

A Short History of American Capitalism

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Chapter 6

STANDARDS OF LIVING UNDER
CAPITALISM, 1790-1865

Americans paid a heavy price for the advent of capitalism. “Entire nations of Indians lost their homelands” while a genocidal reduction in their numbers ensued.¹ The number of enslaved workers grew from 697,624 in 1790 to 3,953,760 in 1860. They labored under increasingly exploitative conditions. Black workers not enslaved were subjected to progressively more stringent regulations and were deprived of various civic freedoms, including the right to vote. These were only some of the limitations under which many Americans were compelled to live. Yet, economic historians generally fail to discuss them when dealing with the subject of standards of living. What do they discuss instead?

In general, four subjects are highlighted: (1) per capita output; (2) productivity; (3) real wages; and (4) income and wealth.

1. *Per capita output*: Either by value or volume, production is divided by a population figure. The result is denoted the “average”. A series of rising averages is viewed as an improvement of the population’s standard of living regardless of how many persons did buy the product or could afford to buy it. Least of all is there any evidence provided of how many persons bought the product. This is a measure of potential rather than an actual standard.

2. *Productivity*: Output per producer is determined for certain products and laborers over a period of time. Increasing productivity is held to be evidence of a rising standard of living. As we have seen in earlier chapters, however, normally employers appropriate most, if not all, of the increased productivity (profitivity). Thus, productivity raises someone’s standard of living, but not necessarily the workers’. Matters would be helped if economic historians divided the productivity gain into two figures: profitivity and workers’ share. A series of such figures would be highly relevant to standards of living.

3. *Real wages*: The purchasing power of money wages is indicated

by taking prices or the cost of living into account. Since most workers spend the bulk of their wages on actual commodities and services, this measure is directly related to their standard of living. Unfortunately, however, unemployed workers have neither money nor real wage statistics. Indeed, during a deep economic depression, with extensive unemployment, real wages of those still employed may rise significantly. This is not representative of the working class standard of living as a whole. Nor is it of the many persons during 1790-1865 who worked for themselves or their family and did not receive wages at all, including enslaved workers.

4. *Income and wealth*: Only in 1850, 1860, and 1870 did census-takers collect information on income. Similarly, in 1798 the federal Treasury gathered individual data on wealth (houses, conveyances, and enslaved workers). The greatest gap in such statistics consists of those persons who owned no property other than what they wore, i.e., the propertyless. In most compilations of wealth, only those persons owning some wealth are listed. Obviously, this results in grossly overestimating average wealth. Such omissions are generally not even noted; as a result we are given a table allegedly covering “American” income or wealth distribution which is, in fact, a compilation of the data for white or non-slave Americans. (An unusual opportunity to view both versions of reality can be found above, Chapter 3, p. 49. Chapter 5, p. 93 contains another example.)

Together, these more traditional measures of standards of living share certain shortcomings: They apply only to parts—sometimes small parts—of a population; they assume a far more uniform distribution of goods and services than existed in reality; they omit relevant realities such as unemployment and sickness; and they cover short and discontinuous series of statistics. Like all measures, of course, they may be in great dispute as regards competing versions.

The remainder of this chapter deals with measures of standards of living in three realms: (1) the world of work, (2) home conditions, (3) the biological standard of living.

1. *The world of work*. Since the industrial workday extended from 12 to 14 hours, the job was by far the dominant wake-time activity. Long work-hours, including an extended journey to work, labor intensification, an unhealthy working environment, and occupational

accidents and diseases were central factors on the job, especially in textile factories. In the Chicopee Manufacturing Company, a Massachusetts textile mill that began operating in 1823, “the average working day was 13½ hours: the operatives began work at five in the morning, quit at seven-thirty in the evening, and took half-hour breaks for breakfast and dinner

² In a Pawtucket, Rhode Island mill— during 1801 “one hundred children, from four to ten years old, were working at the mill.”³ Throughout the industry children were troublesome workers, although they were cheap labor. They could not be used on night shifts because they tended to fall asleep. On day shifts, they were sometimes so exhausted that upon arrival at home by the end of the day, they fell asleep rather than eat their dinner.⁴

Among adult workers, “laborers and the foreign-born faced more environmental stresses compared to the native-born or men in other occupational classes.”⁵ In the carding room of the Boott Cotton Mills in Lowell, Massachusetts, the dirtiest room in the mill:

“Fly” filed the air. The loose cotton and dust ... permanently diminished the breathing capacity of many cotton mill workers.⁶

Very recent medical research verifies the connection between cotton dust and bronchitis.⁷ Richard Steckel states that “claims on nutrition were made by long hours in work arrangements paced by machines, and numerous people crowded in dusty or humid environments, typical of textile mills, led to the spread of tuberculosis and pulmonary illnesses. ...”⁸ In a small Pennsylvania mill, the usual unhealthful conditions prevailed:

The air was filled so thick with “flyings” that breathing was difficult and workers developed a constant cough. In an effort to prevent the escape of the dust the machines were boxed in, but this was not particularly effective.⁹

It should be kept in mind that tuberculosis was the greatest killer in 19th century America.

Labor intensification grew extreme in the cotton mills. As Gross points out: “The Lowell system sought and incorporated every technique by which it could reduce the workers’ importance (skill, independence, responsibility, creativity) and cost.”¹⁰

Gloria Main observes that:

Compared to the colonial era, rural and urban poor whites and most blacks in the early nineteenth century worked harder and thus may have suffered from nutritional inadequacy in the face of higher bodily needs. Thus, it is possible that laborers generally were living closer to the nutritional edge, less because their diet had deteriorated than because of greater calorie needs.¹¹

On the other hand, John Komlos holds that while labor intensification heightened energy needs, increased income “more than” compensated for this need.¹² Yet, it was rare to find a proportionate increase in wages to accompany an increase in per worker output. For example, as Caroline Ware notes, “the census figures ... show for the 1850-60 decade a twenty-nine and a half percent increase in worker’s output with an average increase in his wage of only ten and two-tenths percent.”¹³ There were many years with an even more lopsided record. Labor intensification and job strain were two factors that may have led to cardiovascular disease via elevated blood pressure.¹⁴

Prior to the age of the factory, accidents in the workplace were minor. The advent of machinery, especially during the 1830s and after, brought a new, more dangerous aspect to the world of work. The contemporary arrival of the railroad added still another dimension of danger to the workplace. Employer speed-ups of machines and the ever-expanding stretch-out of operator tasks laid the basis for a high accident rate. In addition, textile machines were operated at high speeds, significantly greater than in England at the same time.¹⁵ Employers might urge and require great speed, but they carefully avoided accepting legal liability for any resulting accidents.¹⁶ Managers of mills viewed expenditures on factory maintenance as an avoidable deduction from profits and dividends. This view could be found even among some of the great Lowell corporations.¹⁷

2. *Home conditions.* Company-built housing in Lowell and elsewhere was not substantial. Margaret Coleman declares that “the living conditions at Lowell and other mill towns deteriorated within a decade of being built.”¹⁸ During the early 1850s, when numerous Irish immigrants entered the Northeast, rents began to rise in that section of the country.¹⁹ Lorena Walsh states that “in cities, poor families may have been worse off than in earlier years; high rents and fuel costs probably precluded improvements in diet.”²⁰ She suggests that “living standards [for the urban poor] ... may have declined.”²¹

In a small mill-town in the lower Delaware Valley of Pennsylvania,

The upper class lived in substantial stone houses, locally referred to as mansions, with ten or twelve rooms, always near the top of a hill overlooking the family property. ... In the 1840s, some of the mansions were being equipped with indoor toilets and had indoor pumps and facilities for bathing, and they were heated less often by open fireplaces than by iron stoves.²²

Viewing both the antebellum North and South, Pessen observed that “improved public facilities for disposing of waste or carrying fresh water into the city were usually introduced in upper-class residential districts.”²³

Rising urbanization aggravated housing shortages and crowded residential quarters thus facilitating the spread of infectious diseases. In the 1830s, southern textile factory master William Gregg observed:

A cotton factory should not be located in a city. ... Country people coming to a city would be frightened away by any appearance of epidemic.²⁴

After 1820, notes Fogel, urbanization increased and, quite possibly, “food consumption of the urban laboring classes ... decline[d] between 1825 and 1860.”²⁵ Indeed, elsewhere he wrote that “during the last two decades of the antebellum era the rise of manufacturing was associated with the immiseration of substantial sections of the non-agricultural labor force.”²⁶ While the United States remained a rural nation for years thereafter, it should be noted that urbanization grew between 1800 and 1860 at the brisk pace of five percent annually.²⁷ Along with urbanization and industrialization—which were increasingly linked together—came unemployment on a growing scale during the economic depressions of 1837-1843 and 1848-1855; declines in real wages were recorded earlier in the 1830s.²⁸

Deteriorating economic conditions heightened the impact of prevalent epidemics. During 1853, for example, a yellow fever epidemic killed some 8,000 people in New Orleans.²⁹ In his annual messages to Congress during 1853 and 1854, President Franklin Pierce referred to “disease, assuming at one time the characteristics of a widespread and devastating pestilence, has left its sad traces upon some portions of our country” and to “disease [which] has prevailed to a greater extent than usual, and the sacrifice of human life through casualties by sea and land is without parallel.”³⁰ Urban workers who were weakened by food deficits were all the less able to weather the

impact of severe epidemics as well as normal workloads. Community resources were growing seriously inadequate: "Important aspects of the quality of urban life deteriorated from early in the nineteenth century until the mid-1880s."³¹

3. *Biological standard of living.* The biological standard of living refers to patterns and levels of health not measured by indices of real wages, output, or income. All three of the latter can be rising while the biological standard of living is falling.³² This, in fact, happened during much of the antebellum period and beyond. Life expectancy was falling and stature (height) declining, while various endangerments of health were increasing. "The biological standard of living did not improve at all for most of the population for a long time."³³ Only during the past decade or so have some economic historians begun to take note of these facts. The result is a more realistic picture of the rise of industrialization and of capitalism.³⁴ The data on which the findings of this research are based are far more comprehensive and continuous than those relating to wages, output, or income for the same period. Especially welcome are data relating to the poorer people in American society, a group which, for example, is missing from many data series of the conventional sort.

Costa and Steckel provide the following chronology of life expectancy:

After rising for most of the eighteenth century life expectancy began to decline during the 1790s and continued to do so for the first half of the nineteenth century . . . Life expectation for men at age 20 declined from approximately 47 years at the beginning of the century to slightly less than 41 years in the 1850s. Among women the decline was steeper: from nearly 48 years in 1800-1809 to 37.1 years in the 1840s.³⁵

Clayne Pope, using a longer period, 1760-1769 to 1880-1889, comments: "The fact that a century marked by a high rate of economic growth did not significantly raise the life expectation of [even] the most economically favored segment of the population (native-born white adults) is worthy of notice. . . ."³⁶ A fall in life expectancy in the antebellum years is also documented by Yasubichi Yasuba as well as Fogel and Kent Kunze.³⁷ Quite possibly basic to this decline was the simultaneous rise in workers' expenditures on food and the consequent deterioration of the nutritional status of workers.³⁸ Between 1820 and 1860 "from 50% to 75% of the income of workers

was spent on food. ...”³⁹ With rents also rising for urban workers, skimping on food was probably more feasible than refusing to pay higher rents.

The physical stature of Americans also declined over much of the antebellum era. As John Coatsworth points out:

The average height of the native-born U.S. male population stagnated from 1780 to 1830 and then fell by nearly five centimeters to a low point in the 1880s. The U.S. population did not recover the average stature it had achieved by the late eighteenth century until the 1920s.⁴⁰

Women were even worse off, as Komlos writes: “The evidence so far indicates that females began to experience nutritional stress earlier than men during a downturn and were less likely to show improvements in an upswing.”⁴¹ While European immigrants were as a rule shorter than white Americans, the decline in American male stature set in before the large immigrant inflow of the late 1840s and early 1850s.⁴² Social class and occupation also played a large part in the decline. “Within industrialized countries,” write Steckel and Floud, “height rises with socioeconomic class.”⁴³ Komlos states more broadly: “In all studies without exception, the positive relationship between social status and physical stature has been consistently documented in various societies and at different times.”⁴⁴ Class differences in height change over time. During the Civil War they were greater than during the American Revolution.⁴⁵ Not until the cohort born in 1935-1946 did the differentials by occupation “substantially narrow”.⁴⁶

Out of nine industrialized capitalist countries, the United States experienced the longest decline in stature—sixty years.⁴⁷ The antebellum years constituted the bulk of this period. Steckel and Floud observe of those years: “Growing inequality of wealth combined with rising food prices, and the falling birthweights of babies of poor women suggest that the quality of life may have decayed for the lower classes.”⁴⁸ This was especially clear in the case of enslaved workers, starting with birth:

The slave children were extraordinarily small, approaching the early childhood heights of the Bundi of New Guinea. ... Young children who survived the hazardous neonatal period faced a poor diet and diseases that were often related to poor nutrition.⁴⁹

Steckel concludes that “in the nutritional sense slave children had

the worst living conditions of any ethnic group in America and were at least as badly off as any population in Europe.”⁵⁰

Slaveowners were basically responsible for this outcome, however much later historians might laud them for their purported “paternalism”. Pregnant enslaved workers continued to be worked without mercy, even in “the third trimester when fetal weight gain is greatest.”⁵¹ After birth, mothers were sent right back to the fields and had little opportunity to breast-feed their infants. During the late teenage years, male children of enslaved workers received a diet comparable with those of adult workers.⁵² This nutritional change was based on the same reason that oxen and horses were also fed adequately—i.e., otherwise they could not carry out their day’s work. Height for enslaved men gained during the years 1810-1830 while that for enslaved women declined over the same period. As older adults, however, enslaved workers who had experienced malnutrition as children came down with many of the chronic diseases that struck non-slaves. “Stunting during developmental ages had a long reach,” according to Fogel, “and increased the likelihood that people would suffer from chronic diseases at middle and late ages.”⁵³

The biological standard of living of workers was further adversely affected during antebellum years by the developing economic inequality. Steckel and Haurin state the issue well:

Average stature is a function not only of average income—which provides the means to acquire a good diet, housing, and medical care and to avoid hard work—but of the distribution of income. For example, if income is redistributed from the poor to the rich, it is likely that average height will fall (other things being equal) because the income decline of the poor will lead to a deterioration in their nutritional status, while the increased income will have little effect on the height of the rich, whose nutritional needs have already been met.⁵⁴

We might add that if income is redistributed from the rich to the poor the latter’s height will rise while that of the rich will be unaffected, depending on the severity of the redistribution. During antebellum times, redistribution was wholly in the direction of increasing the share of the rich.

Williamson and Lindert’s studies support this conclusion:

Around 1774, the top one percent of free wealthholders in the thirteen colonies held 12.6 percent of total assets, while the richest

ten percent held a little less than half of total assets. In 1860, the richest percentile held 29 percent of total America[n] assets, and the richest decile held 73 percent. Thus, the top percentile share more than doubled and the top decile increased its share by half again of its previous level. Among free adult males, the Gini coefficient on total assets rises from .632 to .832.⁵⁵

Lee Soltow, however, declares that “wealth inequality among free persons with real and personal estate changed very little in the first three-quarters of the nineteenth century.”⁵⁶ Both groups of studies lament the absence of data on propertyless persons. But Soltow writes also that “the poor were living with strong disadvantages,” and that there was “very substantial inequality” of housing as well as “extreme inequality” in general.⁵⁷ This closely parallels Fogel’s assertion about the immiseration of sectors of the nonagricultural labor force during 1840-1860.⁵⁸

Industrial accidents were another aspect of the biological standard of living. They increased greatly in factories where moving parts of machines constituted a novel work hazard, especially when employers speeded up the machines or compelled workers to increase their work load. Frequently, overseers who succeeded in spurring an unusual increase in output were awarded bonus pay, thus further creating an atmosphere of speed rather than care. In one large Lowell cotton mill, supervisors kept a record of accidents but “never in these accounts did the pressures of speed and production associated with piecework appear.”⁵⁹ Details of each mishap were recorded but “in every case, the danger of [employer] liability was carefully avoided.”⁶⁰ Courts almost always accepted employer evasions of liability. State laws and regulations governing aspects of the workplace were flagrantly evaded. “The state’s experience with the cotton industry [in Massachusetts] had shown that management was not to be trusted in matters regarding safety, sanitation, age laws, or even in fulfilling their agreement to pay fairly the low wages they offered.”⁶¹

Railroad employment also constituted a new danger-point of mechanized work. Whether in the textile mill or on the railroad, workers who suffered serious accidents could look forward to a life of penury and uncompensated pain. In case of deaths, their families were left to fend for themselves; an occasional tiny payment was not designed to substitute for lost wages. In nearly all cases, the cost of medical care was left to the injured worker to manage.

The price that workers paid for a lowered biological standard of

living can be seen in certain health statistics, although these are not plentiful for the antebellum years. Tuberculosis, “the leading killer in England and America during much of the nineteenth century,”⁶² struck down many industrial workers. As a direct result of workplace practices “70 percent of textile operatives died of respiratory disease at a time when only 4 percent of Massachusetts farmers died from this cause.”⁶³ With reference to the national center of shoe manufacture, “in 1850 the Lynn [Massachusetts] board of health reported that the life expectancy of shoemakers was nearly twenty years less than the life expectancy of farmers in the Commonwealth.”⁶⁴ The infant mortality rate of children of enslaved workers was 350 per 1,000 live births or more. On large plantations, the deaths of black children aged one to four years was 210 per thousand.⁶⁵ Neonatal and still-birth death rates of slave children were highest when the first trimester coincided with the planting season and the third trimester coincided with the harvest.⁶⁶ During the years 1830-1860, the mortality of slave children aged less than five years was double that of white children in the United States.⁶⁷ Meanwhile, growing commercialization of the countryside insured increasing incomes for farmers who had formerly earned only subsistence. It also, however, meant that farm animals ceased providing meat to these farmers’ families thus trading “away proteins, minerals, and vitamins essential to the health and nutrition of their children.” The result was stunting of the height of children.⁶⁸ This helps explain why “most of the antebellum height decline occurred within the rural population.”⁶⁹

At no time during antebellum years was there a public-health survey made of specific cities. In the late 1840s and 1850s, however, various members of the Hygiene Committee of the recently-formed (1846) American Medical Association published articles on cities in the Association journal. Together, these constitute the nearest approach to a national survey.

Dr. Josiah Curtis of Lowell, Massachusetts reported in 1849 that in the year before, of all the deaths in the town from specified causes, 29.5 percent were from lung diseases, mostly consumption, 12 percent from typhus, including typhoid fever, and 10.8 percent from dysentery. Lowell, whose population constituted far less than a quarter of the state’s population, accounted for 52.3 percent of all the state’s deaths from these three causes.⁷⁰ He asserted that poor ventilation in textile factories was “the most prolific source of deteriorated health in the adjuncts of factory labor among us, and in

our neighboring manufacturing towns,”⁷¹ explaining that “the air in these rooms, which ought to undergo an entire change hourly, remains day after day, and even month after month, with only the precarious change which open doors occasionally give.”⁷² Dr. Curtis interviewed a physician who worked at the Lowell Hospital, operated by textile companies, who told him:

Typhoid fever is not only a very constant, but also the most important, disease among our operative population Our operatives, as a class, have suffered from it to a much greater degree than the citizens at large. . . . My own opinion is, that *imperfect ventilation*, in our cotton-mills, particularly, may have a very important bearing upon the question of causes of fever among our operative populations.⁷³

Dr. Curtis pointed out that the most destructive diseases in Lowell could be prevented but that instead they were increasing and that in this respect America was “falling in the rear of other nations.”⁷⁴

Housing was found by AMA committee members to be abysmal, especially for the poorest. In Portland, Maine, a city of 20,000, “the houses of the native poor are, for the most part, comfortable, healthfully situated, and not overcrowded; those of the *Irish*, are as well situated, but almost invariably over-crowded, filthy, and very imperfectly ventilated.”⁷⁵ In New York City, the country’s manufacturing center and a metropolis of 400,000, there were no ordinances or laws regulating overcrowding in residences. Dr. John H. Griscom pointed to diseases among the poorer classes arising “from the impurities of the air they breathe, in their low, rotten, and crowded tenements, and the abundant filth with which they are surrounded and encased.”⁷⁶ In the most densely-populated areas:

The dwellings . . . are the worst possible description: old, dilapidated, and filthy, and crowded with people scarcely to be believed. As many as twelve to fifteen have been known to occupy one room; sixty may be the entire number in one house.⁷⁷

Mechanics and artisans also lived in crowded residences, in which 20 to 25 persons occupied a single house.⁷⁸ (Dr. Griscom was a renowned advocate of what became the public health movement.)

In Philadelphia, a city of 320,000, tenements for the poor on the west side of Water Street lacked “yards, privies, or any means of ventilation.”⁷⁹ Sometimes, privies were placed in cellars of these houses. In such settings cholera infantum and chronic bowel diseases

thrived.⁸⁰ Buildings housing the poor had no bathing facilities and there were few hydrants in these crowded neighborhoods. Public baths did exist but they were too expensive for the poorest people. In Lowell, Massachusetts “the rapid influx, especially of foreign population ... placed small-tenements and cellars in high demand, and crowded them infinitely beyond a healthful condition.”⁸¹ (By this time, the textile plants did not house workers in company dormitories.) A Lowell minister told Dr. Curtis that “from six to ten persons frequently sleep in a single room, and sometimes in one bed.” Curtis himself summed up the matter thusly: “The dwellings of the masses, and the factories of the few, seem less cared for than our prisons.”⁸²

In Baltimore, Maryland, wrote Dr. James Wynne, “one-half of our population die before they have reached their fifth year; and ... within the last year, *the number of deaths to the living was as one to thirty-six*, a mortality almost equal to the most unhealthy manufacturing districts in Europe. ...”⁸³ While all “fashionable” houses in the city had bathrooms, the city itself had no public baths and, of course, the poor had none either.⁸⁴ Dr. Wynne explained the consequences: “But it is no matter of surprise, where buildings ... with defective ventilation, surrounded by effluvia of decomposing matter ... and crowded by a population subjected to the evils of poverty, exist, that the air should be freighted with pestilence, and life wither permanently away under these destructive influences.”⁸⁵

In the “Graveyard of the West” as Louisville, Kentucky was known a generation earlier, Dr. L.P. Yandell recalled the 1822 endemic of intermittent fever and bilious fever during which more than five percent of the town’s 5,000 population had died; a decade later, a rather mild epidemic of cholera struck the town. “The houses of the poor are generally bad ... damp and unwholesome, with five to ten persons per room.”⁸⁶ In Cincinnati, a large city of 110,000, Dr. J.P. Harrison observed that “crowded and ill-ventilated apartments” were a major factor in producing cholera infantum.⁸⁷ “Among the Germans especially,” reported Dr. Harrison, “eight or ten families are seen to occupy the same house—a family in each room.”⁸⁸

Urbanization and crowded housing led to another health-related problem—the collection or non-collection of garbage and refuse in general. In Concord, it was dumped onto house gardens while in faraway Baltimore it ended up in the streets, there to languish until the rain moved it on.⁸⁹ Both in Louisville and Cincinnati, the garbage was thrown onto the streets and picked up by scavenger carts; in the latter

city, the frequency of such visits was “about every three weeks.”⁹⁰ Roving hogs dined on these piles of garbage in Philadelphia, Baltimore, and Cincinnati. Sewers were built in a few places which helped the health situation. But in a city as large as Baltimore, there were only two miles of sewers; the lack of sewerage was “an important nuisance operating in all parts of the town, but most severely in the low, level, and uncleanly portions occupied by the poor.”⁹¹ A parallel condition obtained in Lowell where “many lanes and alleys are without either [sewerage or drainage]; the house slops and other refuse remaining on the surface, especially in wet weather.”⁹² In Portland, Maine, where sewerage was not a special problem, refuse was said to be picked up by cart several times a week.⁹³ Three-quarters of New York’s streets lacked sewers in 1855.⁹⁴ It was not until fifty years later that “about half of the tenement dwellers had access to flush toilets.”⁹⁵

“Water, water, everywhere, but not a drop to drink” could have been an accurate description of New Orleans where a supply of potable water was sorely lacking. A legal monopoly to supply such water had been granted to a single company which charged extremely high prices. Only about five percent of the population purchased such water, while “the remainder of the population is dependent upon rain water collected in wooden cisterns, which supply very generally fails in summer, when carts are seen peddling water at 5 cents a bucket.”⁹⁶ An AMA article concluded that “the health of this city has improved much during the last twenty years or thirty years,” but no evidence is cited.⁹⁷

Infant mortality was a major problem in America’s cities. Dr. D. Meredith Reese of New York City devoted an entire report to the subject. In that city over the years 1804-1853, “the number of deaths *under 5 years of age* ... have been ... nearly 49 percent of the entire mortality. ...”⁹⁸ Dr. Reese pointed out that infant mortality rates in this country’s large cities were rising while those in Europe were declining. He asked:

Why should infant mortality in American cities be greater than even in Paris! 8 percent above Glasgow, 10 percent above Liverpool, and nearly 13 percent greater than in London? ...⁹⁹

At the same time, Reese noted that “statistics abundantly show the mean duration of human life to be greater by 3½ percent in our American cities taken collectively than in the cities of Europe.”¹⁰⁰ In Boston, dead persons who were buried in the city’s Catholic cemetery averaged 13.5 years of age while the average age for all deaths in Boston was 22.75 years.¹⁰¹

Class differentials in mortality were evident from age-of-death statistics. Over a 27-year period, the average age of decedents in Dorchester, Massachusetts was as follows:¹⁰²

<i>Laborers:</i>	27 years, 5 months, 6 days
<i>Mechanics:</i>	29 years, 6 months, 14 days
<i>Merchants, capitalists, etc.:</i>	33 years, 2 months, 27 days
<i>Farmers:</i>	45 years, 8 months, 6 days

Similar results were found for Brookline and Concord. Dr. Edward Jarvis of Dorchester, who compiled these statistics, wrote that “a sanitary survey of this and of every other State would, I fear, demonstrate an inequality in the distribution of life in various places and among various classes of people, such as few either of the philanthropists or political economists now suspect.”¹⁰³ Dr. Jarvis also reported that when the earliest American benefit societies created life insurance policies they based their premium schedules on those of England and Scotland. Over time, however, a number of such societies found that they had underestimated the extent of sickness in the United States; some firms were bankrupted. Since, as Dr. Jarvis himself stated, “the poor, the outcasts, the vagabonds, and the invalids ... are rarely insured” in this country, it would seem that the gap between national mortality rates was considerable.¹⁰⁴ (Dr. Jarvis was a founder of the American Statistical Association and had been a member of the Boston City Council in 1837-1841.)

Women workers suffered special disabilities:

Less than half of wages for occupations which employed women could cover the expenses for a household composition of one adult and one child. ... None of women’s wages paid enough to allow for savings in the event of long periods [of] illness or unemployment.¹⁰⁵

Numerous working-class women were forced by economic circumstance into at least part-time prostitution. In New York City, nearly half of wage-working women during the 1830s “engaged in prostitution” to supplement inadequate wages.¹⁰⁶ The health consequences could not have been positive.

During the 1850s, real per capita income rose by 24.5 percent in the United States.¹⁰⁷ Yet, these years are among those during which at least one prominent economic historian stated that laborers were in a

state of immiseration. There is no conflict between the two statements. Per capita figures inevitably cloak the extremes. As we have seen, laborers lived precariously in the nation's cities. The averaged income figures ignore their actual living conditions, health risks, life expectancy, and related matters bearing on the standard of living.

High per capita income figures are of small comfort to laborers whose wages have not risen in decades or whose monetary increases have been cancelled out by frequent wage reductions or unemployment. Nor are there any ready ways to "trade off" rising per capita incomes against genocide such as the American Indians experienced during antebellum times. Or, rising real wages against enslavement of African Americans who constituted fully one-third of the southern labor force. Indeed, per capita income or real wages should not be calculated without first deflating them by the enslaved workers who received no wages; similarly, with respect to figures on the distribution of wealth. When these measures are taken, much of the alleged high-wage of antebellum times disappears.

The class solidarity of capitalist employers accentuated the harshness of labor policies and consequently the standard of living. Larger cotton firms organized Associated Textile Industries which was financed by membership dues of its constituent firms. It acted as an insurance plan against potential losses when labor strikes occurred.¹⁰⁸ Factory agents also shared the cost of employing detectives to spy on workers who might be considering the formation of unions. Companies coerced workers into voting for political candidates partial to employers' bidding. Town politics was company-dominated. Only seldom did workers succeed in electing officeholders who might press municipal or state governments to require more healthful conditions in the mills. As a result, textile corporations "rapidly became extractive industries, deriving profit from labor with declining recompense and shrinking investment."¹⁰⁹ Mining the workers became a hallmark of this as well as many other industries, and contributed mightily to the deterioration of workers' standards of living.

SUMMARY

Four statistical measures are conventionally used to ascertain standards of living. Each is greatly deficient. Per capita output expresses total output divided by a population. It does not, however, express the number of persons who *consumed* the product or service being measured. Productivity refers to output per worker per hour,

but it does not distinguish between the worker's and the employer's share of productivity for wages or profits. Real wages refer only to employed workers; unemployed workers receive no wages but this fact is not factored into real wages. Nor does the concept cover enslaved workers or family members who work in a family farm or enterprise. Finally, income statistics are available only for short periods of American economic history. Statistics for wealth, which is much more concentrated than income, are available for even shorter periods and more intermittently.

Standards of living are examined in this chapter in three sectors: (1) the world of work, (2) home conditions, and (3) biological standard of living. The world of work includes long working hours, between 12-14 hours, six days a week; labor intensification, unhealthful workplace environment, and occupational accidents and illnesses. Child labor was extensively used. Employers might urge and require great speed, but they carefully avoided accepting legal liability for resulting accidents. Company-built housing in Lowell and elsewhere was not substantial and rents rose along with immigration and in-migration from the countryside. Public facilities for waste and potable water were inferior in working-class districts of cities. Unemployment grew during economic depressions and declines in real wages were not unknown. Urban epidemics killed thousands of poor and workers.

The biological standard of living was declining during this period. Life expectancy fell and stature (height) dropped. One historian refers to the "immiseration" affecting industrial workers during these years. Growing inequality of wealth and income further aggravated the health status of workers. Out of nine industrialized capitalist countries, the United States experienced the longest decline in stature – sixty years. Children of enslaved workers suffered the greatest decline. In one industrialized city after another, public health was weakened. Overcrowded housing created seriously unhealthful conditions. Infant mortality rates in the U.S. rose while similar rates in Europe fell.

NOTES

1. See Gloria L. Main in Robert E. Gallman and John J. Wallis, eds., *American Economic Growth and Standards of Living Before the Civil War* (University of Chicago Press, 1992), p. 261. See also above, Chapter 2, p. 10 and Chapter 2, endnote 42.

2. John M. Cudd, *The Chicopee Manufacturing Company 1823-1915* (Scholarly Resources, 1974), pp. 1-52.
3. *Ibid.*, p. 5.
4. Anthony F.C. Wallace, *Rockdale. The Growth of an American Village in the Early Industrial Revolution* (Norton, 1980), p. 183.
5. Dora L. Costa and Richard H. Steckel, "Long-Term Trends in Health, Welfare, and Economic Growth in the United States," p. 59 in Richard H. Steckel and Roderick Floud, eds., *Health and Welfare during Industrialization* (University of Chicago Press, 1997).
6. Lawrence F. Gross, *The Course of Industrial Decline. The Boott Cotton Mills of Lowell, Massachusetts, 1835-1955* (Johns Hopkins University Press, 1993), p. 61.
7. W. Keith C. Morgan and Anthony Seaton, *Occupational Lung Diseases*, third edition (W.B. Saunders Co., 1995), pp. 494 and 504.
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9. Wallace, *Rockdale*, p. 181.
10. Gross, *The Course of Industrial Decline*, p. 12.
11. Main in Gallman and Wallis, *American Economic Growth*, p. 262.
12. John Komlos, "Shrinking in a Growing Economy? The Mystery of Physical Stature during the Industrial Revolution," *Journal of Economic History*, 58 (September 1998), p. 791.
13. Caroline F. Ware, *The Early New England Cotton Manufacture. A Study in Industrial Beginnings* (Houghton Mifflin, 1931), p. 113.
14. See Peter L. Schnall and others, "Job Strain and Cardiovascular Disease," *Annual Review of Public Health*, 15 (1994), p. 392.
15. Ware, *The Early New England Cotton Manufacture*, p. 83.
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18. Margaret Coleman, *Low Wages, Labor Shortage, Wage and Labor Structures, and Poverty: 1810-1840, in the Northeastern United States* (doctoral dissertation, New School for Social Research, 1996), p. 78.
19. Robert A. Margo, "Wages and Prices during the Antebellum

Period: A Survey and New Evidence,” p. 190 in Gallman and Wallis, *American Economic Growth*.

20. Lorena S. Walsh, “Consumer Behavior, Diet, and the Standard of Living in Late Colonial and Early Antebellum America, 1770-1840,” p. 252 in *ibid.*

21. *Ibid.*, p. 218..

22. Wallace, *Rockdale*, pp. 46-47.

23. Edward Pessen, “How Different from Each Other Were the Antebellum North and South,” *American Historical Review*, 85 (1980), p. 1142.

24. Broadus Mitchell, *William Gregg. Factory Master of the Old South* (University of North Carolina Press, 1928, repr. 1966), p. 107.

25. Robert W. Fogel and others, “Secular Changes in American and British Stature and Nutrition,” *Journal of Interdisciplinary History*, 14 (Autumn 1983), p. 476.

26. Robert W. Fogel, *Without Consent or Contract* (), p. 111.

27. Komlos, “Shrinking in a Growing Economy,” p. 790.

28. *Ibid.*, p. 788.

29. See Jonathan B. Pritchett and Susan Tunali, “Strangers’ Disease: Determinants of Yellow Fever Mortality during the New Orleans Epidemic of 1853,” *Explorations in Economic History* 32 (1995), 517-539.

30. James D. Richardson, ed., *A Compilation of the Messages and Papers of the Presidents 1789-1908*, vol. 5 (Bureau of National Literature and Art, 1908), pp. 207 and 273.

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field are John Komlos, "Shrinking in a Growing Economy," pp. 779-802 and Steckel, "Strategic Ideas in the Rise of the New Anthropometric History and the Implications for Interdisciplinary Research," *Journal of Economic History*, 58 (September 1998) pp. 803-821. A comparative study of the United States and eight other countries is Richard H. Steckel and Roderick Floud, eds., *Health and Welfare during Industrialization* (University of Chicago Press, 1997).

35. Costa and Steckel, "Long-Term Trends," p. 51.

36. Clayne L. Pope, "Adult Mortality in America before 1900. A View from Family Histories," pp. 277-278 in Claudia Goldin and Hugh Rockoff, eds., *Strategic Factors in Nineteenth Century American Economic History. A Volume to Honor Robert W. Fogel* (University of Chicago Press, 1992).

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38. Robert W. Fogel, "Nutrition and the Decline in Mortality since 1700: Some Preliminary Findings," p. 498 in Stanley L. Engerman and Robert E. Gallman, eds., *Long-Term Factors in American Economic Growth* (University of Chicago Press, 1986).

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40. John H. Coatsworth, "Welfare," *American Historical Review*, 101 (February 1996), p. 4.

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42. Coleman, *Low Wages*, p. 174.

43. Steckel and Floud, *Health and Welfare during Industrialization*, p. 8.

44. Komlos, "On the Significance of Anthropometric History," p. 217.

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46. Costa and Steckel, "Long-Term Trends," p. 61.

47. Steckel and Floud, *Health and Welfare during Industrialization*, p. 430.

48. *Ibid.*, p. 435.

49. Richard H. Steckel, "Stature and Living Standards in the United States," pp. 291-292.

50. *Ibid.*, p. 299.

51. Claudia Goldin and Robert A. Margo, "The Poor at Birth: Birth Weights and Infant Mortality at Philadelphia's Almshouse Hospital, 1848-1873," *Explorations in Economic History*, 26 (1989), p. 362.

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56. Lee Soltow, "Inequality in the Standard of Living in the United States, 1798-1875," p. 122 in Gallman and Wallis, *American Economic Growth*.

57. *Ibid.*, p. 131. See also Pope, p. 67 in *ibid.*

58. Fogel, *Without Consent or Contract*, p. 111.

59. Gross, *The Course of Industrial Decline*, p. 71.

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61. *Ibid.*, p. 68.

62. Fogel, "Nutrition and the Decline in Mortality since 1700: Some Preliminary Findings," p. 442 in Gallman and Wallis, *American Economic Growth*.

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74. *Ibid.*, pp. 530-531.

75. J.T. Gilman, "Replies to Circular Letter," *ibid.*, p. 452.

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77. *Ibid.*, p. 457.

78. *Ibid.*

79. Isaac Parrish, "Report on the Sanitary Condition of Philadelphia," *ibid.*, p. 462.

80. *Ibid.*, p. 467.

81. Curtis, "Public Hygiene of Massachusetts," p. 520.

82. *Ibid.*, p. 531.

83. James Wynne, "Sanitary Report of Baltimore," *ibid.*, p. 568.

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85. *Ibid.*, p. 572.

86. L.P. Yandell, "Letter on the Condition of Louisville, Kentucky," *ibid.*, p. 614.

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89. Charles P. Gage, "Sanitary Report of Concord, N.H.," *ibid.*, p. 446; and Wynne, "Sanitary Report of Baltimore," p. 558.

90. Yandell, "Letter on the Condition of Louisville, Kentucky," p. 614

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91. Wynne, "Sanitary Report of Baltimore," *ibid.*, pp. 557 and 561.

92. Curtis, "Public Hygiene of Massachusetts," *ibid.*, p. 519.

93. Gilman, "Replies to Circular Letter," *ibid.*, p. 452.

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99. *Ibid.*, p. 95.

100. *Ibid.*

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102. Edward Jarvis, "Sanitary Condition of Massachusetts and New England," *ibid.*, 3 (1850), p. 265.

103. *Ibid.*, p. 266.

104. See *ibid.*, p. 253 and 262.

105. Coleman, *Low Wages*, pp. 153-154.

106. See Timothy J. Gilfoyle, *City of Eros. New York City. Prostitution, and the Commercialization of Sex, 1790-1920* (Norton, 1992).

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108. See Cudd, *The Chicopee Manufacturing Company*, p. 213 and

Gross, *The Course of Industrial Decline*, p. 86.

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