A Few Factoids

Thirty years ago, ten percent of California's general fund went to higher education and three percent to prisons. Today, nearly eleven percent goes to prisons and eight percent to higher education.[1]

China is now second in the world in its publication of biomedical research articles, having recently surpassed Japan, the United Kingdom, Germany, Italy, France, Canada and Spain.[2]

The United States now ranks 22nd among the world's nations in the density of broadband Internet penetration and 72nd in the density of mobile telephony subscriptions.[3]

In 2009, 51 percent of *United States* patents were awarded to non-United States companies.[4]

The World Economic Forum ranks the United States 48th in quality of mathematics and science education.[5]

Of Wal-Mart's 6,000 suppliers, 5,000 are in China.[6]

There are sixteen energy companies in the world with larger reserves than the largest United States company.[7]

IBM's once promising PC business is now owned by a Chinese company.[8]

The legendary Bell Laboratories is now owned by a French company.[9]

Hon Hai Precision Industry Co. (computer manufacturing) employs more people than the worldwide employment of Apple, Dell, Microsoft, Intel and Sony combined.[10]

No new nuclear plants and no new petroleum refineries have been built in the United States in a third of a century, a period characterized by intermittent energy-related crises.[11]

Only four of the top ten companies receiving United States patents last year were United States companies.[12]

United States consumers spend significantly more on potato chips than the government devotes to energy R&D.[13]

The world's largest airport is now in China.[14]

In 2000 the number of foreign students studying the physical sciences and engineering in United States graduate schools for the first time surpassed the number of United States students.[15]

Federal funding of research in the physical sciences as a fraction of GDP fell by 54 percent in the 25 years after 1970. The decline in engineering funding was 51 percent.[16]

GE has now located the majority of its R&D personnel outside the United States.[17]

Manufacturing employment in the U.S. computer industry is now lower than when the first personal computer was built in 1975.[18]

In the 2009 rankings of the Information Technology and Innovation Foundation the U.S. was in sixth place in global innovation-based competitiveness, but ranked 40th in the rate of change over the past decade.[19]

China has now replaced the United States as the world's number one *high-technology* exporter.[20]

In 1998 China produced about 20,000 research articles, but by 2006 the output had reached 83,000 . . . overtaking Japan, Germany and the U.K.[21]

Eight of the ten global companies with the largest R&D budgets have established R&D facilities in China, India or both.[22]

During a recent period during which two high-rise buildings were constructed in Los Angeles, over 5,000 were built in Shanghai.[23]

In a survey of global firms planning to build new R&D facilities, 77 percent say they will build in China or India.[24]

China has a $196 billion positive trade balance. The United States' balance is negative $379 billion.[25]

Sixty-nine percent of United States public school students in fifth through eighth grade are taught mathematics by a teacher without a degree or certificate in mathematics.[26]

Ninety-three percent of United States public school students in fifth through eighth grade are taught the physical sciences by a teacher without a degree or certificate in the physical sciences.[27]

Of the Big Three American automakers, one is now owned by a firm in Italy (after having been previously sold by a German firm), and another is 60 percent owned by the United States government.[28]

The United States ranks 27th among developed nations in the proportion of college students receiving undergraduate degrees in science or engineering.[29]

Forty-nine percent of United States adults do not know how long it takes for the Earth to revolve around the Sun.[30]

The United States graduates more visual arts and performing arts majors than engineers.[31]

The total *annual* federal investment in research in mathematics, the physical sciences and engineering is now equal to the *increase* in United States healthcare costs every nine weeks.[32]

Bethlehem Steel marked its 100th birthday by declaring bankruptcy.[33]
The United States ranks 20th in high school completion rate among industrialized nations and 16th in college completion rate.[34]
In less than 15 years, China has moved from 14th place to second place in published research articles (behind the United States).[35]

China's real annual GDP growth over the past thirty years has been 10 percent.[36]

According to OECD data the United States ranks 24th among thirty wealthy countries in life expectancy at birth.[37]

For the next 5-7 years the United States, due to budget limitations, will only be able to send astronauts to the Space Station by purchasing rides on Russian rockets.[38]

The average American K-12 student spends four hours a day in front of a TV.[39]

China's Tsinghua and Peking Universities are the two largest suppliers of students who receive PhD's—in the United States.[40]

Sixty-eight percent of U.S. state prison inmates are high school dropouts or otherwise did not qualify for a diploma.[41]

The United States has fallen from first to eleventh place in the OECD in the fraction 25-34 year olds that has graduated high school. The older portion of the U.S. workforce ranks first among OECD populations of the same age.[42]

When MIT put its course materials on the worldwide web, over half of the users were outside the United States.[43]

Six of the ten best-selling vehicles in the United States are now foreign models.[44]

Since 1995 the United States share of world shipments of photovoltaics has fallen from over 40 percent to well under 10 percent—while the overall market has grown by nearly a factor of one hundred.[45]

Among manufacturers of photovoltaics, wind turbines and advanced batteries, the top ten global firms by market capitalization include two, one and one United States firms, respectively. The other firms are from China, Denmark, France, Germany, India, Spain, Taiwan and the U.K.[46]

An American company recently opened the world's largest private solar R&D facility . . . in Xian, China.[47]

By 2008, public spending in the United States on energy R&D had declined to less than half what it was three decades ago in real purchasing power. By 2005, private investment had declined to less than one-third of the total.[48]

A single Japanese automobile model constitutes about half of the U.S. hybrid market.[49]

Last year Mitsubishi introduced the world's first mass-produced allelectric car.[50]

A Japanese company produces over 75 percent of the world's nickelmetal hydride batteries used in vehicles.[51]

Japan has 1524 miles of high speed rail; France has 1163; and China just passed 742 miles. The United States has 225. China has 5612 miles now under construction and one plant produces 200 trains each year capable of operating at 217 mph. The United States has none under construction.[52]

Roughly half of America's outstanding public debt is now foreignowned—with China the largest holder.[53]

The increase in cost of higher education in America has substantially surpassed the growth in family income in recent decades. United States current and former students have amassed $633 billion in student loan debt.[54]

There are 60 new nuclear power plants currently being built in the world. One of these is in the United States.[55]

In 2008, 770,000 people worked in the United States correction sector, a number which is projected to grow. During the same year there were 880,000 workers in the entire United States automobile manufacturing sector.[56]

Between 1996 and 1999, 157 new drugs were approved in the United States. In a corresponding period ten years later the number dropped to 74.[57]

All the National Academies *Gathering Storm* committee's recommendations could have been fully implemented with the sum America spends on cigarettes each year—with $60 billion left over.[58]

Youths between the ages of 8 and 18 average seven-and-a-half hours a day in front of video games, television and computers—often multi-tasking.[59]

In 2007 China became second only to the United States in the estimated number of people engaged in scientific and engineering research and development.[60]

In January 2010, China's BGI made the biggest purchase of genome sequencing equipment ever.[61]

In May 2010, a supercomputer produced in China was ranked the

world's second-fastest.[62]

Almost one-third of U.S. manufacturing companies responding to a recent survey say they are suffering from some level of skills shortages.[63]

According to the ACT College Readiness report, 78 percent of high school graduates did not meet the readiness benchmark levels for one or more entry-level college courses in mathematics, science, reading and English.[64]

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