

ON THE CREATION OF WEALTH

CARMICHAEL FELS

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I would like to draw a distinction between wealth and a large pile of money.

Two brothers, childhood friends of mine, were the great great grandsons of Eli Lilly. During the nineteenth century, Eli Lilly amassed a large pile of money. Large enough that even after several generations and after being split into several family lines my two friends never had to fear the need to work for a living.

When Richard Nixon ran against George McGovern, my friends' grandfather, an old line Republican, made a suitable contribution--one million dollars--to the campaign to re-elect the president. My friends were college students in the anti-Vietnam era, and were naturally shocked by their grandfather's gift. They had only one honorable alternative. I have always wondered what it was like in the cash-starved McGovern Headquarters when two unsolicited checks from two unknown individuals for a half-million dollars each were received.

But this was merely a large pile of money and pales in comparison to wealth. For at about the same time Eli Lilly was amassing his pile, great wealth was also being created in many parts of this country, and specifically here in Christian County.

During the fifty years prior to World War I the Industrial Revolution was proceeding, but so too was an Agricultural Revolution.

The workers in the Industrial Revolution's factories became an expanded market for farmers' produce. To service this expanded market, transportation had to improve, and this took place. Total railroad mileage in the United

States was less than 3,000 miles as recently as 1840. By 1860 this had risen to 31,000 miles; by 1880 to 84,000 miles and this figure doubled yet again in just one more decade.

The Homestead Act of 1861 provided free land in the West and therefore helped to limit the prices of land in the East. New machines were introduced which allowed farmers to work this relatively cheap land far more efficiently than ever before.

This concatenation of circumstances--cheap land, improved technology, improved transportation, and expanded markets--led to phenomenal results. Between 1870 and 1890 the value of farm production doubled and then doubled again by 1910. The production of wheat between 1860 and 1880 tripled and then increased four-fold by 1910. The number of cattle slaughtered doubled between 1860 and 1890. The export of grain went from 20 million bushels in 1860 to 293 million bushels in 1880 and then reached 530 million bushels by the mid 1890's. The export of meat increased from 46 thousand tons in 1870 to 550 thousand tons in 1890.

This was wealth. Not just for a few, but for many. Not created rapidly, but gradually over half a century. Not just to leave behind stories about the rich, but to create fossils that are still enjoyed today. Fossils in the form of the great farm houses--mansions really--that dot the county. Fossils which provide a testament to a period when great wealth was being created.

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Since we are just now emerging from the worst economic contraction in half a century it is interesting to examine how wealth is being created today.

The source of the wealth being created today is jobs. It is therefore important to examine how jobs are being created. The Massachusetts Institute of Technology has had for a number of years a program on neighborhood and regional change. What MIT has done is develop a file on 5 1/2 million individual businesses, and measured changes in sales, employment, and ownership over a long period of time in each of these businesses. This program started in 1967 with re-surveys in 1972, 1976, 1978, and 1980.

This study has confirmed and quantified the creative destruction of jobs. In the course of an average year, eight percent of jobs are lost. These jobs are lost either because they become obsolete and lead to the firm's failure, or they are lost as innovation has created new jobs and more successful companies. Eight percent loss of jobs per year equates to a fifty percent turnover in jobs every five years. Or put another way, every five years half the jobs in the economy must be replaced with something new just to break even.

We as a nation have done far better than just break even. In 1965 total employment stood at 71 million, five years later employment was 79 million, five years later 86 million, five years later 99 million, and now employment is over 103 million.

Where did all these jobs come from? Where are the jobs that raised employment by 32 million while existing jobs were being destroyed at a rate of fifty percent every five years? First lets look at where those jobs were not created. They were not created in manufacturing. The number of manufacturing jobs today is slightly less than the number of manufacturing jobs in 1965. In fact, manufacturing jobs have dropped from 30 percent of total employment to only 20 percent, and this process is continuing.

The increase in jobs also has not taken place in big business. Total employment in the Fortune 500 companies has been unchanged since 1970. Evidence indicates that overseas employment in Fortune 500 companies has increased about two million. Therefore, it appears as if there has been a significant drop in the number of jobs provided by big business.

The increase has not taken place in the currently popular high-tech area. For quite some time we have been in the process of exporting high-tech jobs. As rapidly as we learn how to do a high-tech process, we learn that we can get that job done more cheaply in South Korea, Taiwan, or Singapore. Massachusetts reports that in 1982 it lost over 13 thousand high-tech jobs, and Massachusetts is a center for high-tech.

The increase in employment has also not taken place in the area of service worker jobs. By this it is meant the jobs for people who work at McDonald's, or as hospital orderlies, or as security guards. John Naisbitt in *Mega Trends* points out that 11 to 12 percent of our total employment has been in this service worker sector since 1950, and this percentage remains quite stable.

But these last two areas come close to locating where the growth has taken place. The increase has been in service jobs but not service worker jobs. It has been in jobs that use high-technology without making high-tech products. Areas such as pharmaceuticals, engineering design, computer software, finance and insurance. In general, if a job requires brains and innovation, it's probably doing pretty well. If it requires muscles and physical endurance, it probably isn't doing so well.

Again, some export data shed additional light on this process. In eight of the ten years leading up to 1974, the United States had a surplus in physical trade with the rest of the world. In 1974, we had a nine billion dollar surplus. Compare this to our recent experience: In 1980 we had a \$24 billion trade deficit; in 1981 \$28 billion; in 1982 \$32 billion; and in 1983 apparently something over \$40 billion. Even so, we still enjoyed a net surplus for the export of goods and

services until about one year ago. This was the result of over \$40 billion in net surplus in the so-called service sector. David Birch of MIT reports that we are the greatest force in what he refers to as the thoughtware market. His statistics indicate that 20 percent of the total world market for thoughtware is controlled by the United States. Birch further states the following, "It's perfectly clear that we are living almost entirely on wits now in international terms. Our wealth as a nation depends on our brains."

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If we are indeed in a thoughtware revolution, we are only in the first years of it. The Agricultural Revolution took many decades to create great wealth and this will be the case for the thoughtware revolution too. True, a few individuals may accumulate large piles of money, but for great wealth to be created involving many people, decades are required.

This slow process can be quantified. At the present time, a saver can earn a little over 10% interest without risk. The most recent experience is that the vlaue of these savings is dropping at a rate a little over 3% per year due to inflation. The saver's "real" interest rate is therefore 7%. If this continues, saving just \$2,000 per year will create a millionaire in fifty years. If this "real" interest rate drops to the historic average of about half the current rate, the savings threshold would rise from \$2,000 to \$4,000 to create a millionaire in the allotted time. Wealth is within the reach of many.

The thoughtware revolution has some interesting characteristics worth

noting. First, it is sexless. The process which created agricultural wealth required farmers who were strong and courageous and did not die during childbirth. Thoughtware has a different set of demands which are not so exclusionary. In ways this development seems quite liberal, opening the road to greater wealth to a greater number of people. This may not prove to be wholly desirable, however. If the beneficiaries of the thoughtwave revolution choose to marry among themselves, the result may well be a more uneven distribution of wealth between favored and unfavored families. Nonetheless, this sexless characteristic does make it easier for more people to reach the savings threshold.

Another comparison to the Agriculture Revolution is troublesome in a selfish sense: Christian County with abundant arable land shared in the wealth which was being created 100 years ago; we are not so well situated now. Education is critical to participating in the thoughtwave revolution. In Kentucky for many years it was possible to read educational statistics and say, "Thank God for Arkansas." Unfortunately that is now not possible. We have become Arkansas. In the 1980 census it was determined that the Kentucky workforce was the worst educated workforce in the country. And since 90% of the people who will be in the workforce in 1990 have already completed their schooling and 75% of the people in the workforce at the turn of the century have already completed their schooling our opportunities to participate in the creation of thoughtware wealth is limited.

But fortunately it is not necessary to end on an unhappy note. For as the thoughtware revolution proceeds through the coming decades, who but the members of the Atheneum Society are better prepared to benefit?