
Section Five

Economic Factors

Greater Phoenix was ranked “2nd Hottest City” in the January 2003 issue of *Expansion Management* magazine. Arizona’s pro-business attitude attracted over 40 companies in 2003 to expand or relocate in the Greater Phoenix area. In addition, an increasing number of companies are relocating their corporate or regional headquarters to Greater Phoenix to join companies such as Allied Waste, Motorola, Avnet, and Phelps Dodge. Trends such as these are expected to continue as the Greater Phoenix labor force continues to grow at twice the national rate, enabling employers to find talented workers.

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5.0 Major Industries

Greater Phoenix business climate supports diverse range of industries

- Greater Phoenix boasts one of the strongest economies in the nation, with positive job growth in all but 3 of the last 50 years
- Greater Phoenix ranked “2nd as Hottest Cities for Business Relocation and Expansion” in the January 2003 issue of *Expansion Management*.
- The success of the regional economy can be largely attributed to the diversified economic base

Greater Phoenix has evolved from a tourism and resource-based economy to a major center for high-tech manufacturing such as semiconductors, electronics and aerospace. In addition to high technology, the economy is expanding in customer service operations, distribution, and professional services. Also, an increasing number of companies have decided to locate their corporate or regional headquarters in Greater Phoenix. Among the more notable of these are America West Airlines, Phelps Dodge, Bar-S Foods, Viad Corporation, PETsMART, ON Semiconductor, PCS Health Systems, U-Haul International, Doubletree Hotels, Best Western Hotels, Giant Industries, Karsten Manufacturing, Swift Transportation, Mayo Clinic, MicroAge, Microchip Technology, Motorola, Sumco USA, and Avnet. There are many factors that attract businesses to Greater Phoenix including:

- A young, well-educated and highly productive work force
- Competitively priced commercial and industrial real estate
- Modern transportation infrastructure and state-of-the-art telecommunications
- Abundant water and power resources
- Attractive quality of life and moderate climate
- Affordable cost of living

Figure 5-1

Major Employers-Greater Phoenix

<i>Company Name</i>	<i>Arizona Employment</i>
State Of Arizona	49,147
Wal-Mart Stores	19,510
Maricopa County	15,218
Banner Health	14,447
City of Phoenix	13,617
Honeywell International	12,000
U.S. Postal Service	11,406
Wells Fargo & Co.	11,000
Arizona State University	10,530
Bashas' Inc.	9,646
Albertsons-Osco	9,500
Intel Corp.	9,500
Safeway	9,500
JP Morgan Chase & Co.	9,200
Luke Air Force Base	9,000+
Mesa Public Schools	8,684
America West Holdings Corp.	8,539
Fry's Food & Drug Stores	8,233
Target Corp.	7,642
Bank of America	7,268
American Express	7,000
Pinnacle West Capital Corp.	6,400
Qwest Communications Inc.	6,300
Apollo Group Inc.	6,295
Walgreen Co.	5,479

Source: *The Business Journal Book of Lists 2005*.

Figure 5-2**Fortune 500 Companies with a Presence in Greater Phoenix***

<i>Industry</i>	<i>Company</i>	<i>Fortune Rank</i>	<i>Industry</i>	<i>Company</i>	<i>Fortune Rank</i>	
Aerospace & Airlines	Boeing	25	Semiconductors & Other Electronic Components Communications/ Telecommunications	Intel	50	
	Lockheed Martin	47		Applied Materials	270	
	Northrop Grumman	58		Advanced Micro Devices	387	
	Honeywell Intl.	75		Verizon Communications	14	
	Raytheon	103		SBC Communications	33	
	General Dynamics	115		AT&T	56	
	Textron	216		Sprint	67	
	L-3 Communications	305		BellSouth	87	
	Goodrich	408		MCI	90	
	AMR	119		Qwest Communications	154	
	Delta Air Lines	138		Nextel Communications	157	
	Northwest Airlines	190		Alltel	265	
	Continental Airlines	232		Echostar Communications	291	
	Southwest Airlines	318		Cox Communications	322	
Commercial Banks	Citigroup	8	Level 3 Communications	491		
	Bank of America Corp.	18	Waste Management	Waste Management	168	
	J.P. Morgan Chase & Co.	20		Allied Waste Industries	362	
	Wells Fargo	52		Metals & Composites	Phelps Dodge	299
Computer & Data Services	Electronic Data Systems	95			Chemical Manufacturing	DuPont
	First Data	223	Ashland			252
	Science Applications Intl.	276	Rohm & Haas			287
	Unisys	343	Praxair	315		
Computers, Other	EMC	266	Diversified Investments	Sherwin-Williams	331	
	Oracle	220		Ecolab	455	
	Hewlett-Packard	11		General Electric	5	
	Xerox	132		American Express	62	
	Sun Microsystems	194		Countrywide Financial	150	
	Apple Computer	263		CIT Group	413	
	NCR	337		Homebuilding & Construction	Pulte Homes	181
Pitney Bowes	392	Centex	204			
Electronics and Electrical Equipment/ Wholesale Manufacturing	Emerson Electric	134	Lennar		214	
	Whirlpool	160	KB Home		300	
	Maytag	410	Ryland Group	469		
	Rockwell Automation	429	Toll Brothers	477		
Mail, Package, and Freight Delivery	United Parcel Service	42	Healthcare	UnitedHealth Group	40	
	FedEx	78		Cigna	122	
Medical Products	Medtronic	246		Humana	162	
	Boston Scientific	352		Health Net	185	
	Stryker	450		HCA	80	
Motor Vehicles and Parts	General Motors	3		Kindred Healthcare	499	
	Ford Motor	4		Medco Health Solutions	48	
	Delphi	63		Caremark Rx	73	
	Johnson Controls	71		Express Scripts	137	
	Goodyear Tire & Rubber	120		Quest Diagnostics	382	
	Dana	201	Omnicare	459		

Source: Fortune Magazine, April 2004; Dun & Bradstreet, April 2004.

* This list concentrates on GPEC priority clusters and excludes companies with fewer than 10 employees in Maricopa County

5.1 Manufacturing Base

Greater Phoenix is home to manufacturing operations of all sizes and types

- About 70 percent of manufacturing establishments in Greater Phoenix have less than 25 employees
- Greater Phoenix has a number of very large high-tech manufactures such as General Dynamics C4 Systems, Intel and Honeywell
- The local economy includes large and small businesses in almost every manufacturing sector

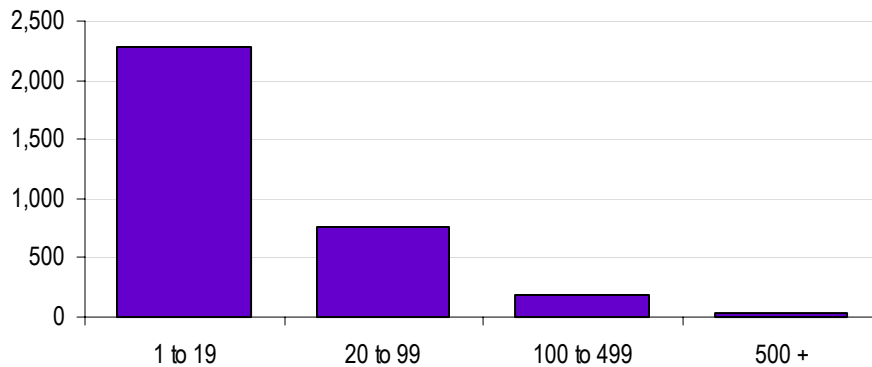
Manufacturing Establishments by Type - Greater Phoenix 2003

NAICS*	Description	Firms by Employment Size					
		Total Employees	Total Firms	1 to 19	20 to 99	100 to 499	500+
311	Food manufacturing	6,688	136	85	38	12	1
312	Beverage and tobacco products	500-999	15	7	5	3	0
313	Textile mills	120	11	10	1	0	0
314	Textile product mills	500-999	67	52	15	0	0
315	Apparel manufacturing	1,000-2,499	64	56	8	0	0
316	Leather and allied product mfg.	53	15	14	1	0	0
321	Wood product manufacturing	6,652	126	67	42	15	2
322	Paper manufacturing	1,000-2,499	36	15	14	7	0
323	Printing and related support activities	7,486	405	331	71	3	0
324	Petroleum and coal products mfg.	222	19	15	3	1	0
325	Chemical manufacturing	5,526	122	81	35	6	1
326	Plastics and rubber products mfg.	6,390	146	77	54	15	0
327	Nonmetallic mineral product mfg.	4,033	149	80	61	8	0
331	Primary metal manufacturing	2,709	49	32	10	7	0
332	Fabricated metal product mfg.	15,815	601	441	144	15	1
333	Machinery manufacturing	7,465	212	156	44	11	1
334	Computer and electronic product mfg.	42,486	233	129	58	31	15
335	Electrical equipment, appliance, and component manufacturing	3,858					
			53	41	9	2	1
336	Transportation equipment mfg.	10,000-24,999	167	96	45	22	4
337	Furniture and related product mfg.	6,383	264	190	57	16	1
339	Miscellaneous manufacturing	4,697	369	311	50	7	1

*As of 1997, no longer reported by SIC code

Source: U.S. Bureau of the Census, County Business Patterns, August 2005

Manufacturers by Employment Size Greater Phoenix



Source: U.S. Bureau of the Census, County Business Patterns, December 2004.

Figure 5-5

Leading High-Tech and Other Manufacturers-Greater Phoenix

Company Name	Local Employment	Products
Honeywell Aerospace	11,000	Avionics, communication and navigation, safety systems, engine controls
Intel Corp.	9,500	Microprocessors, controllers, computing, networking
The Boeing Co.	4,300	Helicopters, wire harness
General Dynamics C4 Systems	3,400	Battle/airspace management, and intelligence systems
Freescale Semiconductor	3,100	Semiconductors
Rinker Materials	1,800	Sand and gravel, asphalt, concrete
Shamrock Foods Co.	1,734	Food service distributor, meat plant, dairy products
Microchip Technology Inc.	1,500	Microcontrollers, power and thermal devices
Medtronic Microelectronics Center	1,365	Microelectronics for medical and related industries
ON Semiconductor	1,190	Semiconductors
Orbital Sciences Corp.	1,100	Space systems and spacecraft
PING Golf Equipment Phoenix	1,113	PING golf equipment
Cavco Industries Inc.	1,050	Manufactured homes, park-model vacation homes
STMicroelectronics Inc.	897	Semiconductors
TRW Vehicle Safety Systems	825	Air bag inflators
Varian Electronics Manufacturing	800	Contrast manufacturing, scientific instrumentation
Sanmina-SCI Phoenix	700	Printed circuit boards
Inter-Tel Corp.	576	Business telecommunications
The Dial Corp.	555	Dial/Tone/Coast soaps, Renuzit, Purex
Holsum Bakery	520	Bakery products
Mobile Mini	400	Portable steel containers and offices
AMKOR Technology Inc	377	Semiconductor packaging and testing
Hydro Aluminum North America	360	Aluminum-extruded products, aluminum-drown tubing
Hypercom Corp.	346	Card payment terminals, network access devices
Phelps Dodge Corp.	319	Copper, chemicals, copper rods, magnet wire, carbon black
Rogers Corp. – Advanced Circuit Materials	300	High-performance circuit materials
Rogers Corp.- Durel	300	Electroluminescent lamps and DC-AC drivers
Suntron Corp.	300	Printed circuit card assembly, cable production, sheet metal
Phillips Semiconductors	275	Semiconductors
Penn Racquet Sports Inc.	275	Tennis and racquet balls
Rockford Corp.	240	High-performance audio equipment

Source: Phoenix Business Journal February 2005

5.2 Service Industry Base

Greater Phoenix shows rapid growth in the service sector

Most of the rapidly growing industry clusters in Greater Phoenix are in the service sector. They include financial and related services such as banks, customer service centers, insurance companies, and security brokers.

- The professional, scientific, and technical services sector is a major component of the non-manufacturing industry base with over 8,600 firms locally
- Greater Phoenix continues to be an internationally known tourist destination, driving growth in the hospitality industries
- The health care industry is another thriving sector in Greater Phoenix, represented by over 6,700 establishments in the area

Figure 5-6

Service Industries by Type

NAICS*	Description	Total	Total	Firms by Employment Size			
		Employees	Firms	1 to 19	20 to 99	100 to 499	500+
51	Information	45,585	1,461	1,151	215	78	17
52	Finance and insurance	96,992	5,201	4,529	500	143	29
53	Real estate and rental and leasing	29,806	3,979	3,735	208	32	4
54	Professional, scientific, and technical services	92,187	8,993	8,297	582	103	11
55	Management of companies and enterprises	35,602	555	353	143	43	16
56	Administration, support, waste management, remediation services	139,901	4,927	3,908	717	265	37
61	Educational services	17,200	795	488	168	26	4
62	Health care and social assistance	123,387	6,939	6,044	724	144	27
71	Arts, entertainment, and recreation	22,012	844	600	195	45	4
72	Accommodation and food services	130,373	5,282	3,271	1,848	148	12
81	Other services	55,087	6,053	5,490	516	44	3

*as of 1997, no longer reported by SIC code

Source: U.S. Census Bureau, *County Business Patterns*, 2001.

Figure 5-7

Major Non-Manufacturing Employers in Greater Phoenix

Company Name	Arizona Employment	Service Type
Wal-Mart Stores	18,677	Retail stores
Banner Health Systems	13,756	Health care
Wells Fargo	9,500	Banking and Financial Services
Bashas' Inc.	9,374	Retail grocery
Albertson's Osco	9,100	Retail grocery and drug store
Safeway	9,053	Retail grocery
JP Morgan Chase & Co.	9,021	Financial Institution
America West Holdings Corp.	9,000	Aviation/Travel Company
Fry's Food & Drug Stores	7,280	Retail grocery
Target Corp.	6,900	Retail
Bank of America	6,794	Banking and financial services
American Express	6,100	Credit card, travel and financial services
Pinnacle West Capital Corp.	6,035	Holding company
Qwest Communications	5,738	Voice, video and data services
Walgreen Co.	5,470	Retail drug store

Source: *The Business Journal Book of Lists*, 2005.

5.3 Market Accessibility

Greater Phoenix companies have access to markets throughout Southwest

A sizeable and varied base of regional suppliers, and access to a large consumer market are key factors in developing a strong economy. Although there are a number of suppliers located in Greater Phoenix, local companies also have access to both suppliers and final markets in Southern California, Southern Nevada and New Mexico within a one day delivery area. There is a particularly strong concentration of industries in electronics and electrical equipment, as well as instruments and related products within the one day delivery area. This market area also contains just over 10 percent of the nation's consumer markets in terms of population and over 8 percent in retail sales.

Figure 5-8

Accessibility to Industrial and Consumer Markets

SIC	Industry	Percentage of U.S. Employment	
		1 Day Service 400 miles	2 Day Service 800 miles
36	Electronic & other electric equipment	13.1%	23.6%
38	Instruments and related products	11.1%	21.2%
37	Transportation equipment	8.5%	15.7%
27	Printing and publishing	7.3%	11.9%
30	Rubber and plastic products	8.0%	15.6%
34	Fabricated metal products	8.2%	12.2%
35	Industrial machinery and equipment	7.2%	13.2%
28	Chemicals and allied products	8.0%	12.1%
20	Food processing	6.8%	18.1%
33	Primary metal industries	5.5%	8.8%
24	Lumber and wood products	5.5%	11.7%
<i>Access to Consumer Markets</i>		<i>1 Day Service 400 miles</i>	<i>2 Day Service 800 miles</i>
Total Area Population*		29,056,844	54,699,835
Percent of U.S. Population*		10.2%	19.2%
Percent of U.S. Retail Sales		8.2%	16.3%

Source: Dun & Bradstreet Marketplace 2004; *Census Bureau 2001

5.4 Patent Grants

Greater Phoenix area displays exceptional innovation

Innovation is strong in Greater Phoenix, as indicated by recent statistics published by the U.S. Patent and Trademark Office.

- Greater Phoenix patent grants increased by 85% between 1993 and 1999.
- Statewide, Arizona patent grants increased over 81% in the same time frame.
- Arizona ranked 18th in the nation in 2001 for number of patents granted.

Figure 5-9

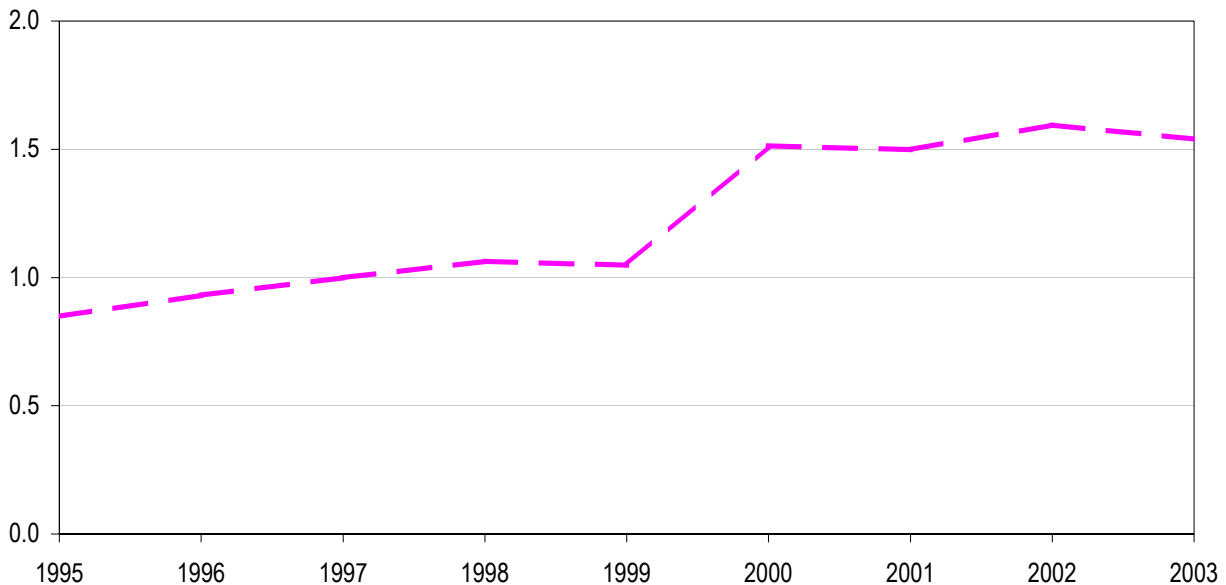
Patents Granted (1995-2003)

	'95	'96	'97	'98	'99	'00	'01	'02	'03
Greater Phoenix	742	816	794	1,169	1,139	NA	NA	NA	NA
% change from Previous	7.7%	10.0%	-2.7%	47.2%	-2.6%	NA	NA	NA	NA
Arizona	1,000	1,062	1,048	1,513	1,499	1,595	1,540	1,588	1,582
% change from Previous	7.5%	6.2%	-1.3%	44.4%	-0.9%	6.4%	-3.4%	3.1%	-0.4%
United States	55,739	61,104	61,707	80,291	83,905	85,072	87,607	86,972	87,901
% change from Previous	-0.6%	9.6%	1.0%	30.1%	4.5%	1.4%	3.0%	-0.7%	1.1%

Source: U.S. Patent and Trademark Office, 2004.

Patents Granted* Arizona (1995-2003)

Thousands



Source: U.S. Patent and Trademark Office, 2004.

* Utility Patents

5.5 Exports

Arizona and Greater Phoenix are heavily involved in international trade

- In 2004 Arizona's exports exceeded 13.4 billion dollars.
- Mexico is Arizona's largest trade partner, buying over 3.7 billion dollars of Arizona-produced goods in 2004.
- Trade activity with Mexico, Canada, Germany, and France has increased in the last year.
- Arizona's top exports are consumer electronic products
- Trade in electronic equipment increased by over 50% the last year.

Figure 5-11

Top 15 Countries for Arizona Exports (in thousands of dollars)

Country	2003	2004	Numeric Change	Percent Change
Mexico	3,229,462	3,794,138	564,676	17.5%
Canada	1,131,030	1,386,488	255,458	22.6%
Malaysia	1,628,764	744,014	-884,750	-54.3%
Germany	607,019	687,474	80,455	13.3%
United Kingdom	741,864	656,815	-85,049	-11.5%
China	741,260	628,996	-112,264	-15.1%
Singapore	509,686	603,823	94,137	18.5%
France	349,843	466,208	116,365	33.3%
Thailand	322,868	440,244	117,376	36.4%
Japan	466,430	439,756	-26,674	-5.7%
Taiwan	338,537	326,600	-11,937	-3.5%
Philippines	444,108	232,435	-211,673	-47.7%
Israel	139,401	232,061	92,660	66.5%
South Korea	355,319	224,969	-130,350	-36.7%
Switzerland	265,541	212,609	-52,932	-19.9%

Source: Office of Trade and Economic Analysis, 2004.

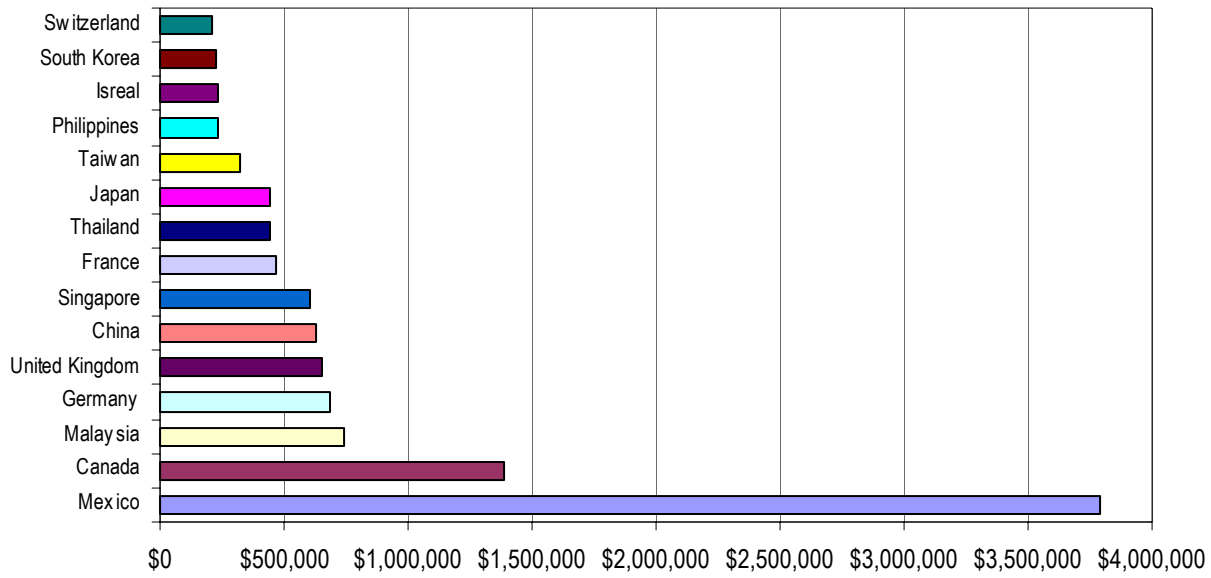
Figure 5-12

Top 15 Industries for Arizona Exports (in thousands of dollars)

Industry	2003	2004	Numeric Change	Percent Change
Computers & Electronic Products	6,730,945	5,635,045	-1,095,900	-16.3%
Transportation Equipment	2,135,355	2,518,055	382,700	17.9%
Machinery Manufactures	808,275	1,087,147	278,872	34.5%
Electronic Equipment, Appliances & Parts	525,768	826,165	300,397	57.1%
Fabricated Metal Products	531,489	521,451	-10,038	-1.9%
Crop Production	450,614	456,423	5,809	1.3%
Misc. Manufactures	392,132	430,529	38,397	9.8%
Plastic & Rubber Products	381,826	421,217	39,391	10.3%
Chemical Manufactures	233,330	294,395	61,065	26.2%
Processed Foods	260,661	267,811	7,150	2.7%
Spec. Classification Provisions	185,980	224,622	38,642	20.8%
Primary Metal Manufactures	109,588	206,046	96,458	88.0%
Paper Products	179,384	192,993	13,609	7.6%
Fabric Mill Products	77,279	76,572	-707	-0.9%
Waste & Scrap	59,216	57,368	-1,848	-3.1%

Source: Office of Trade and Economic Analysis, 2004

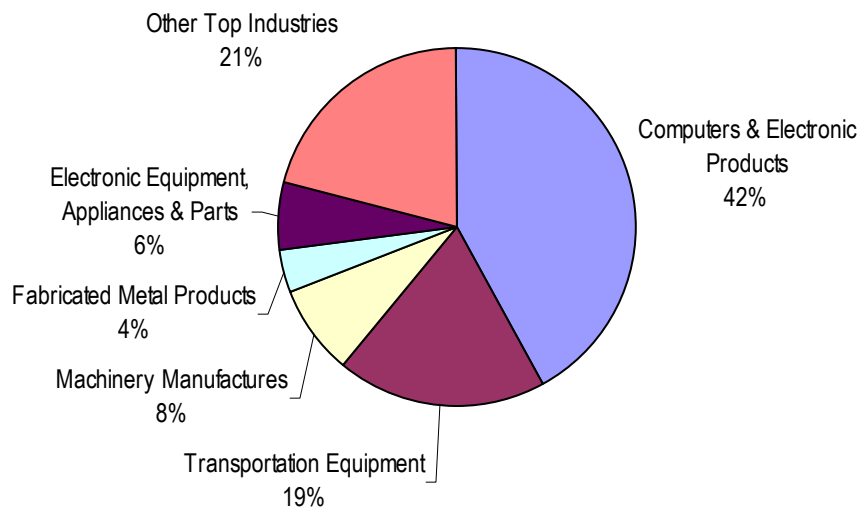
Figure 5-13
Top Countries for Arizona Exports*



Source: Office of Trade and Economic Analysis, 2005

*In thousands of dollars

Figure 5-14
Top Industries for Arizona Exports



Source: Office of Trade and Economic Analysis, 2005

5.6 Gross Metropolitan Product

Greater Phoenix ranks 14th among U.S. metro areas

- Gross Metropolitan Product (GMP) is a concept analogous to Gross Domestic Product, the commonly accepted measure used to calculate the total annual value of goods and services produced by a nation
- Similarly, GMP estimates the value of goods and services at a metro area level
- Greater Phoenix ranked 14th in the country with GMP equal to \$124.9 billion
- Greater Phoenix's GMP is roughly the same size as Thailand's GDP of \$126.4 billion and larger than the GDPs of Portugal, South Africa, and Ireland

Figure 5-15

Top 20 U.S. Metro Areas based on Gross Metropolitan Product - 2003

Rank	Metro Area	Gross Product (Billions)		% Change
		2003	2002	
1	New York, NY	\$448.8	\$469.5	4.1%
2	Los Angeles-Long Beach, CA	\$410.8	\$391.5	4.9%
3	Chicago, IL	\$366.3	\$351.4	4.2%
4	Boston, MA	\$298.0	\$286.7	3.9%
5	Washington, DC-MD-VA-WV	\$255.0	\$242.1	5.3%
6	Philadelphia, PA-NJ	\$201.0	\$191.3	5.1%
7	Houston, TX	\$190.6	\$182.9	4.2%
8	Atlanta, GA	\$188.2	\$179.4	4.9%
9	Dallas, TX	\$172.0	\$166.8	3.1%
10	Detroit, MI	\$161.7	\$155.9	3.7%
11	Orange County, CA	\$153.8	\$144.1	6.7%
12	Minneapolis-St. Paul, MN-WI	\$135.0	\$128.0	5.5%
13	San Diego, CA	\$129.0	\$121.4	6.3%
14	Phoenix-Mesa, AZ	\$129.1	\$121.7	6.1%
15	Seattle-Bellevue-Everett, WA	\$135.0	\$128.0	5.5%
16	Nassau-Suffolk, NY	\$122.9	\$116.4	5.6%
17	San Francisco, CA	\$125.4	\$120.6	4.0%
18	Oakland, CA	\$105.8	\$101.6	4.1%
19	Newark, NJ	\$105.1	\$99.2	5.9%
20	Baltimore, MD	\$107.6	\$103.5	4.0%
	United States	\$10,988.0	\$10,446.0	5.2%

Source: *The United States Conference of Mayors and The National Association of Counties, 2004; Standard & Poor's DRI.*