the ratio of an industry's share of Ohio's GSP to the corresponding industry share of U.S. GSP. For example, if 7.4 percent of an industry's output originates in Ohio, and Ohio is the source for 3.7 percent of the nation's total GSP, then the concentration ratio of that industry in Ohio is 2.0. A ratio of two indicates that the industry is twice as concentrated in Ohio compared to the U.S. A ratio of one indicates the industry has the same share of Ohio's economy as it does of the nation's economy. A ratio less than one means the industry is not concentrated in Ohio (see Tables 9 and 10 for more detail).
- Ohio's durable goods sector had an impressive 1.7 concentration ratio in 2000. Four of the constituent industries had ratios greater than or equal to two: primary and fabricated metals, transportation equipment, and stone, clay and glass. After adjusting for inflation, electronic equipment and industrial machinery were the fastest growing durable goods industries over this ten-year period (167 and 124 percent change, respectively). It should be noted that inflation adjustments are based on applying national price deflators to each of the 63 industries. The computer and semi-conductor parts of the industrial machinery and electronic equipment industries have experienced rapid deflation, but are not concentrated in Ohio.
- Non-durable goods production is not quite as concentrated in Ohio. The ratio was 1.2 in 2000. Within this group, rubber and plastics stands out as an industry that is relatively large, rapidly growing, and highly concentrated. Chemicals and allied products is an even larger industry and is second only to rubber and plastics in concentration.
- The ten service-producing industries shown in the third bubble chart were selected because they experienced greater real growth than the overall national average (a 41 percent increase from 1991 to 2000). None of these industries is highly concentrated in Ohio. The trucking and warehousing concentration ratio is 1.3— the highest ratio in this group.
- The security and commodity brokers industry grew 582 percent— a growth rate literally off the charts. However, the concentration ratio for this industry is below .4.

### GSP: Size, Growth, and Concentration in Durable Goods



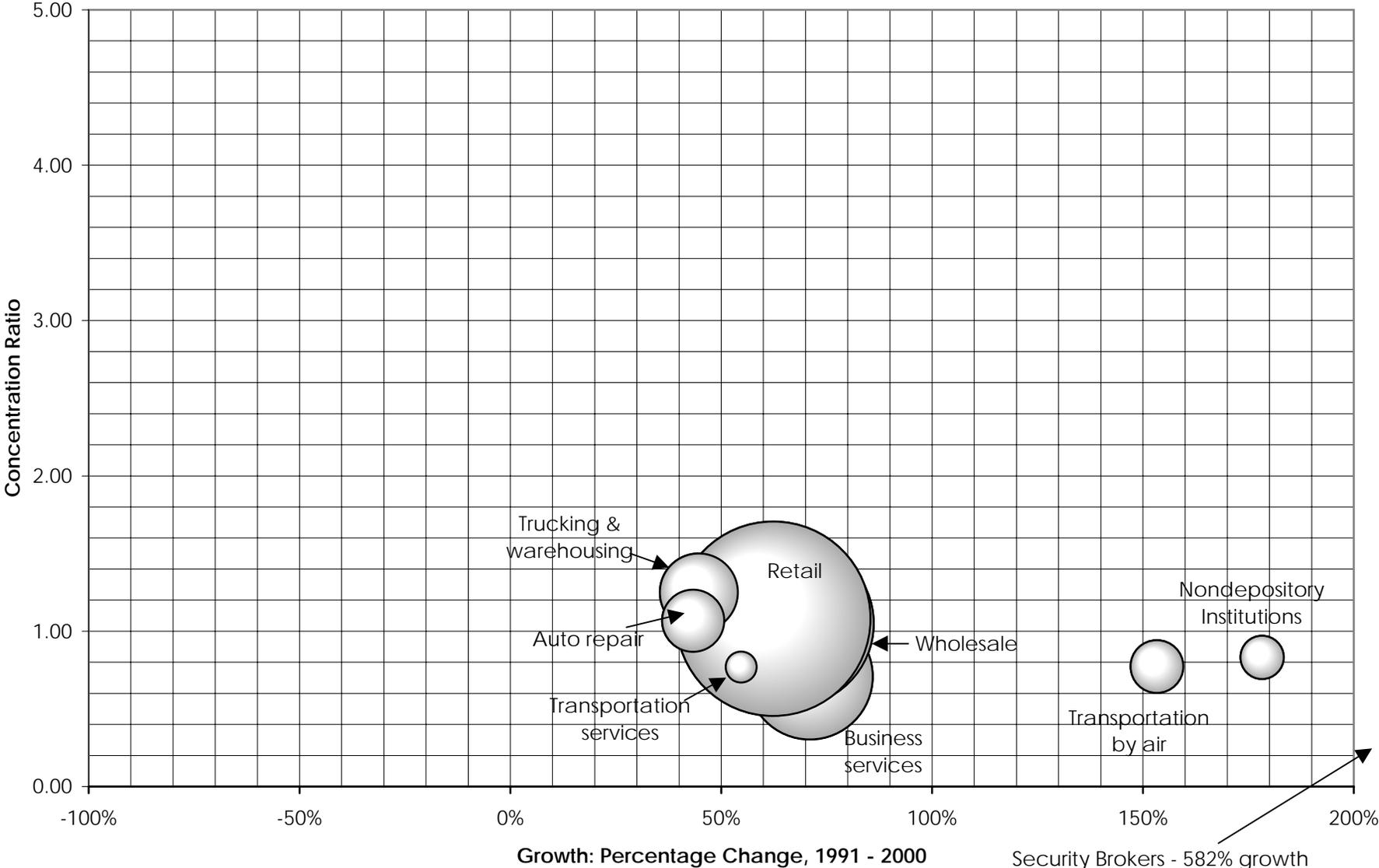
Source: U.S. Bureau of Economic Analysis

### GSP: Size, Growth, and Concentration in Nondurable Goods



Source: U.S. Bureau of Economic Analysis

### GSP: Size, Growth, and Concentration in Selected Service-Producing Industries



Source: U.S. Bureau of Economic Analysis