# Trade in the Cyberstates 2008 A state-by-state overview of high-tech international trade

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## FOREWORD

This is AeA's second annual edition of Trade in the Cyberstates: A State-by-State Overview of High-Tech International Trade. It provides new 2007 data on high-technology trade at the national level and export data for all 50 states, the District of Columbia, and Puerto Rico.

The report is a partner to AeA's annual flagship publications, Cyberstates and Cybercities, which examine the high-tech industry at the national, state, and metropolitan levels focusing on employment, wages, establishments, payroll, employment concentration, and wage differential. The most recent editions, Cyberstates 2008 and Cybercities 2008, were published in April and June, respectively. Both are available for purchase at: www.aeanet.org/research.

In 2007, AeA decided to publish the high-tech trade data in a separate report because it allows us to provide a much more detailed and comprehensive picture of the growing importance of trade to the U.S. economy. We believe that an understanding of the magnitude and direction of high-tech trade flows can help inform public policy at a time when three bilateral Free Trade Agreements (FTAs) – with Colombia, Panama, and South Korea – have been completed and are eligible for consideration by Congress. Additionally, U.S. negotiators are trying to revive multilateral trade talks in the Doha Round of the World Trade Organization (WTO). Lastly, trade has become a key issue in the 2008 presidential campaign.

Trade in the Cyberstates 2008 relies on official import and export goods data from the U.S. Department of Commerce's Bureau of the Census. All export data contained within this publication are expressed on a Total Census Basis and the values are in current U.S. dollars. The import data includes "intra-company" transfers, which are finished products being shipped from U.S. production facilities overseas back to the United States.

U.S. high-tech merchandise exports totaled \$214 billion in 2007, decreasing three percent from \$220 billion in 2006. However, tech exports have risen 14 percent since 2001 and represented the single largest merchandise export sector in the United States in 2007, accounting for 18 percent of the total U.S. exports.

Twenty-nine cyberstates saw tech export growth between 2006 and 2007. The largest growth was in Virginia, Florida, Idaho, New Jersey, and Utah, as measured by dollar increase. California was the leading high-tech export state with \$48.2 billion in exports in 2007, followed by Texas with \$35.9 billion. Florida, New York, and Massachusetts rounded out the top five. The largest decreases in tech exports in 2007 occurred in California, Texas, and Colorado.

#### U.S. HIGH-TECH EXPORTS IN SELECT SECTORS 2006 vs. 2007

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(in billio	(in billions of current U.S. dollars)		
	<u>2006</u>	<u>2007</u>	Numeric <u>Change</u>
Semiconductors	\$52.4 B	\$50.0 B	-\$2.4 B
Computers and Peripheral Equipment	\$49.7 B	\$47.1 B	-\$2.6 B
Industrial Electronics	\$40.4 B	\$38.5 B	-\$1.9 B
Communications Equipment	\$27.3 B	\$29.7 B	+\$2.4 B
Total High-Tech Exports	\$220.2 B	\$214.3 B	-\$5.9 B

#### ANNUAL CHANGES IN SELECT HIGH-TECH EXPORT SECTORS

(in billions of current U.S. dollars)

	2004- <u>2005</u>	2005- <u>2006</u>	2006- <u>2007</u>
Semiconductors	-\$0.8 B	+5.2 B	-2.4 B
Computers and Peripheral Equipment	+\$3.0 B	+\$2.2 B	-\$2.6 B
Industrial Electronics	+\$1.0 B	+\$5.7 B	-\$1.9 B
Communications Equipment	+\$1.6 B	+\$3.2 B	+\$2.4 B
Total High-Tech Exports	+\$7.9 B	+\$20.9 B	-\$5.9 B



## **TRADE IN THE CYBERSTATES 2008**

IS PRODUCED BY AeA, ADVANCING THE BUSINESS OF TECHNOLOGY

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#### FRONT COVER

The countries listed on the front cover were the top destinations for U.S. high-tech exports in 2007.

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## FOREWORD (CONT.)

Trade in the Cyberstates 2008 also looks at the concentration of tech exports state-by-state. As a percentage of total exports, Vermont had the highest concentration – 75 percent of its exports were manufactured by the high-tech industry. High tech accounted for more than 60 percent of total exports in Idaho and New Mexico.

The data show unequivocally that high-tech trade is a critical component of our national economy and of the economies of each and every state. This report provides 52 overview pages (all 50 states plus the District of Columbia and Puerto Rico) that highlight each state's high-tech exports, with detailed data on historical export trends, exports by individual tech sector, tech export concentration, and leading export destinations.

The overview pages also detail the number of jobs in each state supported by high-tech exports. Calculations based on data from the U.S. Bureau of the Census find that U.S. high-tech exports support 894,600 domestic jobs.

Opening new markets to trade and expanding existing markets is critical to maintaining American competitiveness in the global marketplace. Trade contributes greatly to economic growth and prosperity both domestically and worldwide. Opening foreign markets to U.S. exports is the only way to turn trade deficits into surpluses. Exports support hundreds of thousands of jobs in the United States and put more money in the pockets of American consumers by allowing in low cost goods from around the world.

Throughout history, trade has brought prosperity and improved living standards in those countries that have embraced it. The United States is probably the best example of this. Conversely, protectionist policies that shut a country off from the global marketplace lead to economic stagnation.

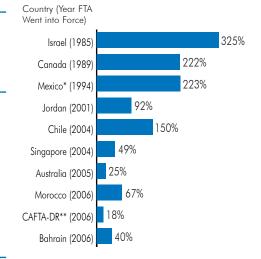
By highlighting the importance of high-tech trade to our economy, we hope this report will help convince policymakers and opinion leaders of the need to support open trade policies wherever and whenever possible.

For more information on AeA's public policy positions, please visit our website to download several recent Competitiveness Series reports on trade issues: www.aeanet.org/cs.

Christopher W. Hansen President and CEO AeA, Advancing the Business of Technology

#### GROWTH IN U.S. EXPORTS WITH FTA PARTNERS

(growth of exports since Free Trade Agreement implementation through year-end 2006)



\*Mexico's FTA with the United States came via the North American Free Trade Agreement (NAFTA); though Canada was also part of NAFTA, it already had an FTA with the United States dating back to 1989.

\*\*CAFTA-DR = Costa Rica, Dominican Republic, Guatemala, El Salvador, Honduras, and Nicaragua

Source: United States Trade Representative (USTR)



AeA, founded in 1943 by David Packard, is the largest high-tech trade association in the United States, with about 2,500 companies representing all segments of the industry and 1.8 million employees. Currently, AeA has 18 offices in the United States, as well as offices abroad in Brussels and Beijing. Our primary purpose is helping our members' top and bottom lines by providing the following services: Access to Investors; State, Federal, and International Lobbying; Insurance Services; Government Procurement; Business Networking; Foreign Market Access; Select Business Services; and Executive Education.

AeA's unique grassroots network promotes and represents the business interests of America's technology industry. We provide competitive products and services to our members and lead in education and public policy advocacy on a variety of high-tech business issues. They include: improving the competitiveness of the United States in the global economy; Sarbanes-Oxley Section 404 reform; RFID initiatives; broadband deployment; preventing harmful Internet privacy legislation; making the research and development tax credit permanent; protecting intellectual property; increasing government funding for basic research; seeking updated export controls legislation; working with U.S. trade negotiators to achieve high-tech industry negotiating objectives within new international trade agreements; seeking harmonization of international environmental regulations; limiting the government's regulation and taxation of the Internet; promoting education reform; lowering capital costs for emerging technology companies; and supporting human resource and immigration policies that ensure access to the most qualified and highly educated workers.

From the well known giants of the high-tech world to the next generation of dynamic, smaller companies, AeA's members create products and services that promote innovation and efficiency in virtually every industry and business sector in the United States and throughout the world. The impact of the high-tech industry on people's everyday lives is immeasurable. High-tech products and services keep people safer and healthier, enable them to be more productive at home and on the job, and contribute to a better quality of life. Whether it is medicine or national security, education or agriculture, environment or entertainment, the tech industry is omnipresent and is inextricably linked to the advancement of modern society.

For information about AeA, please visit: www.aeanet.org.

#### AeA'S 2008 PUBLIC POLICY PRIORITIES

#### 

<u>H-1B Visa and Green Card Reform</u> – increase the numbers available to the high-tech industry <u>STEM Education</u> – promote Science Technology Engineering and Mathematics (STEM) education from K-12 and in university programs <u>Workforce Compensation and Incentives</u> – strengthen the ability of U.S. employers to recruit and retain a skilled workforce

#### E-COMMERCE

<u>Data Breach</u> – ensure that government policies to protect data and privacy do not harm the industry's push for federal preemption of state data breach laws <u>Privacy</u> – ensure that any privacy legislation

.....

protects consumers while continuing to encourage e-commerce; push for federal preemption of state privacy laws <u>Child Online Safety</u> – ensure that any legislation regulates online behavior consistent with technological capabilities

.....

#### HEALTHCARE REFORM

 $\frac{\text{Health IT}}{\text{deployment of Information Technology}}$ 

#### INTERNATIONAL

<u>Export Controls</u> – reform U.S. encryption and deemed export regulations

<u>Customs</u> – maintain coverage for products under Information Technology Agreement <u>China</u> – stop Congressional legislation against China that could hurt member interests while engaging China on its restrictive policies related to indigenous innovation, IPR, standards, and government procurement

<u>Free Trade Agreements</u> – get Congressional approval of agreements with Korea, Colombia, and Panama

<u>Environment</u> – seek favorable outcomes in China RoHS catalogue and certification regulations; seek EU policies supporting development of energy efficiency technologies

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#### TAX

AeA

<u>R&D Tax Credit</u> – renew and seek a permanent extension of a strengthened credit <u>Tax Reform</u> – ensure that any tax reform legislation is positive for the high-tech industry and protects the industry's ability to operate globally

## **TABLE OF CONTENTS**

## **OVERVIEW ON INTERPRETING INTERNATIONAL TRADE DATA**

### "Made in . . ."

These words adorn products from all over the world. You see them on clothes, toys, plates, furniture, and even electronics products. Yet nowhere can this concept be more complex and elusive than in the technology industry.

The technology supply chain spans the entire globe and is not something that lends itself to simplification. R&D can be located in one country, design in another, testing in a third, manufacturing in a fourth, and final assembly in a fifth. And this complicates the actual flows, as the manufacturing process itself is not always located in the same country. Often parts are manufactured in multiple countries and then are used as inputs in other stages of the manufacturing process. For example, a computer manufacturer in the United States may import components such as the processor, motherboard, keyboard, hard drive, and graphics card, assemble the computer, and then export it to a customer in another country.

This report follows only trade flows of actual merchandise into and out of the United States. It does not track the cross-border services trade. As a result, a significant amount of high-tech imports contain design, R&D, testing, and other processes that were done in the United States and sent overseas for mass production. While the service part (the design, R&D, and testing) do not count as a component of these trade statistics, the mass production and importation of the physical product does.

Similarly, these production facilities overseas are often owned and operated by U.S. companies. As these products are shipped back to the United States, they are counted as imports even though they are actually "intra-company transfers."

The high-tech merchandise trade data in this report come straight from the U.S. Bureau of the Census and are expressed on a Total Census Basis with all values in current U.S. dollars. The data are compiled by Global Trade Information Services, Inc. For a complete listing of the sectors that comprise AeA's definition of high tech, see our definition on pages 90-91.

#### HIGH-TECH TRADE SECTORS

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Composers and renpileral Equipment
Consumer Electronics
Communications Equipment
Electronic Components
Semiconductors
Industrial Electronics
Electromedical Equipment
Photonics



## INTRODUCTION

Trade in the Cyberstates 2008: A State-by-State Overview of High-Tech International Trade is the first partner publication of AeA's annual Cyberstates report to deal exclusively with international trade at the national and state-bystate levels.

This report consists of three chapters. Chapter 1 examines high-tech exports and imports at the national level. This includes a breakdown of exports by high-tech sectors, comparisons with other industries, leading tech export destinations, and other factors.

Chapter 2 looks at high-tech exports, export growth, and export concentration by leading cyberstates.

Chapter 3 provides 52 one-page high-tech "snapshots" of the high-tech goods exports for each state, the District of Columbia, and Puerto Rico. The state pages provide an in-depth look at leading high-tech export sectors, leading export destinations, as well as high-tech trade trends over time. States are also highlighted by employment supported by electronics exports. The importance of the high-tech industry is delineated not only in the state overview pages and in the two other chapters, but also in detailed appendices.

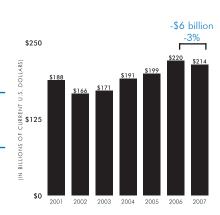
Extensive appendices on each of these indicators are also included in this report. Other than when looking at historical trends, all data in this report are for 2007 and are valued in current U.S. dollars. The data are collected by the U.S. Bureau of the Census and are compiled by Global Trade Information Services, Inc. For a detailed explanation of AeA's definition of the high-tech industry, see pages 90-91 of this report.

Our review of the most recent statistics shows that tech exports in 2007 were 14 percent higher than in 2001. However, the United States has not yet been able to reach the volume of exports achieved in 2000 before the tech bubble collapse.

Nevertheless, high tech remains the single largest merchandise exporter in the United States, led by sectors like semiconductors, computers and peripheral equipment, and industrial electronics.

At the state level, 29 cyberstates experienced export growth in 2007. The largest growth was in Virginia, Florida, and Idaho. For many states, high tech represents the largest component of their total exports.

**U.S. HIGH-TECH EXPORTS** 2001 - 2007



#### TOP 10 CYBERSTATES BY HIGH-TECH EXPORTS 2006 vs. 2007

(in billions of current U.S. dollars)

<u>Ran</u>	<u>ik</u>	<u>2006</u>	<u>2007</u>	Numeric <u>Change</u>
	United States			-\$5.9 B
1.	California	\$51.7 B	\$48.2 B	
2.	Texas	\$38.6 B	\$35.9 B	
3.	Florida	\$12.4 B	\$13.4 B	
4.	New York	\$9.1 B	\$8.9 B	
5.	Massachusetts	\$9.6 B	\$8.7 B	
6.	Arizona	\$8.8 B	\$8.7 B	
7.	Illinois	\$7.2 B	\$7.4 B	
8.	Oregon	\$6.9 B	\$6.5 B	
9.	Minnesota	\$6.2 B		-\$0.6 B
10.			\$4.8 B	

Data are rounded.



### **U.S. HIGH-TECH EXPORTS**

- U.S. high-tech exports totaled \$214 billion in 2007, decreasing three percent from \$220 billion in 2006.
- High tech was the largest overseas industry export with U.S. high-tech manufactured goods comprising 18 percent of total U.S. exports in 2007.
- The semiconductors sector remained the largest component of high-tech exports in 2007, accounting for \$50 billion worth of exports, down \$2.4 billion from 2006.
- High-tech exports decreased in five subsectors (photonics, industrial electronics, consumer electronics, semiconductors, and computers and peripheral equipment) and increased in three subsectors (communications equipment, electromedical equipment, and electronic components). The subsector that saw the largest decline was computers and peripheral equipment, decreasing by \$2.6 billion in 2007. Communications equipment exports, on the other hand, increased by \$2.4 billion.
- Canada and Mexico continued to be the leading destinations for U.S. high tech exports with \$29.4 billion and \$26.0 billion, respectively. In 2007, China affirmed its position as the third largest U.S. high-tech exports destination, accounting for \$14.5 billion of exports, followed by Japan and Germany.
- The five countries for which U.S. high-tech merchandise exports increased the most from 2001 to 2007 were China, Singapore, Canada, South Korea, and Germany. Exports to China more than doubled over these six years.
- U.S. high-tech exports supported 894,600 domestic jobs in 2007.

### **U.S. HIGH-TECH IMPORTS**

- U.S. high-tech imports reached \$333 billion in 2007, up three percent from \$322 billion in 2006.
- High-tech was the United States's second largest industry import, just behind energy products.
- The largest high tech-import sectors in 2007 were computers and peripheral equipment (\$103.2 billion), communications equipment (\$74.0 billion), and consumer electronics (\$54.4 billion).
- The U.S. imported \$112.3 billion of high-tech goods from China, followed by \$51.3 billion from Mexico, and \$29.2 billion from Japan.

#### LEADING U.S. HIGH-TECH EXPORT DESTINATIONS 2007

1.	Canada	\$29.4 B
2.	Mexico	\$26.0 B
3.	China	\$14.5 B
4.	Japan	\$11.9 B
5.	Germany	\$11.2 B
	•••••••••••••••••••••••••••••••••••••••	

Data are rounded.

Source: U.S. Bureau of the Census

#### U.S. HIGH-TECH GOODS EXPORTS LEADING SECTORS 2006 vs. 2007

(in billions of current U.S. dollars)

	••••••	••••••	•••••	
	Total High-Tech Goods Exports	\$220.2 B	\$214.3 B	-2.7%
	Electronic Components	\$17.4 B	\$17.7 B	1.5%
_	Communications Equipment	\$27.3 B	\$29.7 B	8.8%
	Industrial Electronics	\$40.4 B	\$38.5 B	-4.8%
	Computers and Peripheral Equipment		\$47.1 B	-5.1%
_	Semiconductors		\$50.0 B	-4.6%
	Largest Sectors*	<u>2006</u>	<u>2007</u>	Percent <u>Change</u>

\*Not all industry sectors are represented. See appendix A.1 on page 76 for more details.

Data are rounded. Source: U.S. Bureau of the Census

U.S. EXPORT INDUSTRY

### COMPARISONS 2007

1.	High Tech	\$214 B
2.	Transportation	\$210 B
3.	Chemicals	\$136 B
4.	Metal Products	\$59 B
5.	Energy Products	\$42 B

Data are rounded.



### **U.S. HIGH-TECH TRADE BALANCE**

The high-tech trade deficit reached \$118 billion in 2007, which is more than three times higher than it was in 2001 (\$33 billion).

### **CYBERSTATES EXPORTS**

- California was the leading high-tech export state with \$48.2 billion in exports in 2007, down almost seven percent or \$3.5 billion from 2006.
- Texas's high-tech exports totaled \$35.9 billion in 2007, down seven percent or \$2.7 billion from 2006. Texas, however, remained the nation's second largest cyberstate by total tech exports.
- Twenty-nine cyberstates saw their high-tech exports increase from 2006 to 2007, measured by dollar increase, led by Virginia, Florida, Idaho, New Jersey, and Utah.
- The fastest growing cyberstates on a percent basis from 2006 to 2007 were Hawaii, Utah, Mississippi, Montana, and Virginia.
- California had the largest decrease in exports, declining \$3.5 billion from 2006 to 2007. Texas, Colorado, Massachusetts, and Minnesota also had significant declines in exports.
- Vermont boasts the highest concentration of tech exports, with 75 percent of exports coming from the tech industry. High tech accounted for more than 60 percent of total exports in Idaho and New Mexico as well.
- California was the leading exporter of computer and peripheral equipment, consumer electronics, semiconductors, industrial electronics, electromedical equipment, and photonics.
- Texas was the leading exporter of communications equipment and electronic components.
- Tennessee was the second largest exporter of electromedical equipment, after California.
- High-tech exports supported hundreds of thousands of U.S. jobs. In Texas, some 183,900 jobs were supported by tech exports. Other leading states included California (183,000 jobs), Florida (69,900 jobs), Arizona (36,400 jobs), and Oregon (33,900 jobs).

#### **TOP CYBERSTATES**

BY HIGH-TECH EXPORTS, 2007 (in billions)

1.	California	\$48.2 B
2.	Texas	\$35.9 B
3.	Florida	\$13.4 B
4.	New York	\$8.9 B
5.	Massachusetts	\$8.7 B

### BY NUMERIC CHANGE IN HIGH-TECH EXPORTS

2006 - 2007 (in millions)

1.	Virginia	+\$1,101 M
2.	Florida	+\$989 M
3.	ldaho	+\$695 M
4.	New Jersey	+\$357 M
5.	Utah	+\$339 M

#### HIGH-TECH CONCENTRATION OF EXPORTS, 2007

(percent of exports that are tech)

1.	Vermont	75%
2.	Idaho	70%
3.	New Mexico	63%
4.	Arizona	45%
5.	Colorado	44%

#### JOBS SUPPORTED BY HIGH-TECH EXPORTS, 2007 (by number of jobs)

1.	Texas	183,900
2.	California	183,000
3.	Florida	69,900
4.	Arizona	36,400
5.	Oregon	33,900
	••••••	



### INTRODUCTION

This chapter examines U.S. high-tech merchandise trade between 2001 and 2007.

The most recent data show that technology exports totaled \$214 billion in 2007. Exports in 2007 were \$26 billion higher than in 2001, which is a 14 percent increase. From 2006 to 2007, however, high-tech merchandise trade declined by three percent.

The high-tech export sector that grew the fastest between 2006 and 2007 was communications equipment, at almost nine percent. Electromedical equipment (8.7 percent) and electronic components (1.5 percent) also posted positive growth rates during this time period.

Technology imports totaled \$333 billion in 2007, up three percent from 2006. The largest high-tech import sectors in 2007 were computers and peripheral equipment, communications equipment, and consumer electronics. A significant percentage of U.S. high-tech imports are actually "intra-company" transfers, as U.S. production facilities overseas ship finished products back to the United States.

The importance of the international marketplace for U.S. tech products is reflected in the portion of overall exports that are tech goods. High-tech goods exports represented 18 percent of all exports from the United States to the rest of the world in 2007, and imports represented 17 percent of total U.S. imports in 2007.

The U.S. high-tech trade deficit reached a high of \$118 billion in 2007. It has more than tripled since 2001, when it was \$33 billion. Intense global competition has forced U.S. companies to establish production facilities overseas.

The leading destinations for U.S. high-tech exports in 2007 were, in order of magnitude: Canada, Mexico, China, Japan, Germany, Singapore, South Korea, Taiwan, the Netherlands, and the United Kingdom. The United States held a high-tech merchandise deficit with all of these countries except Canada, the Netherlands, and the United Kingdom.

International trade supports millions of jobs in the United States. U.S. high-tech exports alone supported 894,600 jobs in the United States in 2007.

#### U.S. HIGH-TECH MERCHANDISE TRADE, 2001 - 2007

(in billions of current U.S. dollars)

<u>Year</u>	<u>Exports</u>	<u>Imports</u>	<u>Balance</u>
2001	\$188 B	\$222 B	-\$33 B
2002	\$166 B	\$220 B	-\$54 B
2003	\$171 B	\$231 B	-\$60 B
2004	\$191 B	\$271 B	-\$79 B
2005	\$199 B	\$295 B	-\$96 B
2006		\$322 B	-\$102 B
2007	\$214 B	\$333 B	-\$118 B

Data are rounded.

Source: U.S. Bureau of the Census

#### U.S. HIGH-TECH GOODS EXPORTS LEADING SECTORS 2006 vs. 2007

(in billions of current U.S. dollars)

Fastest Growing _ Sectors*	<u>2006</u>	<u>2007</u>	Percent <u>Change</u>
Communications Equipment		\$29.7 B	
Electromedical Equipment			
Electronic Components		\$17.7 B	
Semiconductors	52.4 B	50.0 B	-4.6%
Industrial Electronics	\$40.4 B	\$38.5 B	-4.8%
Total High-Tech _ Goods Exports			

\*Not all industry sectors are represented. See appendix A.1 on page 76 for more details.

Data are rounded.



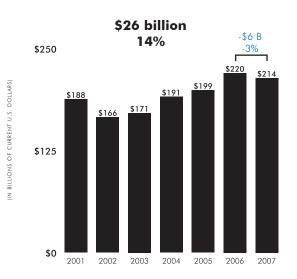
U.S. TECH TRADE - GOODS 2007 **KEY INDUSTRY STATISTICS** 



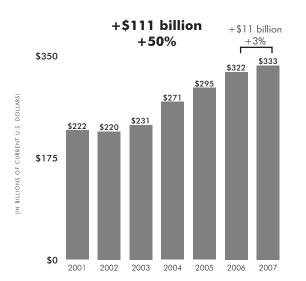
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	894,600 JOBS
HIGH-TECH TRADE BALANCE	-\$118 BILLION
HIGH-TECH IMPORTS	\$333 BILLION
Percentage of All Imports	17.0%
HIGH-TECH EXPORTS	<b>\$214 BILLION</b>
Percentage of All Exports	18.4%

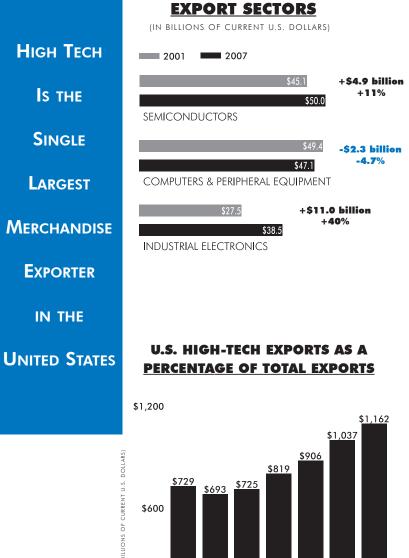
**LEADING HIGH-TECH** 

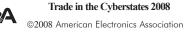
## **U.S. HIGH-TECH EXPORTS**



## **U.S. HIGH-TECH IMPORTS**

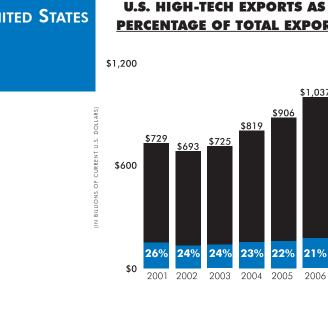






18%

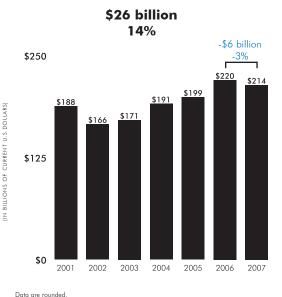
2007



Data are rounded Source: U.S. Bureau of the Census

#### High-Tech Exports Down in 2007

**U.S. High-Tech Merchandise Exports** 2001 - 2007

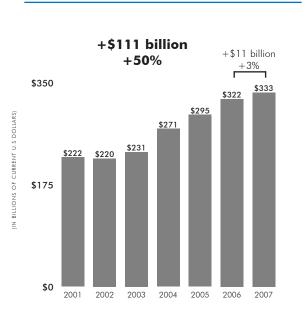


The highly competitive U.S. high-tech industry is selling its products around the world. At \$214 billion in 2007, U.S. hightech merchandise exports are still below their record high of \$223 billion in 2000 - prior to the bursting of the tech bubble. There is a decline tn the growth of high-tech merchandise exports compared to 2006 as well. U.S. high-tech exports decreased \$5.9 billion from 2006 to 2007, representing a three percent drop.

Source: U.S. Bureau of the Census

### U.S. High-Tech Imports Up 50 Percent Since 2001

**U.S. High-Tech Merchandise Imports** 2001 - 2007



U.S. high-tech merchandise imports have grown 50 percent since 2001, reaching an all-time high of \$333 billion in 2007. This has outpaced high-tech exports growth.

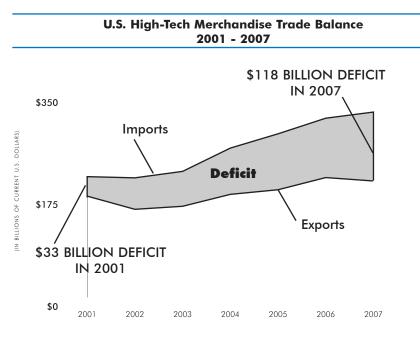
From 2006 to 2007, hightech imports also grew faster than exports, showing a three percent growth rate.

A significant percentage of U.S. high-tech imports are actually "intra-company" transfers, as U.S. production facilities overseas ship finished products back to the United States from their plants in countries like Taiwan, Singapore, China, Hungary, Mexico, the Philippines, Costa Rica, and Ireland.

Data are rounded.

Source: U.S. Bureau of the Census

APA



High-Tech Exports and Imports Grow as Trade Balance Widens

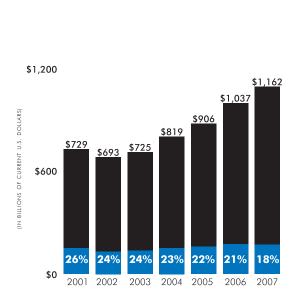
The U.S. high-tech balance of trade currently stands at a deficit of \$118 billion. Since 2001, the deficit has increased more than three times as import growth has outstripped export growth.

The deficit is the result of many factors, not the least of which is the intense global competition for cheaper electronics products. This has forced U.S. companies to establish production subsidiaries overseas and import lower priced components from countries around the world.

And as noted earlier, a significant amount of U.S. high-tech imports are actually intra-company transfers, as U.S. production facilities overseas ship finished products and parts back to the United States.

Source: U.S. Bureau of the Census

### High-Tech Goods Represent 18 Percent of All Exports



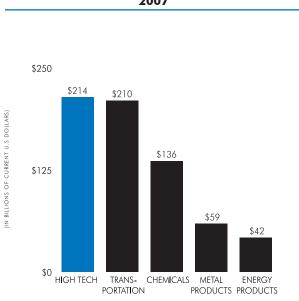
U.S. High-Tech Goods as a Percent of Total Exports, 2001 - 2007

> As this graph shows, high tech products have become an integral part of everyday life. In 2007, high-tech goods accounted for 18 percent of total exports. The ratio peaked in 2001, when high-tech exports comprised 26 percent of all U.S. exports.

High-tech goods accounted for 17 percent of all goods imported into the United States in 2007, down from a high of 19 percent in 2001.

## CHAPTER 1: U.S. HIGH-TECH TRADE

#### U.S. High-Tech Industry Is Largest Overseas Exporter

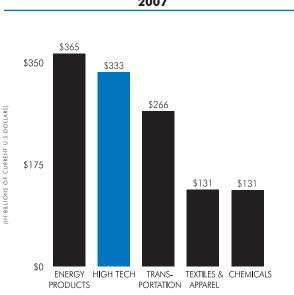


U.S. High-Tech Merchandise Export Comparisons 2007

The U.S. high-tech industry is the nation's leading exporter of manufactured goods. The tech industry's \$214 billion in technology exports outshines exports from other leading industries like transportation at \$210 billion, chemicals at \$136 billion, metal products at \$59 billion, and energy products at \$42 billion.

Source: U.S. Bureau of the Census

### High Tech Is 2nd Largest U.S. Import Commodity



U.S. High-Tech Merchandise Import Comparisons 2007

> High-tech manufactured goods slipped behind energy products as the largest sector of total goods imported to the United States, driven in part by increasing energy prices. U.S. high-tech imports totaled \$333 billion in 2007, compared to \$365 billion in energy product imports.

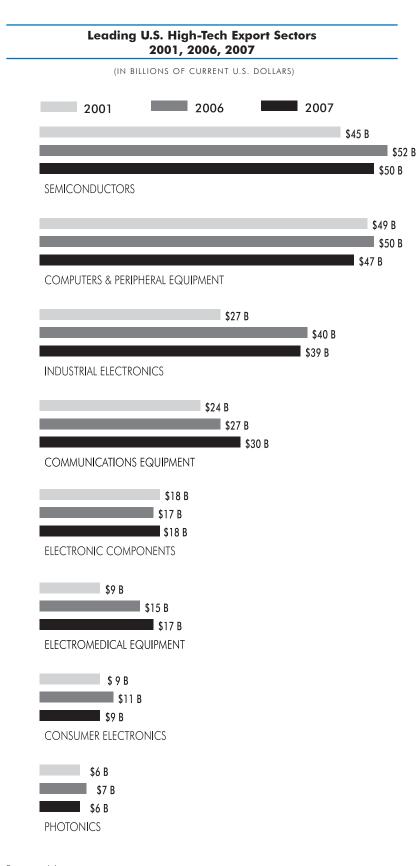
Rounding out the top five, transportation imports (which include all autos and planes) totaled \$266 billion, textiles and apparel totaled \$131 billion, and chemicals totaled \$131 billion.





## CHAPTER 1: U.S. HIGH-TECH TRADE

### Semiconductors Represent Largest Export Sector in 2007



The semiconductors sector overtook the computers and peripheral equipment sector in 2006 as the largest high-tech export sector. Semiconductor exports decreased by five percent from \$52 billion in 2006 to \$50 billion in 2007. The sector is up 11 percent since 2001.

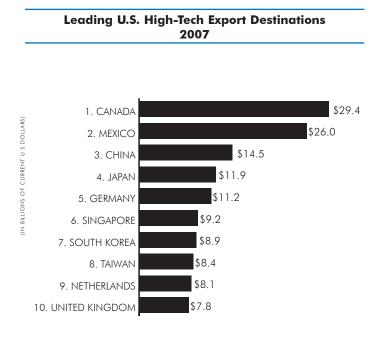
Computers and peripheral equipment came in second among technology export sectors with \$47 billion in 2007 – down five percent from \$50 billion in 2006.

Another leading tech export sector in 2007 was industrial electronics with \$39 billion – it surpassed its 2001 level by 40 percent.

The nation's fastest growing tech export sector between 2001 and 2007 was electromedical equipment. The sector grew by 76 percent since 2001, exporting goods worth \$17 billion.

Data are rounded.

### NAFTA Countries Are Leading Destinations for U.S. Tech Exports

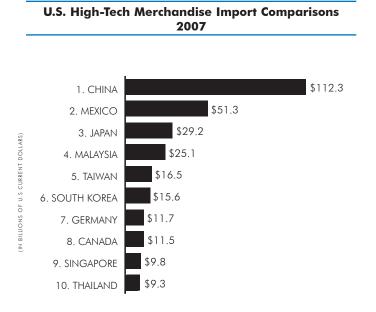


Our two NAFTA partners, Canada and Mexico, are currently the largest markets for U.S. high-tech exports, at \$29.4 billion and \$26.0 billion, respectively. China is the third largest destination for U.S. tech exports, at \$14.5 billion. China surpassed Japan to take the third spot in 2006.

Completing the top 10 list are Japan, Germany, Singapore, South Korea, Taiwan, the Netherlands, and the United Kingdom. Together, these top 10 export markets comprise more than 63 percent of all U.S. high-tech exports.

Source: U.S. Bureau of the Census

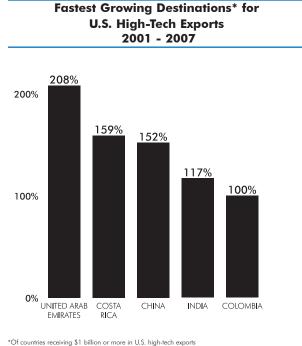
### China Leads as a Supplier of Tech Imports to the United States



The U.S. imports the largest amount of high-tech goods from China, \$112.3 billion. Mexico and Japan are the next largest markets, exporting respectively \$51.3 billion and \$29.2 billion worth of tech products to the United States.

Other top import origins of tech products to the United States are Malaysia, Taiwan, South Korea, Germany, Canada, Singapore, and Thailand.

### United Arab Emirates Is Fastest Growing U.S. High-Tech Export Destination



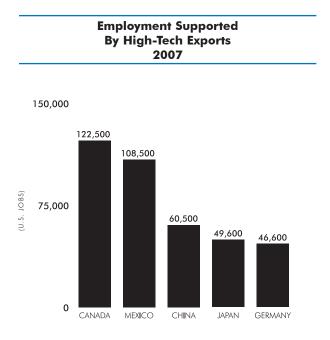
Source: U.S. Bureau of the Census

The U.S. high-tech industry's fastest growing export market is the United Arab Emirates, whose demand for U.S. tech goods tripled from 2001 to 2007. Other rapidly growing export destinations that receive at least \$1 billion of tech products from the United States include Costa Rica, China, India, and Colombia.

The United Arab Emirates's growing demand for U.S. tech products is fueled by its emergence as an international business hub requiring advanced information and security technology.

Costa Rica's status as the second fastest growing destination for U.S. high-tech exports is owed to its Intel campus established in 1998, where it imports components to perform the final stages of assembly, testing, and distribution of microprocessors.

### High-Tech Exports Support Hundreds of Thousands of American Jobs



Source: U.S. Bureau of the Census

Many American jobs are supported by U.S. high-tech exports to countries around the world. Canada and Mexico lead the pack, supporting 122,500 and 108,500 American jobs, respectively, in 2007.

High-tech exports to China, Japan, and Germany sustain the employment of 60,500, 49,600, and 46,600 Americans, respectively.

It is no coincidence that our five leading high-tech export destinations are also the five largest supporters of American jobs in terms of tech exports. The number of jobs is calculated based on a ratio determined by the value of exports to that country. For more detailed explanation see the Methodology on page 92.

## **CHAPTER 2: HIGH-TECH EXPORTS BY LEADING CYBERSTATES**

#### INTRODUCTION

In this chapter, we examine high-technology merchandise exports in each state, the District of Columbia, and Puerto Rico.

The nation's leading cyberstates by high-tech exports in 2007 were California, Texas, Florida, New York, and Massachusetts. California's hightech exports represented 22 percent of all U.S. high-tech exports.

Some 29 cyberstates saw their high-tech exports increase in 2007. Cyberstates with the largest dollar increase in high-tech exports between 2006 and 2007 were Virginia, Florida, Idaho, New Jersey, and Utah. High-tech exports from Virginia increased \$1.1 billion between 2006 and 2007. California's high-tech exports declined by \$3.5 billion in 2007, the largest drop of any cyberstate. Tech exports in Texas and Colorado experienced the second and third largest declines in 2007, \$2.7 billion and \$1.1 billion, respectively.

On a percentage basis, Hawaii, Utah, Mississippi, Montana, and Virginia were the fastest growing states by high-tech exports in 2007, with increases ranging from 137 percent to 39 percent, although some were springing from a relatively small base.

Vermont, Idaho, New Mexico, Arizona, and Colorado were the nation's leading cyberstates by high-tech export concentration in 2007. High-tech exports comprised 75 percent of all exports from Vermont. Idaho ranked second at 70 percent.

High-tech exports also supported hundreds of thousands of jobs across the nation. Based on ratios derived from the U.S. Census Bureau, tech exports from Texas supported 183,900 jobs in the state. California was second with 183,000 jobs supported by tech exports, followed by Florida with 69,900 jobs.

At the state level, only export trade data are available from the U.S. Census Bureau.

#### TOP CYBERSTATES

#### BY HIGH-TECH GOODS EXPORTS 2007

	United States	\$214.3 B
1.	California	\$48.2 B
2.	Texas	\$35.9 B
3.	Florida	\$13.4 B
4.	New York	\$8.9 B
5.	Massachusetts	\$8.7 B

#### EMPLOYMENT SUPPORTED BY HIGH-TECH GOODS EXPORTS 2007

	United States	894,600
1.	Texas	183,900
2.	California	183,000
3.	Florida	69,900
4.	Arizona	36,400
5.	Oregon	33,900

#### HIGH-TECH GOODS EXPORTS BY NUMERIC GROWTH 2006 - 2007

1.	Virginia	\$1,101M
2.	Florida	\$989 M
3.	ldaho	\$695 M
4.	New Jersey	\$357 M
5.	Utah	\$339 M

#### HIGH-TECH GOODS EXPORTS BY PERCENT GROWTH 2006 - 2007

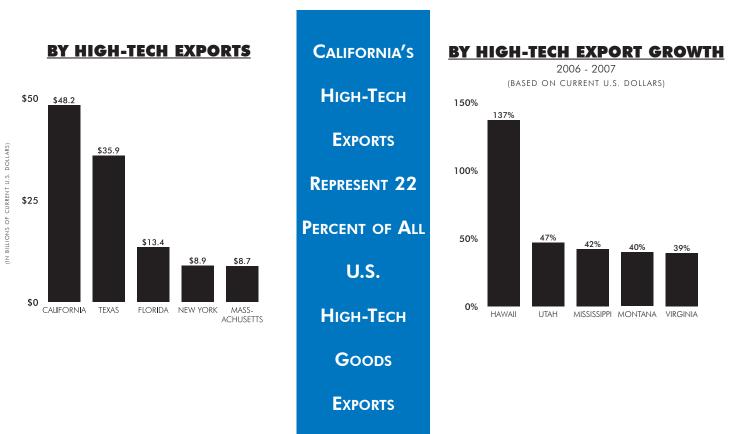
1.	Hawaii	136.8%
2.	Utah	46.9%
3.	Mississippi	42.0%
4.	Montana	39.7%
5.	Virginia	39.1%

Data are rounded.

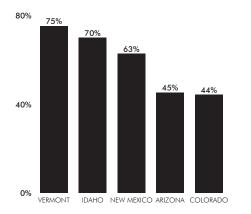
In current U.S. dollars



EXPORTS	CALIFORNIA
NUMERIC EXPORT GROWTH (2006 - 2007)	VIRGINIA
PERCENT EXPORT GROWTH (2006 - 2007)	HAWAII
EXPORT CONCENTRATION	VERMONT



## **BY TECH EXPORT CONCENTRATION**

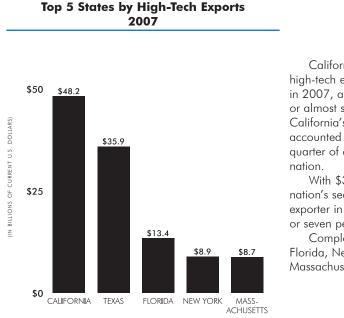


Data are rounded. Source: U.S. Bureau of the Census



## **CHAPTER 2: HIGH-TECH EXPORTS BY LEADING CYBERSTATES**

#### **California Leads the Nation in High-Tech Exports**



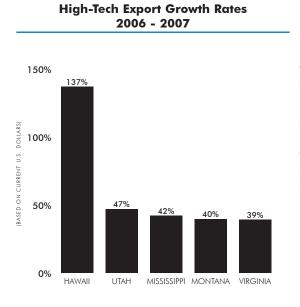
California led the country in high-tech exports with \$48.2 billion in 2007, a decrease of \$3.5 billion or almost seven percent from 2006. California's high-tech exports accounted for a little under onequarter of all high-tech exports in the nation.

With \$35.9 billion, Texas was the nation's second leading high-tech exporter in 2007, down \$2.7 billion or seven percent from 2006.

Completing the top five were Florida, New York, and Massachusetts.

Source: U.S. Bureau of the Census

### Hawaii Leads the Nation by High-Tech Export Growth Rate

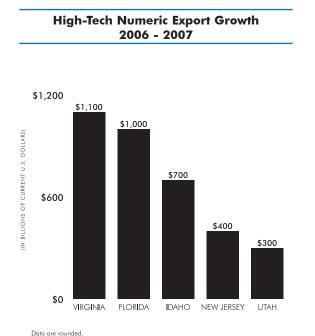


Twenty-nine cyberstates saw their tech exports increase between 2006 and 2007. Fourteen states grew by more than 10 percent. Hawaii led with a high-tech export growth rate of 137 percent, increasing from \$15 million in 2006 to \$37 million in 2007. Following closely were Utah, Mississippi, Montana, and Virginia.



## **CHAPTER 2: HIGH-TECH EXPORTS BY LEADING CYBERSTATES**

#### Virginia Boasts the Largest Increase in Technology Exports



High tech exports from Virginia increased by \$1.1 billion to \$3.9 billion in 2007, the largest gain in the nation.

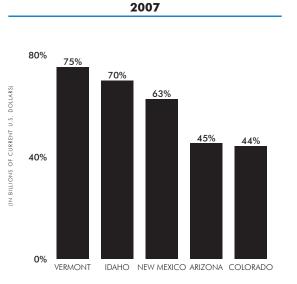
Florida, the third largest exporter of high-tech goods, saw the second largest gains between 2006 and 2007, adding \$1 billion.

Idaho, New Jersey, and Utah also saw impressive increases in high-tech exports from 2006 to 2007 – upwards of at least \$300 million each.

California experienced the largest decrease, dropping \$3.5 billion from 2006 to 2007. This is a sharp contrast to its performance in 2006 when it added \$4 billion, the second largest increase that year.

### Source: U.S. Bureau of the Census

#### Vermont Has the Highest Concentration of Tech Exports



Tech Exports as a Percent of Total Exports

Vermont's exports continue to be the most heavily dependent on technology, with high-tech products accounting for 75 percent of all exports in the state.

High-tech is also vital to the export activity of Idaho, comprising 70 percent of all goods exported from the state.

Completing the top five cyberstates by concentration were New Mexico (63 percent), Arizona (45 percent), and Colorado (44 percent).



#### **INTRODUCTION**

This chapter consists of high-technology export overview pages for each state, the District of Columbia, and Puerto Rico. Each page provides an indepth look at leading high-tech export sectors and leading export destinations, as well as high-tech trade trends over time. Also included are statistics on the number of jobs supported by high-tech exports.

For ease of comparison, each state is assigned a ranking in terms of high-tech exports and tech export concentration. Each state is then analyzed in terms of historic export data from 2001 to 2007, capturing trends over this time period as well as recent growth from 2006 to 2007. More specifically, leading tech export sectors and their relative size and importance to each state are identified. For example, in 2007, computers and peripheral equipment was the largest component of high-tech exports in California with \$12.3 billion, just above semiconductors with \$12.2 billion.

The overviews also provide the top five leading high-tech export destinations for individual states. For example, Massachusetts' leading export destination was Japan, followed by Germany and Canada. In contrast, Florida's leading high-tech export destinations were Brazil, Venezuela, and Mexico.

Top cyberstates by exports in 2007 were California, Texas, Florida, New York, and Massachusetts. Technology exports showed new growth for the industry, increasing in 29 cyberstates between 2006 and 2007. Virginia, Florida, and Idaho had the largest increases, jumping by \$1.1 billion, \$989 million, and \$695 million, respectively.

Leading cyberstates by percentage growth were Hawaii, Utah, and Mississippi, which, though starting from smaller bases, increased their exports by 137 percent, 47 percent, and 42 percent, respectively.

California led in six of the eight high-tech export sectors, outstripped by Texas in exports of communications equipment and electronic components. Semiconductors were the largest export sector at \$50.0 billion. The next leading cyberstates in exports of semiconductors were Texas, Arizona, Oregon, and Idaho.

All data come from or are derived from official U.S. Bureau of the Census statistics.

#### **TOP 5 CYBERSTATES**

#### BY HIGH-TECH EXPORTS 2007

	United States	\$214.3 B
1.	California	\$48.2 B
2.	Texas	\$35.9 B
3.	Florida	\$13.4 B
4.	New York	\$8.9 B
5.	Massachusetts	\$8.7 B

#### BY SEMICONDUCTOR EXPORTS, 2007

#### \$50.0 B United States California \$12.2 B 1. 2. Texas \$8.7 B 3. Arizona \$4.1 B \$3.9 B 4. Oregon 5 Idaho \$2.8 B

#### BY COMMUNICATIONS EQUIPMENT EXPORTS, 2007

	United States	\$29.7 B
1.	Texas	\$8.8 B
2.	California	\$5.7 B
3.	Florida	\$3.3 B
4.	Illinois	\$1.3 B
5.	New York	\$1.2 B

#### BY COMPUTERS AND PERIPHERAL EQUIPMENT EXPORTS, 2007

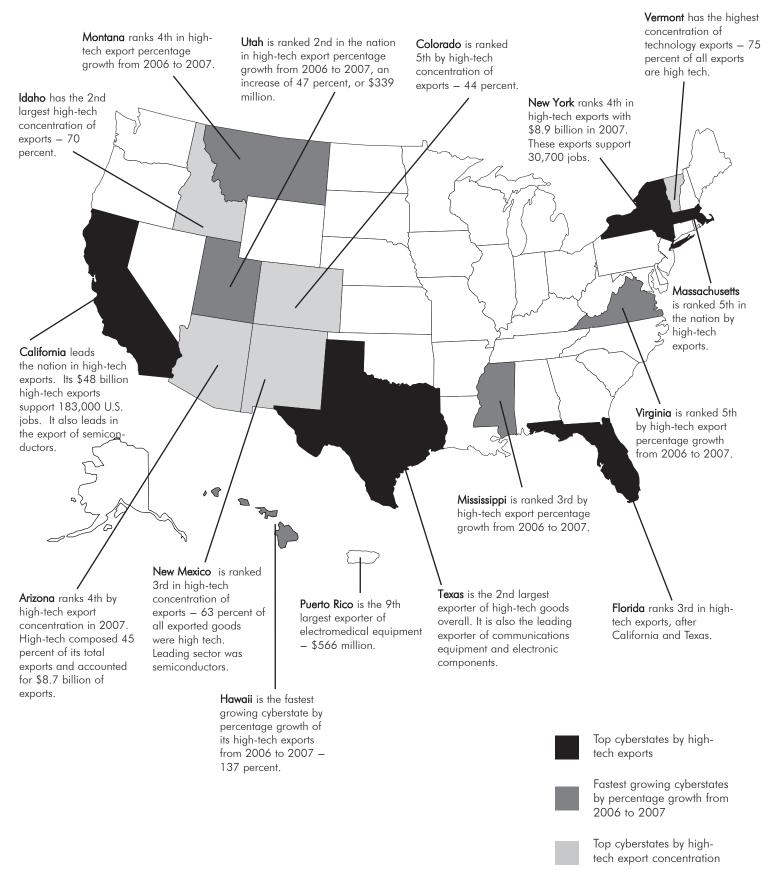
	United States	\$47.1 B
1.	California	\$12.3 B
2.	Texas	\$7.0 B
3.	Florida	\$5.1 B
4.	New York	\$2.2 B
5.	Tennessee	\$1.7 B
5.	Tennessee	÷··· -



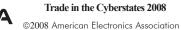
## AN OVERVIEW OF HIGH TECH IN AMERICA

## 2007

## **LEADING CYBERSTATES**



23



## ALABAMA

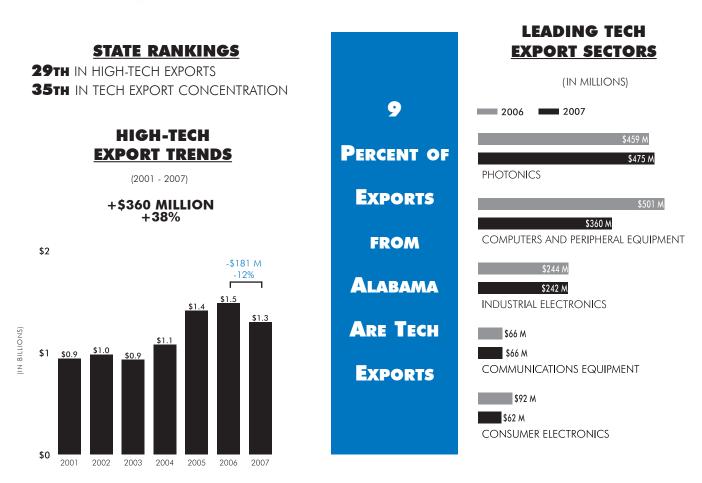
## AND HIGH-TECH INDUSTRY EXPORTS



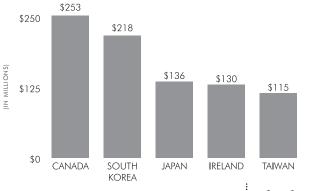
TECH EXPORTS	\$1.3 BILLION	
TOTAL EXPORTS	\$14.4 BILLION	
TECH AS A PERCENT OF TOTAL EXPORTS	9%	
EMPLOYMENT SUPPORTED BY		

HIGH-TECH EXPORTS

5,400



## **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census



Trade in the Cyberstates 2008 ©2008 American Electronics Association

**2007** KEY TECH EXPORT STATISTICS

## ALASKA

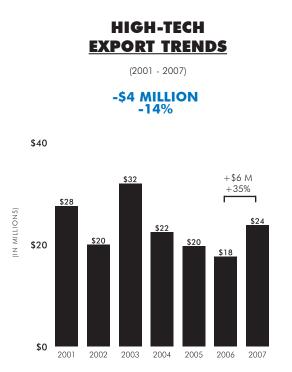
2007 KEY TECH EXPORT STATISTICS

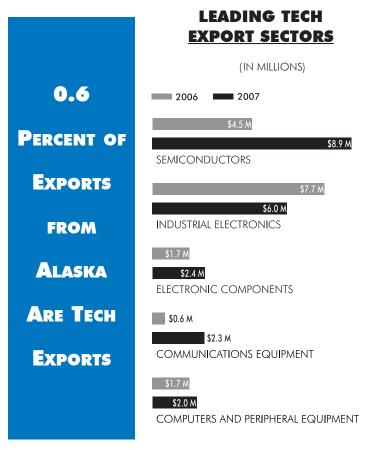




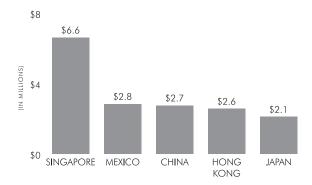
TECH EXPORTS TOTAL EXPORTS	<b>\$24 MILLION</b> \$4.0 BILLION	
TECH AS A PERCENT OF TOTAL EXPORTS	0.6%	
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	200	

STATE RANKINGS 51st in high-tech exports 52nd in tech export concentration





## **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census





## ARIZONA

2007 KEY TECH EXPORT STATISTICS

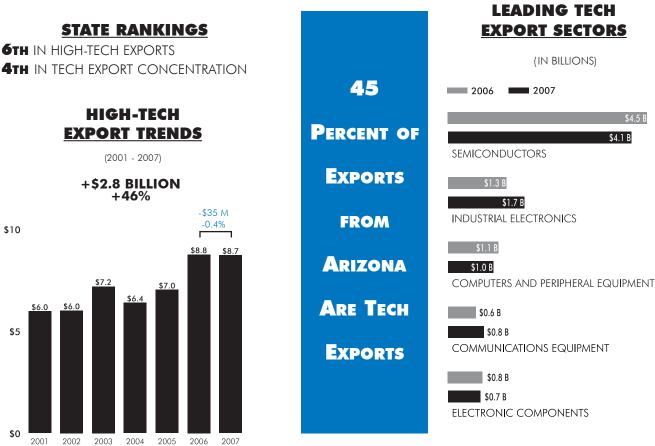
## AND HIGH-TECH INDUSTRY EXPORTS



TECH EXPORTS	\$8.7 BILLION
TOTAL EXPORTS	\$19.2 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	45%

EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS

36,400



## **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census

(IN BILLIONS)



## ARKANSAS

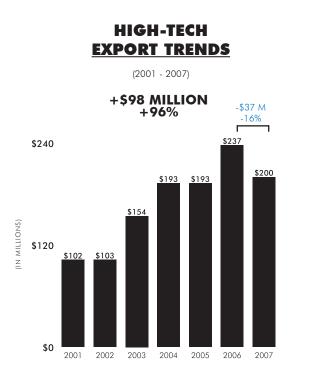
## 2007 KEY TECH EXPORT STATISTICS

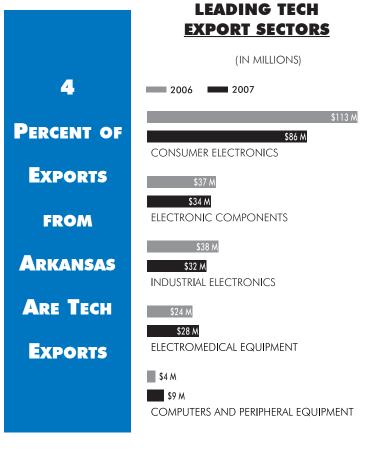


	EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	900
All I	TECH AS A PERCENT OF TOTAL EXPORTS	4%
Nor.	TECH EXPORTS TOTAL EXPORTS	\$200 MILLION \$4.9 BILLION

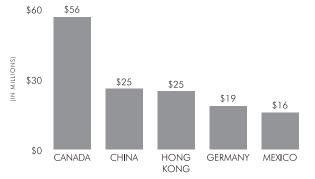
**STATE RANKINGS** 

**45TH** IN HIGH-TECH EXPORTS **46TH** IN TECH EXPORT CONCENTRATION





## **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census



Trade in the Cyberstates 2008 ©2008 American Electronics Association

## **CALIFORNIA**

2007 **KEY TECH EXPORT STATISTICS** 

## AND HIGH-TECH **INDUSTRY EXPORTS**



TECH EXPORTS	\$48.2 BILLION
TOTAL EXPORTS	\$134 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	36%

(IN BILLIONS)

EMPLOYMENT SUPPORTED BY **HIGH-TECH EXPORTS** 

183,000

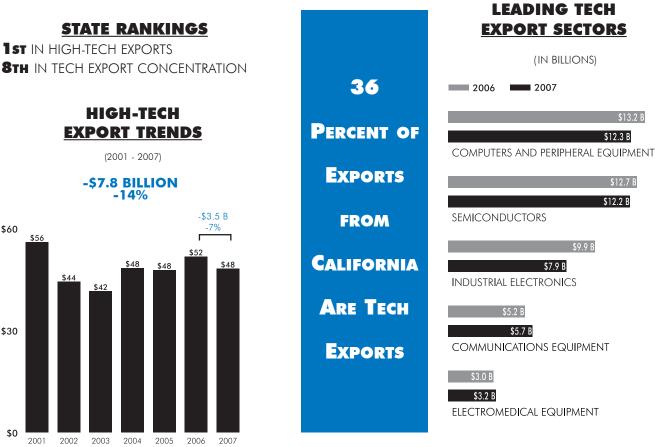
\$13.2 B

\$12.3 B

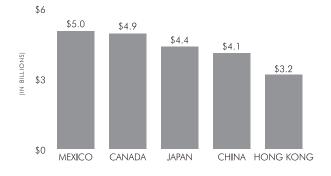
\$12.7 B

\$12.2 B

\$9.9 B



## **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census

\$60

\$30

\$0

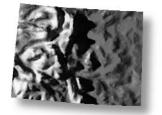
(IN BILLIONS)





## COLORADO

## AND HIGH-TECH INDUSTRY EXPORTS



## TECH EXPORTS

TOTAL EXPORTS

### \$3.3 BILLION

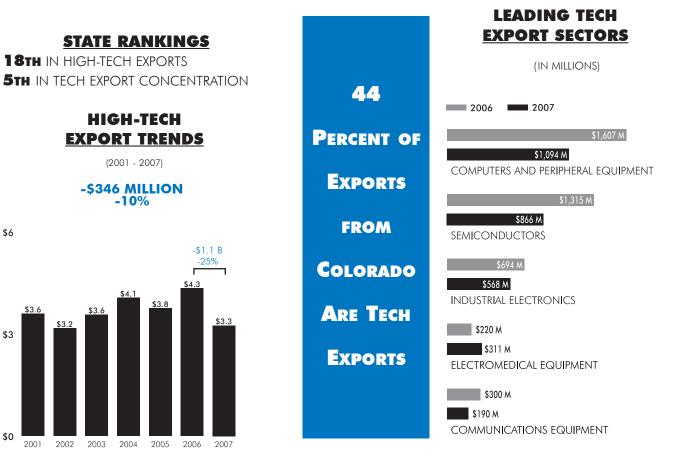
\$7.4 BILLION

TECH AS A PERCENT OF TOTAL EXPORTS

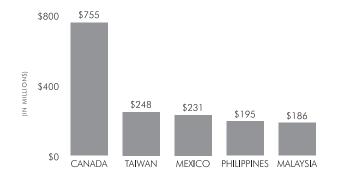
## EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS

15,800

44%



## **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census

(IN BILLIONS)





## **2007** KEY TECH EXPORT STATISTICS

## CONNECTICUT

## AND HIGH-TECH **INDUSTRY EXPORTS**

TECH EXPORTS TOTAL EXPORTS	\$1.9 BILLION \$13.8 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	14%
EMPLOYMENT SUPPORTED BY	

**KEY TECH EXPORT STATISTICS** 

(IN MILLIONS)

\$283 M

**HIGH-TECH EXPORTS** 

2007

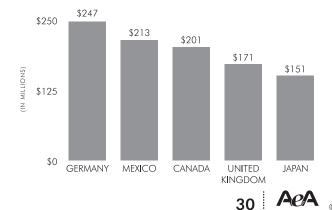
5,600

\$563 M

\$538 M

**LEADING TECH STATE RANKINGS EXPORT SECTORS 25TH IN HIGH-TECH EXPORTS 25TH** IN TECH EXPORT CONCENTRATION 14 2006 2007 **HIGH-TECH** PERCENT OF **EXPORT TRENDS** INDUSTRIAL ELECTRONICS (2001 - 2007) Exports \$245 M +\$579 MILLION +44% -\$31 M -2% COMMUNICATIONS EQUIPMENT FROM ۲ \$1.9 \$2 \$1.9 \$1.9 \$270 M CONNECTICUT \$280 M ELECTRONIC COMPONENTS \$1.4 \$1.3 **ARE TECH** (IN BILLIONS) \$1 \$219 M PHOTONICS Exports \$208 M \$193 M ELECTROMEDICAL EQUIPMENT \$0

## **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census

2001

2002

2003

2004 2005

2006

2007



## DELAWARE

## AND HIGH-TECH INDUSTRY EXPORTS



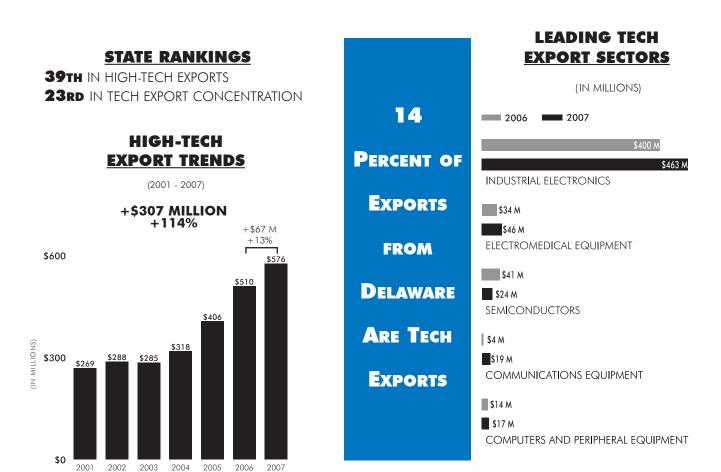
TECH EXPORTS TOTAL EXPORTS	\$576 MILLION \$4.0 BILLION	
TECH AS A PERCENT OF TOTAL EXPORTS	14%	
EMPLOYMENT SUPPORTED BY		

**KEY TECH EXPORT STATISTICS** 

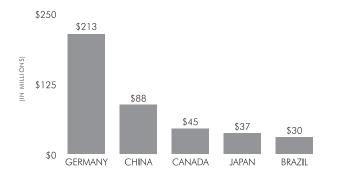
### HIGH-TECH EXPORTS

2007

2,400



## **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census

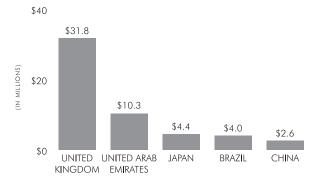


## DISTRICT OF COLUMBIA 2007

## AND HIGH-TECH INDUSTRY EXPORTS

	TECH EXPORTS TOTAL EXPORTS	<b>\$88 MILLION</b> \$1.1 BILLION
	TECH AS A PERCENT	OF TOTAL EXPORTS 8%
	EMPLOYMENT S HIGH-TECH EXP	
STATE RANKINGS 47th in high-tech exports 38th in tech export concentration	8	LEADING TECH EXPORT SECTORS (IN MILLIONS)
HIGH-TECH	PERCENT OF EXPORTS	2006 2007 \$35 M
EXPORT TRENDS (2001 - 2007)	EXPORTS	\$39 M COMMUNICATIONS EQUIPMENT
-\$8 MILLION -9%	FROM	\$25 M \$27 M
\$200	THE	INDUSTRIAL ELECTRONICS
\$171 -\$4 M	DISTRICT OF	\$21 M \$13 M COMPUTERS AND PERIPHERAL EQUIPMENT
\$119 \$100 \$96 \$88 \$92 \$88	Columbia	\$2 M \$2 M
\$0 2001 2002 2003 2004 2005 2006 2007	ARE TECH EXPORTS	ELECTRONIC COMPONENTS \$2 M \$2 M CONSUMER ELECTRONICS

## **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census

(IN MILLIONS)



Trade in the Cyberstates 2008 ©2008 American Electronics Association

## **FLORIDA**

2007 **KEY TECH EXPORT STATISTICS** 

## AND HIGH-TECH INDUSTRY EXPORTS



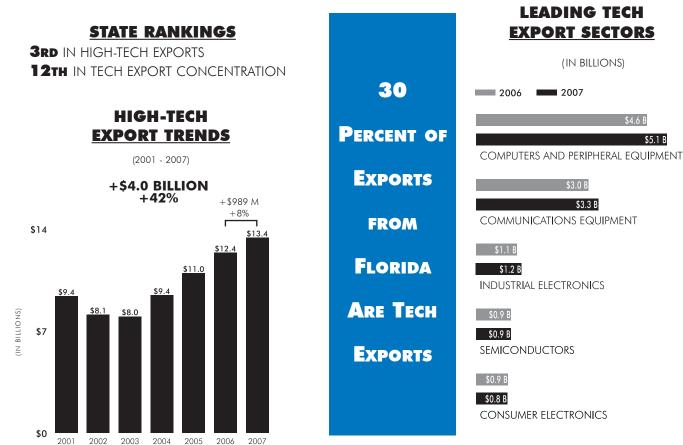
TECH EXPORTS	\$13.4 BILLION
TOTAL EXPORTS	\$44.9 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	30%

**EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS** 

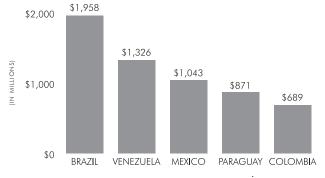
69,900

\$4.6 B

\$5.1 B



## **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census



33

## GEORGIA

2007 KEY TECH EXPORT STATISTICS

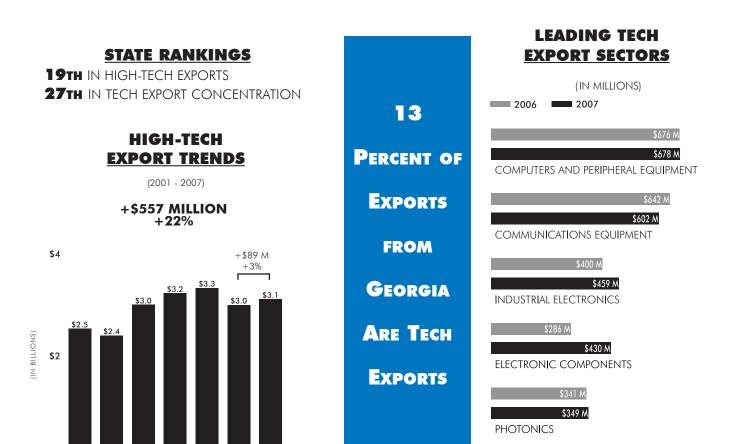
## AND HIGH-TECH INDUSTRY EXPORTS

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		IN		-
				4

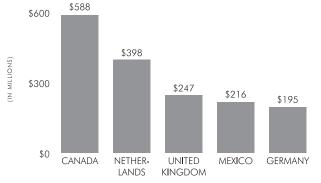
TECH EXPORTS TOTAL EXPORTS	\$3.1 BILLION \$23.4 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	13%
EMPLOYMENT SUPPORTED BY	

HIGH-TECH EXPORTS

13,100



**LEADING EXPORT DESTINATIONS** 



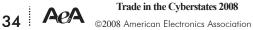
Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census

\$0

2001 2002

2003 2004 2005 2006

2007



### HAWAII

#### 2007 **KEY TECH EXPORT STATISTICS**



1 13

\$59 \$60

(IN MILLIONS)

\$30

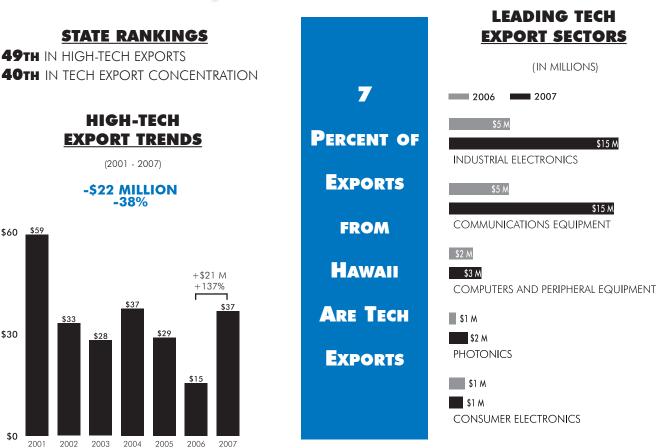
\$0

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	and the second second

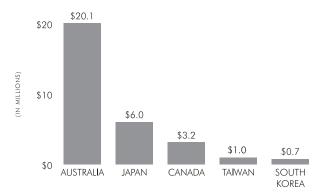
TECH EXPORTS	\$37 MILLION
TOTAL EXPORTS	\$560 MILLION
TECH AS A PERCENT OF TOTAL EXPORTS	7%

#### **EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS**

1,200



#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census



## IDAHO

2007 **KEY TECH EXPORT STATISTICS** 

## AND HIGH-TECH INDUSTRY EXPORTS



+147%

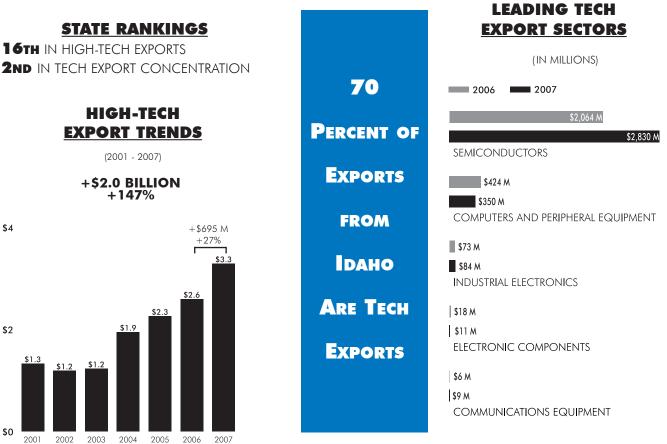
\$1.2

2003

TECH EXPORTS	\$3.3 BILLION
TOTAL EXPORTS	\$4.7 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	70%
EMPLOYMENT SUPPORTED BY	

**HIGH-TECH EXPORTS** 

13,500



#### LEADING EXPORT DESTINATIONS



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census

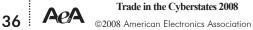
\$4

(IN BILLIONS) \$2

\$0

2001

2002



# ILLINOIS

2007 KEY TECH EXPORT STATISTICS

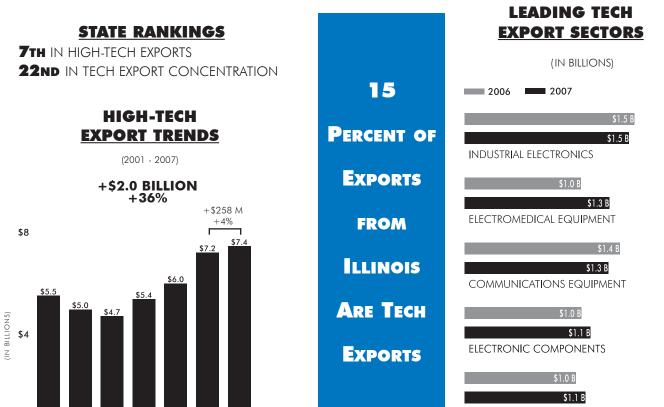
# AND HIGH-TECH INDUSTRY EXPORTS



TECH EXPORTS	<b>\$7.4 BILLION</b>
TOTAL EXPORTS	\$48.9 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	15%
EMPLOYMENT SUPPOPTED BY	

HIGH-TECH EXPORTS

28,700



COMPUTERS AND PERIPHERAL EQUIPMENT

#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census

\$0

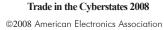
2001

2002

2003 2004 2005 2006

2007





### INDIANA

## AND HIGH-TECH INDUSTRY EXPORTS

**STATE RANKINGS** 

**24TH IN HIGH-TECH EXPORTS** 

TECH EXPORTS TOTAL EXPORTS	\$2.2 BILLION \$26 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	8%
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	6,800

2006 2007

INDUSTRIAL ELECTRONICS

\$302 M

\$257 M

\$209 M \$189 M

\$246 M

CONSUMER ELECTRONICS

ELECTROMEDICAL EQUIPMENT

ELECTRONIC COMPONENTS

**KEY TECH EXPORT STATISTICS** 

**LEADING TECH** 

**EXPORT SECTORS** 

COMPUTERS AND PERIPHERAL EQUIPMENT

\$504 M

\$472 M

\$512 M

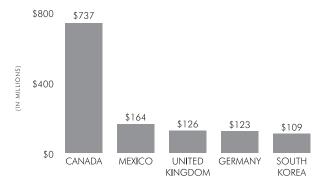
(IN MILLIONS)

\$652 M

2007

**36TH** IN TECH EXPORT CONCENTRATION 8 **HIGH-TECH PERCENT OF EXPORT TRENDS** (2001 - 2007) EXPORTS +\$422 MILLION +24% FROM \$3.0 -\$177 M -8% Г INDIANA \$2.34 2.16 \$2.09 \$1.88 **ARE TECH** \$1.79 \$1.74 (IN BILLIONS) \$1.5 **Exports** \$0 2001 2002 2003 2004 2005 2006 2007

### LEADING EXPORT DESTINATIONS



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census





### IOWA

2007 KEY TECH EXPORT STATISTICS

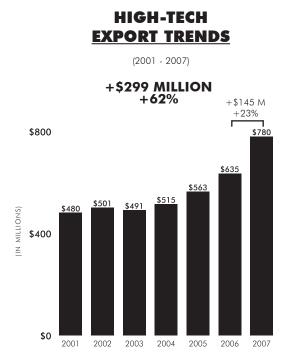
# AND HIGH-TECH INDUSTRY EXPORTS

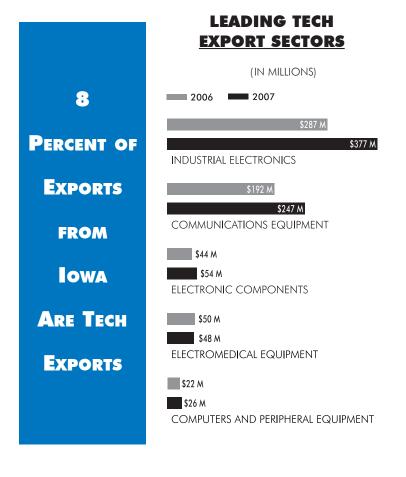
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124	•	15		
		20	18	
	1	2	N	

TECH EXPORTS TOTAL EXPORTS	\$780 MILLION \$9.7 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	8%
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	3,500

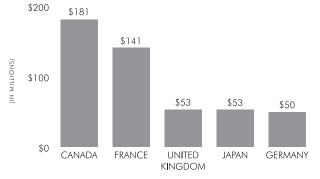
**STATE RANKINGS** 

**36TH** IN HIGH-TECH EXPORTS **39TH** IN TECH EXPORT CONCENTRATION





#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census

### 39 **AeA**



### KANSAS

2007 KEY TECH EXPORT STATISTICS

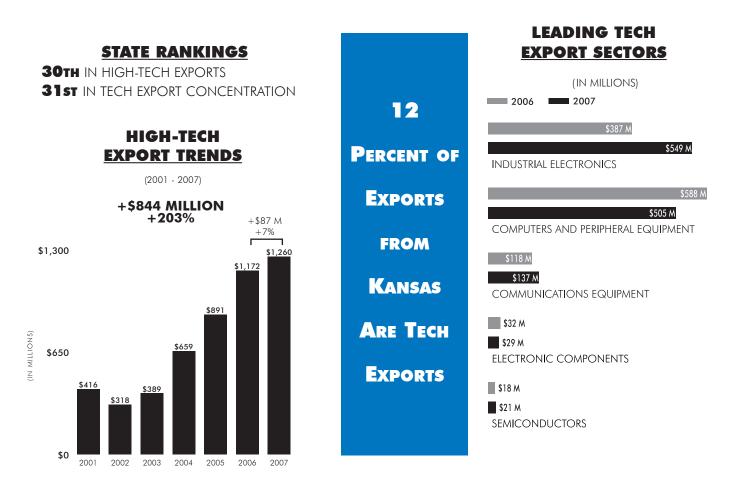
## AND HIGH-TECH INDUSTRY EXPORTS

2 1			
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142	15		<b>3 1 3 3</b>
1. 19	0,000		10.00

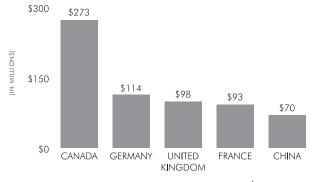
TECH EXPORTS TOTAL EXPORTS	\$1.3 BILLION \$10.3 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	12%
EMPLOYMENT SUPPORTED BY	

HIGH-TECH EXPORTS

5,000



#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census



# KENTUCKY

### 2007 KEY TECH EXPORT STATISTICS

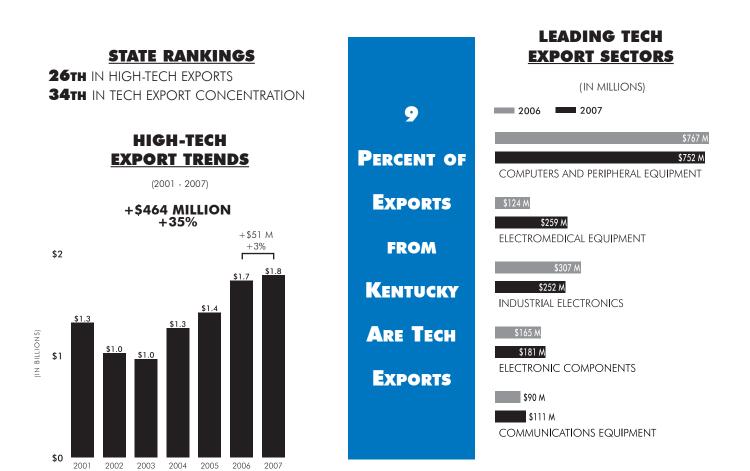
# AND HIGH-TECH INDUSTRY EXPORTS



TECH EXPORTS	\$1.8 BILLION
TOTAL EXPORTS	\$19.7 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	9%

#### EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS

6,100



#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census



# LOUISIANA

# AND HIGH-TECH INDUSTRY EXPORTS



TECH EXPORTS TOTAL EXPORTS	\$312 MILLION \$30.3 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	1%
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	2,400

**KEY TECH EXPORT STATISTICS** 

2007

**LEADING TECH STATE RANKINGS EXPORT SECTORS 42ND** IN HIGH-TECH EXPORTS (IN MILLIONS) **51st** in tech export concentration 1 2006 2007 **HIGH-TECH** \$178 M **PERCENT OF EXPORT TRENDS** \$246 M INDUSTRIAL ELECTRONICS (2001 - 2007) EXPORTS \$14 M +\$133 MILLION +75% \$21 M +\$73 M +31% COMMUNICATIONS EQUIPMENT FROM \$350 \$312 \$18 M LOUISIANA \$18 M COMPUTERS AND PERIPHERAL EQUIPMENT \$239 \$222 **ARE TECH** \$9 M \$179 \$175 \$12 M \$156 ELECTRONIC COMPONENTS \$140 Exports \$132 \$13 M \$6 M ELECTROMEDICAL EQUIPMENT \$0 2001 2002 2003 2004 2005 2006 2007

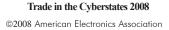
#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census

(IN MILLIONS)





### MAINE

2007 KEY TECH EXPORT STATISTICS

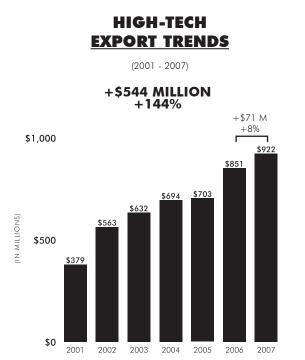
## AND HIGH-TECH INDUSTRY EXPORTS



TECH EXPORTS TOTAL EXPORTS	\$922 MILLION \$2.8 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	34%
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	3,600

**STATE RANKINGS** 

**34TH** IN HIGH-TECH EXPORTS **10TH** IN TECH EXPORT CONCENTRATION



#### **LEADING TECH EXPORT SECTORS** (IN MILLIONS) 34 2006 2007 \$715 M PERCENT OF \$790 M SEMICONDUCTORS **Exports** \$39 M \$50 M INDUSTRIAL ELECTRONICS FROM \$46 M MAINE \$27 M COMMUNICATIONS EQUIPMENT **ARE TECH** \$21 M \$24 M ELECTRONIC COMPONENTS EXPORTS \$10 M \$12 M COMPUTERS AND PERIPHERAL EQUIPMENT

#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census



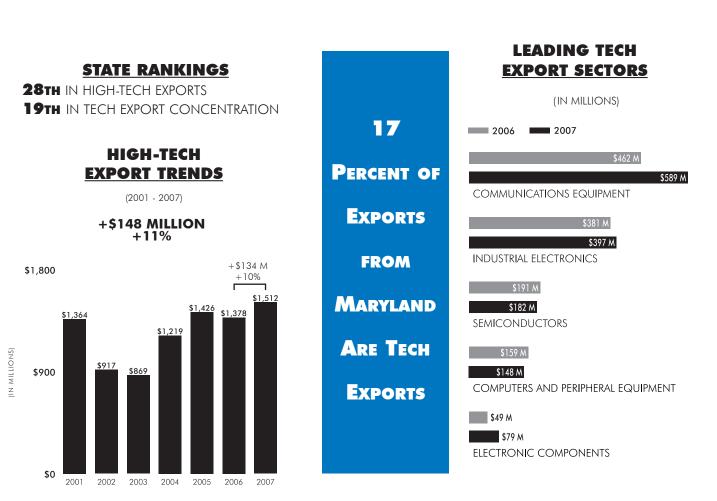
### MARYLAND

2007 KEY TECH EXPORT STATISTICS

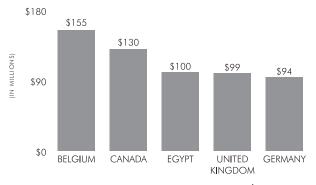
### AND HIGH-TECH INDUSTRY EXPORTS



TECH EXPORTS TOTAL EXPORTS	<b>\$1.5 BILLION</b> \$8.9 BILLION	
TECH AS A PERCENT OF TOTAL EXPORTS	17%	
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	6,700	



#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census



### **MASSACHUSETTS**

### 2007 KEY TECH EXPORT STATISTICS

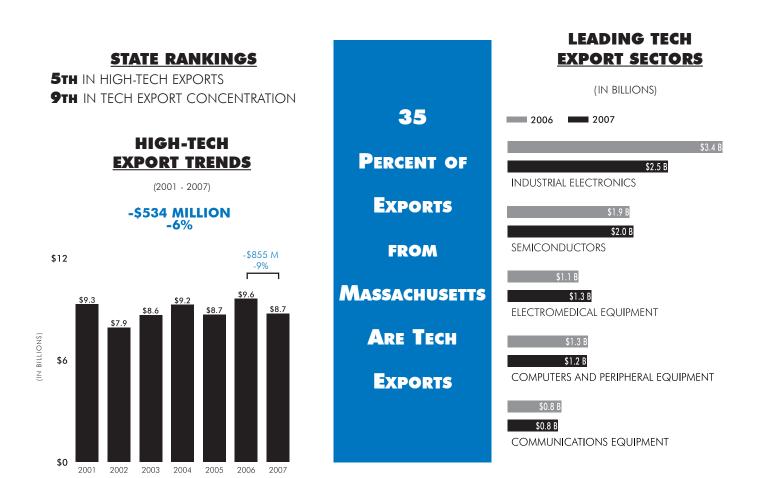
### AND HIGH-TECH INDUSTRY EXPORTS

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		and Street	-

TECH EXPORTS	\$8.7 BILLION	
TOTAL EXPORTS	\$25.4 BILLION	
TECH AS A PERCENT OF TOTAL EXPORTS	35%	
EMPLOYMENT SUPPORTED BY		

#### HIGH-TECH EXPORTS

30,300



#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census





## MICHIGAN

2007 KEY TECH EXPORT STATISTICS

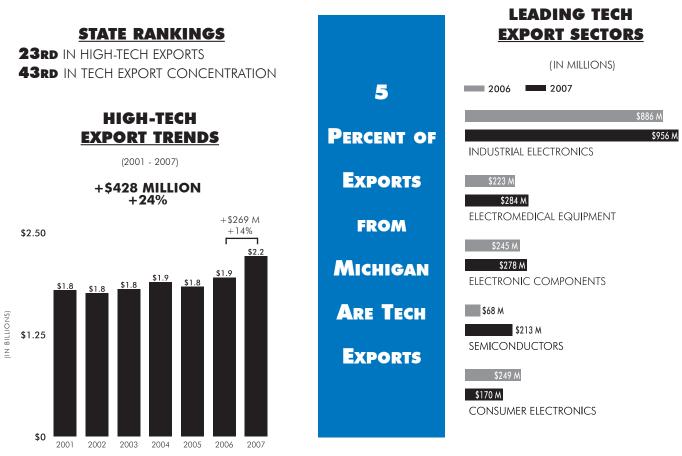
# AND HIGH-TECH INDUSTRY EXPORTS



TECH EXPORTS	\$2.2 BILLION
TOTAL EXPORTS	\$44.6 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	5%

EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS

6,500



#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census



### **MINNESOTA**

2007 KEY TECH EXPORT STATISTICS

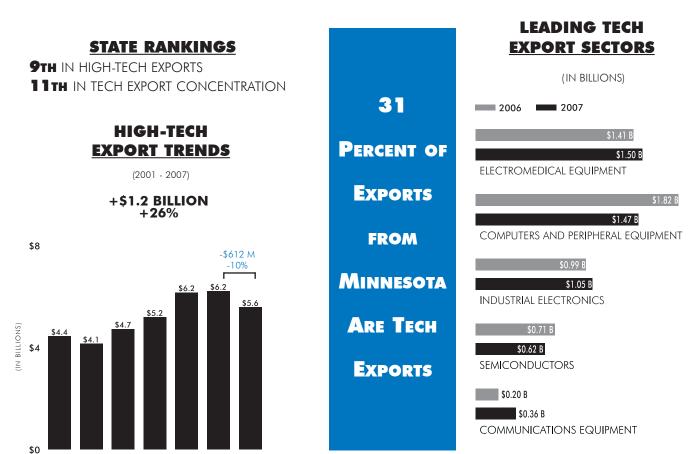




TECH EXPORTS	\$5.6 BILLION
TOTAL EXPORTS	\$18.1 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	31%
EMPLOYMENT SUPPORTED BY	

HIGH-TECH EXPORTS

20,800



#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census

2001

2002

2003 2004 2005

2006

2007



# MISSISSIPPI

2007 KEY TECH EXPORT STATISTICS

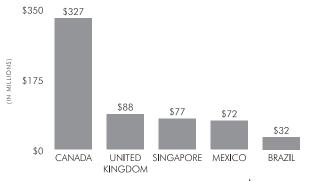
# AND HIGH-TECH INDUSTRY EXPORTS

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3		3
		81
		81
	670	

TECH EXPORTS TOTAL EXPORTS	\$821 MILLION \$5.2 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	16%
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	3,100

**LEADING TECH STATE RANKINGS EXPORT SECTORS 35TH IN HIGH-TECH EXPORTS** (IN MILLIONS) **21st** in tech export concentration 16 2006 2007 **HIGH-TECH** \$303 M **PERCENT OF EXPORT TRENDS** \$353 M **SEMICONDUCTORS** (2001 - 2007) EXPORTS \$73 M +\$537 MILLION +189% \$123 M COMPUTERS AND PERIPHERAL EQUIPMENT FROM \$1,000 +\$243 M +42%\$37 M \$821 MISSISSIPPI \$121 M COMMUNICATIONS EQUIPMENT **ARE TECH** \$78 M \$578 \$111 M \$500 ELECTRONIC COMPONENTS EXPORTS \$378 \$284 \$37 M \$57 M \$136 \$136 \$123 INDUSTRIAL ELECTRONICS \$0 2007 2001 2002 2003 2004 2005 2006

#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census

(IN MILLIONS)



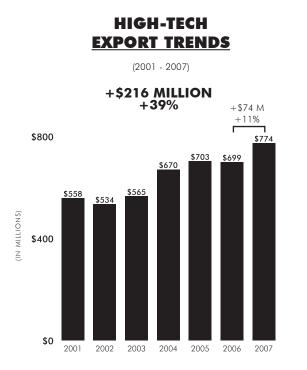
### MISSOURI

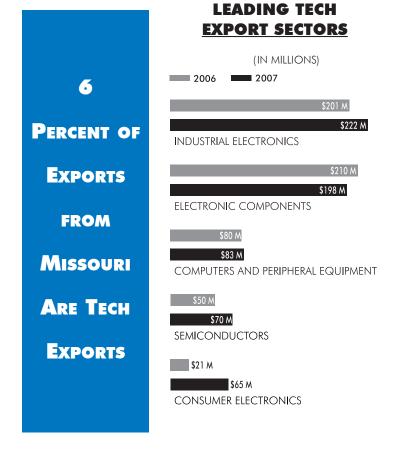
## AND HIGH-TECH **INDUSTRY EXPORTS**

TECH EXPORTS	<b>\$774 MILLION</b>
TOTAL EXPORTS	\$13.5 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	6%
EMPLOYMENT SUPPORTED BY	
HIGH-TECH EXPORTS	3,000

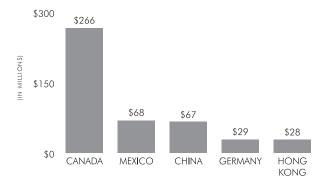
**STATE RANKINGS** 

**37TH** IN HIGH-TECH EXPORTS **42ND** IN TECH EXPORT CONCENTRATION





#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census



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#### 2007 **KEY TECH EXPORT STATISTICS**

3,000

# MONTANA

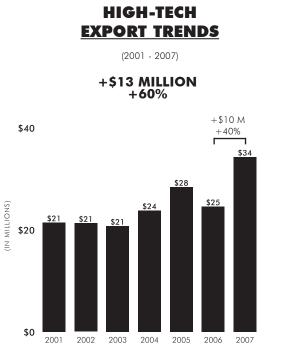
2007 KEY TECH EXPORT STATISTICS

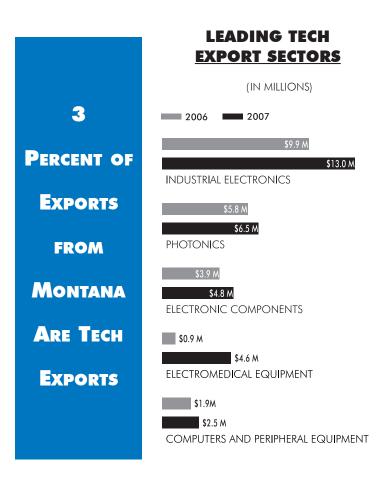


TECH EXPORTS TOTAL EXPORTS	\$34 MILLION \$1.1 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	3%
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	200

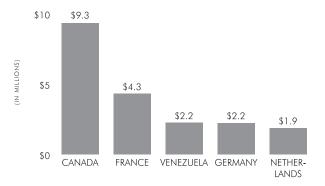
**STATE RANKINGS 50th** IN HIGH-TECH EXPORTS

**48th** IN TECH EXPORT CONCENTRATION





#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census



### NEBRASKA

#### 2007 **KEY TECH EXPORT STATISTICS**

\$72 M

\$69 M

\$88 M

## AND HIGH-TECH **INDUSTRY EXPORTS**

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TECH EXPORTS TOTAL EXPORTS	\$210 MILLION \$4.3 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	5%
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	1,200

**LEADING TECH STATE RANKINGS EXPORT SECTORS 44TH** IN HIGH-TECH EXPORTS (IN MILLIONS) **44TH** IN TECH EXPORT CONCENTRATION 5 2006 2007 **HIGH-TECH PERCENT OF EXPORT TRENDS** INDUSTRIAL ELECTRONICS (2001 - 2007) EXPORTS +\$22 MILLION +12% \$64 M ELECTRONIC COMPONENTS FROM +\$7 M \$250 +4%\$21 M \$210 NEBRASKA \$205 \$203 \$22 M \$188 COMMUNICATIONS EQUIPMENT \$168 \$166 \$163 **ARE TECH** IN MILLIONS) \$9 M \$125 \$10 M ELECTROMEDICAL EQUIPMENT **Exports** \$10 M \$9 M PHOTONICS \$0 2007 2001 2002 2003 2004 2005 2006

#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census



### NEVADA

AND HIGH-TECH INDUSTRY EXPORTS

**STATE RANKINGS** 

**38TH** IN HIGH-TECH EXPORTS

TECH EXPORTS TOTAL EXPORTS	\$714 MILLION \$5.7 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	13%
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	2,900

**28TH** IN TECH EXPORT CONCENTRATION 13 **HIGH-TECH EXPORT TRENDS** (2001 - 2007) +\$229 MILLION +47% -\$32 M -4% FROM \$800 r \$746 \$71/ \$688 \$62 \$521 **ARE TECH** \$486 IN MILLIONS) \$435 \$400 **Exports** \$0 2001 2002 2003 2004 2005 2006 2007

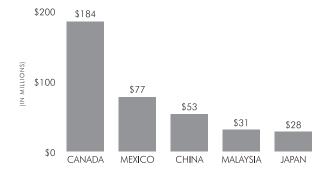
### (IN MILLIONS) 2006 2007 **PERCENT OF** SEMICONDUCTORS EXPORTS \$168 M \$58 M NEVADA \$59 M

# \$192 M INDUSTRIAL ELECTRONICS COMPUTERS AND PERIPHERAL EQUIPMENT

\$54 M \$52 M ELECTROMEDICAL EQUIPMENT

\$31 M \$37 M ELECTRONIC COMPONENTS

#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census



2007 **KEY TECH EXPORT STATISTICS** 

**LEADING TECH** 

**EXPORT SECTORS** 

\$382 M

\$336 M

### NEW HAMPSHIRE

2007 KEY TECH EXPORT STATISTICS

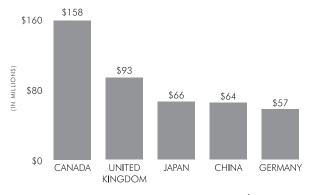
### AND HIGH-TECH INDUSTRY EXPORTS



TECH EXPORTS TOTAL EXPORTS	\$1.1 BILLION \$2.9 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	36%
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	3,000

**LEADING TECH STATE RANKINGS EXPORT SECTORS 32ND** IN HIGH-TECH EXPORTS (IN MILLIONS) 36 **7TH** IN TECH EXPORT CONCENTRATION 2006 2007 PERCENT OF **HIGH-TECH** \$368 M **EXPORT TRENDS** COMPUTERS AND PERIPHERAL EQUIPMENT Exports (2001 - 2007) \$262 M -\$125 MILLION \$258 M -11% FROM INDUSTRIAL ELECTRONICS \$1,600 -\$152 M \$135 M -13% NEW \$128 M <u>\$1,212</u> \$1,204 SEMICONDUCTORS \$1,176 HAMPSHIRE \$1 072 \$1,051 \$83 M \$905 \$858 \$96 M \$800 **ARE TECH** ELECTRONIC COMPONENTS \$103 M **Exports** \$89 M COMMUNICATIONS EQUIPMENT \$0

#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census

2001

2002

2003

2004

2005

2007

2006

(IN MILLIONS)





### **NEW JERSEY**

# AND HIGH-TECH INDUSTRY EXPORTS



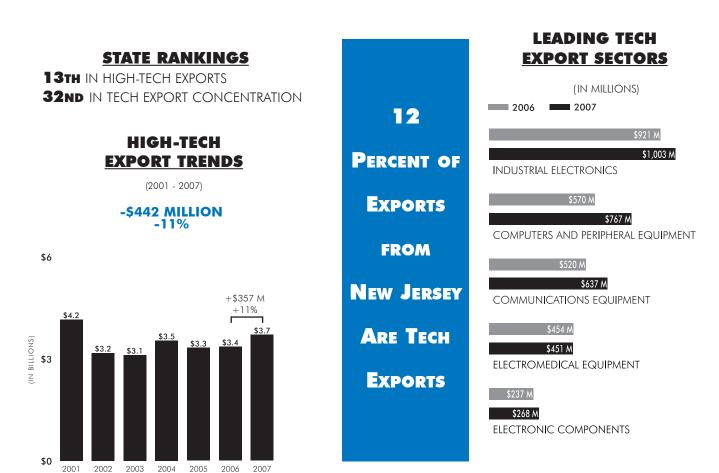
TECH EXPORTS	\$3.7 BILLION
TOTAL EXPORTS	\$30.8 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	12%
EMDI OVMENT SIIDDODTED BV	

**KEY TECH EXPORT STATISTICS** 

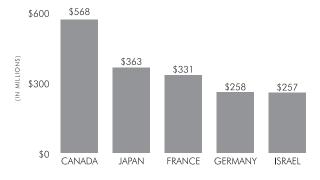
HIGH-TECH EXPORTS

2007

15,800



#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census





## **NEW MEXICO**

## AND HIGH-TECH INDUSTRY EXPORTS

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X				8
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TECH EXPORTS	\$1.6 BILLION	
TOTAL EXPORTS	\$2.6 BILLION	
TECH AS A PERCENT OF TOTAL EXPORTS	63%	
EMPLOYMENT SUPPORTED BY		

**KEY TECH EXPORT STATISTICS** 

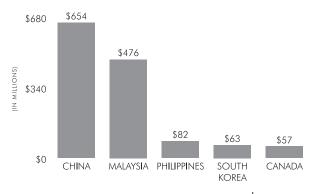
#### HIGH-TECH EXPORTS

2007

11,600

**LEADING TECH STATE RANKINGS EXPORT SECTORS 27TH** IN HIGH-TECH EXPORTS (IN MILLIONS) 63 **3RD** IN TECH EXPORT CONCENTRATION 2006 2007 PERCENT OF **HIGH-TECH** \$1,795 M **EXPORT TRENDS** \$1,337 M SEMICONDUCTORS Exports (2001 - 2007) \$90 M +\$512 MILLION +46% FROM \$95 M COMMUNICATIONS EQUIPMENT -\$488 M \$2.50 -23% New \$106 M \$2.1 \$87 M \$2.0 \$1.8 Μεχιζο INDUSTRIAL ELECTRONICS \$1.6 \$32 M \$1.4 **ARE TECH** \$35 M \$1.25 \$1.1 ELECTRONIC COMPONENTS \$0.8 **Exports** \$59 M \$35 M COMPUTERS AND PERIPHERAL EQUIPMENT \$0

#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census

2001

2002

2003

2004 2005 2006

2007

(IN BILLIONS)



55

### **NEW YORK**

2007 KEY TECH EXPORT STATISTICS

## AND HIGH-TECH INDUSTRY EXPORTS

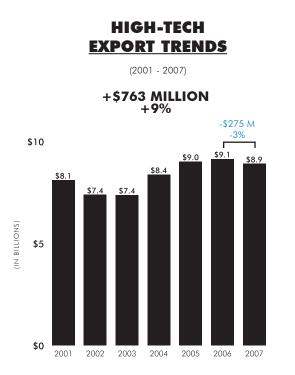


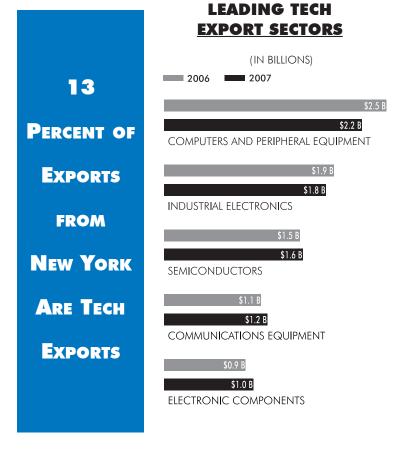
TECH EXPORTS	\$8.9 BILLION
TOTAL EXPORTS	\$71.1 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	13%
EMPLOYMENT SUPPORTED BY	

HIGH-TECH EXPORTS

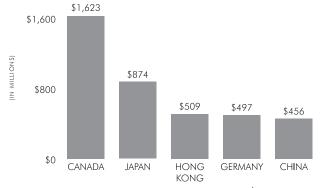
30,700

STATE RANKINGS 4th in high-tech exports 30th in tech export concentration





#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census



NORTH CAROLINA

**2007** KEY TECH EXPORT STATISTICS

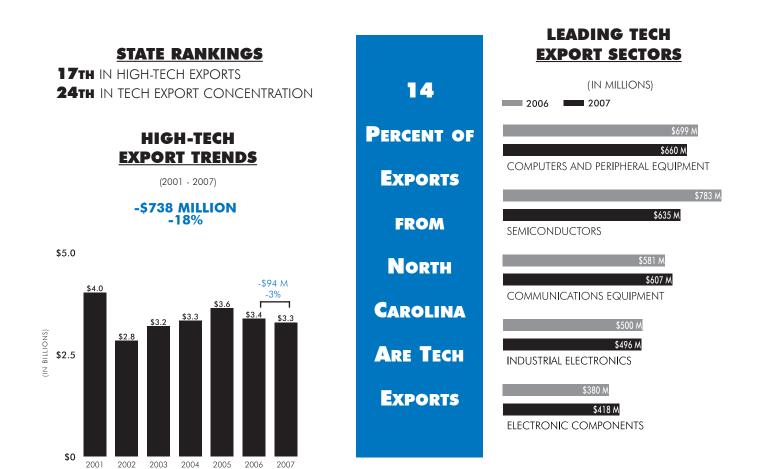
AND HIGH-TECH INDUSTRY EXPORTS

		1 how	4
_	68 17		7
AK		and and	
AND NO	-	Y	

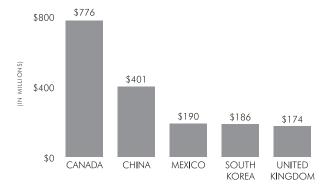
TECH EXPORTS TOTAL EXPORTS	\$3.3 BILLION \$23.4 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	14%
EMPLOYMENT SUPPORTED BY	

HIGH-TECH EXPORTS

11,700



#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census



### NORTH DAKOTA

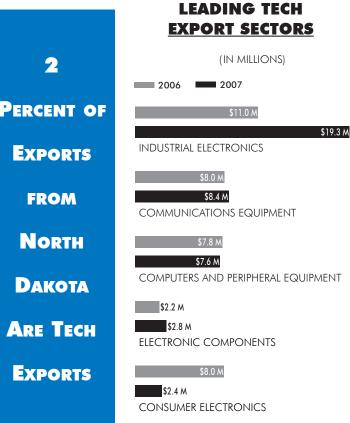
### 2007 KEY TECH EXPORT STATISTICS

AND HIGH-TECH INDUSTRY EXPORTS

1 march		
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1 × 1 × 1 ×	R. (Reality of the	

TECH EXPORTS TOTAL EXPORTS	\$42 MILLION \$2.0 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	2%
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	200

**STATE RANKINGS 48TH** IN HIGH-TECH EXPORTS 2 **49TH** IN TECH EXPORT CONCENTRATION PERCENT OF **HIGH-TECH EXPORT TRENDS Exports** (2001 - 2007) +\$21 MILLION +103%FROM +\$3 M +8%\$44 \$42 North \$39 Dakota \$28 \$26 (IN MILLIONS) **ARE TECH** \$22 \$22 \$21 \$18 **Exports** 



#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census

\$0

2001

2002

2003

2004

2005

2006

2007



## OHIO

2007 KEY TECH EXPORT STATISTICS

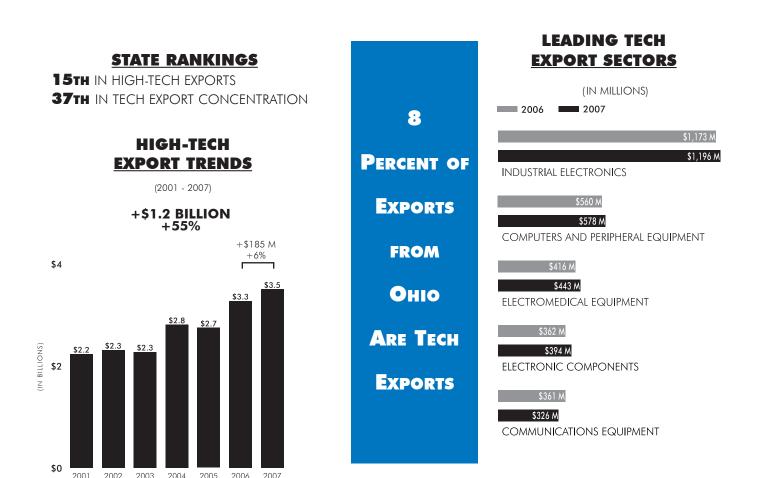
# AND HIGH-TECH INDUSTRY EXPORTS



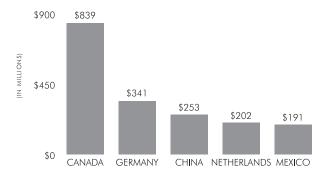
TECH EXPORTS	\$3.5 BILLION
TOTAL EXPORTS	\$42.6 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	8%

EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS

10,700



#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census



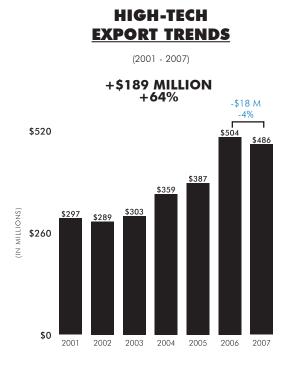


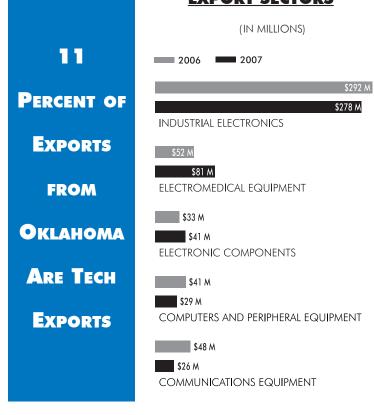
# OKLAHOMA

#### 2007 **KEY TECH EXPORT STATISTICS**



Bar Stand	TECH EXPORTS TOTAL EXPORTS	\$486 MILLION \$4.6 BILLION
	TECH AS A PERCENT OF TOTAL EXPORTS	11%
and the second	EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	1,800
STATE RANKINGS	LEADING Export S	
<b>40th</b> in high-tech exports <b>33rd</b> in tech export concentration	(IN MI	LLIONS)





#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census



### OREGON

2007 **KEY TECH EXPORT STATISTICS** 

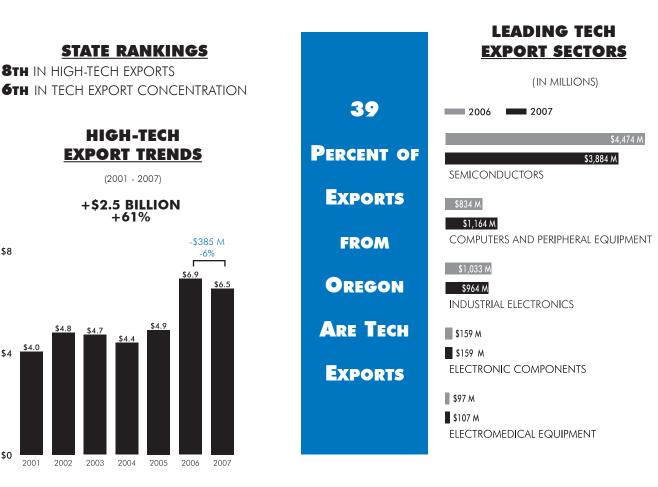
## AND HIGH-TECH **INDUSTRY EXPORTS**



TECH EXPORTS	\$6.5 BILLION	
TOTAL EXPORTS	\$16.5 BILLION	
TECH AS A PERCENT OF TOTAL EXPORTS	39%	

**EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS** 

33,900



#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census

\$8

(IN BILLIONS)

\$4

\$0





### PENNSYLVANIA

### 2007 KEY TECH EXPORT STATISTICS

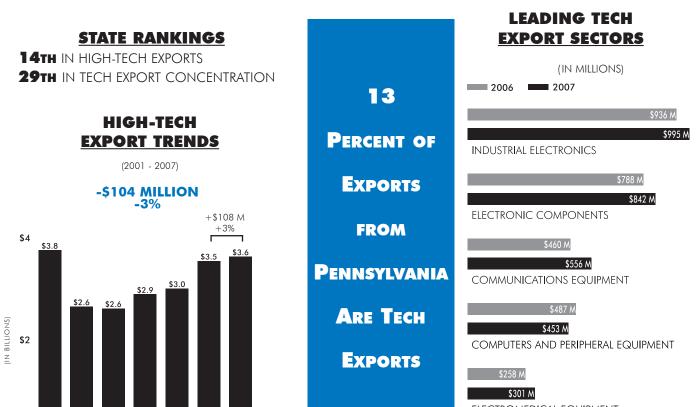
## AND HIGH-TECH INDUSTRY EXPORTS

1	1000
12/10	216
N.	1. 19

TECH EXPORTS	\$3.6 BILLION
TOTAL EXPORTS	\$29.2 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	13%
EMPLOYMENT SUPPORTED BY	

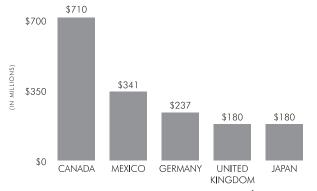
#### HIGH-TECH EXPORTS

12,500



ELECTROMEDICAL EQUIPMENT

#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census

**\$0** 2001

2002

2003

2004 2005 2006

2007





### **PUERTO RICO**

2007 KEY TECH EXPORT STATISTICS

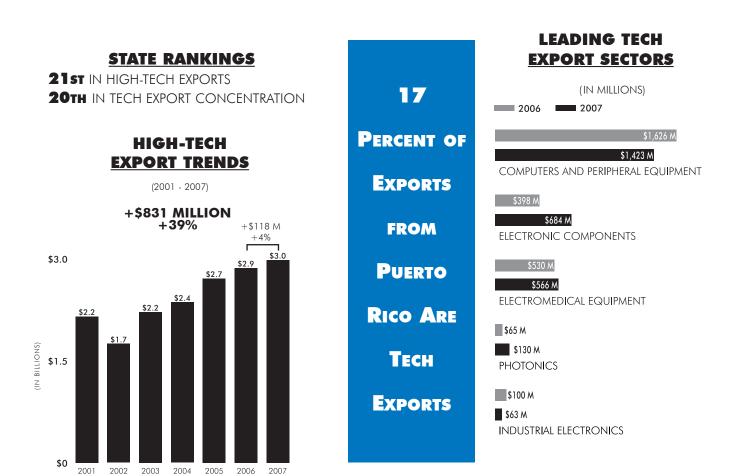
## AND HIGH-TECH INDUSTRY EXPORTS

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Contraction of the second

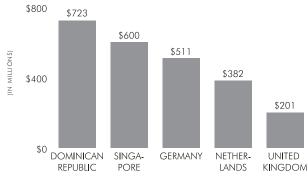
TECH EXPORTS	\$3.0 BILLION
TOTAL EXPORTS	\$18.1 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	17%

#### EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS

10,000



#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census



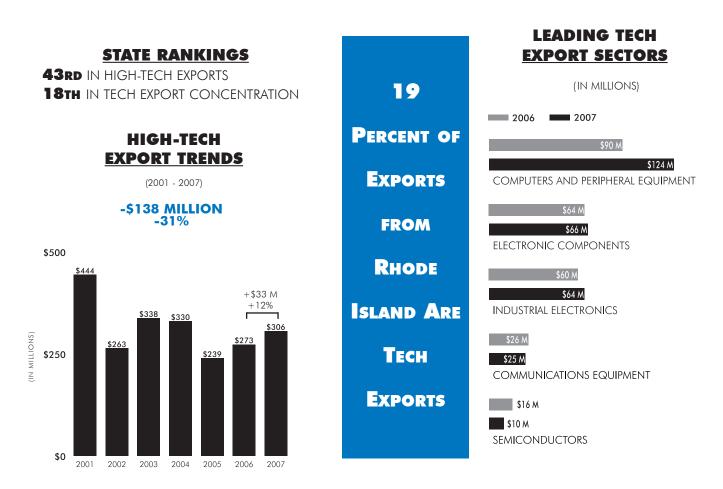
### **RHODE ISLAND**

## AND HIGH-TECH INDUSTRY EXPORTS

TECH EXPORTS TOTAL EXPORTS	\$306 MILLION \$1.6 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	19%
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	900

**KEY TECH EXPORT STATISTICS** 

2007



#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census



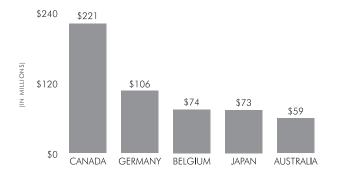
## SOUTH CAROLINA

### **2007** KEY TECH EXPORT STATISTICS

### AND HIGH-TECH INDUSTRY EXPORTS

	TECH EXPORTS TOTAL EXPORTS	<b>\$977 MILLION</b> \$16.6 BILLION
	TECH AS A PERCENT	OF TOTAL EXPORTS 6%
1. Second S	EMPLOYMENT S HIGH-TECH EXP	
STATE RANKINGS		LEADING TECH EXPORT SECTORS
<b>33rd</b> in high-tech exports <b>41st</b> in tech export concentration	6	(IN MILLIONS)
HIGH-TECH EXPORT TRENDS	PERCENT OF	2006 2007 \$260 M \$274 M
(2001 - 2007)	EXPORTS	INDUSTRIAL ELECTRONICS
+\$467 MILLION +92%	FROM	\$239 M \$268 M COMPUTERS AND PERIPHERAL EQUIPMENT
\$1,600 \$1,477 \$1,385 \$1,240	<b>S</b> оитн	\$172 M \$145 M
\$932	Carolina	CONSUMER ELECTRONICS
\$800 \$635 \$510	ARE TECH	\$134 m Electronic components
\$0 2001 2002 2003 2004 2005 2006 2007	Exports	\$79 M \$119 M COMMUNICATIONS EQUIPMENT

#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census

(IN MILLIONS)



### SOUTH DAKOTA

#### 2007 **KEY TECH EXPORT STATISTICS**

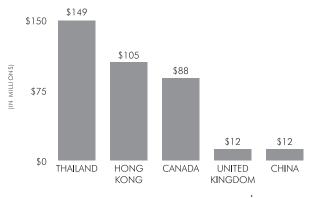
## AND HIGH-TECH **INDUSTRY EXPORTS**

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and the second s	EMF

TECH EXPORTS TOTAL EXPORTS	\$421 MILLION \$1.5 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	28%
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	1,600

**LEADING TECH STATE RANKINGS EXPORT SECTORS 41st** IN HIGH-TECH EXPORTS (IN MILLIONS) 28 **13TH** IN TECH EXPORT CONCENTRATION 2006 2007 PERCENT OF **HIGH-TECH EXPORT TRENDS** EXPORTS COMPUTERS AND PERIPHERAL EQUIPMENT (2001 - 2007) +\$211 MILLION \$91 M +101%FROM \$91 M COMMUNICATIONS EQUIPMENT +\$32 M \$500 +8%SOUTH \$9 M \$421 \$16 M \$389 INDUSTRIAL ELECTRONICS Dakota \$287 \$16 M \$272 **ARE TECH** \$15 M \$250 \$231 \$210 SEMICONDUCTORS \$179 **Exports** \$12 M \$10 M ELECTRONIC COMPONENTS \$0 2001 2002 2003 2004 2005 2006 2007

#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census

(IN MILLIONS)



\$252 M

\$284 M

### TENNESSEE

### 2007 KEY TECH EXPORT STATISTICS

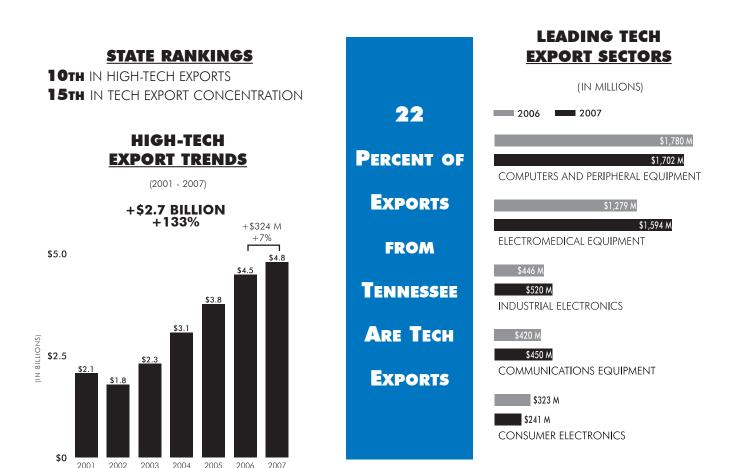


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ALE AL	STATISTICS AND	

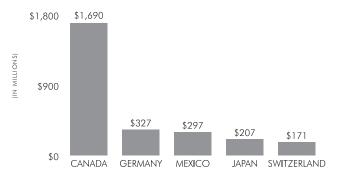
TECH EXPORTS	<b>\$4.8 BILLION</b>
TOTAL EXPORTS	\$21.9 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	22%
EMPLOYMENT SUPPORTED BY	

HIGH-TECH EXPORTS

17,900



#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census



### TEXAS

### 2007 KEY TECH EXPORT STATISTICS

### AND HIGH-TECH INDUSTRY EXPORTS

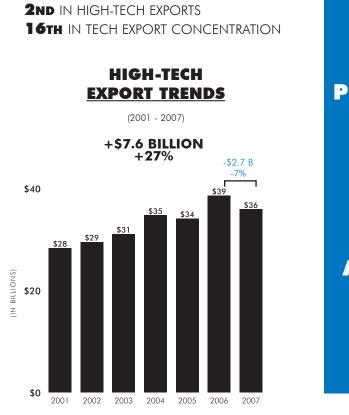


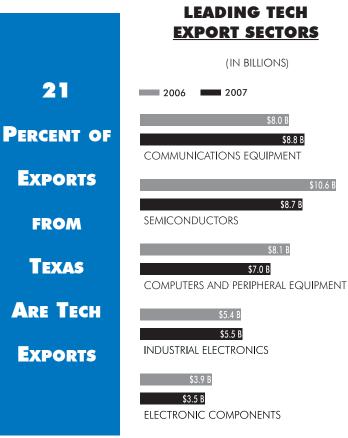
**STATE RANKINGS** 

TECH EXPORTS	\$35.9 BILLION
TOTAL EXPORTS	\$168 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	21%
EMPLOYMENT SUPPORTED BY	

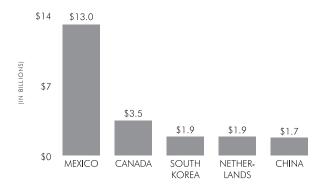
#### HIGH-TECH EXPORTS

183,900





#### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census



### <u>U</u>TAH

### 2007 KEY TECH EXPORT STATISTICS

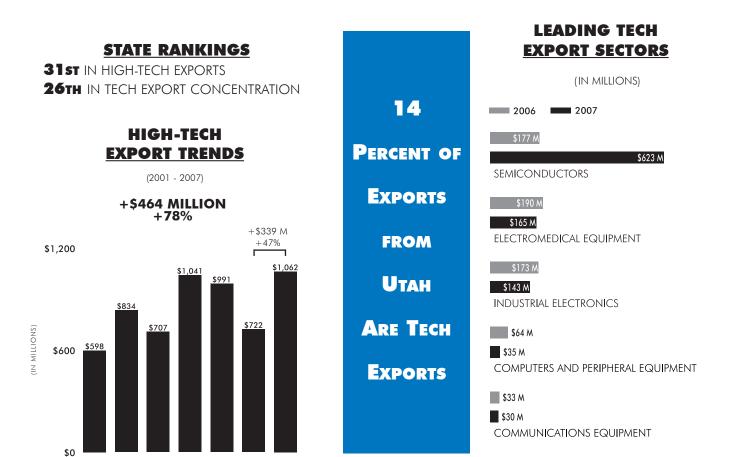
## AND HIGH-TECH INDUSTRY EXPORTS



TECH EXPORTS TOTAL EXPORTS	<b>\$1.1 BILLION</b> \$7.8 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	14%
EMPLOYMENT SUPPORTED BY	

#### HIGH-TECH EXPORTS

4,500



LEADING EXPORT DESTINATIONS



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census

2001

2002 2003 2004 2005

2006

2007





## VERMONT

2007 KEY TECH EXPORT STATISTICS

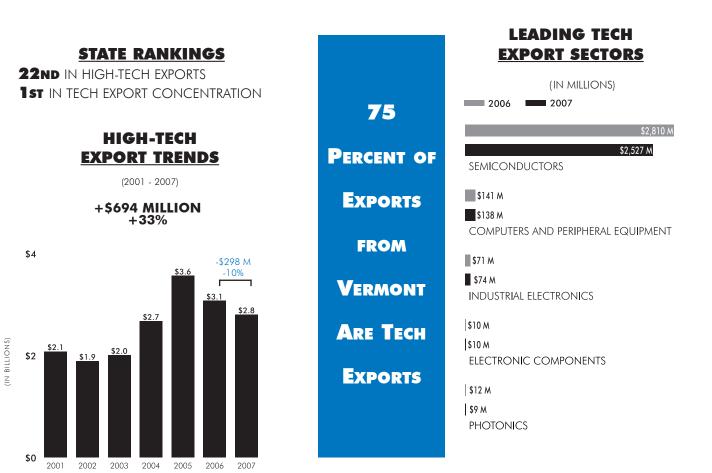
## AND HIGH-TECH INDUSTRY EXPORTS



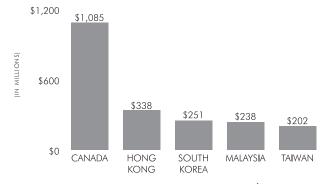
TECH EXPORTS	\$2.8 BILLION
TOTAL EXPORTS	\$3.7 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	75%
EMPLOYMENT SUPPORTED BY	

HIGH-TECH EXPORTS

11,500



#### **LEADING EXPORT DESTINATIONS**



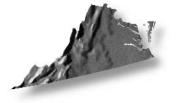
Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census



# VIRGINIA

2007 KEY TECH EXPORT STATISTICS

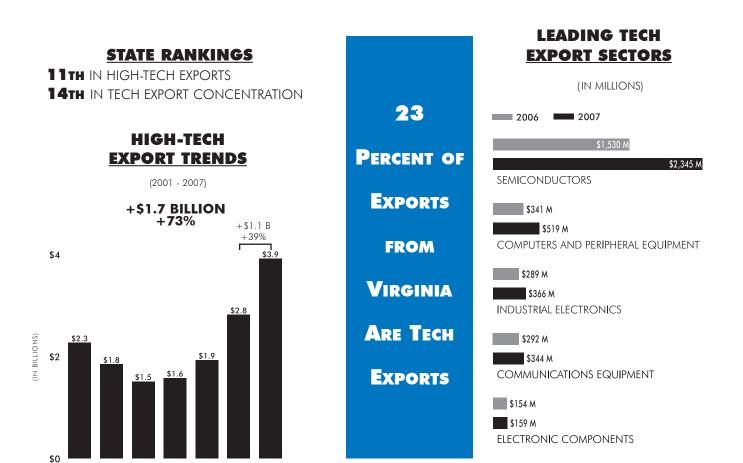




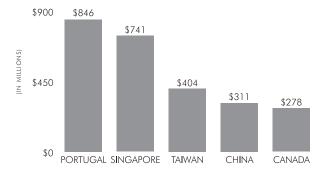
TECH EXPORTS	\$3.9 BILLION
TOTAL EXPORTS	\$16.9 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	23%
EMDI OVMENT SIIDDODTED BV	

HIGH-TECH EXPORTS

15,700



### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census

2001

2002

2003

2004

2005

2006

2007





# WASHINGTON

2007 KEY TECH EXPORT STATISTICS

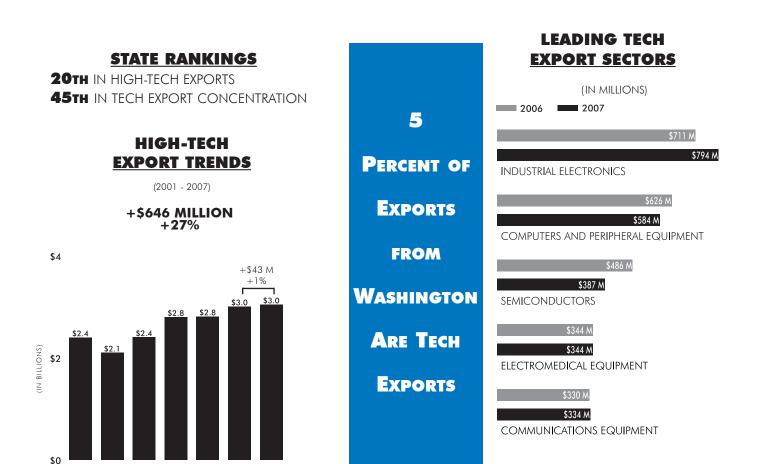




TECH EXPORTS	\$3.0 BILLION
TOTAL EXPORTS	\$66.4 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	5%
EMPLOYMENT SUPPORTED BY	

HIGH-TECH EXPORTS

12,400



### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census

2001

2002

2003 2004 2005

2007

2006



Trade in the Cyberstates 2008 ©2008 American Electronics Association

# WEST VIRGINIA

### 2007 KEY TECH EXPORT STATISTICS

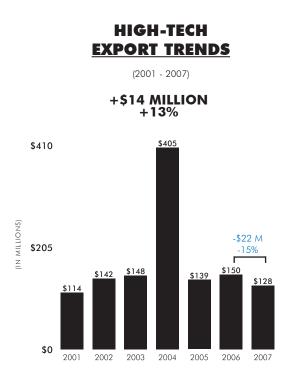
# AND HIGH-TECH INDUSTRY EXPORTS

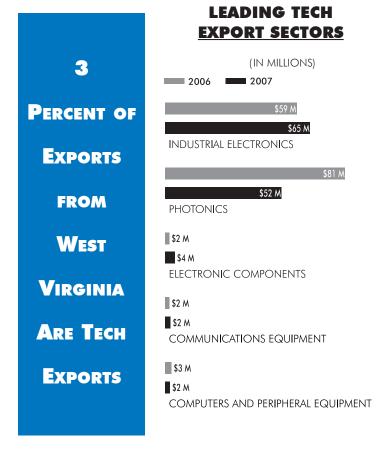
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	. St.	
0	19 °	

TECH EXPORTS TOTAL EXPORTS	\$128 MILLION \$4.0 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	3%
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	500

**STATE RANKINGS** 

**46TH** IN HIGH-TECH EXPORTS **47TH** IN TECH EXPORT CONCENTRATION





### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census



Trade in the Cyberstates 2008 ©2008 American Electronics Association

# WISCONSIN

#### 2007 **KEY TECH EXPORT STATISTICS**

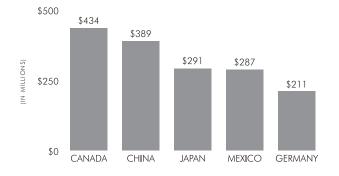
# AND HIGH-TECH **INDUSTRY EXPORTS**

14
6.11

TECH EXPORTS TOTAL EXPORTS	\$3.9 BILLION \$18.8 BILLION
TECH AS A PERCENT OF TOTAL EXPORTS	21%
EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS	13,100

**LEADING TECH STATE RANKINGS EXPORT SECTORS 12TH** IN HIGH-TECH EXPORTS (IN MILLIONS) **17TH** IN TECH EXPORT CONCENTRATION 2006 2007 21 \$1,085 M **HIGH-TECH** \$1,018 M **PERCENT OF EXPORT TRENDS** ELECTROMEDICAL EQUIPMENT (2001 - 2007) \$1,132 M EXPORTS +\$1.8 BILLION \$760 M +86% INDUSTRIAL ELECTRONICS FROM -\$437 M -10% \$709 M \$4.3 \$678 M WISCONSIN \$3.9 COMPUTERS AND PERIPHERAL EQUIPMENT \$3.5 \$591 M **ARE TECH** \$575 M \$2.6 \$2.3 COMMUNICATIONS EQUIPMENT \$2.1 \$2.1 EXPORTS \$397 M \$417 M ELECTRONIC COMPONENTS 2001 2002 2003 2004 2005 2006 2007

### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars Source: U.S. Bureau of the Census

\$5.0

\$2.5

\$0

(IN BILLIONS)



## WYOMING AND HIGH-TECH INDUSTRY EXPORTS

TECH EXPORTS\$8.0 MILLIONTOTAL EXPORTS\$802 MILLIONTECH AS A PERCENT OF TOTAL EXPORTS1%EMPLOYMENT SUPPORTED BY

**KEY TECH EXPORT STATISTICS** 

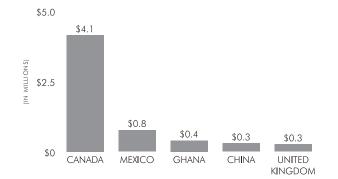
#### HIGH-TECH EXPORTS

2007

50

**LEADING TECH STATE RANKINGS EXPORT SECTORS 52ND** IN HIGH-TECH EXPORTS (IN MILLIONS) **50TH** IN TECH EXPORT CONCENTRATION 2006 2007 1 **HIGH-TECH PERCENT OF** \$5.9 M **EXPORT TRENDS** INDUSTRIAL ELECTRONICS (2001 - 2007) EXPORTS \$1.1 M -\$2 MILLION -17% \$0.9 M COMPUTERS AND PERIPHERAL EQUIPMENT FROM \$24 \$0.2 M \$0.7 M Wyoming ELECTRONIC COMPONENTS \$16 **ARE TECH** \$0.3 M -\$1 M -14% \$0.6 M \$12 \$10 COMMUNICATIONS EQUIPMENT \$10 Exports \$8 \$7 \$0.1 M \$0.2 M SEMICONDUCTORS \$0 2001 2002 2003 2004 2005 2006 2007

### **LEADING EXPORT DESTINATIONS**



Note: All data are in current U.S. dollars. Source: U.S. Bureau of the Census

(IN MILLIONS)



### **U.S. HIGH-TECH TRADE**

### U.S. HIGH-TECH MERCHANDISE TRADE WITH THE WORLD, 2001 - 2007 (in millions of current U.S. dollars)

								Percent	Percent
				000 (	0005		0007	Change	Change
EXPORTS	<u>2001</u>	2002	2003	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	2006-2007	2001-2007
Computers and Peripheral Equipment	\$49,424	\$40,082	\$41,485	\$44,420	\$47,441	\$49,669	\$47,112	-5%	-5%
Consumer Electronics	\$9,257	\$8,409	\$8,113	\$9,055	\$10,191	\$11,033	\$8,784	-20%	-5%
Communications Equipment	\$23,762	\$19,692	\$18,798	\$22,536	\$24,153	\$27,337	\$29,745	9%	25%
Electronic Components	\$17,723	\$15,501	\$14,649	\$15,852	\$15,597	\$17,396	\$17,652	1%	0%
Semiconductors	\$45,065	\$42,235	\$46,137	\$48,050	\$47,222	\$52,430	\$50,014	-5%	11%
Industrial Electronics	\$27,485	\$25,603	\$26,213	\$33,695	\$34,729	\$40,431	\$38,508	-5%	40%
Electromedical Equipment	\$9,460	\$9,587	\$10,883	\$12,185	\$13,789	\$15,288	\$16,624	9%	76%
Photonics	\$6,199	\$4,646	\$4,664	\$5,612	\$6,204	\$6,630	\$5,906	-11%	-5%
Total	\$188,374	\$165,754	\$170,943	\$191,404	\$199,326	\$220,214	\$214,346	-3%	14%
IMPORTS									
Computers and Peripheral Equipment	\$76,191	\$77,386	\$81,615	\$94,914	\$100,047	\$108,146	\$103,195	-5%	35%
Consumer Electronics	\$25,413	\$28,400	\$29,292	\$35,657	\$41,553	\$47,853	\$54,394	14%	114%
Communications Equipment	\$39,824	\$40,034	\$44,038	\$54,455	\$64,676	\$68,868	\$74,024	7%	86%
Electronic Components	\$18,090	\$16,618	\$16,513	\$19,070	\$20,461	\$22,640	\$23,964	6%	32%
Semiconductors	\$30,423	\$26,015	\$24,604	\$26,749	\$25,760	\$27,375	\$26,104	-5%	-14%
Industrial Electronics	\$18,269	\$18,056	\$19,753	\$23,364	\$25,127	\$28,187	\$31,969	13%	75%
Electromedical Equipment	\$6,800	\$8,360	\$10,231	\$11,015	\$11,991	\$12,792	\$13,966	9%	105%
Photonics Total	\$6,799	\$4,892	\$4,804	\$5,578	\$5,674	\$6,227	\$5,015	-19%	-26% <b>50%</b>
Total	\$221,808	\$219,761	\$230,851	\$270,802	\$295,290	\$322,087	\$332,630	3%	50%
TWO-WAY									
Computers and Peripheral Equipment	\$125,615	\$117,467	\$123,100	\$139,333	\$147,488	\$157,816	\$150,307	-5%	20%
Consumer Electronics	\$34,669	\$36,809	\$37,405	\$44,711	\$51,744	\$58,885	\$63,179	7%	82%
Communications Equipment	\$63,586	\$59,727	\$62,836 \$31,162	\$76,991	\$88,829	\$96,205 \$40,036	\$103,769	8% 4%	63% 16%
Electronic Components Semiconductors	\$35,812 \$75,488	\$32,119 \$68,250	\$70,742	\$34,922 \$74,799	\$36,058 \$72,982	\$79,805	\$41,616 \$76,118	-5%	10%
Industrial Electronics	\$45,754	\$43,659	\$45,967	\$57,059	\$59,856	\$68,618	\$70,476	-3%	54%
Electromedical Equipment	\$16,260	\$17,946	\$21,114	\$23,200	\$25,781	\$28,080	\$30,590	9%	88%
Photonics	\$12,998	\$9,538	\$9,468	\$11,191	\$11,878	\$12,857	\$10,921	-15%	-16%
Total	\$410,183	\$385,515	\$401,794	\$462,205	\$494,616	\$542,301	\$546,977	1%	33%
BALANCE									
Computers and Peripheral Equipment	-\$26,767	-\$37,304	-\$40,130	-\$50,494	-\$52,606	-\$58,477	-\$56,083		
Consumer Electronics	-\$16,156	-\$19,991	-\$21,179	-\$26,602	-\$31,361	-\$36,820	-\$45,610		
Communications Equipment	-\$16,062	-\$20,342	-\$25,240	-\$31,920	-\$40,523	-\$41,531	-\$44,278		
Electronic Components Semiconductors	-\$367	-\$1,117 \$16,219	-\$1,864 \$21,533	-\$3,219 \$21,302	-\$4,865	-\$5,244 \$25,055	-\$6,311 \$23,910		
Industrial Electronics	\$14,642 \$9,216	\$7,547	\$6,460	\$21,302 \$10,331	\$21,461 \$9,602	\$12,244	\$6,539		
Electromedical Equipment	\$2,660	\$1,227	\$652	\$1,169	\$1,798	\$2,497	\$2,658		
Photonics	-\$600	-\$246	-\$140	\$34	\$529	\$403	\$892		
Total	-\$33,434	-\$54,007	-\$59,909	-\$79,398	-\$95,964	-\$101,873	-\$118,284		
	¢700 100	¢ 4 0 0 1 0 0	¢704 771	¢010 775	¢005 070	¢1.027.725	¢1 170 470		
Total U.S. Exports to the World	\$729,100	\$693,103	\$724,771	\$818,775	\$905,978	\$1,036,635	\$1,162,479		
Total U.S. Imports from the World Total Two-Way Trade	\$1,140,999 \$1,870,100	\$1,161,366 \$1,854,469	\$1,257,121	\$1,469,704 \$2,288,479	\$1,673,455 \$2,579,432	\$1,853,938 \$2,890,573	\$1,956,962 \$3,110,441		
Total Trade Balance	-\$411,899	-\$468,263	\$1,981,892 -\$532,350	\$2,288,479 -\$650,930	\$2,579,432 -\$767,477	\$2,890,573 -\$817,304	\$3,119,441 -\$794,483		
	-,07/	-9700,200	-4002,000	-4000,700	- 4, 0, 1, 1, 1	-4017,004	-41,400		
High Tech as a Portion of Total Exports	05 00/	00.00/	00 40/	00 /0/	00 A0/	01.00/	10 /0/		
High Tech as a Portion of Total Exports High Tech as a Portion of Total Imports	25.8% 19.4%	23.9% 18.9%	23.6% 18.4%	23.4% 18.4%	22.0% 17.6%	21.2% 17.4%	18.4% 17.0%		
High Tech as a Portion of Total Two-Way	21.9%	20.8%	20.3%	20.2%	19.2%	18.8%	17.5%		
and a set of off of fold into the	21.770	20.070	20.070	20.270	17.270	10.070	17.070		

Some totals may not equal the individual sectors due to rounding.

### **U.S. HIGH-TECH EXPORTS BY COUNTRY**

#### **APPENDIX A.2**

### U.S. HIGH-TECH MERCHANDISE EXPORT MARKETS OF AT LEAST \$100 MILLION, 2001 - 2007 (in millions of current U.S. dollars)

(in millions of current U.S. dollar:		<u>2002</u> \$165,754	<u>2003</u> \$170,943	<u>2004</u> \$191,404	<u>2005</u> \$199,326	<u>2006</u> \$220,214	<u>2007</u> \$214,346	Percent Change <u>2006-2007</u> -3%	Percent Change <u>2001-2007</u> 14%
1. European Union - 27 Germany Netherlands United Kingdom France Ireland Belgium Italy Sweden Spain Portugal Denmark Finland Hungary Austria Poland Czech Republic Greece Romania Malta Slovenia Slovenia Slovenia Estonia Luxembourg Bulgaria Estonia Latvia Lithuania Cyprus	\$46,014 \$9,714 \$7,333 \$11,085 \$4,691 \$3,584 \$1,419 \$2,405 \$1,069 \$938 \$542 \$439 \$686 \$237 \$481 \$243 \$243 \$243 \$243 \$243 \$2252 \$331 \$150 \$211 \$33 \$226 \$331 \$150 \$211 \$33 \$226 \$41 \$33 \$226 \$331 \$150 \$211 \$333 \$226 \$41 \$333 \$226 \$41 \$333 \$226 \$41 \$333 \$221 \$333 \$221 \$331 \$333 \$226 \$41 \$333 \$221 \$333 \$221 \$331 \$333 \$221 \$333 \$221 \$333 \$221 \$333 \$221 \$333 \$221 \$333 \$221 \$333 \$221 \$333 \$221 \$333 \$221 \$333 \$221 \$333 \$221 \$333 \$221 \$333 \$221 \$333 \$221 \$333 \$221 \$333 \$333	\$37,363 \$8,155 \$6,434 \$3,091 \$3,053 \$1,081 \$1,784 \$925 \$791 \$163 \$385 \$593 \$251 \$336 \$220 \$282 \$302 \$104 \$158 \$34 \$158 \$34 \$27 \$28 \$302 \$104 \$158 \$34 \$158 \$34 \$158 \$34 \$158 \$34 \$158 \$34 \$158 \$34 \$158 \$34 \$158 \$158 \$158 \$158 \$158 \$158 \$158 \$158	\$37,692 \$8,245 \$6,222 \$7,854 \$3,842 \$3,842 \$1,116 \$1,867 \$924 \$1,127 \$127 \$394 \$537 \$189 \$351 \$228 \$274 \$207 \$97 \$146 \$35 \$38 \$25 \$56 \$20 \$28 \$30 \$23	\$41,060 \$8,560 \$7,058 \$9,084 \$4,204 \$3,403 \$1,477 \$2,038 \$925 \$1,173 \$122 \$456 \$523 \$238 \$398 \$262 \$299 \$272 \$135 \$139 \$45 \$355 \$55 \$45 \$38 \$244 \$299 \$272 \$135 \$139	\$42,805 \$9,322 \$8,075 \$8,394 \$4,375 \$3,412 \$1,612 \$2,089 \$967 \$1,047 \$138 \$506 \$563 \$358 \$425 \$362 \$400 \$167 \$112 \$113 \$49 \$43 \$102 \$40 \$43 \$102 \$49 \$43 \$102 \$43 \$102 \$49 \$43 \$102 \$49 \$43 \$102 \$40 \$102 \$40 \$103 \$40 \$103 \$40 \$103 \$40 \$103 \$103 \$103 \$103 \$103 \$103 \$103 \$10	\$46,295 \$10,771 \$8,255 \$8,689 \$4,569 \$3,140 \$1,641 \$2,363 \$1,315 \$1,186 \$330 \$598 \$550 \$509 \$505 \$509 \$505 \$509 \$505 \$369 \$501 \$270 \$142 \$112 \$53 \$81 \$159 \$55 \$339 \$355 \$39 \$330 \$37 \$27	\$46,560 \$11,165 \$8,149 \$7,783 \$4,494 \$1,236 \$1,003 \$700 \$589 \$421 \$412 \$412 \$412 \$412 \$412 \$412 \$425 \$182 \$75 \$64 \$62 \$56 \$50 \$43 \$43 \$40 \$40 \$30	1% 4% -1% -2% 41% -2% 41% -6% 7% 204% 17% 7% 4% -13% 14% -13% 14% -33% -23% -65% -9% 10% 34% 7% 12%	1% 15% -30% -4% -23% 63% -7% 31% 32% 85% 60% -14% 124% -9% 74% 64% -16% 22% -64% 95% 134% 35% 60% 276% 82% 80% 76%
<ol> <li>Canada</li> <li>Mexico</li> <li>China</li> <li>Japan</li> <li>Singapore</li> <li>South Korea</li> <li>Taiwan</li> <li>Hong Kong</li> <li>Malaysia</li> <li>Brazil</li> <li>Philippines</li> <li>Australia</li> <li>Thailand</li> <li>India</li> <li>Venezuela</li> <li>Irarel</li> <li>Costa Rica</li> <li>Costa Rica</li> <li>Costa Rica</li> <li>Colombia</li> <li>Costa Rica</li> <li>Colombia</li> <li>Dominican Republic</li> <li>Chile</li> <li>Switzerland</li> <li>United Arab Emirates</li> <li>Paraguay</li> <li>Saudi Arabia</li> <li>Turkey</li> <li>Ecuador</li> <li>Norway</li> <li>Turkey</li> <li>Ecuador</li> <li>Norway</li> <li>Turkey</li> <li>Ecuador</li> <li>New Zealand</li> <li>Andonesia</li> <li>Honduras</li> <li>Trinidad &amp; Tobago</li> <li>Qatar</li> <li>Qatar</li> <li>Kuwait</li> <li>Uruguay</li> <li>Kuwait</li> <li>Uruguay</li> <li>Algeria</li> <li>Kazakhstan</li> <li>Netherlands Antilles</li> <li>Suigaria</li> </ol>	\$27,800 \$26,242 \$5,739 \$17,126 \$6,625 \$7,354 \$7,491 \$6,608 \$6,005 \$4,751 \$5,295 \$2,377 \$2,524 \$1,019 \$1,017 \$1,827 \$653 \$757 \$1,121 \$653 \$757 \$1,121 \$655 \$1,146 \$371 \$290 \$462 \$356 \$352 \$404 \$300 \$288 \$229 \$206 \$215 \$329 \$174 \$307 \$240 \$113 \$179 \$59 \$77 \$1,55 \$125 \$129 \$174 \$307 \$240 \$113 \$179 \$59 \$77 \$1,55 \$155 \$182 \$155 \$182 \$155 \$182 \$111 \$279	\$23,696 \$24,638 \$5,826 \$13,118 \$5,928 \$7,530 \$8,290 \$5,675 \$6,974 \$3,201 \$5,150 \$2,078 \$1,806 \$1,251 \$724 \$1,412 \$1,228 \$703 \$252 \$529 \$721 \$878 \$380 \$343 \$527 \$371 \$348 \$344 \$252 \$264 \$324 \$245 \$192 \$264 \$324 \$245 \$192 \$127 \$157 \$272 \$193 \$101 \$127 \$355 \$11 \$75 \$74 \$74 \$703 \$268 \$127 \$193 \$101 \$127 \$355 \$11 \$127 \$275 \$101 \$127 \$355 \$11 \$127 \$275 \$1127 \$275 \$1127 \$275 \$1127 \$275 \$1127 \$275 \$1127 \$275 \$1127 \$275 \$1127 \$275 \$1127 \$275 \$1127 \$127 \$127 \$127 \$127 \$127 \$127 \$12	\$24,296 \$24,973 \$7,018 \$12,248 \$6,367 \$8,459 \$7,314 \$6,243 \$8,190 \$2,815 \$6,035 \$2,148 \$1,965 \$1,258 \$416 \$1,329 \$1,458 \$725 \$487 \$483 \$669 \$859 \$461 \$302 \$1,458 \$429 \$390 \$385 \$338 \$274 \$304 \$254 \$214 \$235 \$177 \$273 \$202 \$100 \$126 \$50 \$148 \$453 \$127 \$273 \$202 \$100 \$126 \$50 \$148 \$254 \$148 \$254 \$214 \$235 \$177 \$273 \$202 \$100 \$126 \$50 \$148 \$355 \$127 \$273 \$202 \$100 \$126 \$50 \$148 \$355 \$127 \$273 \$202 \$100 \$126 \$50 \$148 \$355 \$177 \$273 \$202 \$100 \$126 \$50 \$148 \$355 \$177 \$273 \$202 \$100 \$126 \$50 \$148 \$355 \$177 \$273 \$202 \$148 \$148 \$355 \$177 \$273 \$202 \$148 \$148 \$355 \$148 \$355 \$148 \$355 \$148 \$355 \$177 \$273 \$202 \$148 \$148 \$355 \$177 \$273 \$202 \$148 \$148 \$355 \$148 \$355 \$177 \$273 \$202 \$100 \$126 \$50 \$148 \$355 \$177 \$273 \$202 \$100 \$126 \$50 \$148 \$355 \$177 \$273 \$202 \$100 \$126 \$50 \$148 \$355 \$177 \$273 \$202 \$148 \$355 \$174 \$201 \$136 \$1955 \$148 \$355 \$274 \$355 \$174 \$201 \$136 \$1955 \$148 \$355 \$274 \$355 \$177	\$27,650 \$28,129 \$8,765 \$13,191 \$7,814 \$9,077 \$8,624 \$7,696 \$7,611 \$3,129 \$4,987 \$2,465 \$2,716 \$1,589 \$1,112 \$1,707 \$1,289 \$874 \$668 \$600 \$774 \$937 \$568 \$489 \$465 \$316 \$316 \$316 \$316 \$318 \$307 \$2255 \$221 \$2299 \$220 \$138 \$165 \$588 \$165 \$588 \$107 \$1,289 \$465 \$316 \$316 \$316 \$318 \$307 \$2255 \$221 \$299 \$220 \$138 \$165 \$588 \$107 \$147 \$118 \$165 \$588 \$210 \$147 \$118 \$174 \$103 \$165 \$588 \$210 \$147 \$118 \$174 \$103 \$165 \$588 \$210 \$147 \$118 \$174 \$103 \$165 \$588 \$210 \$147 \$118 \$174 \$175 \$175 \$571	\$29,833 \$27,132 \$9,970 \$13,121 \$7,540 \$9,944 \$8,004 \$7,695 \$7,352 \$3,744 \$4,630 \$2,772 \$3,179 \$1,833 \$1,484 \$1,681 \$1,385 \$1,038 \$914 \$685 \$957 \$1,000 \$670 \$667 \$561 \$463 \$429 \$549 \$5561 \$463 \$429 \$5561 \$463 \$429 \$5561 \$463 \$422 \$5561 \$463 \$429 \$5561 \$463 \$422 \$5561 \$463 \$422 \$5561 \$463 \$422 \$5561 \$463 \$422 \$5561 \$463 \$422 \$5561 \$463 \$422 \$5561 \$463 \$422 \$5561 \$463 \$422 \$5561 \$463 \$422 \$5561 \$463 \$422 \$5561 \$463 \$422 \$5561 \$463 \$422 \$5561 \$463 \$422 \$5561 \$463 \$422 \$5561 \$463 \$422 \$5561 \$463 \$422 \$5561 \$463 \$421 \$468 \$364 \$271 \$264 \$2278 \$364 \$2278 \$364 \$2278 \$364 \$216 \$119 \$138 \$168 \$119 \$168 \$150 \$257 \$100 \$126 \$126 \$126 \$126 \$126 \$126 \$126 \$126	\$30,101 \$29,555 \$14,133 \$13,913 \$8,857 \$10,646 \$8,949 \$7,758 \$8,515 \$4,408 \$5,169 \$3,117 \$3,137 \$2,066 \$1,993 \$1,817 \$1,678 \$1,184 \$1,184 \$1,078 \$862 \$1,129 \$1,119 \$1,000 \$713 \$814 \$622 \$640 \$644 \$555 \$459 \$440 \$644 \$555 \$459 \$440 \$644 \$555 \$459 \$440 \$644 \$555 \$459 \$440 \$614 \$622 \$640 \$644 \$555 \$459 \$440 \$614 \$622 \$640 \$614 \$622 \$640 \$614 \$622 \$640 \$613 \$1,817 \$1,678 \$1,817 \$1,678 \$1,817 \$1,000 \$713 \$814 \$622 \$640 \$644 \$555 \$459 \$440 \$431 \$310 \$445 \$2922 \$323 \$242 \$242 \$219 \$321 \$136 \$2000 \$181 \$160 \$177 \$160 \$203 \$266 \$276 \$110 \$131 \$117	\$29,362 \$26,009 \$14,488 \$11,883 \$9,196 \$8,850 \$8,817 \$7,415 \$7,415 \$5,187 \$4,823 \$3,049 \$2,215 \$1,968 \$1,718 \$1,692 \$1,512 \$1,968 \$1,718 \$1,692 \$1,512 \$1,968 \$1,718 \$1,220 \$1,150 \$1,144 \$922 \$858 \$698 \$698 \$698 \$692 \$656 \$626 \$586 \$527 \$392 \$658 \$527 \$392 \$658 \$527 \$392 \$658 \$527 \$392 \$658 \$527 \$392 \$658 \$527 \$392 \$658 \$527 \$392 \$658 \$527 \$392 \$658 \$527 \$392 \$658 \$527 \$392 \$658 \$527 \$392 \$656 \$527 \$392 \$658 \$527 \$392 \$658 \$527 \$392 \$658 \$527 \$392 \$658 \$527 \$392 \$658 \$527 \$392 \$658 \$527 \$392 \$658 \$527 \$392 \$656 \$527 \$392 \$314 \$2200 \$118 \$1280 \$215 \$1,817 \$137 \$135 \$133	-2% -12% 3% -15% 4% -0% -13% 18% -7% 4% -3% 21% 45% 21% 45% 8% 21% 45% 8% 21% 45% 8% 21% 28% 21% 28% 21% 28% 21% 28% 21% 28% 21% 28% 21% 28% 21% 28% 21% 28% 21% 28% 21% 28% 21% 28% 21% 28% 21% 21% 28% 21% 21% 21% 21% 21% 22% 21% 21% 22% 21% 21	6% -1% 152% -31% 20% 12% 17% 23% 9% -9% 36% 21% 117% 94% -6% 159% 100% 16% 92% 41% 0% 208% 218% 86% 96% 62% 109% 103% 151% 156% 83% 15% 100% 31% 148% 52% 330% 369% 216% 174% 24% 336% 216% 174% 221%

Data are reported on a Total Census Basis. Source: U.S. Bureau of the Census

### **U.S. HIGH-TECH IMPORTS BY COUNTRY**

### U.S. HIGH-TECH MERCHANDISE IMPORT MARKETS OF AT LEAST \$100 MILLION, 2001 - 2007 (in millions of current U.S. dollars)

(									_	_
									Percent Change	Percent Change
		2001	2002	2003	2004	2005	2006	2007	2006-2007	2001-2007
	World	\$221,808	\$219,761	\$230,851	\$270,802	\$295,290	\$322,087	\$332,630	3%	50%
	China	\$25,719	\$34,711	\$46,745	\$68,211	\$86,255	\$102,454	\$112,345	10%	337%
2.	Mexico	\$36,342	\$33,503	\$32,776	\$37,078	\$38,162	\$44,694	\$51,257	15%	41%
3.	European Union - 27	\$27,261	\$27,057	\$28,765	\$30,811	\$33,012	\$33,475	\$33,412	-0%	23%
	Germany	\$7,454	\$7,440	\$8,169	\$9,217	\$9,842	\$11,005	\$11,678	6%	57%
	United Kingdom	\$5,982	\$4,565	\$4,761	\$5,277	\$5,303	\$5,194	\$5,121	-1%	-14%
	Ireland	\$2,704	\$3,405	\$3,369	\$3,187	\$3,373	\$3,409	\$3,448	1%	28%
	France	\$2,687	\$2,465	\$2,636	\$2,650	\$2,822	\$2,752	\$2,901	5%	8%
	ltaly Netherlands	\$1,390 \$1,555	\$1,446 \$1,653	\$1,488 \$1,838	\$1,633 \$1,966	\$1,637 \$2,047	\$1,586 \$2,375	\$1,632 \$1,463	3% -38%	17% -6%
	Hungary	\$999	\$779	\$811	\$1,988	\$1,318	\$2,373 \$1,210	\$1,403	-36%	40%
	Sweden	\$1,323	\$1,884	\$1,510	\$1,624	\$2,102	\$1,416	\$1,335	-6%	1%
	Finland	\$650	\$840	\$827	\$627	\$809	\$635	\$684	8%	5%
	Austria	\$358	\$335	\$382	\$400	\$424	\$467	\$618	32%	73%
	Denmark	\$483	\$400	\$433	\$478	\$513	\$540	\$595	10%	23%
	Belgium	\$425	\$465	\$464	\$472	\$529	\$482	\$536	11%	26%
	Portugal	\$314 \$285	\$394	\$511 \$634	\$599	\$714	\$859 \$413	\$476	-45% 2%	52% 49%
	Spain Czech Republic	\$285 \$222	\$306 \$257	\$634 \$307	\$573 \$389	\$465 \$454	\$413	\$423 \$396	-12%	49% 78%
	Malta	\$307	\$260	\$317	\$314	\$235	\$232	\$223	-4%	-27%
	Poland	\$36	\$83	\$140	\$195	\$203	\$176	\$165	-7%	354%
	Slovakia	\$10	\$20	\$39	\$49	\$48	\$66	\$87	33%	780%
	Romania	\$35	\$16	\$54	\$20	\$28	\$53	\$70	32%	98%
	Luxembourg	\$5	\$6	\$8	\$11	\$29	\$38	\$32	-16%	500%
	Slovenia	\$13 \$4	\$12 \$6	\$14 \$11	\$21 \$10	\$26 \$14	\$26 \$21	\$28 \$28	7% 35%	116% 686%
	Bulgaria Estonia	\$4 \$4	\$0 \$5	\$22	\$28	\$27	\$24	\$20 \$27	14%	551%
	Greece	\$11	\$9	\$9	\$16	\$31	\$24	\$22	-8%	108%
	Latvia	\$1	\$1	\$2	\$4	\$4	\$11	\$16	46%	1,062%
	Lithuania	\$4	\$4	\$5	\$8	\$9	\$13	\$15	13%	275%
	Cyprus	\$1	\$1	\$0	\$1	\$3	\$0	\$0	-10%	-48%
4	Japan	\$34,242	\$29,013	\$28,526	\$32,019	\$31,570	\$30,989	\$29,230	-6%	-15%
	Malaysia	\$17,681	\$19,434	\$20,736	\$22,334	\$27,493	\$29,436	\$25,075	-15%	42%
6.		\$16,729	\$15,784	\$14,612	\$15,289	\$14,750	\$16,847	\$16,522	-2%	-1%
7.		\$15,047	\$15,232	\$15,881	\$19,826	\$15,504	\$14,857	\$15,576	5%	4%
8.		\$13,691	\$10,407	\$9,477	\$10,820	\$12,181	\$11,689	\$11,530	-1%	-16%
9.	- 51	\$11,381 \$5,054	\$10,573	\$10,176 \$5,170	\$10,570	\$9,891 \$8,419	\$10,051 \$9,078	\$9,817	-2% 2%	-14% 83%
10. 11.		\$6,708	\$5,396 \$6,586	\$5,589	\$6,684 \$4,525	\$4,548	\$9,078 \$4,665	\$9,256 \$4,558	-2%	-32%
12.	11	\$2,524	\$2,255	\$2,270	\$2,445	\$2,489	\$3,019	\$3,022	-2 %	20%
	Indonesia	\$2,221	\$2,039	\$1,714	\$2,039	\$2,201	\$1,751	\$1,856	6%	-16%
14.	Switzerland	\$1,269	\$1,386	\$1,806	\$1,882	\$1,843	\$1,811	\$1,754	-3%	38%
15.		\$802	\$996	\$1,293	\$1,219	\$1,215	\$1,301	\$1,358	4%	69%
16.	5 5	\$1,561	\$1,624	\$1,496	\$1,650	\$1,468	\$1,307	\$1,212	-7%	-22%
17. 18.		\$627 \$241	\$629 \$292	\$764 \$362	\$751 \$468	\$919 \$650	\$813 \$870	\$873 \$837	7% -4%	39% 247%
10.		\$241 \$467	\$292 \$447	\$302 \$418	\$408 \$463	\$559	\$671	\$784	-4% 17%	247% 68%
20.		\$1,425	\$1,524	\$1,346	\$686	\$997	\$776	\$548	-29%	-62%
	Norway	\$250	\$255	\$264	\$315	\$326	\$411	\$494	20%	97%
22.		\$0	\$23	\$76	\$72	\$162	\$318	\$492	54%	98,895%
23.	New Zealand	\$62	\$74	\$90	\$101	\$101	\$113	\$110	-3%	77%

### **HIGH-TECH EXPORT RANKINGS BY COUNTRY**

#### **HIGH-TECH EXPORTS PERCENT CHANGE BY COUNTRY** 2006 - 2007

(based on current U.S. dollars)

Percent Change           Rank         Country         2006-2007           U.S. High Tech         -2.7%           U.S. All Goods Sectors         12.1%           1.         Portugal         204.1%           2.         Dominican Republic         44.8%           3.         Belgium         40.9%           4.         Colombia         27.7%           5.         Argentina         20.9%           6.         Brazil         17.7%           7.         United Arab Emirates         14.4%           8.         Chile         8.1%           9.         India         7.2%           10.         Sweden         6.8%           11.         Spain         4.2%           12.         Singapore         3.8%           13.         Germany         3.7%           14.         Australia         3.5%           15.         Switzerland         2.8%           16.         China         2.5%           17.         Costa Rica         0.9%           18.         Hong Kong         -0.2%           20.         Netherlands         -1.3%           21.         France		loased on content o.c	. donars)
2.         Dominican Republic         44.8%           3.         Belgium         40.9%           4.         Colombia         27.7%           5.         Argentina         20.9%           6.         Brazil         17.7%           7.         United Arab Emirates         14.4%           8.         Chile         8.1%           9.         India         7.2%           10.         Sweden         6.8%           11.         Spain         4.2%           12.         Singapore         3.8%           13.         Germany         3.7%           14.         Australia         3.5%           15.         Switzerland         2.8%           16.         China         2.5%           17.         Costa Rica         0.9%           18.         Hong Kong         -0.2%           20.         Netherlands         -1.3%           21.         France         -1.6%           22.         Canada         -2.5%           23.         Thailand         -2.8%           24.         Israel         -5.5%           25.         Italy         -5.6%	<u>Rank</u>	U.S. High Tech	<u>2006-2007</u> -2.7%
	6. 7. 9. 10. 12. 13. 14. 15. 16. 17. 19. 20. 21. 23. 24. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32.	Dominican Republic Belgium Colombia Argentina Brazil United Arab Emirates Chile India Sweden Spain Singapore Germany Australia Switzerland China Costa Rica Hong Kong Venezuela Netherlands France Canada Thailand Israel Italy Taiwan Philippines United Kingdom Ireland Mexico Malaysia Japan	$\begin{array}{c} 44.8\%\\ 40.9\%\\ 27.7\%\\ 20.9\%\\ 17.7\%\\ 20.9\%\\ 14.4\%\\ 8.1\%\\ 7.2\%\\ 6.8\%\\ 4.2\%\\ 3.7\%\\ 3.5\%\\ 2.8\%\\ 2.5\%\\ 0.9\%\\ -0.2\%\\ -1.2\%\\ -1.3\%\\ -1.6\%\\ -2.5\%\\ -2.8\%\\ -5.5\%\\ -5.6\%\\ -5.6\%\\ -6.0\%\\ -6.0\%\\ -6.7\%\\ -10.4\%\\ -11.6\%\\ -12.0\%\\ -12.9\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -10.9\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -10.9\%\\ -14.6\%\\ -14.6\%\\ -10.9\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -10.9\%\\ -10.4\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -10.9\%\\ -10.4\%\\ -11.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -11.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -11.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -14.6\%\\ -10.0\%\\ -10.$

#### **HIGH-TECH EXPORTS PERCENT CHANGE BY COUNTRY** 2001 - 2007

(based on current U.S. dollars)

	(based on content o.o.	dollars)
<u>Rank</u>	<u>Country</u> U.S. High Tech U.S. All Goods Sectors	Percent Change <u>2000-2006</u> 13.8% 59.4%
1. 2.3. 4. 5. 6.7. 8. 9. 11. 12. 14. 15. 6. 7. 8. 9. 11. 12. 14. 15. 17. 18. 20. 21. 223. 24. 226. 227. 229. 301. 322. 333.	United Arab Emirates Costa Rica China India Colombia Venezuela Dominican Republic Portugal Belgium Chile Singapore Australia Spain Sweden Malaysia Thailand South Korea Hong Kong Argentina Germany Taiwan Netherlands Brazil Canada Switzerland Mexico France Israel Italy Philippines Ireland United Kingdom Japan	208.4% 159.2% 157.5% 177.3% 99.7% 93.6% 91.9% 85.0% 62.9% 41.2% 38.8% 31.3% 20.3% 17.2% 16.3% 0.8% 20.3% 17.2% 16.3% 0.4% -0.9% -4.2% -6.0% -7.3% -8.9% -22.6% -29.8% -29.8% -30.6%

Note: Only includes those countries receiving \$1 billion or more in U.S. tech exports in 2007. Data are rounded. Source: U.S. Bureau of the Census

#### **APPENDIX A.4**

#### **HIGH-TECH EXPORTS** NUMERIC CHANGE BY COUNTRY 2006 - 2007

(in millions of current U.S. dollars)

		5.0. donars)
<u>Rank</u>	<u>Country</u> U.S. High Tech U.S. All Goods Sectors	Numeric Change <u>2006-2007</u> -\$5,867 \$125,845
1. 2.3. 4. 5. 6.7. 8. 9. 11. 12. 14. 15. 17. 18. 20. 21. 223. 24. 25. 27. 28. 20. 31. 223. 31. 23. 33. 33.	Brazil Portugal Belgium Germany Dominican Republic China Singapore Colombia Argentina India United Arab Emirates Australia Chile Sweden Spain Switzerland Costa Rica Hong Kong Venezuela France Thailand Israel Netherlands Italy Philippines Ireland Taiwan Canada United Kingdom Malaysia South Korea Japan Mexico	\$779 \$673 \$671 \$394 \$386 \$354 \$328 \$225 \$148 \$144 \$111 \$91 \$90 \$50 \$31 \$14 -\$14 -\$14 -\$24 -\$75 -\$88 -\$100 -\$106 -\$133 -\$345 -\$335 -\$533 -\$739 -\$906 -\$1,101 -\$1,796 -\$2,029 -\$3,547

#### **HIGH-TECH EXPORTS** NUMERIC CHANGE BY COUNTRY 2001 - 2007

(in millions of current U.S. dollars)

<u>Rank</u>	<u>Country</u> U.S. High Tech U.S. All Goods Sectors	Numeric Change <u>2000-2006</u> \$25,972 \$433,379
1. 2.3. 4. 5. 6.7. 8. 9. 10. 11. 12. 14. 15. 16. 17. 18. 20. 21. 22. 24. 26. 27. 28. 27. 28. 20. 31. 32. 33.	China Singapore Canada South Korea Germany Malaysia India Hong Kong Costa Rica Venezuela Taiwan Belgium Australia Netherlands United Arab Emirates Colombia Dominican Republic Thailand Portugal Brazil Chile Sweden Spain Argentina Switzerland Israel Italy France Mexico Philippines Ireland United Kingdom Japan	\$8,749 \$2,572 \$1,563 \$1,496 \$1,451 \$1,409 \$1,195 \$1,137 \$1,040 \$926 \$926 \$926 \$926 \$893 \$850 \$816 \$773 \$755 \$598 \$525 \$461 \$437 \$457 \$458 \$459 \$451 \$459 \$451 \$459 \$451 \$459 \$451 \$451 \$451 \$451 \$451 \$451 \$451 \$451

#### Trade in the Cyberstates 2008

#### **U.S. JOBS SUPPORTED BY HIGH-TECH EXPORTS TO SELECT COUNTRIES\***

2007 (alphabetical)

#### **U.S. JOBS SUPPORTED BY HIGH-TECH EXPORTS TO SELECT COUNTRIES\***

**APPENDIX A.5** 

2007 (ranked)

	(r	anked)	
<u>Rank</u>	<u>Country</u> Total	U.S. High-Te <u>Related En</u>	
$ \begin{array}{c} 1.\\ 2.\\ 3.\\ 4.\\ 5.\\ 6.\\ 7.\\ 8.\\ 9.\\ 10.\\ 11.\\ 12.\\ 13.\\ 14.\\ 15.\\ 16.\\ 17.\\ 18.\\ 19.\\ 21.\\ 22.\\ 24.\\ 25.\\ 26.\\ 27.\\ 28.\\ 29.\\ 31.\\ 32.\\ 33.\\ 34.\\ 35.\\ 37.\\ 38.\\ 39.\\ 41.\\ 43.\\ 44.\\ 45.\\ 47.\\ 49.\\ 51.\\ 53.\\ 54.\\ 55.\\ 57.\\ 56.\\ 57.\\ \end{array} $	Canada Mexico China Japan Germany Singapore South Korea Taiwan Netherlands United Kingo Hong Kong Malaysia Brazil Philippines France Australia Thailand Ireland Belgium Italy India Venezuela Israel Costa Rica Colombia Sweden Argentina Dominican R Spain Chile Switzerland United Arab Portugal Paraguay Saudi Arabic Denmark Russia Peru South Africa Norway Finland Turkey Ecuador Hungary Guatemala Austria Poland Czech Reput Panama Egypt El Salvador New Zealand Honduras Greece Trinidad & To	Republic Emirates	122,544 108,546 60,463 49,595 46,596 38,380 36,936 35,127 34,012 32,481 32,322 30,944 21,649 20,130 18,756 13,471 12,725 11,580 9,650 9,309 9,243 8,215 7,170 7,063 6,311 5,861 5,440 5,210 5,159 5,861 5,440 5,210 5,159 5,093 4,801 4,775 4,184 3,847 2,736 2,611 2,458 2,458 2,404 2,210 2,198 1,831 1,758 1,720 1,634 1,579 1,453 1,413 1,310 1,170 1,153 1,057
58.	Iraq		1,046

	. ,	
<u>Country</u> Total	U.S. High-Tec <u>Related Emp</u> 8	
Argentina Australia Australia Austria Belgium Brazil Canada Chile China Colombia Costa Rica Costa Rica Czech Republ Denmark Dominican Re Ecuador Egypt El Salvador Finland France Germany Greece Guatemala Honduras Hong Kong Hungary India Indonesia Iraq Ireland Israel Italy Japan Malaysia Mexico Netherlands New Zealand Norway Panama Paraguay Peru Philippines Poland Portugal Qatar Russia Saudi Arabia Singapore South Africa South Korea Spain Sweden Switzerland Taiwan Thailand Trinidad & Tol	lic spublic	5,440 13,471 1,831 9,650 21,649 22,544 5,093 60,463 6,311 7,063 1,720 2,921 5,210 2,404 1,579 1,453 2,458 18,756 46,596 1,153 2,198 1,170 32,322 2,210 9,243 1,310 1,046 11,530 7,170 9,309 49,595 30,944 08,546 34,012 1,413 2,611 1,634 3,847 2,887 20,130 1,758 4,184 1,634 3,847 2,913 3,581 38,380 2,736 36,936 5,861 4,801 35,127 12,725 1,135
Turkey United Arab E United Kingdo		2,444 4,775 32,481
Venezuela		8,215

 $^{*}$ Only those countries with 1,000 or more jobs supported by high-tech exports are listed.

Data are estimates and subject to revisions.



### **CYBERSTATES EXPORTS**

#### **APPENDIX B.1**

#### HIGH-TECH EXPORTS BY STATE, 2001 - 2007

(in millions of current U.S		2001 - 2007						Percent	Percent
	in donaio)							Change	Change
	<u>2001</u>	2002	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>		<u>2001-2007</u>
United States	\$188,374	\$165,754	\$170,943	\$191,404	\$199,326	\$220,214	\$214,346	-3%	14%
Alabama	\$940	\$980	\$927	\$1,076	\$1,409	\$1,481	\$1,300	-12.2%	38.3%
Alaska	\$28	\$20	\$32	\$22	\$20	\$18	\$24	35.1%	-13.6%
Arizona	\$5,970	\$6,008	\$7,194	\$6,391	\$7,026	\$8,755	\$8,720	-0.4%	46.1%
Arkansas	\$102	\$103	\$154	\$193	\$193	\$237	\$200	-15.6%	95.5%
California	\$56,017	\$44,338	\$41,523	\$48,369	\$47,793	\$51,721	\$48,181	-6.8%	-14.0%
Colorado	\$3,598	\$3,167	\$3,570	\$4,063	\$3,754	\$4,341	\$3,252	-25.1%	-9.6%
Connecticut	\$1,313	\$1,179	\$1,390	\$1,942	\$1,831	\$1,923	\$1,892	-1.6%	44.1%
Delaware	\$269	\$288	\$285	\$318	\$406	\$510	\$576	13.1%	114.3%
District of Columbia	\$96	\$88	\$119	\$171	\$119	\$92	\$88	-4.6%	-8.5%
Florida	\$9,383	\$8,114	\$7,994	\$9,445	\$10,963	\$12,366	\$13,354	8.0%	42.3%
Georgia	\$2,521	\$2,388	\$2,991	\$3,216	\$3,321	\$2,989	\$3,078	3.0%	22.1%
Hawaii	\$59	\$33	\$28	\$37	\$29	\$15	\$37	136.8%	-38.0%
Idaho	\$1,330	\$1,188	\$1,229	\$1,948	\$2,258	\$2,595	\$3,289	26.8%	147.4%
Illinois	\$5,486	\$4,951	\$4,684	\$5,353	\$5,970	\$7,181	\$7,438	3.6%	35.6%
Indiana	\$1,738	\$1,789	\$1,885	\$2,089	\$2,258	\$2,337	\$2,160	-7.6%	24.3%
lowa	\$480	\$501	\$491	\$515	\$563	\$635	\$780	22.8%	62.3%
Kansas	\$416	\$318	\$389	\$659	\$891	\$1,172	\$1,260	7.4%	202.8%
Kentucky	\$1,319	\$1,021	\$964	\$1,266	\$1,421	\$1,732	\$1,783	2.9%	35.2%
Louisiana	\$179	\$156	\$132	\$140	\$222	\$239	\$312	30.8%	74.6%
Maine	\$379	\$563	\$632	\$694	\$703	\$851	\$922	8.3%	143.6%
Maryland	\$1,364	\$917	\$869	\$1,219	\$1,426	\$1,378	\$1,512	9.7%	10.8%
Massachusetts	\$9,271	\$7,907	\$8,642	\$9,239	\$8,668	\$9,592	\$8,737	-8.9%	-5.8%
Michigan	\$1,790	\$1,755	\$1,805	\$1,892	\$1,834	\$1,948	\$2,218	13.8%	23.9%
Minnesota	\$4,436	\$4,140	\$4,722	\$5,180	\$6,152	\$6,203	\$5,590	-9.9%	26.0%
Mississippi	\$284	\$123	\$136	\$136	\$378	\$578	\$821	42.0%	189.4%
Missouri	\$558	\$534	\$565	\$670	\$703	\$699	\$774	10.6%	38.7%
Montana	\$21	\$21	\$21	\$24	\$28	\$25	\$34	39.7%	60.3%
Nebraska	\$188	\$163	\$168	\$166	\$205	\$203	\$210	3.7%	11.6%
Nevada	\$486	\$435	\$521	\$624	\$688	\$746	\$714	-4.3%	47.1%
New Hampshire	\$1,176	\$858	\$905	\$1,072	\$1,212	\$1,204	\$1,051	-12.7%	-10.6%
New Jersey	\$4,151	\$3,169	\$3,106	\$3,530	\$3,317	\$3,352	\$3,709	10.7%	-10.7%
New Mexico	\$1,109	\$810	\$1,831	\$1,347	\$1,952	\$2,109	\$1,621	-23.1%	46.1%
New York	\$8,099	\$7,382	\$7,366	\$8,374	\$9,015	\$9,137	\$8,862	-3.0%	9.4%
North Carolina	\$4,014	\$2,832	\$3,186	\$3,322	\$3,628	\$3,370	\$3,276	-2.8%	-18.4%
North Dakota	\$21	\$18	\$22	\$26	\$28	\$39	\$42	7.9%	102.6%
Ohio	\$2,230	\$2,309	\$2,271	\$2,805	\$2,744	\$3,271	\$3,456	5.6%	55.0%
Oklahoma	\$297	\$289	\$303	\$359	\$387	\$504	\$486	-3.6%	63.7%
Oregon	\$4,046	\$4,786	\$4,703	\$4,386	\$4,887	\$6,900	\$6,514	-5.6%	61.0%
Pennsylvania	\$3,750	\$2,643	\$2,607	\$2,884	\$2,998	\$3,538	\$3,646	3.1%	-2.8%
Puerto Rico	\$2,152	\$1,749	\$2,216	\$2,360	\$2,710	\$2,864	\$2,983	4.1%	38.6%
Rhode Island	\$444	\$263	\$338	\$330	\$239	\$273	\$306	11.9%	-31.1%
South Carolina	\$510	\$635	\$932	\$1,477	\$1,385	\$1,240	\$977	-21.2%	91.7%
South Dakota	\$210	\$179	\$231	\$287	\$272	\$389	\$421	8.2%	100.6%
Tennessee	\$2,059	\$1,784	\$2,292	\$3,061	\$3,762	\$4,479	\$4,802	7.2%	133.2%
Texas	\$28,288	\$29,499	\$31,055	\$34,710	\$34,081	\$38,578	\$35,894	-7.0%	26.9%
Utah	\$598	\$834	\$707	\$1,041	\$991	\$722	\$1,062	46.9%	77.7%
Vermont	\$2,078	\$1,888	\$2,005	\$2,665	\$3,564	\$3,071	\$2,772	-9.7%	33.4%
Virginia	\$2,267	\$1,845	\$1,509	\$1,577	\$1,927	\$2,816	\$3,917	39.1%	72.8%
Washington	\$2,403	\$2,050	\$2,402	\$2,798	\$2,810	\$3,006	\$3,049	1.4%	26.9%
West Virginia	\$114	\$142	\$148	\$405	\$139	\$150	\$128	-14.6%	12.7%
Wisconsin	\$2,092	\$2,146	\$2,271	\$2,616	\$3,497	\$4,318	\$3,881	-10.1%	85.5%
Wyoming	\$10	\$8	\$23	\$16	\$7	\$10	\$8	-13.9%	-17.1%
Unspecified	\$6,462	\$4,452	\$4,450	\$2,896	\$2,541	\$2,311	\$2,226		

Data are rounded and reported on a Total Census Basis.

State totals do not equal the U.S. total due to unspecified origin.



#### **HIGH-TECH EXPORTS, 2007**

(in millions of U.S. dollars)

#### **HIGH-TECH CONCENTRATION OF EXPORTS, 2007**

(in millions of U.S. dollars)

	,	,			1	/	
		High-Tech			High-Tech		High-Tech
<u>Rank</u>	<u>State</u>	<u>Exports</u>	<u>Rank</u>	<u>State</u>	<u>Exports</u>	<u>Total Exports</u>	<b>Concentration</b>
	United States	\$214,346		United States	\$214,346	\$1,162,479	18.4%
1.	California	\$48,181	1.	Vermont	\$2,772	\$3,685	75.2%
2.	Texas	\$35,894	2.	Idaho	\$3,289	\$4,703	69.9%
3.	Florida	\$13,354	3.	New Mexico	\$1,621	\$2,585	62.7%
4.	New York	\$8,862	4.	Arizona	\$8,720	\$19,228	45.3%
5.	Massachusetts	\$8,737	5.	Colorado	\$3,252	\$7,352	44.2%
5. 6.	Arizona	\$8,720	6.	Oregon	\$6,514	\$16,531	39.4%
7.	Illinois	\$7,438	7.		\$1,051	\$2,914	36.1%
				New Hampshire			
8.	Oregon	\$6,514	8.	California	\$48,181	\$134,319	35.9%
9.	Minnesota	\$5,590	9.	Massachusetts	\$8,737	\$25,351	34.5%
10.	Tennessee	\$4,802	10.	Maine	\$922	\$2,750	33.5%
11.	Virginia	\$3,917	11.	Minnesota	\$5,590	\$18,062	31.0%
12.	Wisconsin	\$3,881	12.	Florida	\$13,354	\$44,858	29.8%
13.	New Jersey	\$3,709	13.	South Dakota	\$421	\$1,510	27.9%
14.	Pennsylvania	\$3,646	14.	Virginia	\$3,917	\$16,864	23.2%
15.	Ohio	\$3,456	15.	Tennessee	\$4,802	\$21,865	22.0%
16.	Idaho	\$3,289	16.	Texas	\$35,894	\$168,229	21.3%
17.	North Carolina	\$3,276	17.	Wisconsin	\$3,881	\$18,825	20.6%
18.	Colorado	\$3,252	18.	Rhode Island	\$306	\$1,649	18.5%
19.	Georgia	\$3,078	19.	Maryland	\$1,512	\$8,949	16.9%
20.	Washington	\$3,049	20.	Puerto Rico	\$2,983	\$18,078	16.5%
20. 21.	Puerto Rico	\$2,983	20. 21.	Mississippi	\$821	\$5,184	15.8%
21.	Vermont	\$2,772	21.	Illinois	\$7,438	\$48,896	15.2%
23.	Michigan	\$2,218	23.	Delaware	\$576	\$4,024	14.3%
24.	Indiana	\$2,160	24.	North Carolina	\$3,276	\$23,356	14.0%
25.	Connecticut	\$1,892	25.	Connecticut	\$1,892	\$13,799	13.7%
26.	Kentucky	\$1,783	26.	Utah	\$1,062	\$7,815	13.6%
27.	New Mexico	\$1,621	27.	Georgia	\$3 <i>,</i> 078	\$23,366	13.2%
28.	Maryland	\$1,512	28.	Nevada	\$714	\$5,714	12.5%
29.	Alabama	\$1,300	29.	Pennsylvania	\$3,646	\$29,195	12.5%
30.	Kansas	\$1,260	30.	New York	\$8,862	\$71,116	12.5%
31.	Utah	\$1,062	31.	Kansas	\$1,260	\$10,277	12.3%
32.	New Hampshire	\$1,051	32.	New Jersey	\$3,709	\$30,836	12.0%
33.	South Carolina	\$977	33.	, Oklahoma	\$486	\$4,579	10.6%
34.	Maine	\$922	34.	Kentucky	\$1,783	\$19,652	9.1%
35.	Mississippi	\$821	35.	Alabama	\$1,300	\$14,407	9.0%
36.	lowa	\$780	36.	Indiana	\$2,160	\$25,956	8.3%
37.	Missouri	\$774	37.	Ohio	\$3,456	\$42,562	8.1%
38.	Nevada	\$714	38.	District of Columbia	\$88	\$1,082	8.1%
38. 39.	Delaware	\$576	38. 39.		\$780		8.1%
				lowa		\$9,656	
40.	Oklahoma	\$486	40.	Hawaii	\$37	\$560	6.5%
41.	South Dakota	\$421	41.	South Carolina	\$977	\$16,575	5.9%
42.	Louisiana	\$312	42.	Missouri	\$774	\$13,484	5.7%
43.	Rhode Island	\$306	43.	Michigan	\$2,218	\$44,555	5.0%
44.	Nebraska	\$210	44.	Nebraska	\$210	\$4,266	4.9%
45.	Arkansas	\$200	45.	Washington	\$3,049	\$66,370	4.6%
46.	West Virginia	\$128	46.	Arkansas	\$200	\$4,887	4.1%
47.	District of Columbia	\$88	47.	West Virginia	\$128	\$3,987	3.2%
48.	North Dakota	\$42	48.	Montana	\$34	\$1,134	3.0%
49.	Hawaii	\$37	49.	North Dakota	\$42	\$2,047	2.0%
50.	Montana	\$34	50.	Wyoming	\$8	\$802	1.0%
51.	Alaska	\$24	51.	Louisiana	\$312	\$30,319	1.0%
52.	Wyoming	\$8	52.	Alaska	\$24	\$4,010	0.6%
	199	*0	02.		Ψ <u></u>	÷ 1/0 1 0	0.070

Date are rounded and reported on a Total Census Basis.

State totals do not equal the U.S. total due to unspecified origin.

#### **U.S. JOBS SUPPORTED BY HIGH-TECH EXPORTS** 2007

(alphabetical)

(alphabetical)	
U.S. High-Te <u>State</u> <u>Related Em</u>	ployment
office sides	074,072
U.S. High-Te	
Oklahoma Oregon Pennsylvania	1,839 33,880 12,534
Puerto Rico Rhode Island South Carolina South Dakota Tennessee Texas Utah Vermont Virginia Washington West Virginia Wisconsin Wyoming Unspecified	12,534 10,017 902 3,402 1,609 17,877 183,907 4,471 11,513 15,661 12,433 489 13,130 49 8,567

#### **U.S. JOBS SUPPORTED BY HIGH-TECH EXPORTS** 2007

(ranked)

	(Iui	ikeu)
		J.S. High-Tech Export
<u>Rank</u>	<u>State</u>	<u>Related Employment</u>
	United States	894,572
1.	Texas	183,907
2.	California	182,985
3.	Florida	69,886
4.	Arizona	36,438
5.	Oregon	33,880
6.	New York	30,707
7.	Massachusetts	30,280
8.	Illinois	28,704
9.	Minnesota	20,809
10.	Tennessee	17,877
11.	Colorado	15,830
12.	New Jersey	15,827
13.	Virginia	15,661
14.	Idaho	13,532
15.	Georgia	13,134
16.	Wisconsin	13,130
17.	Pennsylvania	12,534
18.	Washington	12,433
19.	North Caroling	
20.	New Mexico	11,567
20.		11,513
	Vermont	
22.	Ohio	10,653
23.	Puerto Rico	10,017
24.	Indiana	6,762
25.	Maryland	6,705
26.	Michigan	6,473
27.	Kentucky	6,134
28.	Connecticut	5,561
29.	Alabama	5,353
30.	Kansas	4,989
31.	Utah	4,471
32.	Maine	3,615
33.	lowa	3,480
34.	South Carolina	
35.	Mississippi	3,129
36.	New Hampshi	re 3,009
37	Missouri	3,008
38.	Nevada	2,937
39.	Louisiana	
		2,427
40.	Delaware	2,417
41.	Oklahoma	1,839
42.	South Dakota	1,609
43.	Hawaii	1,236
44.	Nebraska	1,206
45.	Rhode Island	902
46.	Arkansas	857
47.	West Virginia	489
48.	District of Colu	umbia 295
49.	North Dakota	215
50.	Montana	213
51.	Alaska	191
52.	Wyoming	49
	,9	. /

Unspecified

Data are estimates and subject to revisions. Source: U.S. Bureau of the Census



#### **HIGH-TECH EXPORTS** PERCENT CHANGE 2006 - 2007

(based on current U.S. dollars)

		aonaroj
		Percent Change
Rank	<u>State</u>	2006-2007
Marik		
	U.S. High Tech	-2.7%
	U.S. All Goods Secto	rs 12.1%
1.	Hawaii	136.8%
2.	Utah	46.9%
3.	Mississippi	42.0%
4.	Montana	39.7%
5.	Virginia	39.1%
6.	Alaska	35.1%
7.	Louisiana	30.8%
8.	Idaho	26.8%
9.	lowa	22.8%
10.	Michigan	13.8%
11.	Delaware	13.1%
12.	Rhode Island	11.9%
13.	New Jersey	10.7%
14.	Missouri	10.6%
15.	Maryland	9.7%
16.	Maine	8.3%
17.	South Dakota	8.2%
18.	Florida	8.0%
19.	North Dakota	7.9%
20.	Kansas	7.4%
21.	Tennessee	7.2%
22.	Ohio	5.6%
23.	Puerto Rico	4.1%
24.	Nebraska	3.7%
25.	Illinois	3.6%
26.	Pennsylvania	3.1%
27.	Georgia	3.0%
28.	Kentucky	2.9%
29.	Washington	1.4%
30.	Arizona	-0.4%
	_	
31.	Connecticut	-1.6%
32.	North Carolina	-2.8%
33.	New York	-3.0%
34.	Oklahoma	-3.6%
35.	Nevada	-4.3%
36.	District of Columbia	-4.6%
37.	Oregon	-5.6%
38.	California	-6.8%
39.	Texas	-7.0%
40.	Indiana	-7.6%
41.	Massachusetts	-8.9%
42.	Vermont	-9.7%
43.	Minnesota	-9.9%
44.	Wisconsin	-10.1%
45.	Alabama	-12.2%
46.	New Hampshire	-12.7%
47.	Wyoming	-13.9%
48.	West Virginia	-14.6%
49.	Arkansas	-15.6%
50.	South Carolina	-21.2%
51.	New Mexico	-23.1%
52.	Colorado	-25.1%

Data are rounded.

State totals do not equal the U.S. total due to undisclosed and unspecified state data.

Source: U.S. Bureau of the Census

#### **HIGH-TECH EXPORTS** NUMERIC CHANGE 2006 - 2007

(in millions of current U.S. dollars)

<u>Rank</u>	<u>State</u> U.S. High Tech U.S. All Goods Sectors	Numeric Change <u>2006-2007</u> -\$5,867 \$125,845
<ol> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> <li>5.</li> <li>6.</li> <li>7.</li> <li>8.</li> <li>9.</li> <li>10.</li> <li>11.</li> <li>12.</li> <li>13.</li> <li>14.</li> <li>15.</li> <li>16.</li> <li>17.</li> <li>18.</li> <li>19.</li> <li>20.</li> <li>21.</li> <li>22.</li> <li>23.</li> <li>24.</li> <li>25.</li> <li>26.</li> <li>27.</li> <li>28.</li> <li>29.</li> <li>30.</li> <li>31.</li> <li>32.</li> <li>33.</li> <li>34.</li> <li>35.</li> <li>36.</li> <li>37.</li> <li>38.</li> <li>39.</li> <li>40.</li> <li>41.</li> <li>42.</li> <li>43.</li> <li>44.</li> <li>45.</li> <li>46.</li> <li>47.</li> <li>48.</li> </ol>		\$ 125,845 \$ 1,101 \$ 989 \$ 695 \$ 357 \$ 339 \$ 324 \$ 269 \$ 258 \$ 243 \$ 145 \$ 145 \$ 134 \$ 118 \$ 108 \$ 89 \$ 87 \$ 74 \$ 73 \$ 71 \$ 67 \$ 51 \$ 43 \$ 33 \$ 32 \$ 21 \$ 100 \$ 77 \$ 67 \$ 51 \$ 43 \$ 33 \$ 32 \$ 21 \$ 100 \$ 77 \$ 67 \$ 51 \$ 43 \$ 333 \$ 322 \$ 21 \$ 100 \$ 77 \$ 66 \$ 33 \$ 32 \$ 357 \$ 488 \$ 385 \$ 488 \$ 612
49. 50. 51. 52.	Massachusetts Colorado Texas California	-\$855 -\$1,090 -\$2,684 -\$3,539

#### **HIGH-TECH EXPORTS PERCENT CHANGE** 2001 - 2007

(based on current U.S. dollars)

		olidioj
		Percent Change
<u>Rank</u>	<u>State</u>	<u>2001-2007</u>
	U.S. High Tech	13.8%
	U.S. All Goods Sector	
	U.S. All Goods Sector	\$ 39.4%
_		
1.	Kansas	202.8%
2.	Mississippi	189.4%
3.	Idaho	147.4%
4.	Maine	143.6%
	Tennessee	133.2%
6.	Delaware	114.3%
7.	North Dakota	102.6%
8.	South Dakota	100.6%
9.	Arkansas	95.5%
10.	South Carolina	91.7%
10.		
	Wisconsin	85.5%
12.	Utah	77.7%
13.	Louisiana	74.6%
14.	Virginia	72.8%
15.	Oklahoma	63.7%
16.	lowa	62.3%
17.	Oregon	61.0%
17.	Montana	60.3%
19.	Ohio	55.0%
20.	Nevada	47.1%
21.	New Mexico	46.1%
22.	Arizona	46.1%
23.	Connecticut	44.1%
24.	Florida	42.3%
25.	Missouri	38.7%
26.	Puerto Rico	38.6%
27.	Alabama	38.3%
28.	Illinois	35.6%
29.	Kentucky	35.2%
30.	Vermont	33.4%
31.	Texas	26.9%
32.	Washington	26.9%
33.	Minnesota	26.0%
34.	Indiana	24.3%
35.	Michigan	23.9%
36.	Georgia	22.1%
37.	West Virginia	12.7%
38.	Nebraska	11.6%
39.	Maryland	10.8%
40.	, New York	9.4%
41.	Pennsylvania	-2.8%
42.	Massachusetts	-5.8%
43.	District of Columbia	-8.5%
44.	Colorado	-9.6%
45.	New Hampshire	-10.6%
46.	New Jersey	-10.7%
47.	Alaska	-13.6%
48.	California	-14.0%
49.	Wyoming	-17.1%
47. 50.	North Carolina	-18.4%
	Rhode Island	
51.		-31.1%
52.	Hawaii	-38.0%

Data are rounded.

State totals do not equal the U.S. total due to undisclosed and unspecified state data.

Source: U.S. Bureau of the Census

#### **HIGH-TECH EXPORTS** NUMERIC CHANGE 2001 - 2007

(in millions of current U.S. dollars)

<u>Rank</u>	<u>State</u> U.S. High Tech U.S. All Goods Sectors	Numeric Change <u>2001-2007</u> \$25,972 \$433,379
<ol> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> <li>5.</li> <li>6.</li> <li>7.</li> <li>8.</li> <li>9.</li> <li>10.</li> <li>11.</li> <li>12.</li> <li>13.</li> <li>14.</li> <li>15.</li> <li>16.</li> <li>17.</li> <li>18.</li> <li>190.</li> <li>21.</li> <li>22.</li> <li>23.</li> <li>24.</li> <li>25.</li> <li>26.</li> <li>27.</li> <li>28.</li> <li>29.</li> <li>31.</li> <li>32.</li> <li>34.</li> <li>35.</li> <li>36.</li> <li>37.</li> <li>38.</li> <li>39.</li> <li>41.</li> <li>42.</li> <li>43.</li> <li>44.</li> <li>45.</li> <li>46.</li> <li>47.</li> <li>48.</li> </ol>		
49. 50. 51. 52.	New Jersey Massachusetts North Carolina California	-\$442 -\$534 -\$738 -\$7,835



#### COMPUTERS AND PERIPHERAL EQUIPMENT MFG.

#### 2007 (in millions of U.S. dollars)

	(in millions of U.S.	dollars)
<u>Rank</u>	<u>State</u> United States	<u>Exports</u> \$47,112.2
$\begin{array}{c} 1.\\ 2.\\ 3.\\ 4.\\ 5.\\ 6.\\ 7.\\ 8.\\ 9.\\ 10.\\ 11.\\ 12.\\ 13.\\ 14.\\ 15.\\ 16.\\ 17.\\ 18.\\ 19.\\ 20.\\ 21.\\ 23.\\ 24.\\ 25.\\ 26.\\ 27.\\ 28.\\ 29.\\ 30.\\ 31.\\ 32.\\ 33.\\ 34.\\ 35.\\ 36.\\ 37.\\ 38.\\ 39.\\ 40.\\ 41.\\ 42.\\ 43.\\ 44.\\ 45.\\ 46.\\ 47.\\ 48.\\ 49.\\ 50.\\ 51.\\ 52. \end{array}$	California Texas Florida New York Tennessee Minnesota Puerto Rico Massachusetts Oregon Colorado Illinois Arizona New Jersey Kentucky Georgia Wisconsin North Carolina Indiana Washington Ohio Virginia Kansas Pennsylvania New Hampshire Alabama Idaho South Dakota South Dakota South Carolina Connecticut Michigan Maryland Vermont Rhode Island Mississippi Missouri Nevada Utah New Mexico Oklahoma Iowa Louisiana Delaware District of Columbi Maine Arkansas Nebraska North Dakota Hawaii Montana West Virginia Alaska Wyoming	\$12,285.6 \$7,001.9 \$5,137.7 \$2,245.9 \$1,702.1 \$1,472.6 \$1,422.6 \$1,246.2 \$1,164.1 \$1,093.5 \$1,083.6 \$1,006.4 \$767.4 \$752.5 \$677.8 \$677.6 \$660.5 \$652.1 \$583.9 \$577.8 \$677.6 \$660.5 \$652.1 \$583.9 \$577.8 \$519.0 \$505.0 \$452.7 \$368.1 \$360.1 \$349.9 \$283.6 \$171.8 \$155.6 \$148.3 \$138.3 \$124.0 \$122.7 \$82.9 \$58.8 \$35.5 \$34.5 \$29.1 \$26.4 \$18.0 \$16.6

#### COMMUNICATIONS EQUIPMENT MFG.

						D7	-				
(	'n	mi	llio	ns	of	U.S	5.	do	olla	rs)	

<u>Rank</u>	<u>State</u> United States	<u>Exports</u> \$29,745.4
$\begin{array}{c} 1.\\ 2.\\ 3.\\ 4.\\ 5.\\ 6.\\ 7.\\ 8.\\ 9.\\ 10.\\ 11.\\ 12.\\ 13.\\ 14.\\ 15.\\ 16.\\ 17.\\ 18.\\ 19.\\ 20.\\ 21.\\ 23.\\ 24.\\ 25.\\ 26.\\ 27.\\ 28.\\ 29.\\ 30.\\ 31.\\ 32.\\ 34.\\ 35.\\ 36.\\ 37.\\ 38.\\ 39.\\ 40.\\ 41.\\ 42.\\ 43.\\ 44.\\ 45. \end{array}$	United States Texas California Florida Illinois New York Arizona Massachusetts New Jersey North Carolina Georgia Maryland Wisconsin Pennsylvania Tennessee Minnesota Virginia Washington Ohio Connecticut Iowa Colorado Kansas Michigan Mississippi South Carolina Kentucky Indiana New Mexico South Dakota New Hampshire Oregon Alabama Missouri Puerto Rico District of Columbia Utah Maine Oklahoma Rhode Island Nevada Nebraska Louisiana Delaware Hawaii Idaho	\$29,745.4 \$8,847.1 \$5,683.0 \$3,286.1 \$1,289.8 \$1,157.6 \$800.5 \$792.1 \$636.8 \$606.7 \$602.1 \$588.9 \$575.0 \$556.2 \$450.4 \$362.3 \$343.9 \$326.2 \$283.3 \$246.8 \$190.5 \$136.6 \$126.2 \$121.1 \$119.1 \$100.9 \$100.9 \$94.6 \$90.9 \$89.2 \$83.2 \$66.0 \$59.2 \$33.6 \$29.6 \$29.6 \$27.0 \$25.6 \$24.6 \$22.4 \$22.1 \$21.3 \$19.2 \$14.8 \$8.8
46. 47. 48. 49. 50. 51.	North Dakota Arkansas Vermont West Virginia Alaska Montana	\$8.4 \$7.9 \$2.9 \$2.4 \$2.3 \$1.0
52.	Wyoming	\$0.6

State totals do not equal the U.S. total due to unspecified data at the state level.

Source: U.S. Bureau of the Census

#### **CONSUMER ELECTRONICS MFG.**

2007

#### (in millions of U.S. dollars)

<u>Rank</u>	<u>State</u>	<u>Exports</u>
	United States	\$8,784.4
1.	California	\$2,314.6
2.	Texas	\$1,374.0
3.	Florida	\$840.0
4.	Illinois	\$565.5
5.	Indiana	\$301.8
6.	Washington	\$268.5
7.	Arizona	\$257.4
8.	Georgia	\$247.9
9.	Tennessee	\$241.4
10.	Massachusetts	\$229.6
11.	New York	\$222.2
12.	New Jersey	\$196.3
13.	Michigan	\$170.2
14.	Ohio	\$166.3
15.	South Carolina	\$144.9
16.	Pennsylvania	\$135.2
17.	North Carolina	\$111.7
18.	Colorado	\$104.5
19.	Kentucky	\$93.5 \$95.4
20. 21.	Arkansas	\$85.6
21.	Missouri	\$65.1 \$62.0
22. 23.	Alabama New Hampshire	\$54.2
23.	Mississippi	\$47.9
25.	Oregon	\$47.1
26.	Virginia	\$45.6
27.	Minnesota	\$34.7
28.	Maryland	\$32.4
29.	Wisconsin	\$29.0
30.	Utah	\$22.3
31.	New Mexico	\$20.3
32.	Connecticut	\$17.5
33.	lowa	\$12.4
34.	Oklahoma	\$11.9
35.	Kansas	\$9.2
36.	Nebraska	\$7.4
37.	Maine	\$6.6
38. 39.	Nevada Puerto Rico	\$6.3 \$5.0
39. 40.	Rhode Island	\$3.0 \$3.5
40. 41.	Vermont	\$2.9
42.	North Dakota	\$2.4
43.	Louisiana	\$2.4
44.	District of Columbia	
45.	South Dakota	\$1.7
46.	Idaho	\$1.6
47.	Hawaii	\$1.2
48.	Alaska	\$0.8
49.	Delaware	\$0.7
50.	Montana	\$0.5
51.	West Virginia	\$0.4
52.	Wyoming	\$0.05

#### **ELECTRONIC COMPONENTS MFG.**

2007

#### (in millions of U.S. dollars)

#### SEMICONDUCTOR MFG.

2007

(in millions of U.S. dollars)

<u>Rank</u>	<u>State</u> United States	<u>Exports</u> \$50,014.1
$\begin{array}{c} 1.\\ 2.\\ 3.\\ 4.\\ 5.\\ 6.\\ 7.\\ 8.\\ 9.\\ 10.\\ 11.\\ 12.\\ 13.\\ 14.\\ 15.\\ 16.\\ 17.\\ 18.\\ 19.\\ 20.\\ 21.\\ 23.\\ 24.\\ 25.\\ 26.\\ 27.\\ 28.\\ 29.\\ 30.\\ 31.\\ 32.\\ 33.\\ 34.\\ 35.\\ 36.\\ 37.\\ 38.\\ 39.\\ 40.\\ 41.\\ 42.\\ 43.\\ 44.\\ 45.\\ 46.\\ 47.\\ 48.\\ 49.\\ 50.\\ 51.\\ 52. \end{array}$	California Texas Arizona Oregon Idaho Vermont Virginia Massachusetts New York New Mexico Florida Colorado Maine North Carolina Utah Minnesota Illinois Washington Mississippi Nevada Pennsylvania New Jersey Ohio Michigan Connecticut Maryland Georgia New Hampshire Tennessee Indiana Kentucky Missouri Puerto Rico Wisconsin Alabama Delaware Kansas Oklahoma South Dakota Iowa Rhode Island Alaska South Carolina Louisiana Nebraska Arkansas District of Columbia Montana North Dakota West Virginia Hawaii Wyoming	\$12,235.6 \$8,740.2 \$4,109.5 \$3,883.8 \$2,830.0 \$2,527.1 \$2,344.6 \$1,975.5 \$1,559.9 \$1,337.2 \$934.9 \$866.0 \$790.3 \$635.4 \$623.4 \$621.0 \$486.5 \$386.7 \$352.6 \$335.7 \$278.5 \$261.8 \$256.9 \$213.0 \$188.6 \$182.4 \$128.1 \$123.7 \$120.3 \$79.9 \$69.7 \$58.9 \$25.9 \$24.3 \$79.9 \$69.7 \$58.9 \$25.9 \$24.3 \$79.9 \$69.7 \$58.9 \$25.9 \$24.3 \$12.2 \$10.0 \$8.9 \$55.9 \$24.3 \$12.2 \$10.0 \$8.9 \$6.8 \$1.9 \$1.3 \$12.2 \$10.0 \$8.9 \$6.8 \$1.9 \$1.8

#### **INDUSTRIAL ELECTRONICS MFG.**

2007

2	007	
(in millions	of U.S.	dollars)

<u>Rank</u>	<u>State</u> United States	<u>Exports</u> \$38,507.6
Rank         1.         2.         3.         4.         5.         6.         7.         8.         9.         10.         11.         12.         13.         14.         15.         16.         17.         18.         19.         20.         21.         22.         23.         24.         25.         26.         27.         28.         29.         30.         31.         32.         33.         34.         35.         36.         37.         38.         39.         40.         41.         42.         43.         45.         46.         47.         48.         49.         50.         51.		\$38,507.6 \$7,947.9 \$5,497.0 \$2,517.4 \$1,814.1 \$1,717.5 \$1,478.4 \$1,226.4 \$1,196.0 \$1,003.3 \$995.0 \$964.0 \$956.4 \$793.9 \$759.9 \$567.9 \$548.7 \$538.4 \$520.1 \$512.1 \$495.9 \$462.8 \$459.2 \$396.8 \$377.3 \$365.9 \$278.0 \$274.1 \$258.0 \$275.4 \$365.9 \$276.1 \$64.1 \$62.7 \$57.2 \$49.8 \$31.9
52.	Wyoming	\$5.9

#### **ELECTROMEDICAL EQUIPMENT MFG.**

#### 2007

#### (in millions of U.S. dollars)

#### **PHOTONICS MANUFACTURING**

#### 2007

(in millions of U.S. dollars)

<u>Rank</u>	<u>State</u> United States	<u>Exports</u> \$5,906.4
Rank         1.         2.         3.         4.         5.         6.         7.         8.         9.         10.         11.         12.         13.         14.         15.         16.         17.         18.         19.         20.         21.         22.         23.         24.         25.         26.         27.         28.         29.         30.         31.         32.         33.         34.         35.         36.         37.         38.         39.         40.         41.         42.         43.         44.         45.         46.         47.         48.		Exports \$5,906.4 \$1,523.6 \$528.7 \$474.7 \$349.2 \$347.7 \$319.0 \$236.4 \$215.3 \$207.9 \$194.2 \$129.7 \$124.0 \$105.7 \$105.7 \$99.4 \$95.3 \$85.6 \$60.3 \$53.8 \$52.2 \$47.7 \$41.4 \$38.0 \$34.6 \$28.2 \$47.7 \$41.4 \$38.0 \$34.6 \$28.2 \$13.3 \$10.2 \$13.3 \$10.2 \$13.3 \$10.2 \$9.1 \$9.0 \$8.4 \$7.1 \$9.0 \$8.4 \$7.1 \$9.0 \$8.4 \$7.1 \$9.0 \$8.4 \$7.1 \$9.0 \$8.4 \$7.1 \$9.0 \$8.4 \$7.1 \$9.0 \$8.4 \$7.1 \$9.0 \$8.4 \$7.1 \$1.6 \$0.8
49. 50. 51. 52.	South Dakota Alaska North Dakota Wyoming	\$0.2 \$0.2 \$0.1 \$0.02

### **AeA'S DEFINITION OF THE HIGH-TECH INDUSTRY**

In preparing the original *Cyberstates* report, AeA carefully examined numerous definitions of the high-technology industry used by government agencies, private companies, and other trade associations. AeA devoted considerable time to devising a clear definition of what constitutes today's high-tech industry in the United States.

Our original definition was based on the Standard Industrial Classification (SIC) system. The U.S. government officially converted to the North American Industrial Classification System (NAICS) in 1997. Individual government agencies that produce industry data have implemented varying schedules of NAICS-based data. Furthermore, the NAICS codes were revised in 2002, including the information sector, which directly affects the high-tech industry. AeA revised its definition of the high-tech industry based on the 2002 NAICS codes, and uses these codes to produce Cyberstates.

The Trade in the Cyberstates report uses the NAICS codes as a foundation for determining which export and import goods categories to include. The nation's trade statistics are reported using the Harmonized Commodity Description and Coding System (HS) as the nomenclature for classifying exports. The United States adopted the HS in 1989 and now most countries are using this system. Trade data in this report use the HS, linking those HS codes to the goods producing (or manufacturing) sectors of our NAICS code definition of the electronics and information technology industry.

A detailed listing of the 60 HS codes used in this report to comprise the tech industry is provided on the next page.

We believe the AeA definition of high tech is a solid, yet conservative, representation of the core components of today's high-tech industry. AeA's definition does not include some related industries such as biotechnology, nor does it include wholesale or retail trade, industries that are primarily dedicated to selling technology products as opposed to making/creating the technology.

We found that there is no consensus on the definition of the high-tech industry. As one report notes, "high technology appears to be a lot like quality; people know it when they see it, but it is not easy to define." This means the definition of the high-tech industry varies greatly depending on what combination of products and services is selected. Our guiding principle, or acid test, was that to be included in AeA's core definition of high tech, an industry had to be a maker/creator of the technology, whether it be in the form of products, communications, or services.

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APA

#### **COMPUTERS AND PERIPHERAL EQUIPMENT**

- 8443 Printing Machinery
- 8469 Word Processing Machines
- 8470 Calculating and Accounting Machines
- 8471 Computers and Components
- 8472 Office Machines
- 8473 Parts for Office Machines

#### **COMMUNICATIONS EQUIPMENT**

- 8517 Telephone Sets
- 8525 Transmission Apparatus for Radiotelephony
- 8529 Parts for Television, Radio, and Radar Apparatus
- 8530 Electric Signal, Safety, or Traffic Control Equipment
- 8531 Electric Signaling Apparatus Auditory or Visual

#### **CONSUMER ELECTRONICS**

- 8518 Microphones, Loudspeakers, and Sound Amplifiers
- 8519 Turntables, Record and Cassette Players
- 8520 Magnetic Tape and Other Sound Recorders
- 8521 Video Recording or Reproducing Apparatus
- 8522 Parts and Accessories for Record Players, Magnetic Tape Recorders, and Video Recorders
- 8524 Records, Tapes, and Other Recorded Sound Media
- 8527 Reception Apparatus for Radio-Broadcasting
- 8528 Monitors, Projectors, and Television Reception Apparatus

#### **ELECTRONIC COMPONENTS**

- 8504 Electrical Transformers, Static Converters, and Inductors
- 8532 Electric Capacitors Fixed, Variable, or Adjustable
- 8533 Electrical Resistors (Except Heating Resistors)
- 8534 Printed Circuits
- 8535 Electrical Apparatus for Switching (Exceeding 1,000 volts)
- 8536 Electrical Apparatus for Switching (1,000 Volts or Less); Fiber Optic Cables and Connectors
- 8540 Thermionic, Cold Cathode, or Photocathode Valves and Tubes

#### **SEMICONDUCTORS**

- 8541 Semiconductor Devices, Light-Emitting Diodes
- 8542 Electronic Integrated Circuits and Microassemblies

#### **INDUSTRIAL ELECTRONICS**

- 8419 Machinery for Treatment of Materials Using Temperature Change Process
- 8456 Machine Tools for Material Removal by Laser Beam, Ultrasonic, etc.
- 8526 Radar, Radio Navigational Aid, and Radio Remote Control Apparatus
- 8543 Electrical Machines with Individual Functions
- 8548 Electrical Parts of Machinery
- 9012 Microscopes (Except Optical), Diffraction Apparatus
- 9014 Navigational Instruments
- 9015 Surveying Instruments
- 9024 Machines for Testing Mechanical Properties of Material
- 9025 Hydrometers, Thermometers, Pyrometers, Barometers, etc.
- 9026 Instruments for Measuring or Checking Variables of Liquids or Gases
- 9027 Instruments for Physical or Chemical Analysis
- 9028 Gas, Liquid, or Electric Supply Meters
- 9029 Revolution and Production Counters
- 9030 Instruments and Apparatus for Measuring or Checking Electrical Quantities or Ionizing Radiations
- 9031 Measuring Instruments, Appliances, and Machines
- 9032 Automatic Regulating or Controlling Instruments and Apparatus

#### **ELECTROMEDICAL EQUIPMENT**

- 901811 Electro-Cardiographs
- 901819 Other Electro-Diagnostic Apparatus
- 901820 Ultra-Violet or Infrared Ray Apparatus
- 901890 Other Instruments and Appliances
- 902150 Pacemakers
- 902190 Other Artificial Parts of the Body
- 9022 Apparatus Based on the Use of X-Rays or of Alpha, Beta, or Gamma Radiation

#### **PHOTONICS**

- 9001 Optical Fibers, Bundles, and Cables
- 9002 Lenses, Prisms, Mirrors, and Other Optical Elements
- 9007 Cinematographic Cameras and Projectors
- 9008 Image Projectors
- 9009 Photocopy and Thermocopy Apparatus
- 9010 Apparatus and Equipment for Photographic Laboratories
- 9011 Compound Optical Microscopes
- 9013 Liquid Crystal Devices



### METHODOLOGY

#### **MERCHANDISE TRADE**

The U.S. foreign trade statistics used in this report are from the U.S. Department of Commerce's Bureau of the Census, FT900 report.

All export data contained within this publication are expressed on a Total Census Basis and the values are in current U.S. dollars. The data are collected by the U.S. Bureau of the Census and are compiled by Global Trade Information Services, Inc.

#### **EXPORTS**

The Bureau of the Census compiles Origin of Movement (OM) export data primarily from Shipper's Export Declarations, required to be filed with customs officials for shipments leaving the United States. Export data are reported as free-along-ship at the U.S. port of export, based on the transaction price, including inland freight, insurance, and other charges incurred in placing merchandise alongside the carrier at the U.S. port of exportation and include both domestic exports and re-exports.

#### **IMPORTS**

The Bureau of the Census compiles import data from various customs forms required to be filed with customs officials. Imports in this report are on a customs value basis. Country of origin is defined as the country where the merchandise was manufactured. If the country of origin is unknown, the country of shipment is reported.

Import data are only available for the entire United States and are not available on a state-by-state basis.

#### **TECH EXPORT CONCENTRATION**

The tech export concentration is determined by taking high-tech goods exports and dividing that by the total of all exports from that same state. This percent is used to determine the ranking and concentration of technology exports as a percent of all exports.

#### LEADING HIGH-TECH INDUSTRY SECTORS

The leading high-tech industry sectors on the state overview pages show the leading export sectors within the high-tech industry for each state. They compare the top five leading technology industry export sectors as grouped by our definition of high tech. These categories include: computers and



peripheral equipment; communications equipment; consumer electronics; electronic components; semiconductors; industrial electronics; electromedical equipment; and photonics.

#### **EMPLOYMENT SUPPORTED BY HIGH-TECH EXPORTS**

The source document for calculating the number of jobs supported by high-tech exports comes from the U.S. Census Bureau's Exports from Manufacturing Establishments: Preliminary Estimates for 2006. There are a number of assumptions and calculations that need to be done to the data from this report to relate it specifically to technology exports at the state level.

First, the Census Bureau report identifies at the national level that there are 308,300 jobs directly related to technology exports (NAICS code 334) and 87,000 jobs related to supporting shipments of these technology exports. These two numbers summed together give a total of 395,300 technology export-related jobs. These jobs are allocated to each state based on the ratio of the value of technology exports in each state compared with the nation as a whole. For example, Alabama exported \$1.3 billion in technology products in 2007. When compared with the total exports for the nation (\$214 billion), Alabama's tech exports accounted for 0.61 percent of the national exports. This percent was then multiplied by 395,300 to give Alabama 2,344 jobs directly related to technology exports and to supporting shipments of these exports.

The assumption that has to be made to do this is that productivity and labor intensity are the same throughout all the states and industries. While this is not a realistic assumption, it is the only way to systematically link tech jobs to the state level given that there are no specific state employment data related to technology exports. So while the assumption is not perfect, it gives a reasonable estimate as to what the employment picture is for direct employment related to technology exports and shipments.

Next, Exports from Manufacturing Establishments also identifies nonmanufacturing employment related to manufactured exports - sometimes called the indirect effect. While there are no state-specific data about direct jobs tied to technology exports, there are state-specific data about indirect jobs. However, the state-specific data are for all manufacturing industries – not specifically for the tech industry. Given this, to apply these jobs to the tech industry, the calculation uses the assumption that the ratio of indirect employment to direct employment remains the same for the tech industry as for other industries.

Likewise, while this is not a perfect assumption, it does provide a systematic methodology for calculating the nonmanufacturing employment for the tech industry and yields a base estimate as to the level of employment.

To find the nonmanufacturing, or indirect, employment we first use the data in the report to calculate the ratio of indirect jobs supported by direct jobs. For example, there are 44,900 direct jobs related to all goods exports in Alabama and 66,800 indirect jobs related to all goods exports, which means that every 1 direct jobs relates to 1.49 indirect jobs. So in order to find the number of indirect jobs related to tech exports, we multiply the number of direct technology jobs (2,344) by 1.49 for a total of 3,487. (For the District of Columbia and Puerto Rico we used a 1:1 ratio to remain conservative as data were not available for these two locations.)

One challenge is that ratios at the individual state level tend to vary significantly from the national level and end up creating more indirect jobs than would be calculated just using the national statistics. In order to prevent this, the state indirect jobs are calculated in such a way to conform to the national employment number so that the summation of the state data equals the national data.

For example, the indirect jobs in Alabama represent 0.59 percent of the national total. This percent is then applied to the national indirect employment figure to determine that there are 3,009 indirect jobs in Alabama. Add 3,009 indirect jobs to the 2,344 direct jobs to equal 5,353 jobs supported by the tech industry in Alabama.

Finally, as the employment data related to tech exports are both direct and indirect, they are not comparable to the employment data that are in AeA's Cyberstates 2008 report. In addition, as the methodology for this calculation has changed, the employment data in this report are not comparable to the employment data in *Trade in the Cyberstates* 2007.

#### ROUNDING

The data in this report are often rounded to facilitate the understanding and use of the data. As a result, additional data often exist that are not reflected and can affect ranking, percent change, numeric change, and summations. Many of the rankings in the appendices may appear to be the same because of rounding; however, in reality they are different. In those rare instances when the data are not rounded and are indeed the same, the rankings for those states are a tie. The

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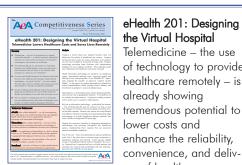
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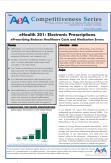


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