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***CAN WE MAINTAIN THE AMERICAN DREAM? —
HOW MANY JOBS CAN THE U.S. AFFORD TO LOSE?***

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The growth and success of the U.S. economy would not have occurred had it not been for the mass immigration by people seeking the American Dream. The American Dream is represented by two important components: freedom and opportunity. Escaping religious and political persecution were also important motivators, but for most immigrants, the primary factor was economic opportunity. This article will examine trends in demographics, technology, education, the loss of manufacturing jobs, and their combined impact on the future economic viability of the nation. The impact that federal and state government can have on this future is also examined.



Arguably, the U.S. is no longer the manufacturing giant it was — a supremacy that was instrumental in winning two World Wars.

Throughout much of the 19th and 20th Centuries, man sought to advance himself by moving to where opportunity was greatest. While movement to jobs has been the traditional motivator, this trend began to shift in the latter part of the 20th Century as a growing number of industries moved to find available, low-cost labor. Advancements in technology, particularly in transportation and communication, have allowed this shift to occur. American companies continue to move manufacturing to those areas of the world where products can be manufactured at the least cost.

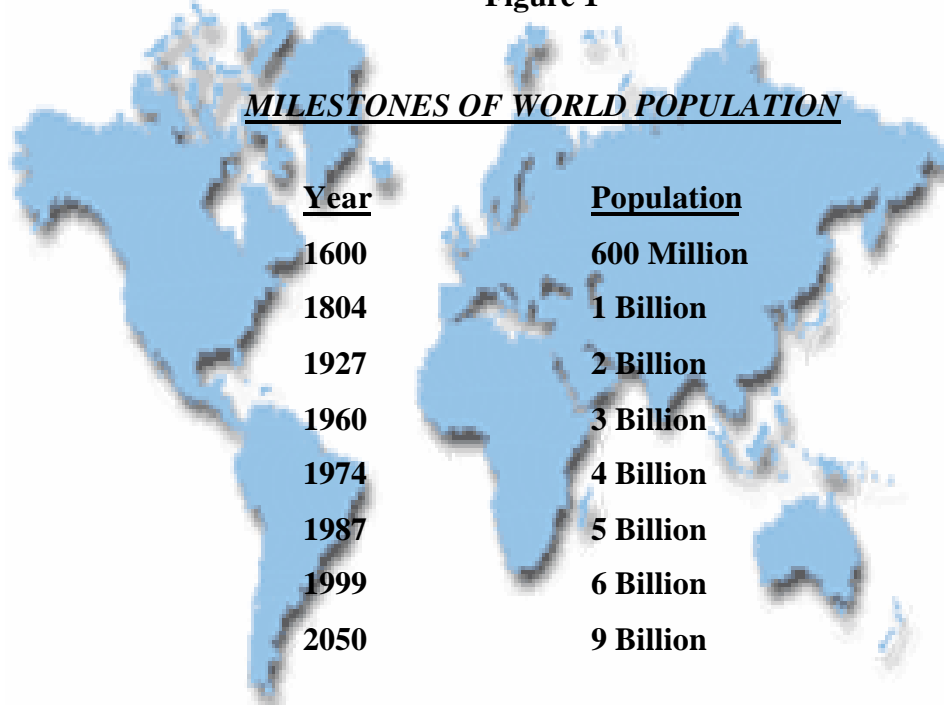
According to the U.S. Department of Labor, between 1950 and 2000, the nation's non-farm employment went from 45.2 million to 131.8 million, a 191.5 percent increase. In 1950, manufacturing accounted for 33.7 percent of all non-farm jobs; by 2000, the proportion had dropped to 14 percent. Not only has the percentage dropped, but also since mid 2000 alone, the total number of manufacturing jobs decreased over 2.6 million (source: The National Association of Manufacturers). Can the U.S. afford to lose this manufacturing base?

DEMOGRAPHICS' IMPACT ON A FRAGILE ENVIRONMENT

The loss of jobs of any type does not bode well for the future of the American Dream, especially when one examines the impact population growth will have on the job market, both nationally and internationally. According to the United Nations, world population currently stands at six billion persons and is growing at 1.33

percent per year, for an annual net increase of 78 million people. By the year 2050, world population is estimated to range between 7.3 and 10.78 billion persons, or most likely a “population of 8.9 billion.” If we look at the Figure 1: “Milestones of World Population,” we can see just how staggering this population growth has been in the last two centuries.

Figure 1



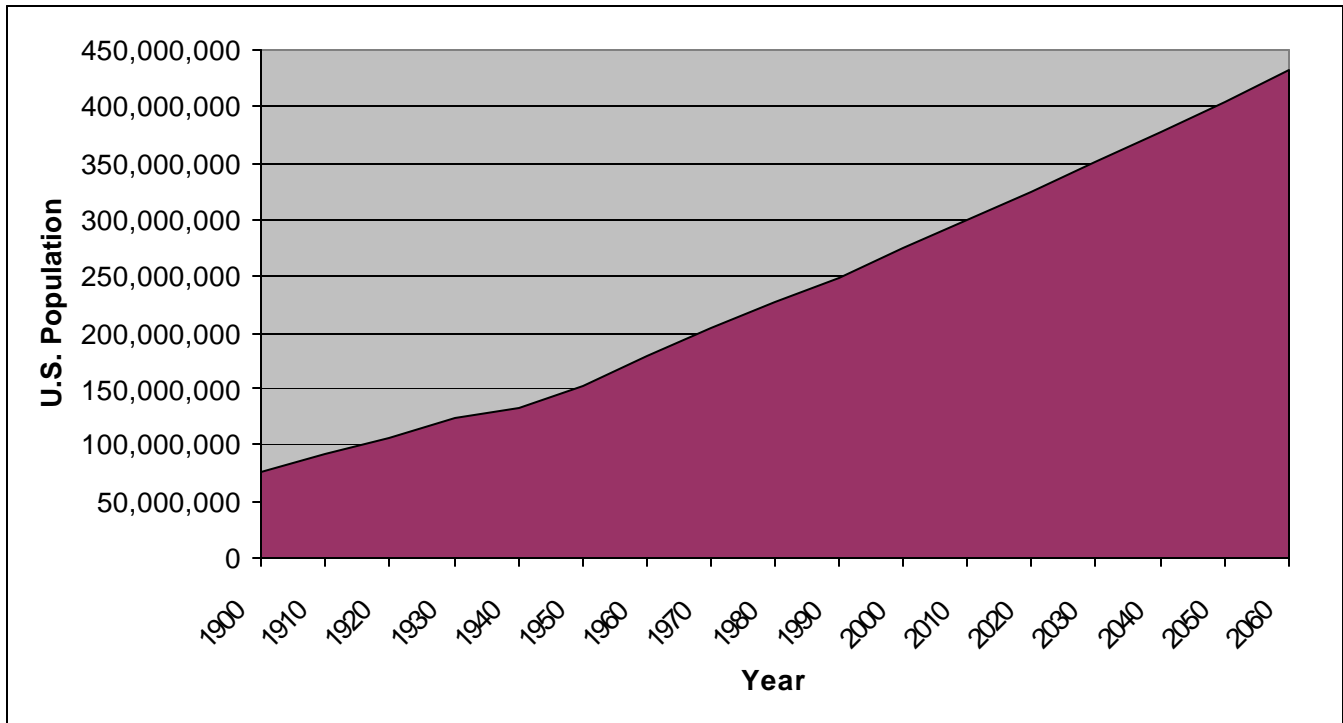
Source: United Nations

Without question, the most difficult and complex problem facing the world today is population growth. Given the 150 percent increase in the world’s population between 1950 and the end of the 20th Century, the United Nation’s estimate of an approximate 50 percent increase in population by the year 2050 may be very conservative.

Most scientists would agree that the major non-political concern of the millennium will be preserving man’s environment, and that the key element of this effort will be controlling population growth. Throughout our nation’s history, we as Americans, as part of our manifest destiny, destroyed much of our natural resources. We cut huge tracts of forests in the East and Midwest and then plowed under the Great Plains – all to provide for our rapidly growing population. Today, we see the same occurring in other parts of the world, including the world’s rainforests, and we blame governments and industry rather than seek a solution to the unpopular cause of the problem. These governments are as the U.S. was during the 1800s — under considerable economic and population pressure to use available resources.

Even environmentalists are reluctant to attack population growth as the primary source of environmental and resource degradation. It is an issue loaded with political, moral, and religious implications — a battleground that is extremely unpopular. The more popular approach is to place the blame on greedy industrialists for the consumption of natural resources and destruction of the environment.

Figure 2



No single factor will have a greater impact on how and where we work and live in the 21st Century than will population growth. In 1900, the U.S. population totaled 76 million (see Figure 2). By the year 2000, the population had grown to over 275 million - an increase of 260 percent. The Census Bureau estimates the U.S. population at 404 million by the year 2050, approximately a 44 percent increase over the year 2000. Try to imagine 44 percent more cars on the road during your morning commute. These statistics certainly help explain the rapid rate of real estate development the U.S. experienced during the 20th Century and are clear indicators that the 21st Century should also be a century of considerable growth.

In dealing with this growth, even if the U.S. were to develop and implement technological advances, the rest of the world, in particular the third world, will lag behind. And, as we have learned when it comes to environmental issues, the problems of the world impact the U.S.

Initially, at least, we will continue to see a dispersion of population and of commercial and industrial activity in the U.S. Certainly, massive investment in infrastructures must occur in the near future, as it has in the recent past, on the outskirts of major cities where it can be accomplished more readily and with less expense. The dispersion of population and business development is likely to occur, in large part, as a geographical spread from existing business centers, with some new centers developing in areas we currently might not imagine.

IMMIGRATION'S IMPACT

Not only will we see a dramatic increase in population growth and dispersion, we will also see a significant shift in the makeup of the U.S. population. As can be seen from the table, U.S. Population Change by Major Racial Groups, Asians and Pacific Islanders will be the most rapidly-growing racial group over the next 50 years — in fact, this population will double by 2020 (see Figure 3).

Figure 3

**US. Population Change by Major Racial Groups
(in millions)**

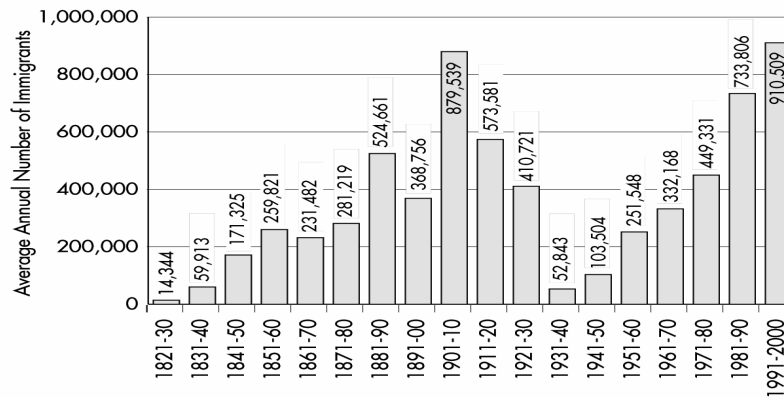
	2000	2050	% Change
White, Non-Hispanic	196.6	207.9	6
Black, Non-Hispanic	33.4	53.5	60
Hispanic	32.4	96.5	197
Asian & Pacific Islander	10.5	32.4	209

Source: U.S. Census Bureau, Immigration and Naturalization Service

Until the recent downturn in the economy, Congress continued to increase the number of H1-B visas for immigration of “knowledge workers,” made up in large part of Asians, especially those from India. There appears to be little doubt that when high-technology growth gets back on track, the high-tech industry in the U.S. will be increasingly dependent on and influenced by immigrants.

The U.S. is today, as it has been, a nation of immigrants. It is these immigrants seeking the American Dream that have traditionally been one of the most highly motivated and hardest working segments of our population. As the world population continues to rise, the U.S. will be expected to make room for its own internal growth, which ranks sixth in the world, and that of other nations (see Figure 4).

Figure 4. *Average Annual Number of Legal Immigrants into the United States, 1821 - 2000*



Sources: 1996 Statistical Yearbook of the Immigration and Naturalization Service (Washington, D.C.: U.S. Department of Justice, Immigration and Naturalization Service, 1997)

In 1950, immigration accounted for only 6 percent of U.S. annual population growth. Today, it accounts for 40 percent. And, as our native population continues to age, we will become increasingly dependent on immigrants to supply our work force.

TECHNOLOGY WORKERS

The U.S. tends to attract immigrants at both extremes of the educational ladder. In addition to the highly educated and those seeking higher education, there is a large portion (37 percent) of immigrants that are high school dropouts. Additionally, the U.S. native-born population has a dropout rate of 14 percent. As economic opportunity and education systems continue to improve in other parts of the world, such as India and China, we will see a decrease in those highly-educated immigrants that the nation needs to feed a high-tech economy. On the other hand, it is not likely that we will see a decrease in the number of immigrants with substantially lower skills.



Two-thirds of the post high school graduates in the world during the 1990s were in Asia. Graduate enrollment in engineering in the U.S. is approximately 101,000 and 291,000 in India.

In the 20th Century, U.S. manufacturing pursued low-cost labor in various parts of the world and we will see the same occur with research and development operations during this century. India and China show the greatest potential to fill this need. Two-thirds of the post high-school graduates in the world during the 1990s were in Asia. Graduate enrollment in engineering in the U. S. is approximately 101,000, in India it is 291,000. Between 1985 and 1996, two-thirds of the growth in engineering and science doctorates in U.S. universities were attributable to foreign students. While most of these Ph.D.s planned to stay in the U.S., many returned to their native countries to become educators.

Moreover, the information revolution is making data more readily available worldwide. In the past, it has taken years, if not decades, for technological and business ideas to cross national borders. Today, an engineer in China or India can log onto the Internet and have access to an unparalleled library of data and information from the U.S. or elsewhere in the world. Also, most products can be both engineered and manufactured to the highest standards in China at a lower cost than in the U.S. or Western Europe.

In order to take advantage of a deep market of highly-trained engineers and scientists who are willing to work at considerably lower wages than their counterparts in the U.S. and Europe, an increasing number of U.S., European, and Japanese companies will move their research and development operations to locations in China and India. Today, many U.S. companies are already utilizing these labor pools. While there are those who might say this is not likely to happen for national security reasons, they need only look at the migration of American manufacturing in search of available low-cost labor.

U.S. dominance in technology and innovation will be diminished in the early part of the 21st Century. In fact, the lines that differentiate American, European, or Asian companies are disappearing as stockholders, R&D, production and marketing become increasingly more international.

PRESERVING OUR ECONOMY

We must recapture jobs lost to low-cost labor overseas if we are to maintain a large middle class. This overseas competition in manufacturing has resulted in a gradual lowering of wages for low-skilled U.S. workers and a decrease in job opportunities for the middle class.



Within 10 years, provided the Chinese government can maintain political, social, and economic stability, China will be the world leader in manufacturing.

The U.S. Congress, as well as state governments, must offer tax credits or other incentives to those companies willing to invest in technology and training to allow low-skilled workers to produce products at reasonable costs. In many of the industries that have gone offshore to take advantage of low-cost labor, technology exists or can be developed to allow those products to be produced in the U.S. at competitive costs. The U.S. is still one of the world's largest markets. While foreign labor-costs of \$0.15 - \$0.40 per hour may not be completely offset by technology, when we add in the costs of transportation, adapting product design, and inventory control, a highly-automated U.S. facility can often offset much, if not all, of that wage differential. Without government support, however, it is simpler to move U.S. manufacturing to low-cost labor in countries like China, Vietnam, or India. Within 10 years, provided the Chinese government can maintain political, social, and economic stability, China will be the world leader in manufacturing.

To keep manufacturing in the U.S. will require constant adaptation from an economy that still is a world leader in technological innovation. Now is the time to take this action. Certainly, the U.S. cannot expect to recapture all the jobs the U.S. has already lost to offshore production, but we can slow that process and even reverse it in some areas.

Being a good citizen in the world economic community does not require the U.S. to diminish its own strength by exporting jobs; the U.S. can remain the world's leading economic engine without a continued erosion of its economic strength. At present, federal and state governments are doing little to stem the exodus of manufacturing and technology to offshore locations.

BOTTOM LINE FOR ECONOMIC DEVELOPMENT

Our nation's population is growing rapidly, with our most educated and skilled workers aging and being replaced by far less educated and skilled workers. Our population growth is due in large part to immigration (40 percent) that will likely substantially increase. The U.S. and other countries with open space will be forced to absorb an out of control world population growth, most of which are, and will increasingly be, poorly educated immigrants from developing nations.

Jobs of all types - manufacturing, as well as high tech — will continue to exit the U.S. A change in our educational system and investment in technology within our diminishing manufacturing sector could help stem the tide, however too little is currently being done.



The federal government should be taking a more aggressive role in financing the technology that can help to keep jobs in the U.S.

The federal government should be taking a more aggressive role in financing the technology that can help to keep jobs in the U.S. Federal assistance to depressed communities, to be passed on in the form of meaningful economic development assistance, is vital. If we are to reverse the out-migration of manufacturing jobs, it will take a Marshall Plan approach much like that which was used to rebuild Europe after World War II. State and federal governments must finance the re-tooling of American companies that find it difficult or impossible to compete with foreign competitors due to the differential in labor costs. While the loss of some jobs to automation may be difficult, it is better to lose some jobs than have all jobs lost to an offshore relocation. For many companies, it is simpler and less costly to pursue cheap labor offshore rather than make the investment in new equipment, and carry the cost of that equipment during slow production periods.

In addition to providing state and federal assistance for automation, much could be done to improve existing economic development programs. Many state and local economic development incentive programs are weak, and some are simply fluff legislation with little or no value to manufacturers. American companies generally do not understand the economic development programs available, are reluctant to use them, and even when they do seek assistance, generally acquire about 10 percent of what is available. Furthermore, the majority of states provide considerably less assistance to companies already in their state, as compared with assistance given to those considering moving into the state. In the past, this lack of assistance has driven many companies from one state to another; today, these companies are increasingly being driven offshore. We can support and encourage international trade without continuing to lose jobs.

Our universities and colleges also need to look hard at what is happening in the world. In the U.S., the tendency is to place greater emphasis on liberal arts rather than the sciences. Science education is more costly and less profitable; it requires professors, labs, and research that are very expensive relative to liberal arts. As the statistics have shown, the U.S. has lost its industrial dominance and is starting to lose its technological dominance, which does not bode well for economic growth. There are universities in India that are considered to have comparable, if not better, engineering programs than the best programs offered in the U.S.



Unfortunately, for our growing number of immigrants, the stepping stone to the middle class that was provided by manufacturing jobs during most of the last century is rapidly disappearing.

Our nation's strength has come from our middle class. This middle class, during the 20th Century, was anchored by a solid K-12 education system, and manufacturing that provided good wages and benefits. This middle class has been eroded and, I believe, will continue to be eroded as our work force ages and is replaced by less educated immigrants. Unfortunately for these immigrants, the stepping-stone to the middle class that was provided by manufacturing jobs during most of the last century is rapidly disappearing. During the last economic boom period, much of the employment growth that occurred was in low-wage and low-benefit service jobs. These are the jobs that will continue to fuel immigration.

While the U.S. is not likely to maintain its dominance in the high tech arena, its dominance in other areas may grow. We will likely continue our dominance in the world of finance, and there is little doubt that the U.S. will be the hospital to the world, as our achievements in medical science will exceed those of other nations. The U.S. will play an increasingly important role in the biotech field, especially in the field of genetic engineering, where research and development will be fostered by the necessity to feed billions of new people worldwide. New industries that will replace those that have declined are limited only by our imagination.

For more than a century, the U.S. has been a formidable world force economically, politically and militarily. Our political and military strength derives from our economic strength. We must recognize the trends of the new millennium and address them positively in order to maintain our nation's strength and, in turn, the American Dream.

The conclusion of this article is best expressed by Thomas Cahill in his 1995 book *How the Irish Saved Civilization - The Untold Story of Ireland's Heroic Role from the Fall of Rome to the Rise of Medieval Europe*.

“... As we, the people of the First World, the Romans of the 20th Century, look out across our Earth, we see some signs for hope, many more for despair. Technology proceeds apace, delivering the marvels that knit our world together - the conquering of diseases that plagued every age but ours and the consequent lowering of mortality rates, revolutions in crop yields that continue to feed expanding populations, the contemplated “information highway” that will soon enable all of us to retrieve information and communicate with one another in ways so instant and complete that they would dazzle those who built the Roman roads, the first great information system.

But that road system became impassable rubble, as the empire was overwhelmed by population explosions beyond its borders. So will ours. Rome's demise instructs us in what inevitably happens when impoverished and rapidly expanding populations, whose ways and values are only dimly understood, press up against a rich and ordered society. More than a billion people in our world today survive on less than \$370 a year, while Americans, who constitute 5% of the world's population, purchase 50% of its cocaine. If the world's population, which has doubled in our lifetime, doubles again by the middle of the next century, how could anyone hope to escape the catastrophic consequences - the wrath to come? But we turn our backs on such unpleasantness and contemplate the happier prospects of our technological dreams.”

Dr. Ronald R. Pollina is a nationally recognized corporate real estate broker, consultant and negotiator. In addition to representing corporations throughout the United States for over 25 years, he has served on the faculties of two Universities and written over 60 articles and books. As a frequently quoted real estate economist, Dr. Pollina's opinions have appeared in the *Wall Street Journal*, *Business Week*, *Financial Times* and other business publications.

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