



FUNCTIONAL

THE UNEXPECTED
BENEFITS OF
WASTING TIME
AND MONEY

INEFFICIENCY

PETER S. WENZ

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*This book is dedicated to the memory of Joyce,
and to Lola,
the great granddaughter whom she knew too briefly.*

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INTRODUCTION

HOW INEFFICIENCY CAN BE BENEFICIAL

How can inefficiency be beneficial? Contemporary Americans value efficiency. We assume that efficiency is a good thing, and we take inefficiency to be dysfunctional. In this book I explain how problems of unemployment stemming from increasingly efficient uses of labor lead us nevertheless to tolerate certain inefficiencies that serve the function or are meant to serve the function of reducing unemployment. I identify six categories of social practices that address or are meant to address unemployment, investigating efficiencies and inefficiencies associated with each category, and suggesting ways to promote American economic growth and job creation within environmental limits with less inefficiency. I use four criteria to evaluate each category and its component practices. Do the practices in the category actually reduce unemployment? Do they embody efficiency or inefficiency? Are they environmentally sustainable? And is adoption of the practices culturally acceptable and politically feasible in the current American context? I conclude that *the American economy can grow indefinitely and create an unlimited number of jobs within environmental limits while many inefficiencies that impair human welfare are eliminated*. But to keep unemployment at acceptably low levels, some forms of inefficiency must remain.

The First Opium War (1840–1842) between Britain and China illustrates how, under conditions of increasing labor efficiency, inefficiency can function to forestall or reduce unemployment. In 1839 Chinese Commissioner Lin Tse-hsu addressed an open letter to the young Queen Victoria of England. His concern was that smugglers using British ships were supplying opium to the people of China, resulting in massive addiction. His complaint will sound familiar to twenty-first century Americans concerned about cocaine from Columbia and heroin from Afghanistan.

Commissioner Lin assumed incorrectly that opium was illegal in England, but he was certainly correct about the drug's baleful influence. Opium consumption slows the heart and general metabolism, causes irregularity of basic bodily functions, and leads to loss of body weight. Worst of all, it's addictive, becoming as necessary to the addict as food or water. Withdrawal symptoms are severe, including “extreme restlessness, chills, hot flushes, sneezing, sweating, salivation, running nose..., nausea, vomiting, and diarrhea. There are severe cramps in the abdomen, legs, and back; the bones ache; the muscles twitch; and the nerves are on edge. Every symptom is in combat with another. The addict is hungry, but he cannot eat; he is sleepy, but he cannot sleep.”¹ Most addicts will lie, cheat, steal, ignore work and family obligations, and violate all other moral norms essential to society's peace and prosperity just to get another dose. It's hard to imagine a more baleful use of resources than to promote such an addiction. This is why Commissioner Lin assumed opium consumption to be illegal in England.

“We are of the opinion,” Lin wrote, “that this poisonous article is clandestinely manufactured by artful and depraved people of various tribes under the dominion of your honorable nation. Doubtless you, the honorable sovereign of that nation, have not commanded the manufacture and sale of it. (This was true. The queen had not commanded the manufacture and sale of opium, but neither had she effectively prohibited it.) Lin continued, “To manufacture and sell it, and with it to seduce the simple folk of this land, is to seek one's own livelihood by exposing others to death, to seek one's own advantage by another man's injury. Such acts are bitterly abhorrent to the nature of man and are utter

opposed to the ways of heaven.”² Commissioner Lin then appealed to the Golden Rule,

Let us suppose that foreigners came from another country, and brought opium into England, and seduced the people of your country to smoke it. Would not you, the sovereign of the said country, look upon such a procedure with anger, and in your just indignation endeavor to get rid of it? Now we have always heard that Your Highness possesses a most kind and benevolent heart. Surely then you are incapable of doing or causing to be done unto another that which you should not wish another to do unto you.³

The commissioner recommended that Queen Victoria destroy the poppy fields and punish manufacturers of opium. His letter, which probably never reached the queen, was intended to solicit cooperation regarding illegal opium traffic, thereby reducing tensions between the two countries and averting war.

For his part, the commissioner was determined to catch and punish those who tried to smuggle opium into China. He had been sent by the Chinese emperor to Canton, the main locus of legitimate trade between China and the rest of the world, to eradicate the illegal traffic. He knew that ships anchored offshore contained huge amounts of opium and demanded that this contraband cargo be given to him for destruction. He wouldn't accept the word of British and American sea captains that they would abandon efforts to move the heroin to the mainland. When the cargo was not turned over to him, he confined all the foreign merchants in Canton's factory district (the area of foreign trading) denying them some of the comforts of life for forty-seven days until they finally relented.

The merchants who owned the opium complained that the seizure of their property was illegal and demanded compensation from the Chinese or from their own governments. But Commissioner Lin didn't think he owed them anything, any more than current drug enforcement agencies feel obligated to compensate manufacturers and smugglers when they confiscate and destroy illegal drugs.

While all of this was taking place, British naval officers in the area appealed to England to send warships, which arrived the following year. The British were determined to force the Chinese to allow free trade along the Chinese coast. Against international trading rules then and now, the British had no intention of interfering with the illegal opium traffic because that traffic helped Britain sell the enormous quantities of cotton goods that were then pouring out of the recently mechanized and increasingly efficient mills in Lancashire.

The nineteenth-century conflict between Britain and China over opium may be the first indication in history that *labor efficiency often provokes countervailing inefficiency*. Cotton textiles were the foundation of early British industrialization and remained its backbone until about 1840. Textiles are important in every society because there's always a market; everyone needs at least one set of clothing. English manufacturers started to meet this demand in novel ways with James Hargreaves' invention of the spinning jenny in about 1764, which mechanically drew out and twisted fibers into threads. Around the same time, carding and combing machines were developed to prepare thread for spinning. In 1769, Richard Arkwright added nonhuman power to the process by developing a water-powered spinning machine. Cotton worked better in these new machines than either wool or linen, which is why the revolution in textiles was initially confined to cotton. Even in cotton, however, weaving was still done by human power until, after some unsuccessful attempts, power looms took over in Manchester, the center of textile manufacture in England, in the first two decades of the nineteenth century.⁴

Increases in productivity were astounding. Already by 1800, before large-scale introduction of power looms, the production of cotton cloth had increased eight fold over what it had been just twenty years earlier.⁵ In spinning, one English worker in 1812 could equal the output of two hundred people in 1770. In weaving, “by 1833, one worker with a child helper could operate four looms that could

produce twenty times the output of one hand-loom weaver.”⁶ Power looms soon replaced hand looms

As the labor efficiency of production improved, prices declined and demand for inexpensive cotton goods increased at home and abroad. Formerly, India had exported cotton goods to Britain because cotton is native to India and Indians were masters of cotton textile manufacture. As late as 1813, India was still exporting £2 million of cotton goods to Britain, whereas by 1830 the same value of cotton goods was imported by India from Britain.⁷ Historian Jack Beeching explains,

By applying steam power to textile manufacture, and filling their mills with little children who worked until they dropped, Lancashire manufacturers had managed...to produce cotton cloth so cheap and yet so good that a native craftsman depending on his spinning wheel and hand loom could hardly hope to compete.... British textiles poured into India. The 30,000 looms that had woven the famous Cashmere shawls were slowly reduced to 6,000 and the weavers made destitute.⁸

At first, because cotton doesn't grow in Britain, the British increased the amount of cotton imported from India. But it was soon much cheaper to import cotton from places closer to home, such as Surinam, Demarara, Berbice, Grenada, St. Lucia, and the southern United States.⁹ This created a problem. British manufacturers depended on exporting their finished textiles to India and elsewhere to keep their factories operating profitably. “By the 1830s, three fourths of British exports were textiles and clothing.”¹⁰ But the Indians had just lost a major source of their own earning power owing to reduced exports of raw cotton and cotton textiles to Britain. Where were the Indians to get the money they needed to continue to pay for the extraordinary output of Britain's Lancashire mills?

India needed to create a demand for something else it produced, and Britain was ready to help because profits in textiles hung in the balance. “This explains,” historian Tan Chung writes, “why the [British] Indian interests were bent on increasing Indian exports to China to an excess over Britain's demand for China's goods.”¹¹ Why China? China was attractive to Indian and other exporters for some of the same reasons that the United States is an attractive market today. China had then, as it has now, a significant percentage of the world's population and, before 1860 or so, it was among the world's wealthiest societies.¹²

However, the Chinese felt little need to import goods from India or elsewhere, because they were satisfied with their own products. When King George III tried to improve commercial ties with China in 1793, the ageing Emperor Ch'ien Lung replied to the King's letter,

Our ways have no resemblance to yours, and even were your envoy competent to acquire some rudiments of them, he could not transplant them to your barbarous land.... Strange and costly objects do not interest me. As your Ambassador can see for himself, we possess all things. I set no value on strange objects and ingenious [devices], and have no use for your country's manufactures.¹³

A generation later the British found an item that was not produced in China and that the Chinese would find attractive enough to buy from India: opium. Efforts to sell other goods were still unsuccessful. In 1832, the East India Company sent a ship to China with two hundred sample bales of textiles and lost £5,647, whereas that same year a ship selling opium in Amoy, Foochow, and Ch'uan-chou Bay China came back with \$330,000 in silver.¹⁴ “As a result [of Indian sales of opium to China] silver began to flow from China to India as her payment for Indian goods. Indian revenues grew and were replenished in this process.”¹⁵ This gave India silver that it could use to pay for British goods, including textiles. Thus, a harmful practice, which we will see below is reasonably called “fundamentally inefficient,” was highly functional; it helped to maintain profits and forestall unemployment in England's increasingly labor-efficient textile industry.



This episode in history would have little current significance except that it illustrates a phenomenon of enormous importance today—inefficiency often counterbalances efficiency. Inefficiency (of one sort) maintains employment when efficiency (of another sort) throws people out of work.

Efficiency is a matter of inputs and outputs; the greater the desired output from a given quantity of necessary inputs, the more efficient the operation. So, there are many types of efficiency corresponding to different inputs and outputs. Fuel efficiency in cars, for example, measures how many miles the car will go (desired output) per gallon of gas (needed input). A common measure of efficiency uses human labor hours as inputs and desired product as output. For example, people often say that American agriculture is the most efficient in the world because it takes the full-time work of less than two percent of the American population (input) to grow enough food to feed the nation (output). This is labor efficiency. Other countries use a larger percentage of their populations to grow enough food for everyone, so their agriculture is considered less efficient on this measure. However, labor hours are not the only reasonable input. Because fresh water is in short supply worldwide and necessary to grow crops, it's reasonable to measure agricultural efficiency with water as the input and crops as the output. On this measure of efficiency, water efficiency, some Israeli agriculture is more efficient than most American agriculture. Another plausible measure of agricultural efficiency emphasizes the importance of arable land because it, too, is in short supply: the more food that results from an acre of land, the more efficient the agriculture. On this accounting, some labor-intensive (less labor-efficient) agricultural methods in other countries are often more efficient than America's more labor-efficient techniques.

Judgments of efficiency are inherently comparative, although the comparison is often implicit. A car that gets 45 mpg is considered fuel efficient because most cars get much less. If most cars got 85 mpg it wouldn't be considered fuel efficient. As we'll see in [chapter 7](#), the American healthcare system is very inefficient, a judgment based on the fact that other advanced industrial countries get better health outcomes with much less per capita spending on healthcare.

Labor efficiency, one of the most important types of efficiency in the modern world, is both a blessing and a curse. The curse is *unemployment created by increasingly efficient uses of human labor hours.* Because labor-efficient productivity allows fewer workers to produce the same product, many workers are thrown out of work when there is insufficient demand for an increased supply of the product. For example, if automated production methods enable a soda-bottling company to use only one third the number of workers to bottle the same amount of soda, all workers could be retained if the company had customers for three times as much soda as it was selling previously. In most cases, however, although demand may increase somewhat owing to the lower price of the more efficiently produced soda, demand is not likely to triple. Keeping all workers on the job would therefore result in overproduction. Unemployment stems from increased labor efficiency because overproduction results in unsold product and financial loss.

This was evident early in the Industrial Revolution as skilled workers, displaced by increasingly efficient manufacturing processes in the textile industry, tried in vain to retain their jobs by smashing machines used to improve labor efficiency. Richard Hargreaves's original spinning jenny was destroyed in 1767, and its newer version was destroyed in 1769. In Normandy, France, writes historian William Rosen, there were dozens of such incidents in 1789 alone: "In July, hundreds of spinning jennys were destroyed, along with a French version of Arkwright's water frame. In October, an attorney in Rouen applauded the destruction of 'the machines used in cotton-spinning that have deprived many workers of their jobs.'"¹⁶

The most notorious machinery-destroying rebellion was at its height in 1811 and 1812 in England. In March 1811, weavers of stockings began smashing efficiency-improving stocking frames, a practice that they continued for weeks. After a summer lull they resumed in the fall, by which time

they had destroyed almost one thousand of the twenty-five thousand to twenty-nine thousand such machines in Nottingham, Leicestershire, and Derbyshire. Their commander used the name Ned Ludd in honor of a young stocking maker, Ned Ludham, who had earlier smashed a stocking frame in Leicester. By December 1811, these Luddites were smashing both weaving and spinning machinery. In 1812, the Crown deployed twelve thousand troops to put down the rebellion. Rosen concludes, “The Luddite rebellion failed for the most obvious reason: an enormous disparity in military power.” In addition, “the Luddite idea lost the historical battle—‘Luddite’ is not, in most of the contemporary world, used as anything but an insult.” The Luddite idea lost because their opponents had economic power on their side. The opponents “produced more wealth, not just for individuals, but for an entire nation.”¹⁸

Increased labor efficiency won the day because it generally improved the lives of people by increasing material wealth. This is the blessing of labor efficiency. According to economic historian Natalie McPherson, *increased labor efficiency—fewer hours of work needed as input for a given product as output—is the cornerstone of our current material prosperity.*

In 1770, the average European farmed from sunrise to sunset six days a week. This individual ate mostly bread and owned one outfit of clothing. If this person was British he was slightly richer: He probably owned a pair of shoes. Travel to the next village was an occasion to remember for a lifetime. People went to bed when the sun went down because oil lamps were expensive and homemade candles and fat lamps were not bright enough to allow much activity at night....

In industrial societies today we work forty-hour weeks. Our modern closets are full of clothes and shoes. We jet to vacations in sunny spots far away. Our homes are full of electric lights, washing machines, refrigerators, soft beds, and chairs. We have personal computers, television sets, and automobiles. The change in the lifestyle of the average person in the United States in the past 250 years is greater than the change in lifestyle in the preceding 2,000 years.... In fact, the standard of living in eighteenth-century England was roughly the same as that in Rome in the first century.¹⁹

McPherson attributes dramatic changes in our material circumstances to astronomical increases in the average worker's economic output. Machines using nonhuman and nonanimal sources of energy now do much of the work that was formerly done by hand, and our competitive economic system rewards continuous innovation, resulting in products that were unimaginable in previous eras, such as televisions and automobiles.

Journalist Adam Davidson puts the matter this way,

Productivity, in and of itself, is a remarkably good thing. Only through productivity growth can the average quality of human life improve. Because of higher agricultural productivity, we don't all have to work in the fields to make enough food to eat. Because of higher industrial productivity, few of us need to work in factories to make the products we use. In theory, productivity growth should help nearly everyone in a society. When one person can grow as much food or make as many car parts as 100 used to, prices should fall, which gives everyone in that society more purchasing power; we all become a little richer.... As workers become more productive, they should be able to demand higher salaries.²⁰

As salaries rise, producers find it profitable to substitute increasingly efficient labor-saving machinery for human labor, because human labor is now more costly. Some people lose their jobs, but the hourly productivity of those who retain their jobs increases again, because these workers are now using more sophisticated machines. This is a virtuous circle of material enrichment. One result, as historian William Rosen notes, is that people are now able to earn more quickly the money they need for basic necessities: “A skilled fourth-century weaver in the city of Constantinople might earn enough by working three hours to purchase a pound of bread; by 1800, it would cost a weaver working in Nottingham at least two. But by 1900, it took less than fifteen minutes to earn enough to buy the loaf; and by 2000, five minutes.”²¹

In sum, people in industrial countries are richer than their ancestors because industrial and related technological developments make people's labor hours more productive than in the past. People have

more powerful tools than ever to appropriate earth's natural resources and alter earth's ecosystems the course of creating products that people need and want. According to mainstream economic thinking, human needs and wants (which economists seldom differentiate from one another) are for all practical purposes infinite, making scarcity a permanent feature of the human condition. Increased labor efficiency helps to reduce this scarcity and thereby improve human wellbeing (welfare, satisfaction, flourishing) through the provision of increased amounts of material wealth.



However, as we'll see in later chapters, increased material wealth doesn't always improve human wellbeing. In societies that are already wealthy as a result of industrialization, increased material riches may leave most people's quality of life unaffected or degraded. Another kind of efficiency, distinct from labor efficiency is needed to discuss this phenomenon—*fundamental efficiency*. Like all other types of efficiency, *fundamental efficiency improves with increases in desired output per unit of needed input, but fundamental efficiency is more inclusive because the needed input is human and natural resources generally, and the output is human wellbeing (satisfaction, happiness, welfare, flourishing)*. Economist William Baxter gets at the concept this way,

The dominant feature of human existence is scarcity—our available resources, our aggregate labors, and our skill in employing both have always been, and will continue for some time to be, inadequate to yield to every man all the tangible and intangible satisfactions he would like to have. Hence, none of those resources, or labors, or skills, should be wasted—that is, employed so as to yield less than they might yield in human satisfactions.²²

For reasons of endemic scarcity, therefore, resources, labors, and skills (all that people have at their disposal to be productive) should be used as efficiently as possible to produce what people need and want in order to improve human satisfaction. The ultimate goal is human satisfaction, not material wealth, because human satisfactions are intangible as well as tangible and because it would make little sense to produce more material wealth if that wealth didn't contribute to human satisfaction (welfare, wellbeing, flourishing). Nobel Prize-winning economist Paul Krugman puts it this way, “Economics is not about wealth—it's about the pursuit of happiness.”²³

In other words, *the ultimate economic goal is human welfare (wellbeing, satisfaction, flourishing)*. The most important kind of efficiency could therefore be called “human-welfare efficiency” or “human-wellbeing efficiency.” However, such terms (besides being long and ugly) may give the impression that such efficiency is just one more kind of efficiency on a par with fuel efficiency, water efficiency, and labor efficiency, whereas what I'm trying to get at is something much more central to all human enterprises, the attempt to get as much human good as possible from expenditures on natural resources and human efforts. Because mainstream economic thinking considers the human good to be fundamental to all human economic activity, I call this kind of efficiency “fundamental efficiency.”

Fundamental efficiency exists to the extent that human and natural resources are used to make the greatest possible contribution to human welfare under the circumstances. The absence of fundamental efficiency is fundamental inefficiency. *Fundamental inefficiency exists to the extent that the use of human and natural resources fails to maximize human wellbeing.* Failure to maximize employment, production, or profit constitutes fundamental inefficiency only insofar as such failure deprives human beings of the greatest flourishing possible under the circumstances.

It's important to avoid confusing fundamental efficiency and inefficiency with functional efficiency and inefficiency, because the two terms “fundamental” and “functional” sound so much alike. *Fundamental* efficiency and inefficiency refer to efficiency and inefficiency as measured by the mo-

inclusive or overall inputs and outputs; the inputs are all of the human and natural resources at human disposal at any given time, and the output is human welfare or flourishing. Other types of efficiency concern more limited categories of inputs and outputs, such as fuel as input and miles traveled as output, or hours worked as input and cars produced as output. *Functional efficiency and inefficiency* by contrast, don't refer to a type of efficiency as indicated by certain inputs and outputs. Instead, they refer in the present work exclusively to the roles that efficiency and inefficiency play in reducing unemployment. Both efficiency and inefficiency can be functional in this sense. In some circumstances, efficiency can reduce unemployment; in other circumstances, inefficiency can reduce unemployment. I am concerned about the functionality in this sense of both fundamental efficiency and fundamental inefficiency.

In the fundamental sense of efficiency, manufacturing and marketing opium, as the British did in China, was inefficient, because opium addiction impairs rather than promotes human flourishing, and there was no overriding good that justified damaging people in this way. Intuitively, it seems that addicting millions of people to opium harms humanity much more than humanity was helped by thousands of people getting to keep their jobs under near slave conditions in mechanized textile factories. Nor, in my view, was the fundamental inefficiency of manufacturing and marketing opium ameliorated by the positive result that Indian consumers got cheaper cotton goods. Surely many alternative uses of human and natural resources available to humanity at the time would have better promoted human flourishing. So the practice of manufacturing and marketing opium was fundamentally inefficient.

This is not to say, however, that it was inefficient in any other sense. The poppies may have been grown with great labor efficiency or with the efficient use of water, meaning that more poppies were produced per hour of labor or liter of water than in most other processes. The poppies may have been transformed into opium with great labor efficiency or energy efficiency, meaning that more opium was produced from the poppies per hour of human labor or unit of nonhuman energy than in most other processes. Nevertheless, from the most inclusive or overall perspective of human welfare, the entire practice was fundamentally inefficient because human and natural resources were used in ways that unnecessarily impaired rather than improved human welfare. Alternative uses of these resources would have resulted in greater human wellbeing. But raising poppies and manufacturing opium in India for sale in China was nonetheless functional in the context of the nineteenth-century because it helped to reduce unemployment in England.

When discussing the efficiency of a practice or process, the context usually suffices to indicate the kind of efficiency at issue, whether labor efficiency, energy efficiency, water efficiency, or fundamental efficiency. For example, if the issue is the efficiency of electricity generation from a certain kind of power plant, the input is fuel and the output is electricity, unless otherwise indicated. Fundamental efficiency—in which the input is all human and natural resources at people's disposal and the output is human flourishing—may or may not be advanced by fuel-efficient electricity generation. The relationship of fuel efficiency or any other kind of efficiency to fundamental efficiency must be established by further discussion.

Fundamental efficiency is the most inclusive measure of efficiency, but as used here it doesn't include all cases and sources of human flourishing. First, limited knowledge about the future makes me reticent to judge what practices or institutions will conduce to human wellbeing thousands, millions, or even hundreds of thousands of years in the future. People today have powers of movement, communication, and productivity that would have been science fiction in past centuries. I can't tell what speculations of current science fiction might become practical realities in the future, or how the employment of new technologies might affect human flourishing. I confine myself for this reason primarily to human practices and welfare in the twenty-first century, with most emphasis on our

current situation and the next generation or two.

Second, although human flourishing concerns all human beings, I concentrate in this work on the United States, using examples drawn from other countries primarily to clarify concepts and make comparisons that may be helpful in addressing the American situation.

* * *

As opium addiction in China illustrates, the problem of unemployment created by increasing labor efficiency sometimes makes fundamental inefficiency functional in an otherwise efficiency-oriented economy. Inefficiency is one way of soaking up efficiency's overproduction. In some respects, the goods and services that humans produce with industrial efficiency are like carbon dioxide, something that's generally good until it's overabundant, at which point it becomes a pollutant; CO₂ threatens to warm the planet, increasing storm activity and inundating coastal cities. There are two general approaches to dealing with overabundant CO₂. We can put less carbon dioxide into the air, such as by burning less fossil fuel, and/or we can improve the environmental sink—that is, increase the ability of the environment to absorb or remove CO₂ from the air, such as by planting more trees than we cut down.

In the case of labor efficiency, the extra goods and services that have not yet found a want they can satisfy are like carbon dioxide in excess. Just as carbon dioxide is good in itself, so, generally speaking, are these goods and services, except when they are overabundant. In excess they are like pollution insofar as they create noxious conditions. They reduce profitability and increase unemployment.

The consequences of overproduction can be drastic. Novelist and journalist James Kunstler blames overproduction resulting from increasing labor efficiency for creating the conditions that resulted in the Great Depression. Farmers started using tractors with internal combustion engines instead of horses in the 1920s. When hitched up to accessory machines such as reapers, seed drills, threshers, diskers, and mowers, the tractors enabled farmers to increase their output, which caused prices of agricultural products to drop because demand had not increased commensurate with supply. At the same time, farmers had more expenses because, lacking horses and their excrement, they had to buy more fertilizer.²⁴ Thus, many farmers became impoverished in the 1920s, and this significantly reduced overall consumer demand because as late as 1930 over 21 percent of the American workforce was engaged in farming.²⁵

In addition, greater efficiency in automobile manufacture, which was the backbone of American prosperity in the 1920s according to Kunstler, also resulted in overproduction. An auto industry survey conducted in 1926 revealed that only one-third of auto dealers were making a profit because the market for cars was saturated. Kunstler writes,

The building boom associated with the new automobile suburbs started fizzling in early 1928.... The huge public expenditure in paving streets and building new highways also reached a kind of natural limit in the late twenties; the basic infrastructure for cars was now in place. The slowdown in car and home sales and in road-building affected suppliers down the line: steel makers, tire makers, glassmakers, lumber companies, cement companies. The makers of small consumer products like waffle irons, having adopted the assembly-line methods of Ford, also ran up against the wall of market saturation. American industry had geared up for rates of production that could not be justified by flattened demand.²⁶

If it can abet a slide toward depression, overproduction is a serious economic problem that cannot be ignored.

Inefficiency is one way, but not the only way, that our society avoids or absorbs the overabundance that results from increasingly labor-efficient methods of production. As we will see, we avoid

overabundance in part by idling workers, such as through incarceration, shorter work weeks, extended educational programs, and early retirement. Some of this idling, besides functioning to reduce unemployment, is fundamentally efficient; it improves human flourishing more than available alternatives. But some is fundamentally inefficient because it unnecessarily degrades human life. In addition, we absorb overproduction, creating sinks for overproduction as if it were a pollutant, in part by meeting some of our needs through inefficient systems, such as inefficient systems of transportation and healthcare. These systems are functional insofar as they combat unemployment but are nevertheless fundamentally inefficient. We also encourage people increasingly to consume goods and services. Some of this consumption is fundamentally efficient and some is not.

Not all inefficiency in our economy functions primarily to forestall or soak up overabundance that leads to unemployment. Many inefficiencies are adopted to increase corporate profits without regard to overabundance or unemployment. The investment company Goldman Sachs, for example, reported to earn additional profit from its aluminum storage business by retaining aluminum storage longer than necessary so it can collect additional storage fees. Because international rules require moving three thousand tons of aluminum per day, Goldman Sachs has the aluminum moved from one warehouse to another in the Detroit area, thereby delaying the delivery of aluminum to manufacturers. This practice cost consumers of products containing aluminum an extra \$5 billion between 2010 and 2013. It generated employment, as workers were needed to move aluminum from one warehouse to another, but the main goal and function was to increase profit for the company, not to reduce unemployment, much less to improve fundamental efficiency, which it clearly degraded.²⁷

Companies sometimes maximize profit at the expense of fundamental efficiency by convincing consumers that their products improve human wellbeing when they really don't. Tobacco companies come to mind in this context. Other inefficiencies may result from companies trying to maximize profit by using campaign contributions to convince politicians to perpetuate monopolies through patent extensions. Pharmaceutical companies may fall into this category. Some companies maximize profits by convincing government officials that the economy functions best when environmental damages are ignored. Campaign contributions by fossil fuel interests may thus promote government policies that are inefficient (when all environmental factors are considered). Still other inefficiencies may result from companies seeking to maximize profit by convincing voters and politicians through public relations efforts and campaign contributions to extend inefficient, government-sponsored projects, such as the production of corn-based ethanol for automotive fuel. In addition, some inefficiencies promoted through campaign contributions may function in part to fulfill the political ambitions of people who want to be or to remain elected officials regardless of the effects on human welfare.

Inefficiencies that serve these purposes may also function to forestall or soak up overabundance and thereby combat unemployment. Because the effect of inefficiency on unemployment is the focus of the present work, I consider in this work inefficiencies primarily insofar as they promote employment or combat unemployment.

One additional word before moving on: functionality is not the same as either intentionality or conscious recognition. My claim is that a great deal of inefficiency in our society serves the function of reducing unemployment. This is not to say that *all* of these inefficiencies were designed intentionally to serve this function, nor is it to say that all inefficient practices are recognized consciously as being inefficient. Consider this: For some people, hitting baseballs serves the function of relieving tension and abating aggression, but this doesn't mean these people hit baseballs intentionally to relieve tension or abate aggression, nor that they even recognize that the practice serves these purposes. Our actions sometimes have results, both welcome and unwelcome, that we don't intend or even recognize.

Mainstream economists look to overall economic growth, not to inefficiency, to lower unemployment in the long run. As the economy grows, more workers are needed and unemployment falls. In addition, because human needs and wants are virtually limitless, economic growth enables more people to have more of the goods and services that they desire. Politicians on all sides compete for votes with alternate means of generating economic growth to create jobs for willing workers and material abundance for society in general.

However, there are two problems with the current economic-growth solution to unemployment. First, it doesn't seem to be working very well. Economist Paul Krugman notes significant deterioration of the unemployment situation between 2007 and 2013. "Back in 2007," he writes, "there were about seven million unemployed Americans—but only a fraction of this total, around 1.2 million, had been out of work more than six months." Five years later, almost 12 million were unemployed, and, worse yet, 4.6 million of them had been jobless for at least six months and more than 3 million were unemployed for a year or more. Because employers tend to shy away from hiring people who have been out of the workforce for more than 6 months or a year, we may be witnessing the creation of a permanent class of jobless Americans."²⁸

In addition to the nearly 12 million Americans who were unemployed in April 2013, another 7 million—3 million more than in 2007—were employed only part-time, even though they wanted full-time jobs. If you add these underemployed workers and those who want to work but have become discouraged that they've stopped looking for work to the officially unemployed, the level of employment shortfall in April 2013 goes from an unemployment rate of 7.6 percent to the discouraging but more realistic rate of 13.8 percent.²⁹

Another way to see the problem is to look at labor force participation, the percentage of people 16 years and older who participate in the workforce. In spite of the "economic recovery" after the Great Recession, as the unemployment rate dropped from 10 percent in October 2009³⁰ to 7.6 percent in April 2013³¹ the rate of labor force participation dropped from 65 percent to 63.4 percent.³² Worse yet, labor force participation declined further between April 2013 and April 2014 even as economic recovery continued. The unemployment rate went from 7.6 percent to 6.3 percent as job growth averaged 190,000 per month. Long-term unemployment dropped by over 900,000. Even so, labor force participation went from 63.4 percent to 62.8 percent. By the end of 2014 the unemployment rate was only 5.6 percent but labor force participation was down yet again, to 62.7 percent.³³ Thus, addressing American unemployment through increased economic growth seems not to be working. The efficient use of human labor may have reached such a point that the economy can't grow fast enough to keep people working and thereby forestall declines in labor force participation.

The second problem with economic growth as a solution to unemployment is that many environmentalists who are as keen as economists to promote human wellbeing find that such growth in advanced industrial societies threatens our physical safety. These environmentalists worry that increased production and consumption of *material goods* jeopardizes human wellbeing in the long run because it degrades the environmental conditions on which human flourishing depends. Christoph Flavin, president of the Worldwatch Institute, explains,

In a physically constrained world, material growth cannot continue indefinitely, and when that growth is exponential...the limits are reached more abruptly and catastrophically than even the best scientists are able to predict. From falling water tables to soaring oil prices and collapsing fisheries, the ecological systems that underpin the global economy are under extraordinary stress.³⁴

Alan Durning of the Worldwatch Institute points out that labor-efficient methods of manufacture and consequent increases in consumption are often particularly environmentally ruinous:

Industrial countries' factories generate most of the world's hazardous chemical wastes.... The fossil fuels that power the consumer society are its most ruinous input. Wrestling coal, oil, and natural gas from the earth permanently disrupts countless habitats; burning them causes an overwhelming share of the world's air pollution; and refining them generates huge quantities of toxic wastes.³⁵

Similarly, labor-efficient fishing techniques deplete fisheries and labor-efficient methods of raising livestock (factory farms) cause air and water pollution. Considerations such as these convince many environmentalists that human wellbeing is best served by curtailing the production of material goods, even if that means curtailing economic growth.³⁶

But that's not realistic; it's way outside the mainstream of American economic and political thought. Can you imagine someone running for president saying that because past economic growth has harmed the environment our country should no longer seek economic growth; that we should no longer cease trying to provide employment for people by growing the economy; that material comforts have reached their limit; that it's only right and proper that the next generation be no more materially comfortable than the present generation? You don't have to be a professional political consultant to know that for now and for the foreseeable future a campaign based on such a no-growth platform would do well only on Comedy Central.

In addition, claims Harvard political economist Benjamin Friedman, societies that favor economic growth promote many commendable habits and values in order to foster that growth: "Thriftiness fosters saving, which enhances our productivity by making capital investment possible. Education likewise increases our individual capabilities as well as our stock of public knowledge."³⁷ Friedman argues also that for the most part since the Civil War periods of economic growth have been characterized by greater openness, tolerance, mobility, fairness, and democracy than periods of economic stagnation. The growth periods of the Horatio Alger era (1865–1880), Progressive era (1895–1919), and Civil Rights era (1945–1973) correspond with what most people consider progress in our political morality, as our society during these periods became more tolerant, inclusive, fair, and democratic. Friedman quotes historian David Potter: "An economic surplus was available to pay the democracy's promissory notes." By contrast, with the exception of the Great Depression, during periods of economic stagnation and consequent economic insecurity, Friedman argues, people moved away from openness, tolerance, mobility, fairness, and democracy, as the Populist era (1880–1895), the Klan era (1920–1929), and the Backlash era (1973–1993) illustrate.³⁸ Friedman finds the same correlation of economic growth with moral progress in other countries as well. Worldwide, "the evidence suggests that economic growth usually fosters democracy and all this entails..., [whereas] the absence of democratic freedoms impedes economic growth, and that the resulting stagnation in turn makes a society even more intolerant and undemocratic."³⁹ So, economic growth is not only politically popular, it may also be necessary for the maintenance and advancement of the highest personal and collective moral standards.

This seems to create a dilemma. The increasing labor efficiency with which human beings manipulate and transform nature into products for human use is both good (it gives us consumer goods, lighter workloads, more varied experiences, and less expensive food, while also fostering higher moral standards) and bad (it causes unemployment and despoils the earth). It seems that industrial people must choose between a future with economic growth, environmental decline, and more unemployment than we would wish, and a future of economic stagnation, environmental stability, and catastrophic levels of unemployment. Either way, it seems that human wellbeing is threatened.

Because the no-growth alternative is politically unacceptable, it seems that we are doomed to environmental decline.

Fortunately, this bleak prospect is not inevitable. Focusing mainly on the United States in the twenty-first century, I hope to show that *our economy can grow indefinitely and provide unlimited numbers of jobs when our infrastructure is altered to be more environmentally friendly and the major growth sectors are in the provision of relatively environmentally benign services*. I am optimistic about our ability to reduce fundamental inefficiency which, by definition, is bad for human beings because it implies that the human and natural resources at our disposal are not being used to promote maximum human satisfaction (wellbeing, welfare, flourishing). *There is no fixed amount of fundamental inefficiency that our society must maintain in order to keep unemployment at bay*. Although I don't think that we in the United States can eliminate such inefficiency entirely (in the twenty-first century, at least), I think we can make choices that reduce such inefficiency. We can start by looking at the practices currently intended or tending to forestall or reduce unemployment to see which among them involve fundamental inefficiency.

* * *

Currently, our society engages in six types of practices that function or are intended to function to reduce unemployment by avoiding and/or offloading overproduction. As we will see in the chapters that follow, fundamental inefficiency is prominent in some of these practices and only marginally present in others.

1. *Manufacture for Export* (chapters [3](#) through [5](#)): Increase exports of efficiently produced goods. This is what the British were doing at the beginning of the Industrial Revolution with the oversupply of textiles that resulted from its increasingly labor-efficient methods of production. They were attempting to sell their textiles around the world, with much more success in India than in China. Today, corn farmers in my state of Illinois are eager to market corn around the world because efficient methods of agriculture have created an oversupply of corn that can lower its price and jeopardize profits.

Generally speaking, international trade tends to increase efficiency, as manufacturers able to meet a human need or want in the most efficient way are likely to prevail in international competition by providing products that give customers the greatest welfare at the lowest cost. However, as the case of opium exports to China illustrates, there is no guarantee that international trade will in every instance improve human wellbeing. There are cases where fundamental inefficiency, trade that's inefficient insofar as human time and effort is not being used to maximize human wellbeing, but the trade is still functional insofar as it soaks up overproduction that results from labor efficiencies in the economy.

2. *Inefficient Systems* (chapters [6](#) and [7](#)): Employ inefficient systems to meet some common needs (a system that requires more goods and services than a clearly available alternate system would require to meet the same human needs), such as a system of personal transportation that relies primarily on automobiles, a system of freight transport that relies primarily on long-haul trucking, and a system of healthcare that contains incentives to provide more care than is often desired, needed, or helpful. These inefficient systems provide many jobs in the automobile industry, in road construction and maintenance, and in healthcare and health insurance that would not exist if the systems were more efficient. So, these systems are functional even though they are inefficient. Their function of providing job opportunities helps to explain their persistence in a society that mostly rewards efficiency.

3. *Consumerism* (chapters [8](#) and [9](#)): Use human time and effort efficiently to produce an increasing quantity and variety of consumer goods and services for which there is effective demand. This is the mainstay of the current pro-economic-growth approach to maintaining full employment. Consumer demand constitutes about 70 percent of our gross domestic product (GDP)⁴⁰ and much of that demand is for radios, computers, cars, phones, toasters, microwaves, television sets, refrigerators, sofas, and a host of other material goods, plus larger houses to store them. We also demand many services, such as hair dressers, party planners, marriage counselors, weight-loss coaches, doctors, lawyers, teachers, and accountants. Insofar as these consumer goods and services improve human wellbeing, all things considered, consumption is efficient as well as job-creating.

However, we will see that our consumption of goods and services takes place in the context of consumerism, which tends to degrade human wellbeing. Consumerism is not the same as consumption, and a consumerist orientation or society is not the same as a society with a lot of consumption and consumer items. *Consumerism exists when consumption is kept high by convincing people that they need to consume ever more goods and services whether or not they can afford them.* This is done in part by getting people to compare their own purchases with those of others and convincing them to associate their self-worth with purchases they would not make except for the induced desire to keep up with the Joneses. Such consumption generally detracts from fundamental efficiency. *Compulsory consumption* is similarly inefficient. This takes place when *purchases by the majority make it socially and/or physically difficult for the minority to refrain from similar purchases.* Cell phones fall into this category, as do many purchases made necessary by our inefficient transportation system. Because consumption patterns in the United States are currently suffused with consumerism and compulsory consumption, much of our consumption does not promote human wellbeing; it's functional but fundamentally inefficient.

In general, a good or service detracts from human wellbeing, making its production and provision inefficient, if:

- a) Used as directed it harms people more than it helps. Many people would put cigarettes, some drugs, and even some medical care in this category;
- b) Its use discourages and thereby reduces consumption of some other good or service that would better promote human wellbeing; or
- c) Its use discourages or otherwise reduces noneconomic activity that would promote human wellbeing better, such as pursuing personal relationships or accomplishments.

4. *Idle Workers* (chapters [2](#) and [10](#)): Withdraw human time and effort from labor-efficient production by idling workers without increasing unemployment. This includes such practices as increased levels of incarceration; denying to convicts employment that competes with free labor; generous family-leave policies with full pay; increased vacation days with full pay; shorter work weeks with full pay; and extended programs of education and training.

If the only basis for human wellbeing were the production of goods and services, all labor-idling practices, because they withdraw human labor power from such productivity, would be inefficient. However, commercial activity is not the only basis for human wellbeing. Commercial activity, according to mainstream economic theory, includes only the production and consumption of (not necessarily material) goods and services that can be sold or traded. The goal of commercial activity is to improve human wellbeing to the greatest extent possible through such pursuits. But most economists recognize that commercial production and consumption are irrelevant to many sources and kinds of human flourishing. Most people who have children, for example, aren't rewarded for their efforts with goods or services that can be traded in the marketplace, notwithstanding the experience of Shirley Temple's family. Prospective paren

nevertheless expect their wellbeing to be improved through the meaning and joy that parenthood brings to their lives. Similarly, a good marriage cannot be sold or traded, but contributes greatly to the wellbeing of the marriage partners. In addition, personal accomplishments, such as learning to play the piano or running a marathon, are meaningful to many people and contribute to their welfare outside of any purely commercial considerations.

- In sum, idling workers without unemployment would be inefficient if the input were human labor hours and the only output was human wellbeing that results from the consumption of tradable goods and services. However, because overall human wellbeing requires activities that do not result in tradable goods and service, idling workers can be fundamentally efficient if the activities of the idled workers improve human wellbeing more than wellbeing could be improved through devotion of the same time and effort to strictly commercial pursuits. For this reason, we will see, some labor-idling practices do not contribute to fundamental inefficiency, but some do.
5. *Public Goods* (chapters [11](#) and [12](#)): Use human labor and natural resources to provide public goods—goods that generally increase human wellbeing but that no individual has an incentive to provide because they must be shared with others. National defense is the classic example, but many environmental and social goods fall into this category as well, including clean air and water and functioning systems of banking and education.

Fundamental efficiency may or may not be improved through work that supplies these public goods. For example, although national defense creates many jobs, blowing things up and killing people may be harmful. In many contexts, therefore, expenditures on national defense can be fundamentally inefficient because they provide jobs without improving human wellbeing. Many other public goods, by contrast, such as education and environmental protection, are more likely to improve human wellbeing, so their production and consumption are more likely to be fundamentally efficient.

6. *Services* ([chapter 13](#)): Many services as well as goods are included in the category of consumerism. However, services that have little direct environmental impact, such as accounting services, legal advice, management consultation, home-decorating tips, personal physical training, educational services, and weight-loss counseling deserve additional attention. They support growth in the economy and improved job prospects without exceeding environmental limits, whether or not their purchase is consumerist. Unlimited growth in the provision of goods by contrast, runs up against environmental limits and therefore cannot be the basis of unlimited economic growth. So long as services meet a consumer demand and promote human wellbeing as well as or better than alternate expenditures of human time and effort, the increasing focus on the provision of services is compatible with fundamental efficiency. Many services meet the criterion of efficiency, but many others do not because they reflect consumerism, which often frustrates human flourishing.

These are not the only ways that our society avoids or soaks up overproduction. Where unions are strong, for example, featherbedding rules embedded in labor contracts enable more people to be employed than the work really demands. Artisanal methods of production, which use more labor hours than industrial methods to produce the same or similar goods, afford employment to Americans catering to some wealthy consumers. Labor-intensive agriculture is like artisanal production in this respect and has the potential of catering to a larger public. However, unlike the six methods outlined above, these three methods of avoiding unemployment are not among the most influential or powerful in our society at this time. Union contracts that allow featherbedding are largely a thing of the past and compared to the market for mass-produced goods of manufacture and agriculture the market for artisanal goods therefore the job-creating potential is small for artisanal goods from workshops and farms.

The six influential categories outlined above are interrelated and overlapping. We've seen already that most services (category 6) are also consumer items (category 3). Our inefficient transportation system (category 2: inefficient systems) promotes consumerism (category 3) insofar as it requires the purchase of more cars than a more efficient transportation system would require. Although many such car purchases may be compulsory, they are nevertheless a form of consumer goods consumption. Such car purchases provide work for people in the mining, oil, automotive, and other industries, which makes our inefficient transportation system functional. Provision of the public good of higher education (category 5: public goods) is related to idling workers (category 4), because many people withdraw from the labor force or voluntarily reduce their work hours to engage in higher education. In addition, the public good of education (category 5) and the systematic inefficiency of our healthcare industry (category 2: inefficient systems) are related to service employment (category 6), because teachers and health insurance employees provide services. In spite of these overlaps and interconnections, I will look at each of these six categories individually, relating them to one another as needed.

* * *

As societies become richer through greater access to industrially produced goods—in other words, they become more like the United States and other advanced industrial countries—they have greater recourse to these six methods of avoiding and/or absorbing overproduction and thereby reducing or at least containing unemployment. But rich societies often differ from one another in their use of these methods. By emphasizing one method of containing unemployment, a society can reduce its reliance on another. For example, western European countries that provide longer vacation and family leave time at full pay idle their workers more than we do in the United States. The United States makes up for its failure to idle workers in these ways by relying more on the job-creating potential of consumerism and of inefficient systems in transportation and healthcare. Another contrast is that Europe makes up for its failure to spend as much as we do on the public good of national defense in part by spending more on some other public goods, including relatively efficient public transportation. Finally, countries differ in their overall use of these six methods of containing unemployment. The lower the total or cumulative use of these six methods in advanced industrial countries, other things being equal, the higher the unemployment. Most European countries may have higher unemployment rates than we have in the United States because their cumulative use of these six methods is less than ours.

The total fundamental inefficiency resulting from the use of these six methods also differs from country to country and from practice to practice. For example, to the extent that human welfare is promoted by additional time devoted to noncommercial as opposed to commercial pursuits, idling workers may not be fundamentally inefficient. Some countries idle workers in this way more than we do, which lowers their total inefficiency in comparison with us. We idle (potential) workers more than other industrial countries through incarceration, which is fundamentally inefficient. Much of our consumerism detracts from human wellbeing, which contributes to greater overall fundamental inefficiency in our society compared to societies with less consumerism. Some public goods, such as education and transportation, clearly improve overall fundamental efficiency in society, but others that provide jobs at public expense may not be fundamentally efficient, such as military expenditures beyond what society genuinely needs to protect itself. On the other hand, basic scientific and technological research that is part of the military budget may improve human welfare in the long run and be to that extent a fundamentally efficient use of time, effort, and resources. Systematic inefficiencies, by contrast, such as those in US transportation and healthcare, are irredeemable.

fundamentally inefficient, but functional at this time nevertheless.

I don't claim that the current level of inefficiency in America is unavoidable. It will change with the choices that we make. I do claim, however, that much of it is functional, and that it persists in part because (most of) it performs the function of providing jobs and containing unemployment. It has provided this function for a long time and, environmental limits aside, could continue to do so indefinitely. It's not a phase in the development of our society that will inevitably be overcome. There is no automatic tendency within our free market system to extrude such inefficiency; people are used to it, and so long as it functions to contain unemployment, much of it remains politically popular.

Again, this doesn't mean that such inefficiency is good, all things considered. By definition, what we have identified as fundamental inefficiencies are uses of time, effort, and resources that fail to promote human wellbeing as well as available alternatives. In addition, there are environmental limits to some of our inefficient practices. Recognition of these limits is already provoking rules on international trade that will constrain our use of fossil fuels, for example, and this will reduce the practicality of our fossil-fuel intensive inefficient transportation system. It's therefore reasonable to investigate the inefficiencies in our use of the six methods of containing unemployment. We should try to eliminate as much fundamental inefficiency as possible while retaining as much of the sum total of the six unemployment-reducing practices as is necessary to keep unemployment at acceptably low levels.

In this book I evaluate these six methods and their specific implementations on the basis of the four criteria mentioned at the start: *efficiency/inefficiency, job-creating potential, environmental sustainability, and political acceptability*. The goal is to find politically acceptable alternatives to current job-sustaining inefficiencies, alternatives that will allow the economy to grow, employment to expand, and humans to flourish within environmental limits. I believe that our economy can grow indefinitely and thereby supply an unending variety of good jobs in environment-friendly service employment. I believe also that we can eliminate much of the fundamental inefficiency that currently functions to forestall or reduce unemployment. But I don't believe that we can in the foreseeable future eliminate all fundamental inefficiency in our society. Some fundamental inefficiency is too important in the fight against unemployment and too popular in our culture to make its complete elimination politically acceptable.

IDLING WORKERS I

CONVICTS AND WOMEN

One way of reducing unemployment is to idle workers. The modern problem of unemployment results primarily from the increased productive capacity of most workers. With most workers producing more, more goods and services become available for sale. But there is often insufficient demand for this increased volume of goods and services, so some people are thrown out of work (become unemployed). If more workers are idled (become unproductive because they're not working or less productive because they're working less) the volume of goods and services may be reduced sufficiently so that there is enough demand for the work products of all who want to work. Unemployment can thus be reduced.

This may seem paradoxical, because unemployment is one way of idling workers; people are idled (in their capacity as workers) when they are unemployed. How can idling workers be one of the book's six strategies for soaking up our increased productive capacity in order to contain or reduce unemployment when unemployment is itself one way of idling workers? If idling workers is desirable, why object to unemployment in the first place?

The answer is that unemployment is much worse for human wellbeing than most other forms of worker idling, such as a shorter workday, a shorter work week, or more vacation days. President Franklin Roosevelt said in one of his "Fireside Chat" broadcasts in 1934,

"Demoralization caused by vast unemployment is our greatest extravagance. Morally, it is the greatest menace to our social order."¹ Economist Joseph Stiglitz agrees; social order is disrupted by unemployment. "Those without jobs lose a sense of worth; they are more likely to get divorced; their children are more likely to have their education interrupted."² Sociologist James Russell explains these phenomena by noting that unemployment tends to induce a state of anomie, "a condition that results from loss of reference points in life."³ Most people thrive when they have predictable routines. Unemployment disrupts reference points that structure such routines, leaving a majority of the unemployed in a state of stressful uncertainty.

As unemployment increases, people who still have work fear for their jobs, while unemployed people are plagued by uncertainty about the duration of their unemployment, about the financial impact of reduced income during unemployment, about the type of job they will get next, about the location of that job, and about how much income they will eventually be able to earn. Such fear, uncertainty, and stress, combined with a sense of being helpless and unworthy, reduces the overall wellbeing of those who are unemployed.

DW Gibson provides several illustrations in *Not Working: People Talk about Losing a Job and Finding Their Way in Today's Changing Economy*. Wendy, for example, is a bright thirty-three-year-old woman with a master's in Arts Management who worked in Omaha as a fundraiser for a museum. In September 2008, after she had worked there for two-and-a-half years, the museum hired an executive consultant to help them deal with reduced revenue stemming from donors no longer fulfilling their pledges because the donors were themselves losing funding. It was the start of the Great Recession. Ultimately, Wendy told Gibson, "We went from a staff of 79 to 40."

Over the course of four months, it was like walking on eggshells every day, and you never knew who it was gonna be. Job

security didn't exist anymore. It lasted so long—it was so belabored. It was just that feeling, you know, a constant...in the pit of your stomach...it's just like “I don't know what to do, I don't know if I should be looking for another job because I really like this job, but any minute this job could go away.”⁴

Wendy was finally “let go” on January 8, 2010. During the following eight months, she had several interviews but no job offers. She thought,

I must have done something wrong...it's my fault.

I believe it doesn't matter how confident you are, how old you are, what class you're in, when you get laid off, that's going to get into your mind, at some point. Even if it's only for five seconds, there will be a moment of...it's my fault.⁵

By September 2010 she was so financially stressed that she moved in with her parents. But she soon got another job in her field, which made her ecstatic. However, several months later her new employer experienced the same financial problems as her old employer and she again joined the ranks of the unemployed. Wendy told Gibson,

I have all of these things in my head like what did I do wrong, how did I fail? In my mind, I'm like, panicking. Like, “No. You're wrong. You're wrong. You've got the wrong person.” Or “this isn't the position you want to cut, because I'm doing this, this and this....”

And I thought, “God, I have to start telling people, and what am I going to say?” And they're going to say, “Again? Again you lost your job?” I was ashamed, and I was sad, and I was humiliated. I remember I was crying and crying and crying and crying to my parents, and then I just kept saying, “I am so embarrassed. I am so embarrassed....”

And then I stayed in bed the following week. I got really, really sad.... And those were the days that I was humiliated and really just felt like a loser.⁶

Such devastation is common among the unemployed. Economist Richard Layard finds that unemployment reduces average happiness more than divorce and has three times the negative effect on happiness as a one-third reduction in family income.⁷ Layard explains,

Some people think that the main evil is not unemployment but nonemployment. In other words, it is as bad to be “out of the labour force” and not looking for work as to be unemployed: you are not looking for work because you are discouraged. The data totally refute this. Moves between work and being “out of the labour force” involve much smaller changes in happiness than moves between work and unemployment.⁸

The German study on which Layard relies shows that overall satisfaction fell for employed men from 7.4 to 7.1 on a 10-point scale between 1984 and 1989, and that average satisfaction levels for men out of the labor force were one-half point lower than those for men who were employed. But the unemployed scored between 1.5 and 2.0 points lower than the employed on that scale. In other words, the gap between the satisfaction of the employed and the unemployed was three to four times the gap in satisfaction between the employed and those who were voluntarily out of the labor force—“discouraged workers.” The study concludes that “the adverse effect of unemployment is much stronger than the effect of nonparticipation.”⁹

Layard found also that unemployment “hurts as much after one or two years of unemployment as it does at the beginning. In that sense you do not habituate to it.... And even when you are back at work you still feel its effects as a psychological scar.”¹⁰

The negative effects of unemployment are physical as well as psychological. Medical indicators of reduced wellbeing among the unemployed include increases in: suicides, strokes, heart and renal disease, deaths from cardiovascular and renal disease, deaths from cirrhosis of the liver, hospital admissions, state prison admissions, and homicides.¹¹ Increased unemployment between 2008 and 2010 during the Great Recession coincided with increased suicides in the United States, Benedi

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