



## Official Technology Statistics & Rankings For South Carolina

**Technology Jobs pay \$42,611 average per job across SC**

**64% more**



or

**\$19,383**

**Per Technology Job!**

Defining the high-tech industry is like attempting to define beauty. Many times it is in the eye of the beholder. This of course means that the definition varies greatly depending on who is making the definition. The acid test we use at SCTA is an industry or persons who make or create technology, whether it is a service, a science, a product such as software or networking communications equipment.

This will be the first time we use the new NACICS codes and the definition of high-tech that we can pull from these codes. These codes do not, however, include all the areas that we consider as the base definition of our high-tech industry. This will allow us to compare and to better define the technology statistics for South Carolina and the country and more importantly other Southern states. However, for the past two years there was a net loss of



technology jobs in America of over 25,000.

The technology industry across the nation has actually begun to show slow improvement. The three industries that are beginning to show improvement over the last three years are: Software Services, Engineering and Tech Services. The technology industry is playing a major role in the improving economy of our country.

For South Carolina the story is a little different. We lost 900 technology jobs from 2002 to 2003. We currently employ around 42,500, the majority of these are in the following technology sectors: Telecommunication services at 12,700, Engineering services have some 9,300 with the Computer Systems Design & Related Services coming in with 7,000 jobs. The remaining 13,370 are all across the technology sectors in areas such as Photonics, Internet Services, Computer Training and finally R&D & Testing Labs. There have been a number of new high tech entrepreneurial companies that have started new tech businesses in our state since the U.S. Dept of Labor report released the latest employment numbers for 2003-2004. Total number of Tech Jobs in SC is 42,470 which are employed by 3341 technology companies statewide. The high tech payroll for our state is \$2.1 billion.

### Inside this issue:

Official State Tech Statistics and Latest Rankings	1 & 5
It Is A Fact Technology Jobs Pay More Than Other Jobs	2
Globalization Has Changed American Economy	3
South Carolina Sets New Standard in Collaboration	4
Snap Shot Of South Carolina's Tech Industry	5
SCTA Maintains A Complete Data Base Of Patents	6
Tracking SC Patents Shows Improving Numbers	6

## And the name will be

Dr. Harris Pastides, USC Vice President for Research, took the stage like a Gamecock running onto the field during the playing of 2001. He was animated and excited, he asked the group of VIP's who had gathered for this important announcement, "What if...USC the flagship university of our state built a 21st century district of innovation that attracted the world's brightest minds and most innovative companies to our state?"

"What if...this are set a new standard for integrating public and private sector research and researchers within a vibrant, contemporary, urban landscape by combining 5 million square feet of labs, office space, mixed used retail and affordable residential housing in a 200 acre "intellectual ecosystem" intertwined with the state's capital city?" "What if...this new knowledge-based community became a powerful engine for creating high paying jobs and raising per capita income,

changing the economic landscape and the entire future of South Carolina?" That's exactly what USC is going to do. Seven new structures valued at \$141.2 million will form the first phase of the construction of Innovista, this will be the University of South Carolina's new 200 acre research campus for the 21st century and it's new name will be INNOVISTA! For more information and the full story go to, [www.sc.edu/research](http://www.sc.edu/research)

## National Reports Map the Vision for the Future!



High Tech Jobs  
Across America Pay  
**84%**  
more than other  
sector jobs

*"Innovation has always been in America's Soul". Stated F. Dwayne Ackerman, Chairman & CEO of the Council on Competitiveness*

### USA High Tech Jobs Pay 84% More Than Other

High-tech jobs require specially skilled workers who must have higher levels of education or training to perform these jobs. During 2003 the tech jobs in America paid an average of \$69,000 or 84% more than the other private sector jobs, which paid an average of \$37,500.

There are many high tech jobs that pay higher salaries. Many software specialists earn an average of over \$103,000, while the equipment manufacturing side of technology paid an average of \$91,700, with the semiconductor side coming in at around an average of \$84,000.

All high tech jobs in America added up to over \$385 billion with more than 5.56 million people employed in one of the tech sectors. However, both the revenue and employment numbers are down from 2000 to 2004 by \$ 103 billion, but projections for 2005 are looking positive. The high tech industry invested over \$55 billion in Research and Development during 2004. I plans indicate much more for 2005.

### INNOVATE**AMERICA**

Innovation will determine success during the 21st Century

Innovation will be the single most important factor in determining America's success through the 21st century. America's challenge is to unleash its innovation capacity to drive productivity, standard of living and leadership in global markets. At a time when macro-economic forces and financial constraints make innovation-driven growth a more urgent imperative than ever before, American businesses, government, workers and universities face an unprecedented acceleration of global change, relentless pressure for short-term results, and fierce competition from countries that seek an innovation-driven future for themselves.

For the past 25 years, we have optimized our organizations for efficiency and quality. Over the next quarter century, we must optimize our entire society for innovation. In Tom Freeman's new book, "The World Is Flat", he starts off by making the statement that when you start thinking of a flat world, a lot of things

Continued on page 3

### SC Must Continue to improve Education and Job Skills Training for the Future!

As our Research Universities continue to develop and implement their visions for our state's future, there is a concern! It is the all important flow of the access of highly skilled and qualified workers as we continue to invest in our "Research Centers of Excellence." We have been

told that in order to be a serious player in the innovation knowledge based economy we must improve substantially the number of South Carolina students that graduate from high schools. Our students must excel in science and math so that they can compete globally for the best jobs. The South Carolina Competitiveness Initiative's plan for the state has stated that the mission for the Education and

Workforce Task Force will prioritize and champion efforts to upgrade the quality of education and workforce pre K through advanced degrees and workforce development plans. For more on the National and SC Competitiveness Council Report go to:

[www.complete.org](http://www.complete.org)

[www.completesc.org](http://www.completesc.org)

## Globalization Has Fundamentally Transformed the American Economy



Regions are defined by economics rather than political boundaries, which now are the new building blocks of prosperity. The drivers of economic growth are changing dramatically and swiftly, bringing in knowledge, innovation, and entrepreneurship to the forefront. As a

result, our regions are competing globally in a fierce race for talent, capital and expertise. In the report of The Strengthening America's Communities Advisory Committee, it stated that, "In the 21st century America's communities will derive economic strength by acting and partnering regionally to compete globally." Innovation and entrepreneurship are the twin engines for wealth creation and a rising standard of living. Regional competitiveness needs to be the underlying strategy for federal economic and community development policy. Communities must act regionally to be competitive in today's world. To reach their full potential, communities must collaborate with other communities and with private and public partners. Groups like civic organizations, chambers of commerce, businesses, national laboratories, research and educational institutions, foundations, non-profits must work together to design their economic plans and growth initiatives.

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**Sources of information come from various publications that SCTA uses for research and references, such as Technology Review Magazine (MIT), Fortune, PC Magazine, The State News, Cyber-States, and many others. For a complete list call the SCTA office, DOC, SCTA data bases as well as the SBA.**

**From pg 2 .** start to make sense in ways they did not before. It means that we are all connecting all the knowledge centers on the planet together in one single network. The playing field is not being leveled only in ways that draw in and super empower entire new groups of innovators. Our country needs to move faster. The USA is ready!!!



**Offers RFID Conference**

**FASTRACK**

**Madren Center Clemson University**

**Sept. 28, 2005 Info at:**  
<http://RFID.SCRA.org>



**Seventh Annual Southeastern Bio Investor Forum**

"Where Innovation Meets Opportunity"

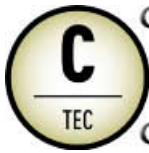
**Charleston, SC Nov30-Dec 2**

**For more information:**  
[www.sebio.org](http://www.sebio.org)



The mission of the South Carolina Next Energy Initiative is to prepare South Carolina to take advantage of the economic opportunity that exists if we can become a center for hydrogen commercialization or other forms of alternative energy that will help reduce our national dependence on petroleum. South Carolina already has a very solid base of activity and research focused on hydrogen, which places us ahead of other states and provides a competitive advantage when it comes to obtaining Federal dollars related to hydrogen research or the attraction of companies that wish to be on the cutting edge. The combination represents tremendous economic opportunities for our citizens in terms of job creation, and increasing per capita income. For more information: <http://nextenergy.engenuitysc.com/> Get involved with a group of visionary statewide leaders!





**Columbia  
Technology  
Entrepreneur  
Council**

**Breakfasts begin again starting  
September 14, 2005.**

Our breakfast meeting will feature leaders from the USC Intellectual Property Office. They will share with us what it takes for South Carolina entrepreneurs to acquire technology from our Research Universities and then how to get to get it into the market. How long does it take to acquire and then what are the costs involved. They will also share with our CTEC members what USC is doing to "SPUR" the economic development in our state as well as the region. Breakfast will be served at 7:30, Sept 14th.



**USC Hits New  
Record \$166.2m**

University of South Carolina faculty garnered a record \$166.2 million in federal, state and private funding for research, outreach and training programs in 2004 - 05, an 11.3 percent jump over last year's \$149.3 million.

USC President, Andrew Sorensen, said the record funding strengthens the university's resolve to develop a research campus, which is key to the future of the university and the economic development and growth of the Palmetto State. "The ability of USC faculty to obtain nationally competitive grants and awards has never been greater, and the calibre of USC's research is being recognized by other top researchers and funding agencies," Sorensen said.

'The success and growth of our research program clearly demonstrates the need for our new research buildings.'

Dr. Harris Pastides, USC vice president for research and health sciences, said " USC's research programs have been growing steadily over the past three years. What we see today is the product of USC researcher's persistence in embracing innovation in their investigations in disciplines as varied as the physical and health sciences, the liberal arts, engineering and education."

Areas that attained significant research funding include UDC health sciences, \$60.1 million, the School of Medicine and the /Arnold School of Public Health; the college of Arts and Sciences, \$44.2 million the College of Engineering and Info Tech \$25.3 m.

## South Carolina Is Working Together Collaboratively



Over the last several years South Carolina has taken a new look at what our state needs to do to stay competitive with the rest of the South and globally. While all the answers have yet to be written, the communications between all South Carolinians is becoming more focused. Our universities are working together as a team to address many of the concerns that other states have yet to tackle. Our Competitive Council, our South Carolina State Chamber of Commerce, the Department of Commerce, the South Carolina Technology Alliance, the Palmetto Institute have all developed plans that will improve the lives of our citizens. The local Chamber of Commerce and other economic development organizations like SCEDA have taken up the dream and challenge to help lead and create the solutions to the numerous recommendations developed by the other

groups around the state. Our Research University Presidents have placed the areas of innovation, tech transfers and national grants at the top of their personal agenda's. A few years ago there was an article in the Wall Street Journal that said "South Carolina is running on all Cylinders", it can now be said with confidence that we are all heading in the same direction. You will find this still true all over our state. People from every kind of organization is looking positively toward a set of common goals, and all have said "count us in". The leaders of our state are enthusiastic and passionate, and positive momentum very contagious. So much of the work in all the innovative areas that passed this year in the General Assembly had the markings and leadership of our new Speaker, Bobby Harrell.

***The Innovation Research Centers and the Jobs Creation Act will have the same impact as the recently passed bills like the Center of Excellence and The Venture Capital Investment Act. Speaker Harrell worked numerous technology and innovation bills through the House this year. He has become the Champion of Innovation and High Tech!***

***The South Carolina Technology Alliance salutes and sends "Special Thanks" to the following Legislative Leaders: Speaker Bobby Harrell, Sen. John Drummond, Sen. Jim Ritchie, Sen. Hugh Leatherman, Sen. Joel Lourie, Sen. Yancey McGill and Rep. Joan Brady. All are "Technology Stars".***

## South Carolina Metrics

### Overview of South Carolina's Technology Industry

	Total	or %	Rank*	
2002 Research and Development Expenditures (in millions of dollars)				\$1,668
2003 High Tech Wages				\$49,611
2003 Total Annual High Tech Payroll (adjusted for inflation to millions of dollars)				\$2,107
2003 Average number of Technology Businesses				3341
2003 High Tech Employment				42,470
2003 Ranking by High Technology Employment			30th	
2003 High Tech Establishments			27th	
2003 High Tech Payroll Ranking			32nd	
2004 High Tech Exports (in thousands of dollars)				\$1,475,029
2004 Total of Exports (in millions of dollars)				\$13.376
South Carolina High Tech Exports % change 2003/2004		58%	4th	
South Carolina High Tech Exports % change 1998-2004		146%	6th	
South Carolina High Tech Exports /numerical changes 2003-2004 (in thousands of \$)			11th	\$5,29,197
South Carolina High Tech Exports/ numerical changes 1998-2004 (in thousands of \$)			10th	877,683
2003 South Carolina High Tech Employment				42,470
Computers & Peripheral Equipment		837	26th	
Communications Equipment Manufacturing		639	32nd	
Electronic Component Manufacturing		3546	21st	
Measurement & Control Manufacturing		1551	33rd	
Total Technology Manufacturing Employment		7946	34th	
<p>The South Carolina Technology Alliance has requested that the SC Competitive-Council make our state's technology industry the next official cluster. The decision hopefully is forthcoming. More to come on this important topic.</p>				
<p><small>Source: Cyber-States, Southern Technology Council, SSTI (State Science and Technology Institute and the South Carolina Technology Alliance)</small></p>				



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*E-mail: [hightech@sctech.org](mailto:hightech@sctech.org) with your thoughts or suggestions for **The Terabyte***

*Terabyte: A unit of computer memory or data storage capacity equal to 1024 gigabytes .....one trillion bytes*



Get Your Tech Tag Today!

The South Carolina Technology Alliance, along with USCBL & SCMEP, will Sponsor the CTEC Breakfast Meetings for 2005 - 2006, Please thank them when you see them.



The South Carolina Technology Alliance is a 501c 3 non profit public/private organization serving South Carolina, both inside and outside our borders and also around the world.

## 2005 Patent Tracking for South Carolina and other Southern States

Alabama	229
Arkansas	101
Florida	1723
Georgia	871
Kentucky	256
Louisiana	180
Mississippi	70
Missouri	449
North Carolina	1119
Oklahoma	265
Puerto Rico	20
<b>South Carolina</b>	<b>335</b>
Tennessee	453
Virginia	641
West Virginia	65

**Southern States Improve in number of patents issued.**



**South Carolina is improving 8% above same time last year!**

**South Carolina patents worthy of special notice are, US 6931032-Transferring energy in an optical fiber structure, US 6933884-System for tracking and monitoring vessels, US 6881439- a new method for Aluminide Coating, US 6884576 B2- method of monitoring HIV drug resistance, US 6885302 B2-magnetic field sensing for tamper identification, US 6887194 B2-surgical access apparatus and method, US 6896782 B2-capacitor prepared from a non-aqueous electrolyte, US 6905396 B1-new method for removing a coating from a substrate, US 6912749-surface pad system for a surgical table, US 6915670-security for roll-up doors. Others at: [www.sctech.org](http://www.sctech.org)**