



# Global Commerce

## Tennessee and the International Economy

### EXPANDING EXPORTS I

#### CAN TENNESSEE DOUBLE ITS EXPORTS?

by Steven G. Livingston

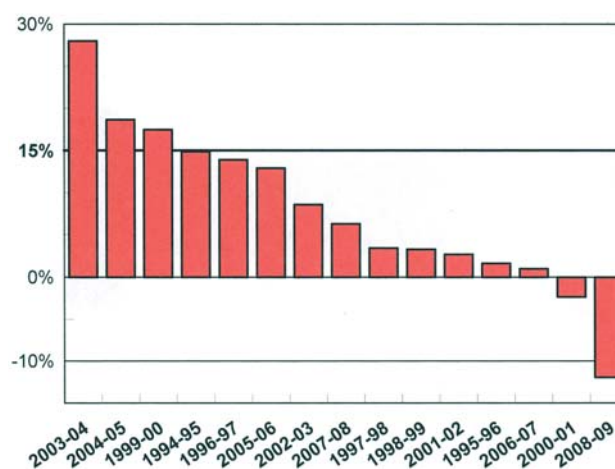
In this year's State of the Union Address, President Obama announced a National Export Initiative to double American exports over the next five years. He claimed that this could add two million jobs to the American economy. The President appointed an Export Council, headed by the CEOs of Boeing and Xerox, to advise him on meeting this goal. Its first progress report was filed this summer. From a Tennessee perspective, could this state actually double its exports over this period? And what would be the impact if it did?

In 2009, Tennessee exported goods valued at \$20.461 billion. If it could export \$40.92 billion by 2015, what would be the effect on the state's economy? The impact of trade is already significant. The International Trade Administration (ITA) estimates that exports generate 156,000 jobs in Tennessee. That's the 13th highest figure among the American states. State economic data for 2009 is not yet available, but in 2008 the state's exports equaled 9% of Tennessee's gross state product. If we restrict the "economy" to croplands, mining, manufacturing, and wholesaling—sectors from which the vast majority of exported goods come—that grows to over 30%.

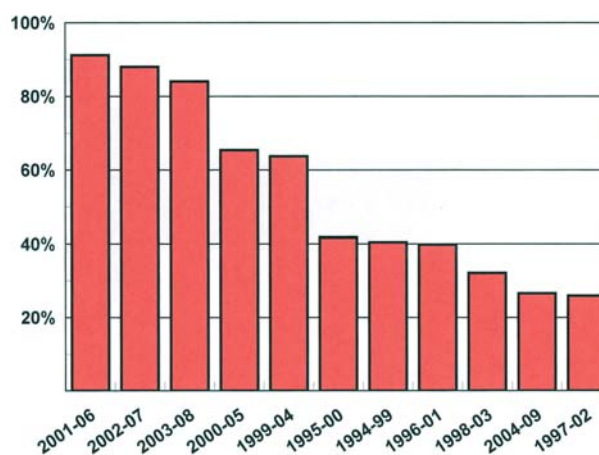
Let's do some back-of-the-envelope calculations. Predicting economic growth is difficult under any circumstances and probably impossible right now. But the state's economy grew about 3% per year (in nominal terms) over the past decade. Using that figure, we estimate that the value of exports would equal 13.6% of the state's economy if they doubled over the next five years. The ITA estimates that each \$150,000 of merchandise exports supports one job. That estimate slowly rises over time due to productivity gains, among other reasons, so we'll calculate using \$160,000. At that figure, a doubling of state exports would produce an additional 128,000 jobs. If Tennessee's overall rate of job growth matches the national projections made by the Department of Labor, these new export-related jobs would equal half the number of all jobs created in the state over this period. Now this is a bit exaggerated because there would have been some export growth even absent the

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**Year over Year Export Growth since 1995:  
Ranked from Highest to Lowest Growth**



**Export Growth Rates over 5 Years (since 1999)**





# DOUBLING EXPORTS

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Obama initiative. If we subtract the jobs created by that growth (using historical export growth figures), we still get close to 60,000 new jobs in this state. Needless to say, that's a significant figure.

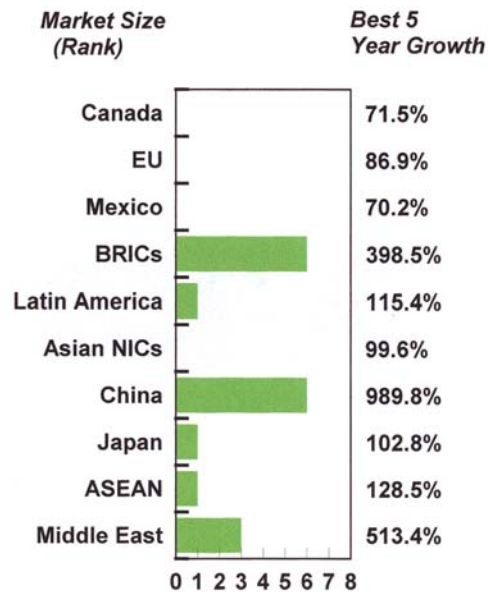
If it happens. What's the chance the state can double its foreign shipments by 2015? Many experts are skeptical. Exports would have to grow about 15% a year over the next five years to meet this target. World trade has grown about 10% annually over recent years, so we would have to exceed that rate by 50%. Goldman Sachs has estimated that 30% depreciation in the dollar would be needed to accomplish this, a rather dramatic figure. So the practical question is whether the policy tools exist to accelerate exports that rapidly.

Tennessee's historical experience seems to support a verdict that doubling exports over five years will be difficult, though not impossible. In three out of the past 14 years, Tennessee exports indeed grew faster than 15%. In two other years, the state was quite close. Is this half full (it can be done) or half empty (it hasn't happened all that often)? Of course, it's really more difficult than these figures suggest because we would need five consecutive years of 15% increase. This has occurred but only in the distant past. Between 1972 and 1977, for example, state exports soared by more than 120%. But this was a period during which exports began at a rather low level, the dollar was falling, and the value of exports was inflated by the substantial price increases of the period. In more recent times, Tennessee's best five-year export growth was between 2001 and 2006. Bouncing off the bottom of the tech-bubble crash, and again aided by a weakening dollar, exports rose about 90% over those five years—but not 100%. Optimists can note that nobody was trying to double exports over this period, and so a conscious effort could have put the state over the top. Pessimists would note that only a few five-year periods over the past decade (a pretty good one for global growth) came close enough to think that marginal policy changes could have made the difference.

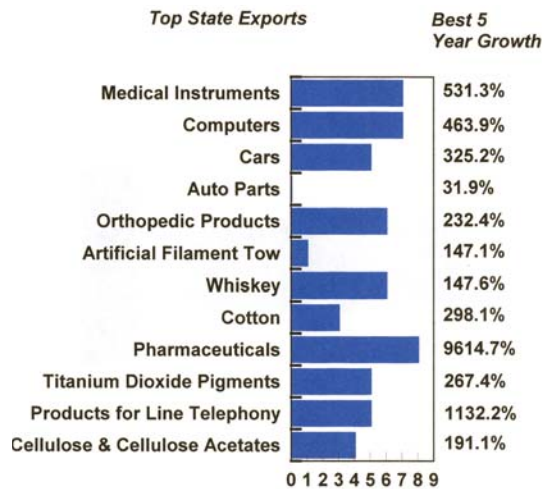
As is often the case, we can spot more hospitable terrain if we break exports out into regions and industries. Perhaps targeting the right regions, and the right industries, is the key to doubling exports? In a number of regions, Tennessee has doubled foreign shipments over at least one five-year period in the past decade. In the case of China, doubling has almost been the rule. In six out of the eight most recent five-year stretches, Tennessee's shipments to China have more than doubled. (The similar statistics for the BRIC—Brazil, Russia, India and China—are mostly due to China). The Middle East has the next best record. The geographical experience suggests that doubled exports are going to have to be built upon emerging markets, and especially China.

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## Beating the Odds? Number of 5-Year Periods When Exports Doubled (since 2002)



## Meeting the Mark? 5-Year Periods with Doubled Exports (since 2001)



\* Data for civilian aircraft, a top export, have only been released since 2004. Its 2004-9 5-year growth is 32.7%.

## Industries Doubling Exports over 5-Year Periods

Total = 257 *	Number
1996-2001	76
1997-2002	66
1998-2003	67
1999-2004	89
2000-2005	87
2001-2006	107
2002-2007	138
2003-2008	137
2004-2009	99

\*4-digit HS code

2nd Quarter 2010

**CARS AND CHEMICALS AGAIN SPEARHEADED A VERY STRONG QUARTER.**



2nd Quarter 2010

**FIVE NATIONS DOUBLED THE VALUE OF THEIR SHIPMENTS FROM LAST YEAR.**



■ 2nd Quarter 2010  
 ■ 2nd Quarter 2009

**THE U.K. CONTINUED AS THE ONLY TOP MARKET TO DECLINE LAST QUARTER.**



### Tennessee's Largest Export Sectors

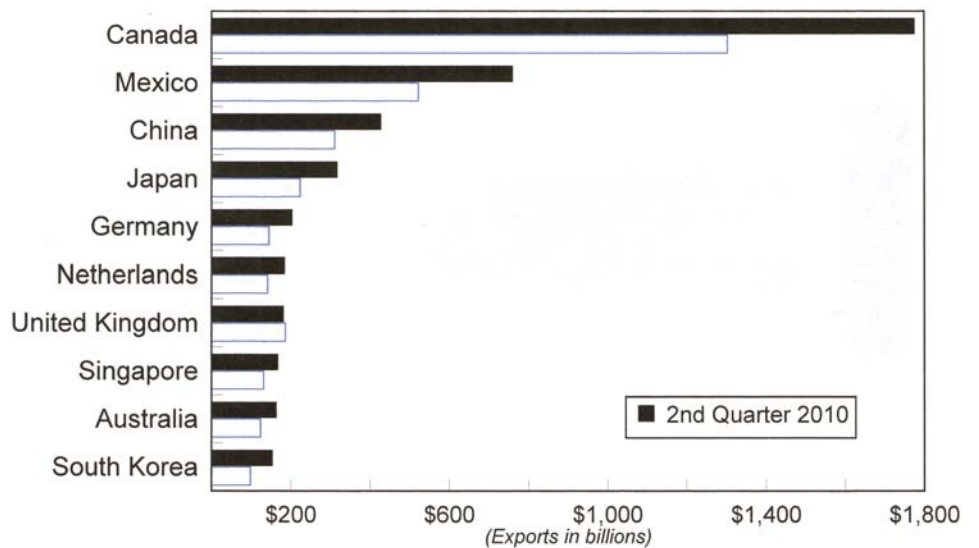
	Exports	Change from Last Year	Change from Last Quarter
Transportation Equipment	\$1,163,827,430	60.7%	-3.2%
Chemicals	\$1,024,206,877	32.7%	7.6%
Computer and Electronic Products	\$888,841,306	28.8%	5.2%
Miscellaneous Manufactured Goods	\$745,560,455	2.1%	8.7%
Nonelectrical Machinery	\$613,439,903	73.3%	22.4%
Agricultural Goods	\$209,230,867	45.9%	16.3%
Fabricated Metal Products	\$203,696,954	40.2%	24.4%

### Fastest-Changing Export Destinations

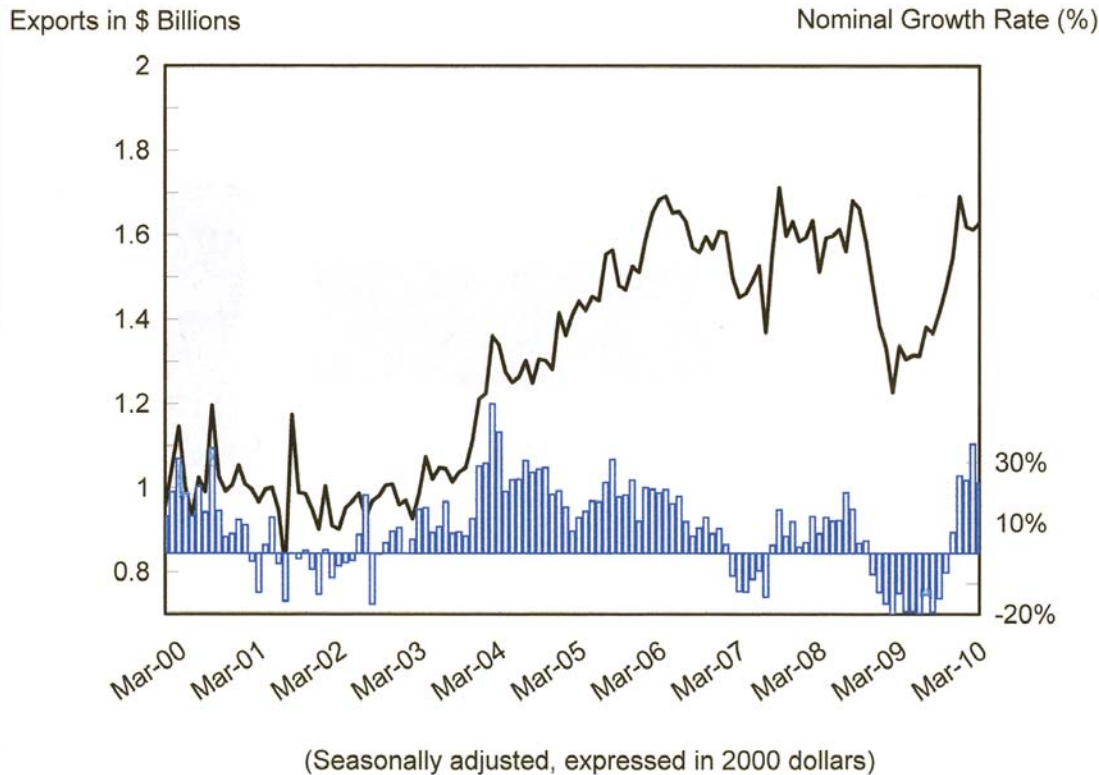
	Value of Exports	Gain	Decline
<b>COUNTRIES WITH THE GREATEST GROWTH</b>			
Ukraine	\$9,653,498	169.5%	
Afghanistan	\$23,024,187	155.1%	
Philippines	\$43,940,472	140.9%	
Jamaica	\$16,377,052	138.5%	
Sweden	\$31,751,160	101.4%	
<b>COUNTRIES WITH THE GREATEST DECLINE</b>			
Nigeria	\$3,109,781		-79.4%
Bangladesh	\$1,392,974		-77.1%
Bolivia	\$3,509,442		-31.4%
Greece	\$7,520,080		-18.3%
United Kingdom	\$183,647,488		-15.0%

(Among countries averaging more than \$3 million in sales per quarter)

### Tennessee's Leading Trade Partners



## Tennessee Monthly Exports



2nd Quarter 2010

### What's Hot and What's Not\*

	Value of Exports	Growth	Decline
<b>SECTORS WITH THE GREATEST GROWTH</b>			
Miscellaneous Special Purpose Vehicles	\$20,669,905	2,587.3%	
Uncoated Kraftliner	\$13,775,858	924.9%	
Compression-Ignition Piston Engines	\$46,472,419	757.0%	
Miscellaneous Engines and Motors	\$32,108,015	584.2%	
Raw Tobacco	\$29,862,276	510.0%	
<b>SECTORS WITH THE GREATEST DECLINE</b>			
Acetic Anhydride	\$1,084,105		-91.6%
Printers/Copiers Connected to Computers	\$4,349,156		-63.5%
Miscellaneous Printer and Copier Parts	\$5,961,286		-52.7%
Calcium Hypochlorites	\$6,189,808		-51.6%
Midweight Nonwoven Textiles	\$6,351,493		-45.6%

\*Among Tennessee's top 100 exported goods. Aircraft exports were recoded this year and so are not included.

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**MIDDLE  
TENNESSEE**  
STATE UNIVERSITY

## EXPORTS RETURNED TO THE LEVELS OF BEFORE THE GREAT GLOBAL CRASH OF 2008.

State exports surged to \$6.4 billion in the second quarter, nearly a billion-dollar gain from a year ago. It was the best second quarter in the state's history, as exports returned to the levels of before the great global crash of 2008. Imports also soared. Tennessee firms purchased \$11.5 billion overseas, a two-billion dollar increase. In contrast to the doldrums of the domestic economy, Tennessee's international trade was going gangbusters.

The problem with reporting export figures for this quarter is monotony. Everything grew, and by a lot. Among the state's larger export sectors, the one slight exception to this was the state's medical equipment industry, which grew only modestly. Its 3% gain was the smallest of any major Tennessee export sector. Other significant health care industries, such as orthopedics and pharmaceuticals, also performed more poorly than most for the quarter. Perhaps this is not so surprising, as these industries' foreign sales were much less affected by the global downturn and so there was much less in the way of a rebound this year.

The state's biggest increases were tallied by its two largest export industries. Tennessee's chemical exports increased by a full third and crossed the billion-dollar mark in quarterly sales. Most of this huge gain was in the plastics sector (especially in cellulose derivatives and polyesters). But both organic (up 39%) and inorganic (25%) chemicals also did very well. The gains were truly global, with East Asia, Mexico, Brazil, Russia, Australia, and Singapore being among the strongest markets.

The auto industry did equally well. Car and SUV exports more than doubled (to \$245 million), thanks to substantial new exports to the Middle East (especially Saudi Arabia) and Canada. Automotive engines did even better, with exports triple those of last year. Canada is the destination of almost all of them. Engine part exports doubled (to \$109

million). And diesel engines (not all of which go into cars or trucks) more than quadrupled, to \$51 million. Oil and other automotive filters, with foreign shipments valued at \$46 million, were among the many other auto-related exports that grew very strongly, in this case by 70 percent.

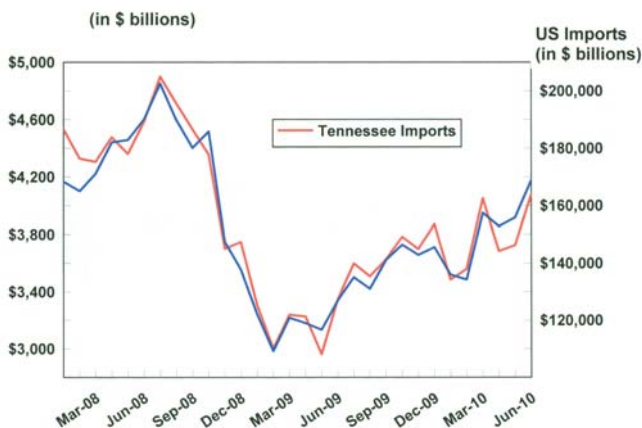
Though gains in laptop exports were more modest (\$13 million, an 8% gain), the computer industry was another sector that did very well. It added another \$130 million in exports to last year's number, a 57% gain. Canada and Latin America (particularly Colombia) accounted for most of this increase. At the other extreme from high-tech, cotton exports soared 40% to \$185 million. Mexico and Turkey were the biggest factor behind this growth. Whiskey, as you might expect, also did quite well. Its 25% gain (to \$125 million) was mostly in Europe.

As we said, it gets monotonous. Just about every kind of industrial machinery the state produces had a strong quarter. So did the telephony and aircraft industries, among others.

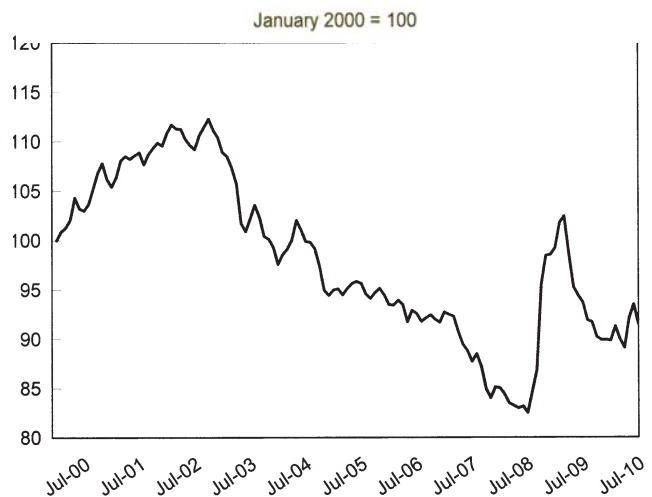
Though the growth was global, it was centered close to home. Canada, to which the state's exports increased by 37%, accounted for \$475 million of Tennessee's quarterly gain, just under one-third of the state's export growth. Mexico's 47% growth added another \$250 million. The EU threw in \$180 million more. China and Latin America each grew by \$150 million. Japan's 43% growth added \$100 million, the ASEAN nations another \$80 million, and South Korea \$60 million. Just about everybody chipped in!

The few nations where Tennessee exporters did not have as much success reveal the continuing importance of a global economic recovery to the state's export fortunes. Exports to Greece fell by a quarter in the wake of its financial crisis. Shipments to Spain and the U.K., both under stringent budget-cutting regimes, were flat. So we are reminded, as if we needed it, that the export recovery, strong as it has been, remains fragile. Tennessee exporters are still living in interesting times. ■

Tennessee Monthly Imports



Tennessee Trade-Weighted Dollar Index





## DOUBLING EXPORTS

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The best news for plans to double exports is that, in fact, most specific industries have accomplished this at least once over the past decade. Of the 257 state export industries (measured at the four-digit harmonized system code), only 45 never doubled exports over any five-year period. Over some periods (2002-2007, 2003-2008) more than half of all state industries doubled their exports. With the single exception of the auto-parts industry, the state's major export industries have all doubled their exports repeatedly. The trick is for them to do this at the same time! So far this has not happened. Such a common movement would be unlikely because these exports go to different markets. It is more realistic to expect doubled exports to be built upon several

star sectors with tremendous growth. However, these figures also show that these industries would certainly have to be bolstered by solid growth across a large swath of Tennessee's manufacturing economy.

Doubling exports is a very worthy goal. Its economic benefits are obvious. For Tennessee, this goal is not beyond imagination; there is certainly evidence for making the case that it can be done. But history suggests that it will be difficult. Effective but underexploited mechanisms to boost exports are going to have to be found and supported. As yet, we don't have much of a feel for what the Obama administration is actually going to do, but it's going to have to be more than exhortation. That said, this is a case where the effort itself is going to be worth it, even if the goal isn't met. Any additional increase in exports is going to significantly help Tennessee workers and this state's economy. It's not a case of double or nothing. ■

## EXPANDING EXPORTS II



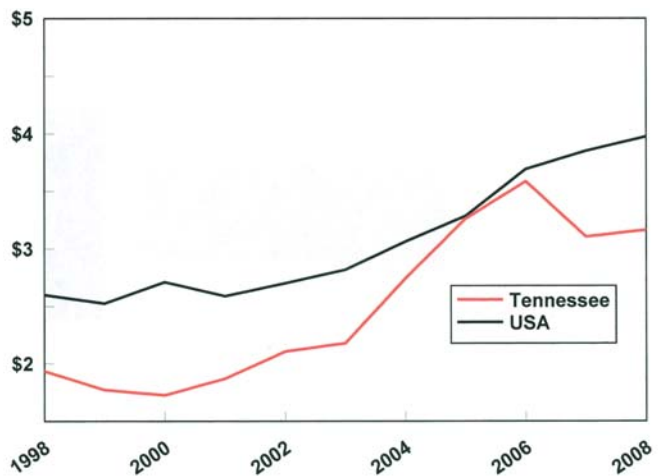
### NUMBER OF TENNESSEE EXPORTERS

Increasing exports will rely on increasing exporters. A few large firms dominate the American export picture. The top 500 exporting firms account for 60% of the value of the nation's exports. Over two-thirds of America's exports come from firms that employ 500 or more people. But any serious effort to raise the level of exporting has to expand the number of firms that export.

Recent data shows that just under 7,000 Tennessee firms export. That number increased substantially over the past decade, and the state has half again as many exporters as it did in the late 1990s. This rate of increase well exceeded that of the nation. In this respect, Tennessee appears to be doing a good job in preparing the groundwork for sustained export growth. One lingering question of the crash of 2008, though, is how exporters or would-be exporters were affected by the economic downturn. The explosion of the tech bubble and ensuing recession of 2000-2001 led to a substantial drop in the number of firms that exported. Nearly 1,000 Tennessee firms left the export market, and the number of state exporters didn't return to the pre-recession level of 2000 until 2007. Will (or did) our current difficulties similarly drive exporters out of world markets? We don't yet have the data to know, but this is an important question in assessing the state's export capacity going forward.

One interesting sidelight in the pattern of Tennessee exporting is that the state's exporting establishments have made some progress in closing one significant performance gap. In 2000, the average Tennessee exporter shipped only 64% of the value of the average American exporter. In other words, state export operations were typically much smaller than their national counterparts. In 2008, this gap had shrunk, with state firms now at 80% of the national average. The average state firm is now shipping exports valued at about \$3.16 million per year (a 63% increase from 10 years ago). Further closure of this gap will be another way for the state to increase its exports. ■

Average Value of Exports per Firm (in \$ millions)



Increase in Tennessee Exporters over the Past Decade

