## The historical lessons of America's economic and population expansion

Think tankers, government officials, and news media reports that claim that population growth impedes economic development are lying. The history of the United States, which has doubled its population five times since its founding 200 years ago, proves that they are lying.

From the days of the earliest New England colonists, our republic has been committed to fulfilling the Biblical injunction that man shall "multiply and subdue the earth," that is, to the human species' responsibility and ability to support an expanding population through scientific and technological progress. The growth in population resulting from each era of national development effort has served as the spur to force Americans to develop new technologies, new resources, new energy systems of ever higher quality and density, to support the growing population.

Population growth is the "flywheel" of economic development and vice-versa. Once we make the breakthrough to 21st-century modes of production and technologies—including those on the exciting scientific frontier of nuclear fission and fusion energy—our nation's potential to support even higher population levels will be widened. This positive self-feeding process has been defined by economist Lyndon H. LaRouche, Jr. as an increase in "potential relative population density," that is, an economy's ability to support increasing population

Figure 1

Doubling of U.S. population

Year	Population size (in millions)	Years elapsed between doubling of population	
1790	3,929	<del></del>	
1813	7,939	23	
1838	16,264	25	
1862	33,188	24	
1893	66,970	31	
1931	124,149	38	
1991*	248,300	60	
*estimated			
Source: U.S. Census Bur	eau		

density is fed by the creativity of the human mind mediated through the production process.

America's history of expanding population exemplifies such an increase in potential relative population density. Notice in Figure 1 the rate at which America doubled its population, starting with the year 1790. Between 1790 and 1813, the United States doubled population in 23 years. Then, in the next interval, 1813-1838, it doubled within 25 years. The next succeeding intervals were 24 years, 31 years, 38 years, and, based on projections of current population growth, the next interval will be 60 years. The interval has not only gotten longer, but the last interval is more than twice as long as the first three.

## New eras of American technology

During the first interval, the craft of shipbuilding was developed, and canals and internal waterways making transportation faster and cheaper were constructed. During the second interval, beginning in 1813, coal power became a widespread energy source, replacing wood. The third period, beginning in 1838, saw the use of the reaper for agricultural work. In the fourth interval, beginning in 1862, steel production and mass assembly techniques for producing clothing and industrial goods were inaugurated, as well as the spread of the use of oil as a fuel.

Each time new technologies were developed and put into practice greater populations resulted. Nor is the United States running out of natural resources or land. Resources are what a newly discovered technology defines them to be, not some permanently fixed scalar amount of a given substance. Man not only uses resources, but it is he who discovers and invents them.

## The standing-room-only hoax

Figure 2 shows the amount of land space occupied by the U.S. population. Using data from the Census Bureau of the Commerce Department, we see that the United States is primarily an urban population. In 1960,

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69.9 percent of Americans, concentrated primarily in 212 cities of 50,000 people or more, still occupied only 1.1 percent of the U.S. land mass. In 1980, 73.7 percent of the people, concentrated in 373 cities of 50,000 people or more, still only occupied 2 percent of the land mass. Ninety-eight percent of the U.S. land mass is rural and relatively unoccupied, averaging 17 people per square mile.

How large would the U.S. population have to be before Paul Ehrlich's "standing-room-only" prophecies could be realized? Manhattan's population density is roughly 63,000 people per square mile. The U.S. land mass is greater than 3.5 million square miles (although some of this land is frozen Alaskan tundra). Were the United States to reach the population density of Manhattan for every square mile of land mass—the U.S. population would be 215 billion—more than 45 times greater than the current population of the entire globe.

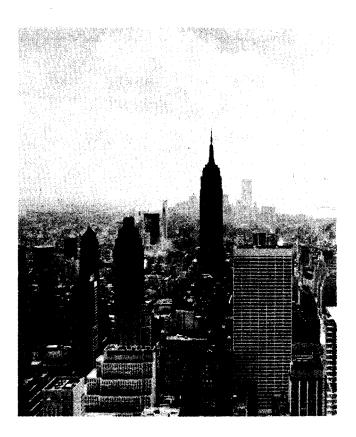
When would the United States reach such a size? If the U.S. population grew at its current rate, doubling once every 60 years, then the United States would not achieve standing room only until the year 2486 A.D., 500 years hence. Long before that time, unless Volcker's policy prevails, the United States and other nations will have colonized the moon and the solar system, and then moved on in fusion-powered rocket ships to the tasks of colonizing the galaxy. If America could achieve all that it has in its first 200 years as a republic, it can surely accomplish this colonization of the stars in its next 500 years.

## Volcker threatens U.S. cities

Figure 2 also makes another important point: it is the growth of cities that has made America great. As a city-building culture, American has drawn together in

Figure 2
U.S. population density

	Land area		Population		
	Thousand sq.	Percent	Thousand	Percent	Per
	miles	of U.S.	persons	of U.S.	sq. mile
		190	<b>50</b>		
Total	3,548.9	100.0	179,323	100.0	51
Urban	40.2	1.1	125,269	69.9	3,113
Rural	3,508.7	98.9	54,054	30.1	15
		198	30		
Total	. 3,543.9	100.0	226,505	100.0	64
Urban	71.4	2.0	166,965	73.7	2,440
Rural	3,472.5	98.0	59,540	26.3	17
Source: U.S	. Census Burea	ıu			



urban centers the nuclei of industry, culture, and civilization and nurtured these leading features of a people's existence. Between 1960 and 1980, even though the Census Bureau somewhat liberalized its definition of city to include more groupings under that category—the number of American cities of 50,000 or more rose spectacularly from 213 to 373.

But Volcker's usury policy is now making it nearly impossible for cities to exist, and therefore they are depopulating themselves. Cities can no longer afford to float bonds for capital improvements nor provide the services that make cities liveable.

The effects of New York City's well-publicized budget crisis have been drastic. Since 1975, in a metropolitan area that services 12 to 14 million people, 27 hospitals have been shut down; 30 firehouses have been closed and 1,456 firemen (10.5 percent of the workforce) laid off; 53 schools have been closed and 10,000 teachers (13 percent of the workforce) laid off; 7,750 policemen (29 percent of the workforce) have been eliminated; train and bus service has been cut by 30 percent; and garbage pickup by 18.2 percent, as 3,582 sanitationmen (23.4 percent of the workforce) have been dismissed.

Although New York is the worst case, Philadelphia, Detroit, Cleveland, and Chicago have been hit almost as hard, as have many other cities. The fall in total capital expenditures for city operations nationally since 1970 is a disastrous 44 percent.

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