



DEATHS OF DESPAIR

AND THE FUTURE OF CAPITALISM

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Deaths of Despair and the Future of Capitalism

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P R E F A C E

In *The Great Escape*, published in 2013, one of us told a positive story about human progress over the last two hundred and fifty years. The story there was one of previously unimaginable material progress, a decline in poverty and deprivation, and extensions in the length of human life. The generation and application of useful knowledge made this progress possible. A star of the show was capitalism, which freed millions from dire poverty, supported by the positive forces of globalization. Democracy spread around the planet, allowing more and more people to participate in shaping their communities and societies.

This book is much less upbeat. It documents despair and death, it critiques aspects of capitalism, and it questions how globalization and technical change are working in America today. Yet we remain optimistic. We believe in capitalism, and we continue to believe that globalization and technical change can be managed to the general benefit. Capitalism does not have to work as it does in America today. It does not need to be abolished, but it should be redirected to work in the public interest. Free market competition can do many things, but there are also many areas where it cannot work well, including in the provision of healthcare, the exorbitant cost of which is doing immense harm to the health and wellbeing of America. If governments are unwilling to exercise compulsion over health insurance and to take the power to control costs—as other rich countries have done—tragedies are inevitable. Deaths of despair have much to do with the failure—the unique failure—of America to learn this lesson.

There have been previous periods when capitalism failed most people, as the Industrial Revolution got under way at the beginning of the nineteenth century, and again after the Great Depression. But the beast

was tamed, not slain, and it brought the great benefits laid out in *The Great Escape*. If we can get the policies right, we can ensure that what is happening today is not a prelude to another great disaster but rather a temporary setback from which we can return to rising prosperity and better health. We hope this book, while not as heartening as *The Great Escape*, will help put us back on track to make the progress in this century that we have generally made in the past. The future of capitalism should be a future of hope and not of despair.

We have written the book so that it can be read without consulting the notes at the end or, for our audio listeners, without looking at the figures. The text is self-contained and the figures are described in sufficient detail to make the argument comprehensible without them. We use endnotes for two purposes. The vast majority are citations that provide data for or document the point we are making. In a few cases, endnotes are used to expand on more technical material that academic readers might wish to check. They are not necessary to our story.

Our account of despair was often distressing to write, and it will be distressing to some readers. For people who are suffering from the depression or addictions that we describe, there is help available. If you are having thoughts of suicide, call the National Suicide Prevention Lifeline at 1-800-273-8255 (TALK). You can find a list of additional resources at SpeakingOfSuicide.com/resources. If you, someone in your family, or someone you know is suffering from addiction to drugs or alcohol, talking to a trusted family doctor or spiritual adviser is a good first step. We also recommend Alcoholics Anonymous (aa.org) and Al-Anon (al-anon.org), the latter of which works with family members of those affected. These organizations have meetings in most places in the US and around the world, providing help for many as well as an effective support community that is welcoming and that presents no risk. Their websites are set up to help find local groups.

Anne Case and Angus Deaton
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Introduction

DEATH IN THE AFTERNOON

THIS BOOK WAS BORN in a cabin in Montana in the summer of 2014. We spend August each year in the hamlet of Varney Bridge on the Madison River, overlooking the mountains of the Madison Range. We had promised to investigate the link between happiness and suicide, whether it was true that unhappy places—counties, cities, or countries where people report that their lives are going really badly—are also places where suicide is more common. Over the past ten years, Madison County, Montana, has had a suicide rate that is four times that of Mercer County, New Jersey, where we spend the rest of the year. We were curious, especially because we were generally happy in Montana, and others there seemed happy too.

Along the way, we had discovered that suicide rates among middle-aged white Americans were rising rapidly. We found something else that puzzled us. Middle-aged white Americans were hurting in other ways. They were reporting more pain and poorer overall health, not as much as older Americans—health worsens with age, after all—but the gap was closing. Health among the elderly was improving while health among the middle-aged was worsening. We knew that pain could drive people to suicide, so perhaps the two findings were linked?

That was the beginning. As we thought about how to write up our results, we wanted to put the suicides in context. How big a deal was suicide relative to all other deaths, and compared with the big causes like

cancer or heart disease? We went back to the Centers for Disease Control, downloaded the numbers, and made the calculations. To our astonishment, it was not only suicide that was rising among middle-aged whites; it was *all* deaths. Not by much, but death rates are supposed to fall year on year, so even a pause was news, let alone an increase.

We thought we must have hit a wrong key. Constantly falling death rates were one of the best and best-established features of the twentieth century. All-cause mortality is not supposed to increase for *any* large group. There are exceptions, such as the great influenza epidemic at the tail end of the First World War, or mortality from HIV/AIDS among young men thirty years ago. But the steady decrease in death rates, especially in middle age, had been one of the greatest (and most reliable) achievements of the twentieth century, driving up life expectancy at birth not only in the United States but also in other wealthy countries around the world.

What was happening? There were not enough suicides to account for the turnaround in total deaths. We looked at what other causes might be responsible. To our surprise, “accidental poisonings” were a big part of the story. How could this be? Were people somehow accidentally drinking Drano or weed killer? In our (then) innocence, we did not know that “accidental poisonings” was the category that contained drug overdoses, or that there was an epidemic of deaths from opioids, already well established and still rapidly spreading. Deaths from alcoholic liver disease were rising rapidly too, so that the fastest-rising death rates were from three causes: suicides, drug overdoses, and alcoholic liver disease. These kinds of deaths are all self-inflicted, quickly with a gun, more slowly and less certainly with drug addiction, and more slowly still through alcohol. We came to call them “deaths of despair,” mostly as a convenient label for the three causes taken together. Exactly what kind of despair, whether economic, social, or psychological, we did not know, and did not presume. But the label stuck, and this book is an in-depth exploration of that despair.

The book is about these deaths and about the people who are dying. We document what we found then, and what we and others have found since. Other writers, in the press and in a series of fine books, have put

names and faces to the deaths and told the stories behind them. We shall draw on these accounts too. Our own previous work was primarily focused on documenting what was happening, but here we go further and try to follow trails back to the underlying economic and social roots.

Who is dying? When a person dies, a death certificate is filled out, and one of the boxes asks about the deceased's education. Here was another surprise. The increase in deaths of despair was almost all among those without a bachelor's degree. Those with a four-year degree are mostly exempt; it is those without the degree who are at risk. This was particularly surprising for suicide; for more than a century, suicides were generally more common among the educated,¹ but that is not true in the current epidemic of deaths of despair.

The four-year college degree is increasingly dividing America, and the extraordinarily beneficial effects of the degree are a constant theme running through the book. The widening gap between those with and without a bachelor's degree is not only in death but also in quality of life; those without a degree are seeing increases in their levels of pain, ill health, and serious mental distress, and declines in their ability to work and to socialize. The gap is also widening in earnings, in family stability, and in community.² A four-year degree has become *the* key marker of social status, as if there were a requirement for nongraduates to wear a circular scarlet badge bearing the letters *BA* crossed through by a diagonal red line.

In the last half century, America (like Britain and other rich countries) has built a meritocracy that we rightly see as a great achievement. But there is a dark side that was long ago predicted by Michael Young, the British economist and social scientist who invented the term in 1958 and who saw meritocracy as leading to social calamity.³ Those who do not pass the exams and graduate to the cosmopolitan elite do not get to live in the fast-growing, high-tech, and flourishing cities and are assigned jobs threatened by globalization and by robots. The elite can sometimes be smug about their accomplishments, attributing them to their own merit, and dismissive of those without degrees, who had their chance but blew it. The less educated are devalued or even disrespected, are encouraged to think of themselves as losers, and may feel that the system is rigged

so are the penalties for failing the tests of meritocracy. Young presciently referred to the left-behind group as “the populists” and the elite as “the hypocrisy.”

We tell the story not only of death but of pain and addiction and of lives that have come apart and have lost their structure and significance. For Americans without a bachelor’s degree, marriage rates are in decline, though cohabitation and the fraction of children born out of wedlock continue to rise. Many middle-aged men do not know their own children. They have parted from the woman with whom they once cohabited, and the children of that relationship are now living with a man who is not their father. The comfort that used to come from organized religion, especially from the traditional churches, is now absent from many lives. People have less attachment to work; many are out of the labor force altogether, and fewer have a long-term commitment to an employer who, in turn, was once committed to them, a relationship that, for many, conferred status and was one of the foundations of a meaningful life.

More workers used to belong to a union. Unions help keep wages up and help give workers some control over their workplace and working conditions. In many towns and cities, the union hall was a center of social life. The good wages that once supported the blue-collar aristocracy have largely vanished, and manufacturing has been replaced by service jobs—for example, in healthcare, in food preparation and service, in janitorial and cleaning services, and in maintenance and repair.

Our story of deaths of despair; of pain; of addiction, alcoholism, and suicide; of worse jobs with lower wages; of declining marriage; and of declining religion is mostly a story of non-Hispanic white Americans without a four-year degree. In 2018, the Census Bureau estimated that there were 171 million Americans between the ages of twenty-five and sixty-four. Of those, 62 percent were white non-Hispanics, and 62 percent of those did not have a four-year college degree; the less educated white Americans who are the group at risk are 38 percent of the working-age population. The economic forces that are harming labor are common to all working-class Americans, regardless of race or ethnicity, but the stories of blacks and whites are markedly different.

In the 1970s and 1980s, African Americans working in inner cities experienced events that, in retrospect, share some features with what happened to working-class whites thirty years later. The first wave of globalization hit blacks particularly hard, and jobs in the central city became scarce for this long-disadvantaged group. Better-educated and more talented blacks deserted the inner cities for safer city neighborhoods or the suburbs. Marriage rates fell as once-marriageable men no longer had work.⁵ Crime rates rose, as did mortality from violence, from drug overdoses in the crack cocaine epidemic, and from HIV/AIDS, which disproportionately affected blacks. Blacks, always the least favored group, had that status reinforced by being the first to experience the downside of a changing national and global economy that was increasingly shedding less skilled workers.

African Americans have long had harder lives than whites. Blacks die younger, today as in the past. Blacks are also less likely to go to college, or to find employment. Those who work earn less than whites on average. Blacks have less wealth, are less likely to own their own home, are more likely to be incarcerated, and more likely to live in poverty. In many but not all of these areas, black lives have improved; since 1970, black education, wages, income, and wealth have risen. From 1970 to 2000, black mortality rates declined by more than those of whites, and they fell in the first fifteen years of the twenty-first century while those of working-class whites were rising.

There is less overt discrimination than in 1970. There has been a black president. The large majority who used to think intermarriage was wrong has now become a large majority who thinks it is just fine. Some whites undoubtedly resent the loss of their long-standing white privilege in a way that hurts them but not blacks.⁶ Poor whites, it has long been said, suffered from a racist system that was primarily directed against blacks. Poor whites were co-opted by the rich, who told them that they might not have much, but at least they were white. As Martin Luther King Jr. summarized, "The southern aristocracy took the world and gave the poor white man Jim Crow," so that when he had no money for food, "he ate Jim Crow, a psychological bird that told him that no matter how bad off he was, at least he was a white man, better than a black man."⁷ As Jim Crow

weakened, along with other forms of discrimination, working-class whites lost whatever benefits they got from it. More than half of white working-class Americans believe that discrimination against whites has become as big a problem as discrimination against blacks and other minorities, while only 30 percent of white, college-educated Americans agree.⁸ The historian Carol Anderson states that to someone who has “always been privileged, equality begins to look like oppression.”⁹

Black mortality rates remain above those for whites but, in the past three decades, the gap in mortality rates between blacks and whites with less than a bachelor’s degree fell markedly. Black rates, which were more than twice those of whites as late as the early 1990s, fell as white rates rose, closing the distance between them to 20 percent. Since 2013 the opioid epidemic has spread to black communities, but until then, the epidemic of deaths of despair was white.

In the chapters that follow, we document the decline of white working-class lives over the last half century. White non-Hispanics are 62 percent of the working-age population, so understanding their mortality is important in and of itself. The story of what happened to African Americans in the seventies and eighties has been extensively researched and debated,¹⁰ and we have nothing to add to that literature except to note that there are some parallels with whites today. Hispanics are a widely heterogeneous group, defined only by their common language. US mortality trends for Hispanics change with changes in the composition of people who have immigrated—for example, from Mexico, Cuba, or El Salvador; we do not try to tell a coherent story for them.

We describe the social and economic forces that have slowly made working-class lives so much more difficult. One line of argument focuses on a decline in values or on an increasingly dysfunctional culture within the white working class itself.¹¹ There is little doubt that the collapse of social norms about not having children out of wedlock, which seemed so liberating to so many at first, has brought a heavy price in the long term. Young men who thought they could live a life free of commitment found themselves alone and adrift in middle age. The turning away from religion is perhaps a similar force, but it is also possible to think of it as a failure of organized religion to adapt to political and economic change

and to continue to provide meaning and comfort in a changing world. These arguments about social norms are clearly right, but our story is primarily about the external forces that have eaten away the foundations that characterized working-class life as it was half a century ago. There is strong factual evidence against the view that workers brought the calamity on themselves by losing interest in work.

After correction for inflation, the median wages of American men have been stagnant for half a century; for white men without a four-year degree, median earnings lost 13 percent of their purchasing power between 1979 and 2017. Over the same period, national income per head grew by 85 percent. Although there was a welcome turnaround in earnings for the less educated between 2013 and 2017, it is very small compared with the long-term decline. Since the end of the Great Recession, between January 2010 and January 2019 nearly sixteen million new jobs were created, but fewer than three million were for those without a four-year degree. Only fifty-five thousand were for those with only a high school degree.¹²

The prolonged decline in wages is one of the fundamental forces working against less educated Americans. But a simple link to despair from falling material living standards cannot by itself account for what has happened. For a start, the wage decline has come with job decline—from better jobs to worse jobs—with many leaving the labor force altogether because the worse jobs are unattractive, because there are few jobs at all, or because they cannot easily move, or some combination of these reasons. Deterioration in job quality, and detachment from the labor force, bring miseries over and above the loss of earnings.

Many of the jobs that have come with the lower wages do not bring the sense of pride that can come with being part of a successful enterprise, even in a low-ranked position. Cleaners, janitors, drivers, and customer service representatives “belonged” when they were directly employed by a large company, but they do not “belong” when the large company outsources to a business-service firm that offers low wages and little prospect of promotion. Even when workers are doing the same jobs that they did before they were outsourced, they are no longer part of a marquee corporation. As economist Nicholas Bloom memorably puts

it, they are no longer invited to the holiday party.¹³ The days are gone when a janitor for Eastman Kodak could rise through the ranks to become the CEO of a related firm.¹⁴ In some of these jobs, working conditions are closely monitored by software that deprives workers of control or initiative, even compared with the old, and once much hated, assembly lines.¹⁵ Workers, even in dangerous, dirty occupations, such as coal mining, or in low-level employment for famous corporations, could be proud of their roles.

Men without prospects do not make good marriage partners. Marriage rates among less educated whites fell, and more people lost out on the benefits of marriage, of seeing their children grow, and of knowing their grandchildren. A majority of less educated white mothers have currently had at least one child outside marriage. Poorer prospects make it harder for people to build the life that their parents had, to own a home, or to save to send kids to college. The lack of well-paying jobs threatens communities and the services they provide, such as schools, parks, and libraries.

Jobs are not just the source of money; they are the basis for the rituals, customs, and routines of working-class life. Destroy work and, in the end, working-class life cannot survive. It is the loss of meaning, of dignity, of pride, and of self-respect that comes with the loss of marriage and of community that brings on despair, not just or even primarily the loss of money.

Our account echoes the account of suicide by Emile Durkheim, the founder of sociology, of how suicide happens when society fails to provide some of its members with the framework within which they can live dignified and meaningful lives.¹⁶

We do not focus on economic hardship, though hardship undoubtedly exists. Whites without a college degree are not the poorest group in the US; they are much less likely to be poor than African Americans. Instead, we see the decline in wages as slowly undermining all aspects of people's lives.

Why has the economy been failing the working class? If we are to come up with ideas for change, then we need to know what happened, where to begin, and what sort of policies might make a difference.

Again, we could turn to the failings of the people themselves and argue that, in the modern economy, it is impossible to prosper without a bachelor's degree, and that people should simply get more education. We have nothing against education, and it has certainly become more valuable over time. We would like to see a world in which everyone who can benefit from going to college, and wants to go to college, is able to do so. But we do not accept the basic premise that people are useless to the economy unless they have a bachelor's degree. And we certainly do not think that those who do not get one should be somehow disrespected or treated as second-class citizens.

Globalization and technological change are often held up as the main villains because they have reduced the value of uneducated labor, replacing it with cheaper, foreign labor or cheaper machines. Yet other rich countries, in Europe and elsewhere, face globalization and technological change but have not seen long-term stagnation of wages, nor an epidemic of deaths of despair. There is something going on in America that is different, and that is particularly toxic for the working class. Much of this book is concerned with trying to find out just what that something might be.

We believe that the healthcare system is a uniquely American calamity that is undermining American lives. We shall also argue that in America, more than elsewhere, market and political power have moved away from labor toward capital. Globalization has aided the shift, both weakening unions and empowering employers,¹⁷ and American institutions have helped push this further than elsewhere. Corporations have become more powerful as unions have weakened, and as politics has become more favorable to them. In part, this comes from the phenomenal growth of high-tech firms, such as Apple and Google, that employ few workers for their size and have high profits per worker. This is good for productivity and for national income, but little of the gain is shared by labor, especially by less educated labor. Less positively, consolidation in some American industries—hospitals and airlines are just two of many examples—has brought an increase in market power in some product markets so that it is possible for firms to raise prices above what they would be in a freely competitive market. The rising economic and

political power of corporations, and the declining economic and political power of workers, allows corporations to gain at the expense of ordinary people, consumers, and particularly workers. At its worst, this power has allowed some pharmaceutical companies, protected by government licensing, to make billions of dollars from sales of addictive opioids that were falsely peddled as safe, profiting by destroying lives. More generally, the American healthcare system is a leading example of an institution that, under political protection, redistributes income upward to hospitals, physicians, device makers, and pharmaceutical companies while delivering among the worst health outcomes of any rich country.

As we write, in August 2019, the opioid manufacturers are being held to account in the courts; a judge ordered Johnson & Johnson to pay more than half a billion dollars to the state of Oklahoma. A subsidiary of Johnson & Johnson grew the poppies in Tasmania that were the raw material for almost all the opioids produced in the US. Early reports of a settlement with the worst offender, Purdue, the maker of OxyContin, suggest that the Sackler family, who own the company, may lose it, as well as several billion dollars of their past profit. Yet the aggressive marketing of pharmaceuticals to doctors and patients is still in place, as are the rules whereby the Food and Drug Administration approved the use of what is essentially legalized heroin. Many of those who have followed the opioid scandal see little difference between the behavior of the legalized drug dealers and the illegal suppliers of heroin and cocaine who are so widely despised and condemned.¹⁸

The problems with the healthcare industry go far beyond the opioid scandal. The US spends huge sums of money for some of the worst health outcomes in the Western world. We will argue that the industry is a cancer at the heart of the economy, one that has widely metastasized, bringing down wages, destroying good jobs, and making it harder and harder for state and federal governments to afford what their constituents need. Public purpose and the wellbeing of ordinary people are being subordinated to the private gain of the already well-off. None of this would be possible without the acquiescence—and sometimes enthusiastic participation—of the politicians who are supposed to act in the interest of the public.

Robin Hood was said to have robbed the rich to benefit the poor. What is happening today in America is the reverse of Robin Hood, from poor to rich, what might be called a Sheriff of Nottingham redistribution. Political protection is being used for personal enrichment, by stealing from the poor on behalf of the rich, a process known to economists and political scientists as rent-seeking. It is, in a sense, the opposite of free-market capitalism, and it is opposed by the Left, because of its distributional consequences, and the Right, because it undermines freedom and a truly free market. It is as old as capitalism itself, as Adam Smith knew very well even in 1776. In his *Wealth of Nations*, often seen as the bible of capitalism, Smith noted that while tax laws could be cruel, they were “mild and gentle” in comparison with the laws that the pressure of “our merchants and manufacturers has extorted from the legislature, for the support of their own absurd and oppressive monopolies.” He suggested that “these laws may be said to be all written in blood.”¹⁹ Rent-seeking is a major cause of wage stagnation among working-class Americans and has had much to do with deaths of despair. We shall have much to say about it.

The most common explanations for the decline in living standards of less educated Americans are that globalization has caused factories to close and move to Mexico or China and that automation has displaced workers. These forces are real enough, and they underlie much of our discussion. But, as the experience of other rich countries shows, globalization and automation, which are faced by all, need not reduce wages as has happened in the US, let alone bring an epidemic of death. American healthcare bears much of the blame, as does policy, particularly the failure to use antitrust to combat market power, in labor markets perhaps even more than goods markets, and to rein in the rent-seeking by pharma, by healthcare more generally, and by banks and many small- or medium-size business entrepreneurs, such as doctors, hedge fund managers, the owners of sports franchises, real estate businesspeople, and car dealers. All of these get rich from the “oppressive monopolies” and special deals, tax breaks, and regulations that they have “extorted from the legislature.” The very top ranks of the American income distribution, the top 1 percenters and top tenth of 1 percenters, are less likely to be corporate

heads than they are to be entrepreneurs who run their own businesses,²⁰ many of whom are protected by rent-seeking.

Inequality is much cited for its baleful impacts. In this book, we see inequality as a consequence as much as a cause; if the rich are allowed to enrich themselves through unfair processes that hold down wages, and raise prices, then inequality will certainly rise. But not everyone gets rich that way. Some people invent new tools, drugs, or gadgets, or new ways of doing things, and benefit many, not just themselves. They profit from improving and extending other people's lives. It is good for great innovators to get rich. Making is not the same as taking. It is not inequality itself that is unfair but rather the process that generates it.

The people who are being left behind care about their own falling living standards and loss of community, not about Jeff Bezos (of Amazon) or Tim Cook (of Apple) being rich. Yet when they think the inequality comes from cheating or from special favors, the situation becomes intolerable. The financial crisis has much to answer for. Before it, many believed that the bankers knew what they were doing and that their salaries were being earned in the public interest. Afterward, when so many people lost their jobs and their homes, and the bankers continued to be rewarded and were not held to account, American capitalism began to look more like a racket for redistributing upward than an engine of general prosperity.

We do not think that taxation is the solution to rent-seeking; the right way to stop thieves is to stop them stealing, not to raise their taxes.²¹ We need to stop the abuse and overprescription of opioids, not tax the profits. We need to correct the process, not try to fix the outcomes. We need to make it easier for foreign doctors to qualify to practice in the US. We need to stop bankers and real estate dealers writing regulations and tax laws in their own interests. The problem for less educated people is stagnant and declining wages, not inequality in and of itself, and indeed much inequality is the consequence of forcing down wages in order to enrich a minority. Reducing rent-seeking would do much to reduce inequality. When the owners of a pharmaceutical company get fabulously rich from the high prices, extended patents, approvals, and convenient regulations that their lobbyists have persuaded the government to grant,

they greatly contribute to inequality, both by pushing down the real incomes of those who have to pay for the drugs and by pushing up the highest incomes at the top of the distribution. The same is true of the bankers who rewrote bankruptcy law in their favor and against borrowers; as one commentator noted, “Never before in our history has such a well-organized, well-orchestrated, and well-financed campaign been run to change the balance of power between creditors and debtors.”²²

As is often noted, even confiscatory taxes on the rich do not provide much relief for the poor, because there are so many poor people and so few rich people. In today’s world, however, we need to think about the process working in the other direction—that squeezing even small amounts out of each of a large number of working people can provide enormous fortunes for the rich who are doing the squeezing. That is what is happening today, and we should stop it.

What might be done to make lives better, not just for the elite but also for working people? It is easy to be pessimistic. Once political and financial power are increasingly concentrated, the dynamic does not appear to be self-correcting. The election of Donald Trump is understandable in the circumstances, but it is a gesture of frustration and rage that will make things worse, not better. Working-class whites do not believe that democracy can help them; in 2016, more than two-thirds of white working-class Americans believed that elections are controlled by the rich and by big corporations, so that it does not matter if they vote. Analysis by political scientists of voting patterns in Congress supports their skepticism; both Democratic and Republican lawmakers consistently vote for the interests of their more prosperous constituents with little attention to the interests of others.²³

Justice Louis Brandeis campaigned against the misbehavior of giant trusts at the end of the nineteenth century and was later nominated to the Supreme Court by Woodrow Wilson, becoming its first Jewish member. He thought that extreme inequality was incompatible with the preservation of democracy. This applies both to “good” and “bad” inequality; it doesn’t matter how people got rich if even those who earned their wealth legitimately use it to undermine the rights and interests of the non-rich. For us, the best way to deal with this is to stop the rent-seeking,

lobbying, and misuse of market power that is behind the extreme inequality, to stop the unfair process. If that is impossible, high marginal income taxes or, better—but practically much more difficult—a wealth tax would lessen the influence of fortunes in politics. But it is sometimes difficult to be optimistic. One historian has argued that inequality, once it is established, is only overcome by violent ruptures and that this has been true since the Stone Age.²⁴ We think that is too pessimistic, but it is hard to see today's levels of inequality lessening without reforms of the processes and institutions that produced them.

Yet there are some reasons for optimism, and there are policies that, even in our current flawed democracy, might be feasible and might make things better. Institutions can change. There is much intellectual ferment around these issues, and many good new ideas that we will discuss later in the book. But we end this introduction with another, but more optimistic, historical parallel.

In Britain at the beginning of the nineteenth century, inequality was greater than anything we see today. The hereditary landowners not only were rich but also controlled Parliament through a severely limited franchise. After 1815, the notorious Corn Laws kept out imports of wheat until the local price was so high that people were at risk of starving; high prices of wheat, even if they hurt ordinary people, were very much in the interests of the land-owning aristocracy, who lived off the rents supported by the restriction on imports—rent-seeking of the classic and here literal kind, and rent-seeking that did not stop at killing people; laws that were “written in blood.” The Industrial Revolution had begun, there was a ferment of innovation and invention, and national income was rising. Yet working people were not benefiting. Mortality rates rose as people moved from the relatively healthy countryside to stinking, unsanitary cities. Each generation of military recruits was shorter than the last, speaking to their ever-worsening undernutrition in childhood, from not getting enough to eat and from the nutritional insults of unsanitary conditions. Religious observance fell, if only because churches were in the countryside, not in the new industrial cities. Wages were stagnant and would remain so for half a century. Profits were rising, and the share of

profits in national income rose at the expense of labor. It would have been hard to predict a positive outcome of this process.

Yet by century's end, the Corn Laws were gone and the rents and fortunes of the aristocrats had fallen along with the world price of wheat, especially after 1870 when wheat from the American prairie flooded the market. A series of reform acts had extended the franchise, from one in ten males at the beginning of the century to more than half by its end, though the enfranchisement of women would wait until 1918.²⁵ Wages had begun to rise in 1850, and the more than century-long decline in mortality had begun.²⁶ All of this happened without a collapse of the state, without a war or a pandemic, through gradual change in institutions that slowly gave way to the demands of those who had been left behind. Even if we do not know just why, or whether the logic applies to our own times, the facts themselves surely justify at least a limited optimism.

PART I

Past as Prologue

1

The Calm before the Storm

Our nation has gained about one year of longevity every six years since 1990. A child born today can look forward to an average lifespan of about 78 years—nearly three decades longer than a baby born in 1900. Deaths from heart disease have been reduced by more than 70 percent since I was born. HIV/AIDS treatment and prevention may now enable us to envision the first AIDS-free generation since the virus emerged more than 30 years ago. Cancer death rates have been dropping about 1 percent annually for the past 15 years.

—FRANCIS COLLINS, DIRECTOR OF
NATIONAL INSTITUTES OF HEALTH,
SENATE TESTIMONY, APRIL 28, 2014

THE TWENTIETH CENTURY saw an improvement in health that was unprecedented in history. By 2000, continuously improving human health was the expected, normal state of events. Children lived longer than their parents, who, in turn, lived longer than *their* parents. Decade by decade, the risk of dying fell. Better health was supported by better living standards, by advances in medicines and treatments, and by changes in behavior based on a better understanding of how behavior—especially cigarette smoking—affected health. Other rich countries saw similar improvements for similar reasons. In poor countries, especially in the second half of the twentieth century, improvements were even more

spectacular. In 2000, all of this progress seemed set to continue, presumably indefinitely.

Economic progress was remarkable, too. Almost everyone in the world was richer in 2000 than their grandparents, or great- or great-great-grandparents, had been when Queen Victoria died and Louis Armstrong was born in 1901, adding to another century of progress before that, from 1800 to 1900. In the rich countries of western Europe and North America, the rate of income growth reached its all-time high in the period known in France as *Les trente glorieuses*, the thirty years after the Second World War. During those years in the United States, not only was the growth of national income per head faster than ever before, it was also widely shared by rich, poor, and middle class alike.

Education is a similar story. In 1900, only a quarter of people graduated from high school; by midcentury more than three-quarters did. Those with a college degree rose from one in twenty to one in five. And while better-educated people generally earned more than those with less education, the midcentury postwar labor market provided good jobs for those with only a high school diploma. Factory jobs, in steel works or auto plants, provided a good living, especially as people moved up the ladder. Men followed their fathers into unionized jobs, often with a lifetime commitment from both workers and the firm. Wages were high enough for a man to get married, to start a family and buy a house, and to enjoy the prospect of a life that was better in many ways than the life of his parents at the same age. Parents could think about sending their children to college to give them an even better life. Those were the days of what has been called the blue-collar aristocracy.

The last thing we want to argue is that the twentieth century was a paradise that was lost in the twenty-first. Nothing could be further from the truth.

The twentieth century also saw many of the worst catastrophes in history, in which tens or even hundreds of millions of people lost their lives. Two world wars and the murderous regimes of Hitler, Stalin, and Mao are the worst events in terms of the raw counts of people killed, but there were also deadly epidemics, including the influenza at the end of the First World War and HIV/AIDS at century's end. Millions of the

world's children died from common childhood diseases long after it was understood how to prevent those deaths. Wars, mass murders, epidemics, and the unnecessary deaths of children brought down life expectancy, sometimes very sharply. There were economic catastrophes too, and wellbeing was far from universally shared. The Great Depression brought poverty and misery to millions. Jim Crow was alive and well, institutionalizing educational, economic, and social deprivation for black Americans.

Nor is our claim that there was constant, steady progress, only that, over a long period, such as from 1900 to 2000, people were less likely to die and more likely to prosper. Some outcomes showed steadier progress than others, and some countries did better than others. But progress in health and in living standards in the twentieth century was prolonged enough that, by century's end, people could reasonably expect it to continue and to bless their children's lives just as it had blessed their own. For most of the world's population, the end of the twentieth century saw greater prosperity and greater longevity than at any time in history. Not only that, but the rate of improvement since the end of the Second World War had been so steady and so prolonged that it seemed obvious that future generations would do better still.

To understand these past changes, as well as the much less beneficent changes that we will describe in this book, we need to clarify how progress is measured.

Life and Death: Keeping Score

We shall frequently talk about mortality and life expectancy. They are, in a sense, opposites; mortality measures dying, and life expectancy measures the length of life. The mortality rate is the risk of dying; life expectancy is how many years a newborn can be expected to live. When and where mortality rates are high, life expectancy is low, and vice versa. Mortality rates are different at different ages—high among babies and young children, then low among older children, teenagers, and young adults. In middle age, the threat of death begins to be real, and after age thirty, the risk of dying increases every year. In the US in 2017, the probability

of dying between thirty and thirty-one was 1.3 in 1,000, by age forty it was 2.0 in 1,000, by fifty it was 4.1 per 1,000, and by sixty it was 9.2 per 1,000. Through midlife, the probability of dying doubles for every decade of life. In other rich countries, these risks are a little lower, but in the absence of epidemics or wars, patterns like these appear in all places and all times.

For a newborn, we think of life as a hurdle race, with a hurdle at each birthday. Mortality rates are the probabilities of falling at each hurdle, high at the beginning until the newborn hits his or her stride, then low for a while as the more experienced runner deals easily with each hurdle, and then getting higher and higher in midlife and old age as the runner tires. Throughout the book we will talk about life expectancy, which is how many hurdles an average newborn can be expected to clear, as well as about mortality rates, which are the probabilities of falling at each of the hurdles. We need both concepts, because the events that we are going to describe affect different hurdles differently, so that risks can rise in middle age even when they are falling among the elderly, something that may not show up in life expectancy at all if these changes happen to cancel each other out.

When the hurdles are high at the beginning, not many runners are going to get far down the track. In the US, at the beginning of the twentieth century, children faced high risks of dying. Not all children got enough or good enough food, childhood diseases like measles were often fatal, vaccinations were far from universal, and many places in the US had yet to make their water safe to drink, failing to properly separate the disposal of sewage from the provision of drinking water, among other things. It is not only unpleasant but extremely dangerous to drink out of a river that someone else, living upstream, is using as a toilet. It is expensive to supply safe water and good sanitation, and it took public health officials a long time to make these arrangements everywhere, even once the basic science—the germ theory of disease—was understood and accepted.

The chance of dying increases with age, except at the very beginning of life. Life is most dangerous for babies and for the elderly. In rich countries, infancy is safe; only six out of one thousand American babies do not live to their first birthday, and other countries do even better. In Sweden and Singapore, for example, only two out of one thousand die.

The risks are much higher in some poor countries, but even here, progress has been rapid, and there is not a single country in the world whose infant mortality rate is higher now than it was fifty years ago.

Over the twentieth century, overall life expectancy at birth in the United States increased from 49 to 77 years. By the end of the century, from 1970 to 2000, life expectancy increased from 70.8 to 76.8, 2 additional years of life for every decade of actual time. From 1933, when the comprehensive US data begin, the trend has been almost continuously positive, with declines in life expectancy lasting no more than one or two years. While the data before 1933 are not complete, because not all states kept records, there appears to have been a three-year decline from 1915 to 1918 at the end of the First World War and during the influenza epidemic.

Had this rate of increase continued, life expectancy by 2100 could have been expected to be more than ninety, with substantial fractions of people living to be one hundred. Similar statements can be made for the countries of Western Europe and for Japan, Australia, New Zealand, and Canada.

The Changing Face of Mortality

In 1900, the three leading causes of death were infectious diseases—pneumonia, tuberculosis, and gastrointestinal infections. By midcentury, with the public health and vaccination programs largely complete, and with antibiotics invented and about to be widely used, infectious disease had become less important as a cause of death. The early-life hurdles had been lowered and mortality moved into middle and old age. Death itself aged, moving out of the bowels of children and into the lungs and arteries of the middle-aged and elderly. Once this happens, it is much harder to increase life expectancy. Lowering the hurdles at the beginning makes a big difference to how far people run, but once almost everyone makes it into middle and old age, saving lives among the elderly stretches life spans by much less.

By the end of the twentieth century, the leading causes of death were heart disease and cancer. Heart disease and lung cancer become less common when people stop smoking, and the substantial reductions in the

portion of the population who smoked made a large contribution to falling mortality. Preventive treatments for heart disease also helped. Antihypertensives are cheap and easy-to-take drugs that help control blood pressure and make heart attacks less likely; statins are cholesterol-lowering drugs that help to reduce heart attacks and strokes. The reduction in heart disease mortality was one of the great success stories of the last quarter of the twentieth century. There were also drug-based and screening successes against some cancers, including breast cancer.

New drugs are perhaps not as important for reducing death rates as are people's behaviors, but they are nevertheless often life saving, and when, later in the book, we talk about excesses in the pharmaceutical industry, it should always be kept in mind that drugs have saved many lives. The world would be a much worse place without antibiotics, without insulin for diabetes, without aspirin or ibuprofen, without anesthetics, without antihypertensives, without antiretrovirals, or without the birth control pill. The key puzzle for public policy is to find a way of getting the benefits of longer and better lives without socially unacceptable consequences, including, but going beyond, financial costs.

As some diseases are eliminated and others reduced, other causes step up to take their place as leaders. Most of these causes are not new. They have always been there but were previously dwarfed by the scale of the earlier mass killers. Some causes of death, such as Alzheimer's or late-life cancers, were uncommon simply because people rarely reached the ages where they matter. But other causes, such as accidents, suicides, or diabetes, were always present but were minor killers in the age of smallpox or cholera or even, in more recent times, tuberculosis or childhood diarrhea. As we move away from infectious disease, the nature of causes also changes. Infections are spread by an agent, such as a bacterium or a virus, so that discovering the biological mechanisms in the body or in the means of transmission—dirty water, mosquitoes, fleas, or rats—offers not only an understanding of the cause but also a potential route to its cure or even elimination.

But biology is never everything—where and how people live always plays a part. When it comes to smoking-related disease or to suicide, poisoning, or accidents, biology, as we shall see throughout the book, is

often less important than behavior or the economic and social conditions under which people live.

Biology and Behavior

The root cause of an epidemic of typhus in 1848, as the great pathologist Rudolf Virchow saw it, was poverty and lack of political representation. Robert Koch, the founder of microbiology, who identified the bacteria responsible for cholera, tuberculosis, and anthrax, triumphantly wrote, "One has been accustomed until now to regard tuberculosis as the outcome of social misery and to hope by relief of distress to diminish the disease. But in the final struggle against this dreadful plague of the human race one will no longer have to contend with an indefinite something but with an actual parasite."¹ The dichotomy between biology and behavior is an old one that has often been fought over. In the deaths we will discuss, behavior will usually be the key, and we will not focus on an actual parasite. We do not need much biology to understand how a gun kills, or how a traffic accident can maim, yet biology controls how eating and exercise affect obesity, how stress causes pain, how alcohol destroys the liver, or how smoking causes heart disease. We need always to bring social science and medicine together.

Figure 1.1 illustrates these ideas. It shows mortality rates in midlife for white Americans from 1900 to 2000. The line shows the death rate for men and women aged forty-five to fifty-four in each year. In later chapters, we explore death rates at other ages, but we shall often highlight this midlife age-group. It is in midlife that death rates pick up, and it is often a good place to see evolving trends in mortality. Death in midlife is rare and is usually shown as the number out of every 100,000 who die in a year. The numbers in the figure start out at around 1,500 (1.5 percent a year) in 1900 and fall to around 400 (0.4 percent a year) in 2000. This reduction, of more than two-thirds, is the main takeaway from the graph. We will see that there were similar reductions in death rates for other age and ethnic and racial groups.

Other notable events can be seen. The spike in mortality in 1918 is the influenza epidemic that swept the United States and the world at the end



FIGURE 1.1. Mortality rates for white American men and women ages 45–54 in the twentieth century (deaths per 100,000). Authors' calculations using Centers for Disease Control and Prevention data.

of the First World War. There was some slowdown in progress during the 1930s and the Great Depression, but progress was also slow in the booming 1920s; there is no obvious relationship between mortality rates and the state of the economy. Indeed, research going back into the 1920s has documented the somewhat surprising results that deaths are often *higher* when the economy is doing well.² Mortality decline stagnated for several years around 1960 when many of those who had smoked heavily in their twenties and thirties died of lung cancer and heart disease. After 1970, mortality decline resumed in force, largely driven by the decline in mortality from heart disease. The post-1970 pattern also appears in other rich countries with the spread of knowledge about the harmful effects of smoking and as doctors prescribed pills to control hypertension and cholesterol.

Figure 1.1 shows all the main drivers of death. Epidemic disease is represented by influenza, itself conditioned by the economic, social, and human devastation of the Great War. Behavior shows in smoking, medical knowledge in the understanding of the effects of smoking, and the medical care system in the control of high blood pressure.

Figure 1.1 looks only at whites aged forty-five to fifty-four. But other groups also benefited from declining mortality in the twentieth century. African Americans are more likely to die than white Americans and have shorter life expectancy; this has long been true, and it is true today. But black men and women have also seen progress, at faster rates than whites, and the gap between black and white mortality rates has been narrowing. Death rates have also fallen among the elderly. In 1900, a sixty-year-old American woman could expect to live fifteen more years, and a man of the same age could expect to live another fourteen years; by the end of the century, those numbers had risen to twenty-three for women and twenty for men.

We know rather less about trends in morbidity—sickness other than death—than about trends in mortality. Yet we can be sure not just that people were living longer but also that their lives were better and healthier. For the last quarter century, we have direct measures from surveys that ask people about disability, pain, and their ability to undertake routine tasks. It was once feared that, as people lived to older ages, their old age would be one of pain and disability, not dead but sick, but this did not happen. Medical advances have not just reduced mortality but also helped people live better when they are alive. Joint replacements reduce pain and allow people to function in ways that would have been impossible without them. Cataract surgery restores the sight of those who would otherwise lose it. And drugs are sometimes effective at reducing pain and relieving depression and other mental distress.

Americans also became taller, which is a good reflection of improvements in nutrition and public health in their childhood. Men born in 1980 were about an inch and a half taller as adults than those born a century before. Other rich countries did even better. Americans used to be the tallest people in the world, but they have now been overtaken by Germans, Norwegians, and especially the Dutch—a sign, perhaps, that not all is well.³

2

Things Come Apart

BY ITS END, much of the optimism of the twentieth century had faded. Towns and cities in the heartland of America that used to produce steel, glass, furniture, or shoes, and that are fondly remembered by people in their seventies as having been great places to grow up, had been gutted, their factories closed and shops boarded up. In the wreckage, the temptations of alcohol and drugs lured many to their deaths. Most of these stories are never told. Stigma often removes the cause of death from obituaries when suicide, overdose, or alcoholism is involved. Addiction is seen as a moral weakness, not a disease, and it is believed that its effects are best covered up.

Exceptions are made when a famous chef kills himself or a music icon overdoses on fentanyl, or when the death is shocking to the community—for example, as reported by Congresswoman Ann McLane Kuster, “in a little town called Keene New Hampshire. There’s not a quieter place on this earth, and a beloved high school teacher, mother of three children, died of a heroin overdose.”¹ Each story is real and tragic, but it needs to be considered in perspective. When we look at the numbers, all the numbers, we see an even bigger, more frightening, and tragic story. The events that reach the media are selected for their news value, celebrities get attention, and the firsthand accounts of addiction or attempted suicide often come from those who are accustomed to writing about their experiences. Spectacular and unusual deaths—upper-class suicides and drug deaths—are exhaustively reported; those of ordinary people rarely make headlines, although they too leave behind devastated families and

friends. Today's events are news; long-term trends are yesterday's news, which usually means not news at all. Deaths from lung cancer, heart disease, or diabetes are not news in and of themselves—lung cancer is not like Ebola or AIDS, though it takes many more lives—and we find out about them only incidentally when we read obituaries. Without the numbers to make comparisons, we don't know whether we are looking at an event, like a plane crash or a terrorist attack, where the deaths are few but shocking and newsworthy, or an epidemic, like Ebola or SARS, which terrified many but killed few, or whether we are dealing with something much larger, something that actually threatens the public health and upends a century of progress in human health.

All deaths in the US are reported to the authorities, and the information is assembled by the Centers for Disease Control and Prevention (CDC) in Atlanta. When someone dies, a great deal of information is collected on the death certificate, including, for the last thirty years, the highest level of education attained. The CDC has a website, charmingly called CDC Wonder, where much of this information is readily available. The death certificates themselves, with confidential information (such as name and social security number) removed, can also be downloaded and examined. It is with these data that we begin.

They are every bit as distressing as the stories.

American Exceptionalism, Breaking with the Past, and Leaving the Herd: The Facts

We saw in the previous chapter that the mortality rate for midlife whites in the US was 1,500 per 100,000 in 1900, and that by 2000 it had fallen to 400 per 100,000. We now follow this group into the twenty-first century.

We can also look at other countries around the world that, like the United States, are rich in terms of income per head and that share and implement the scientific and medical knowledge that is common across such countries. Those countries showed rapid declines in midlife mortality after 1945, and as in the US, the decline was particularly rapid after

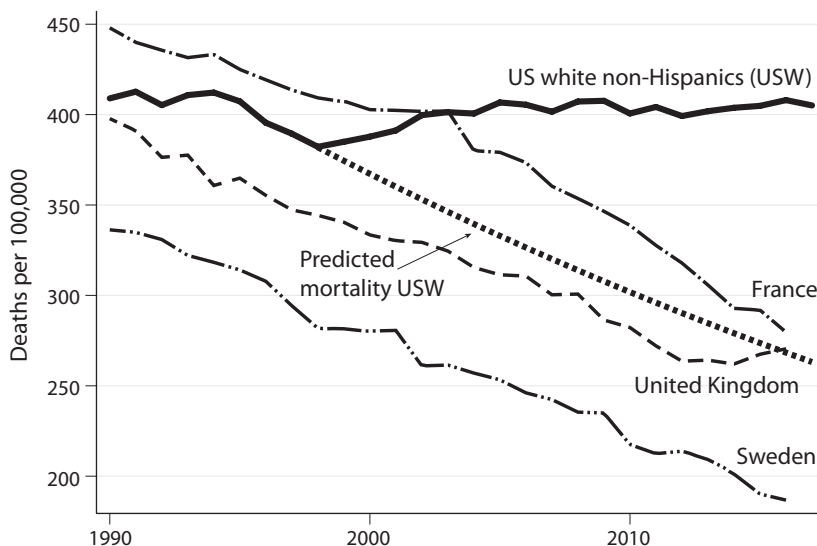


FIGURE 2.1. Age-adjusted mortality rates, ages 45–54, for US white non-Hispanics (USW), France, the United Kingdom, and Sweden, and a predicted mortality rate for USW, a counterfactual that assumes the mortality rate for USW would continue falling at 2 percent per year after 1998. Authors' calculations using CDC data and the Human Mortality Database.

1970. In almost all wealthy countries, mortality rates for those aged forty-five to fifty-four declined at an average rate of 2 percent per year from the late 1970s to 2000.

Figure 2.1 shows what happened. We call this the “things come apart” picture. Midlife mortality continued to decline in France, Britain, and Sweden; other rich countries, not shown, display similar progress. An entirely different pattern emerged for US white non-Hispanic Americans. Not only did whites not keep pace with mortality declines in other countries, but mortality for them stopped falling altogether and began to rise.

The future that we might have predicted for white Americans in midlife,² based on what had happened in the twentieth century, is shown here by the thick dotted line. Over time, white mortality pulled markedly away from what was seen in other wealthy countries, and what we might have predicted its path to be.

Something important, awful, and unexpected is happening. But is it just white men and women in middle age, or are other age-groups affected

too? Is it men more than women, or women more than men? And what about other groups? Is it focused in one part of the country, or much the same everywhere? And, above all, why is it happening? As we shall see, the alcohol, suicide, and opioid epidemics are an essential part of the story, but we need to discuss a few other issues before we get there.

In chapter 1, when we showed falling midlife mortality through the twentieth century, we noted that other age-groups also benefited. But the reversal in figure 2.1 is not universally shared. As we shall see, while there have been similar changes in mortality trends for younger age-groups, mortality among the elderly continued to fall as it had done at the end of the twentieth century. We shall explore this a good deal further as we go, and we shall see that the reversal has begun to affect the youngest elderly too.

In figure 2.1 we switched from all whites to non-Hispanic whites, a narrower category for which data did not exist for most of the twentieth century. Hispanics, who are much poorer on average than non-Hispanics, have *lower* mortality rates than non-Hispanics, and their progress kept pace with that in other countries; their mortality rates look like those for Britain over this period. African Americans have *higher* mortality rates than any of the groups or countries shown in the picture, but their rate of mortality *decline* has been faster than for any of the groups or countries shown here. The midlife gap between US black and white mortality fell dramatically between 1990 and 2015, after which point the decline in midlife black mortality also came to an end, likely linked to opioids, as we shall see. The story of racial differences in mortality is an important one, and we shall later argue that the differences between black and white mortality rates can be reconciled once we look carefully at the history. The differences have less to do with *what* than with *when*.

These differences in mortality by race and ethnicity are far from fully understood, but they have existed for many years. For African Americans, there is widespread agreement that the worse outcomes, like so many other important outcomes, are tied to long-standing discrimination, as well as to poorer access to high-quality medical care.³ The superior longevity of Hispanics over non-Hispanic whites has been much researched but not fully explained. It is worth noting that other groups, such as Asian

Americans, do better still, better than either Hispanics or whites. As to the recent trends, which have been so different across the three main groups, we will return to them repeatedly throughout the book, though we should confess from the start that we shall find much that is not easy to explain.

Figure 2.1 is drawn for men and women together, which is always potentially misleading. Women have lower mortality rates than men throughout life, and so they live longer, about five years longer in the US. Men and women suffer from different diseases, and to different extents from the same diseases and behaviors: men, for example, are three to four times more likely than women to kill themselves. But the turnaround—from continual progress in the twentieth century to stalled progress, or even regression, in the twenty-first—has happened to both men and women in midlife, though the reversal is somewhat larger for women than men. Even so, the gaps between whites in the US and other countries and between US whites and what we might have expected are large for both men and women, so that the figure does not mislead by taking men and women together.⁴

One measure of the importance of the white mortality reversal is to compare what actually happened with the trend shown by the dotted line. The gap between the two lines shows the difference in mortality rates in each year, from which we can calculate for each year how many people aged forty-five to fifty-four died who would have been alive had late twentieth-century progress continued. When we add up those numbers from 1999, the critical point where the turnaround began, to 2017, we get a very large total: 600,000 deaths of midlife Americans who would be alive if progress had gone on as expected. One immediate point of reference is the approximately 675,000 Americans who have died from HIV/AIDS since the beginning of the epidemic in the early 1980s. We shall refine our estimate as we go, extend it to other age-groups, and attribute it to specific causes, but it will serve for now as a ballpark estimate of what is involved, and to establish that what we are dealing with is indeed a major catastrophe.

Another measure of importance is to look at what has been happening to life expectancy at birth. Because life expectancy is more sensitive

to deaths at younger ages, only large changes in midlife mortality can affect it. For whites, life expectancy at birth fell by one-tenth of a year between 2013 and 2014. In the next three years, between 2014 and 2015, 2015 and 2016, and again between 2016 and 2017, life expectancy fell for the US population as a whole. These declines reflect mortality at all ages, not just in midlife, but are, in fact, heavily influenced by what has been happening to whites in midlife. Any decline in life expectancy is extremely uncommon. With a three-year decline, we are in unfamiliar territory; American life expectancy has *never* fallen for three years in a row since states' vital registration coverage was completed in 1933.⁵ For the subset of states that had registration of deaths before then, the only precedent is a century ago, from 1915 through 1918, during the First World War and the influenza epidemic that followed it. Catastrophes indeed.

The Geography of Mortality

If we are to begin to understand why these deaths are happening, we can first look for clues on *where* the deaths are happening. If we look across states at the changes in mortality rates for whites aged forty-five to fifty-four from 1999 to 2017, we find the increases in all but six states, with the largest increases in death rates in West Virginia, Kentucky, Arkansas, and Mississippi, all states with education levels lower than the national average. The only states where midlife white mortality fell by a noticeable amount were California, New York, New Jersey, and Illinois, all states with high levels of education.

A more detailed geography is shown in figure 2.2, where mortality rates for midlife whites are presented for about a thousand small areas across the United States in 2000 on the left and in 2016 on the right. These small areas are counties or, if the population of a county is small, a collection of adjacent counties. Darker areas indicate higher mortality, so the maps show high mortality in the West (except California), Appalachia, and the South in 2000, intensifying and spreading by 2016 into new areas, such as Maine, upper Michigan, and parts of Texas.

We will refer back to the patterns in these maps throughout the book.

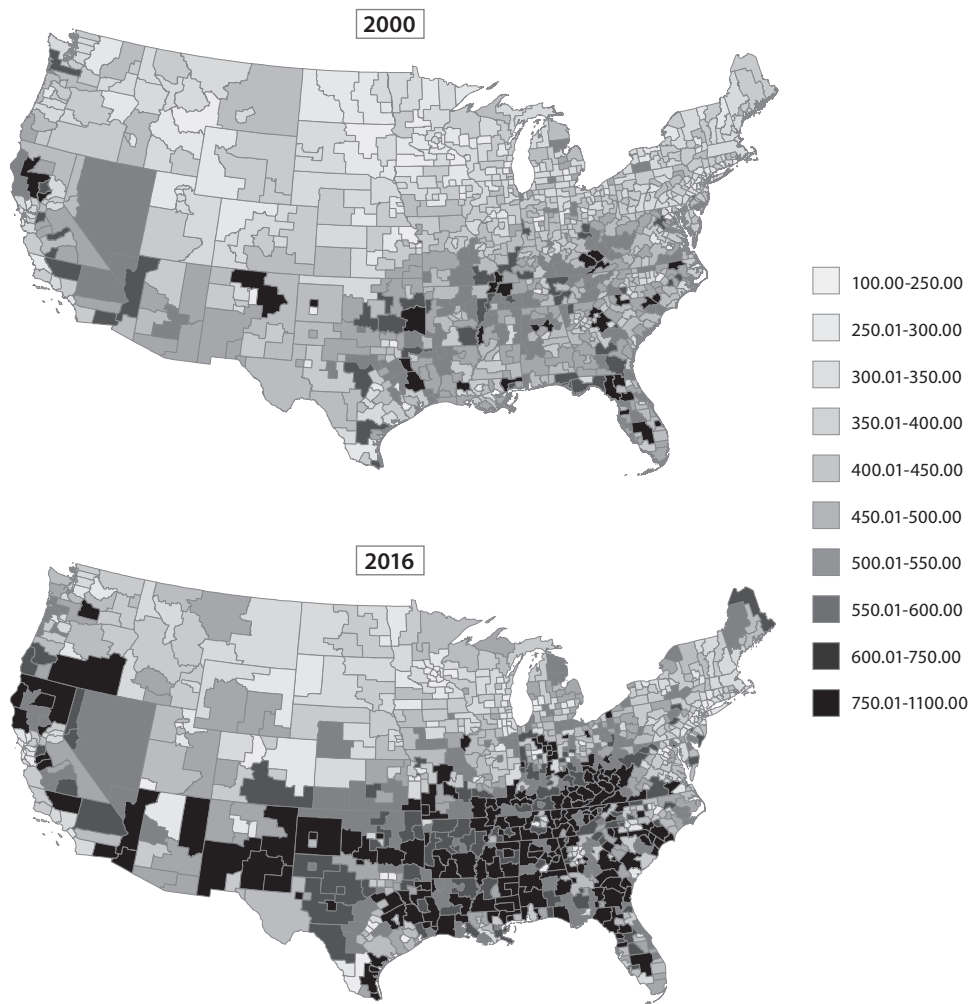


FIGURE 2.2. All-cause mortality rates, white non-Hispanics ages 45–54, by small area.
Authors' calculations using CDC data.

Carrying Their Troubles with Them: Age versus Cohort Effects

Figure 2.1 compares death rates across countries for one specific age-group, those aged forty-five to fifty-four, but our concerns do not end there. White mortality progress has reversed throughout adulthood, in

contrast to what is happening in the rest of the rich world. We highlight the midlife group, those aged forty-five to fifty-four. But, as we will see, rising mortality is not simply a baby-boomer phenomenon. For US whites, the hurdles at younger ages have also been raised.

The future of today's midlife adults is also in question. Will those in midlife "age out" of the mortality crisis if they survive? Or will they carry their troubles with them as they age, so that tomorrow's elderly will suffer like today's middle aged? Elderly Americans receive benefits, such as healthcare from Medicare and pensions from Social Security, that are not available to those in middle age so that, if these benefits are good for health, there is an argument for the positive alternative. But if the midlife deaths are happening to people born around 1950 because of the conditions under which they have lived their lives, or because of the way they have chosen to live their lives, there can be no expectation that they will do better as they age. Unfortunately, recent data are more consistent with the second, more negative outcome. The midlife increase in mortality has now begun to affect the elderly, as the birth cohorts born after the Second World War begin to move into old age. The all-cause mortality rate for whites ages sixty-five to seventy-four fell on average 2 percent per year between the early 1990s and 2012; since 2012, their mortality has stopped falling.

Social scientists often try to isolate two different phenomena. On the one hand, there may be "age" effects, when an outcome is tied to age, and on the other hand, "cohort" effects, when outcomes are attached to people born around the same time and are carried with them as they age. Cohort and age effects are not, of course, mutually exclusive, nor do they exhaust all of the possibilities. We will argue for (a version of) the cohort interpretation, which is, unfortunately, the more pessimistic of the two accounts. There is something about these people that makes them susceptible and that they carry with them through life. Discovering the nature of that something is our task in the rest of this book.

There are two stories, often seen as competing, though they need not be. One, the "external" or circumstantial account, emphasizes what happened to people, the opportunities that they had, the kind of education, occupation, or social environment that was available to them. The

alternative, “internal” account emphasizes what people did to themselves, not their opportunities but their choices among those opportunities, or their own preferences. It is a debate between worsening opportunities, on the one hand, and worsening preferences, or declining values or even virtues, on the other.

Before we can take the story further, we have to return to our midlife Americans in the early twenty-first century and find out more about the causes of their deaths. Not surprisingly, suicide, opioids, and alcoholism feature in the story, but they are by no means the only players.

3

Deaths of Despair

BECKY MANNING: He just carried this tremendous guilt for everything, for our son doing drugs. Then he started getting depressed, and then my husband took his own life.

PAUL SOLMAN: How did he do it?

BECKY MANNING: He blew his head off. I came home to that.

PAUL SOLMAN: Best friend Marcy Conner's husband also killed himself.

MARCY CONNER: He developed alcoholism very young in life.

PAUL SOLMAN: An addiction he shared with lifelong friends.

MARCY CONNER: One died with a heart attack, but drug use and alcohol use played all the way through his life. Another one died of cancer, drank up to the very end. And my husband actually had a G-tube in, a feeding tube in, and poured alcohol down his feeding tube until he died.¹

What are middle-aged white Americans dying from? The foregoing extract, from an interview in Kentucky that aired on PBS, manages, in only a few words, to capture the three different causes of death that we have come to call deaths of despair: suicide, drugs, and alcohol. It also shows how they are often closely related. Becky Manning's husband killed himself because of depression over his son's drug use. Manning's husband and his friends abused alcohol and drugs throughout their adult lives, and Marcy Conner's husband died by pouring alcohol directly into his stomach. One of the friends died of a heart attack in which alcohol could

have been indirectly involved, if it promoted a heart attack in someone who already had long-standing heart disease.

When we first saw an early version of the “coming apart” graph, we asked ourselves what people were dying of, which sent us back to the Centers for Disease Control and Prevention data to see what kinds of deaths had been rising most rapidly since 1999, the year white mortality rates began to rise. There were three immediate culprits. In order of importance, they were accidental or intent-undetermined poisonings (which are almost entirely drug overdoses), suicides, and alcoholic liver diseases and cirrhosis. While there are more deaths from drug overdoses than from either suicides or alcohol-related diseases, suicides and alcohol together kill more whites than do drugs. All three kinds of death are important. Death continues its journey. Having moved from the bowels of children into the lungs and arteries of the elderly, it is now backtracking into the minds, livers, and veins of the middle-aged.

The rapid rise in these deaths is affecting Americans, particularly whites, but not people in other rich countries. There have been increases in drug overdoses in other English-speaking countries—Canada, Ireland, Britain (especially Scotland), and Australia—and an increase in alcohol-related deaths in Britain and Ireland. (The data do not allow us to separate out deaths by ethnic or racial groups in these or in other rich countries.) These rising deaths elsewhere are serious threats to public health and may become more serious in the future. But, apart from drug deaths in Scotland, the numbers are very small compared with those in the United States. In the US, at least until 2013, when a deadly opioid, fentanyl, hit the streets, neither blacks nor Hispanics saw a rise in deaths of despair.

Although the surge in deaths in America is what we might see during the ravages of an infectious disease, like the Great Influenza Pandemic of 1918, this is an epidemic that is not carried by a virus or a bacterium, nor is it caused by an external agent, such as poisoning of the air or the fallout from a nuclear accident. Instead, people are doing this to themselves. They are drinking themselves to death, or poisoning themselves with drugs, or shooting or hanging themselves. Indeed, as we shall repeatedly see, the three causes of death are deeply related, and it is often hard

for the coroner or medical examiner to classify a death; it is not always easy to tell a suicide from an accidental overdose. All the deaths show great unhappiness with life, either momentary or prolonged. It is tempting to classify them all as suicides, done either quickly, with a gun or by standing on and kicking away a chair with a rope around the neck, or slowly, with drugs or alcohol. Even so, many addicts do not want to die, even when they see death as the almost inevitable outcome of their addiction.

The vast majority of drug deaths are classified as “accidental poisonings,” but these are not accidents in the same sense as falling off a ladder or being electrocuted by mistakenly touching a live wire. Certainly, some people get the dose wrong and accidentally inject themselves with more heroin than their systems can tolerate, or miscalculate the risk of combining drugs and alcohol. But what about the addicts who, when hearing of an “accidental death” nearby, seek out the dealer to make sure that they too can obtain high-strength drugs? Or those who seek out fentanyl, a drug that is many times stronger and more dangerous than heroin? The *Washington Post* reported the story of Amanda Bennett of Baltimore, aged twenty-six, who became addicted to opioids after a C-section, progressed to heroin, and then to fentanyl-laced heroin, and who noted, “If there is no fentanyl in it, I don’t want it at all.”²

People who seek out such drugs are not seeking death, just a powerful high or temporary relief from their cravings, but the high risk of death is no deterrent. There are addicts who, having overdosed, are miraculously brought back to life with a dose of naloxone (Narcan), only to overdose again within hours. Alcohol addiction is less immediately dangerous than addiction to opioids, and there are high-functioning alcoholics just as there are some high-functioning drug addicts. But there are also those who have lost their families, their jobs, and their lives to their addiction—addiction is a prison that separates its victims from a life worth living.

Robert DuPont, the first director of the National Institute on Drug Abuse, argues that the two essential characteristics of addiction are continued use of a substance despite serious consequences caused by that use, and dishonesty.³ What he has called the “selfish brain” takes control and leaves no room for anything but the craving.⁴ People who put

themselves at risk of dying from the side effects of alcohol or drugs have already lost much of what makes life worth living, paralleling the loss experienced by many of those who decide to kill themselves.

We call the three kinds of death “deaths of despair.” It is a convenient label, indicating the link with unhappiness, the link with mental or behavioral health, and the lack of any infectious agent, but it is not intended to identify the specific causes of despair. We shall have a great deal to say about those background causes, or “causes of causes,” in what follows. For now, it is simply a good label. Deaths of despair among white men and women aged forty-five to fifty-four rose from thirty per one hundred thousand in 1990 to ninety-two per one hundred thousand in 2017. In every US state, suicide mortality rates for whites aged forty-five to fifty-four increased between 1999–2000 and 2016–17. In all but two states, mortality rates from alcoholic liver disease rose.⁵ And in every state, drug overdose mortality rates increased.

We were far from the first to see the rise of drug overdoses. The current epidemic began in the early 1990s and gained momentum in 1996 with the Food and Drug Administration’s approval and the subsequent marketing of the addictive prescription painkiller OxyContin, essentially legalized heroin, manufactured by Purdue Pharmaceutical. Scholars who worked on alcohol-related liver deaths and suicide had also seen increases, especially in middle-aged whites, though this had not received the same public attention as the deaths from drug overdoses. Our contribution was to link drug overdoses, suicides, and alcohol-related deaths, to note that all were rising together, that together they were afflicting mostly whites, and that, among that group, the long fall in total mortality had stopped or reversed. We also chose the collective label “deaths of despair,” which helped publicize the combined epidemic and emphasize that it included more than just drug overdose.

But Something Else Must Be Going On

In an early comment on our work, the health economists Ellen Meara and Jonathan Skinner noted that, while it was true that deaths of despair were rising rapidly, their combined numbers were not enough, by

themselves, to account for the flattening or reversal in total mortality.⁶ Something else must be going on to account for the turnaround in white mortality, in comparison both with twentieth-century progress and with other groups in the US and other rich countries in the twenty-first century. We needed to find that “something else.”

The remarkable decline in mortality after 1970, and the associated increase in life expectancy at birth, was in large part driven by rapid decreases in deaths from heart disease and cancer, the two largest killers in the US. Before age seventy-five, the risk of dying of cancer outpaces that of heart disease; after seventy-five, heart disease takes more victims. Because mortality rates are highest at the oldest ages, heart disease is America’s number one killer. Progress against cancer, the number one killer in midlife, continued apace into the new century. The “something else” that, together with deaths of despair, halted midlife mortality decline turns out to be a marked slowdown in progress against mortality from heart disease, long an engine of better health and rising life expectancy. That previous progress is usually attributed to people quitting smoking—especially men, who quit earlier than women, and who are more likely than women to die from heart disease—and to more people taking preventive drugs for lower blood pressure and cholesterol (antihypertensives and statins). The risk of dying of heart disease for US whites ages forty-five to fifty-four fell at a brisk pace of 4 percent per year on average in the 1980s but decelerated to 2 percent per year in the 1990s, 1 percent per year in the 2000s, and began to rise after 2010.⁷

Figure 3.1 shows deaths from heart disease for whites ages forty-five to fifty-four in the United States, together with Britain and other English-speaking countries—Canada, Australia, and Ireland. After 1990, and as we would expect from continuing progress in reducing smoking and the spread of preventive medicine—whose treatments are readily available in all rich countries—mortality rates declined and became much more similar across countries. The exception is America, which once again has parted company with its neighbors. Indeed, the slowdown in progress against heart disease accounts for a substantial part of the “coming apart” in figure 2.1. Fifteen percent of the six hundred thousand extra deaths we

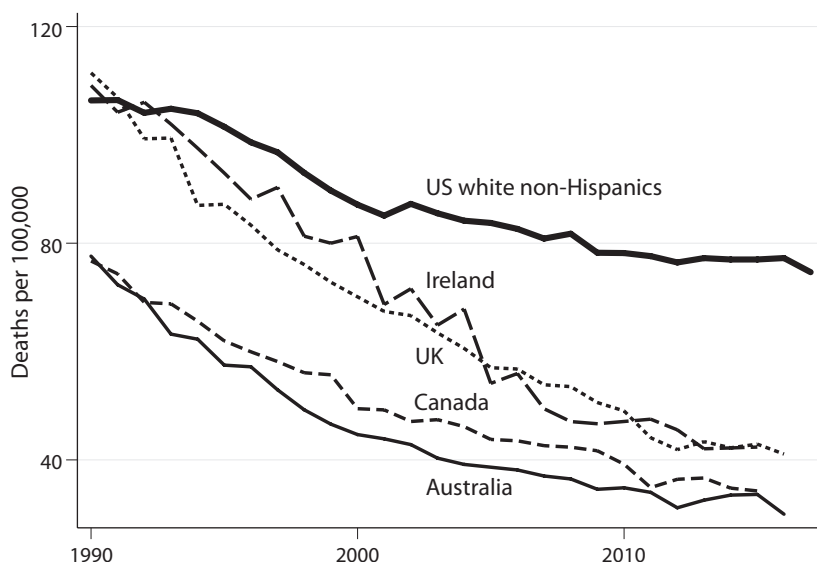


FIGURE 3.1. Age-adjusted heart disease mortality rates for men and women ages 45–54. Authors' calculations using Centers for Disease Control and Prevention and World Health Organization data.

estimated for forty-five-to-fifty-four-year-old whites in chapter 2 come from this source, and not just deaths of despair.

Progress against heart disease was robust until 2010 in the rest of the English-speaking world. However, that progress ended abruptly after 2011. This pattern, of steady progress through 2010 followed by mortality rates flatlining, is also true for blacks and Hispanics in the US. This puts the English-speaking world at odds with the rest of the rich world, where the risk of dying from heart disease in midlife continues to fall. Perhaps in the English-speaking world the improvements from prevention are running out, or perhaps as many people have quit smoking as are ever going to. But this cannot explain the poor performance of heart disease mortality in the United States, which was high by international standards in 1990, so that there ought to have been *more* room for improvement, not less.

When we look at drug overdoses or suicides, the classification of cause of death points to the immediate cause. But heart disease comes in many forms and has many underlying causes, so it is much harder to pin down

the *why* of figure 3.1. One possibility is that the drugs and alcohol associated with deaths of despair may make people more likely to die of heart disease. While moderate drinking (one drink per day for women, two for men) is thought to increase “good” cholesterol (HDL) and reduce the effects of “bad” cholesterol (LDL), heavy drinking over the long term can lead to heart disease by increasing the risk of high blood pressure and by weakening the heart muscle. Binge drinking (three or more drinks in a one-to-two-hour period) can make the heart beat irregularly. The relationship between drug abuse and heart disease is more complicated, given that different drugs have different effects on the central nervous system. Methamphetamines and cocaine (dubbed “the perfect heart attack drug”) are stimulants that increase blood pressure and heart rate, increasing the risk of both heart attack and sudden cardiac death. Less is known about the heart risks associated with opioid abuse. Recent research suggests links between long-acting opioids and cardiovascular death, but much work here remains to be done.⁸ To the extent that heart failure or a fatal heart attack was the result of long-term alcohol or drug abuse, these deaths could also be classified as deaths of despair.

More general threats to heart health in midlife appear to lie in smoking, hypertension, and obesity. While American smoking rates have fallen overall in the past twenty years, in some areas of the country rates remain stubbornly high (this is particularly true of the East South-Central census division—Mississippi, Kentucky, Alabama, and Tennessee), and within some demographic groups, smoking rates have continued to increase (true of middle-aged white women without a bachelor’s degree). There has also been some recent reduction in adherence to antihypertensive medicines.

By far the most popular story for heart disease deaths is obesity, that Americans weigh too much, that they are among the heaviest in the world, and that the prolonged increase in obesity, which many scholars have long predicted will undermine health progress, is now actually doing so. Many studies have documented the risks of obesity, which include heart disease, high blood pressure, and diabetes. The link from obesity to diabetes is particularly strong, and deaths from diabetes may often be recorded as deaths from heart disease when it is also present.⁹ Eating too much,

like drinking too much, is for some people a reaction to stress and a way of self-soothing in the face of life's difficulties and disappointments, so deaths associated with obesity could perhaps also be included as deaths of despair.

We do not take that route here, in part because it is so difficult to calculate which of the deaths from heart disease are related to overeating. But the obesity explanation is far from complete. The obesity gloom-mongers have been crying wolf for a long time and were predicting that life expectancy would start falling long before there was any sign of it.¹⁰ It is also possible that the risks associated with obesity were lower in recent years and are lower now than when the studies of risk were done; studies have to follow people for many years and, with the arrival of new procedures and drugs, they always run the risk of being out of date before they are completed. Since one of the ways that obesity increases the risk of heart disease is through high blood pressure, the increased availability and use of antihypertensives may have made it safer to be heavy than it used to be.

Comparisons across countries also leave many questions unanswered on the role of obesity. In England and Australia, the rise in obesity for adults aged forty-five to fifty-four was nearly identical to that seen for whites in the US between the mid-1990s and 2010,¹¹ during which time heart disease mortality in the UK and Australia fell on average at 4 percent per year. The synchronized halt to progress in heart disease for US blacks and Hispanics and middle-aged adults in other English-speaking countries after 2011 leaves open the question of whether some additional factor is now also at work.

Whatever its ultimate cause, the unique pattern of heart disease mortality for US whites combined with the unique pattern of deaths of despair to generate a rise in white midlife mortality after 1998. We can think of what happened to overall mortality as the result of a tug-of-war. On one side, we have progress against heart disease, pulling mortality rates down. On the other, we have deaths of despair tugging, weakly at first, to pull mortality rates up. In 1990, heart disease progress was "winning," and overall mortality fell. But, over time, heart disease progress lost its

strength, while deaths of despair grew stronger and overall mortality stopped declining and in some midlife groups began to rise.

This account is important for our story here, because both the level of heart disease mortality and the slowdown in progress against it vary with age, so the tug-of-war for the direction of all-cause mortality is different in different age-groups. For whites in their late twenties or early thirties, heart disease is not a big killer, and the rapid increase in deaths of despair has been driving up all-cause mortality in this part of adulthood for the past twenty years. For whites in their late thirties and early forties, declines in heart disease and cancer and increases in deaths of despair came to a standstill until 2013, when access to an even more deadly opioid (fentanyl) began to accelerate deaths from drug overdose. For those in their fifties, the complete collapse in progress against heart disease, pitted against rising mortality from drugs, alcohol, and suicide, has been driving up all-cause mortality since the start of the new century.

Not Just in Midlife: Deaths of Despair among Younger Americans

We are telling the story in the way that we uncovered it, starting with midlife deaths of all kinds. We then focused on the immediate causes, which turned out to be deaths of despair among whites plus a slowdown and reversal in deaths from heart disease, which, until then, had been a main engine of mortality decline. Unfortunately, deaths of despair are not only afflicting middle-aged whites. While the elderly have been largely exempt, there have also been rapid increases in deaths of despair—particularly from overdoses and suicides—among younger whites. For whites between the ages of forty-five and fifty-four, deaths of despair tripled from 1990 to 2017. In 2017, this midlife age-group had the highest rate of mortality from deaths of despair. But whites in younger age-groups were also doing badly and their deaths rose even more rapidly, accelerating in the last few years.

As we write, the epidemic is worsening. In the next chapter, we shall suggest a story of the epidemic in which, with the passage of time, each age-group does progressively worse than the same age-group did in earlier years. All the while, the pattern we see in midlife deaths is moving into old age. In 2005, deaths of despair started to increase beyond middle age.

Parents should not have to watch their grown children die. It is a reversal of the normal order of things; children are supposed to bury their parents, not the reverse. The death of a child, even an adult child, can tear families apart, and the loss of people in their prime, people who should not be dying, upends communities and workplaces too. At the outset of this chapter, we saw how Mr. Manning killed himself in the face of his son “doing drugs,” and there are millions of American mothers and fathers today who are living in dread that the phone call to their adult son or daughter will go unanswered, or that a phone call will come from the police or the emergency room.

PART II

The Anatomy of the
Battlefield

4

The Lives and Deaths of the More (and Less) Educated

IN THE STATE OF KENTUCKY, where Becky Manning and Marcy Conner told the stories of their husbands' suicides, the risk of dying in midlife from suicide, accidental drug overdose, or alcoholic liver disease was a third higher than the national average in 2017. But not all Kentuckians were at equal risk. The risk of dying a death of despair had risen markedly, but only for those who did not hold a four-year college degree. Figure 4.1 shows mortality rates over time from deaths of despair for whites aged forty-five to fifty-four in Kentucky. Without a bachelor's degree, the risk rose from 37 to 137 per 100,000 people between 1995 and 2015, while that for those who hold a bachelor's degree changed little.

Kentucky is among the states with relatively low educational attainment, and only a quarter of whites ages forty-five to fifty-four hold a bachelor's degree. But this pattern, of rapidly increasing risk for those without a four-year degree, is repeated in all US states. Education is clearly one of the keys to understanding who is dying and why. The march of death from arteries and lungs to minds, livers, and veins is largely confined to those who have not been to college. If we are to understand the extra risk borne by those without a bachelor's degree, we need to understand the role education plays in people's lives.

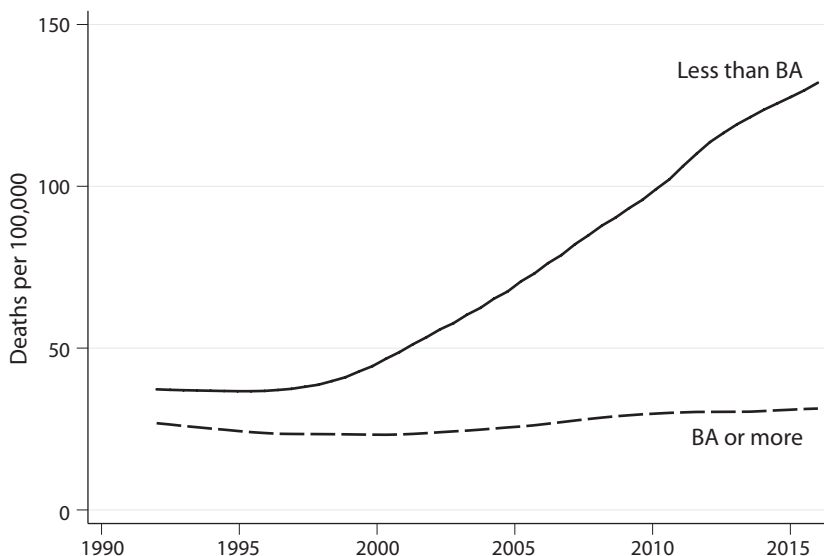


FIGURE 4.1. Suicide, drug overdose, and alcoholic liver disease mortality in Kentucky, by educational attainment, white non-Hispanics ages 45–54. Authors' calculations using Centers for Disease Control and Prevention data.

What Education Does to Life

In 2017, almost 40 percent of the American population aged twenty-five or older had no more than a high school diploma, 27 percent had some tertiary education but did not hold a bachelor's degree, and 33 percent held a four-year bachelor's degree or higher qualification. The proportions in each education category changed dramatically for Americans born between 1925 and 1945; 10 percent of adults ages twenty to twenty-four were enrolled in school in the late 1940s, doubling to 20 percent by the late 1960s.¹ Since then, tertiary education has nosed up slowly; the fraction holding a bachelor's degree increased from a quarter of people born in 1945 to a third of those born in 1970. For those born after 1970, and graduating after 1990, the fraction earning a bachelor's degree has changed little.

The most obvious advantage of having gone to college is that you earn more, and with more money, you can live a better life. In the late 1970s,

those with a bachelor's degree or more earned on average 40 percent more than workers who left school with a high school diploma. But by 2000, that "earnings premium," as economists call it, had doubled, to an astronomical 80 percent.² In contrast, over that period, the earnings premium for Americans with some college education short of a bachelor's degree remained relatively flat, with earnings 15 to 20 percent higher than for those with a high school degree. Those who graduated from high school in the early 1970s and who decided *not* to go to college could not have known how much they would be giving up by the end of the century.

Many occupations that previously did not require a bachelor's degree now do, so that the opportunities for those who do not go to college are shrinking just as the opportunities for those who have been to college are expanding. In 2017, at a time when the unemployment rate was only 3.6 percent, a historical low, the unemployment rate was almost twice as high among those with a high school diploma as it was among those with a bachelor's degree. Eighty-four percent of Americans ages twenty-five to sixty-four with a bachelor's degree or higher were employed in 2017, while only 68 percent of those with a high school diploma but no additional education were employed.³ American workers' earnings generally peak between the ages of forty-five and fifty-four. It is worrying that fully a quarter of Americans in that age-group who left school with a high school diploma were not in the labor force in 2017 compared with only 10 percent of those with at least a bachelor's degree.

As we shall see, there is much controversy about the *why* of the difference, whether less educated people simply do not want to work, at least at the wages that are available to them, or do want to but cannot because work is unavailable or because they are disabled. Whatever the answer, the fact remains that the labor market is delivering for those with more education in a way that it is not for those with less.

As business and government have adopted ever more sophisticated technologies and as their use of computers has increased significantly, the demand for higher skills and higher ability has expanded, which can

explain part of the earnings and employment gap between those with less and more education. For the fortunate and talented few at the top, who become hedge fund traders, Silicon Valley entrepreneurs, CEOs, or top lawyers or doctors, the earnings possibilities are virtually unlimited, much more so than used to be the case. Among America's 350 largest firms, average CEO earnings in 2018 was \$17.2 million, 278 times average earnings. In 1965 the ratio was only 20 to 1.⁴ If we go back a hundred years, those who earned the very highest incomes derived them from capital; they were the inheritors of fortunes from the past. Among those who lived off interest and dividends, it was a badge of shame to have to work for a living. There was no greater disgrace than to have one's daughter marry a manufacturer. Today, the highest incomes are coming not from inherited wealth but rather from high earnings—for example, for CEOs—or from the profits of self-employed and highly skilled business proprietors such as consultants, doctors, and lawyers. Education is a required gateway for such jobs, not family or birth.⁵

People tend to marry people with similar interests and backgrounds. Women with college degrees are more likely to marry college-educated men. Where once college-educated women stayed at home, in the last part of the twentieth century they came out to work. As a result, during the period when the labor market returns to a college degree rose, and more high-paying professional positions opened to women, we began to see more couples in which both partners had high, professional earnings. A bachelor's degree or beyond was a ticket not just to a high-paying job but also to a marriage with two high salaries.

The worlds of the more and less educated have split apart, a divergence that we will see over and over in this book.⁶ At work, companies are today more likely to be segregated by education, and as we shall see later, firms are outsourcing many low-skill jobs that used to be done in-house, where people with different levels of education worked together and were part of the same company. The more and less educated are now more segregated in where they live, the successful in places where house prices are high and to which the less successful do not have access. Greater geographical segregation has widened the gap in the

quality of schools attended by the children of the more and less educated. The power couples have less time to participate in community activities, other than with their children's schools, so that the more and less educated are less likely to know each other, to understand each other's concerns, or to participate in common social activities. The tastes of the two groups are different; they eat in different kinds of restaurants, visit different websites, watch different television channels, get their news from different sources, worship in different kinds of churches, and read different books. And, as we shall see later, their attachment to the institution of marriage is different and increasingly so. More educated people marry later, they are more likely to stay married, they have children much later, and they are less likely to have children out of wedlock.

Gallup asks a large sample of Americans to rate their lives on a "ladder of life" from 0 ("the worst possible life you can imagine") to 10 ("the best possible life you can imagine"). From 2008 to 2017, more than 2.5 million people answered this question, and their average life evaluation was 6.9. For those with a bachelor's degree or above, the average was 7.3, compared with 6.6 for those with a high school diploma or less. About half of this ladder-of-life advantage comes from the higher incomes that the more educated enjoy, leaving a very substantial advantage attributable to education itself, or at least to the nonincome benefits that education brings. Gallup also asks people about whether they get to do something interesting or something they like every day; once again, the educated have a huge advantage.⁷

Education and Meritocracy

A more educated *society* is different in ways that go beyond the differences between individuals. At least to some extent, everyone benefits from the innovations and higher productivity of more educated people. Better equality of opportunity is a worthy goal, and everyone approves of opening educational opportunities to bright children who were previously excluded on grounds of their family, income, or birth. Meritocracy is a

touchstone virtue of our age, and no one doubts the benefits of allowing everyone a chance to succeed and to rise to the level of their abilities. Indeed, it is clear that we need more of it in some areas. An excellent example is who becomes an inventor; inventions are key to economic growth and future prosperity. Children born in the top 1 percent of the income distribution are ten times more likely to become inventors than those in the bottom half of the income distribution. This failure of meritocracy is leaving “lost Einsteins” who might have changed the world for the better.⁸

Meritocracy has its downsides too, which were recognized by the British economist and sociologist Michael Young, who in 1958 invented the term *meritocracy* and who predicted a social disaster as a result of its rise.⁹

Indeed, we have already seen one problem, that some jobs that were once open to nongraduates are now reserved for those with a college degree. If the jobs—such as those in law enforcement, for example—are better done by those with a degree, that is a good thing, in and of itself. But if there are resources that are in fixed supply, such as nice places to live and work, they will be allocated away from those with less education. Most seriously, and this is what concerned Young, the loss of the smartest children from the less educated group deprives them of talent that is useful to the group itself. Young writes that “the bargaining over the distribution of national expenditure is a battle of wits, and that defeat was bound to go to those who lost their clever children to the enemy.” He notes that the real reason the elites have been so relatively successful is that “the humble no longer have anyone—except themselves—to speak for them.” When talented people lack a chance to move up, they miss the opportunity to shine and to benefit others in the wider world in which they become able to work, but the movement of talent also denudes the places and groups from where they came. Young refers to the less educated group as “the populists,” and the elite as “the hypocrisy.”¹⁰

Writing sixty years later, about our own times, the political philosopher Michael Sandel discusses the corrosive effects of meritocracy: “Winners are encouraged to consider their success their own doing, a

measure of their virtue—and to look down upon those less fortunate than themselves. Those who lose out may complain that the system is rigged, that the winners have cheated and manipulated their way to the top. Or they may harbor the demoralizing thought that their failure is their own doing, that they simply lack the talent and drive to succeed.”¹¹ According to a 2019 poll, only half of American adults think that colleges are having a positive effect on the country; 59 percent of Republicans—the party that has increasingly become the party of the less educated—think they are having a *negative* effect.¹²

Because they are selected on ability, not family wealth or position, meritocrats are more able than those they have replaced. Again, much of this will be personally and socially beneficial. But when a new group succeeds, it does what the previous group once tried to do, which is to entrench their own positions against the next generation of meritocrats. Being more able, they are more successful at the exclusionary and advantage-seeking strategies on behalf of themselves and their children that are privately enriching but socially destructive. The wealthy can pay for more, and higher-quality, coaching for college entrance exams and essays, as well as for diagnoses of disabilities that allow their children extra time for classwork and exams.¹³

When meritocracies are unequal, as is the case in the US today, with vast rewards for successfully identified merit—passing exams, promotions, making partner, speculating successfully, or getting elected—the rewards are paid not only for ability and virtue but also for cheating and for abandoning long-held ethical constraints that are seen as impediments to success. The saying “If you ain’t cheating, you ain’t trying” applies beyond sports. An unequal meritocracy is likely to be one in which standards of public behavior are low, and where some members of the elite are corrupt, or are seen as corrupt by those in the out-group. An extreme case is the college entrance scandal of 2019, when wealthy parents paid bribes to secure places for their children at elite colleges. Our guess is that the rise of the meritocracy in today’s vastly unequal America has contributed to the “winner-take-all” and much harsher atmosphere in corporations today.¹⁴ Perhaps meritocracies destroy themselves over time.¹⁵

Death and Education

That mortality rates are higher in the US for people with less education has long been known. One of the ways that education is protective against a preventable disease is when the way the disease works is understood but when that understanding is more accessible to those with more education. The demographers Samuel Preston and Michael Haines have shown that at the dawn of the twentieth century, before the germ theory of disease had been widely digested, “the children of physicians had mortality that was scarcely better than that for the average child, indicating fairly clearly that physicians had few weapons at their disposal to advance survival. By 1924, the mortality of physicians’ children was 35 percent below the national average. Children of teachers advanced as rapidly, and all professionals made great strides during the period.”¹⁶ Moving closer to the present, smoking rates were very similar by education group before the release in 1964 of the surgeon general’s report on the health risks associated with smoking. After that point, smoking rates began to diverge, with more educated people more likely to quit and less likely to start smoking. Of course, this does not explain why smoking rates for the less educated remain higher more than half a century after the health risks were understood. Knowledge is clearly not everything. Patterns of health-related behaviors by social status are frequently found, and status itself may be one of the keys to understanding them.¹⁷

Health behaviors continue to vary by education. In 2017, white American adults (twenty-five and over) with a high school degree or less were four times more likely to be current smokers than those with a bachelor’s degree or more (29 versus 7 percent), while those with some college but no degree fell in between (19 percent). A third of whites with less than a bachelor’s degree were obese in 2015, compared with less than a quarter of those with a bachelor’s degree, and those without a bachelor’s degree have lost ground in successfully controlling hypertension. Those with a bachelor’s degree or more are also taller than those without, by about half an inch on average—a reflection of better childhood health and nutrition.¹⁸

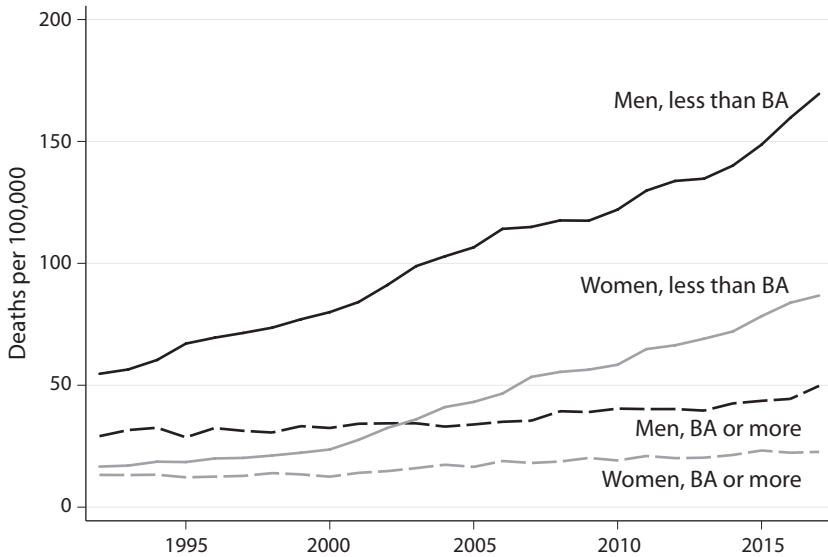


FIGURE 4.2. Drug, alcohol, and suicide mortality, white non-Hispanics ages 45–54. Authors’ calculations using Centers for Disease Control and Prevention data. Data are adjusted for increases in average age within the age-group.

These factors contribute to the rapid widening of the mortality gap between whites with and without a bachelor’s degree that we are witnessing today. Taken as a whole, white mortality in the age-group forty-five to fifty-four has held constant since the early 1990s. But this masks the fact that for those with less than a bachelor’s degree, death rates rose by 25 percent, while for those with a bachelor’s degree, mortality dropped by 40 percent.¹⁹ In 2017, those with a bachelor’s degree or more earned twice as much as those without, which speaks to the advantage of the more educated in life. That their risk of dying in midlife is only a quarter of that seen for those without a bachelor’s degree speaks to their advantage in death.

While increases in mortality gaps for heart disease and cancer both contributed to the growing gap in mortality between education groups, it was the rise in deaths of despair among those with less than a bachelor’s degree that largely accounts for the widening of the all-cause mortality gap. Figure 4.2 shows the numbers for the US as a whole, separately for men and for women.

Men and women in this age-group are much less likely to die deaths of despair if they have a bachelor's degree. A gap between the two groups is apparent for men in 1992. Men with less education were always more likely to die from alcohol, drugs, or suicide, but the gap widened rapidly as the epidemic progressed, so that by 2017, those in the less educated group were three times more likely to succumb to these deaths.

In the early 1990s, white women were at low risk of dying from alcohol, suicide, or drug overdose, regardless of their education. Early media coverage of our work often carried headlines about “angry” white *men* dying, which we think stemmed from an inability to imagine that women could kill themselves in these ways. Historically, they did not. But that has changed. Women are less likely to kill themselves—this appears to be true everywhere in the world where we have data, even in China, which used to be an exception—and they are less likely to die from alcoholic liver disease or from drug overdoses. Yet the graph shows that the epidemic is affecting men and women in almost equal numbers. This is true for each component—suicide, drug overdose, and alcoholic liver disease—examined separately. We argue against the view, espoused by some in the media, that this is an epidemic that is more serious for women. This plague has not discriminated by sex.²⁰

The Destiny of Birth

Figure 4.3 plots deaths of despair among all adults, not just those in midlife. Here we look at people with and without a college degree according to their year of birth, tracking birth cohorts through time as they age. It is worth spending time on this figure, because it is important for understanding what has happened, and because we shall use similar figures in subsequent chapters. The fates of different Americans depend on when they were born, when they finished school, and when they started work, and these graphs help us to see all of this.

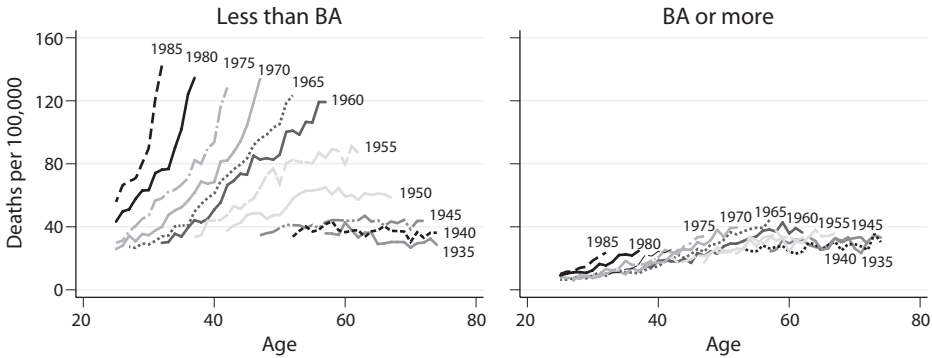


FIGURE 4.3. Alcohol, drug, and suicide mortality, white non-Hispanics, by birth cohort 1992–2017. Authors’ calculations using Centers for Disease Control and Prevention data.

The left panel of the figure shows people without a bachelor’s degree, while the right panel shows people with a bachelor’s degree or more. The left panel is easier to see, though both panels are constructed in exactly the same way. Each line refers to a specific birth “cohort,” or the group of people born in a given year, which is marked on the figure; farthest left is the cohort born in 1985, and farthest to the right is the cohort born in 1935. The horizontal axis shows age, and the people in each cohort age by twenty-six years as we follow each cohort through time from 1992 to 2017, which is all that our data allow. In order to make the figures legible, we show only every fifth birth cohort. Each line, or “track,” in the figure shows how the rate of mortality from deaths of despair changed over time as each birth cohort aged.

As we look at younger and younger cohorts of those without a college degree, we find that their risk of dying a death of despair is higher than the risk for the cohorts that came before. At age forty-five, for those without a bachelor’s degree, the birth cohort of 1960 faced a risk 50 percent higher than the cohort born in 1950, and the cohort of 1970 faced a risk more than twice as high. The later you were born, the higher your risk of dying a death of despair at any given age. The risk rises with age for all but the oldest cohorts (those born in 1935 and 1940). Each successive

cohort faces a risk of death that is rising more rapidly with age than that faced by the cohorts that came before.

Remarkably, the right-hand panel, showing cohorts of those who have a bachelor's degree, is quite different. In contrast to the sharp differences by cohorts for those without a college degree, it is difficult to tell the birth cohorts apart. As with the less educated, the risk of a death of despair rises with age, at least until age sixty, but each cohort seems to be aging almost along the same trajectory. If we look closely, we can see that there are (much smaller) differences across cohorts and that here, too, later-born cohorts are doing slightly worse. But, in the language of the demographers, there are no or only very small "cohort effects"; each cohort is aging along the same profile.

The patterns for black non-Hispanics across birth cohorts, for both education groups, look very much like that for whites with a bachelor's degree—rising with age within an education group, but with very little difference between birth cohorts. For blacks, there is no progressive deterioration for younger cohorts.

For the cohort of non-Hispanic whites born in 1935, whom we see in their sixties and seventies in figure 4.3, the difference in the risk of a death of despair between those with and without a bachelor's degree is only three per one hundred thousand. But the difference between the less and more educated grew dramatically for later-born cohorts so that, in the cohort born in 1960, whom we see in their forties and fifties, the difference between those with and without a bachelor's degree is ten times larger than that for the cohort of 1935. The catastrophe that has come to less educated whites, and that is getting steadily worse the later they were born, is affecting the educated in a much less severe way.

Going back to the nineteenth century, and even before Emile Durkheim's foundational study of suicide in 1897, more educated people were *more* likely to kill themselves.²¹ The epidemic has reversed that long-standing pattern. In the birth cohorts born between 1935 and 1945, suicide was equally common among those with and without a college degree. However, beginning with cohorts born in the early 1950s, those without a bachelor's degree were at higher risk. The divergence in the risk

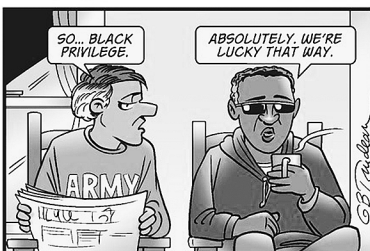
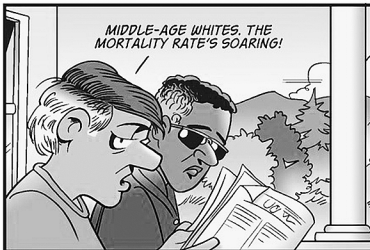
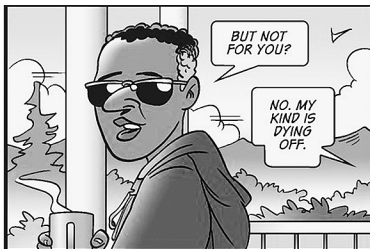
of suicide between the less and more educated has grown with each successive birth cohort. For those born in 1980, whites without a bachelor's degree are four times more likely to commit suicide than those with a four-year degree. These twenty-first-century suicides are different from past suicides; they are happening to different people and, we might reasonably presume, for different reasons.

5

Black and White Deaths

IN THE *DOONESBURY* CARTOON featuring B. D. and his friend Ray, Ray claims that blacks and Latinos are immune to deaths of despair because they are used to distress and deprivation. B. D. ironically refers to this immunity as “black privilege.”¹ It is ironic because middle-aged blacks are far from privileged in their risk of dying, just as they are far from privileged in many other aspects of life.

Over the past quarter century, at least up to 2013, African Americans did not suffer the relentless increase in deaths of despair that we have documented among whites. However, earlier in the twentieth century, blacks faced a mortality crisis precipitated by the arrival of crack cocaine and HIV. This occurred after a period of large-scale job loss for lower-skilled black workers. Jobs in manufacturing and transportation left the inner city, which led to social upheaval, detachment from the labor force, and a disintegration of family and community life. As we shall see in later chapters, this story has many parallels with what has happened to less educated whites in the last twenty-five years. When the labor market turned against its least skilled workers, blacks were the first to lose out, in part because of their low skill levels, and in part because of long-standing patterns of discrimination. Decades later, less educated whites, long protected by white privilege, were next in line. The debates about causes, between lack of opportunity, on the one hand, and lack of virtue, on the other, are also remarkably similar in the two episodes. What happened to blacks and whites differs perhaps more in *when* than in *what*.



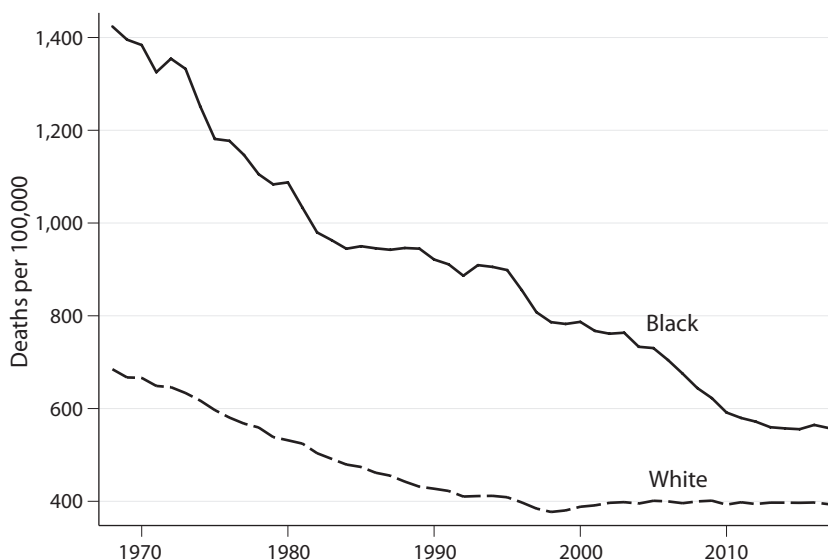


FIGURE 5.1. Mortality rates for blacks and whites ages 45–54, 1968–2017. Authors’ calculations using Centers for Disease Control and Prevention data.

We will tell this story in more detail, but we start, as usual, with the numbers.

Black and White Mortality: Facts

Figure 5.1 shows mortality rates for blacks and whites since 1968 for the midlife group aged forty-five to fifty-four.² Black mortality rates have fallen more rapidly than those for whites but have been, and remain, consistently higher. This has been happening since the 1930s, when midlife death rates for blacks were an appalling two and a half times higher than for whites.

The black-white gap has closed, but at different rates in different periods. In the late 1960s, when white mortality rates stalled because of smoking in earlier years, the gap closed quickly. In the 1980s, it was black mortality’s turn to stall; this was when the crack and HIV epidemics fell hard on the black community. We will come back to this episode.

From 1990, black mortality resumed its progress so that, when white mortality stopped falling in the late 1990s, the gap closed rapidly. Reducing the gap is most welcome, but it would have been much more so had it come more from increasingly rapid progress among blacks and less from the stalling of progress among whites. On the far right of the graph, black midlife mortality stops falling and starts rising; we will return to this too.

One point is obvious but important. Black mortality rates are higher than white mortality rates throughout the picture. Blacks are doing worse than whites. By contrast, black mortality rates have fallen faster than white mortality rates. From this one might say that blacks are “doing better” than whites even though they are more likely to die. We will always try to be very clear about whether we are talking about *levels* of mortality or *rates of change* (progress) in mortality. More fundamentally, it is the probability of dying that matters to people, not its rate of change, and in this, white privilege remains. Even with white death rates rising, the difference in *levels* between white and black mortality remains stark: black mortality rates in 2017 were only slightly lower than those experienced by whites forty years earlier.

It is understandable that B. D. would find it strange that there should be any health measurement—either change or level—that is not worse for blacks. A dispiriting fact is that deprivation in one aspect of life usually comes with deprivation in others. Health disparities between groups usually run parallel to social, economic, and educational disparities between those groups, and in the US, blacks are more likely to live in poverty, are less likely to hold a college degree, and continue to face discrimination. So it is indeed both unusual and surprising that all-cause death rates were falling for blacks while death rates for white rates were increasing.

Blacks and Whites in the Current Epidemic of Deaths of Despair

The main reason why death rates of blacks fell more rapidly than death rates of whites at the beginning of the twenty-first century is that blacks were not suffering the epidemic of overdoses, suicide, and alcoholism.

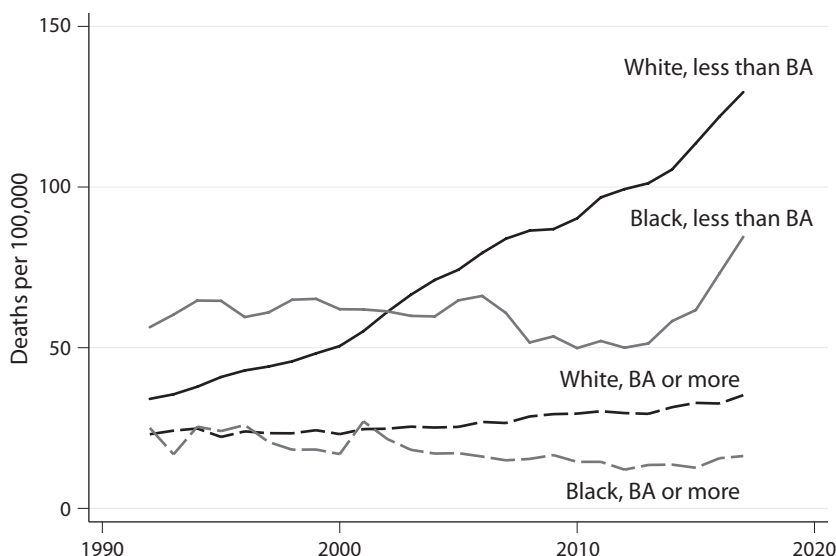


FIGURE 5.2. Drug, alcohol, and suicide mortality in midlife, 1992–2017, blacks and whites, with and without a college degree. Authors' calculations using Centers for Disease Control and Prevention data, ages 45–54 (age-adjusted).

Figure 5.2 shows deaths of despair—suicide, alcohol, and drug mortality—for ages forty-five to fifty-four, from 1992 to 2017, among whites (black lines) and blacks (gray lines). As we saw in chapter 4, a college degree makes a huge difference to the likelihood of dying, so we show separate lines for both groups.

For blacks, with or without a college degree, midlife mortality rates from deaths of despair were flat or falling for a quarter century, while white mortality rose, particularly for those without a college degree. For both blacks and whites, the contrast between those with and without a college degree is particularly notable.

The increase in black mortality in the most recent years comes from an interaction between the current opioid epidemic and the earlier drug epidemic in the black community. As we shall see in chapter 9, the epidemic has most recently been driven by fentanyl, an opioid that is much more powerful and dangerous than heroin. The earlier drug epidemic among blacks had left a substantial number of long-term but stably functioning addicts in the black community. But when dealers started

mixing fentanyl with heroin and cocaine, those long-term addicts started dying; a customarily safe dose had, without the victim's knowledge, become a lethal cocktail. From the low point of black mortality from all causes (in 2014), increases in death rates involving synthetic narcotics (like fentanyl) can fully account for the increase in mortality observed for those aged forty-five to fifty-four. Half of the increase in deaths involved a mix of synthetic narcotics with heroin, and half with cocaine. In addition, as discussed in chapter 2, the fall in deaths from heart disease came to an end, possibly connected with the drug deaths. Until these events, the current epidemic was a white epidemic.

Drug overdoses and alcohol-related liver mortality caused many deaths among blacks in the earlier epidemic, and among whites in the current one. But in deaths from suicide, the parallel breaks down. African Americans are much less likely to kill themselves than are white Americans; their suicide rates in midlife have changed little in the past fifty years and are currently about a quarter of those for whites. The ratio is not fixed and differs by age, but the much lower rate for blacks has long been the case and was noted as early as 1897 by Emile Durkheim in his foundational book on suicide.³ There is no widely accepted explanation for the difference. George Simpson, in his introduction to an English translation of Durkheim's book, summarizes Durkheim's view that perhaps "systematic oppression and underprivilege lead individuals to be adjusted to the misery and tragedy of human existence which is visited upon us all."⁴ He also notes something else that remains relevant today: the lower suicide rate of blacks shows that underprivilege alone is not a cause of suicide.

African American Despair

What happened to inner-city African Americans after midcentury is, we shall argue, a foreshadowing of our account of whites in the twenty-first century. The earlier story is told by the eminent sociologist William Julius Wilson in his 1987 book *The Truly Disadvantaged*.

In the late 1960s and early 1970s, African Americans in inner cities were employed in old-economy industries in manufacturing and

transportation. With the beginnings of postwar foreign competition, the switch from manufacturing to services, and the evolution of cities from centers of manufacturing to centers of administration and information processing, African Americans were hurt in the areas in which they had made the most progress. It is a tale of job loss and of social disintegration; according to Wilson, blacks who lived in the cities were predominantly employed where they were “vulnerable to structural economic changes, such as the shift from goods-producing to service-producing industries, the increasing polarization of the labor market into low-wage and high-wage sectors, technological innovations, and the relocation of manufacturing industries out of the central cities.”⁵ In the face of these transformations, and the passage of fair-housing legislation, the more educated and successful African Americans moved out of the inner cities, leaving behind neighborhoods that increasingly displayed a range of social pathologies, including deterioration of the black family, and ultimately crime and violence.

Women who conceived out of wedlock gave birth out of wedlock for lack of marriageable (i.e., employed) partners. As earlier predicted by Michael Young, the communities were denuded of the most talented and most successful, who moved out of the inner city. For blacks in the 1960s, the passage of civil rights legislation helped this to happen. Communities that had had a mix of professionals and manual workers, of more and less educated people, became increasingly deprived not only of successful and educated people but also of those in any kind of employment, with negative consequences for the community, and especially for young men. Wilson attributes the problems faced by the inner-city black community to “the large scale and harmful changes in the labor market, and its resulting spatial concentration as well as the isolation of such areas from the more affluent parts of the black community.”⁶ Writing about the parallel today, the economist Raghuram Rajan notes that talented and well-educated young people have headed to the growing, successful, high-tech towns and cities.⁷

African American inner-city communities faced a crisis of crack cocaine in the 1980s. The crack epidemic shows both contrasts and parallels with the current opioid epidemic. Crack was cheap and offered an

immediate high that was highly addictive. Crime rates increased, as those addicted looked for money for their next fix. As crack dealers fought for a place on a street corner, homicide rates among young black men spiked. While crack is still available and remains a scourge, the epidemic largely burned itself out by the mid-1990s. The reasons for its subsidence are still debated, but the aging of the population that had turned to crack as well as disgust among a younger generation that saw crack ruin the lives of family members and friends both appear to have played a role. Recent research indicates that crack continues to cast a long shadow, having permanently increased the number of guns available in the inner city.⁸ And as we have seen, the hangover of addiction from the epidemic has led to rising mortality from fentanyl.

Epidemics usually have causes that extend beyond the proximate causes, be it the availability of crack cocaine in inner cities in the 1980s or the increased availability of prescription opioids in predominantly white communities after the mid-1990s. A fundamental force in both cases was the long-term loss of working-class jobs, for blacks in northern cities in the 1970s and for less educated whites across much of the country more recently. With globalization, changing technology, rising healthcare costs of employees, and the shift from manufacturing to services, firms shed less educated labor, first blacks and then less educated whites.

In both epidemics, drugs that could ease psychological or physical pain were available at an (arguably) affordable price to populations that were hungry for the escape that they seemed to offer. During the crack epidemic, the inner city offered few legitimate avenues of progress. In the opioid crisis, it is less educated whites, many of whom do not see a promising economic future, or a promising future in any aspect of their lives, who are falling prey to drugs, alcohol, and suicide. We should also not exaggerate the similarities, especially when we are comparing blacks and whites today. Deaths of despair include suicides, and these differ markedly by race.

The misfortunes of African Americans in the 1970s and 1980s were widely attributed to a failure of black culture. Daniel Patrick Moynihan was a Harvard sociology professor, a longtime Democratic senator

representing New York from 1977 to 2001, and an adviser to both the Johnson and Nixon administrations. In 1965 he wrote a famous report, *The Negro Family*,⁹ in which he identified families without fathers as a central problem of African American communities and traced its roots back to slavery. The idea that the fundamental malady was not lack of opportunity was taken up by the political scientist Charles Murray in *Losing Ground*, which also argued that welfare benefits designed to combat poverty were undermining work and helping create the dysfunctional behavior. Murray's later book, *Coming Apart*, attributes many of the current problems of less educated whites to their own failures of virtue, particularly a failure of industriousness, meaning that they are no longer interested in working for a living or in supporting their families.¹⁰

In chapter 11, we look at the labor market and will show that Murray's thesis cannot explain what has happened recently for less educated whites. If people are withdrawing their labor, wages should rise; but in the late part of the twentieth century and into the twenty-first, wages fell along with employment, a clear indication that the problem lies with falling demand, not falling supply. As to the earlier episode, we endorse Wilson's view that "conservative assertions about underclass life and behavior were weakened because of a lack of direct evidence and because they seemed to be circular in the sense that cultural values were inferred from the behavior of the underclass to be explained, and then these values were used as the explanation of the behavior."¹¹

6

The Health of the Living

IN *ANNA KARENINA*, Leo Tolstoy famously claims that for a family, there is only one way of being happy, but many different ways of being unhappy. We rather doubt the truth of this, but it certainly applies to death and sickness—you are either dead or alive, but there are many different ways of being sick. Sickness in its many forms compromises your ability to lead a life that is good for you; in the words of the economist and philosopher Amartya Sen, it reduces your capabilities.¹ We explore several measures of ill health in this chapter, and we will see that all of them show that ill health is increasing in midlife, just as deaths have risen. Not only are people dying, but their lives are becoming less worth living. Sickness is part of the despair in deaths of despair.

It is not inevitable that sickness and death should go up together. Although it is true that people at risk of death—for example, from alcoholism or from cancer—are in poor health before they die, there is no necessary connection between a population's health, what is sometimes called its nonfatal health, and its mortality rate. If it is the sickest people who die off, higher death rates can even lift the average health of those who are left. A new treatment may save many lives but leave many with a chronic but not fatal disease; antiretroviral therapy for HIV is an example.

This chapter looks at health among the living. The numbers are not pretty, especially for the less educated. As mortality rates have risen among midlife whites, indicators of health among those who are not dying are getting worse. Fewer people think that their health is very good

or excellent. More people are experiencing pain, serious mental distress, and difficulty going about their day-to-day lives. People report that their health is making it harder for them to work. Not being able to work reduces income, which can lead to other deprivations and hardships, and work is itself a source of satisfaction and meaning for many people. Not being able to spend time with friends, go out for a meal, go to a ballgame, or just hang out all shrink and impoverish lives. As is the case for deaths, worsening health seems to be singling out those of working age with less education.

Measuring Health among the Living

The World Health Organization defines health as “a state of complete physical, mental, and social wellbeing, and not merely the absence of disease or infirmity.”² Taking this broad view suggests many indicators to look at, both positive, such as aspects of flourishing, and negative, such as indicators of sickness. The technical term for ill health while alive is *morbidity*, in contrast to *mortality*, which refers to death. There are many ways of being sick, each with its own indicator. Some are measured at an annual physical examination. Samples of blood and urine give indicators of cholesterol, diabetes, and heart, kidney, and liver function. Your physician or another medical professional will also measure the four “vital signs”: blood pressure, pulse rate, temperature, and rate of respiration. In recent years, it has become common for physicians to ask about pain, sometimes called the fifth vital sign, a topic to which we will return.

There are also indicators of health that you know without professional assistance: whether you are overweight; whether and how much you smoke and drink; how you are feeling in general, both physically and emotionally; which activities you can manage and which you cannot, including whether you are able to work; whether you sometimes or regularly experience pain and, if so, how severe it is. A good physician will also ask about mental health and about your social and emotional life. Losing a job, a friend, or a spouse can bring intense emotional pain. Good physicians also understand that pain can often exist without there being an injury, that pain without an injury cannot be dismissed as “all

in your head,” and that there is no bright line between emotional and physical pain.

It makes no sense to try to come up with a single comprehensive indicator of health—for example, to say that you are 73 percent healthy. Unlike being either alive or dead, a simple black-and-white distinction, health and morbidity have too many dimensions to allow any simple, uncontroversial measure. Some measures are inevitably “softer” than others; think of blood pressure or pulse rate, on the one hand, versus general feelings of health or of how life is going, on the other. Self-reports are often all that we have; life evaluation or pain is what people say it is, not what a medical professional says it is. There are no experts on how *your* life is going, or whether your world is circumscribed by pain. To neglect what people feel is a mistake, even if it is a mistake that the practice of medicine (and the economics profession) has made for much of its history.

When someone dies, the death and all of its details must be recorded on an official death certificate, and it is from those that we got the information on the mortality rates that we looked at in previous chapters. Such recording of vital statistics is standard in rich countries around the world. But when you go to the doctor for your physical, or with a medical issue, the results are not centrally recorded, so there is no national register of obesity, hypertension, or cholesterol, just to give some examples. For people treated under Medicare, medical records are centrally stored, but these records are short of information on the characteristics of the patients, so while they tell us a lot about conditions, treatments, and costs, they are much less informative about the personal attributes of those being treated. In some Scandinavian countries that have government-provided healthcare, all encounters are recorded, and those data can be linked, at least in principle, with other data about individuals—for example, about their education, marital history, income, and taxes.

In the US we rely on surveys that sample households or individuals, mostly run by the Centers for Disease Control and Prevention, though there are important private surveys too. The largest of these is the Behavioral Risk Factor Surveillance System (BRFSS),³ a state-based telephone survey coordinated by the Centers for Disease Control and

Prevention in which people are asked to report health-related information. The BRFSS (affectionately pronounced “burr-fuss”) obtains information from around four hundred thousand adults every year, asking them to rate their health, to report conditions such as pain, and to report behaviors that affect health—risk factors—such as smoking, drinking, height and weight, and exercise.

We also report numbers from the National Health Interview Survey (NHIS),⁴ which visits around thirty-five thousand households annually, interviewing one adult in depth and collecting information on all other household members. These surveys also ask people about their contacts with the medical system—for example, whether a medical professional has ever told them that they have cancer, high blood pressure, or heart disease. Those reports are useful, but they depend not just on the prevalence of conditions but also on the extent to which people visit clinics and on how aggressive clinics are in diagnostic testing. For example, there has been a large increase in diagnoses of thyroid cancer in recent years but no change in the mortality rate from the disease, suggesting that actual prevalence has increased much less than has the extent of testing. Many diagnostic tests are quite profitable for providers, and overtaking (and subsequent overtreatment) is always a possibility. For our purposes here, if overtaking is different in different places, geographic or national patterns will be distorted.

Because the BRFSS and the NHIS are nationally representative and are run every year, we can use them to compare answers over time and look for signs that health and health behaviors are improving or deteriorating. Surveys on the scale of the BRFSS or the NHIS are expensive to run and rely on respondents’ reports about their health, rather than on the results of physical examinations and lab tests, which are often conducted in surveys run on a much smaller scale, in specially designed mobile centers.⁵ These smaller surveys collect blood, for example, as well as height, weight, and blood pressure measured by medical professionals, rather than self-reports. Perhaps not surprisingly, people systematically misreport their heights and weights; many people shrink after age fifty, but they remember and report their height as young adults, recollecting better days, though this is more often true for men than women.

Women, by contrast, tend to underreport their weights.⁶ One can hardly begrudge people a little imaginary self-improvement, though it is good to know the truth for scientific purposes. Medical professionals often discount self-reports of height by elderly men—including one of us—and profess surprise when the claim is accurate. Examination surveys not only allow the collection of information about health that people cannot know themselves, but they also allow a cross-check on information from larger, less expensive, and less invasive interviews.

The Condition of the Living: What People Say about Their Health

The simplest of all health questions asks people to rate their own health in five categories: excellent, very good, good, fair, or poor. It is easy to pick holes in questions like this. Perhaps different people mean different things by “excellent” or “very good”—perhaps some are tough and feel wonderful in circumstances that would flatten the rest of us. The answers are undoubtedly affected by personal and social expectations about health—in poor countries, the poorest often say that they are in better health than the rich because they cannot afford to admit that their health is too poor to allow them to work.⁷ Is my health “good”? Relative to what? In spite of all of this, the answers tend to match up with other measures, including objectively verifiable measures, and, perhaps surprisingly, they pick up health-relevant information over and above what a physician gleans from a full physical examination.⁸ These reports contain real information, although it is good to verify it when possible, which gives us some confidence when verification is impossible.

Figure 6.1 shows, from the BRFSS, the fraction of the white, non-Hispanic population who report that their health is fair or poor (which we will refer to as “poor” health). Each line traces out that fraction, between ages twenty-five and seventy-five, for a particular year. Given the importance of education as a dividing line for deaths of despair, we present these self-reports of health separately for those without a four-year degree, in the left panel, and those with a bachelor’s degree or more, in

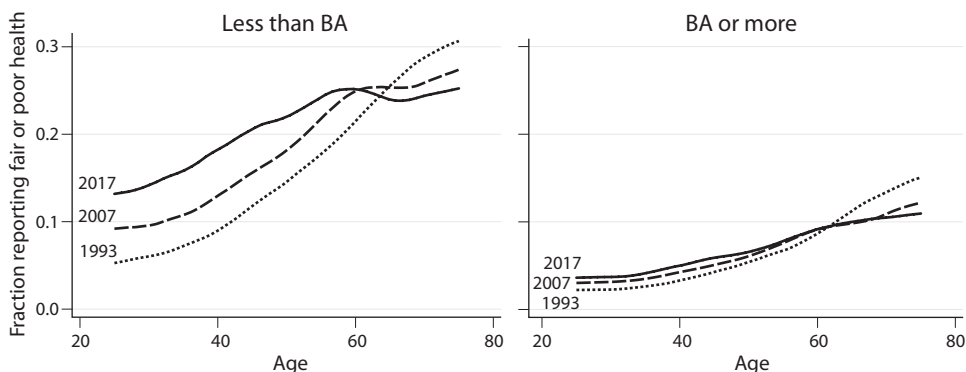


FIGURE 6.1. Fraction of white non-Hispanics reporting fair or poor health, 1993–2017.
Authors' calculations using the BRFSS.

the right panel, for the years 1993, 2007, and 2017. In each panel, the vertical axis is the fraction of respondents reporting that their health is fair or poor.

Reports of poor health rise with age, for both education groups; with age, life is more likely to deliver aches and pains and chronic conditions that interfere with good health. Indeed, if reports of poor health did not rise with age, we would reject self-reports as a useful measure of health. Even so, the rise tells us that people are not simply judging their health relative to other people their own age—if that were the case, the lines would be flat; on average, people are as healthy as the average of other people their own age.

The fractions reporting poor health are markedly different by education. In 1993, for example, at age forty, those without a bachelor's degree were almost three times more likely to report poor health than those with a four-year degree (8 percent versus 3 percent). But the big story in this figure is how the lines for those without a bachelor's degree have changed over time. (We have results for the other years in between, but we omit them to make the picture clear.) Younger people without a four-year degree—those from age twenty-five to around age fifty or fifty-five in the left panel—report worse health as time goes on. At age forty, the percentage reporting poor health doubled between 1993 and 2017 (from 8 to 16 percent). For those with a college degree, there was a small increase

in reports of poor health, but as was true for deaths of despair, their changes are dwarfed by those for people with less education.

Over the same period, older whites, aged sixty or over, were reporting better health, with a smaller and smaller fraction saying that their health was fair or poor. By 2017, for those without a bachelor's degree, adults above age sixty were reporting better health than were those in their late fifties. This puzzling result comes from presenting different birth cohorts in the same figure. Among those without a bachelor's degree, later-born birth cohorts are reporting worse health at each age than did the cohorts that came before them, which gives rise to the anomalous-looking result.

That the increase in poor health between survey years holds only for those without a bachelor's degree speaks against there having been a simple change in how birth cohorts assess their health, with later-born cohorts being more sensitive, say, to pain or chronic conditions, leading them to report worse health. If that were true, we would expect to see the same change for those with a four-year college degree. Not at all coincidentally, the changing age-health profile for those without a college degree matches the changing patterns of mortality discussed in chapter 2, with improvements among the elderly and deterioration in midlife. And as was true for deaths of despair, the reporting of poorer health started at least as far back as the early 1990s and gathered strength slowly, well before the financial crisis of 2008. What has happened to mortality is happening to morbidity; more midlife whites are dying, and those who are not dying are reporting worse health.⁹

The Condition of the Living: Other Measures

The increase in reports of poor health in midlife among less educated whites, presented in figure 6.1, can be seen in other health measures too; the graphs differ from measure to measure, but the fact that bad things are happening in midlife, especially to those without a bachelor's degree, applies to a lot of "things." One particularly important example is mental health, measured here using the Kessler Psychological Distress Scale. Since 1997, respondents in the NHIS have been asked a series of six

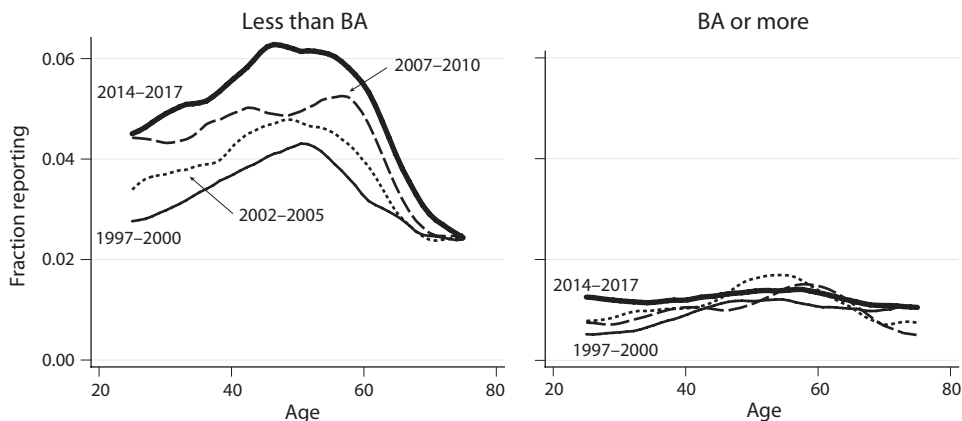


FIGURE 6.2. Serious mental distress, white non-Hispanics, by education. Authors' calculations using the NHIS.

questions about their feelings over the last month, which are compounded into a score based on how often they experienced each feeling. When that score crosses a threshold, the respondent is classed as experiencing serious mental distress. The questions cover how often respondents felt sad, nervous, restless, hopeless, worthless, and that “everything was an effort,” all feelings that might contribute to despair. Figure 6.2 shows the relationship of mental distress and age over the period 1997 to 2017 for those without a bachelor’s degree, in the left panel, and for those with a bachelor’s degree, in the right panel, for respondents ages twenty-five to seventy-five. In each panel, the vertical axis is the fraction of respondents in serious mental distress according to this scale.

For those without a degree, the risk of severe mental distress is highest in midlife, peaking between ages forty and sixty, the ages at which the stresses of work, raising children, and caring for elderly parents may all be pressing. In the late 1990s, severe mental distress was less common among young adults and the elderly, although over the past twenty years it has grown as much for young adults as it has for those in middle age. Again, the upward trend has been slow and steady, and it does not appear to have accelerated during the Great Recession in response to economic difficulties. Around age fifty, the percentage of whites without a

bachelor's degree in severe mental distress rose from 4 to 6 percent from 1997–2000 to 2014–17.

As was true of deaths of despair, the picture looks very different for those with a four-year college degree, presented in the right panel of figure 6.2. The risk of severe mental distress in this group is also highest for adults in their middle years, but the risk is only a quarter of that faced by those without a bachelor's degree. Among young adults with a four-year degree, there has been an increase in severe mental distress, but it pales in comparison to that faced by those without a bachelor's degree.

Other measures also indicate that health is worsening for those with less education. In the next chapter, we shall show that the same is true for pain, which plays a particularly important role in this book. But there is more. Whites in midlife are having a harder time just going about their usual activities, which health surveys measure as difficulties with “instrumental activities of daily living.” Since 1997, the NHIS has asked adults how difficult they would find it to walk a quarter of a mile (about three city blocks), climb ten steps, stand or sit for two hours, go out to do things like shop or go to the movies, relax at home, and socialize with friends. An ever-growing fraction of working-age whites without a four-year degree report “more than a little” difficulty in each of these activities—something that has not happened to whites with a bachelor's degree, and something that has not happened to older adults (ages sixty-five to seventy-four). The fraction of whites without a bachelor's degree who express difficulty in going out to do things like shop or go to the movies and the fraction finding it hard to relax at home have increased by 50 percent for those aged twenty-five to fifty-four, and the fraction finding it difficult to socialize with friends has nearly doubled in this twenty-year period. The inability to socialize with friends not only removes one of life's most pleasurable and important activities but also puts people at risk for suicide.

Rising obesity may play a part here. Carrying around extra weight can make it more difficult to enjoy activities of daily living, especially when people are not young. Obesity is often measured by the body mass index (BMI). BMI is defined as weight in kilos (1 kilo is 2.2 pounds) divided

by the square of height measured in meters (1 meter is 39.4 inches). It is a “pounds per square inch” kind of measure, but done on a metric scale. You are officially “obese” if your BMI is above 30, and underweight if your BMI is less than 18.5. (One of us is beyond obese and one is on the cusp of being underweight, so we know what we are talking about.) Yet the increase in American obesity cannot explain the deterioration in these health indicators for the simple reason that we see similar deteriorations at all levels of BMI—among the underweight, normal weight, overweight, and obese. Midlife Americans are not getting sicker just because they are getting fatter.

One measure that is not getting worse is the fraction of people who are smoking. For white non-Hispanics aged twenty-five to sixty-four, smoking rates have continued to fall, though they remain much higher for those without a bachelor’s degree. The only group where smoking rates increased steadily from 1993 through 2017 is women aged forty-five to fifty-four without a university degree; even here the increase is small, 2 or 3 percentage points. We find it surprising that, overall, smoking rates have fallen for those without a four-year degree while mortality rates from drugs, alcohol, and suicide have been rising; one of us is an ex-smoker, and smoking used to soothe in much the same way that alcohol can, though perhaps not as much as the combination. It is also worth noting that the prevalence of tobacco use in the US is a good deal lower than in many other rich countries.

Ability to Work

Being sick makes life worse, in and of itself, but it also interferes with other activities that are either directly valuable, such as socializing with friends, or both directly and instrumentally valuable, such as being able to work. Note that not being able to work is different from reporting being out of work, which rises and falls with the state of the economy. In contrast, the share of whites of working age reporting that they are unable to work has risen steadily since at least the early 1990s. As is true for self-reports of physical and mental health, shown in figures 6.1 and 6.2, there are dramatic differences here by education. For those aged forty-five to

fifty-four, historically the peak earning years, the percentage of whites reporting that they were unable to work rose from 4 percent in 1993 to 13 percent in 2017 for those without a bachelor's degree. The percentage for those with a four-year degree was initially low and remained so, between 1 and 2 percent.

Some of those who are unable to work are eligible for Social Security Disability Insurance benefits from the state. Eligibility depends on the number of years a worker has paid into the Social Security system, the nature of the worker's disability, and whether the worker is capable of performing a job in which his or her disability is not a barrier to work. For the discussion here, a concern is that the disability system may entice people to report being unable to work so as to escape work and live off the labor of everyone else.¹⁰ It is certainly possible that some of the measures in this chapter are corrupted by such shading of the truth. If you are actually not disabled but have managed to claim disability, then it might be wise, when the survey statisticians ask, to remember that you are receiving disability payments because you are unable to work, and report so to the surveyors.

It is hard to be sure that the reports are not being distorted by the existence of the disability support system, but we suspect not by much.¹¹ The deterioration in health indicators is too uniform across too many different measures, as we have seen here and will see again in the next chapter, on pain. In addition, reports of being unable to work have grown for those who are not eligible for Social Security Disability Insurance benefits, those who do not have work histories to qualify. Most important of all is the concordance between the upsurge in morbidity of all kinds and the epidemic of death. Perhaps people feign illness to claim benefits, but the fact that they are dying is surely evidence that something real is going on.

In Summary

We have told a story in which death and sickness go together. Something is making life worse, especially for less educated whites. Crucial capabilities that make life worth living are being compromised, including the

ability to work and the ability to enjoy life with others. Severe mental distress is on the rise. Of course, many more people are experiencing this deterioration in the quality of life than are dying, but the deterioration is surely the background to the deaths. In the next chapter, we turn to another kind of morbidity, pain, which turns out to be a link between social disintegration and deaths of despair.

7

The Misery and Mystery of Pain

In a time when kingdoms come
Joy is brief as summer's fun
Happiness, its race has run
Then pain stalks in to plunder.

—MAYA ANGELOU

PAIN HAS A SPECIAL place in our narrative. Social and community distress, the labor market, politics, and corporate interests all collide around pain, and pain is one of the channels through which each of them affects deaths of despair.

In our search for the story behind the deaths, pain kept coming up, in apparently different contexts. Pain is an important risk factor for suicide; the victim believes that the intolerable pain will never get better. The treatment of pain is a root of the opioid epidemic. The brain's natural opioid system controls both euphoria and pain relief. People use the language of pain and hurt to describe "social pain," from rejection, exclusion, or loss, and there is evidence that social pain uses some of the same neural processes that signal physical pain, from stubbing a toe or cutting a finger, or from arthritis. Tylenol can reduce social pain as well as physical pain. Americans are reporting more pain, especially less educated Americans.¹

These connections are consistent with the account that we have come to favor, which is that the increase in pain among less educated Americans can be traced back to the slow disintegration of their social and

economic lives, and that the pain is, in turn, one of the links through which disintegration leads to suicide and addiction. The story of a death of despair often passes through pain.

Pain in America

Every year, more Americans report that they are in pain. The largest increases are in midlife among those who do not have a college degree. Albert Schweitzer wrote that pain “is a more terrible lord of mankind than even death himself.” The lives of many millions of Americans are compromised by pain; some cannot work, some cannot spend time with friends or loved ones in the way that they would like, some cannot sleep, and some cannot do the activities that make daily life possible and fulfilling. Pain can undermine appetite, induce fatigue, and inhibit healing; in extreme cases, it erodes the will to live.

Aging, even healthy aging, brings more aches and pains; arthritis is the most familiar but not the only cause. Even so, in America today, pain in midlife has grown so rapidly that we have the unusual situation that the middle-aged are actually reporting more pain than the elderly. People are experiencing pain from many causes and from no discernible cause at all. According to the National Academies of Sciences, Engineering, and Medicine, more than one hundred million Americans suffer from chronic pain, defined as pain that has lasted for at least three months.² Much of this chronic pain does not appear to be a response to an originating injury or cause that could be treated to eliminate the pain, and many health professionals now treat chronic pain as a disease in and of itself, even if it remains poorly understood and poorly treated. The long-held understanding of pain as a signal to the brain to deal with an injury has been discarded and replaced by the recognition that the mind is involved in *all* pain and that social distress or empathetic distress can engender pain in the same way as the distress from a physical injury.³ One useful definition of pain is that it is “whatever the experiencing person says it is, existing whenever s/he says it does.”⁴ The patient is the only authority, not the physician or scientist.

The prevalence of pain varies by occupation, and people who work in manual occupations are more likely to be injured or to experience pain

than those of us who work behind a desk or in front of a computer screen. They are also more likely to develop painful conditions as they age; their bodies wear down more rapidly.⁵ For this and for other reasons, pain is more common and increases more rapidly with age among those with less education. Indeed, the very word *labor* is often synonymous with pain, as in labor pains or Adam's punishment and humankind's condemnation to painful toil in the book of Genesis. The words *pain* and *penalty* come from the same Latin root.

Causation runs from pain to work as well as from work to pain. People in pain may be unable to work and may make claims on disability insurance; some may doubt those claims, which has long generated legal, political, and academic battles over the reality of pain. We have devices to measure body temperature or blood pressure, but none that can assign a number to pain, perhaps with a cutoff that is generally accepted as disabling. It is often useful to imagine what would happen if there were such a device, an "afflictometer" perhaps, with implanted sensors and a dial on the forehead, that could provide an accurate assessment of overall pain. As it is, a definition that pain is "whatever the experiencing person says it is" poses obvious problems for disability policy.

Those who are in the business of treating pain—such as the pharmaceutical companies who manufacture painkillers—have goals of their own that do not always align with the best interests of those who are experiencing pain. Pharma companies have made many billions of dollars from selling drugs to combat pain even as reports of pain have risen with the number of prescriptions written. They are interested in selling their products, and in persuading governments to make it as easy as possible for them to do so. The behavior of corporations, and how they might be regulated to act in the public interest, is also part of the story of pain.

Pain Facts

Gallup regularly collects data from a large sample of Americans. One of the questions that it asks is whether the respondent experienced physical pain during a lot of the day "yesterday," meaning in the day before the survey. We look at the geography of pain in America using small

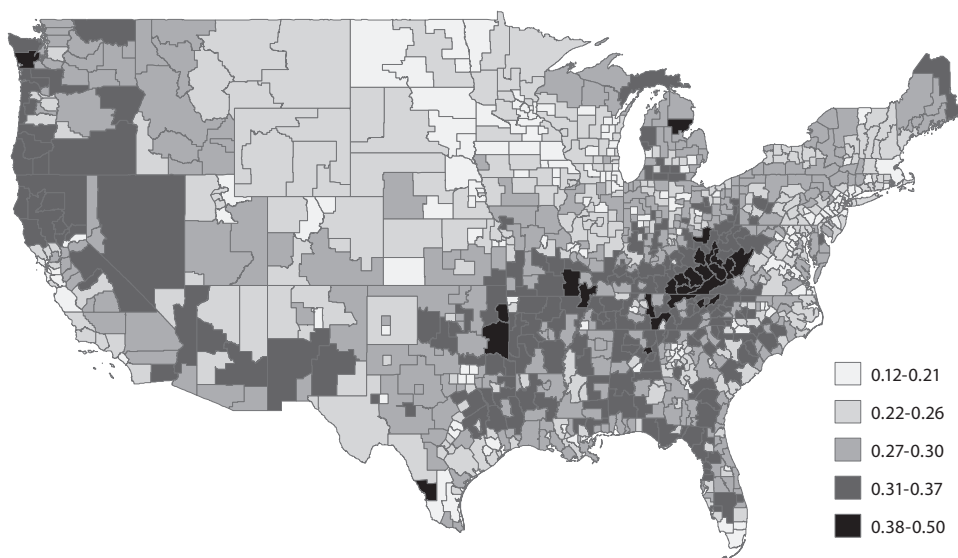


FIGURE 7.1. The geography of pain, white non-Hispanics ages 25–64, 2008–17. Authors' calculations using Gallup tracking data.

areas—counties, when a county's population is large enough; otherwise, collections of adjacent counties. There are more than three thousand counties in the US, some of which are mostly mountains and trees. We aggregate these up to about one thousand small areas, each with at least one hundred thousand people. Figure 7.1 shows the pain map of the United States for white non-Hispanics ages twenty-five to sixty-four, averaged over 2008 to 2017, with darker colors showing areas where a larger fraction of people report such pain.⁶

Across the thousand areas, the fraction of people reporting pain yesterday (from the Gallup data) is strongly associated with suicides, and with deaths of despair more generally. One key takeaway is the distribution of pain across the country, with the West, Appalachia, the South, Maine, and northern Michigan doing badly, and with much less pain reported in the North Central Plains as well as along the I-95/Amtrak corridor in the Northeast and the Bay Area in California; again, pain tends to be lower in places where the population is more highly educated. The fraction of people reporting pain is higher in areas with higher

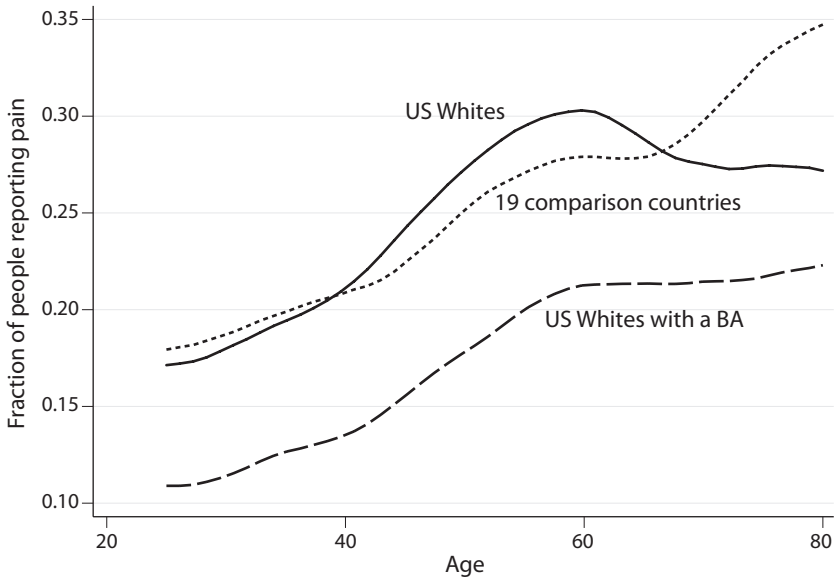


FIGURE 7.2. Fractions who experienced pain yesterday, US whites and comparison countries. Authors' calculations using Gallup tracking data and Gallup World Poll.

unemployment rates and more poverty.⁷ The fraction of people in an area who voted for Donald Trump in 2016 is also strongly correlated with the fraction in pain.

Figure 7.2 uses the same data to plot the fraction who reported pain among the 1.8 million whites aged twenty-five to eighty who answered the question between 2008 and 2017. The solid line shows the fraction of all whites in pain; it rises from 17 percent at age twenty-five to a peak of 30 percent at age sixty, before falling and leveling out at 27 percent at age eighty. Note that the graph is not following the same people as they age; the people on the right (in their sixties and seventies) are different people from those on the left (in their twenties and thirties).

There is something very odd about this line. Age normally brings pain, and although some manage to stay perpetually young, average pain levels inevitably increase with age. For people in manual occupations, the onset of pain with age is often faster—think of the package-delivery worker whose back is eventually hurt by all the lifting, or the worker in mining or in agriculture who is constantly at risk of injury. When such

people retire from work, there may be some temporary relief and reduction in pain, but then the inexorable effects of aging set in again. So we might expect the line of pain to rise with age, to flatten out around age sixty, and then to rise again. But the solid line in the figure does not look like this. Instead, people in their sixties are actually in *more* pain than people at age eighty. While it is likely true that those in the most pain die earlier, so that the survivors are in less pain, the death rate is never high enough for this to overcome the normal increase in pain with age among the living.

Gallup asks the same question about pain in most of the countries around the world.⁸ The samples are not as large as for the US, but if we pool countries together, we can construct a reliable picture for each age-group. The dotted line in the figure is for a combination of nineteen other rich, industrialized countries.⁹ Taken together, we have more than 243,000 observations from 2006 to 2017. The line starts out among young adults in the same way as the line for the US, but it diverges between ages forty and sixty-five. The other countries show an age profile closer to what we might expect, with pain rising with age, flattening around the usual retirement age, and resuming the upward trend thereafter. Whatever is happening to whites in the US is not happening in these other countries, just as the midlife increase in mortality in the US is not happening in these other countries.

A final clue comes from the bottom line, shown with dashes, which is for white Americans with a bachelor's degree. The top line is for all education levels taken together. More-educated people experience much less pain throughout life, with the fraction reporting pain about a third less than in the general population. But they too have the pattern that we would expect, rising with age, then slowing around retirement and rising, albeit more slowly, after retirement. Even a four-year degree cannot prevent arthritis.

The different patterns of pain by age can be reconciled once we realize that there has been a large recent upsurge of pain in midlife among whites without a bachelor's degree. The elderly in the figure did not experience this upsurge, and if we had tracked them through life, they would not have shown the midlife peak. Similarly, although we cannot

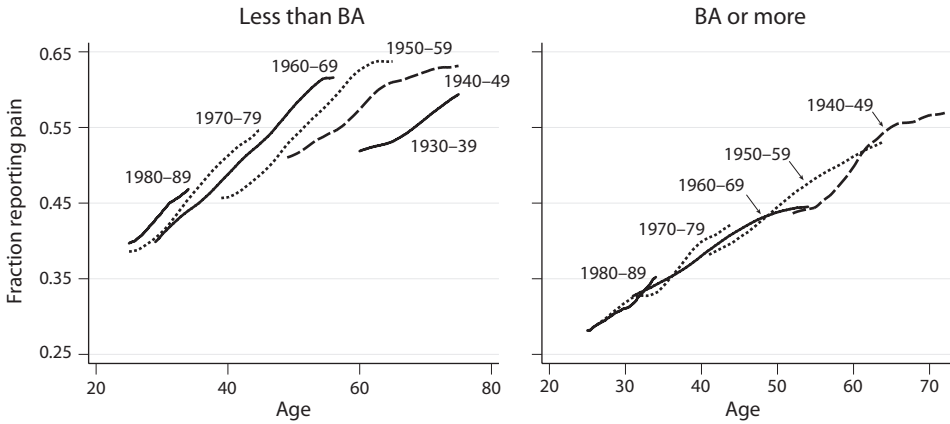


FIGURE 7.3. Fraction of white non-Hispanics experiencing neck, back, or joint pain, by birth cohort and education, 1997–2017. Authors’ calculations using the NHIS.

do it until we get data from the future, we suspect that if we were to track today’s midlife adults as they age, their pain will turn out to be much higher than the pain of today’s elderly, a deeply depressing prediction. Midlife adults are suffering unusual amounts of pain today, but it is nothing compared with what they will feel when they are old.

We can see this clearly if we track the pain levels of the same people over time, or at least track people born in the same year, again using birth cohorts as we did in chapter 4. The Gallup data do not go far enough back in time to allow this, so we turn to the National Health Interview Survey (NHIS) and its questions to respondents about whether, in the last three months, they have experienced neck or back pain lasting for more than one day, or chronic joint pain. If we use these data to simply plot pain against age, we see a pattern similar to that in figure 7.2 using the Gallup data. But now we can also track successive birth cohorts over time and by educational attainment, just as we did for deaths of despair in chapter 4. Figure 7.3 shows the results, for ten-year birth cohorts, from those born in 1930–39 through to those born in 1980–89. Both panels show that, if we track the same group of people over time as they age, pain increases with age, as we would expect.

There is no sign in this picture of pain reversal at age sixty *within* any birth cohort, though the reversal seen in figure 7.2 would be seen here

if we were to look *across* cohorts in any given year. For those without a bachelor's degree, pain increases with age, but those born later have more pain throughout their lives. Those born between 1930 and 1939, shown on the extreme right of the left panel, experience more pain as they age, observed at age sixty and above. The next line, for those born between 1940 and 1949, rises in much the same way, but the fraction reporting pain is higher at all ages. For those without a bachelor's degree, each successive birth cohort experiences more pain.

In the right panel, for those with a bachelor's degree, there is occasional upward drift in the fraction reporting pain, from one birth cohort to the next, but there is much overlap between the cohorts in the fraction reporting pain at any given age. The lines for those with a bachelor's degree show something like the natural progression of pain with age; whatever is driving up pain between birth cohorts among those without a bachelor's degree is nearly absent for those with a bachelor's degree. Which means that all of the midlife peak in pain and its decline in figure 7.2 are coming from those without a degree.¹⁰

One explanation for rising pain is what might be called the “snowflake” effect, that people are not as tough as they used to be. People used to sneer at those who accepted Novocain for dental work, and parents paid no attention to children's pain; it was just part of life. We cannot rule out the snowflake story, but it seems to us implausible that it is only those with less education who are snowflakes.

The cohort pictures in figure 7.3 look very much like the cohort pictures of deaths of despair in figure 4.3. Deaths of despair and pain both rise with age, but for those without a four-year degree, each birth cohort reports more pain with age and is at higher risk of a death than the cohorts that came before.

Over the past quarter century, the fraction of blacks reporting back, neck, and joint pain has been 20 percent lower than the fraction reported by whites throughout midlife, for both education groups. However, a larger fraction of both blacks and whites without a bachelor's degree report neck, back, and joint pain in each successive birth cohort. Blacks and whites have different recent mortality trends, but their shifting patterns of pain between birth cohorts are remarkably similar, which means

that we must look elsewhere to explain differences in mortality from drugs, alcohol, and suicide, a topic to which we will return. If pain is a cause of deaths of despair, something else is stopping its effects among African Americans.

Causes and Consequences of the Increase in Pain

Because pain is one of these things that is both a cause and a consequence of other things, like work, it is difficult to figure out the story behind the increase in pain. But we can look at correlations and patterns, and use them to think about possible stories.

One story is that people are getting heavier, and that obesity brings pain. This is true, but it explains relatively little. Whites in prime age (twenty-five to sixty-four) were heavier in the 2010s than they had been in the late 1990s, with the average body mass index (BMI) for those with a four-year college degree moving from the “normal” weight range into the “overweight” range.¹¹ Those without a degree moved further up the “overweight” range, with the percentage tipping the scales in the obese range (BMI greater than thirty) increasing from 20 to 30 percent. Obesity can lead to higher pain levels; obviously more weight takes its toll on the back and joints. Comparing the period 1997–2000 with the period 2014–17, we find that the changes in BMI between these two periods can account for a quarter of the increase in reports of back, joint, and neck pain. This is not a trivial contribution, but it leaves three-quarters of the increased reports of pain without an explanation.

Another thought that occurs to most people is that losing a good job for a worse one brings more on-the-job pain. This is entirely plausible for social pain, but not for physical pain. Many jobs come with at least some risk of injury, or of pain without obvious injury. Certainly, it is true that people’s pain (using the measure of neck, back, and joint pain in the NHIS) depends on what sort of job they have. Executives and professionals, as well as those who work in sales and administrative positions, report less pain than those in manual or blue-collar jobs such as farm work, construction, machine operation, or transportation and handling. The exception that proves the rule is police and fire services, where

keeping your job depends on *not* being in pain; we suspect the same is true for professional athletes and those in the military.¹² But the changing balance of occupations cannot explain the recent increase in pain, because the shift has been *away* from occupations that come with pain and toward those that do not. If a worker loses his or her job on the assembly line for GM, or in a steelworks, and takes a minimum-wage job in retail, the worker's earnings will fall, and he or she may be extremely unhappy about the move, but the assembly-line job is not a job free of physical pain, and it involves more pain than working at McDonald's or Walmart.¹³

If we are to tell the story of pain, or deaths of despair, as coming from changes in the labor market, it thus cannot be told as a story of a shift from physically less demanding to physically more demanding jobs. Of course, there are other mechanisms. Lower earnings are associated with more pain, and it is entirely possible that the pain comes not from what happens at work but from the loss of status and meaning as a worker, or from the loss of the social structure that was supported by a well-paying job in a union town. There are experiments showing that the pain experienced by social exclusion works similarly in the brain to the pain experienced by an injury. If so, the slow destruction of the working class—the details of which we will document in subsequent chapters—may well be one of the causes of the increases in chronic pain.

The rise in pain has also come with a large increase in the number of people claiming disability payments, particularly from the Social Security Disability Insurance system. Depending on how you choose to think about it, the increase in the number of people on disability can be perceived as a good thing that recognizes the increased pain and morbidity in the population, or a bad thing that is driven by people who would rather not work but live off the labor of others, and who can claim that they suffer from pain and depression, neither of which is objectively measurable. *Chiselers*, *malingerers*, and *takers* (as opposed to *makers*) are among the unflattering terms that are sometimes used to describe the latter kind of people. We are sure that there are people who manipulate the system to their own benefit, but given what has been happening to pain for less educated people, and given how closely those

patterns match deaths of despair, we suspect that the malingerers are relatively few.

The increase in pain, in spite of the huge increase in the use of opioid painkillers since the mid-1990s, is a real challenge to the effectiveness of these drugs, irrespective of their potential side effects, which include addiction and death. It is always possible that, in the absence of opioids, reported pain would have been even worse, with some so-far-unidentified cause pushing up pain levels more rapidly than opioids can hold them down.

Women report more pain than do men. This is true not only in the US but also in most of the other countries of the world, so it is unlikely to tell us much about the specifically American story of pain. In the US, the pattern of increasing pain across birth cohorts for those without a bachelor's degree, seen in figure 7.3, is the same for men and women, as is the absence of a shift in the age-pain pattern across birth cohorts for those with a bachelor's degree.

We can examine other individual characteristics that seem to come with more pain. One of these is unemployment or, more generally, being out of the labor force. This is hardly surprising given that disability is often a reason for not working. People who report pain also report that they are less able to go shopping, to relax at home, to socialize with friends, or to walk three blocks without difficulty. The degree of impediment is larger for those without a bachelor's degree; the same reported pain comes with more activity limitations for those who are less well educated. Pain is also highly correlated with the risk of serious mental distress—a correlation that is twice as large for those without a four-year degree.

As the summer fades, along with happiness and joy, “pain stalks in to plunder.”

8

Suicide, Drugs, and Alcohol

IN 2017, 158,000 Americans died from what we call deaths of despair: suicide, overdoses, and alcoholic liver disease and cirrhosis. That is the equivalent of three full 737 MAXs falling out of the sky *every day*, with no survivors. In this chapter and the next, we look at the background of these deaths, at what is known about how and why they happen, and whether this can help us understand why they have risen so rapidly among less educated Americans in the last two decades.

All three kinds of deaths of despair involve the actions of those who die, most obviously in suicide—self-inflicted death—but also from taking drugs or drinking too much or for too long. Long ago, Emile Durkheim argued that to understand suicide—and the same could be argued for other deaths of despair—we must look beyond the individual to society, particularly to breakdown and turmoil in a society that can no longer provide its members an environment in which they can live a meaningful life.¹ Durkheim believed that more-educated people were more likely to kill themselves. Yet in the current American epidemic, and matching what has happened with pain and sickness, the increase in suicide has been mostly among the less educated, perhaps uniquely in history. Paradoxically, this is consonant with Durkheim, because it is the world of less educated whites that is currently in turmoil. As he would have predicted, the social and economic upheaval that has swept through their lives is causing increasing numbers of them to take their own lives.

People kill themselves when life no longer seems worth living, when it seems better to die than to stay alive. The feeling of desperation may

have been at work for a long time, as for someone suffering from a terminal illness or from persistent depression, or it may have come on suddenly, the result of sudden feelings of depression, when “the balance of mind was disturbed,” to use the British coroner’s term. Most suicides involve depression or other mental illness. In 2017, forty-seven thousand people died from suicide in the US.

Suicides are deaths of despair. But the circumstances that can lead to suicide find less extreme forms when people turn to drugs or alcohol to seek refuge from pain, loneliness, and anxiety. Drugs and alcohol can induce a euphoria that, at least temporarily, may relieve physical and mental pain. Over time, the body can build up tolerance to these intoxicants, so that ever-larger amounts are needed to induce the same euphoric effect. Some become addicted. *Addiction* is not a technical medical term but rather describes behavior in which the need for the substance has become so absolute that it pushes everything else aside, making the person a slave to the addiction, willing to lie or steal to protect and feed it. Addiction, it is often said, is a prison where the locks are on the inside, but that makes escape no easier. The “selfish brain” cares only about ensuring that the habit gets fed,² and it makes people unable to care about how they behave, the havoc they create, or the lives they destroy.

In the words of a heroin user in recovery, addiction “tends to start (obviously) with liking the feelings that drugs produce (warmth, euphoria, belonging) or the erasure of other feelings (trauma, loneliness, anxiety)—usually both at once.”³ Warmth, euphoria, and belonging are the opposite of the feelings of a person contemplating suicide. One authority writes, “There are pleasure and pain centers in the brains of all animals, including human beings. These centers are governed by neurotransmitters that powerfully influence behavior. . . . By a wide variety of mechanisms, all abused drugs stimulate the pleasure centers of the brain and inhibit the brain’s pain centers.”⁴

Users of drugs and heavy users of alcohol are much more likely than others to kill themselves. When the euphoria fails to materialize or wears off, or when a person relapses in the struggle to remain sober and so experiences shame, worthlessness, and depression, death can seem better

than another round of addiction. Many suicides involve both addiction and depression. The psychologist and writer Kay Redfield Jamison writes, “Drugs and mood disorders tend to bring out the worst in one another: alone they are dreadful, together they kill.”⁵ Addiction to alcohol can be just as destructive as addiction to drugs, both for those addicted and for their loved ones. Addiction to drugs or alcohol makes suicide seem more attractive; a person with an active addiction has often lost the parts of life that made it worth living. Yet many, even in the grip of their addiction, and even when they understand that they will die if they cannot break out, do not want to die.

It has long been understood that classifying a death as a suicide is extraordinarily difficult, and that the number of suicides is almost certainly underestimated in the statistics. Suicide carries stigma, and families resist the label; for much of history, *felo-de-se* was a crime, punishable by forfeiture of assets and prohibition of decent burial. People may choose to kill themselves by taking extreme risks, driving recklessly, or swimming alone in dangerous conditions. In the absence of the key person, who is dead, determining intent is always questionable. We therefore have a *measurement* issue, which is one reason to investigate suicides and alcohol- and drug-related deaths jointly; a collective count will often be more accurate than any piece taken alone. But there is also the *analytic* issue, that grouping deaths from suicide, alcohol, and drugs captures a common underlying cause—despair—that is not easily captured when they are treated separately.

Death from suicide often comes quickly, especially when firearms are used or when people jump from a great height or from a lesser height with a rope around their neck; in these cases, there is little chance of medical rescue. Suicide attempts involving drugs and alcohol are less certain. Death comes more slowly, so there is a greater chance that an attempt will fail or that rescuers will come.

With alcohol and substance abuse disorders, there is often a long progression from recreational use to tolerance and addiction. Many people consume alcohol pleasurably and safely throughout their adult lives, though it also can be a route to a death of despair. Heavy drinking is

implicated in many deaths, including suicide, drug overdose (where the presence of alcohol is common), and death from cardiovascular disease, but especially in alcoholic liver disease and cirrhosis, which killed forty-one thousand Americans in 2017. But unlike suicides and drug overdoses, which are spread throughout midlife, deaths from alcohol-related liver diseases tend to happen in middle age or later because of the time it takes to destroy such a robust organ. Even so, binge drinking has grown rapidly among young people, and deaths related to alcohol are rising at much younger ages.

Deaths from drug overdoses are classified as “accidents,” unless the overdose was deliberately intended to result in death. Yet, “although their deaths may have been unintended, there was nothing unintentional about their use of intoxicating substances. Therefore, the resulting fatal drug overdoses or interactions were not true accidents.”⁶ The death of a person found with a needle in his or her arm is recorded as an accident unless there is other evidence of intent to die. Such would even be the case if the person had overdosed repeatedly and been revived by medical responders. With drugs, relapse can bring immediate death; returning to the dose that was effective in producing euphoria safely before getting clean can be lethal when the body has lost its tolerance. In 2017, there were 70,237 “accidental deaths” from drug overdose in the US.

We focus on the common features of suicides, overdoses, and deaths from alcoholic liver disease, particularly the common background of social turmoil. All three kinds of death have been rising rapidly, with 158,000 deaths in 2017. By comparison, there were 40,100 traffic fatalities in 2017, lower than the number of suicides alone. There were 19,510 homicides.

In this chapter, we focus on suicide and on alcohol, though much of the discussion of alcohol applies to drugs too. In the next chapter, we turn to one particular facet of current drug overdoses, the opioid epidemic, in part because there is much to discuss, but also because the etiology of the drug epidemic provides a clue to the overall story of deaths of despair, especially the behavior of corporations and the federal government, which is our main theme in the last part of the book.

Suicide

Suicide, like the other deaths of despair, has been increasing among white non-Hispanics in the United States since the late 1990s. This is true at all ages from fifteen to seventy-four, and it has led to the US, whose suicide rate used to be unexceptional compared with those of other rich countries, now having one of the highest rates among them. Women are much less likely to kill themselves than men, in part because they choose less effective means—drugs versus guns—and in part because they are less susceptible to social isolation than men. Even so, the suicide rate among white women has been rising in parallel with the suicide rate among white men. Around the rest of the world, at least in countries that have credible data, suicide rates have been falling since 2000. The fall in rates, among young women (with more autonomy and more urbanization) in Asia, and especially in China, among middle-aged men (with more stability) in the former Soviet Union, and almost universally among the elderly (with more resources), has saved millions of lives. With its stubbornly upward trend, the suicide rate of US whites is a global outlier.

There is no simple theory of suicide, and no sure way of identifying who will kill themselves or why. For an individual, the best predictor of suicide is a previous attempt at suicide, which is useful for caregivers to know but does not help explain why suicides have been increasing. Yet there are potential contributing factors, such as pain, loneliness, depression, divorce, or being without a job, so if these factors are becoming more prevalent over time because of social changes, we have a possible account of why national rates are rising. There are also social causes that lie behind the individual behavior or that act directly. We have already referenced Durkheim's view; his text is a milestone of sociology with its insistence that to understand suicide, we must think about society, not just individuals. As is often noted, and only partially in jest, economists seek to explain why people choose to commit suicide, while sociologists explain why they have no such choice. On suicide, the sociologists have been rather more successful than the economists.

For their part, economists have proposed a “rational” theory of suicide that posits that people kill themselves in order to “maximize utility.”⁷

We can think of this as the “Today is a good day to die” theory. The idea is that, although dying today is bad, it may be less bad than the suffering and pain that lie ahead. Such an account, although easily (and often rightly) made fun of, offers occasional insights, though, as we will see, it fails to explain much of what we know about suicide. Durkheim’s story, by contrast, points to social turmoil, as in the economic, family, and community lives of working-class white Americans today.

Suicide is more likely when the means of death are easily available. Without doubt, someone who is determined to do away with himself or herself will find a way to do so; there is no shortage of high places to jump from, or ropes to hang oneself with. But the importance of means points to the fact that suicidal feelings are often transient, as well as to the potential for reducing suicides by controlling means.

In Britain, before gas from the North Sea became widely available, household gas for cooking and heating used to be coal gas, which contains carbon monoxide and can be used for suicide; there was a large increase in such suicides when coal gas was introduced at the end of the nineteenth century. One high-profile suicide was that of the poet and novelist Sylvia Plath, who died with her head in a gas oven in February 1963. (Plath may be a better example of the importance of previous attempts for predicting suicide than an example of means mattering; she had twice previously tried to kill herself using other means.) Between 1959 and 1971, coal gas was largely replaced by natural gas, which contains little or no carbon monoxide. The suicide rate then fell markedly in spite of some compensatory increase in suicides not involving gas.⁸ Suicide by gassing from car-exhaust fumes increased, but then it fell again once cars were fitted with catalytic converters. This is what we would expect if some suicides are prompted by a fleeting depression that will not have deadly consequences if the means are not at hand.⁹

There are more guns in America than people, and although we do not know whether the availability of guns has increased, the annual number of gun deaths and the death rates involving firearms (including suicide) have increased since 2000.¹⁰ The link between suicide and the availability of firearms in the US is both contentious and politicized. Most studies find a link, though there is also credible evidence to the contrary.¹¹

We should certainly not discount the possibility that the rise in suicide is explained, in part, by increasing availability of guns. Good research has been hampered by the National Rifle Association, which has pressured Congress not to fund research or data collection on the topic.

Social isolation is a risk factor for suicide. In chapters 6 and 7 we documented an increase in social isolation, poor health, mental distress, and pain in midlife, especially among whites with less than a bachelor's degree. All of these could help explain the increase in suicide. Americans are less likely to trust others than used to be the case; declining trust is an indicator of falling social capital and a rising risk of death.¹² In chapters 11 and 12 we will document a parallel increase in the percentages of whites who are not in the labor force, who are unconnected with religious institutions, and who are not married. These detachments from protective institutions also increase the risk of suicide. Having a meaningful job, good family relationships with a spouse and children, and belonging to a church that helps address spiritual needs all help maintain a life that is worth living. Their increasing absence among white Americans without a university degree is a disaster.

We can also see the links between social isolation, pain, and suicide by looking across areas of the United States. There is a "suicide belt" in the US that runs along the Rocky Mountains, from Arizona in the south to Alaska in the north. The six highest suicide states are Montana, Alaska, Wyoming, New Mexico, Idaho, and Utah; all are among the ten states with the lowest population per square mile. The six lowest suicide states are New York, New Jersey, Massachusetts, Maryland, California, and Connecticut, five of which are among the ten states with the highest population per square mile; California is eleventh. Firearms are common in the least populated areas. Utah is one of the healthier states in the US, and life expectancy at birth there is two years longer than neighboring Nevada, which is one of the least healthy. Yet neither is exempt from a high suicide rate. Mercer County, New Jersey, which has a population density of 1,632 people per square mile, is where Princeton University is situated and is where we spend most of our year. It has a suicide rate that is a quarter of the suicide rate in the much more beautiful but mountainous and isolated Madison County, Montana, where we spend August

each year.¹³ Madison County has 2.1 people per square mile. Lack of population also means that medical help can be far away or slow to arrive, but likely more important is the fact that people are less likely to kill themselves when other people are around.

The high-suicide states in the US are also those where people report the most pain.¹⁴ The same pattern shows up across the thousands of counties in the US; places where a higher fraction of the population reports that they experienced physical pain during “a lot of the day” yesterday are also places where suicide rates are higher.¹⁵ Results like these, that rely on spatial evidence, are subject to what is known as the “ecological fallacy.” If pain is a major risk factor for suicide—which we believe is true—we might expect that places with a lot of pain will also be places with a lot of suicide. Yet such a finding provides no proof that pain is the cause of higher suicide rates. People mending fences, working with animals, or moving irrigation pipes in the Rocky Mountains may develop sore shoulders or bad knees, and people living in the Rocky Mountains may be at higher risk of suicide because population density is low. In this example, we would find a positive correlation between pain levels and suicide rates across places, but in this case, the pain comes from the fact that agriculture is the main employment where there are few people, and has nothing to do with the higher suicide risk that comes from social isolation. Analyses based on aggregated geographic data can never rule out this kind of thing. Even so, the geographic evidence is a useful check on what we know from other sources. Durkheim relied heavily on geographic evidence, something that is hard to avoid when there is little information on the decedent, who, for obvious reasons, is not available for questioning.

What about education and suicide? Durkheim argued that educated people were *more* likely to kill themselves because education tended to weaken the traditional beliefs and values that prevented suicide. Whether this was true in the US in the past does not seem to be known. But since 1992, when educational attainment was recorded on death certificates in almost all states, there has been a remarkable change in the relationship. Figure 8.1 shows suicide rates by birth cohort and education (with and without a bachelor’s degree) for whites, for those born in 1945 and for

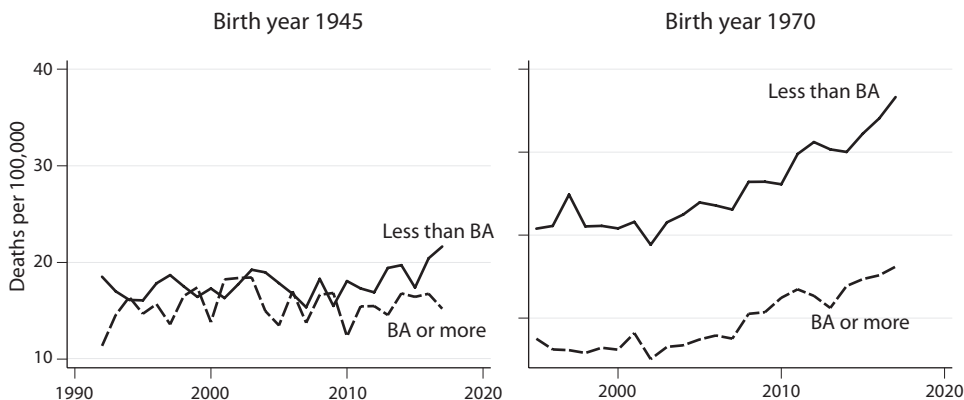


FIGURE 8.1. Suicide rates, white non-Hispanics, by year of birth and education. Authors' calculations using Centers for Disease Control and Prevention data.

those born twenty-five years later, in 1970; the first cohort entered the labor market before 1970, and the second in the mid-1990s.

The left panel, for those born in 1945, shows little daylight between the suicide rates for the less and more educated, while the right panel shows a large gap in suicide rates between education groups born in 1970. The gap first appears for the cohorts born in the late 1940s, and it grows wider and wider for later-born cohorts. The age profiles of suicide for those with a bachelor's degree overlap from one birth cohort to the next—the cohort born in 1950 follows the same age profile as that born in 1945, and the cohort born in 1955 follows that of the cohort born in 1950. In contrast, the age profiles for those without a bachelor's degree rise and steepen with each successive cohort.¹⁶ Figure 8.1 is of course closely related to figure 4.3, albeit for suicide alone rather than deaths of despair as a whole. But if it was indeed once true that more education was a risk factor for suicide in the US, it is no longer so for whites. Or put another way that is more to our point, suicide is becoming steadily more common among whites who do not have a bachelor's degree.

Unemployment, including perhaps the fear of becoming unemployed, has been found to predict suicide. Detachment from the labor force is also a risk. Both fit the Durkheim story of social upheaval and suicide; indeed, Durkheim thought that “economic crises” caused suicide, though

his definition of an economic crisis included not only slumps but also booms. It was the disruption that mattered, up or down, not the level of income itself, and this may be why the effects of income on suicide are less clear-cut.

Drugs and Alcohol

Praise of alcohol is easy to find. Benjamin Franklin said, “Wine makes daily living easier, less hurried, with fewer tensions and more tolerance.” Ernest Hemingway wrote that wine “offers a greater range for enjoyment and appreciation than, possibly, any other purely sensory thing,” though it did not prevent him from killing himself. Mark Twain said, “Too much of anything is bad. But too much good whiskey is barely enough.” The web is full of reports (of varying quality) attesting to the health benefits of moderate drinking. A great deal of social life is dependent on, or at least oiled by, alcohol. Great wines command thousands of dollars a bottle, as do some of the rarest Scotch whiskies. Governments like alcohol too, as a source of revenue.

Yet the dangers of alcohol are also embedded in history and in policy. Alcohol is banned by Islam, by many evangelical Protestants, by the Church of Jesus Christ of Latter-day Saints, and by Seventh-day Adventists. It is discouraged by Baptists, by Methodists, and by many Hindus. Most rich countries have laws regulating when and where the sale and consumption of alcohol are allowed. In the US, there have been and are dry counties and dry towns. In the early twentieth century, the temperance movement, backed by many women—who saw alcohol as a women’s and family issue—successfully argued for a total ban on alcohol in the US, implemented by a constitutional amendment in 1920 that was eventually repealed in 1933.

The anti-alcohol controls, although they have often been hijacked by special interests for their own purposes, reflect the fact that many people have difficulty regulating their own consumption of alcohol and so will do better if someone else does it for them. Ulysses had himself bound to the mast to prevent him from jumping into the sea when the sirens sang to him. People who drink too much can be a danger to others as well as

themselves, by driving or operating machinery, or by neglecting their responsibilities to others. Before Prohibition, as today, many women believed that alcohol led men to fail to provide for their families and to unleash physical violence on their wives.

Alcoholism is an addiction to alcohol, and the chance of becoming an alcoholic varies from one person to another, and likely has a genetic component. Even among rats allowed to drink alcohol, only a minority cannot stop.¹⁷ The eighteenth-century physician Benjamin Rush was one of the first to propose that alcoholism was a disease of the brain, not a failure of will, a view that is widely accepted today, though we are far from predicting just who is susceptible, let alone how to treat it. Abraham Lincoln thought that the disease tended to strike the “brilliant and the warm-blooded” and that the “demon of intemperance ever seems to have delighted in sucking the blood of genius and of generosity.”¹⁸ Lincoln was an abstainer himself, but with typical generosity and insight, he understood how “the demon” worked.

Many of those troubled by alcohol work with others to help maintain their sobriety; Alcoholics Anonymous (AA), founded in the 1930s, has around sixty thousand groups that meet regularly in communities all over the US. Before AA, there was an organization called the Washingtonians, to whom Lincoln addressed his remarks. There are also many thousands of family groups to support the families and friends of alcoholics, again attesting to the costs of addiction, not just to alcoholics but also to those who care for and about them. The evidence on the effectiveness of these groups is hard to be sure of, if only because anonymity precludes AA from keeping records, but upwards of a million people attend regularly, which suggests they get something from it, and the scientific evidence is more positive than not.¹⁹

Even governments are ambivalent toward alcohol, and some are dependent on it, perhaps even addicted to it. One of the reasons that alcohol taxes—like tobacco taxes—are accepted is that they are “sin” taxes, levied on substances that many people would prefer not to use yet, at the same time, have difficulty not using, so that their purchases are not very sensitive to increases in taxes. The state, in turn, can adopt a moralistic tone of helping people moderate their behavior, and do so all the way to

the bank, or at least the state treasury. In its early history, the US government, like most poorer country governments today, was heavily reliant on taxes on goods, including taxes on alcohol. The introduction of the income tax, by another constitutional amendment in 1913, provided a revenue source that diminished the government's dependence on alcohol and helped make Prohibition possible. Indeed, the constitutional amendments that permitted the income tax and that enacted Prohibition were, along with female suffrage and the direct election of senators, among the achievements of the progressive movement in the early twentieth century.

While the merits of moderate drinking are still being debated, no one debates the debilitating effects on the body of long-term heavy drinking. Prolonged alcohol abuse eventually destroys the liver, primarily through cirrhosis, an ultimately irreversible scarring of the liver that makes it difficult for it to carry out its vital functions and that increases the risk of liver cancer. The National Institute on Alcohol Abuse and Alcoholism, one of the National Institutes of Health, states that research has found a link between alcohol and cancers beyond liver cancer—breast, esophageal, head and neck, and colorectal cancer. It also lists other organs at risk, including the heart, the brain, the pancreas, and the immune system.²⁰ If all of the various studies are taken together and treated as correct—a very big *if* for many of the studies—even a very small amount of alcohol increases the risk of death.²¹ Of course, the risks are very small for moderate amounts, no bigger than everyday risks, and they must be set against the pleasures and easier living that alcohol brings to most drinkers.

Drinking rates in the US are *higher* among those who are *better* educated, though binge drinking, which is particularly harmful, is more common among the less educated. In 2015, Gallup found that 80 percent of college graduates sometimes drank alcohol, with 20 percent total abstainers. For those with no more than a high school degree, the percentages were more equally balanced, with 48 percent totally abstaining. Patterns by income were similar, with higher-income Americans less likely to abstain. In 2018, 63 percent of Americans drank beer, wine, or spirits, a proportion that has not changed much in three-quarters of a century. Gallup also asks, “Has drinking ever been a cause of trouble in your family?”

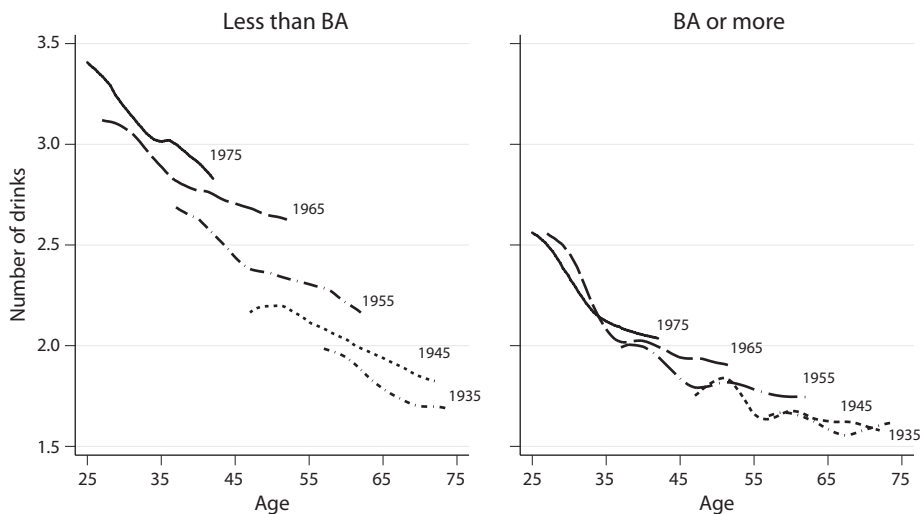


FIGURE 8.2. Average drinks per occasion when drinking, US whites by birth cohort.
Authors' calculations using the BRFSS.

The percentage saying yes was around 15 percent in 1948 and 12 percent in the early 1970s, but it has risen markedly since then to more than 33 percent in 2018, the highest number recorded.²² This is an important finding for our story, in which 1970 is a key date when things started to go wrong, and the upward trend in problem drinking is just one of many pathologies in economic and social outcomes.

Figure 8.2 shows the average number of drinks reported, on occasions when people drink, for whites with and without a four-year college degree. Members of each birth cohort report drinking fewer drinks as they age. But the troubling finding in the figure is that among those without a degree, younger birth cohorts report drinking more at a sitting at any given age. Consuming many drinks in a short period of time (“binge-like” drinking) with lower frequency is more dangerous to the liver than moderate daily drinking, putting those with less education at higher risk for alcoholic liver diseases. Echoing this, we are beginning to see deaths from alcoholic liver diseases rising among whites in their late twenties and early thirties.

Alcohol was implicated in another recent episode of mortality, not in the US but in Russia, before and after the collapse of the Soviet Union.

Alcohol consumption was (and is) extraordinarily high in Russia. In the early 1980s, annual consumption of pure alcohol was more than fourteen liters per person per year, almost twice as much as in the United States. Life expectancy had been stagnant for women and falling for men for more than two decades, at a time when life expectancy had been improving in the US and Europe, especially after 1970. Starting in 1984, Mikhail Gorbachev introduced a drastic anti-alcohol policy that sharply reduced production, raised prices, and restricted opportunities for consumption. Over the next three years, life expectancy rose by 3.2 years for men and by 1.3 years for women, driven by rapid decreases in mortality from alcohol-related causes (suicides, accidents, and heart disease). The policy was enormously unpopular and reduced government revenues, and it was officially terminated in 1988, though it took some time to unwind. Of course, the policy then got swept up in larger historical events, particularly the dissolution of the Soviet Union at the end of 1991. The improvements in life expectancy rapidly reversed themselves, and life expectancy fell between 1987 and 1994 by 7.3 years for men and by 3.3 years for women, with some rebound thereafter.²³ By the early years of the twenty-first century, life expectancy for both men and women was close to where we might have expected it to be based on the (unfortunate) trends through the 1960s and 1970s, as if there never had been an alcohol campaign and as if the Soviet Union had never collapsed. Since about 2005, however, there has been rapid progress, perhaps because, after many years of delay, Russia is at last seeing the decline in cardiovascular disease that came to North America and Europe forty years earlier. As the US suffers from its epidemic of deaths, Russia appears to have overcome its own.²⁴

What should we make of this Russian story? Many commentators have connected the Russian mortality crisis to the social upheaval that came with the dissolution of the old order, a perfect Durkheimian story. We suspect that this is true, but the role of alcohol, the Gorbachev campaign, and its subsequent collapse is widely accepted and needs to be taken into account. Some of the spike in mortality was the rebound of deaths that had been temporarily postponed by the campaign, and there was nothing to stop the rebound from being larger than the original effect. But

many other bad things happened at the same time as the collapse of the state. Many elderly people lost their pensions and their access to health-care.²⁵ And while many young people relished the new opportunities for foreign travel and education, there was little but despair left for their grandparents, who had no opportunity left to start a new life; in all of the countries of the former Soviet Union and its satellites, there is a huge gap between the young and the elderly in how they evaluate their lives.²⁶

It is perhaps too easy to dismiss the relevance of the dramatic events in Russia for events in the United States in the last twenty years. They are very different places, and Russians have suffered untold miseries for generations, including through the communist period. One indication of that misery was Russia's high suicide rate, shared by many of its Eastern European satellites, such as Hungary, Latvia, Estonia, Poland, and Slovenia. Although the suicides rates in Russia and other countries have declined, they still are among the highest in the world. What is both startling and deeply concerning is that, while those countries have seen their suicide rates fall, the rise in the American suicide rate has put US whites among them on this index of misery. Across these countries suicide rates are correlated with deaths from alcohol, just as is true across the states of the US. This group of countries might reasonably be called the group of shame. They are countries that are simply not delivering an acceptable life for a substantial fraction of their people. It is no exaggeration to compare the long-standing misery of these Eastern Europeans with the wave of despair that is driving suicides, alcohol, and drug abuse among less educated white Americans.

9

Opioids

IN HIS BOOK *Imperial Twilight*,¹ the historian Stephen Platt tells the story of the origins of the Opium War between Britain and China. Like the American South after the Civil War, and like working-class America today, the Chinese empire was in distress. The British East India Company was struggling to be profitable, and its most profitable line of business in the 1830s was opium, produced in India and sold to China. The physician William Jardine, born in Edinburgh, was one of the most important merchants in the business. His partner was fellow Scot James Matheson, and together they founded Jardine, Matheson & Company in 1832. Known today as Jardine Matheson Holdings, it has more than four hundred thousand employees and is in the top three hundred companies in the world. As Platt notes, Jardine, Matheson, and other drug dealers, “far from being stigmatized by their line of business, back home . . . would count among the most admired members of their respective societies.”²

The Chinese authorities were not so impressed. They sought to exclude the British from all of the Chinese coast except for Canton (today’s Guangzhou) and to suppress the opium trade. Yet enforcement was erratic and intermittent. The emperor had many troubles on his hands, trying to hold together a disintegrating empire and suppress rebellion, and the opium trade was not always his first priority. But in 1839, Lin Zexu was sent to Canton by the Daoguang Emperor with full authority to suppress the trade. Lin believed not only in interdiction but also in what today is called medication-assisted treatment for addiction. A statue of him now stands in Chinatown in Manhattan with the inscription

“Pioneer in the war against drugs”; in China, he is regarded as a national hero.

When in June 1839, under direct instructions from the emperor, Lin destroyed more than a thousand tons of British opium, a year’s supply, the traders lobbied the British government for compensation, which was not feasible politically. But sending in the gunboats to make the Chinese pay was another matter, as was seizing the opportunity to open up the rest of the Chinese coast, not only to opium but also to other British trade. The opium trade was *not* legal; it is as if the Mexican government were asked to compensate Mexican drug dealers for a shipment seized by the US Drug Enforcement Agency (DEA) and the Mexican government, while declining to pay out of its own resources, invaded Texas to make Americans pay. Yet the British Parliament narrowly approved the war, in spite of serious criticism; slavery had not long been abolished in Britain, and many believed that the opium trade was Britain’s other great crime. It was not as if the members of Parliament did not understand the ethics of what they were doing, but profit won out over principle, and Prime Minister Melbourne sent the navy to the East.

There is another part to the story that is less well known. The East India Company did not control the western part of India, where the opium poppy also flourished, and the company faced severe competition from drug dealers in Bombay, the best known of whom was a Parsi merchant called Jamsetjee Jejeebhoy. It was his supply that helped drive down the price of opium in China, enabling the drug to move from a luxury for the rich to a much wider population. Jejeebhoy used his drug profits for good works, a playbook that is still familiar today. He was knighted by the Queen of England for his philanthropy, the first Indian ever to be so honored. In 1858, he was elevated to become a lord, becoming Baronet Jejeebhoy of Bombay. The title was a hereditary one and was inherited by his son.

What of Jardine and Matheson? Jardine became a member of Parliament and was succeeded by Matheson on his death in 1843. Matheson became a fellow of the Royal Society and governor of the Bank of England, and he was one of the richest men and largest landholders in Britain. He purchased the Isle of Lewis in the Outer Hebrides in 1844, and in 1851

he became Sir James Matheson, first Baronet of Lewis. The Highland potato famine reached Lewis not long after his purchase, and he was a generous landowner, who spent large sums on relief and on improvements; he also financed the (more or less voluntary) emigration of 2,337 islanders, about 13 percent of the population, to Quebec and Ontario, and paid for their clergymen to travel with them. He too earned his baronetcy by his philanthropy.³

In the words of economic historian Tom Devine, writers have often seen the Highland Clearances as “the brazen subordination of human need to human profit.”⁴ Unlike some of his fellow landowners of the time, Matheson seems not to have deserved this condemnation, but the same can hardly be said of his earlier activities, nor of the government-supported drug dealers of our own time, whom we shall meet in this chapter.

Opioids

Accidental drug overdoses are the largest and fastest growing of the three midlife deaths of despair, though suicide and alcohol-related mortality together accounted for more deaths in 2017. In chapter 8, we explored suicide and alcohol-related deaths, and how they were linked to the social and economic turmoil among white working-class Americans. We now turn to the story of opioids and the deaths that they have wrought.

Opioids are either the natural derivatives of the opium poppy, such as opium itself and morphine, which have been used for thousands of years and are technically referred to as opiates, or synthetic or partially synthetic compounds that have some or all of the same properties, technically known as opioids. The term *opioid* is now routinely used for both. Opioids are implicated in 70 percent of drug deaths, either alone or in combination with other drugs. Heroin is an opioid; it was synthesized in 1874 and cannot be legally used in the US, though it is used in medicine in several other countries.

The strength of an opioid is measured by comparing it with morphine. A milligram of heroin is equivalent to three milligrams of morphine (or opium), so its morphine milligram equivalent (MME) is 3. One of the

most important opioids in the current epidemic is oxycodone (MME 1.5), which is sold in an extended-release form as OxyContin, manufactured by Purdue Pharmaceutical. OxyContin, known on the street by many names, including “hillbilly heroin,” was approved by the Food and Drug Administration (FDA) in 1995. Another is hydrocodone (MME 1), which is in Vicodin. Yet another currently important opioid is fentanyl (MME 100), which was approved by the FDA in 1968. Unlike heroin (illegal only) or OxyContin (legally *manufactured*, but often sold illegally), fentanyl is available both legally and illegally; today, the illegal version is imported into the US from China via Mexico.

Opioids relieve pain. But they are more than painkillers and can produce a euphoria that people find enjoyable and want to repeat. We say “can” because not everyone gets the high or the pain relief. The body can build up tolerance to opioids, so that ever-higher doses may be required to keep pain under control, or to get to the same high. Users can find it difficult to stop using them, because they have become physically dependent and face fierce withdrawal symptoms when they try to stop. These can include vomiting, diarrhea, sweating, insomnia, cramps, and the experience known technically as *delusional parasitosis* or *formication* (alas, the *m* is not a typo), a feeling that ants or other insects are crawling underneath the skin.

Opioids can also lead to addiction, and to the destruction of self and of family that addiction brings. Even dependence can compromise lives; people become focused on maintaining their consumption of the drug, which can make it difficult to work, socialize, or tend to family.

The progression from prescription to tolerance to dependence to addiction is far from automatic. Heroin has been demonized in movies so often that many people think one injection is enough to destroy your life. That is not true in general, but opioids are dangerous, and long-term pain relief through opioids comes with terrible risks, and with questionable effectiveness. The secret, if there is one, is to get the relief without the horrors, to get rid of the pain without the formication.

In the late 1990s, thinking about pain management changed. As we have seen, there was (and still is) a great deal of pain in the US. Pain-relief advocates argued that the US was undertreating pain, and enormous

quantities of very powerful opioids were unleashed on the American population. By 2012, enough opioid prescriptions were written for each American adult to have a month's supply. People began to die from prescription overdoses, small numbers at the start, but rising over time to 17,087 deaths from prescription opioids in 2016, then falling to 17,029 in 2017, perhaps the beginning of a downward trend.⁵ The people who die are sometimes the people who were given the prescription, but these drugs are often diverted to others, through black-market sales or through theft.

Opioids prescribed by physicians accounted for fully a third of all opioid deaths in 2017, and a quarter of the 70,237 drug overdose deaths that year. This overall number is greater than the peak annual number of deaths from HIV, from guns, or from automobile crashes. It is greater than the total number of Americans who died in Vietnam. The cumulative total from 2000 to 2017 is greater than the total number of Americans who died in the two world wars. The overuse of prescription opioids triggered the secondary epidemic of illegal drugs when Purdue introduced an abuse-resistant form of OxyContin and as physicians became more aware of the dangers and held back, or at least reduced the growth of the legal supply.

Most people who use opioids do not die. And some of those who die may have intended to kill themselves; the distinction between an accidental overdose and a suicide is not always clear, even to the victim.⁶ For every death, there are more than thirty visits to emergency rooms for misuse or abuse, ten of which lead to a hospital admission. Each death corresponds to more than a hundred people abusing the drugs; these numbers have been increasing in parallel with the numbers of deaths. In 2016, nearly 29 million Americans ages twelve and over self-reported using illicit drugs in the last month (including misused prescription drugs) and 948,000 reported using heroin in the preceding twelve months.⁷ Given that these are self-reports, from people participating in the National Survey on Drug Use and Health, the number is likely to be an underestimate. More than a third of *all* adults, 98 million people, were prescribed opioids in 2015. Many employers will not hire new workers without a drug test, so it seems likely that drug use is keeping people out of the labor

force, in addition to those who are unable to participate because of their dependence on drugs.⁸

Opioid deaths, like other deaths of despair, are not equal opportunity. Overdose deaths involving legal and illegal opioids are predominantly of Americans who do not have a bachelor's degree. For whites, since the early 1990s, the percentage of accidental drug overdose deaths accounted for by those with a bachelor's degree has held constant at 9 percent. Two-thirds of victims have no more than a high school education. Blacks and Hispanics were largely exempt until the arrival of illegal fentanyl in 2013, after which they, too, have seen a large increase in overdose deaths. With a few exceptions, mostly English-speaking countries—Canada, the UK (especially Scotland), Australia, Ireland—and Sweden, there are no similar epidemics elsewhere, and apart from Scotland, the numbers dying are very small compared with the US. Yet opioids are used in other rich countries too, usually in hospitals for cancer or for postsurgical pain. But they are much less commonly used by doctors or dentists working in the community, or for the long-term treatment of chronic pain.

Producers made huge sums of money from legal opioids. According to various reports, including investigative work by the *Los Angeles Times*, Purdue Pharmaceutical, which is privately owned by the Sackler family, has sold somewhere between \$30 and \$50 *billion* worth of OxyContin. Recently released court documents show that the family itself received \$12 billion or \$13 billion.⁹ Illegal drug dealers, many from Mexico, have also prospered,¹⁰ but legal producers have the advantage of not having arrest or violence as a routine business risk.

Physicians are also implicated in the epidemic and, at the least, have been guilty of careless overprescribing, especially in the early days of the epidemic. A substantial fraction of opioid deaths was *caused* by the American healthcare system; the standard term for such deaths is *iatrogenic*, meaning “brought forth by the healer.” It is one of the ironies of the epidemic that the US healthcare system, by far the most expensive in the world, not only is failing to prevent the decline in life expectancy but is actually contributing to its fall. And as we shall see in chapter 13, this is not only a result of its mishandling of opioids.

How Did It Happen?

Throughout history, people have used the products of the opium poppy to relieve pain and to get high. The suppliers of those products have often been motivated to help others, and often to enrich themselves, aims that are not necessarily contradictory. The genius of free markets is that people can prosper by helping others. But free markets do not work well for healthcare in general or, in particular, for addictive drugs, whose users often do things that are manifestly against their own interests. Suppliers have an interest in addicting consumers, and mutual gain is likely to be replaced by conflict. At the beginning of this chapter, we saw how this was resolved in favor of British drug dealers in China.

In the American Civil War, upwards of ten million opium pills and nearly three million ounces of opium in tinctures and powders were given to Union soldiers, according to historian David Courtwright, who has written extensively on the history of drugs.¹¹ The then recently invented hypodermic needle (initially thought to reduce the chances of addiction by bypassing the digestive system) was widely used after the war to bring opium-based pain relief to veterans. Courtwright notes that “for the first time in the entire history of medicine, near-instantaneous, symptomatic relief for a wide range of diseases was possible. A syringe of morphine was, in a very real sense, a magic wand.”¹² Around one hundred thousand veterans eventually became addicted. By the late nineteenth century, morphine and opium were widely available in the US and were widely used, including by children. Addiction was especially prevalent among white Southerners, whose postwar world was in disarray. By the end of the century, heroin had been synthesized and marketed by Bayer as, once again, a nonaddictive substitute for morphine. Many more Americans became addicted. And heroin helped many a difficult child go to sleep.¹³

Eventually, the medical profession pushed back, working to restrict the use of opioids both by the public and by physicians, and the Harrison Narcotics Act of 1914 marked the end of the first great American opioid epidemic. The act severely restricted the use and sale of opioids, and heroin was entirely banned ten years later. The sale and possession of opioids became criminal activities, and their use vanished from the

vast majority of the population. Respectable people no longer used opium or heroin for minor aches and pains, nor did they feed them to babies with colic.

How, then, could a new epidemic spring up less than a century later? People forget the past, and even those who remember it may think that circumstances have changed, that this time is different, and that the risks of the past are safely locked up in the past. That drugs can be so enormously profitable will always bring a supply of people who say the risks have been exaggerated. Pain certainly had not been abolished and, as we have already seen, chronic pain was rising, and treating (or not treating) it posed an enormous challenge to physicians. Ronald Melzack, whose gate-control theory of pain had revolutionized the understanding of pain twenty-five years earlier, wrote a paper in 1990 entitled “The Tragedy of Needless Pain,” which eloquently documented the horrors of pain and argued that “the fact is that when patients take morphine to combat pain, it is rare to see addiction.”¹⁴ For terminal cancer patients, the risk of addiction is irrelevant. But many cancer patients survive, many more patients face acute postsurgical pain, and beyond that, there is an ocean of patients with chronic pain. By 2017, 54.4 million American adults had been diagnosed with arthritis, and arthritis is only one of many painful conditions that become more prevalent as the population ages.¹⁵

Starting around 1990, pain experts increasingly called for pain to be better recognized, and for physicians to ask their patients about their pain level. In his 1995 Presidential Address to the American Pain Society, physician James Campbell argued that “we should consider pain the *fifth vital sign*” (italics in the original), meaning that physicians should assess pain routinely, just as they assess respiration, blood pressure, pulse, and body temperature. Campbell also called into question the usefulness of the distinction between cancer and noncancer pain and between acute and chronic pain.¹⁶ The American Pain Society was shuttered in June 2019, a casualty of the twenty-first-century Opioid Wars, bankrupted by legal fees in its defense against charges (that it denies) that it had acted as a pawn of the pharmaceutical companies.¹⁷

Debate continues to this day on whether, as Melzack argued, those who take opioids for pain relief need not fear addiction. The Mayo

Clinic's website, often a reliable source, offers contradictory advice. In its discussion of hydrocodone, it states that "when hydrocodone is used for a long time, it may become habit-forming, causing mental or physical dependence. However, people who have continuing pain should not let the fear of dependence keep them from using narcotics to relieve their pain. Mental dependence (addiction) is not likely to occur when narcotics are used for this purpose."¹⁸ But in a different area of the Mayo Clinic's website, more caution is offered: "Anyone who takes opioids is at risk of developing addiction. . . . The odds you'll still be on opioids a year after starting a short course increase after only five days on opioids."¹⁹ Doctors want to help patients and are reluctant to give up their magic wand.

In this changed atmosphere, doctors and dentists increasingly prescribed opioids for all kinds of pain, especially after the introduction of OxyContin in 1996. Its twelve-hour slow-release mechanism, it was claimed, allowed pain sufferers to sleep through the night. Unfortunately, in a large share of users, pain returned and opioid withdrawal began well short of the twelve-hour mark, and many physicians responded by shortening the interval to eight hours or increasing dosages. The cycle of relief followed by pain and withdrawal increased the risks of abuse and addiction.

The introduction of OxyContin was met by a seemingly unlimited demand by patients in pain. Most doctors practiced under extreme time and financial constraints that made the prescription of a pill attractive compared with approaches that were expensive and time consuming. The interdisciplinary treatment of pain, which was the earlier standard, used some combination of medication—for example, the much less dangerous nonsteroidal anti-inflammatory drugs (NSAIDs), like (nonprescription) aspirin, acetaminophen (Tylenol), ibuprofen (Advil), or naproxen (Aleve) or (prescription) celecoxib (Celebrex)—together with counseling, exercise, yoga, acupuncture, and meditation, all of which are difficult to fit into a standard doctor's appointment. Patient satisfaction surveys also became common, and opioids did well on such metrics. Satisfaction was doubtless also high a century before among colicky babies and their heroin-dispensing parents. Arthritis patients were prescribed opioids by primary care doctors, people were sent home from their dentists

with many days' supply, and all manner of injuries treated in emergency departments were sent home with opioids.

It is arguably possible for a doctor to assess which patients are at risk for addiction, but not in a few minutes, nor in a system in which many people do not have regular doctors and there are no unified medical records. Doctors may not even know that their patients have died from drugs that they have prescribed; when they are sent a letter informing them, many reduce their prescribing of opioids.²⁰

A century after the last epidemic, the conditions were once again in place for another iatrogenic wave of opioid abuse, addiction, and death. David Courtwright told the journalist and author Beth Macy, "What surprised me in my lifetime were things like the internet, or seeing tattoos on respectable women. But I've got to add this to the list of real shockers. I'm sixty-four years old, and I have to admit, I didn't think I would ever see another massive wave of iatrogenic opiate addiction in my lifetime."²¹

As religion faltered, opioids became the opium of the masses.

Overdose deaths began to rise in the early 1990s, gathering real momentum after 2000, a year in which more than fourteen thousand people died of accidental overdoses. Assigning overdoses to the drug responsible is complicated. In a large minority of overdose deaths, more than one drug is present. Benzodiazepines taken alone are unlikely to kill you, but mixed with opioids or alcohol, they can become deadly. In addition, details on the drugs responsible are often not written on death certificates and are instead recorded as "unspecified." In 2000, between a third and a half of all accidental overdoses involved (mostly prescription) opioids, with the exact count dependent on how we attribute deaths from "unspecified" narcotics. Heroin, a long-standing scourge, was recorded as present in 1,999 deaths that year. Before 2011, the increases in deaths were powered by prescription opioids, particularly those based on hydrocodone (Vicodin) and oxycodone (Percocet, OxyContin). In 2011, Purdue Pharmaceutical reformulated OxyContin to make it resistant to abuse. The original formulation had warnings against taking it other than as directed, but those warnings, by telling you exactly what *not* to do, were easily reversed to give accurate instructions for how to convert the extended-release pill into one giving an immediate high, or to prepare

it for injection.²² Deaths from prescription opioids stopped rising in 2011, almost certainly in response to the reformulation, though the increasing awareness of physicians of their part in the epidemic was by then playing a role in limiting unmindful prescription. It is possible that the reformulation actually *cost* lives, if users switched to relatively unsafe street drugs. At the same time, the reformulation allowed Purdue's about-to-expire patent to be renewed, which was possibly of more concern to the company than saving lives.

In any case, by 2011 it was too late to put the genie back in the bottle. Illegal heroin, an almost perfect substitute for oxycodone, quickly picked up the slack; deaths from prescription drugs were replaced by deaths from heroin, and the total of overdose deaths continued its climb. Drug dealers waited outside pain clinics for patients whose doctors had denied them refills. Some bought (diverted) OxyContin on the street until discovering that heroin was both cheaper and more potent. It was also more dangerous, because the quality of street drugs is never guaranteed. At the same time, there was an explosion of high-quality black-tar heroin from new suppliers in Mexico, so for many, the switch was an easy one. Misappropriated OxyContin prescriptions could be sold for morphine-equivalent doses of heroin, maintaining a habit and producing a profit on the deal.²³

Heroin deaths continued to increase but were soon overtaken by deaths from fentanyl, which rose to 28,400 in 2017. The rise of fentanyl reflects its potency, the ease of its importation given that it is effective in much smaller quantities than heroin, and the fact that it can be mixed with heroin, cocaine ("speedballs"), and methamphetamine ("goofballs") to deliver a more effective high.²⁴ Heroin and illegal fentanyl became widely available in part to meet the demand of those addicted to prescription opioids who were finding it harder to feed their habits. But their presence appears to have led to an epidemic of its own, in which users start out not on prescription opioids but rather on these illegal substitutes. Cutting cocaine and heroin with fentanyl has been one of the causes of rising overdose mortality among African Americans; death certificates listing fentanyl can account for three-quarters of the increase in midlife African American mortality after 2012.²⁵

The fire had jumped its boundaries.

One might think that overdose deaths would drive customers away from dealers whose customers die, but anecdotal evidence suggests that the opposite is true. Those addicted to opioids are so desperate to be numb that they see a death as an indicator that the source of supply is desirable, the “real thing.” Indeed, this is not the only hint of suicide in these deaths. The drug naloxone (Narcan) has the almost magical property of bringing back to life people who are about to die from an overdose. Yet there are multiple reports from police and fire departments of their administering naloxone to the same person on multiple occasions, sometimes within a single day. Either people want to die, or they do not care about anything other than feeding their addiction, even if it kills them. The addiction is in control.

The Epidemic and Deaths of Despair

The term *epidemic* invites comparison with an epidemic of smallpox or the influenza epidemic that killed millions in the US and around the world in 1918–19. In the opioid epidemic, the agents were not viruses or bacteria but rather the pharmaceutical companies that manufactured the drugs and aggressively pushed their sales; the members of Congress who prevented the DEA from prosecuting mindful overprescription; the DEA, which acceded to lobbyists’ requests not to close the legal loophole that was allowing importation of raw material from poppy farms in Tasmania that had been planted to feed the epidemic; the FDA, which approved the drugs without considering the broad social consequences of doing so and which acceded to producer requests to approve label changes that greatly widened use and profits; the medical professionals who carelessly overprescribed them; and the drug dealers from Mexico and China who took over when the medical profession began to pull back. This is a story of supply, where immense profits were made by addicting and killing people, and where political power protected the perpetrators. Once you have started using opioids, it is as if you have caught the virus, and while you will probably survive, there is some chance that you will die. No one should doubt the importance of supply in the

epidemic—which is why we have told the story as we have—but it does not offer anything like a complete account.

Why is it that the epidemic is so much worse in America and almost absent in most other rich countries? Even in America, some opioids, such as Vicodin and even fentanyl, have long been available. Other countries use opioids for postsurgical and cancer-related pain, and some, including Britain, have long used heroin, even when it was banned in the US. What is it that has prevented those drugs leaking out from intended uses into the population at large?

Why, too, is it that Americans with a bachelor's degree rarely die of overdoses, and why are 90 percent of the deaths among those without a four-year degree? Certainly, those with less education are more likely to be injured at work, or to work at jobs that bring a high risk of acute or chronic pain, and so to be prescribed opioids, but this cannot be the whole story. Arthritis, which is one of the leading conditions for opioid prescriptions, is largely a consequence of age, and if access to opioids is more common among the elderly, it is not killing them. In chapter 7, we saw that about half of sixty-year-old whites with a bachelor's degree reported back, neck, or joint pain, as opposed to 60 percent of those without the degree. This is not nearly enough of a difference to explain the sevenfold-higher overdose mortality rate if it is those with pain who get opioids, if a constant fraction of those prescribed become addicted, and if a constant fraction of those people die. It is possible that the pain of the less educated is more suitable for opioid treatment, but we see no evidence of it. Something else is going on.

Here is our own account and interpretation of what happened.

While there was plenty of misbehavior and greed by all of the players in the drama, we think it is a mistake to think of doctors as little better than drug dealers. Certainly, there were some doctors who took the opportunity to operate “pill mills,” selling prescriptions for cash (or for sex) without examining or even interviewing the “patient.”²⁶ Many of those doctors are now (or have been) in jail. But few physicians are corrupt and, given the state of medical knowledge in the mid-1990s, they had good reason to prescribe opioids to patients in pain, and little reason not to. Our guess is that it is true that the appropriate dose of opioids for acute

pain relief is not, in and of itself, very likely to lead to addiction. Nor will it do so for those who are terminally ill. The appropriateness of the drugs for the long-term treatment of chronic pain is another matter. Clearly, there are exceptions where appropriate short-term prescription led to addiction. One was the case of Travis Rieder, a philosopher and bioethicist at Johns Hopkins in Baltimore, whose left foot was crushed in a motor-cycle accident, who was prescribed ever-increasing doses to control his pain after multiple surgeries, and who escaped his addiction only with terrible difficulty and with no help at all from the doctors who had prescribed the painkillers.²⁷ His story is worth keeping in mind as a cautionary tale of what can happen. Addiction is extraordinarily hard to overcome under even the best of circumstances.

However, it is simply *false* that a single injection of heroin will immediately and inevitably addict anyone and everyone. It is estimated that around a million people in America today use heroin daily or near daily; most of them not only do not die but in fact live functional lives. Many “mature out” of their addiction, and many others quit by themselves, with medical treatment or with social support.

During the Nixon administration, there were reports from Congressmen Robert Steele and Morgan Murphy, who on an official visit to Vietnam in 1971 found that servicemen were using heroin. Nixon immediately declared that heroin addiction was the nation’s number one public health problem. Servicemen could be compelled to take urine tests, and the results—in line with the soldiers’ own reports—showed that 34 percent had tried heroin and as many as 20 percent were addicted. Much to the surprise of the investigators, 38 percent were using opium. (More than 90 percent used alcohol, and three-quarters used marijuana.) Those who tested positive were detoxed and urine-tested before being allowed to go home, a powerful incentive to get clean. The program became known as Operation Golden Flow, and its veterans were followed up once they got home. Only 12 percent returned to opioid addiction in the US within three years; in most of those cases, the readdiction was brief. Perhaps the detox was successful; it was not expected to be, so if it was, it was much more successful than detox usually is. Perhaps it was because, under the stress of combat, opium and heroin offered some

relief. But most servicemen who used opioids started very soon after arriving in Vietnam, and those who had seen more combat were no more likely to use.

The most plausible story, and that of Lee Robins, one of the investigators, on whose description of events this account is based, is that these men used opioids because “they said it was enjoyable and made life in the service bearable.”²⁸ They used opioids not to make combat risks tolerable—and they knew very well the risks of being high in combat—but because they were bored out of their minds. When they returned home and were no longer in the army, there were other means of enjoyment, and life made sense and was bearable without drugs. The environment matters. The drugs were also extraordinarily cheap in Vietnam. The daily triggers for use in Vietnam were absent at home, and because the men were detoxed in Vietnam rather than at home, the detox-readdiction cycle was broken by geography.²⁹ Robins argues that the widespread perception of heroin addiction comes from the fact that so many studies have been done on special populations that are more likely to be addicted in the first place, and not on more general populations such as those who served in Vietnam.

It is something in people’s lives that drives them to seek euphoria or numbness through drugs, not some inherent property of the drugs themselves that will addict anyone who touches them. It is impossible to understand drug use without understanding the environments in which users live, and how those environments are treating them and have treated them in the past. As one physician put it to us, biographies matter.³⁰ We give our own account of the disintegration of working-class lives in chapters 11 and 12.

Few doctors were or are directly addicting their patients. But they were perhaps too ready to believe the claims that opioids provided more successful long-term relief than the earlier, interdisciplinary approaches. Indeed, there has been little such evidence, and we note again that national levels of pain have been rising, not falling, though the latter would be expected if these drugs were usually effective, given the enormous amounts being prescribed. Physicians are rightly responsive to the pain of their patients and may not consider the wider social costs of

prescriptions. They were also exposed to great pressure by the manufacturers, through direct marketing and well-funded “educational” campaigns, and through advocacy organizations for pain sufferers, some of which accepted large donations from pharma. (These fake or infiltrated grassroots associations are sometimes referred to as “Astroturf” groups.) Physicians prescribed strong opioids in numbers beyond those needed, at times to patients who did not need them at all, leaving unused pills that could find their way onto the black market, itself evidence against inevitable addiction. They also prescribed to patients who intended to resell the drugs rather than use them, and who shopped for doctors until they found one who would write a prescription. Doctors try not to prescribe to such people, but it is unclear how they are supposed to know, particularly given the time pressure that they face, and even people who are at risk and have a previous history of abuse can be in real pain. Doctors were being asked to police and prevent abuse in a way that was beyond their ability under the circumstances in which they work.

Some commentators have argued that the rollout of Obamacare was in part responsible for the epidemic, that the expansion of Medicaid made opioids more widely available. But the timing on this is wrong, because the epidemic was in full swing before any Medicaid expansion. By contrast, Medicaid has played an important role in making available affordable treatment for people with opioid abuse disorder, with levels of therapy much higher in states that expanded Medicaid after 2014.³¹

The producers, directly and through prescription benefit managers, did everything possible to increase sales and profits, even when it was clear that the drugs were being abused. In one two-year period, nine million pills were shipped to a pharmacy in Kermit, West Virginia, population 406. Between 2007 and 2012, according to a report by the Energy and Commerce Committee, “drug distributors shipped more than 780 million hydrocodone and oxycodone pills to West Virginia.”³² According to an investigation by the CBS program *60 Minutes* and the *Washington Post*, when the DEA, which is charged with stopping such abuse, tried to do so, Congress passed the 2016 Ensuring Patient Access and Effective Drug Enforcement Act, whose language effectively prevented the DEA from stopping the flood.³³ President Donald Trump then

nominated one of the moving forces for the bill, Representative Tom Marino of Pennsylvania, to be his drug czar. Marino withdrew in the face of public outrage after the exposés on *60 Minutes* and in the *Washington Post* revealed his multiyear effort to pass such a bill on behalf of the industry. The investigative journalism also revealed the role of an important “revolver,” D. Linden Barber, previously a senior lawyer in the DEA, who switched sides to advise the industry and help write the bill.

Johnson & Johnson, one of the best-known American pharmaceutical companies, supplied most of the raw material for opioid painkillers in the US from a subsidiary, Tasmanian Alkaloids, which grew poppies on farms in Tasmania. According to journalist Peter Audrey Smith, the DEA was aware of what was going on but backed off from closing the legal loophole at the request of pharmaceutical lobbyists.³⁴ At a time when the American military was bombing the opium supply in Helmand province in Afghanistan, Johnson & Johnson was legally growing the raw material for the nation’s opioid supply in Tasmania. In August 2019, Johnson & Johnson was ordered to pay \$572 million to the State of Oklahoma for its role in fueling the epidemic. The company is expected to appeal, but other suits are pending.³⁵

We tell these stories because they illustrate the failure of democratic politics to address the opioid epidemic. Marino’s district was heavily affected by opioids, as was that of one of the bill’s sponsors in the House, Representative Marsha Blackburn of Tennessee. Yet they fought against effective regulation, not for it; money and pro-business ideology subordinated the voices of those who had been addicted or were dying. The scandal did not prevent Marino being reelected to Congress in 2018, but he resigned in January 2019 in the face of ill health. Blackburn was also reelected and is now the junior senator for Tennessee. Senator Orrin Hatch, a lifelong friend to a pharmaceutical industry that long supported him, smoothed the bill’s way with the DEA. For forty-two years, Hatch represented Utah—a state whose drug-induced mortality rate increased sevenfold between 1999 and the signing of the bill into law in 2016.

The epidemic would not have happened without the carelessness of doctors, without a flawed approval process at the FDA, or without the pursuit of profits by the industry at whatever human cost. The story of

that industry, unrestrained and running amok, is being told in American courtrooms today as pharmaceutical executives are being pursued for accountability and compensation by nearly two thousand municipalities. One case, settled in May 2019, saw the conviction on federal racketeering charges of five top executives of Insys Therapeutics, whose salespeople bribed doctors to prescribe fentanyl to patients who did not need it.³⁶

Our story is that the misbehavior poured fuel on the fire, making the epidemic worse, rather than creating the conditions under which such an epidemic could take place in the first place. The people who used the opioids, the many millions who became opioid abusers or became addicted, who became zombies walking the streets of once-prosperous towns, were those whose lives had already come apart, whose economic and social lives were no longer supporting them. The *supply* side of the epidemic was important—the pharma companies and their enablers in Congress, the doctors who were imprudent with their prescriptions—but so was the *demand* side—the white working class, less educated people, whose already distressed lives were fertile ground for corporate greed, a dysfunctional regulatory system, and a flawed medical system. The opioid epidemic did not happen in other countries both because they had not destroyed their working class and because their pharmaceutical companies are better controlled and their governments are less easily influenced by corporations seeking profits.

Corporate Power and Individual Wellbeing

One of the themes of this book, which we address at length in later chapters, is how the American economy has shifted away from serving ordinary people and toward serving businesses, their managers, and their owners. Government and the law have been complicit. This chapter, on opioids, provides a dramatic example of this general process. Later, we focus largely on the mechanisms that redistribute money upward, away from working people, and toward firms and their shareholders. The American healthcare industry is the prime example, even beyond the opioid manufacturers and distributors. Their behavior, for which, as we

write, they are being called to account in the courts, is not typical, but the use of market power to bring about upward redistribution, from a large number of people with little, to a smaller number with a great deal, is symptomatic of the industry and, more arguably, of American capitalism more generally. The beneficiaries are not only the rich people who are large shareholders but also the many members of the educated elite who hold stock indirectly in their retirement funds, and who benefit from anything that increases corporate profits, including lower wages. We shall argue that this process, run out over half a century, has slowly eaten away at the foundations of working-class life, high wages and good jobs, and has been central in causing deaths of despair. The opioid story fits with this more general theme but is much more flagrant, because it is rare that corporations can so directly benefit from death.

We do not believe that the FDA has been captured by the industry. Even so, much went wrong with its approval of opioids, especially OxyContin. The FDA (and the general public) greatly reveres the randomized controlled trials that are required to demonstrate that drugs work, but even here there were problems with opioids. Those who were in the control group for OxyContin—the randomly selected group that did not receive the drug—had previously been taking OxyContin in an earlier phase of the trial, called the open-label phase; this is done to exclude from the trial those who cannot tolerate the drug.³⁷ In this type of trial there is a “washout” period between the two phases, in which the drug is supposed to wash out of the patients’ systems. The danger in the case of OxyContin (or any addictive drug) is that if the washout period is not long enough, some of those in the control group, no longer receiving the drug, may suffer withdrawal symptoms, which would make them look bad relative to those who go into the treatment group and receive it again. Moreover, the exclusion of those who, in the earlier, open-label phase, could not tolerate the drug means that the trial understates the rate of problems in the wider population for which the drug will be prescribed. Manufacturers are allowed to discuss these and other aspects of trial design with the FDA before the trials are run.

More generally, and as has been correctly argued by a panel of the National Academies of Sciences, Engineering, and Medicine, a testing and

approval process that looks only at what these drugs do for individuals ignores the broader effects of releasing a powerful and highly addictive drug into society.³⁸ It is a lot to ask the FDA to anticipate everything that happened after its approval of OxyContin, but the failure of a system that does not consider the public health consequences of approving the drug is surely inexcusable. After all, the FDA was essentially putting a government stamp of approval on legalized heroin.

The opioid story shows the power of money to prevent politics from protecting ordinary citizens, even against death. Until 2019, at least, when rising public outrage eventually changed perceptions, those who got rich were neither ostracized nor condemned but rather recognized and lauded as successful businesspeople and philanthropists. Purdue Pharmaceutical is the leading example. The Sackler family name appears on museums, universities, and institutions, not only in the US but also in Britain and in France. Arthur M. Sackler, who died before OxyContin was developed, was the donor to many of the institutions, including the Metropolitan Museum in New York (the Temple of Dendur), Princeton University, the Smithsonian, and the National Academy of Sciences. Sackler's fortune came from developing the system of pharmaceutical advertising and sales that is in place in the US today. In the words of one commentator, "Most of the questionable practices that propelled the pharmaceutical industry into the scourge it is today can be attributed to Arthur Sackler."³⁹

Arthur Sackler's brothers Raymond and Mortimer, together with Raymond's son Richard, controlled the company during the launch and marketing of OxyContin. Both Raymond and Mortimer were knighted by Queen Elizabeth in 1995, an uncanny echo of Jamsetjee Jejeebhoy a century and a half before.⁴⁰ Like an eighteenth-century wig, the perfume disguises, but does not eliminate, the stench of moral decay.⁴¹

The Queen would be unlikely to convey these honors today. Most of the organizations just listed have stopped using the Sackler name—sometimes after resisting the step for years—and others have said that they will accept no more money.

The pharmaceutical companies, having made so much money from creating the crisis, now stand ready to profit from its treatment. There are

no easy or surefire cures for addiction, but the best available—albeit on relatively weak evidence—is known as medication-assisted treatment (MAT), whereby those with addictions use different opioids (methadone or buprenorphine) to control their craving while quitting. While we suspect that MAT is likely being oversold, because the demonstrations of effectiveness come only from patients who admit to their addiction and seek treatment—which many do not—and because a substantial fraction drop out along the way, it has an advantage over abstinence-only treatment because relapsing from the latter is often how overdose deaths happen. Those who have been clean for a while will lose their tolerance to the drug and can die after relapse from the same dose that they used when they first quit. Even so, it takes a strong stomach to watch pharma and their allies push MAT so that they can profit both by causing the epidemic and by curing it. Indeed, in the summer of 2018, Purdue Pharmaceutical was granted a patent for a variant of MAT, setting itself up to repeat its earlier success with OxyContin. It is as if the poisoner of the water supply, having killed and sickened tens of thousands, were to demand a huge ransom for the antidote to save the survivors.

What of the lawsuits against the pharmaceutical companies that are raging as we write? These will permanently reduce the supply of prescription opioids, a reduction that is already under way. They will do little to reduce the use of illegal drugs, and may even increase it, as demand switches from legal to illegal sources. The settlements will probably bankrupt some companies, including Purdue, though others have easily paid large fines in the past out of their even larger resources, or by raising the prices of their drugs. Purdue is trying to retain control over its European subsidiary, Mundipharma, in order to continue the business elsewhere in the world, just as the tobacco companies have done. Whether the states and localities that receive the payments will use them well is not clear. A not reassuring parallel is the Master Tobacco Settlement of 1998 between states and tobacco companies. Since then, the states have received hundreds of billions of dollars from the companies—paid for by the predominantly poorer and less educated Americans who smoke—but have used nearly all of it for general revenue and thus to reduce property and income taxes. In the case of opioids, the surviving companies have the

ability to raise prices, making healthcare even more expensive, so that, once again, it is ordinary people, those who pay for healthcare or health insurance, who will be paying for the transfers to the states who win the verdicts. Nor will the payments do much to incentivize the companies to change their behavior. Only admissions of wrongdoing and criminal verdicts against executives are likely to do that, and such verdicts, although not unknown, are rare.

The benefits of free-market capitalism are often rightly noted, including its ability to give people what they want, its incentives for innovation, and its ability to promote economic growth. We agree. But the American medical system, including the pharmaceutical industry, is nothing like a free market. The existence of moneymaking corporations does not imply competitive free markets. Instead, these highly regulated corporations are largely concerned with seeking protective regulations from government and government agencies to protect their profits and limit competition in a way that would be impossible in a free market. We are certainly not arguing for a free-market solution to the American healthcare system, only that what we have now cannot be defended as a free-market system. It is outrageous when an industry that makes so much from *corrupting* free-market competition should be able to dismiss its critics as opponents of free markets. There is nothing antimarket about condemning theft. Other countries have a range of other ways of organizing healthcare, all have their strengths and weaknesses, but none are killing people. None are supporting “the brazen subordination of human need to human profit.”⁴²

It would be a tragedy if the profits of the drug trade were allowed to corrupt America and were later seen, as was the case in China a century and a half ago, as the beginning of a hundred years of humiliation and decline.

PART III

What's the Economy Got
to Do with It?

False Trails: Poverty, Income, and the Great Recession

DEATHS OF DESPAIR are concentrated among those with less education, and the epidemic is widening the gap in years lived between those with and without a bachelor's degree. But we have said little about money, or about its absence, and just how income or poverty fits into the story. Even for those who are not poor, people with higher incomes live longer,¹ and there is evidence that education matters too, even among people with the same incomes.² In America, money buys access to better healthcare, and beyond that, life is easier when you do not have to worry about how you are going to pay for a car repair, or childcare, or an unexpectedly large heating bill after an especially cold winter month. Financial worry can suck the joy out of life and bring on stress, often a trigger for pain and ill health. It would be surprising if money did not have its own beneficial effect on health even if much of the link between wealth and health is explained in other ways, through the impact of poor health on earnings, through education's effects on both health and wealth, or through childhood circumstances setting the stage for adult health and wealth.

The United States has a much less comprehensive safety net than other rich countries, in Europe and elsewhere. The absence of benefits gives people sharp incentives to work and earn, which is good for those who can, but can be disastrous for those who, for one reason or another, cannot. The United States is also different from other rich countries in having

several million extremely poor people, who arguably live in conditions as bad as poor people in Africa and Asia.³ Poverty is an obvious place to look when trying to explain an epidemic of death that is unique to the US.

Income inequality often features in popular discussion of deaths of despair and of American ill health more generally. Inequalities in income and wealth are higher in the US than in other rich countries, so inequality is a popular candidate to explain other outcomes where the US is exceptional. Poverty and inequality are seen as twin curses that are routinely, if usually not very precisely, blamed for all manner of evils, not just for contributing to poor and declining health but also for undermining democratic governance, for slowing economic growth, for inducing economic instability, for eroding trust and happiness, and even for spurring the rise in obesity.⁴ Poverty may be harder to bear in more unequal societies; poor people not only have to suffer their own poverty but can also see that there are others who have vastly more than they need. We have much to say about inequality in this book, especially in the chapters to come. We will argue that deaths of despair and income inequality are indeed closely linked, but not, as is often argued, with a simple causal arrow running from inequality to death. Instead, it is the deeper forces of power, politics, and social change that are causing both the epidemic and the extreme inequality. Inequality and death are joint consequences of the forces that are destroying the white working class.

We resist the notion that income inequality is like pollution in the air, or deadly radiation, so that living in a more unequal society is something that sickens everyone, rich and poor alike. For one thing, the huge expansion of income inequality in the US came after 1970, precisely during the period when mortality was falling rapidly and life expectancy rising rapidly (see figure 1.1). Beyond that, although some states in America are much less equal than others, the epidemic of deaths of despair is no worse in less equal states. New Hampshire and Utah, two states with the lowest levels of income inequality, have been much harder hit than New York and California, two states with the highest.

The Great Recession began in 2008 with the collapse of Lehman Brothers and quickly led to large-scale unemployment and distress, not

only in the United States but also in other rich countries. The US unemployment rate, which had been less than 5 percent in February 2008, was nearly 10 percent by the end of 2009, and it did not regain the 5 percent level until September 2016. The recovery is still incomplete in some aspects, especially for the less educated. Throughout the period from January 2010 to January 2019, the number of college graduates aged twenty-five and over in employment increased in total by 13 million (about a quarter). Employment for those without a degree rose by 2.7 million, but by only 55 *thousand* for those with a high school degree or less. Job growth for those with a college degree was barely affected by the Great Recession.⁵ The recovery—although it has seen some growth in wages for the least skilled—has not provided them with jobs. From 2008 to 2016, when deaths of despair were rising rapidly and progress against heart disease mortality was reversing, income and employment were much lower for less educated Americans than they would (or should) have been had the bubble not burst.

The policy response to the financial crisis in the US was less than it should have been, but it was relatively successful compared with Europe. Different countries in Europe experienced the recession in different ways; some remained untouched while others, either because of their own choices or because they had no choice given their debt position and their membership in the euro area, experienced more or less severe austerity, with cuts in state spending and benefits. The cross-country variation in Europe gives us a laboratory in which we can compare health outcomes with different degrees of economic distress.

As the title of the chapter suggests, we do not believe that poverty or the Great Recession is central to our story of a rapid increase in deaths of despair. We do not deny the depth of poverty, nor the misery and ill health that comes with it, and we acknowledge and deplore the disgraceful living conditions and low life expectancy in parts of America. That these are worse than in Europe is a direct testament to the inadequacies of the American safety net and its healthcare system. But it is not possible to explain deaths of despair in terms of America's exceptional poverty or the Great Recession.

We pick up the story of what *did* happen in chapter 11, but the detour we take here is important because when people are asked what might be causing deaths of despair, the common response is poverty, or inequality, or the financial crisis, or all three. All are important, but none is the main cause of deaths of despair. Yet the contrary view is so widespread that we need to explain why it is wrong while, at the same time, fitting poverty, inequality, and the crisis into our story.

Poverty

We know a lot about the people who have died from the information on their death certificates, including, as we have seen, their educational attainment. But there is a great deal more that we do *not* know but would like to, including their occupation, income, wealth, and whether they were poor. Without that, we cannot immediately see whether deaths of despair are tied to poverty. We have to work indirectly.

There was no increase in the national poverty rate to match the timing of the epidemic. Official poverty counts, which tally the number of people living in households with incomes below the poverty line, were falling throughout the 1990s, when the epidemic was getting under way, down to a low of 11 percent of the population in 2000. There was then a slow rise to 13 percent on the eve of the Great Recession, followed by a rapid rise through the recession and slow decline thereafter; 2017 marked the third consecutive year of decline in the poverty rate. This looks nothing like the pattern of deaths of despair, which rose uninterruptedly and increasingly rapidly from the early 1990s. The official poverty counts have a number of serious flaws; in particular, they take no account of taxes or benefits, such as the Earned Income Tax Credit, or food stamps, now called the Supplemental Nutrition Assistance Program. While it is important to adjust for these, especially when assessing how the welfare system helped people during the Great Recession, none of the adjustments would make the poverty counts better match the steady rise in deaths of despair. There is simply no increase over time in poverty that can explain the surging epidemic.

The racial patterns of the epidemic are also difficult to reconcile with a poverty story. Among adults without a bachelor's degree, the fraction of white non-Hispanics living in poverty was less than half that among blacks over the period from 1990 to 2017.⁶ Yet, at least up to 2013, African Americans were almost exempt from the epidemic. From the early 1980s through the start of the Great Recession, midlife white poverty rates were roughly constant at 7 percent (9 percent for those with less than a bachelor's degree), while deaths of despair among whites increased year by year. More generally, a wide range of measures of living standards are worse for blacks than for whites,⁷ but it was almost exclusively whites who were dying from deaths of despair from the 1990s through to 2013. Whatever was differentially affecting white non-Hispanics, it was not that they were poorer than other groups.

Long-established deep poverty in the United States exists, especially among African Americans. Indeed, it is the long and disgraceful history of race in America that has done much to prevent poverty relief in the South—where governments have long been white and the actual or potential recipients of relief are black. Deep financial poverty maintained over many years brings health poverty too, worsened by racism and the low levels of healthcare, education, and sometimes even sanitation.

Yet poverty is not the source of the surge in deaths of despair. The timing is wrong, and the deaths are too white. The geography is wrong too. Figure 10.1 shows age-adjusted mortality rates for accidental (or intent-undetermined) drug overdoses for whites ages twenty-five to sixty-four, by state, mapped against state poverty rates for whites, in 2017.

Certainly, Appalachia and especially West Virginia and Kentucky are centers of drug overdoses and have high rates of poverty, but poverty does a poor job of matching deaths across the country. Drug overdoses are also prevalent in less economically deprived states along the Eastern Seaboard from Florida up the coast to Maryland, Delaware, New Jersey, Connecticut, Rhode Island, Massachusetts, New Hampshire, and Maine. There are also states with high levels of poverty, such as Arkansas and Mississippi, that are much less affected by overdose deaths.⁸ At the same time, suicide is much more prevalent in the Rocky Mountain

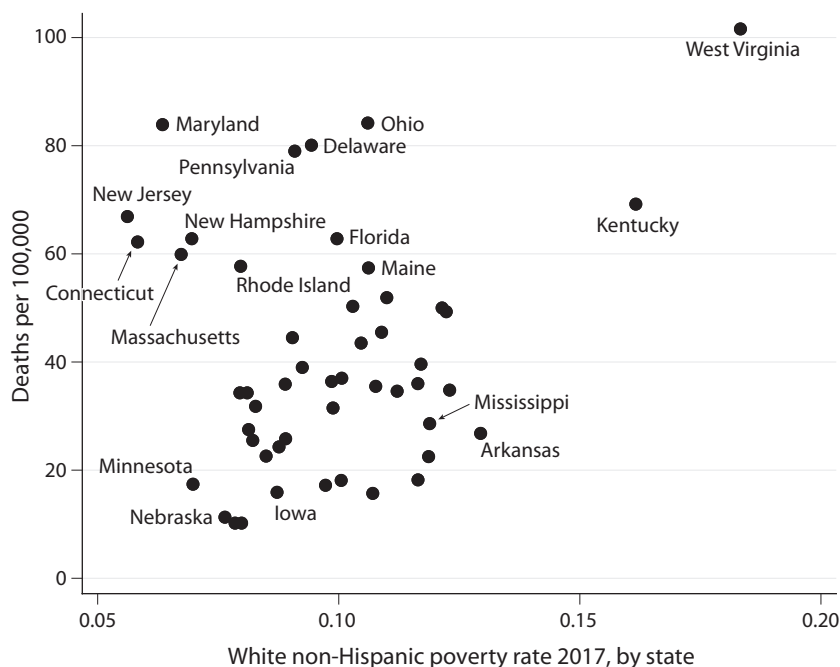


FIGURE 10.1. Drug overdose death rates for white non-Hispanics ages 25–64 and state poverty rates for white non-Hispanics in 2017. Authors' calculations using Centers for Disease Control and Prevention data and the March Current Population Survey.

States, where poverty is not particularly high. Suicide-rate increases from 1999 to 2017 were also larger in the Mountain States, where they were already taking the highest toll. There is no part of the country that has been left untouched by suicide; two-thirds of all states saw midlife suicide rates for whites increase by at least 50 percent between 2000 and 2017. There is a positive correlation between alcohol-related liver mortality and state poverty. But the states with the highest poverty rates (West Virginia, Kentucky, and Arkansas) do not have the highest death rates from alcoholism, in part because a large fraction of their residents are nondrinkers. Alcohol-related death rates are highest in Nevada, New Mexico, and Florida, and they are rising most rapidly in western states (Wyoming, New Mexico, Oregon, and Washington) and in the South.

Whatever is the nature of the despair driving the epidemic, it is widespread, and it is not captured by income poverty at the state level.

Inequality

Deaths of despair are prevalent among those who have been left behind, whose lives have not worked out as they expected. Income is a part of this story, though we shall argue in chapter 12 that declines in income work alongside negative social and political factors. But the fact that working-class people have been left behind economically is important, especially when there has been real growth in the economy. That growth has accrued to a more educated elite, leaving others behind. Widening income gaps are a consequence of this process, as are deaths of despair.

There is another line of thought that blames inequality itself for social disruptions, including mortality. In this account, inequality hurts people by undermining the social solidarity and relationships that are essential to a good life. The British epidemiologist Richard Wilkinson has argued that healthy societies have relationships that “are structured by low-stress affiliative strategies which foster social solidarity,” while unhealthy societies are characterized by “much more stressful strategies of dominance, conflict and submission.” Which kind of society we live in is “mainly determined by how equal and unequal a society is.”⁹ This is different from arguing that poverty is the root of ill health. In that story, the poor are unhealthy because of their poverty. By contrast, if inequality makes a society unhealthy, everyone’s health suffers, rich as well as poor.

Wilkinson’s theory has a lot to recommend it, especially its focus on social as opposed to individual circumstance. But here we are interested in whether it can help account for mortality in America today, and whether income inequality is linked to the epidemic of deaths of despair. We agree that the increase in American inequality since 1970 is indeed linked to increases in deaths of despair, not directly—as in “inequality makes us all sick”—but because in the US the rich got richer at the expense of the rest of America—“reverse Robin Hood” in action. For twenty to thirty years, while income inequality rose, mortality declined, but eventually, after 1990, we began to see an increase in deaths of despair among the less educated. We will argue that this is the result not of the increasing prosperity of those in the top 1 percent but instead of what has been happening to the white working class itself. Of course, the increasing

prosperity at the top may have a good deal to do with the distress at the bottom, and it will be central when we come to think about what should be done. But those in despair are in despair because of what is happening to their own lives and to the communities in which they live, not because the top 1 percent got richer.

Income inequality is different in different places—cities and states—across the country. At times in the past, mortality rates were higher and life expectancy lower in states with higher income inequality. But the relationship is much weaker today. Historically, the states in the South with high mortality—West Virginia, Alabama, Kentucky, Mississippi, Arkansas, Oklahoma, Louisiana, and Tennessee—had higher levels of income inequality than the majority of states, in most cases because they had large African American populations, who were relatively poor, which drove up overall income inequality, and who had relatively high mortality, which drove up overall mortality. States in the central plains and in most of the West had more homogeneous populations and lower mortality rates. Today, however, New York and California are two of the most unequal states; they have a high degree of heterogeneity, with large Hispanic and Asian populations, but have among the lowest mortality rates.

To search for a simple and direct relationship from income inequality to mortality is to follow another false trail.

Many people feel that income inequality is less of a problem if it is easy for people to move from poverty to riches, or at least for children to do better than their parents. To check this, we need a measure of intergenerational mobility—for example, the fraction of children whose parents were in the bottom fifth of the income distribution and who managed to move to the top fifth. We might suppose that when intergenerational mobility is high, everyone has a chance of succeeding (or failing!), and when it is low, people are trapped by the accident of their birth. The economist Raj Chetty and his coauthors have calculated measures of intergenerational mobility for children born between 1980 and 1991 for different places across the United States.¹⁰ Children born in the Southeast of the US have had the least chance of moving up, at least for this particular cohort. While there is a good deal of overlap

between low mobility and deaths of despair, the relationship is no closer than for inequality itself. Indeed, inequality is itself strongly related to low mobility.

Incomes and the Great Recession

The stock market crash of October 1929 was followed by a decade of misery and economic failure that remains the worst-ever crisis of Western capitalism. Millions lost everything—their jobs, their savings, and their homes or their farms. More than 20 percent of the population was unemployed, depriving not only themselves but also their families of economic support. Personal income per head fell by a quarter from 1929 to 1933, and it did not recover its pre-Depression level until 1937. Suicide rates reached peaks that they have never subsequently attained; this is true in both the US¹¹ and Britain.¹² In Europe, the Depression and its aftermath saw the rise of fascism.

Nothing as bad as this has happened since, but the events after 2008 are the next worst—not the Great Depression, just the Great Recession. Unemployment doubled, from 5 percent to 10 percent, not as bad as 20 percent, but no better for the millions affected. (For those with a college degree, unemployment peaked at only 5.3 percent.) Because the crisis was rooted in a housing bubble, with bankers making huge sums from mortgages that should never have been lent, millions of people lost their homes. People who had worked hard to hold on to a middle-class life were suddenly without a job, without a place to live, and without the means to continue their own or their children's education. Banks stopped lending, and millions of small businesses went bankrupt.

There have been many studies of how mortality varies over the business cycle, whether more people die in bad times—as we might at first expect—or during economic booms, when times are good. Perhaps the first study to look at the question was published as long ago as 1922, by the sociologist and statistician William Ogburn and sociologist and demographer Dorothy Thomas;¹³ Thomas was the first woman to be a professor at the Wharton School of the University of Pennsylvania. Ogburn and Thomas discovered, to their surprise, that the good economic

times were bad times for mortality. Their conclusion has been replicated many times since, including in work for the United States on national and state-level business cycles before the Great Recession.¹⁴ Much the same happens in other rich countries, with slumps better for mortality than booms, though not every study confirms the pattern. While it is true that suicides are higher in bad times, as was true in the Great Depression—remember the famous images of bankrupt ex-millionaires jumping out of skyscrapers in 1929—there are other mechanisms at work. During slumps, people have less money to spend on hurting themselves by driving fast cars or drinking too much, working less can reduce stress and heart attacks, and when wages are low and labor available, it can be cheaper to find good people to take care of the elderly.¹⁵

Yet each boom and each slump is different and has its own history. In the Great Recession, quite apart from the economic disaster, there was also the epidemic of deaths that is the topic of this book. So what happened this time?

An essential starting point is to look back to chapter 4 and to figure 4.2, which shows the trajectory of deaths of despair after 1990. The upward trajectory rises inexorably, and there is no sign of an effect of the 2008 crash or of its long aftermath. Suicides were certainly high after the crash, but they had been rising for many years before. Whatever the other consequences of the crash, there is no evidence of a jump in deaths of despair after Lehman Brothers failed or as unemployment doubled from the fall of 2008 through 2009. The idea that the crashed economy caused deaths of despair is another false trail.

Even so, the Great Recession may be implicated in other types of deaths, or in deaths for some groups but not others. For example, whites ages forty-five to fifty-four saw their median household incomes per member rise through the 1990s, then fall after 2000.¹⁶ Their all-cause mortality rate—not just from deaths of despair but including them—fell from 1990 to 1999, then rose until 2016, matching income trends in reverse, as one might expect. But if we look more closely, the match is coincidental. The down and up in all-cause mortality happened because deaths of despair, although rising in the 1990s, were small at first and were more than offset by improvements in death rates from heart disease.

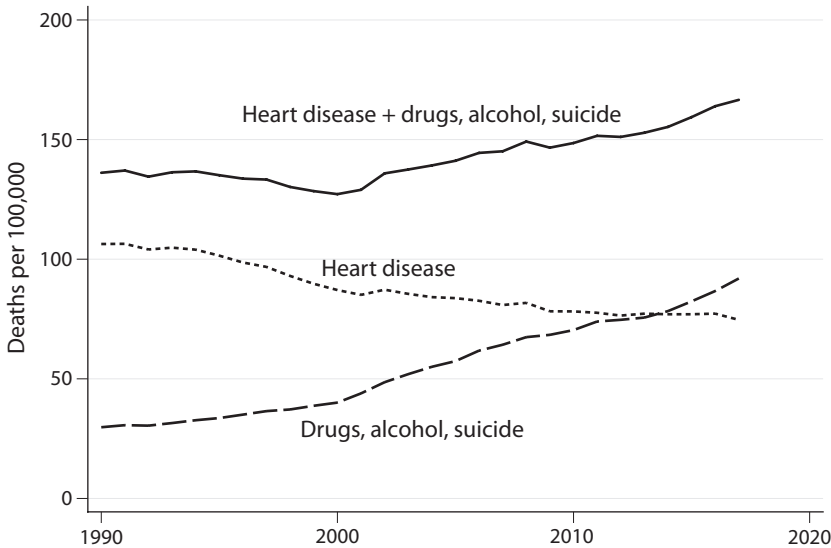


FIGURE 10.2. Mortality rates from heart disease and deaths of despair for white non-Hispanics ages 45–54 (age-adjusted). Authors' calculations using Centers for Disease Control and Prevention data.

Figure 10.2 presents the mortality rates from deaths of despair (drugs, alcohol, and suicide) and those from heart disease for forty-five-to-fifty-four-year-old whites over this period, as well as the sum of these two types of mortality.

As the decline in deaths from heart disease slowed and as the rate of deaths of despair became high enough, the all-cause mortality decline turned into a mortality increase. Yet the underlying components, deaths of despair and heart disease mortality, are both unrelated to the pattern of incomes, and the fact that their sum mirrors incomes is simply coincidental.

Older whites saw their mortality rates fall throughout the period as their median incomes rose. The incomes of older Americans were better protected than those of people in middle age—social security benefits for retirees have done better than have median wages for people who are working. But all we have here is one trend up (incomes) and one trend down (mortality), and it would be a real leap to attribute the falling mortality rates of the elderly to their rising incomes.

When we look more widely, it becomes even clearer that patterns of incomes from 1990 through 2017 do not match patterns of deaths. For example, while whites ages forty-five to fifty-four with a bachelor's degree earn more than those with some college, who, in turn, earn more than those with no more than a high school degree, median household incomes per member for the three groups tracked one another, rising until 2000 and falling thereafter. But the mortality rates for the three groups diverged, rising for the least educated, staying almost flat for the middle group, and falling for the most educated. The link also fails when we compare blacks and whites, both of whom experienced the rise and fall of median income, but with sharply divergent mortality experiences—blacks good, whites bad. Just as poverty fails to explain the spatial pattern of deaths, so does the pattern of incomes after 1990 fail to explain the pattern of deaths over the same period.

We are *not* arguing here that incomes (or wages) do not matter; in the rest of the book, we put much of the blame for deaths of despair on the long-term deterioration in opportunities for less educated Americans. The operative expression here is “long-term.” Our skepticism about the effects of the Great Recession is to do with the lack of a relationship between movements in mortality and movements in income in the past two decades, a much shorter period.

Recession, Austerity, and Mortality in Europe

The Great Recession was different in the US and Europe, and for many European countries it was much worse, in terms of both increases in unemployment rates and declines in income. For countries that implemented austerity policies, voluntarily or involuntarily, there were cuts in unemployment benefits in spite of rising levels of unemployment, as well as cuts in health spending, especially on preventive services such as vaccinations and breast cancer screening, and on pharmaceuticals. Government spending toward the elderly, such as pensions and long-term care, was largely protected. Greece, which suffered the most, cut public expenditure on health by 30 percent, though, even there, spending on long-term care for the elderly was protected.¹⁷

In spite of the austerity in some countries, or lack of it in others, there was (and is) no epidemic of deaths of despair in Europe; the slowdown and reversals in mortality rates in the United States have no general counterpart in Europe. Indeed, between 2007 and 2013, while unemployment rates in Greece and Spain more than tripled—to the point where more than a quarter of the population was unemployed—life expectancy was rising more rapidly than in most other European countries. In Europe over this period, there was some *convergence* in life expectancy. Countries that started out at the low end, such as Estonia, Poland, or the Czech Republic, had faster growth in life expectancy than those, such as Norway, France, or Switzerland, that already had relatively high life expectancy. But the data for Greece and Spain are not explained this way; both had high life expectancy to start, and both had substantial mortality improvement over the austerity years.¹⁸ Looking to Europe does nothing to help us develop any general story of unemployment, declining incomes, and mortality.

Is there another wealthy, industrialized country at risk of following the US down the path to poorer long-run outcomes for working-class families and deaths of despair? Storm clouds appear to be gathering in the UK. Low-earning working British households have seen little rise in household earnings since the mid-1990s. Life expectancy, which rose at more than a fifth of a year per year from 1980 to 2011, has flatlined since then. As in the US, progress on midlife heart disease mortality has faltered, and deaths of despair in England and (especially) Scotland have risen. (The numbers here are small relative to what we currently see in the US, but the US also started from a small base in the early 1990s.) Britain is currently experiencing an extended period of austerity and of rising geographic inequality—London is flourishing while most of the rest of the UK is not. Like the US, the country is politically divided, with half having voted for Brexit and half for remaining in the European Union. While the long-term effects on mortality remain unclear as of mid-2019, it is possible that the long-term decline in working-class lives witnessed among US whites from 1970 may be on its way to the UK, with deaths of despair beginning to stir.¹⁹ But there is, as yet, no clear and accepted understanding of recent changes in mortality in Britain.²⁰

Deaths and Deindustrialization

We are not quite done with income and unemployment. Some of the writing about the epidemic, such as Sam Quinones's outstanding book *Dreamland*, highlights opioid abuse and deaths in once-prosperous towns or cities where jobs have disappeared, where factories have been lost to automation or have moved abroad, and where at least some of the people who remain are abusing opioids.

Correlating deaths of despair with employment rates at a fine level, using our one thousand small areas across the US, confirms what Quinones saw. Places with a low fraction of the prime-age population in work are also places with high rates of deaths of despair; this holds for suicides, drug overdoses, and alcoholic liver disease taken separately. Several studies have looked at a more specific episode, the accession of China to the World Trade Organization in 2000 and the sharp local increases in unemployment that resulted from the sudden competition from much cheaper Chinese goods. Again, those increases in unemployment are associated with increases in mortality.²¹

Our main argument in this book is that the deaths of despair reflect a long-term and slowly unfolding loss of a way of life for the white, less educated, working class. Unemployment is part of that story, but only a part. People who have given up on finding a job and are not looking are not counted as unemployed, but they still reduce the fraction of people in work. Unemployment rates rise and fall, certainly for the country as a whole, but also in specific places as one kind of job is replaced by another—often a worse job replacing a better job. In some places where manufacturing has disappeared and people have lost jobs with a high-paying employer, they find other jobs, in services, or order fulfillment, or call centers, or driving for Uber. These jobs may pay less, and working conditions may be more stressful, but they keep people in the labor force. The journalist Amy Goldstein tells such a story about Janesville, Wisconsin, Paul Ryan's hometown, after General Motors—known as “Generous” Motors because of its high hourly wages—closed its plant in 2008 after making Chevrolets there for eighty-five years. By the end of the story, the unemployment rate is only 4 percent, yet that hardly means that all is well.²²

Lower unemployment rates are associated with lower rates of deaths of despair. Yet there may be others who lost their jobs and remain out of the labor force, and out of the unemployment statistics. They too contribute to distress and to despair, so that deaths are high even when unemployment is low but when there are many people doing nothing and with nothing to do.

In summary, unemployment is not always good at identifying the places where social and economic structures have been destroyed. Worse jobs are still counted as jobs, and when people give up altogether and stop looking for work, they are no longer counted as unemployed. But these changes, prolonged for long enough, undermine social life and the structure of society, and it is that destruction that brings deaths of despair. The link between mortality and unemployment is part of this process, as is the “China shock.” It is important for our story that these results point in the same direction, but they are simply the latest installment in a longer-running movie.

The Great Recession Redux

We have emphasized that the Great Recession did not bring deaths of despair in the way that the Great Depression brought epidemics of suicide in the US and Britain, but that does not mean that it did not matter. We suspect that the upsurge of populism on the right and of rage against inequality on the left have much to do with the financial crisis. Until the crash, it was possible to believe that the elites knew what they were doing, that the salaries of the CEOs and the bankers were being earned in the public interest, and that economic growth and prosperity would make up for the ugliness of the system. After the crash, when so many ordinary people lost so much, including their jobs and their homes, the bankers continued to be rewarded and went unpunished, and politicians continued to protect them. Capitalism began to look more like a racket for redistributing upward than an engine of general prosperity.

Growing Apart at Work

EDUCATION, PARTICULARLY THE DIVIDE between those with and without a bachelor's degree, has increasingly split the population into those who are doing well and those who are doing badly. As we have seen, the unprecedented increases in deaths—from drugs, suicide, and alcohol—are largely confined to the less educated. The same is true for the increases in ill health, including physical and mental health and pain, that we documented in chapters 6 and 7.

These health outcomes are only the lead items in the catalog of misfortune for those with less education. The divide is growing in economic outcomes, in wages, in participation in work, in the kinds of jobs that are available, and in the chances to get ahead. Geography is increasingly patterned by education, with the well educated moving to successful and innovative cities that have good jobs, good schools, and good entertainment, while the less educated are left behind in the countryside, in small towns, or in stagnant or decaying communities, places whose most talented children have moved elsewhere. Sixty years ago, Michael Young predicted that a meritocracy would bring this separation, and in chapter 5, we saw how it happened in African American communities in the 1970s and 1980s.

Earnings from work provide the material support for a good life through the goods and services that earnings buy, but work matters as much or more for other aspects of life. Work gives structure and meaning to lives; it confers status, which is not the same as earnings. It supports marriage and child rearing. Here too there is a widening split, with

less educated people becoming increasingly less likely to marry, more likely to divorce, more likely to have children outside marriage, and more likely to be separated from their children. We will have more to say on these aspects of life in chapter 12.

It is a mistake to think of wellbeing as money, or what money can buy. Many of the things that people have reason to care about are not reducible to money or measurable in monetary terms. It is true that those other things are more difficult when money is scarce, so the decline in material wellbeing is a cause of distress in other aspects of life. Being left behind financially is a key part of the story, but it is only the beginning. When we use the term *deaths of despair*, the despair is much broader, and much worse, than just material deprivation.

In this chapter, we focus on the bases for material wellbeing, wages and jobs, and the growing divide by education. In the next, we chart the divides in other outcomes.

One Escalator Becomes Two Escalators, One of Which Stopped

There is another division in America that is not between people but rather between eras. The eras are before and after 1970, although somewhat different dates work for different events. From the end of the Second World War to 1970, economic growth was relatively rapid and its fruits were relatively equally distributed. Growth was an escalator that lifted people of all education levels and all incomes. After 1970, the escalator became two escalators—one, for the well educated and already well-off, that was faster than before, while the other, for those without a college degree and the already less well-off, was stalled or hardly moving at all. Before 1970, there was growth and no increase in inequality. Afterward, there was lower growth and growing inequality. We shall discuss some of the causes as we go, but the consequence was a slowly unfolding calamity for the working class.

In chapter 10, we showed that the Great Recession that began in 2008, disastrous though it was, cannot be blamed for the epidemic of deaths

of despair, which began much earlier and continued unabated through the slump. By contrast, the longer-term evolution of living standards, going back to 1970, had much to do with the epidemic. The deterioration in living standards, together with the social disintegration of the white working class, is a slow process that the political scientist Robert Putnam has aptly compared to climate change, working inexorably but slowly and largely out of sight. Neither climate change nor its consequences are revealed in year-to-year fluctuations in temperature, but its long-term (and sometimes contested) consequences threaten civilization. As economic growth declined, working-class people were left further and further behind by an economy that increasingly reserved its rewards for those with higher education.

Growth, Income Inequality, and Wages

The state of the economy at large sets the limits of what is possible for the individuals and families within it. Growth in per capita gross domestic product can be used for many purposes, to support government expenditure, spending by people, or spending on equipment by firms, and the fraction that goes to people can go to the rich, to the poor, or to everyone; overall economic growth is a starting point that needs to be taken apart to see who gets what. In the 1950s, per capita economic growth averaged 2.5 percent a year, and a decade later, in the 1960s, it was 3.1 percent, the highest ten-year average in the period since the Second World War. By 1960, the gross domestic product per person was 28 percent higher than in 1950; by 1970, it was 36 percent higher than in 1960 and 75 percent higher than in 1950. In the 1970s and 1980s, growth slipped to 2.2 percent a year, and in the 1990s, today seen as a *good* decade, annual growth averaged just under 2.0 percent.

The first decade of the twenty-first century was host to the Great Recession, and overall growth was less than 1.0 percent, but even in the second decade, at least up to 2018, in a period when the economy was recovering, growth was just below 1.5 percent a year. Importantly, America is not the only rich economy in which growth rates fell. The Organisation for Economic Co-operation and Development is an organization of

advanced countries, today containing thirty-four mostly rich members, and the group as a whole has shown the same general decline in growth since the Second World War.

The division of resources, who gets what, becomes more difficult when growth slows.¹ What may seem like small differences in growth rates have huge effects over long periods of time. In an economy growing at 2.5 percent, living standards double in twenty-eight years, little more than a generation. At 1.5 percent, it takes forty-seven years. When there is lots of growth, distribution is less pressing because even if one group gets more than its fair share, there is still something left for others. With lower growth, there is more pressure to shut out less successful groups altogether. Lower growth sharpens the fight over resources, it gives each group incentives to lobby to get more than its share, and it poisons politics, much of which is concerned with the division of resources. Since 1970, growth has predominantly gone to those who are already better off, who are much better equipped to defend their share. When people feel they must protect their economic position in a tougher world, they divert their time and their resources to the zero-sum game of distribution and away from the positive-sum game of innovation and growth. Rent-seeking replaces creation, and we can get into a vicious circle that impoverishes everyone.

Today, the facts about income inequality are widely known, that those in the middle and bottom of the distribution have gained very little while those above the middle, and especially those at the very top—the famous 1 percent—have done very well indeed. The combination of low growth and less equal distribution is a double calamity for the living standards of those who are not at the top.

The divergence between the elite and the rest has happened not only in the United States but in many other advanced countries too. But while the decline in growth was similar in the US and other rich countries, the increase in inequality was not. Several advanced countries—Germany, France, and Japan, for example—managed to have little increase in income inequality until quite recently. On top of this, the level of inequality was much higher in the US to start with. The US has long been one of the most unequal among the rich countries, and the recent increase,

whose direction is indeed common to many rich countries, started earlier in the US and has been larger than elsewhere.

Another way to think about growth and distribution is to look at how much of national income goes to labor (wages) and how much to capital (profits). Economists long thought that the ratio of wages to profits was an immutable constant, about two to one. But this too has changed since 1970, and the percentage of wages has fallen from 67 to around 60 percent. Similar declines have happened in other rich countries, as well as in several developing countries, including India and China.² Not all profits go to rich people—think of pensioners holding stocks to finance their retirement—but they predominantly do, and the shift toward profits in national income has been one reason for the increase in income inequality across households. The declining labor share means that productivity growth in the economy no longer feeds one for one into growth in wages. Not only has productivity grown more slowly since the early 1970s, but wages have not kept up with the slower growth. Until 1979, productivity growth and worker compensation grew together, but from 1979 to 2018, productivity grew by 70 percent and hourly pay by only 12 percent.³

Earnings and Wages

National income is an important general indicator of the state of the economy, but it does not tell us who gets what. For that we need to look at individuals or families. A central element of our story is how earnings differ across people with different amounts of education, especially between those who do or do not have a four-year college degree. Given the differences in health and other outcomes by education, we are here more interested in how earnings differ by education than in earnings inequality in general.

Once again, we emphasize that earnings are likely less important than social changes, including the nature of work, of status, of marriage, and of social life. All these social and economic changes are happening at once, and all shape people's lives. But they also affect one another in ways that we shall try to pick apart. Earnings from the labor market have a claim

to being one of the prime causes of these other outcomes, so it is useful to look at them first.

People with a college degree earn more than those without. As we saw in chapter 4, the additional earnings for those with a bachelor's degree or more, above what is earned with a high school diploma, *doubled* between 1980 and 2000—what had been a 40 percent pay difference skyrocketed to an 80 percent difference.⁴ Education is rewarded in the market, because of what is learned in college, because those who get educated have more drive or higher cognitive skills in the first place, because of better family connections, or some combination of all three. The leading explanation for the doubling of the college premium is that education and cognitive ability have become more valued in the labor market as production has come to depend more on complex technologies, moving toward computers and away from agriculture, toward brains and away from brawn. This process is known as skill-biased technical change.

The increase in the college premium is, once again, not peculiar to the US, though, as is the case for overall inequality, both the premium and its rate of increase are larger in the US than in other advanced countries. The forces of skill-biased technical change are at work in all advanced countries, but the US is the most extreme case, followed—at some distance—by other English-speaking countries. The US is not unique, just different, and more exaggerated, something we see many times in this book.

The earnings premium of a bachelor's degree is a reward for getting educated and is an incentive to go to college, a signal to young people interested in material rewards that going to college is a good idea, and increasingly so over time. Interpreted thus, it seems innocuous, simply an indicator that capitalism is working, drawing resources to where they are most needed, and creating the human capital that the economy needs. However, those incentives do not seem to be working very well: the fraction of young adults who completed a bachelor's degree did not change between 1996 and 2007, and it has increased only slowly since that time, rising from 27 percent of twenty-five-year-olds in 2008 to 33 percent in 2017.⁵

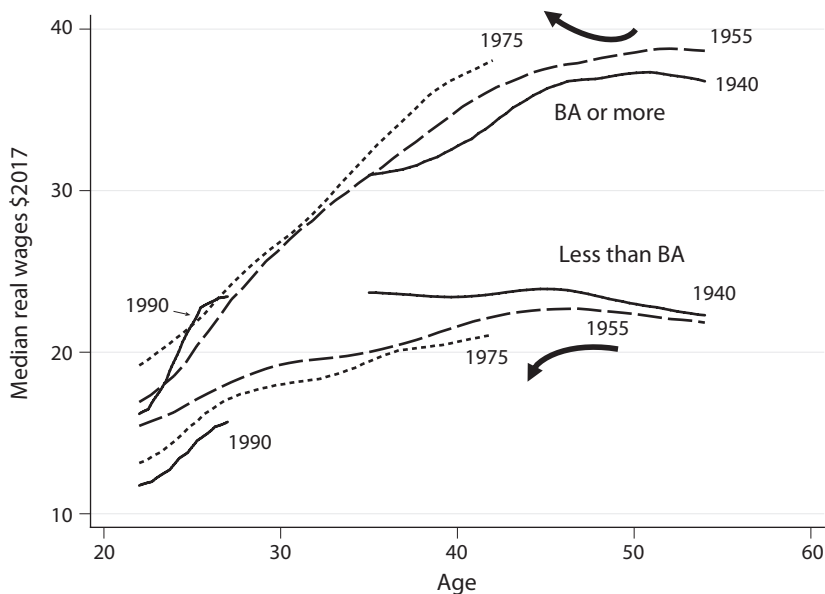


FIGURE 11.1. Median earnings, white non-Hispanic men by birth cohort, with and without a bachelor's degree. Authors' calculations using the Current Population Survey.

Worse still, the widening gap has come not just through an increase in the earnings of the college educated but also through a *reduction* in the earnings of those without a four-year degree. Not only are the college-educated rewarded with higher earnings, but those who do not heed the incentive are punished with lower earnings. The winners get the prizes, and the losers get worse than nothing.

Figure 11.1 shows how this has happened for white men, tracking hourly earnings (or wages, for short), by birth cohort. Each line shows median wages, adjusted for inflation, for a specific birth cohort over its working life; the horizontal axis shows age, which allows us to follow the progress of each birth cohort as it ages. To keep the figure readable, we show results for four cohorts, those born in 1940–44, 1955–59, 1975–79, and 1990–94, and we divide each cohort into those with a four-year degree and those without. The lines have been smoothed to make the figure easier to read.

What immediately jumps out from the figure is the gap in wages between those with and without a bachelor's degree; all of the lines for the

more educated (at the top) are always above all of the lines for the less educated (at the bottom). Within the bachelor's degree group, the lines are moving *up* as we move from the cohort born in the 1940s, to that born in the 1950s, to that born in the 1970s. It is less clear how the picture will evolve for the cohort born in 1990s, who are still young. Within the group lacking a bachelor's degree, the lines are moving *down* as we move from earlier- to later-born cohorts. The arrows are there to point to these opposite trends for the two sets of lifetime earnings profiles.

The gap between the two sets of lines widens with age; just after graduation, college-educated men earn somewhat more than those who did not go to college, but the gap widens as they grow older. For men born in 1955, at age twenty-two (when those with a degree were just entering the labor force as full-time workers), men with a degree earned 7 percent more than men without. That premium grew to 77 percent by age fifty-four. The increase in wages with age for each birth cohort is much steeper for those with a bachelor's degree than for those without, for whom there is little prospect of substantial wage growth as they age. In the 1955 cohort, for those without a degree, their highest median wage (at age forty-five) was 50 percent greater than that at age twenty-two. For those with a degree, their highest median wage (at age fifty) was two and a half times higher. Professional earnings keep rising throughout most of working life, while earnings in more manual jobs peak in midlife and fall thereafter.

As a consequence of the earnings profiles for the more educated shifting up, and those for the less educated shifting down, the gaps between those with and without a bachelor's degree in the same cohort are larger for later-born cohorts; each generation has a higher college premium throughout life than the last.

There is a lot of information in figure 11.1, but the key difference between the two groups is the almost continuous *decrease* in wages from one birth cohort to the next for the less educated at the bottom of the graph, especially at younger working ages, and the almost continuous *increase* from one birth cohort to the next for those who hold a bachelor's degree at the top of the graph. The rewards to a life of work are turning against those without a bachelor's degree.

Women with a college degree saw the same cohort-to-cohort increase in hourly earnings observed for men in figure 11.1. For women without

a degree, wages rose between the cohort of 1940 and 1950, but cohorts born after midcentury saw no additional progress. In cohorts born after 1965, median wages for women without a degree have also fallen.

For all white workers ages twenty-five to sixty-four, taken together and adjusted for inflation, median hourly earnings grew by 11 percent from 1979 to 2017. This works out to an average growth rate of 0.4 percent per year, in an economy that grew at an average rate of 2.5 percent per year. Median wages for men in the US have been flat for fifty years, and for white men without a bachelor's degree, the average growth in median wages from 1979 to 2017 was *minus* 0.2 percent a year.

The long-term stagnation in median wages appears to be unique to the United States, at least among advanced countries. In Europe, the Great Recession and its aftermath also hurt wages. Many countries suffered more than the US, and several European countries took a second, double-dip, downturn. Median wages in Greece, Spain, Portugal, Ireland, and Britain fell in the decade after 2007. But in none of those countries has there been the long-term stagnation of wages that workers saw in the United States. Britain is an instructive comparison. In the twenty years before wages started falling, real median wages in Britain had increased by almost a half, compared with stagnation in the US, so that even once wages started falling, the typical British worker was being paid more than two decades before, while the typical American worker without a bachelor's degree was being paid less.⁶

Are We Exaggerating Decline and Stagnation?

Perhaps the government data are incorrect, or are being misinterpreted, and wages are doing better than figure 11.1 shows.⁷ If working wages are doing better than stagnation, then perhaps American capitalism is really delivering for workers in a way that the statistics do not capture. The argument of this book is that working-class Americans have *not* done well, and although wages are only part of the story, they are an important part.

The first point to note is a familiar one, that wages are not the same thing as material wellbeing, which itself is a much narrower concept than wellbeing. Even if wage rates are doing badly, people might still be

seeing increases in the money they have to spend. Women are now more likely to work than was true in 1970—see figure 11.2, later in this chapter—so family incomes can go up even when individual earnings do not, and indeed, median family incomes have done better than median earnings. If women are working by preference, and not just to make ends meet in an increasingly difficult environment, then the increase in their participation is a good thing, even beyond the money they earn. But to the extent that one member of a couple would prefer not to work, in order to raise children, but takes a job to hold the family together financially, the welfare of all family members may suffer. According to one survey, “Virtually all the increase in full-time employment of American women over the last twenty years (1978–1999) is attributable to financial pressures, not personal fulfillment.”⁸ Although both parents work full time in half of two-parent households, 59 percent of Americans (and half of all working mothers) think that it would be better if one parent stayed home with the children.⁹ Children and commuting costs often take a large bite out of an additional paycheck, which is not taken into account when we look at family incomes.

Wages take no account of taxes or benefits, and some benefits, such as the Earned Income Tax Credit, raise the after-tax incomes of working people with low earnings. Workers also receive benefits through their employers, especially healthcare, as well as benefits from the government, especially Medicaid (Medicare is generally for people sixty-five or over, who are not our main concern here), and through the safety net, including food stamps and disability benefits. Accounting for these items is difficult, especially those, such as healthcare, that do not come as cash. What they cost employers or the state to provide is not the same as what they are worth to those who receive them—and we must be careful not to count the exorbitant costs of American healthcare as if they were a cash *benefit* to working people. If the healthcare industry, by lobbying or mergers or lack of competition, raises prices, depriving some people of health insurance and holding down wages for those who are covered by their employers, this is a transfer of income from workers to the industry, and it would be outrageous to count it as making people *better* off; precisely the opposite is true. Since most of the increase in the costs of healthcare

insurance benefits are attributable to rising prices, adding the price of health benefits to household incomes would almost certainly overestimate income growth more than omitting them underestimates income growth. The rising cost of employer-provided health insurance also contributes to the gap between growth in earnings and growth in productivity.

Even if the benefits were valued at what people would pay for them, they are not cash benefits and, unless they free up income that would otherwise be used to buy the benefits, they do not give people the same freedoms that they get from cash. Medicaid cannot be used for food or for rent, and cash gives the ability to do things that in-kind benefits do not. After-tax cash income, and underlying that, the after-tax wage, remains a key measure of the ability of people to live their lives as they wish.

Wages and income are spent on food, housing, entertainment, and healthcare, among other things, and if prices go up, wages are worth less. We deal with this by correcting money wages for changes in the prices of what people buy, using the consumer price index (CPI), a widely used summary of prices published by the Bureau of Labor Statistics. If the CPI overstates increases in prices, from year to year, then earnings over time are doing better than we think, and better—for both education groups—than what is shown in figure 11.1.

One way in which the CPI could overstate prices is if it fails to make a big enough allowance for the fact that many goods and services are *better* than they used to be; *quality* is rising. Perhaps healthcare *costs* more than it did, but healthcare also *does* more than it did, with routine hip replacements, cataract surgery, drugs to control high blood pressure, and a myriad of other miracles that were not available half a century ago. It is true that there are certainly technological improvements that make our lives better without showing up either in earnings or in lower prices. But making corrections is even more controversial than making none.

The crucial question is whether the higher quality allows people to do as well while spending less, in which case the quality change makes them better off. In some cases, this is the way it works. Think of a higher-quality gasoline that gives twice as much mileage as the original; this is *exactly* the same as if the price of gasoline had been cut by half. But most quality

changes are not like this. The older, lower-quality good is often unavailable, so there is no choice but to pay for the improved version. Your car now has an airbag and is thus a higher-quality vehicle, but you cannot buy a car without one. You may love a new good, such as your cellphone, but it generally does not make life cheaper. An extreme example is the rising life expectancy that the US used to enjoy. If the number of years lived beyond sixty-five is rising, that surely increases the wellbeing of the elderly, but do we really want to argue that, because the elderly are better off—as indeed they are—the cost of living has fallen, and their pensions are now too generous? To do so, or to say that the typical worker is doing better than his or her earnings show, is correct only if the improvements—in healthcare, or in better entertainment through the internet, or in more convenience from ATMs—can be turned into hard cash by buying less of the good affected, or less of something else, a possibility that, however desirable, is usually not available. People may be happier as a result of the innovations, but while it is often disputed whether money buys happiness, we have yet to discover a way of using happiness to buy money.

In and Out of the Labor Force

Not only have wages for those with less education done badly in recent decades, but there has also been a decline in working at all, as measured by the fraction of the population who report being employed. For men of prime working age, from twenty-five to fifty-four, there has been a long decline in the employment-to-population ratio. In the late 1960s, all but 5 percent of the group was working; by 2010, at the end of the Great Recession, 20 percent were not employed. In 2018, long into the recovery, 14 percent were still not at work. Of that 14 percent, only a fifth reported being unemployed and looking for work. The rest were not in the labor force.

This trend also shows a marked divide by education. Figure 11.2 presents the employment-to-population ratios from 1980 to 2018 for white men and women aged twenty-five to fifty-four, separately for those with a college degree (in gray) and without (in black). The vertical lines mark

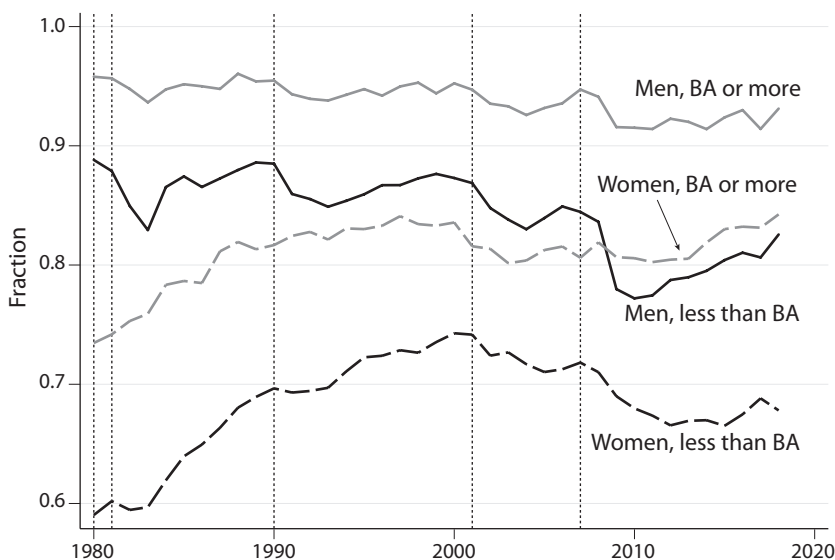


FIGURE 11.2. Employment-to-population ratios, white non-Hispanic men and women, ages 25–54. Recessions noted by vertical lines in the year the recession started. Authors' calculations using the Current Population Survey.

recession years, when we would expect to see employment drop as jobs are lost. When good times return, many of the displaced workers go back to work. However, not all of the prime-age men returned to work after each successive recession, so while the employment-to-population ratio rose following each downturn, it never returned to its level prior to the recession. Over time, the employment-to-population ratio ratcheted down.

After 2000, this downward ratchet was more severe for men with less education; good jobs for less educated men were disappearing, and some of them left the labor force altogether, widening the gap in employment between those with and without a college degree. In the second half of the twentieth century (in part as a result of the arrival of the pill and a lessening of discrimination), women entered the labor force in ever-larger numbers. Their employment proved to be more recession proof than that of men. However, after 2000, women's employment rates fell too—slightly for those with a bachelor's degree, more dramatically for those without. These differing patterns have led to a period in which a larger

fraction of women with a degree are working than are men without a degree.

Much of the decline, perhaps half, can be explained by the fall in wages¹⁰—people are less likely to be in the labor market when wages are lower; some can be explained by the increase in disability that we have already documented, including dependence on opioids; and some by the declining attractiveness of the jobs that are available.

In the American economy since 1970, many jobs have ceased to exist, many of them well paid, such as jobs working in factories for General Motors (recall “Generous Motors”) or for Bethlehem Steel. Men followed their fathers, and sometimes even their grandfathers, into well-paid union jobs in manufacturing and earned enough to build a middle-class life, with home ownership, children who attended good schools, and regular vacations. Those men have evocatively been called blue-collar aristocrats. Many of those jobs have gone. Although production by American manufacturing plants continues to grow, jobs in manufacturing have declined rapidly; more than 5 million jobs were eliminated between 1979, which had the all-time peak of 19.5 million, and the eve of the Great Recession in 2007, when they had fallen to 13.8 million. Manufacturing jobs took a large hit during the financial crisis, with another 2 million jobs disappearing, and while employment in manufacturing has rebounded somewhat, the sector is unlikely to regain all of the jobs lost during the Great Recession. These jobs have been replaced by imports from abroad or by automation in factories, globalization, or robots.

None of this is good for the workers who have been displaced. Some withdraw from the search. Most find other jobs, but those other jobs will typically have lower wages or be less attractive in other ways. They may have less autonomy, less opportunity for initiative or for interaction with other people, fewer benefits, and less protection. Workers who are classed as temps, for example, are not covered by compensation for accidents. They may be in jobs where workers are replaceable, turnover is high, and there is little commitment by the employer. People rarely if ever have their wages reduced in a particular job, so it is the movement from good jobs to not-so-good jobs that is largely responsible for the decline in wages for less educated Americans. As we write this (in 2019), the unemployment

rate among men aged twenty-five to fifty-four is around 3 percent, so there are plenty of jobs for those who are looking, just not the jobs that once were there, especially high-paying manufacturing jobs for less educated men. This is also why so many people are not looking for work.

If people are not working, it is because they *choose* not to work given their options. Of course, choosing does not imply that people are happy with their choices. Joan of Arc *chose* to burn at the stake, but only because the alternatives were much worse, at least to her. Workers who choose not to work today do not have the alternatives that were once available, though this does not rule out the possibility that they have simply become lazier or less inclined to work, or that they have been induced to be idle through their ability to live off someone else or off the state.

The debate between loss of industriousness, on the one hand, and worsening circumstance, on the other, is an old one, as we saw in chapter 5 on the experience of African Americans in the 1970s and 1980s. But the data in this chapter point clearly toward circumstance. Figure 11.2 shows that workers leave the labor force during recessions, causing the clear ratcheting in the picture. It would be very strange if sudden bursts of laziness were somehow to coincide with recessions; rather, we would expect the increase in laziness to be smooth.¹¹ Instead, people are leaving the labor force because their jobs have gone, after which most search for and, in time, find other work. The other evidence for circumstance is the combination of figures 11.1 and 11.2. For less educated Americans, participation is falling at the same time that wages are falling. If people were becoming less industrious and pulling out of the labor force to enjoy themselves, wages would go *up*, not *down*; there would be the same number of jobs but fewer people willing to do them. That wages *and* workers fall together is clear evidence that employers want fewer employees.

Some people may choose not to work because the social safety net makes it possible for them to live without work, particularly (although not only) through the disability system, which is increasingly financing people who are not working. Yet recall the large increases in pain and the deterioration in physical and mental health that we documented in chapters 6 and 7; much of the increase in disability can be attributed to

the higher prevalence of ill health, rather than to people gaming the system.¹² Europe has a much more extensive safety net than does the United States, including long-term payments for those without work and generous disability systems, especially for older workers. In spite of this, a *larger* fraction of people participates in the labor force in most other rich countries, including in Denmark, Norway, and Sweden, with their famously generous benefit systems. One story notes the range of subsidies those countries provide to services, such as childcare, that make it easier for people to work.¹³ The other story is just that Americans are different, and uniquely sensitive to even small benefits, but the evidence suggests not.¹⁴

When people choose not to work, the supply of workers is lower and wages do not fall as much as they would have to if everyone had to find alternative work. The argument against the safety net, or in favor of work requirements to use it, is an argument for lower wages. If more people had been made to work, the decline in wages for less educated Americans in figure 11.1 would have been larger. The same goes for proposals to make work a condition of receiving health or other benefits, or for schemes such as the Earned Income Tax Credit, which can only be received by those who work; they all push people into the labor market and, by increasing the supply of labor, decrease its price, which is the wage.

If it is indeed true that work is good in and of itself, then the lower wage is offset by the benefits of being at work. People want a job, the job gives their life meaning and social standing, they learn on the job, they meet others, and they have better lives. The contrary argument is that many jobs are pure drudgery, that leisure is itself pleasurable and freedom enhancing, so even if the cost of supporting that leisure is paid by others, it might be a good thing to do. We are often happy to subsidize food or shelter for those who cannot provide it for themselves, the argument goes, so why not leisure? As Bertrand Russell once noted, among the strongest advocates that the poor should work more are the idle rich, who have never done any.¹⁵ Such arguments are important when we come to think about what to do, in chapter 16, and particularly about the much-discussed universal basic income.

The Changing Nature of Work for Those with Less Education

The American working class has not always existed. The manufacturing jobs that supported and defined it began to take workers out of agriculture into factories in the nineteenth century, more rapidly so after the Civil War, and reached a peak around 1950. The rise of the stay-at-home housewife was relatively new even in 1950; before that, husbands and wives had cooperated in earning a living. Now the man went to the factory, where he had no more need of advanced education than in agriculture, and found meaning in the dignity of his difficult and productive labor rather than in the size of his paycheck.¹⁶ He left the home and the children in the care of his spouse, working *for* his family, not *in* his family. This life came with strictly enforced social norms about having settled prospects before getting married and about not having sex outside marriage, let alone having children out of wedlock. Manufacturing and the working-class life that came with it defined the roles of men and women and what their family life should look like.¹⁷

The rise of manufacturing brought a new way of living, and new ways of finding meaning in work and life. Membership in unions peaked at about the same time. While not everything that unions did was good, and while some of the benefits that they long argued for are now provided by employers as a matter of law, no one else in the workplace argues for the interests of workers as unions once did. Unions had a seat at the table when profits were being divided. They raised members' wages (and, to a lesser extent, the wages of those not in unions), and they policed health and safety in the workplace. Unionized workers were less likely to quit and were often more productive.¹⁸ Unions brought some democratic control to workers, at work and more broadly, and were often a key part of local social life. When unions in America reached their peak in the early 1950s, roughly 33 percent of those in the labor force were members.¹⁹ The number in 2018 was 10.5 percent, with only 6.4 percent of private-sector workers members of unions.²⁰

As manufacturing jobs have evaporated, workers have had to move into less desirable, more casual work, more in services—healthcare, food

services, cleaning, and security—and less in manufacturing. The decline in commitment by employers is only matched by the decline in commitment by employees; the war between union and employer has been replaced by mutual disengagement.²¹ Many of the less desirable service jobs are jobs where there is little potential for personal or productivity growth, or where people must do exactly what they are told and exactly when they are told, leaving no room for personal initiative. Workers in these jobs are effectively temporary stand-ins for robots, holding their slots until the programmers can teach the robots to replace them.²²

In James Bloodworth's account of an Amazon warehouse in Britain, located in an ex-mining area north of Birmingham, he meets a man called Alex who reports, "People actually say, 'I'm only at Amazon,' and in the past they would've never said, 'I'm only at the pit.' You'd have said 'I'm a collier,' because that's what you were, and you were proud of it."²³

In the United States and in other rich countries, there are large corporations that supply labor—cleaners, security, food service workers, or drivers—workers who once would have worked for the firms they are now supplied to and who would have earned relatively high wages there but are today not employed in the place where they work. They earn relatively low wages, often without benefits or full worker protections. This enables high-tech firms—think Google, for example—to employ only people with bachelor's or more advanced degrees, while the support staff around them are outsourced from another firm. According to Bloodworth's account from Britain, as well as an almost identical account from the US,²⁴ few of the workers in Amazon warehouses ("fulfillment centers") actually work for Amazon. In the American case, the only visible difference between the few employees of Amazon and the many "temps" who work for Integrity Staffing Solutions is the color of their badges, blue versus white. Everything looks the same, similar people are doing similar jobs, but the working conditions of those who are outsourced—sometimes ex-employees—are often worse, with lower wages, fewer benefits, and limited or no possibilities of promotion.

The talented kid who, for one reason or another, did not get educated to his or her ability can no longer work his or her way up from being a janitor to being a CEO, because the janitors and CEOs work for different

companies and live in different worlds.²⁵ There is a world of the more educated, and a world of the less educated; no one in the latter has hope of joining the former. Perhaps most crucially, the outsourced workers are no longer a part of the main company, they do not identify with it, and, in the evocative words of the economist Nicholas Bloom,²⁶ they are no longer invited to the holiday party. They cannot find pride, meaning, and hope in being a part—however humble—of a great enterprise.

There is yet another side to the collapse of the white working class in America. In many places, and many firms, it was a *white* working class. African Americans were excluded. Whites had a special privilege over blacks, a privilege that lasted for many years. That privilege has diminished or vanished, and, in the words of sociologist Andrew Cherlin, “in an environment in which overall opportunities for blue-collar labor are constricting, white workers perceive black progress as an unfair usurpation of opportunities rather than as a weakening of the privileged racial position they held.”²⁷ According to a Pew survey, more than 50 percent of white working-class Americans believe discrimination against whites has become as big a problem as discrimination against blacks and other minorities, while 70 percent of white college-educated Americans disagree.²⁸

The simultaneous loss of a world of work, of the family life that it created and supported, and at least the perception of a loss of racial privilege or even reverse discrimination is a toxic combination that is more powerful than a real but manageable decline in incomes.

Widening Gaps at Home

AS THE MARKET has supplied fewer and fewer good jobs for less educated workers, and as people have had to move to worse jobs or to no jobs at all, there have been consequences not just for their lives at work but also for their lives at home. The gulf between the less and the more educated has widened, not only in the labor market but also in marriage, in child rearing, in religion, in social activities, and in participation in the community. Economists often focus on real income as a measure of how well people are doing and, indeed, income is important, but it is far from the only thing that matters. If we want to understand how disruption in people's lives might drive them to suicide, or to other deaths of despair, it is to these other aspects of life that we need to look. Not surprisingly, much of the work on this, which we summarize in this chapter, has been done by sociologists, who often take a broader approach to life than do economists.

Marriage

Throughout Western history, a man who wanted to live with a woman and have children had to be "marriageable." This meant, among other things, that he could support his bride and had good future "prospects." Once upon a time, grooms asked permission from the prospective bride's father before asking for her hand, and the father's obligation was to check that the groom was likely to be able to provide for his daughter. Such customs persist today, though the couple is now typically left to check

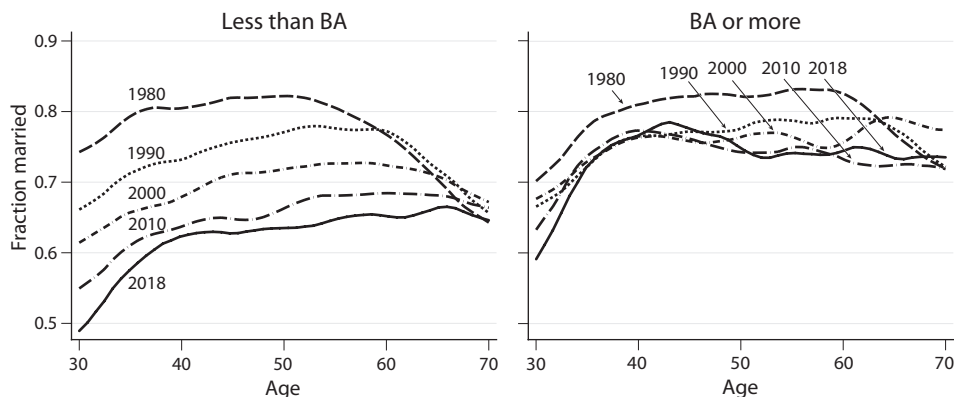


FIGURE 12.1. Fraction of white non-Hispanics who are currently married, by age, year, and education. Authors' calculations using the Current Population Survey.

on their financial situation themselves. As good jobs have become scarcer for less educated men and wages have fallen, so has the supply of marriageable men, and marriage has fallen with it.¹ The working-class family, which had its heyday in the 1950s, had a single male earner, whose wage was enough to support a family, but this ideal has become less attainable for less educated men. Working-class marriage is being undermined by changes in the labor market.

We can see the dramatic change in marriage rates for less educated white non-Hispanics in figure 12.1, which shows the fraction of adults ages thirty to seventy reporting that they are currently married, in decadal years between 1980 and 2018.² The left panel reports for those without a four-year degree, and the right panel for those with a degree. In 1980 (the long-dashed lines at the top of each panel), the fraction of whites who were married at any given age was virtually identical for those with and without a bachelor's degree. By 1990, fewer adults reported being married at any given age in both education groups, with the decline generally larger for those without a bachelor's degree. From 1990 to 2018, and in contrast to those with a bachelor's degree, those without a four-year degree continued to see marriage rates fall, decade by decade. In 1980, 82 percent of whites with and without a bachelor's degree were married at age forty-five. By 1990, the rate had dropped to 75 percent for both

education groups. Beyond 1990, those with a bachelor's degree maintained that rate, while that for forty-five-year-olds without a bachelor's degree kept declining, to a low of 62 percent in 2018.

There are many benefits of marriage. Not everybody wants to be married, but for those who do, marriage brings intimacy, companionship, fulfillment, and, for many, the joys of children and grandchildren. Married people live longer, are healthier, and are more satisfied with their lives, especially married men, and while it is true that healthier people are more likely to get married in the first place, that is unlikely to explain the difference. To the extent that couples are not marrying because less educated men are less marriageable, the problems in the labor market are not only making them worse off materially but also depriving them of all the benefits that marriage brings, both to themselves and to society more broadly.

For some who do not want to marry, and who might have felt required to do so in the past, the decline in marriage is a positive. Others may choose to postpone marriage to an older age than once was the norm in order to get more education, to develop a career, or simply to play the market and find, or at least search for, the ideal partner. Marriage delay explains the steep increase in marriage rates in their thirties for those with a bachelor's degree. The widespread availability of the contraceptive pill after the late 1960s, and the radical change in attitudes to sex that came with the sexual revolution from 1965 to 1975, made it socially acceptable for couples to have sex outside marriage, and to do so without the fear of unintended pregnancies. The availability of legal abortion after *Roe v. Wade* in 1973 may have also made people less concerned about the consequences of sex. For many women, especially, these changes brought greater freedom—or in economists' jargon, reduced the price—to become better educated or to follow careers in the labor market. Women, equipped with the pill, increasingly enrolled in professional schools.³ Rapidly spreading feminism in the 1960s and 1970s encouraged women to take advantage of these newfound freedoms. Those who choose the route to later marriage, or even to no marriage at all, are taking advantage of opportunities that previously did not exist, and they are better off. That said, the college educated appear to have simply postponed

marriage by a few years; beyond age thirty-five, 75 percent of those in midlife are married.

There is thus a split between those, on the one hand, who miss out on a marriage that they would have liked to have, because their options have become more limited, and those, on the other hand, who opt out, permanently or temporarily, because there are now more options available to them. As is often the case with new possibilities—whether technological or social—some gain and some lose, and those who are better off or better educated are usually more likely to be informed about and in a position to take advantage of the new opportunities and to finish up among the gainers. The divergence, as so often in this book, in large part follows the educational split.

This change in marriage patterns for less educated whites follows parallel changes seen in the black community that began thirty years earlier,⁴ and largely for the same reasons.⁵ Without a job that can provide for a family, men become less marriageable, and one of the pillars of a stable life moves out of reach.

Childbearing

Once upon a time, when marriage and childbearing were closely related, a decline in marriage would have meant a decline in childbearing. Indeed, for much of Western history, men's wage rates were part of the mechanism that regulated fertility.⁶ Over the last half century, the link between marriage and having children has been broken, or is at least breakable at will. There are many socially permissible routes to sexual intimacy, and safe, convenient, and reliable contraception means that sexual intimacy need not risk pregnancy. Marriage can be postponed without giving up intimate partnerships, and childbearing can be postponed until a career is well established or there is a (relatively) convenient window to take time off for parenting. At the same time, the availability of contraception and on-demand abortion has absolved men from their erstwhile responsibility to marry their pregnant partner, with or without her family holding the traditional shotgun. Out-of-wedlock sex and out-of-wedlock childbearing are no longer socially stigmatized.⁷

Yet all of this liberation has a dark side, at least for some. For the women who get pregnant but who do not get married when they have a child, many do not stay with or even remain in contact with the father of their child but move on to another man, with whom they may also have children. Cohabitation has increased in other wealthy countries and has also increased in the US among more educated couples. But unstable and fragile serial cohabitations *with* children are rare elsewhere and rare in America among well-educated women, who generally postpone childbearing until they complete their education and are married.⁸ To paraphrase sociologist Andrew Cherlin,⁹ there are now two different modes of transitioning to adulthood. One, among the more educated, involves finishing college, taking a job, and developing a career before marrying and having children. The other, among the less educated, involves serial cohabitation and childbearing out of wedlock. Americans who have had children with multiple partners are most likely to be found among those without a bachelor's degree.

The sociology literature rightly focuses on the consequences of these patterns for children, who tend to do much worse in fractured, fragile relationships than they would do in intact families where both parents are present. But there are also consequences of serial cohabitation and out-of-wedlock childbearing for the adults; such dysfunctional family arrangements are a prime suspect in the spread of despair.

For the women, one might wonder why they make the choices they do; it is no secret that men are no longer bound by the old rules, and that, if the woman has a child, she is likely to face a cycle of economic hardship, emotional instability, and lack of support from which some will find it hard to escape. Yet they may have limited choices. When so many women are prepared to engage in sexual relationships outside marriage, it undercuts the bargaining power of those who would prefer to wait. Once pregnant, many women do not want to have an abortion, although many do; while the number of abortions is falling rapidly, abortion is not rare. At 2014 rates, one in four women in the US will have an abortion by age forty-five, and in the same year there were 14.6 abortions per 1,000 women aged fifteen to forty-four¹⁰ (compared with 62.9 live births). For many women, having a child is seen as a blessing, an affirmation of the

value of life, a redemption and a hope for the future. It is a success that is within the grasp of women who cannot imagine themselves going to college. The joy of announcing a pregnancy is just as real and full of hope as the joy of announcing admission to a good college or an important promotion at work. The future is bright and full of blessings, if only for the moment.¹¹

For single mothers, once the child or children exist, the welfare support provided by the Aid to Families with Dependent Children program penalized marriage. This may have had some effect on preventing mothers from marrying postpregnancy, and it was one of the reasons that Aid to Families with Dependent Children was replaced in 1996 after sixty years in place.

That the fathers are victims too may seem unlikely. They get the pleasure without the commitment and are liberated from some of their financial and emotional responsibilities. But they have struck a Faustian bargain, splendid and promising at first, but with a high price to be paid in the end. By the time they reach middle age, not only have many of their careers and earnings failed to match those of their parents, or what they expected of themselves, but they have no stable family with which they have shared lives and memories. They may have children from a series of relationships, some or none of whom they know and some of whom are living with other men. Such fractured and fragile relationships bring little daily joy or comfort and do little to assure middle-aged men that they are living a good life.

For both men and women, the old social rules—restrictive and unforgiving although they might have been—encapsulated long-accreted social wisdom that prevented people from making lifetime decisions that they might well live to regret.

We are here writing about less educated whites, but the same descriptions have long been used to describe family arrangements among African Americans. Once again, we are seeing a convergence across races. The rate of nonmarital childbearing among black women without a college degree has been high, but stable, since 1990 and has been declining since 2010. In contrast, the rate among white women without a college degree more than doubled between 1990 and 2017, rising from 20 percent

to more than 40 percent of births. As nonmarital births fall among blacks and rise among less educated whites, class is becoming a more important divide than race. Cherlin notes, “If you want a mental image of the typical woman who has several intimate partners while raising children, picture a white woman with a high school education.”¹²

Community

In his famous book *Bowling Alone*, political scientist Robert Putnam describes a marked decline in social capital in the last third of the twentieth century;¹³ Americans participated less and less in a wide range of social activities involving other people—family dinners, evenings at home with friends, and activities in institutions, like churches, unions and clubs. Since Putnam wrote in 2000, most of these downward trends have continued and, in some cases, have accelerated. As with family arrangements, there are divides by the level of education, some of which are widening.

Material living standards, health, family, and children are foundations of wellbeing, and so is community and, for most Americans, religious faith. In Gallup data from 2008 to 2012, two-thirds of Americans said that religion was very important in their daily lives.¹⁴ Once again, we need not follow the economists’ practice of trying to value these other aspects of life or reduce them to a monetary equivalent. There is no need to force health, family, community, and religion into the straitjacket that the metric of wealth requires; their importance cannot be measured by how much they cost or how much people would pay to have them.

One way in which people get involved in their local and national communities is by participating in politics, most obviously by voting for their preferred candidates or policies. Community participation brings its own direct rewards, even if you do not always get what you want. But those who participate are indeed more likely to get what they want. People aged sixty-five and over are 50 percent more likely to vote in presidential elections than those aged eighteen to twenty-nine—78 percent of the elderly voted in the elections from 1996 to 2016, while 53 percent of young adults did so—which has much to do with the relative

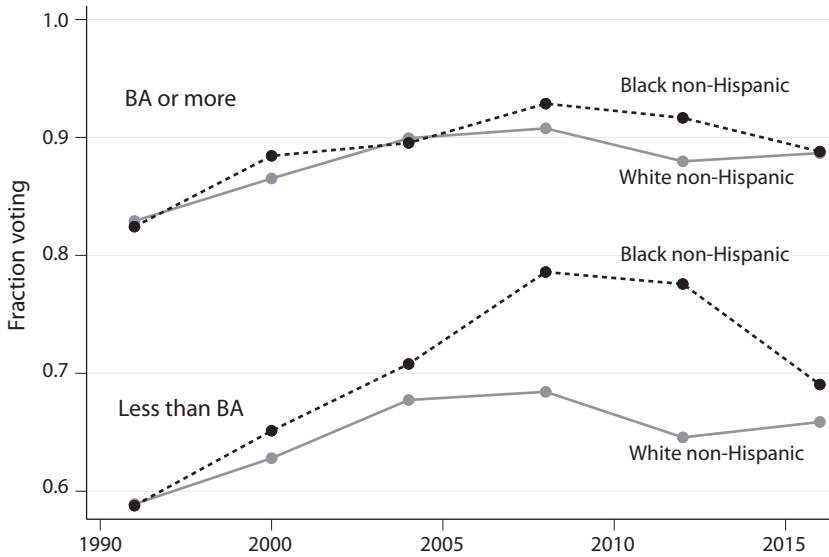


FIGURE 12.2. Presidential election turnout, by race and education, ages 25–64. Authors' calculations using the Current Population Survey.

generosity of public policy toward the elderly. Income is correlated with voting, as is education, and legislators are more likely to favor the richer and better-educated voters among their constituents.¹⁵

Figure 12.2 presents voter turnout by race and education in the six most recent presidential elections (1996 to 2016). Each point represents the fraction of twenty-five-to-sixty-four-year-olds who reported voting in that election year. Participation rose from 1996 to the first Obama election in 2008 and fell thereafter. The largest divide, evident in the figure, is by education: those with a four-year degree are consistently 20 percentage points more likely to vote than those without. Aside from the Obama elections, when turnout among African American voters was higher, there was little daylight in participation between whites and blacks within an education group. The divide is one of class, not race.

Union membership has rapidly declined since midcentury; it is a form of social capital that is obviously most important for working-class people. More than a third of nonagricultural employees belonged to unions in the mid-1950s; since then, membership has fallen, to less than 10 percent

in 2017, with close to equal numbers of union members in the public and private sectors. But the private sector employs many more workers than does the public sector, and workers in the latter are more than five times more likely to belong to a union than workers in the former. The rapid decline in private-sector unionization has been a major factor in enhancing the power of capital relative to labor (and may have been caused in part by the change in the relative power of capital), an issue that we will come back to in chapter 15. But as with political participation, belonging to a union does more than help represent a worker's economic interests. Union meetings and union-based clubs are, or once were, part of social life in many places.

When I join a union, that is good not only for me but also for others; my joining strengthens the union, and thus brings benefits to other members. The same is true when I join a club or a church, and it applies generally to social capital. My joining brings what is called a network externality; the behavior of one person affects the costs and benefits of others. This happens for social media, such as Facebook, and church, where the benefits of belonging expand with the number of members. As with Facebook, network externalities can lead to very rapid growth in membership because the rate of growth goes up with the number of members; the more members, the faster the growth, at least until there are no more people who have an interest in joining. The process also works in reverse. As people drop out, the union or the church is less attractive to the remaining members, and organizations with network externalities can collapse as rapidly as they expand. For private-sector unions, this is surely part of the story. Once people start leaving, not only does the union hall or the union sports team close, but the union loses some of its power to deliver benefits to its members, so there is less and less point in belonging.

Religion is an important part of life for most Americans, much more so than in other rich countries, at least with the exception of Italy and, to a lesser extent, Ireland. Religious people do better in many ways: they are happier, more generous, and less likely to smoke, drink, or use drugs. Friends make a good life better, and friends from church do so by more than other friends.¹⁶

Church membership in the US has been declining in recent decades, especially among the less educated, who were less likely to go to church in the first place. Not everyone who says that religion is important to them belongs to a church or goes to one regularly; today about a third of Americans report that they have been to a place of worship in the last week.¹⁷ The number was closer to a half in the late 1950s; there was a slow decline until 1980, after which attendance held steady at around 40 percent until 2000, after which there was a steep plunge.

We often think of religion as something that you inherit from your parents and that is constant through life, at least if you do not lapse. And indeed, the large number of Catholics in the Northeast is a legacy of Irish and Italian immigration, just as the expanding number of Catholics in the South and West today is a consequence of Hispanic immigration. But religious affiliation is not just the fossilized history of immigration. It also reflects the fact that people change their affiliations, sometimes by drifting away from the church in which they grew up, and sometimes by a move to a different church when the teaching of the old church no longer seems relevant or no longer matches people's political and social beliefs. In the 1960s and 1970s, a period of great social upheaval in sexual norms and civil rights, and of increasing distrust in government, many people stopped going to church altogether, while others, disturbed by the changes and unimpressed by the lack of a vigorous response by mainline churches, moved to evangelical and socially conservative churches.¹⁸ After 2000, the decline in membership in the mainline churches was complemented by a decline in membership in evangelical churches, especially among young people who were not as attracted as their parents had been by the socially conservative political beliefs those churches espoused. Large numbers of Americans seem to choose their religion to suit their politics.

There has been a rapid rise in those who report themselves to be unaffiliated with any religion. From the mid-1970s until 1990, only 7 or 8 percent were "nones." In 2016, almost 25 percent of the population was unaffiliated, and among young working-class whites (ages eighteen to twenty-nine), the percentage rises to nearly 50.¹⁹ Parenthetically, these are a part of wider changes in American religion, and in America more

generally. Only 43 percent of Americans identify as white Christians, compared with 65 percent in 1996, and 54 percent as late as 2006. The white Christian majority in America no longer exists, and this may be seen as yet another unwelcome change to some among the white working class.

Evangelical and mainline churches are different beyond their political beliefs. Many mainline churches provide what sociologist Robert Wuthnow calls “spirituality of dwelling.”²⁰ These churches are spiritual homes that have been refuges and places of worship for generations, often reaching back to the country of the original immigrants; examples are Catholics from Italy, Ireland, or Mexico and Lutherans from Scandinavia or Germany. These churches provide a spiritual sanctuary when economic or family life is challenging. They can also be seen as stultifying and oppressive. Wuthnow’s contrast with dwelling is “seeking,” where people try to satisfy their spirituality on their own terms—for example, by turning to evangelical churches that suit their social conservatism, or by creating their own unique blend of beliefs outside an organized church. This is one aspect of the increase in individualism, something that sociologist Andrew Cherlin calls one of the “master trends in the development of Western society over the last few centuries.”²¹ These alternatives can provide freedom to explore spirituality more freely, outside what some see as abusive church organizations, but they may not provide the reassurance or unquestioning acceptance that comes in mainline churches whose rituals and traditions have been familiar since childhood, have provided succor in time of trouble, and have done the same for previous generations. Many Americans are currently unconnected to any organized religion but explore their spirituality through self-constructed beliefs that are sometimes isolating: the social ethnographers Kathryn Edin and her collaborators report on a man whose spirituality centers on ancient-astronaut theories and who complains of the difficulty of finding people to talk to about it.²² This isolation is an example of what Edin and her coauthors call the tenuous attachment of working-class men.

The General Social Survey asks people how often they go to church, and figure 12.3 shows the fraction of the middle-aged white population

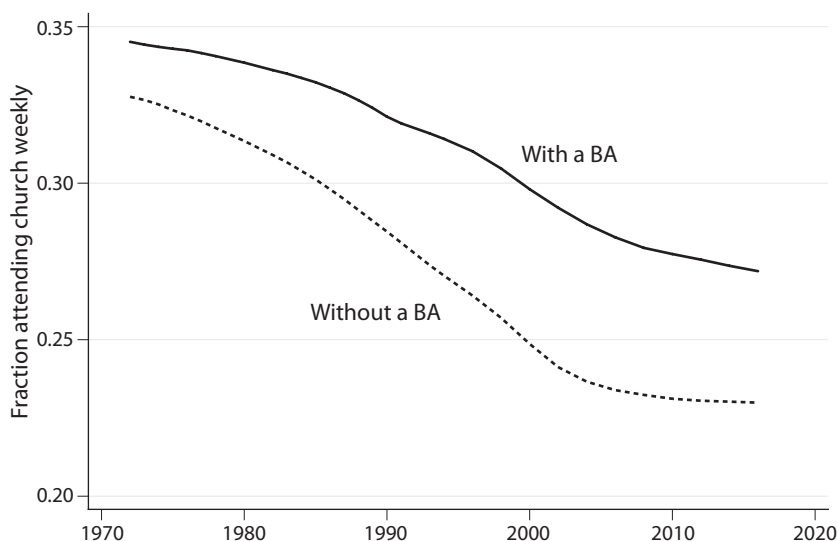


FIGURE 12.3. Weekly church attendance, whites ages 40–59. Authors’ calculations using the General Social Survey.

(aged forty to fifty-nine) who report that they attend church weekly; the samples are small here, so we have used a twenty-year age range and smoothed out year-to-year fluctuations.

Those with a bachelor’s degree are more likely to attend church weekly, and the gap between the education groups has been widening over time. Even among these older adults, who have been less ready to opt out of church than the young, attendance is falling, and more rapidly so among the less educated. The white working class is losing the community support that can come from both unions and church.

If we draw the same figure for African Americans, with due warnings about small sample size, there is no evidence of a decrease in weekly attendance for those without a bachelor’s degree. About a third of midlife blacks without a bachelor’s degree attend church weekly, about the same rate as that for less educated midlife whites in the early 1970s, but for blacks, unlike whites, attendance has held steady.

Why is lack of religiosity and the decline in churchgoing a problem? West Virginia, the state worst affected by deaths of despair, is among the most religious in America; 70 percent of white working-age people say

that religion is very important in their lives. In both New York and California, much less severely affected, only 51 percent say that religion is very important to them. Perhaps it would be no bad thing if West Virginians were *less* religious?

One answer is that, over long enough periods of time, religiosity responds to the social and economic environment. In poor countries around the world, especially in Asia and Africa, almost everyone identifies as very religious, but religiosity is lower in richer industrialized countries, particularly in Western Europe. The argument—the secularization hypothesis—is that as education spreads, as incomes rise, and as the state takes over many functions of the church, people turn away from religion. Put crudely, people need religion more in more hostile environments. This would fit the American states, where those with lower incomes and less supportive state governments have a higher fraction of religious people. It would also explain why it is true that, while more religious *people* do better than less religious people on many outcomes—they are happier, less likely to commit crimes, less likely to abuse drugs and alcohol, and less likely to smoke—more religious *places*—including US states—do worse on the same outcomes.²³ Religion helps people do better, and they espouse religion in part *because* their local environment is difficult. When religiosity falls over time, it is the *people* side of this story that applies, and people lose the benefits that religion brings.

How Do People Evaluate Their Own Lives?

It is tempting to look for an overall measure of people's lives, one that somehow combines all of the things that matter to people, including material wellbeing, health, family, community, and religion. We do not think that this is either possible or desirable; too much is lost by forcing the different aspects of life into a single measure, and very little is gained beyond what we get by thinking about each aspect one at a time. In recent years, some writers have taken a different view and argued that if we ask people how happy they are, or how their lives are going, we will get the magic number that can stand in for everything else.²⁴ There are good philosophical and empirical arguments for rejecting this claim. Even

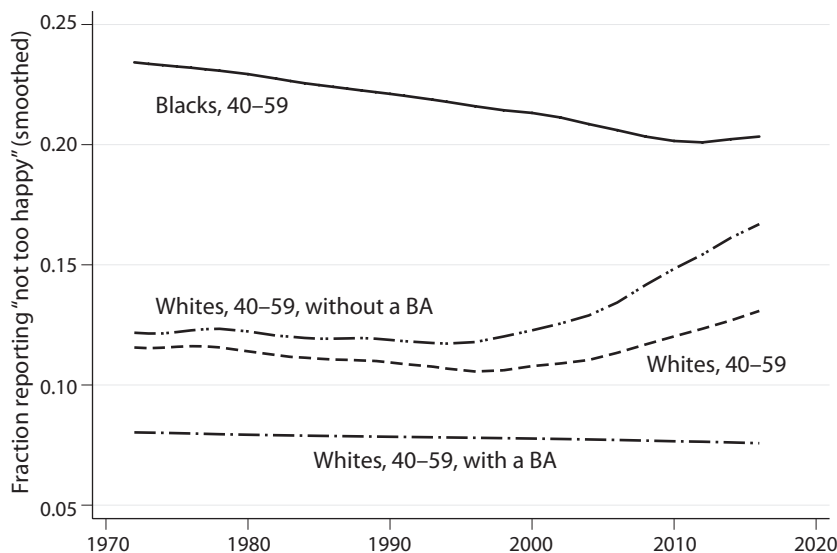


FIGURE 12.4. The fraction of adults ages 40–59 reporting they are “not too happy.” Authors’ calculations using the General Social Survey.

so, people’s evaluations of their own lives are valuable, provided we do not expect too much of them. They capture what people themselves think, not “expert” measures like income, life expectancy, or church attendance, each of which is at best a proxy and which may not seem relevant to those who experience them. Beyond that, the evidence shows that self-reported life evaluation measures vary as we would expect with life circumstances, including income, health, religion, and education. For people to think that their lives are going well is a good thing in and of itself, even if it does not capture all the things they care about. Similarly, when we are trying to get an idea of the quality of people’s lives, we can use self-reports of how life is going as a supplement to the other measures.

The General Social Survey, which we used in the previous section to look at religion, asks respondents how happy they are “with things these days,” with three possible answers: very happy, pretty happy, and not too happy. Figure 12.4 presents the fractions of different groups, ages forty to fifty-nine, reporting that they were “not too happy,” over the

period from 1972 to 2016. For all whites in midlife taken together (presented in the dashed line), this measure showed little change until the late 1990s, after which the fraction of midlife whites who are “not too happy” began to rise. That this change is being driven by those without a bachelor’s degree can be seen by comparing the responses by education. Throughout this period, a larger fraction of whites without a bachelor’s degree reported being dissatisfied, but that dissatisfaction appears to have been stable until the mid-1990s. Beyond that point, dissatisfaction among those with less than a bachelor’s degree began to grow, and the gap between whites with and without a bachelor’s degree steadily increased.

More midlife African Americans are unhappy than midlife whites, but the fraction who report being “not too happy” fell steadily until 2010, after which it leveled off at 20 percent. (The samples in the survey are too small to split blacks by college degree.) If this is real—and we repeat the caveats about self-reported happiness measures—the happiness responses are showing something that does not show up in the material wellbeing data: that African American lives, though unhappier than whites, are getting better in a way that is not true for whites, especially less educated whites.

A more precise evaluation of how life is going comes from a different question. The Cantril ladder asks people to place themselves on a ladder with rungs, labeled from zero to ten, in which zero is the worst possible life that you can imagine for yourself, and ten is the best possible. This measure is sometimes referred to as the “ladder of life.” Note that this question does not mention happiness; it is simply a way of asking people to evaluate their own lives. Gallup has asked this question to several million Americans since 2008, so, although we cannot go back in time, we have enough data to look in detail, particularly by race, age, and education.

The most remarkable feature of figure 12.5 is that the big differences are between those with and without a bachelor’s degree, not between blacks (shown as solid lines) and whites (shown as broken lines). Indeed, after age forty, blacks without a bachelor’s degree have better self-reports than whites, though the reverse is true for younger blacks

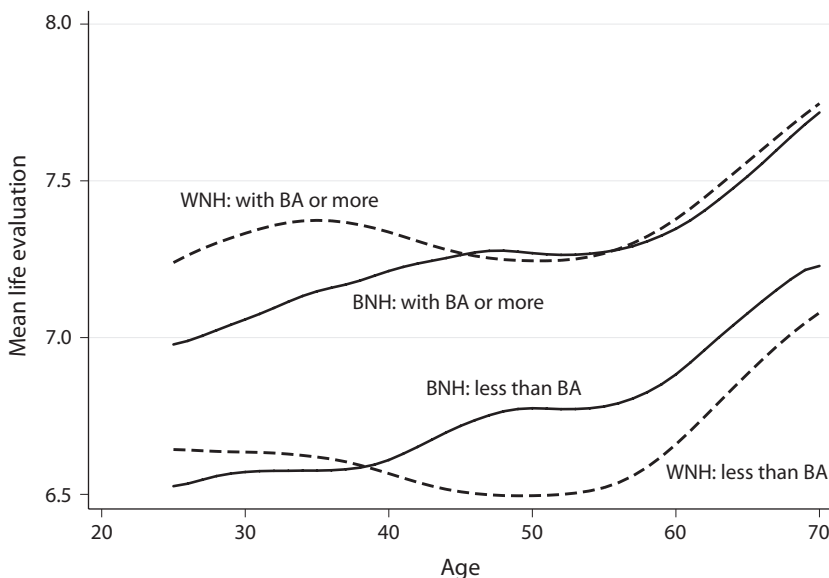


FIGURE 12.5. Self-reports of life evaluation by age, race, and education. WNH = white non-Hispanics; BNH = black non-Hispanics. Authors' calculations using Gallup tracking data, US, 2010–17.

with a bachelor's degree. Blacks do not experience the midlife dip in wellbeing that whites do, whether or not they have a bachelor's degree. Lest we are misunderstood, we say again that self-evaluation is not a measure of everything that is important to people, and the rough equivalence of life evaluation for blacks and whites within education groups provides no warrant for ignoring measures on which blacks do worse, or for ignoring the fact that many fewer blacks have college degrees.

Gallup also asks questions about whether people are experiencing stress or physical pain, and whether they are happy or sad. For most of these measures, as for the ladder of life, the biggest divisions are by education, not by race. This is true for a summary measure of daily positive mood—that averages how much people smile, enjoy themselves, and are happy—as well as for pain;²⁵ the divisions in experience are entirely by education, with no difference by race given education. Stress, by contrast, shows little difference by education, but a large difference by race. Remarkably, this difference is in *favor* of blacks, many fewer of whom

report that they experienced a lot of stress on the day before the survey. Taken as a whole, for these measures of experience, it is education that matters, not race, except for stress, where blacks do better than whites.

In Summary

Life is about much more than money, and in this chapter, we have looked at several nonmonetary outcomes—family, child rearing, religion, and political participation—as well as self-reported assessments of life. Less educated whites, whose wage rates have fallen for half a century, do worse than better-educated whites, and in several aspects, especially marriage and childbearing, the gap between the two groups is widening in an alarming way. The decline of unions has worsened working and social life for less educated whites, who have also become increasingly detached from the support and community that religion can bring. We find it hard to believe that the spread of the internet and of social media has made up for the loss of these institutions.

Ultimately, of course, we are trying to find an explanation for the dreadful mortality trends with which we began, the deaths of despair. Declining wages are part of the story, but we believe that it is impossible to explain despair through declining material advantage. We believe that much more important for despair is the decline of family, community, and religion. These declines may not have happened without the decline in wages and in the quality of jobs that made traditional working-class life possible. But it was the destruction of a way of life that we see as central, not the decrease in material wellbeing; wages work through these factors, not directly.

The contrasting outcomes for African Americans are informative. Even though blacks have made at best modest wage gains in recent years, and little or none since the 1970s, and although blacks do worse than whites on most indicators, even than less educated whites, black lives are improving on many dimensions while the lives of less educated whites are worsening. When we look more broadly, the mortality trends between blacks and whites make much more sense.

PART IV

Why Is Capitalism Failing So Many?

WE HAVE DOCUMENTED DESPAIR AND DISTRESS, death by suicide, drug overdose, and alcoholism, as well as pain, decreasing attachment to work, falling wages, and failing family life. The plague that has visited less educated whites over the last three decades descended on African Americans fifty years ago. While racial divisions are diminishing in many outcomes, class divisions are widening, at least if we think of class in terms of education.

In this final part of the book, we tell a story about why it happened and what might be done. What has eaten away at the foundations of working-class life?

This part of the book is the only one with an introduction. The other three parts are largely about *what* happened, while this part is about *why* it happened, and why is always more complicated than what. The first three chapters that follow all tell stories about what is happening in the labor market for less educated Americans, why the real value of their earnings has fallen, through either lower wages or higher prices or both, and why working conditions have deteriorated. There are many different forces that are undermining working life for people with less education, but they all lead to the consequences for marriage and for community that we have documented and, ultimately, set the conditions for the rise in deaths of despair.

Our first story is peculiarly American: that it is some feature of *American* capitalism that is failing so many. There have been increases in deaths of despair in a few other rich countries, but where they do exist, the numbers are dwarfed by those in the United States. Perhaps our title should be *Deaths of Despair and the Future of American Capitalism*?

There is a second story: that the faults of contemporary capitalism are widespread and America is simply the leader of a more general disaster that is already taking root elsewhere and will spread further in the future.

We suspect that the truth has elements of both stories, that specific American arrangements exaggerate and catalyze the catastrophe, so that while the US is indeed in the vanguard, with others following, other countries are unlikely to be ever as severely affected.

There are many features of the United States that are relevant, and that differ from other countries. The history of race is different in America; the shadow of slavery and racism still haunts American life today. As we have seen in chapter 11, the improvements in the lives of African Americans have not been perceived as an unmixed blessing by many whites. Another leading explanation centers on social protection. Other rich countries have more extensive safety nets than does the United States, and they are differently organized, depending more on government and less on the private sector. American politics is different too, with its dependence on large sums of campaign finance and on lobbying.

Yet our candidate for leading villain is none of these but rather the American healthcare system. This is the topic of chapter 13.

There is a paradox here. America spends more on healthcare than does any other nation, and it boasts some of the finest hospitals and doctors in the world; patients come from all over the globe to be treated in American hospitals. How is it then possible that life expectancy at birth has fallen for three years in a row—something that has not happened in other countries and that has not happened in America since the Great Influenza Pandemic of a century ago? The truth is that these horrors are happening not *in spite of* the American healthcare system but *because of* it. The next chapter makes the argument. It is *not* an argument about poor healthcare or lack of coverage, though there is much that could be said about both; the deaths from prescription opioids were caused by the

healthcare system, and even after Obamacare twenty-seven million Americans have no health insurance.¹ But a far worse problem is the enormous *cost*. The vast sums that are being spent on healthcare are an unsustainable drag on the economy, pushing down wages, reducing the number of good jobs, and undermining financing for education, infrastructure, and the provision of public goods and services that are (or might be) provided by federal and state governments. Working-class life is certainly under threat from automation and from globalization, but healthcare costs are both precipitating and accelerating the decline.

The cost of healthcare is like a tribute that Americans have to pay to a foreign power.² An analogy comes from the reparations that Germany had to pay after the First World War. John Maynard Keynes wrote a famous book predicting that the payments would be a disaster.³ While historians today argue about how much was actually paid, and about the effects on the destruction of the Weimar Republic and the rise of Hitler, it is clear that reparations dominated European international relations for many years.⁴ Yet the fraction of national income that Germany paid in the 1920s was substantially smaller than the fraction of American income that is *unnecessarily* spent on healthcare today.⁵ Even if the healthcare system were delivering in terms of health—which it is not—the cost would still debilitate the economy, especially the part of the economy that serves less educated Americans. Warren Buffett likened the effects of healthcare costs on American business to those of a tapeworm; we think of them as a cancer that has metastasized throughout the economy, strangling its ability to deliver what Americans need.

We believe that the healthcare debacle is a cause of decline and despair, but it is not the only one. Other stories point to the way that modern capitalism works, arguing that it has turned increasingly against less-educated labor and more in favor of an educated minority. One key argument is that corporations have accumulated market power that is increasingly used against both workers and consumers. Many of these practices are prohibited by antitrust law, and many believe that these laws are not being as vigorously enforced as they should be. In addition, unions were once a countervailing power that could resist the power of capital and protect the wages and working conditions of workers, but unions

have greatly declined in importance, especially in the private sector. There has also been much consolidation of firms, so that, if American business is less competitive than it used to be, firms have power to artificially lower the wages of their workers and artificially raise the prices of their goods; these actions redistribute real income from workers and consumers to managers and the owners of capital. This upward redistribution would not happen under free-market capitalism with well-enforced antitrust laws, without government granting favors to special interests and cronies.

The arguments about harm are controversial among professional economists and among politicians and policy makers. On one side are claims that modern large corporations are monopolies that have brought a new gilded age in which consumers and workers are immiserated. On the other side are claims that large corporations are enormously beneficial to us all because they bring low prices and marvelous innovations. Critiques of capitalism are not peculiar to the United States, though the policies that regulate it are different in Europe. It is also possible that both the good and the bad are more developed in the US than elsewhere, which would play into the argument that what we document for the US is a simply a precursor of events that will unfold elsewhere.

We cannot resolve these issues here because the research is far from complete. Instead, we attempt to provide a balanced account in chapter 15, if only to identify those aspects of modern capitalism that are arguably undermining the lives of less educated Americans.

The arguments in the next three chapters apply to all Americans, not only to white non-Hispanics. Yet, as we saw in chapter 5, the deaths of despair have been primarily among whites, at least until fentanyl hit black communities after 2012.

Our argument is that the deaths of despair among whites would not have happened, or would not have been so severe, without the destruction of the white working class, which, in turn, would not have happened without the failure of the healthcare system and other problems of the capitalism we have today—particularly persistent upward redistribution through manipulation of markets. We argued in chapter 5 that African Americans have not escaped the crisis but rather experienced their own

version first, thirty years earlier. During that earlier episode of black despair, job loss, and family and community destruction, much of the dysfunction was attributed to peculiarities of black culture. Now this episode looks like something different, that if any group is treated badly enough for long enough, it is susceptible to suffering social breakdown of one kind or another. African Americans, long the least-favored group, were the first to suffer, but less educated whites were next in line. It is not absurd to imagine the distress moving up to more highly educated groups next.

The reduction in racial animus toward blacks and their gradually increasing opportunities have provided offsetting forces that, for blacks, have counteracted the negative pressures faced by all workers. We have seen that African Americans have, in the last two decades, seen some absolute improvements, not just relative to whites. Black mortality rates fell rapidly, at least until 2014. The percentage of blacks with a bachelor's degree rose from 16 percent in the birth cohort of 1945 to 25 percent in the birth cohort of 1985.⁶ Once we take education into account, blacks do as well as or better than whites on a range of measures of life satisfaction and affect. Yet there is nothing in the economic record in recent decades to suggest any systematic improvement in material outcomes for blacks relative to whites. The relative improvement for African Americans must have come from somewhere else. Perhaps the most obvious source of improvement is that black lives are better in nonmaterial ways. Discrimination is far from gone, but it is less severe and pervasive than it used to be; it is no longer socially sanctioned. One excellent indicator of respect is the acceptability of intermarriage; it was once taboo and is now considered normal. According to Gallup, 87 percent of Americans surveyed in 2013 approved of black-white marriage; in 1958, the percentage was only 4. It was only 29 percent in 1973, and still less than two-thirds in 2000. The Gallup pollster Frank Newport refers to this as "one of the largest shifts of public opinion in Gallup history."⁷ There have been many successful black politicians and, most importantly, there has been a black president of the United States. The differences between blacks and whites, once predominantly about skin color and racism, now have more to do with education and skills.

For whites, it might be argued that the same process works in reverse, as the privileges of Jim Crow have been withdrawn. Sociologist Andrew Cherlin writes that whites “did not consider their status until their whiteness premium was lessened by legislation in the last few decades of the twentieth century. At that late date, the old, whiteness-based system had been in place so long as to be invisible to them, and the new equal opportunity laws seemed to white workers less like the removal of racial privilege and more like the imposition of reverse discrimination.”⁸ The economist Ilyana Kuziemko and her coauthors have found evidence from the laboratory that people greatly dislike being in last place, irrespective of their material conditions, and will resist changes that improve the lot of those below them if, in consequence, that bottom group threatens to overtake them.⁹

A final note on how we think about “why.” We think about causes more in the spirit of historians and sociologists, which is very different from the way many economists think about causality today. Some economists now endorse the idea that a controlled experiment is required to demonstrate causality, or at least some historical circumstance that separates otherwise-identical people into groups that are differentially exposed to an event. Such techniques have their uses, but they are of little use to us here in describing a slowly evolving and large-scale disintegration that involves a historically contingent set of forces, many of which interact. Some hard-nosed social scientists argue that anything learned in such circumstances is illusory.¹⁰ We fundamentally disagree. Our readers will have to decide whether our account is persuasive without the benefit of controlled trials or anything of the sort.

How American Healthcare Is Undermining Lives

AMERICANS SPEND VAST sums on healthcare, and that spending affects almost every part of the economy. Healthcare is expensive everywhere, and it makes good sense for rich countries to spend a large share of what they have to extend their citizens' lives and to reduce pain and suffering. But America does this about as badly as it is possible to imagine.

Our argument is less about the *direct* harm that healthcare can sometimes do, through medical mistakes, through poor treatment, through the overprescription of opioids, or through not providing treatment when it is needed. It is more about the *indirect* harm to people's lives and work that comes from its extraordinary and extraordinarily inappropriate costs. The US healthcare system, which absorbs 18 percent of the American gross domestic product (GDP)—\$10,739 per person in 2017,¹ about four times what the country spends on defense and about three times what it spends on education—is needlessly eating away at workers' wages. Paying for it reduces take-home pay as well as the value of what that pay will buy. It inflates the earnings of those in the healthcare industry and makes the industry larger than it ought to be. The cost of employer-provided health insurance, largely invisible to employees, not only holds down wages but also destroys jobs, especially for less skilled workers, and replaces good jobs with worse jobs. As people take worse jobs, their wages fall. Healthcare costs also strike directly those individuals who are

without insurance or have inadequate insurance, and they affect those who *are* insured through copayments, deductibles, and employee contributions. They also affect the federal government as well as state governments, which pay for Medicare and Medicaid. Governments must collect more taxes; provide less of something else, such as infrastructure or public education, on which poorer Americans particularly depend; or run deficits that can compromise future economic growth, shifting the burden to our children and to future taxpayers.

To use Adam Smith's words about monopolies, the American healthcare system is both "absurd and oppressive."²

Healthcare is necessarily expensive, and there is no doubt that we *should* be spending a lot on it; it makes good sense to give up some of our wealth for better and longer lives, and to do so by more the richer we get.³ New treatments that prolong life or make it better are continually being produced; they can be expensive to invent or to use, and it will often be a good idea to pay those costs. That said, we spend too much and needlessly so. We will argue that we could cut back costs by at least a third without compromising our health.

As we saw in chapter 9 on opioids, one part of the healthcare industry—manufacturers and distributors of pharmaceuticals—became enormously wealthy by triggering an epidemic that has killed tens of thousands of people. This is an extreme example of direct harm to health, as well as of the process of upward redistribution in which those at the top got rich at the expense of everyone else, many of whom were put at risk of addiction and death. This direct harm to health must be charged to the healthcare industry along with the indirect harm from the economic tribute that it is exacting from the economy as a whole. Death by accidental overdose is the most prevalent of the three kinds of deaths of despair; many of these can be attributed to the opioid epidemic spurred by the industry, though we need also to look at the deterioration in lives that predisposed some people to addiction. Deaths by suicide and alcohol are rising among those who are finding work and family life increasingly difficult. Those deaths are being hastened by the costs of healthcare.

In the next chapter, we discuss other industries and how they too may have contributed to deaths of despair. Yet healthcare is different, not only

because it can kill directly but also because the economics of healthcare are fundamentally different from the economics of other industries. While free-market competition is a good benchmark for much of the economy, where we can rely on the market to produce good outcomes, that is not true for healthcare. Free-market competition does not and cannot deliver socially acceptable healthcare.⁴

Healthcare Expenditures and Health Outcomes

American healthcare is the most expensive in the world, and yet American health is among the worst among rich countries, something that has been true for a long time, well before the recent epidemic of deaths and the decrease in life expectancy. The costs of providing healthcare are a heavy drag on the economy, contribute to the long-term stagnation in wages, and are a good example of reverse Robin Hood redistribution, what we have called Sheriff of Nottingham redistribution. The industry is not very good at promoting health, but it excels at promoting wealth among healthcare providers, including some successful private physicians who operate extremely profitable practices. It also delivers vast sums to the owners and executives of pharmaceutical companies, of medical device manufacturers, of insurers—including “nonprofit” insurers—and of large, ever more monopolistic hospitals.

Figure 13.1 shows how other countries differ from the United States, and how the difference is widening over time. Britain, Australia, France, Canada, and Switzerland are used as comparison countries, and they are representative of what is found in the rest of the rich world.⁵ The vertical and horizontal axes show life expectancy and health expenditure per capita, respectively, and each line shows the trajectory of the two magnitudes from 1970 through to 2017, one year at a time. (Expenditures are in real international dollars, so the US figure for 2017 differs from the \$10,739 quoted earlier.)

The United States is the outlier in the picture; it has lower life expectancy than the other countries, but vastly higher expenditures per person on health. In 1970, which is the first year in the figure, the countries were not very far apart, with American life expectancy not much worse

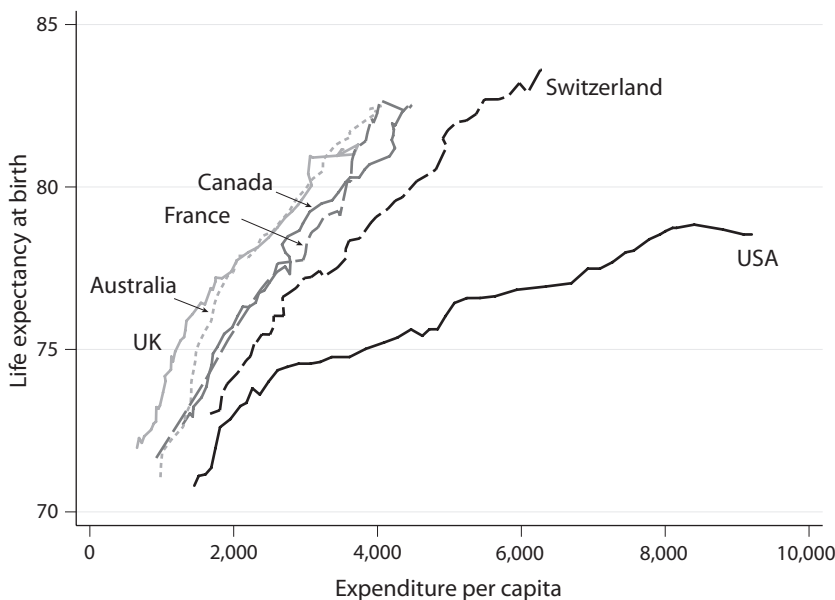


FIGURE 13.1. Life expectancy at birth and health expenditure per capita, US, Switzerland, and other select countries. Life expectancy in years; expenditures in 2010 international dollars. Updated by the authors from Roser (2017).

and expenditures not much higher, but other countries have done much better since, in terms of both faster improvements in health and slower cost increases. Switzerland is the nearest to the United States, with other countries close to one another; if other wealthy countries were added, they would look more like the lower-spending countries than either Switzerland or the United States.

In 2017, the Swiss lived 5.1 years longer than Americans but spent 30 percent less per person; other countries achieve a similar length of life for still fewer health dollars. Expenditure on healthcare in 2017 was 17.9 percent of GDP in the United States; the next highest in the world was Switzerland at 12.3 percent. If a fairy godmother were somehow to reduce the share of healthcare in American GDP not to the average of rich countries but, less ambitiously, only to the second highest, Switzerland, 5.6 percent of GDP would be available for other things, freeing up more than a *trillion* dollars.⁶ That is more than \$3,000 a year for each man, woman, and child in the US, or about \$8,300 for each

household. Median household income in 2017 was \$61,000, and the poverty line for a family of two adults and two children was \$25,000. If each household were given an additional \$8,300 in 2017, median income growth over the past thirty years would have been double what it actually was. And at the risk of pushing our fairy godmother too far: If Switzerland, why not Canada? That would save \$1.4 trillion, \$4,250 for each person, or \$11,000 per household.

Another way to count the waste is to identify directly the parts of spending that are not contributing to Americans' health. The most recent calculation⁷ is that waste is about a quarter of total spending, which is about the same as we get by the comparison with Switzerland.

These very large numbers are the *waste*, not the total costs. This waste has been eating away at living standards gradually but cumulatively for nearly half a century. American workers would have much better lives today if they had not had to pay this enormous tribute.

What Do Americans Get for What They Spend?

Given the great costs, we might hope that Americans have superior health outcomes. Not so. As we have seen, the United States does not do well in life expectancy, which is one important measure of health. While many factors influence life expectancy other than healthcare, healthcare is important and increasingly so in recent years. Life expectancy in the United States was 78.6 years in 2017, with Hispanics notably higher than the national average (81.8) and non-Hispanic blacks notably lower (74.9).⁸ These numbers are lower than the life expectancies of twenty-five other member countries in the Organisation for Economic Co-operation and Development. Among these others, the *lowest* life expectancy was 81.1, in Germany, two and a half years longer than in the United States, and the highest was 84.2, in Japan.⁹ Whatever Americans are getting from their healthcare system, it is not more years of life.

Perhaps they are getting something else? America is a very rich country, and it makes sense for Americans to ask and pay for more and better healthcare. Yet Americans do not use more of most medical services than other countries, though there has been a large expansion of jobs in

healthcare—2.8 million between 2007 and 2017, a third of all new jobs in the country—mostly funded by the “profits” from nonprofits.¹⁰ Indeed, the US has fewer doctors per head—the American Medical Association has been effective in holding salaries up by holding down the number of places in medical schools—and has about as many nurses per head. Medical schools are expensive, which is often cited to justify doctors’ salaries, but if the schools were opened up to competition with no caps on places, they would cost less. If qualified foreign doctors were not so systematically excluded, both salaries and medical school fees would fall. For some procedures, the numbers performed are similar in the US and the rest of the rich world, though there are more of the more profitable procedures in the US.¹¹ Americans do seem to have a more luxurious system—business rather than coach, as it were—but like business and coach passengers, they usually get to their destination at the same time (or in this case, perhaps earlier if their destination is the afterlife). Compared with patients in some other countries, Americans wait for a shorter period for procedures (such as hip or knee replacements) or for tests, such as mammograms; short waits are possible because there is a lot of expensive machinery that is not used very intensively. Hospital rooms are private or semiprivate compared with the multibed wards that are common in other countries.

Morbidity is much harder to measure than mortality or the number of procedures, but one study used identical health surveys in Britain and the US and found that, on a range of health outcomes, some self-reported and some “hard” biological measures from blood tests, Britons in late middle age were in *better* health than Americans.¹² The British spend less than 10 percent of their GDP on healthcare, and about one-third as much for each person.

Americans are not happy with their healthcare system. In the Gallup World Poll surveys between 2005 and 2010, only 19 percent of Americans answered affirmatively to the question, “Do you have confidence in the health care or medical system?” putting America eighty-ninth out of the 130 countries that were surveyed.¹³ Gallup also asked whether people were satisfied with the “availability of quality healthcare in the city or area” in which they lived. America does better on this more specific and local

question, with 77 percent of people reporting positively, about the same percentage as in Canada or Japan, but worse than in other rich countries and worse than in a number of much poorer Asian countries, such as Cambodia, Taiwan, the Philippines, Malaysia, and Thailand. In Switzerland, 94 percent of people report themselves satisfied with the local availability of quality healthcare, and 58 percent of the population thinks that the national healthcare or medical system works well. Much of the dissatisfaction in the US is about *access* to healthcare in an inequitable system; according to a 2007 report from the Commonwealth Fund, the US ranked last among seven rich countries on “dimensions of access, patient safety, coordination, efficiency, and equity.”¹⁴

Where Does the Money Go?

How is it possible that Americans pay so much and get so little? The money is certainly going somewhere. What is waste to a patient is income to a provider. Once again, it is helpful to compare with other rich countries. Much of the difference in costs comes from higher prices and from higher salaries for healthcare providers. American doctors get paid almost twice as much as the average doctor in other Organisation for Economic Co-operation and Development member countries,¹⁵ though their smaller numbers in relation to population limits their share of the higher cost.¹⁶ Doctors numbers are held down by limiting the number of places in medical schools, at the behest of doctors’ groups and Congress, and by making it difficult for foreign doctors to practice in the US.¹⁷ Sixteen percent of those in the top 1 percent of incomes in 2005 were physicians; 6 percent among the top tenth of 1 percent.¹⁸ Nurses get paid more in the US too, but the gap with other countries is smaller. Pharmaceuticals are about three times more expensive in the US.¹⁹ The anticholesterol drug Crestor costs eighty-six dollars a month (after discounts) in the US, but forty-one dollars in Germany and only nine dollars in Australia. If you have rheumatoid arthritis, your Humira is \$2,505 a month in the US, \$1,749 in Germany, and \$1,243 in Australia. And procedures cost more. A hip replacement costs more than \$40,000 on average in the US, but \$11,000 in France; the devices that replace hips and knees are more than

three times as expensive in the US as elsewhere, even when they are identical devices from the same manufacturer. An MRI examination costs \$1,100 in the US, but about \$300 in Britain. American physicians pay more for malpractice insurance, although the total cost of around 2.4 percent of total healthcare expenditures is small compared with the expenditures on hospitals (33 percent), physicians (20 percent), and prescription drugs (10 percent).²⁰ Compared with those in other rich countries, American hospitals and doctors make more intensive use of “high margin, high volume” procedures, such as imaging, joint replacements, coronary artery bypass graft surgery, angioplasty, and cesarean deliveries.²¹ When one of us had his hip replaced in 2006, a famous New York hospital charged \$10,000 a day for the (shared) room; it had a good view of ships passing on the East River, but television was extra, as of course were medicines and treatments.

Defenders of American pharmaceutical companies argue that much of the development of drugs is done in the United States (although not always by American companies), so other countries are freeloading on American innovation and discovery. Critics note that drug companies spend more on marketing than on research, that much of the basic research is done by or financed by government (for example, by the National Institutes of Health), and suggest that shortening or even eliminating patent protection might not be as disastrous as we are led to believe.²² The current system is often indefensible. For example, insulin, without which diabetics would die, was sold to the University of Toronto by its three discoverers for one dollar each, in order to guarantee that it would be freely available in perpetuity. Some patients are now paying as much as \$1,000 a month, sometimes forgoing their medication, while the producers tweak the drugs to maintain their patents.²³ At the same time, according to reporting by the *Economist*, pharmaceutical companies have spun off large charitable foundations that, by covering patients’ copayments, make it easier for the companies to keep up their prices. Moreover, for every dollar of copayment, the pharma company can take a tax deduction of two dollars.²⁴ Reducing the cost of drugs could pay for a substantial expansion of research by the National Institutes of Health.

It would also save a great deal of money and relieve some of the pressures on everything else we need.

There are other factors beyond price. New medicines, new scanners, and new procedures are constantly appearing. Some of these save lives and reduce suffering, but many do not, yet they are used—and paid for—anyway. This is “flat of the curve medicine,” more inputs and more money, but little increase in health. Britain, unlike the United States, has a regulatory agency (the National Institute for Health and Care Excellence, or NICE) that evaluates new medicines and procedures, estimates how much additional health they bring for each additional pound, and recommends against their use (effectively excluding them, given the British system) if they do not meet a minimum cutoff. Such an agency in America would be a direct threat to profits and would be fought to the death by the industry, meaning the death of the agency, not the industry.

Sir Michael Rawlins, first chair of NICE, relates that its first drug tested was Relenza, an antiviral for influenza made by Glaxo Wellcome. NICE recommended against it, not because it was ineffective but because of its “external” effects, that the flu patients in doctors’ offices waiting for prescriptions would spread the disease. The chair of the company “stormed into Downing Street and threatened to take his research out of the country.” But Prime Minister Tony Blair and Health Secretary Frank Dobson backed NICE, saving it from stillbirth.²⁵ We suspect that the resolution might have been different in Washington. Note also that the Food and Drug Administration is not permitted to consider wider social effects in its drug approval process—for example, the likelihood that opioids would be diverted.

Health insurance companies are often pilloried in the media, especially when they refuse to cover a treatment, or send incomprehensible bills to patients who thought they were fully covered. The big problem here is that, in a private system, insurance companies, doctors’ offices, and hospitals spend huge sums on administration, negotiating rates, and trying to limit expenses. In single-payer systems—which have other advantages and disadvantages, depending on the design—more than half of these

costs would be eliminated. It is not just the *profits* of the insurers that are problematic; much of what they do would not be needed at all if the system were organized differently.²⁶

Last but not least, hospitals are raising prices not because of their costs but because they are consolidating in order to reduce or eliminate competition and using their market power to raise prices; they are steadily winning the war against the insurance companies (and the public). Hospitals that are local monopolies charge 12 percent higher prices than do hospitals that face competition. Moreover, when a hospital merges with another hospital within five miles, competition between hospitals goes down, and prices go up by 6 percent on average.²⁷

Patients are at their most vulnerable during medical emergencies, which are increasingly being seen and used as profit opportunities. Ambulance services and emergency rooms have been outsourced to physician and ambulance service companies, and their doctors and ambulances are sending “surprise” medical bills. Many of these services are not covered by insurance, so that patients are billed even when they are taken to a hospital that is part of their network and covered by their insurance. In 2016, a large fraction of emergency room visits incurred “surprise” ambulance bills. Air ambulances are becoming more common as rural hospitals close, and they can bring surprise charges in the tens of thousands of dollars. When someone is in distress, or perhaps even unconscious, there is no bargaining over rates, and no competition to restrain prices. In such conditions, you pay what you are asked, even supposing you are conscious. The companies, many of which are owned by private equity firms, well understand that these are ideal situations to ramp up prices.²⁸ Ambulance chasers have become ambulance owners, and traffic accident victims wake up in the hospital with a \$2,000 bill attached to their gurney.

This sort of predation is a prime example of a system that transfers money upward, in this case from people in distress to private equity firms and their investors. It also illustrates why capitalism, with its many virtues in many contexts, cannot provide healthcare in a socially tolerable way. During medical emergencies, people are not well positioned to make the informed choices on which competition depends,

just as people cannot make informed choices when they are dependent on opioids.

Hospitals that used to be run by doctors are now run by corporate executives—some are doctors who have turned in their white coats for business suits—who are paid CEO salaries to build empires and to raise prices. A good example is New York Presbyterian Hospital, an octopus of once-independent hospitals. The hospital is a nonprofit whose CEO, Dr. Steven Corwin, was paid \$4.5 million in 2014²⁹ (the CEO of North Shore University Hospital was paid twice as much).³⁰ New York Presbyterian ran a beautifully produced series of video stories, which were aired on public television immediately before the immensely popular *Downton Abbey* series, each documenting an extraordinary recovery that could only have happened at New York Presbyterian.³¹ These advertisements were aimed at inducing employees to demand that the hospital be included in their insurance plan, giving the hospital increased negotiating power with the insurance companies, which helped to raise their prices and earn Corwin his salary. Other hospitals soon followed suit with similar advertisements of their own. In 2017, hospitals spent \$450 million on advertising in the US.³² It is hard to see how these tactics do anything to improve patient health.

Doctors, hospitals, pharma, and device manufacturers work together in a way that raises prices. Makers of high-tech scanners offer attractive leases and pricing schedules to doctors, dentists, and hospitals that can generate cash flows without demonstrated improvement in results. Scanners and scammers are sometimes hard to tell apart. Pharma works with hospitals and doctors to help develop new products and raise the demand for them. In 2018, José Baselga, a distinguished breast cancer researcher, was forced to step down as chief medical officer of Memorial Sloan Kettering in New York,³³ which describes itself as the world's oldest and largest private cancer center. He was ousted for failing to disclose potential conflicts of interest in his published papers, conflicts stemming from his financial ties to biotech startups and pharmaceutical companies, one of which, AstraZeneca, immediately appointed him as head of research and development. As the management of the hospital (correctly) argued,³⁴ there is a potentially beneficial symbiosis when hospitals

provide patients for trials of new drugs and when doctors try out and help spread the word about effective new products. Indeed, new cancer drugs have recently had a good record in reducing cancer mortality. Yet patients' best interests are not always aligned with those of drug companies, so they might reasonably want to know just who their doctors are working for, and to be reassured that their hospital is not just a wing of a pharma company.

The CEOs of pharma companies are well paid. According to a 2018 report in the *Wall Street Journal*, the top ten CEO salaries in 2017 ranged from \$38 million for Ari Bousbib of Iqvia (a data company that analyzes patient information for drug companies, insurance companies, and governments) to \$18 million for Kenneth Frazier at Merck.³⁵ In 2014, the very top incomes in America, exceeding those of the CEOs of large companies, came from profits from small, privately held businesses, among which doctors in private practice are well represented.³⁶

The excess cost of American healthcare goes to hospitals, to doctors, to device manufacturers, and to drug manufacturers. The trillion dollars that, from a health perspective, is waste and abuse is, from the providers' perspective, well-earned income. Which still leaves us with two questions: What effects do these costs have on Americans' lives, and how does the industry manage to get away with it?

Who Pays? The Consequences of High Healthcare Spending

Understanding just who pays is straightforward enough in a mechanical sense, but figuring out the effects on people's lives is harder. In the end, and no matter who gets the bills, everything is paid for by individuals, so a good figure to keep in mind is the \$10,739 that is the total cost per person. Many Americans find it incredible that they are paying such a sum, or even that people do so on average. The bills are typically paid by insurers, by employers, or by government, and most of us are fortunate enough never to receive or even to see a crippling medical bill. Yet the lack of transparency and the sense that someone else is usually paying

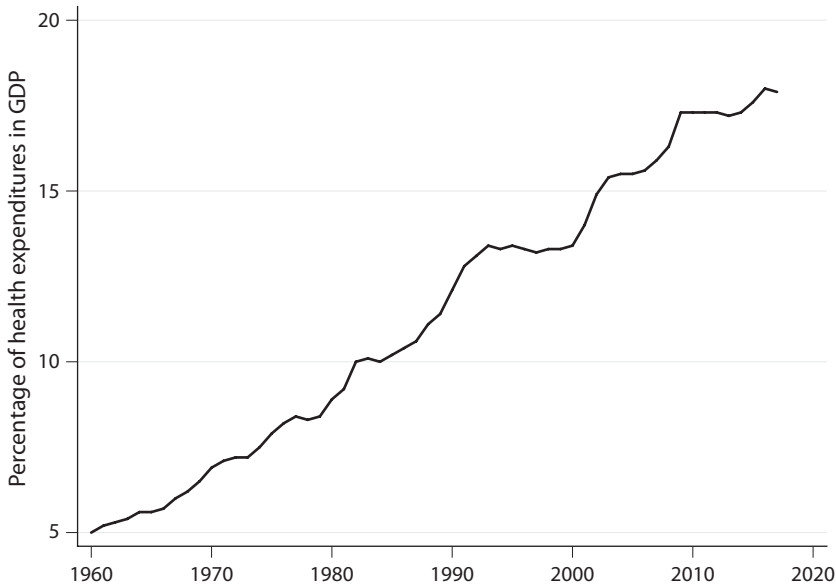


FIGURE 13.2. Healthcare expenditures as a percentage of GDP, 1960–2017. Data from Centers for Medicare and Medicaid Services.

help prop up a system that would be challenged more vigorously if its effects were better known.³⁷

Figure 13.2 shows how the percentage of national income that is absorbed by healthcare has grown over the last half century, from 5 percent in 1960 to 18 percent in 2017. The converse of this figure may be as or more useful—that the percentage of income that is available for things other than healthcare has *fallen* from 95 percent in 1960 to 82 percent today. The graph also identifies periods when the burden of healthcare rose most rapidly, particularly from the early 1980s to the early 1990s and from 2000 to 2008. As noted by Ezekiel Emanuel and Victor Fuchs,³⁸ these were also periods when average hourly earnings did badly, especially compared with the mid-1990s, when earnings did well while the percentage spent on healthcare fell. If we look at white men aged forty-five to fifty-four without a college degree, whose median wages were 15 percent *lower* in 2017 than in 1979, we see the same pattern, with rapid declines in the 1980s, followed by some wage recovery in the mid-1990s and again in the

last few years. Of course, wages are affected by much else, particularly the state of the labor market more generally, and the burden of healthcare is ongoing and slowly acting, so these broad patterns over decades are probably the most we can expect to see.

If we start with who pays the bills, individuals and the federal government each pay 28 percent, another 20 percent is paid by businesses on behalf of their employees, and 17 percent is paid by state and local governments; other private payers cover the remaining 7 percent.³⁹ Individuals who do not have insurance—in 2017, 9 percent of the population, or 29.7 million people—must pay directly, often at much higher prices than are charged to government or to insurance companies. Those who cannot pay may receive charity care or have their care cross-subsidized by someone else, or they may be pursued by debt collectors for many years. It has often been noted that health insurance is less about protecting your health than about protecting your wallet against the healthcare system. Individuals without insurance will often forgo nonurgent treatment. Without contact with a physician, they are less likely to use life-saving preventive measures like antihypertensives or statins. Healthcare paid for by individuals reduces their ability to buy other things, or to save for the future, contributing to the decline in the household saving rate in the US.⁴⁰

About half of working-age Americans (about 158 million people) have health insurance through their employers,⁴¹ and those aged sixty-five or over are covered by Medicare, an entitlement paid for by the federal government. Medicaid is the national health program for people with low incomes and is paid for in part by the federal government and in part by state governments.

Employer-provided insurance is typically well liked by those who are covered, although it is not without costs for the employee. On average, employees in 2017 paid about \$1,200 (18 percent) of the cost of an individual policy, or \$5,700 (29 percent) of a family policy.⁴² They also pay health-related taxes, and they have to meet copayments at the time of treatment, as well as a deductible before any reimbursement. It is often very difficult for patients to know in advance what a treatment will cost, or to understand the subsequent bills. For example, insurers may cover

90 percent of the cost of a procedure, which turns out to be 90 percent of the insurer's internal price, which can be much less than is billed. Surprise medical bills are common even among those who have insurance, and even for nonemergency care. At the same time, in the face of the rising costs of healthcare, employer plans are deteriorating in both quality and comprehensiveness.⁴³

One study looked at the decade up to 2009, during which time median income for a family of four with employer-based health insurance rose from \$76,000 to \$99,000. All but \$95 of this was wiped out by increases in the employee premium, out-of-pocket expenditures for healthcare, taxes devoted to healthcare, and the prices of other goods.⁴⁴

Employer-provided insurance has serious problems that are not always apparent to those who receive it. Many employees think that the employer contribution—the other 71 percent of the (average) \$20,000 family policy—is free to them. Yet it is not free to the firm, and it affects how much firms are prepared to pay in wages and how many workers they employ. For an employer deciding about a hire, it is not the wage that matters but rather what the firm has to pay to hire the worker, including the costs of health insurance and other benefits. Employers' contributions are wage costs, as are wages themselves, so the rising costs of insurance premiums—for example, from \$2,000 in 1999 to \$6,896 in 2017 for the average single-person plan—have played a large part in holding down wages. Employees may think they are being given a gift, little realizing that what the employer cares about is the total that they pay for the employee, not to whom they pay it. The employee may be unaware that the “gift” is being deducted, partially or fully, from wages.⁴⁵ In the foregoing example, the family of four would likely have had more than \$99,000 in 2009 if employer premiums had not risen too.

There is more. Employers faced with large increases in health premiums may decide that some positions will no longer come with health insurance or, more drastically, that they can do with fewer workers, or at least outsource the work to be done. One executive explained to us that, when his firm was presented with a very large increase in its health insurance premiums one year, they called in management consultants who helped them cut their “head count,” identifying workers who were

dispensable altogether, or whose positions in food service, security, janitorial, or transport activities could be outsourced. The outsourcing firms would then be responsible—or not—for wages and healthcare premiums, when indeed they offered them at all. Working for an outsourcing company is often a less attractive and less meaningful option than working for a large corporation. Healthcare costs are a larger share of the total wage cost of employing a less well-paid worker. For a well-paid employee earning a salary of \$150,000, the average family policy adds less than 10 percent to the cost of employing the worker; for a low-wage worker on half the median wage, it is 60 percent. This is one of the ways in which rising health costs turn good jobs into worse jobs and eliminate jobs altogether.

Employer-provided healthcare contributes to the rising cost of healthcare, as well as to the size of the healthcare industry. More highly skilled and better-paid workers are more likely to have insurance, so policies are designed to fit their needs and tastes. The employer's contribution to the premiums is not treated as income for tax purposes, so employers have incentives to provide more and more luxurious healthcare through benefits—which are not taxed—rather than letting employees pay out of their after-tax income. This not only costs the federal government some \$150 billion in lost taxes⁴⁶ but also encourages employers and employees to negotiate salaries with a higher healthcare content. As Victor Fuchs has noted, it is as if the government were encouraging “Whole Foods” healthcare and discouraging “Walmart” healthcare, even though many, perhaps most, people, given their budgets, would prefer the latter. The employer-based system is biased toward higher-earning workers, in terms of both access and the kind of healthcare offered.⁴⁷

Federal and state governments are also responsible for paying for healthcare. For the federal government, the cost of the health entitlements has to compete against all of the other things that it does or could do. The failure to maintain and replace infrastructure is a leading example; because of the state of roads in the US, FedEx trucks need their tires changed twice as often as twenty years ago.⁴⁸ Perhaps less obvious is the burden of Medicaid on *state* budgets. Because Medicaid is an entitlement, states have no option but to pay what it costs; aside from flexibility in

setting eligibility requirements, states have limited control over either the amount of healthcare or what it costs. At the state level too, rising healthcare expenditures are eating away at other important provisions, particularly education and transportation. Medicaid rose from 20.5 percent of state spending in 2008 to an estimated 29.7 percent in 2018, while spending on primary and secondary education fell from 22.0 percent to 19.6 percent. States currently spend half as much again on Medicaid as they do on K–12 education.⁴⁹ Such provisions are less important for those who can afford not to rely on public provision.

Ideally, it would be possible to calculate exactly who pays the burden of healthcare, but the sums are so enormous, so dispersed throughout the economy, and so nontransparent that the task is not possible. Yet we are all paying every day, in ways that are more and (often) less obvious. Worse still, little of what we spend is a conscious choice of something we want and are prepared to pay for, in full knowledge of the costs. Instead, the healthcare system is a parasite on the economy, like Warren Buffett's tapeworm that Americans accidentally swallowed long ago but that has grown to be huge and is sucking the nutrients that the rest of the body needs. Or by our own comparison, the cancer that used to be confined to a small healthcare system has metastasized all over the economy.

Why Is Healthcare So Difficult?

The financing and organization of healthcare is difficult everywhere, not just in the United States. One remedy for most goods and services, but that is no remedy for healthcare, is to leave it to the market. Kenneth Arrow, one of the greatest economists of the twentieth century, proved the master theorems of economics that tell us what the market can and cannot do, and under what circumstances. Arrow's theorems give a more precise account of the arguments made long ago by Adam Smith. It is no accident that Arrow also wrote the key paper in health economics,⁵⁰ explaining why a market solution for healthcare would be socially intolerable. Certainly, as market fundamentalists argue, competitive free markets (together with antitrust enforcement) would almost certainly deliver

lower prices than those we see today. But healthcare is not like other services. Patients lack the information that providers possess, which puts us largely in their hands. We are in no position to resist provider-driven overprovision, which can also happen with a garage mechanic, but with less serious consequences.

In the markets for tuna fish, for automobiles, for houses, and for airplane trips, consumers can soon learn which products suit them and which do not, and competition among providers will remove those products that are defective or that suit no one. But try to find out who is the best orthopedic surgeon. When looking for a surgeon for the hip replacement mentioned earlier, we talked to everyone we could and read everything we could, but with no convincing answer; our favorite was, “He’s the guy that did the pope, but he’s past it now.” Immediately after the surgery, a night nurse (appropriately called Cassandra, though the memory of the event may have been affected by the morphine pump) gave the rundown on what *she* thought, but the patient’s and the nurse’s assessments may not be the same: Cassandra was clearly impressed by speed. Much later, we discovered from an orthopedist friend’s own failed knee replacement that even a good orthopedic surgeon can choose badly.

Health insurance works poorly or not at all in an unregulated market. The incentives for both providers *and* patients to spend raise the cost of provision beyond what patients are prepared to pay to be insured, especially so for healthier people. As a result, the healthier patients opt out of expensive insurance that they do not need, leaving an ever sicker and ever more expensive group in the scheme, driving it out of existence, the infamous “death spiral.”

Insurance only works when sick and healthy people are pooled together, in America by employment, and in other rich countries by government fiat across the whole population. Without subsidies for those with low incomes, or compulsion to buy it, insurance cannot work, or would be available only to those who are healthy and don’t need it. Leaving healthcare to the market, without social support and control, will leave many people without insurance and without access to healthcare when they are sick. What unregulated markets *do* give us is private

equity firms holding up sick people at their most vulnerable, when they have a health emergency.

Americans are less inclined than Europeans to accept the sometimes-heavy-handed controls that governments place on healthcare. They like to believe that the system is a free-market one, in spite of the fact that the government is paying half of the costs, is paying the prices demanded by pharmaceutical companies without negotiation (often absurdly described as “market-based pricing”), is granting patents for devices and drugs, is permitting professional associations to restrict supply, and is subsidizing employer-provided healthcare through the tax system. Beyond that, there is the key *political* fact that people do not know how much they are paying. If, at tax time, Americans got an annual bill for \$10,739 or if employers showed their contributions to the cost of employees’ health insurance as deductions on workers’ paychecks, the political pressure for reform would surely be much stronger. That costs are hidden encourages overcharging. Because they are hidden, the problems that such costs bring are not given enough weight, compared with, for example, the fact that almost 10 percent of the population is not covered. The latter is indeed a scandal, and one that we see in no other rich country, but it is the cost explosion that is destroying the ability of the economy to serve less skilled workers as it could and should.

A Protection Racket?

The providers have another important line of defense, and it plays offense too: the healthcare lobby in Washington. Lobbying is far from confined to healthcare, and it is important for our story more generally, so we will come back to it in chapter 15; for the moment we look only at health. In healthcare, as more generally, corporate lobbying has grown dramatically in the last forty years. It is one of the forces redistributing power from labor to capital, and from workers and consumers to corporations and wealthy professionals. Lobbying and rent-seeking are not confined to corporations. Trade associations of small businesses—the American Medical Association (a quarter of a million members) and the American Optometric Society (forty thousand members) are two examples—are

geographically widely spread, giving them a voice with each member of Congress and an effective hometown power that backs up their financial clout. The political and financial muscle reinforce each other, acting to increase the profits of the association members at the expense of their patients.⁵¹

In 2018, the healthcare industry employed 2,829 lobbyists, more than 5 for each member of Congress. More than half of the lobbyists were “revolvers,” ex-Congress members or ex-staffers. Some go as far as to describe Congress itself as the “farm league” for lobbying.⁵² The industry spent more than \$567 million on lobbying in 2018, more than half from pharmaceutical companies.⁵³ It is the largest-spending industry, larger even than the financial industry, and spends more than ten times as much as the *total* spent by organized labor. The industry additionally spent \$133 million on supporting actual or potential members of Congress, \$76 million to Democrats and \$57 million to Republicans. Much lobbying goes to preserving the status quo, though lobbyists also seize the opportunity to help write and pass favorable legislation when healthcare issues are on the table. Lobbyists are well placed to be the experts that legislators and their staffers turn to for information and analysis; there once was an independent Office of Technology Assessment, not unlike NICE in Britain, but it was abolished (with Newt Gingrich a prime mover) in the 1990s.

We are certainly not claiming that healthcare gets to write its own rules, and lobbyists do not always prevail. Lobbyists oppose one another, but there are no effective lobbyists, or lobbyists of comparable power and size, who are arguing the case for the people who are paying for the enrichment of the healthcare industry or who can act as a countervailing power against it.

During periods of legislative activity, the healthcare lobbyists have sometimes been singularly effective. Obamacare was passed without consideration of a single-payer system or a public option, and the US has nothing like the British system of evaluation. Hospitals, doctors, and pharma companies were effectively paid off in order to support the passage of the Affordable Care Act.⁵⁴ This was necessary to get more uninsured people into the system, but it prevented any cost saving, a

trade-off that was almost certainly necessary then given the power of the lobbies. Other good examples of legislative protection for the industry are the twin requirements that Medicare pay for any drug that has been approved by the Food and Drug Administration, and that it not negotiate on price. (The industry long opposed a Medicare drug benefit, on the grounds that Medicare would drive down the price of drugs, but as the number and power of its lobbyists increased, they switched sides and secured the favorable [to pharma] arrangements that we have today.)⁵⁵

The historical accident by which most Americans are covered through their employers is a huge source of difficulty and a barrier to reform; that was when the tapeworm was swallowed and the first cell mutated into cancer. But the way the industry is protected in Washington is also key to the enormous incomes and profits that it generates, and its lobbyists are well placed to block any threat. It reminds us of the shopkeeper who, when asked to pay protection, threatened to call the police and was told that the extorter *was* the police. Our government is complicit in extortion by the healthcare industry, an extortion that is an important element of Sheriff of Nottingham-style redistribution in America today. The industry that is supposed to improve our health is undermining it, and Congress, which is supposed to represent our interests, is supporting the shakedown.⁵⁶

14

Capitalism, Immigrants, Robots, and China

AMERICAN CAPITALISM is not working well for less educated Americans. The loss of good jobs and falling real wages over the last half century have made life difficult, not just by lowering living standards but also by undermining the lives of working-class people. For many, the institutions that provided support—marriage, church, and community—no longer do so, identity and status have been challenged, and the meaning of life has been lost. As Emile Durkheim would have predicted, suicides have risen, in this case not only through deliberate self-harm but also by creating an environment in which the diseases of depression and addiction flourish and bring deaths of despair.

What exactly has gone wrong, and how might it be fixed?

We are not against capitalism. We believe in the power of competition and of free markets. Capitalism has brought an end to misery and death for millions in the now rich countries over the past 250 years and, much more rapidly, in countries such as China and India over the last 50 years. Competitive free enterprise has worked to allow people to flourish, historically and around the world today. Trade, innovation, and the movement of people have been key positive elements in this story. But the magic trick is to make sure that markets, trade, innovation, and immigration work for people, not against them, or for some and against many. Working people in America today are too often not benefiting from the market. We have seen the worst face of capitalism—if it can

even be called that—in what happened with opioids and the healthcare industry.

In much of the economy, the remedy is not to replace markets but to make them more like the genuinely free and competitive markets that they are supposed to be but increasingly are not. In other cases, government intervention on behalf of the people is needed. Political power has increasingly moved away from working people. Fixing this will take political as well as economic reform.

Inequality is often seen as the central problem of capitalism in America today. President Barack Obama called it “the defining challenge of our time.” Many on the left argue that we need a program of redistribution that taxes the rich more heavily in order to transfer to the poor and to spend on public goods that benefit us all. Inequality is indeed a problem, but as we see it, it is really a symptom of a deeper problem. We shall argue that we live in a mirror image of a Robin Hood society, one in which resources are indeed being redistributed, not *downward*, from rich to poor, as Robin Hood was reputed to do, but *upward*, from poor to rich. We saw this Sheriff of Nottingham redistribution in the previous chapter, where we argued that healthcare often works this way. One might at first think that plundering the poor is not very profitable, because they have so little. But they make up in numbers what they lack in resources, while the rich are few, so that the Sheriff of Nottingham and his cronies can live well off the poor.

Transfers to the rich help explain why the working class has done so badly. Upward redistribution is not an inherent feature of capitalism—it does not have to work that way, though the risk is always there—but large parts of the American economy have been captured to serve the wealthy with the consent and connivance of government. The problem with inequality is that so much of the wealth and income at the top is ill-gotten. Or put another way, the problem is not that we live in an unequal society but that we live in an *unfair* society. We have no quarrel with those who became rich in a way that benefited everyone.

Three threats to low-wage workers have received much attention. Less skilled workers face competition from immigrants from low-wage countries. They also must compete with lower-wage workers abroad, who

threaten their jobs through the import of goods previously made by American workers. In addition to human competition, workers increasingly must compete with robots, who have quietly taken over many jobs. Robots do not require healthcare or other benefits, or Human Resources representation, or cost-of-living increases; the tax system subsidizes purchases of new machines, but not the cost of labor. We argue that immigration, although it has attracted a great deal of attention, cannot have been the main cause of the long-term stagnation of working-class wages or for the removal of a ladder up to the middle class. Globalization and automation are more important players here; that their effects are worse in the US than elsewhere is because of America's unique history of race, its limited welfare provision, and its absurdly costly healthcare system.

The three threats to less educated workers have come at a time when economic growth has slowed, so people would not be getting ahead as quickly as their parents did, or perhaps as they themselves expected to do, even if growth had been equally shared. From this alone, wages will grow less rapidly than they once did. With unequal sharing, which is what has happened, the less educated have suffered more from the slower growth. Rent-seeking—for example, by the healthcare industry—is perhaps tolerable when everyone is prospering, but it is much less so in an economy that is growing more slowly. Beyond falling growth, the structure of the economy has changed, shifting away from manufacturing and toward services, where jobs are less well paid, even for the same qualifications, and where unions are much less prevalent and workers have less power relative to their employers.

Immigrants and Immigration

Popular accounts of job loss often blame immigrants for stealing jobs. Populist politicians stoke people's fears about immigration, not only in America but also in much of Europe.

We should start with a disclaimer. One of us is a first-generation immigrant. The other was born in America, but her ancestors came from Ireland to northeastern Pennsylvania in the middle of the nineteenth

century, and her family remains influenced by their national and religious heritage. Perhaps more relevant, we both have postgraduate degrees and work in an industry—tertiary education—where immigrants have long been common. More than two-thirds of new doctoral degrees in economics in America are earned by people who were not born here, and this has been true for long enough for the same to be true of the faculty. Two-thirds of the Princeton economics faculty were born abroad. Our profession sees this diversity as a great advantage; the different outlooks, experiences, and values that come from different countries are the basis for creative interaction. That said, many of us worry about living and working in communities that, while geographically situated in America, are more like United Nations outposts than other places in America. We are also very poorly placed to use our personal experiences to imagine what less educated Americans feel about immigration when their labor market is under threat.

Immigrants to America are extremely diverse. They have about the same average education as the native population, but this disguises the fact that many have a lot of education, and many have none.¹ The highly educated immigrants, like our Princeton colleagues, may help their co-workers become more productive and actually increase what they earn. Immigrants have a long history of innovation. Alexander Graham Bell was born and raised in Edinburgh. James L. Kraft, who invented a pasteurization process for cheese, emigrated from Canada. Products that were invented by immigrants include the PET scanner, the paddle-controlled video game, and lithium ion batteries. Elon Musk (PayPal, Tesla, SpaceX) is an immigrant, and so is Sergey Brin (cofounder of Google).² All six of America's 2016 Nobel Prize winners are first-generation immigrants; in 2015, when one of us was fortunate enough to win, three out of four were, and the other was the son of an immigrant. It is hard to believe that it would be a good idea for America to restrict such immigration—though the transmitting countries might feel differently. Most of the concern is about immigrants with little education, who compete with the less educated Americans whose despair is the topic of this book.

At the time of writing (2019), the percentage of the population that is foreign born is around 13 percent, which is close to its all-time high of

a century ago. In the 1980s, around six hundred thousand people legally immigrated each year, rising to eight hundred thousand in the 1990s, and more than a million a year since 2001. Unauthorized inflows were also large, but in recent years, inflows have been similar to outflows, so the total number, estimated to be around eleven million (a quarter of the documented foreign-born), has been constant.³ If the southern border of the United States were open, there would be many migrants who would come and go, as was the case in the 1970s and early 1980s. Barriers impede this toing and froing, trapping some people in the US while keeping others out.⁴ The most rapid increases in foreign-born populations today are not in the traditional receiving states, such as California, New York, Florida, and New Jersey, but in nontraditional states, many of them in the South. It is possible that the reaction to immigrants, even in small numbers, is more negative where people are unfamiliar with the process and do not have friends and neighbors from previous waves of immigration.

Well-off Americans, farmers, and employers like low-skill immigration. They like cheap gardeners, field hands, household servants, and nannies. They may share workers' beliefs that immigrants will reduce wages, but they *like* that outcome because, although workers lose, profits rise. Employers often complain that they are short of labor and, without immigrants, they might have to pay more or increase benefits. Exactly so, say the critics of immigration.⁵ Having more workers to compete with at home, like having more cheap workers abroad, or more robots, can certainly reduce wages, at least in principle. Whether they have done so is the crucial question.

To explain the collapse of the working-class labor market, we are looking for factors that might be responsible for a half-century decline in real wages for less educated Americans. Given this, when we think about immigration and jobs, we need to distinguish immediate and longer-term effects. Suppose that the number of jobs is inflexible over a short time period of months or even years; this is the worst possible case for the wages of those already here. Immigrants displace locals or reduce their wages; they also raise profits and the rate of return to capital. Unemployed workers, lower wages, and higher profits present opportunities for

entrepreneurs or other employers to expand, though it takes time to open new firms or to build plants and equipment for the workers to use. But in time, albeit perhaps a long time, capital will adjust and the economy will grow. After all, history has seen great population growth together with no long-term increase in unemployment and *rising* real wages. Given a long enough time to adjust, it is simply not true that there are a fixed number of jobs carrying a fixed total paycheck so that more workers must mean fewer available jobs and lower pay for all. Such a long period is more than enough time for capital to adjust to the increased supply, so that it is hard to attribute the long-term decline to immigration. Yet if each wave is followed by another wave, the economy may never get the chance to fully adjust, and the wages of the less educated could be permanently lower, at least until the immigration stops.

The National Academies of Sciences, Engineering, and Medicine, in its 2017 report on immigration, concluded its review of the evidence on wages with the words “Particularly when measured over a period of 10 years or more, the impact of immigration on overall native wage may be small or close to zero.”⁶ Over shorter periods, there is a range of findings, and some show negative effects on wages, particularly among the previous wave of immigrants. Recall too that many of the immigrants are not unskilled but rather have college degrees. There were periods, the decades of the 1980s and the 2000s, when the college wage premium increased even when immigrants were adding more to the college-educated population than to the population with high school or less. Whatever the results over shorter periods, and in accord with what is to be expected, we judge that immigration did not play an important role in the long-term decline of the wages of less educated Americans. Yet we also recognize that the issue is far from settled, even among academic economists.

Immigrants are not the only way that the population, or the workforce, increases. Population growth brings more people who need jobs. Women, especially women without a college degree, vastly increased their participation in the labor force before 2000 (see figure 11.2). Like immigrants compared with natives, they typically earn less than men. Although there are studies examining whether the increase in working women had

negative impacts on men's wages (with indecisive results), the topic attracts none of the sound and the fury that is characteristic of the immigration debate. Which makes us think that the debate here is not primarily about numbers, about new workers taking away jobs from existing workers, about more workers driving down wages, or about there being more people than the country can accommodate, though this last is also a serious topic of debate. It must be about something else, that immigrants are somehow different from "us" and are seen as threatening "our culture." Particularly in places not familiar with immigrants but where jobs are vanishing or being downgraded for other reasons, it is understandable that immigrants would take the blame.

One of us remembers traveling on a crowded train in India, from Ahmedabad to Mumbai. A dozen or so of us were established in what were more like stacked pews than a compartment, half on the upper levels, half beneath. We had all been strangers a few hours before but had become good friends, sharing food, water, and tales about other train trips. At every stop, new passengers would join, and some would try to join our club, only to be met by silent hostility. In the end, we had no choice but to shuffle a little tighter and let a stranger in. By the next stop, the stranger was one of us, ready to repel the next round of immigrants. Of course, we all became a little less comfortable at every station.

Globalization, Trade, Innovation, and Robots

To many it seems obvious that trade and automation are the enemies of American workers. The flood of goods from China and other low-wage countries has cost the jobs of many who used to make these goods in the United States. Workers are being replaced, not just by workers in Shenzhen or Tijuana but also by machines and by computer-assisted processes. Workers in China and Mexico cannot help serve hamburgers, check you in at an airport, or check you out at the grocery, but automatic kiosks can do all of these things. Workers who have the skills and education to work with the new technologies get better jobs and higher wages, while the opposite happens for the less skilled or less educated.

This story invites comparison between less educated Americans today and the handloom weavers in Britain two hundred years ago. Wages fell

as the weavers were replaced by machines, and they only stopped falling when handloom weaving was gone. If the parallel holds or is close, wages will fall for all the jobs that can be done by robots, or by less well-paid workers elsewhere, and the decline will stop only when those jobs are gone, or Chinese wages are as high as American wages. And at that point, unless wage policy changes, there will be an even larger fraction of Americans working in service jobs that cannot be outsourced, for wages that barely keep their lives intact. Some service jobs are well compensated; according to *U.S. News and World Report*, the average salary of plumbers in New York State was \$78,000 in 2017.⁷ But a single person working full time at the federal minimum wage in 2018 (\$7.25 an hour) finds him- or herself just \$1,400 above the Census Bureau's poverty threshold (\$14,500 versus \$13,064).⁸ This will be a long, bleak process of economic, social, and community destruction.

The rise of China as a manufacturing power and its effects on American workers and their communities have been documented in a series of papers by the economist David Autor and his coauthors.⁹ While it is difficult to come up with precise—or noncontroversial—numbers, they estimate that between two and three million American jobs have been lost because of China; there were about eighteen million manufacturing workers in America between 1970 and 1990, and there are about twelve million today (2019). The lost jobs are geographically concentrated in places that used to make the goods that are now being imported, and the effects last for a long time, with elevated levels of unemployment lasting a decade or more.

Marriage rates have fallen in the China-shock-affected communities, and mortality has risen, echoing and supporting the findings of this book.¹⁰ We have emphasized the long, slow erosion of jobs and community destruction, while the work of Autor and his coauthors is more focused on the particular places where and the particular time when Chinese imports were rising rapidly.

More than a story of job loss, the story of globalization is one of tremendous upheaval in the American labor market. Work by Nicholas Bloom and his coauthors¹¹ shows that in parts of the country (primarily on the coasts) with higher concentrations of college-educated workers, manufacturing jobs sent abroad were offset by new jobs, in research and

development, marketing, and management—a large share of which are being generated in the same firms that shed manufacturing workers. As world trade has expanded, America, like China, has exported more, creating new jobs—for example, in the manufacture for export of motor vehicles and semiconductors. Studies by the economist Robert Feenstra and his collaborators have estimated that exports brought two to three million new jobs, similar to the number of jobs lost. But in parts of the country with higher concentrations of low-skilled workers, there was no positive offset to the loss of manufacturing jobs.¹²

The traditional escape route for displaced workers has been to move from cities without jobs to cities that have them, but this route has been limited in recent years by the high costs of living in successful cities. These high costs can be inflated by land-use or other policies imposed by those who live there to protect themselves and keep newcomers out. Successful cities are successful in providing jobs and increasing wages for highly educated workers, but not for the less well educated.¹³ Many of the displaced workers have nowhere to go and would likely be even worse off if they moved.

This story of trade and innovation wrecking the economy is compelling but seriously incomplete. It also stands in contrast to the way that economists usually think about trade and technological progress. The conventional account begins with the benefits of cheaper prices; Chinese manufacturers fill the shelves in Target and Walmart at prices that are often a fraction of what they once were. We recently bought a ten-foot stuffed crocodile for our grandson; fifty years ago, such a thing would have attracted crowds, but very few purchasers, in a famous Fifth Avenue toyshop like FAO Schwarz in New York. Indeed, it is precisely lower prices and the benefits that they bring to consumers that are the cause of the difficulty for American manufacturers.

The mistake in the conventional account of gains from trade was to imagine that the transition from the old jobs to the new jobs would be quick and painless, and to suppose, without proposing policies to make it happen, that the gains to consumers would somehow compensate for the losses to (erstwhile) producers.

More broadly, globalization and technological progress are *good*. Both enable us to have collectively higher incomes because they expand the

productive capacity of the economy. Yet even the most Panglossian assessment recognizes that trade and innovation bring losers as well as winners. Once upon a time, when unions were larger and stronger than they are today, they could have pressed employers to share the gains from innovation that today accrue to capital, to those who manage it, or to those who operate the new technologies. The famous Treaty of Detroit was a sharing deal between unions and management in the automobile industry; Walter Reuther of the United Auto Workers agreed to a long-term contract with General Motors in which the UAW received health, pension, and other benefits in exchange for a promise not to strike. Globalization, and the fierce competition from abroad that it brought, has undermined such norms. As locally made cars were challenged by cheaper imports, US car manufacturers, in order to compete, needed to develop new ways to hold down costs—by moving tasks abroad to lower their wage bills, for example, and, as we shall see later, by weakening the privately provided safety net. In this way, globalization has contributed to the decline of unions. Consumers benefit from better and cheaper cars, but workers lose. It is only if we prize efficiency over all else that this is an unalloyed good; most of us would argue that at least some inefficiency is an acceptable price for greater fairness. Not only that, but the loss of wages and good jobs has effects on communities beyond those directly affected. Giant stuffed crocodiles are a poor recompense for the loss of a way of life.

Policy and Globalization

If China decimates local industry, and it is true that there are jobs elsewhere or in the near future, albeit different jobs, the state can provide benefits that tide people over—perhaps for many years—or pay for retraining. The US has such a scheme, the Trade Adjustment Assistance program, but it is disliked by conservative politicians, even those who strongly favor trade, so it has been limited in size. Senator Phil Gramm, discussing in 2002 a measure to help those hurt by a trade bill that he strongly favored, remarked disdainfully, “Socialist governments all over the planet are trying to stop doing this sort of thing, and now we’re doing it.”¹⁴ Helping those who are harmed seems to be unacceptable, even when

you are the one doing the harming. Trade Adjustment Assistance and unemployment insurance—which is temporary—played only a minor role in helping displaced workers, less than disability, medical, and retirement benefits that are designed for other purposes. Even taking all this together, there was little compensation.¹⁵

Yet without the productive expansion that innovation and trade can give, we sacrifice the possibility of becoming collectively richer than we are now. We surely cannot afford to give up growth, and so we must do a better job of making sure that everyone gains from it. The problem is not globalization or innovation; the problem is policies for dealing with them. Economist Dani Rodrik wrote an extraordinarily prescient 1997 book about the effects of globalization in rich countries, *Has Globalization Gone Too Far?*, and answered his own question: “Not if policymakers act wisely and imaginatively.”¹⁶ If technological change and globalization have been responsible for hurting the working class, it is not because that is what technological change and globalization must do; it is because policy was neither wise nor imaginative. It is not just employers and corporations that, in the absence of unions, have had little interest in protecting workers, which perhaps makes sense if, as many argue, their primary function is to make profits for their shareholders; governments have also done less than they might, particularly in terms of social protection—which requires a good deal more explanation in a democracy.

As its name tells us, globalization is *global*, as is automation. Computers are found outside America, and all rich countries have to deal with the rise of low-cost manufacturing. Yet many other rich countries have not seen the same negative effects on wages and jobs, nor have they seen deaths of despair, even as they have seen social division and political upheaval. Median real wages in Britain have fallen since the Great Recession, but they grew steadily in the twenty years before the recession, a period over which American wages continued to stagnate. France and Germany also import from China, but there are few deaths of despair in France or Germany. The American experience needs an American explanation. The difficulties of globalization and automation are real enough, and the decline of the working class in America would not have happened

without them, but it is American institutions—such as healthcare—and the way that they shaped America’s response to the challenges that caused the problems, not the challenges themselves.

American Safety Nets: Globalization and Race

A huge policy difference between the US and other rich countries is the extent to which their governments, much more than the US, provide insurance to their workers through a social safety net. When jobs are lost through recession, through trade, or through technological change, unemployment and other benefits are available to prevent hardship and to aid the change to a new job, often for extended periods. Again, the comparison between Britain and the US is instructive.

From 1994/95 to 2015/16, in both countries, the growth in wages was much slower for those with low wages than for those with high wages; in both countries, the market increasingly favored those with high skills over those with low skills. Family incomes followed a similar trend, with those at the bottom of the distribution doing worse than those at the top. In Britain, family earnings before tax saw no growth over the twenty years for those at the tenth percentile of the distribution, while those at the ninetieth percentile saw 1.4 percent growth a year, or an increase of about a third over the whole period. But there is no such pattern in UK family earnings *after taxes and government benefits*; growth at the bottom and at the top is identical at 1.2 percent a year.¹⁷ In the US, the impact of taxes and benefits is too small to make a difference, and the graph post-tax and benefits looks like that drawn pre-tax and benefits: less at the bottom and more at the top. In both countries, the market has been harder on the less skilled, but in Britain, the tax and benefit system made up the difference.

More generally, countries that are more open to trade have larger governments because they accept, unlike Senator Gramm, that the benefits of trade cannot be fully realized if workers have nothing to break their fall. American workers, in contrast to workers in other rich countries, have to go it alone.

We are not arguing that the British safety net is a panacea; the Brexit catastrophe has exposed stark social divisions that are not so different

from those in the US, and as we have seen, deaths of despair are rising in Britain, especially in Scotland. But the numbers are small compared with those in the US, and the safety net has surely helped. Our results in chapter 10 show that there is no simple link between incomes and deaths over the last twenty years, either in the US or in European countries. Rising despair is a cumulative process that has taken many years to develop, and employment in manufacturing in the US reached its peak in the late 1970s and has been declining since. What the safety net does is provide insurance, by sharing risks across all of society and not leaving them to be borne by the least educated. It is this sharing of risk that is lacking in the US, and it is surely one, if only one, of the factors leading to the deaths of less educated Americans.

Why is it that the American safety net is so weak? Many Americans endorse individualism, the doctrine that people should not depend on others, even when they are in trouble. Important too is the history of race and of immigration in the United States. People are less willing to participate in mutual insurance schemes with people whom they do not recognize as being like themselves; even today, state-level benefits are less prevalent and less generous in states whose populations have larger fractions of African Americans.¹⁸ While Britain was building the first modern welfare state after the Second World War, attempts to introduce national health insurance during the Truman administration in the United States foundered on the opposition of Southern Democratic senators.¹⁹

In a portentous historical accident during the Second World War, American business had taken responsibility for employee healthcare as a way of circumventing wage controls. Business eventually also provided pensions for their workers in the form of postretirement defined benefits that the employer had the responsibility to finance. American business, not the American government, thus provided much of the safety net. This arrangement, like the Treaty of Detroit, worked well enough when healthcare spending was low and business faced little competition from abroad, in the years before 1970. But the import of Japanese and German automobiles in the 1970s, followed by a much more comprehensive globalization, together with rapidly rising healthcare costs, made these arrangements impossible to sustain. Firms could no longer

guarantee pensions, and they shifted the responsibility to their employees through 401(k) self-directed saving plans; additionally, as we have seen, the rising cost of healthcare reduced both the quantity and quality of available insurance plans.²⁰ Yet, even today, the United States' safety net is financed privately to a much greater extent than in any other rich country. According to the Organisation for Economic Co-operation and Development's data for 2013 to 2015, *private* spending on social protection was 9 percent of gross domestic product in the United States, compared with 4.6 percent in Britain and 3.3 percent in France. *Public* spending on social protection, by contrast, was 28 percent of gross domestic product in France, 20.5 percent in Britain, and only 19.8 percent in the United States.²¹

Globalization and competition from abroad made it harder for American firms to provide health insurance, pensions, and other benefits for their workers, and robots need no benefits. These broad global forces underlie our story of stagnant wages, falling benefits, and fewer employment rights. But these forces did not act alone, and their effects would have been different had the American safety net not been so much weaker than that in any other wealthy country. The design of social protection in America, as with much else, owed much to the country's unwillingness to adopt universal protections that included African Americans. Those explanations are long standing. But there is another story that is more recent in origin: the decline in the power of workers relative to corporations, not only in workplaces and markets but also in Congress. It is to this that we now turn.

Firms, Consumers, and Workers

IN A FAMOUS PASSAGE in *The Wealth of Nations*, Adam Smith writes that “people of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices.”¹ The use of market power to raise prices remains a concern today, as we have already seen in health-care. Prices are not the only things at risk from “conspiracy”; so are wages. In one of his last papers, economist Alan Krueger reported his conversation with Jeffrey Suhre, who worked as a nurse in the Critical Care Unit for St. John Providence Hospital in Warren, Michigan. The hospitals in the area wanted to stop nurses from improving their salaries by moving around from one to another, and “the executives would often discuss these issues and exchange pay rates at conferences,” no doubt adding to the merriment and diversion. When Suhre became the lead plaintiff in an ultimately successful class action lawsuit, his employer made his life unpleasant enough for him to resign, and other hospitals were reluctant to hire him. He believes that the collusion continues, though less obviously.²

That Krueger told this story not to an audience of labor economists or union members but rather to the annual conference of the world’s central bankers in Jackson Hole is a testament to the widespread anxiety among policy makers about possible abuse of market power in a world of larger and larger corporations. There are concerns about business in general, about rising concentration in many industries, about business as a creator of inequality, and particularly about its failure to provide good

jobs at good wages for many, particularly less educated workers. Yet these concerns are not universally shared. While we know that healthcare is not delivering, if only by comparison with other wealthy countries, there is no similar straightforward argument for the rest of the economy. Business brings large and widely distributed benefits to consumers and employees, and these benefits need to be weighed against harms created and any abuse that exists. Our own view is that the benefits are real, but that the harm, some from legitimate corporate choices and some from anti-competitive behavior, is also real, particularly for less educated workers.

American Capitalism, Then and Now

At the end of the nineteenth century and the beginning of the twentieth, in the first Gilded Age, inequalities in income and wealth were as high as they are today. The United States had become the world's leading industrial economy and, as now, the economy was changing rapidly. Great innovations brought widespread benefits as well as great wealth to some of the innovating entrepreneurs. This is the way that capitalism brings progress, and there is no reason to complain about wealth that comes from activities that benefit so many, as long as those not reaping benefits are treated fairly. In the language of economics, when private incentives are aligned with social incentives, some people get rich in a way that benefits not only themselves but also many others.

Yet there is a second act to the drama. The winners soon face competition, from imitators and from a new generation of disrupters. Some first-act winners are inspired to create new innovations that the newcomers cannot match, but others try to pull up the ladders behind them, using any means at hand to stifle competition. One way is to get help from politicians; ideas and competition were enough in act 1, but political protection becomes useful and sometimes even necessary in act 2.³ In the first Gilded Age, Standard Oil bought up competitors and set railroad rates that forced others out of business. The meat-packing industry was founded by Gustavus Swift, who figured out how to use refrigerated railroad cars and a system of ice suppliers to bring cheap fresh meat to eastern cities. Later, the industry turned on its competitors using cartels

and price-fixing agreements.⁴ Private and social incentives were no longer aligned, and businesses got rich on the backs of consumers.

Public benefactors turned into “robber barons,” men such as Andrew Carnegie, Andrew Mellon, Henry Clay Frick, John D. Rockefeller, Jay Gould, and John Pierpont Morgan, whom Theodore Roosevelt called “malefactors of great wealth.” State and federal politicians served and protected them. Yet the malefactor-versus-benefactor distinction was not always clear. As the economic historian Naomi Lamoreaux has argued,⁵ it was often difficult then—as it is now—to tell whether some activities were good or bad. Corporations could get large by innovating, which was good, or by price fixing, which was bad. But what about buying up suppliers or distributors, simultaneously reducing costs and limiting competition? And what if the complaints against the trusts are from their former high-price competitors, whose elimination would be good for everyone else? Determining the balance of the public interest is never easy, even analytically, let alone in the heat of politics.

Today, the counterparts of the benefactors-malefactors are the tech innovators who have become immensely wealthy, and who are joined at the very top of the income distribution by CEOs, business owners, or financiers who are paid many millions of dollars a year. They too have an outsize influence over politics; some, like Google, that initially would have nothing to do with lobbying are now among the largest-spending lobbyists in Washington. Google (Alphabet) spent nothing on lobbying until 2006; in 2018 it spent \$21 million, more than any other corporation. There is widespread popular concern not only about inequality but also, as was the case a century ago, about the way that inequality comes about, with business, protected by politicians, making large fortunes for a few at the expense of working people, whose lives are deteriorating. It is not only the radical Left that is concerned about the future of capitalism and democracy as they are practiced in America. There is a recent flood of books not only by long-standing critics but also by erstwhile defenders, successful entrepreneurs, and powerful ex-policy makers.⁶

The first Gilded Age gave way to the Progressive Era, during which laws were passed that limited trusts and monopolies, and most of these laws remain in force today. Yet there is a suspicion, widely debated in the media

and among professional economists, that the enforcement of antitrust law has been neglected, allowing the trusts to regrow in modern incarnations. Antitrust policy and its enforcement can and should provide protection to American workers and consumers against the abuse of market power. But we must not expect too much of it. It is designed to promote a competitive environment, not to reduce inequality caused by competition or by the corrupting power of money in Washington.

Many of today's great fortunes came from new high-tech firms in industries that did not exist half a century ago. Google, Apple, Microsoft, Facebook, and Amazon have replaced railroads and steel; bankers and financiers managed to make fortunes in both ages. The new technologies have made our lives better, sometimes spectacularly so; this was also true in the first Gilded Age. A century ago, the possibility of remaining in constant touch with friends and family did not exist. Communication was slow and expensive. People traveled hundreds of miles to hear a rarely performed symphony or to find an out-of-print book; today, we have access to the world's music, films, and literature in an instant. We have entertainment and information at hand, in a way that our parents or grandparents (or indeed our younger selves) could not have dreamed of. Corporations provide great jobs for many Americans, jobs that not only are well paid but also confer dignity and meaning.

Yet Americans without a college degree are not sharing in this progress. Labor market opportunities, especially for those with fewer skills, have dimmed, as firms respond to global competition as well as to the falling prices and rising capabilities of robots. Globalization and automation are ultimately beneficial, but they create disruption, especially in the short run, and many less skilled workers lose out. But as we saw in chapter 14, it is not only globalization and the technology-infused labor market that are working against less educated workers.

The exorbitant price of health insurance has caused firms to shed workers; this is not a natural disaster but rather one based on rent-seeking, politically protected profiteering, and weak enforcement of antitrust in the healthcare sector. Anticompetitive and rent-seeking behavior is not confined to healthcare. Mergers of firms can give employers power to set wages and working conditions in local markets. Large corporations can

potentially use market power to raise prices. Such anticompetitive behavior hurts consumers, who face higher prices, and workers, who get hurt twice over, through lower wages and higher prices when they spend those wages. Competition, one of the hallmarks of American capitalism, has faded while (arguably) flourishing elsewhere.⁷ Not only in the health-care industry but also in business more generally, anticompetitive behavior, wherever it exists, is an agent of upward redistribution.

Monopoly and Oligopoly: The Power to Overcharge

One way that a firm can enrich itself at the expense of everyone else is by overcharging. In an ideal (and only slightly simplified) world, people would not have to pay more for something than the additional cost for labor, materials, and a normal rate of profit that it takes to produce it. Consumers are not discouraged from buying things that they can afford and whose cost of production is less than it is worth to them. Competition among producers is supposed to make that happen; if someone is charging more than cost, a competitor will be lured by the potential profit to undercut the price. If the incumbent firm has a monopoly, which might be a license from the state to be the sole seller, or has control over some key ingredient or part of the production process, competition is choked off, and the monopolist can charge whatever suits it. The consumer pays more, for less, and the behavior of the monopolist is unconstrained by competition.

Before its breakup in 1984, the Bell Telephone System (AT&T) was a monopoly, though the main charge against it was less profiteering than failing to innovate. Today, many Americans have only a single cable company or broadband provider; these are local monopolies, even when they have national competition. These local monopolies are today being challenged by internet streaming; long-standing monopolies are often challenged by new technology. More common than monopoly is *oligopoly*, where there are only a few sellers, each of which has some control over price. There may be only one Toyota dealer nearby, but dealers of other brands provide imperfect competition. Apple is not the only producer of cell phones, but it has a large number of loyal customers who

are unlikely to switch to Samsung, and this enables Apple to set the price of an iPhone far above what it costs to make. Airlines have frequent-flyer schemes designed to make customers reluctant to switch carriers when prices are raised. Oligopolists sometimes collude to keep prices up, implicitly or explicitly.

Evidence of Pervasive Market Power

There are many indications that something is amiss. Industries are becoming more concentrated, meaning that an increasing fraction of sales is coming from a few large firms, profits rates are rising, the share of labor in gross domestic product is falling, and inequality is growing. Mergers are increasing and the number of startups has fallen. The rate of investment is on a downward trend, especially in the most concentrated industries; investment is a prerequisite for growth, it embodies the latest knowledge and techniques, and it raises productivity, whose rate of growth is low by historical standards. While these broad trends are (mostly) agreed on, there is wide disagreement on how to interpret them, and on how concerned we ought to be.

The share of sales accounted for by the largest firms has increased in most industries. For example, averaged across the retail industry, the largest four firms by sales increased their share of sales from 15 to 30 percent between 1980 and 2015.⁸ Along with transportation, retail has seen the largest increase in dominance of large firms. Amazon is a large part in the latter, and the consolidation of the airlines into four major carriers, American, Delta, United, and Southwest, is a large part of the former. The well-known investor Warren Buffett, whose dislike of competition is well attested, and who likes to quote Peter Lynch's maxim that "competition may prove hazardous to human wealth," long refused to invest in the airline industry ("If a capitalist had been present at Kitty Hawk back in the early 1900's he should have shot Orville Wright") and called investing in airlines a "death trap."⁹ But he has recently found the industry more to his tastes, and Berkshire Hathaway is now the largest shareholder in Delta and the second largest in Southwest, United, and American.¹⁰ This "horizontal shareholding" poses a threat to competition, especially given that

other large shareholders, such as Vanguard, are passive investors.¹¹ Passengers are unlikely to share Buffett's enthusiasm for the decreased competition; a profitable ride for capital is an uncomfortable ride for passengers herded onto (or even dragged off of) planes and held captive in terminals that have been turned into high-price shopping malls with gates on a distant periphery. Prices have fallen on some routes, but risen on others; in the fall of 2019, a business-class round-trip ticket from Newark to Los Angeles (2,800 miles) was \$1,140, to Paris (3,600 miles) was \$10,000, and to Hong Kong (8,045 miles) was \$7,800. Whatever is determining price, it is not the marginal cost of the service, as would be the case in perfect competition.

Firms less than five years old accounted for half of all firms in 1980 but only a third in 2015; they accounted for a fifth of all employment in 1980 but only a tenth in 2015.¹² Markups (the ratio of price to marginal cost of production) have risen since 1970, with precise estimates depending on (not easily resolved) issues of measurement.¹³ The average share of profits in sales, which had been 4 percent in the 1960s, rose from 2 percent in the 1980s to 8 percent in 2015. There is a growing fraction of firms making profits that are more than 15 percent of sales. The share of wages in gross domestic product, long thought to be immutably constant at around two-thirds, has fallen to 60 percent.¹⁴

These data can be interpreted as showing that American industry is increasingly less competitive; in a currently more popular (populist?) term, the system is seen as increasingly rigged in favor of business. The great British economist Sir John Hicks argued that the best of all monopoly profits is a quiet life.¹⁵ Not only are prices too high, but with irritating competition eliminated, there is no need to improve products, to provide better service, or to invest in finding and implementing new ideas. Instead, the highest returns come from investing the profits not in the business itself but in digging a moat to keep competitors at bay. The monopolist can buy up and eliminate potential competitors or pay for socially unproductive but privately productive lobbying to protect market power and to keep taxes low. There is evidence that many mergers, originally sold on the promise of cost saving and lower prices, have actually resulted in higher prices with no gain in productivity, which suggests that

antitrust regulators have been asleep at the switch in the past quarter century.¹⁶

There is much to these arguments, yet they do not tell the whole story.¹⁷ Much of the growth in markups and in profits has come from a few firms in each industry, usually those that invested heavily in information and communications technology.¹⁸ Think of Amazon and the construction of its platform, or the airlines developing websites and algorithms for pricing, or Walmart, which has constructed an innovative system of logistics, supply, and inventory control. Once the system is in place, the cost of production and delivery falls and margins rise, though profits may not increase until the costs of the system are paid. Over time, these firms expand relative to others in the industry and acquire a larger share of sales. Some other firms find that they cannot compete, so the number of firms in the industry falls and concentration rises. The successful innovators may well acquire some market power, especially if there are few competitors left. Ideally, new firms manage to imitate or even improve the leader's system, and prices fall. When this process works, technological change is socially beneficial for consumers through lower prices and more efficient production methods, though it all takes time, and there are likely many casualties along the way.¹⁹

In this version of events, the concentration of an industry comes not from malfeasance by firms with market power but from a shift from less to more efficient firms. And indeed, the data show that the increases in margins are happening not to typical firms in each industry but rather to a fringe of profitable firms, especially those with heavy investments in IT. According to this account, these firms are neither criminals nor even robber barons, but superstars.

Evidence that at least part of the increase in concentration is the result of a fringe of especially innovative firms, and not solely the result of firms throwing up unproductive market barriers, comes from the fact that similar changes are happening in Europe. The shares of labor in gross domestic product are declining, and those of capital rising, in most European countries,²⁰ although Britain is perhaps an exception. Margins are rising and industries are becoming more concentrated in Europe too. All of which tells in favor of the superstar story of rising profits, and against

an account that depends exclusively on American institutions like lobbying, its political system, or a peculiarly American unwillingness to apply antitrust law.²¹ European countries have also seen some recent increases in income inequality, though less than in the United States, which is consistent with trade and IT pushing up inequality, but with additional, specifically American forces ramping it up.

Innovation often happens through a process of creative destruction, or Schumpeterian competition, named after the Austrian economist Joseph Schumpeter. (He is famous for having declared his wish to be the greatest economist in the world, the greatest horseman in Austria, and the best lover in Vienna. He later claimed that only the decline in the cavalry had thwarted his triple ambition, though not all economists would agree. There is no surviving evidence on his third ambition.) According to Schumpeter, technological progress is inherently disruptive. Outsiders with new technologies are a threat to incumbents. Bringing their new ideas to market requires upfront investment and involves great risk of failure, but with the chance of huge monopoly profits if they can replace the incumbent. This can be described as competition *for* the market, not competition *in* the market. Innovation is a series of tournaments, challenges for dominance, with rich prizes for the winners. Justice Antonin Scalia captured this in his judgment that “the mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system. The opportunity to charge monopoly prices—at least for a short period—is what attracts ‘business acumen’ in the first place; it induces risk taking that produces innovation and economic growth.”²²

Is Market Power a Current Problem That Needs to Be Fixed?

In a world of Schumpeterian competition, antitrust regulation needs to prevent the successful challengers from pulling up the ladders behind

them. A temporary competitive advantage is fine; permanent advantage is not. Regulators should police the sort of competition that eliminates potential competitors—for example, Microsoft eliminating Netscape by building its own browser into its operating system, Facebook buying up Instagram and WhatsApp, or pharmaceutical companies buying up potential generics to prevent them from ever coming to market. Industrial concentration cannot be a target on its own, because concentration can be an indicator of efficiency, not the reverse. And industries are often not the same as markets. Consumers often face a single supplier nearby—cable suppliers, or an airport that is dominated by a single carrier—and may thus face a monopoly even if the industry is competitive. Conversely, the growth of Amazon has *increased* competition in many parts of America, particularly rural and lightly populated areas with little choice of local retail stores.²³

The extent of market power is one of the most hotly contested areas in economics today, as is the question of how much we should worry. Yet there are key points to take away for our main concern, which is whether monopolies and other forms of market power cause higher prices and lower real wages, setting the stage for deaths of despair. We think that this is true for healthcare, and that there are other industries that are of real concern—for example, the increasing concentration of airlines and airline ownership, or the frequently exploitative behavior of banks. We also worry about dominant firms choking off potential competitors. But we do not believe that it has yet been established that there is any *general* case that American industry has become less competitive and is raising prices to the detriment of consumer welfare.²⁴ Indeed, the spate of innovation has, for many goods and services, brought ever-lower prices, including much that comes for free. The problem with all the innovation is not that prices are too high; it is that Schumpeterian creative destruction is not only creative but destructive. It eliminates jobs that used to exist, accelerated by the cost of health insurance, throwing workers into an increasingly hostile labor market, and with an inadequate safety net; the lives and communities that were supported by those jobs are put at risk, at the worst leading to despair and death.

Labor Markets and Monopsony: The Power to Underpay

Just as monopoly exists when there is only one seller, *monopsony* exists when there is only one buyer; here we are particularly concerned with only one buyer of labor. The term *monopsony* was coined by one of economics' most eminent women, Joan Robinson,²⁵ a pupil and collaborator of John Maynard Keynes in Cambridge, and a major thinker about how competition works. A company town is an example of pure monopsony. As in the case of sellers, there may be only a few employers, each with some power to lower wages; this is *oligopsony*. Monopsony or oligopsony means that firms have power over wage setting, in contrast to perfect competition, where there is a going wage for workers, and anyone who tries to pay less will be unable to hire any employees. The most obvious place where employers might be able to pay less than market wages is in rural areas where there may be little work of any kind, perhaps only at a fast-food restaurant, a chicken-processing plant, or a state prison. Schoolteachers or nurses in rural areas or small towns may find themselves in a similar position. Workers have the option of moving away, but there are always costs and risks to doing so, finding a new job can be costly, and they may have ties to people or the communities where they live, all of which gives employers some power to lower wages. Mobility has decreased in the US, in part because land in many cities has become very expensive, and in part because the opportunities for advancement in urban areas have fallen for the less educated, so there is a possibility that monopsony has become more severe, lowering wages below the competitive level and raising profits at the expense of wages.²⁶

When labor markets are competitive, a government-imposed minimum wage that is higher than the going wage will cause employers to lay off workers. This is what the economics textbooks commonly say. There have been many studies that have looked for such outcomes. Although the federal minimum wage has not increased since 2009, many states have raised their state minimum wage since then, providing many opportunities for studying the effects. The most comprehensive and persuasive study to date, by the economists Doruk Cengiz, Arindrajit

Dube, and their collaborators, finds no effects on employment; instead of firing workers or restricting new hires, employers simply shift workers from just below the new minimum to just above it.²⁷ There is similar evidence from other countries, especially Britain, which, in 1999, went from no minimum to a relatively high minimum wage; dozens of studies there have failed to find any effect on employment levels.²⁸ None of these outcomes would be possible if employers had no power to set wages. Labor markets are not as competitive as the textbooks would have us believe, and if employers are paying their workers less than they are worth, it is not a surprise that they keep them on when they are forced to pay them more because, at least up to a point, they remain worth more than they cost.

Employees in cities often get paid more than similar employees in rural areas, and places where there are few employers have lower wages than places with many. Yet there are many possible reasons for such differences and, as with the arguments about sellers and market power, it is impossible to know what to make of correlations between employer concentration and wages without understanding *why* there is more or less concentration. Increasing concentration at the national level has come with *decreasing* employer concentration at the local level, which has decreased earnings inequality.²⁹ Even so, there are specific cases of malfeasance. The account of nurses' wages with which we began shows hospitals colluding to hold down wages—collusion is easier when there are only a few players—and hospitals appear to be skilled at squeezing both their patients and their employees.³⁰ Holding down nurses' pay generates shortages, and hospitals make up the difference by hiring nurses from contract agencies that are more expensive than their regular nurses but whose hiring does not involve paying more to the much larger number of permanent nurses. Once again, this is evidence that some firms can affect wages against workers.

More Hostile Workplaces and the Decline of Unions

It is common for employers to have employees sign *noncompete agreements*—even in states such as California, where they are

unenforceable but perhaps effective as threats—and these agreements limit alternative employment opportunities and make it easier for the employer to hold down wages; a quarter of American workers are covered by some kind of noncompete clause.³¹ Noncompetes are understandable when workers acquire trade secrets or other knowledge that is useful to competitors—designing blueprints or writing code—but have no such justification in low-wage jobs, yet one in five below-median-wage workers works under a noncompete. A (very) Panglossian interpretation might be that workers are aware of these clauses when they sign up and are compensated for doing so. More likely, they are not so aware and are unwittingly giving their employers power to hold down their wages.

As we saw in chapter 11, it has become common for firms to contract out a wide range of support services, such as cleaning, security, food provision, and transportation. This allows the firms to specialize in their core business, which is arguably what they are good at, but the outsourcing firms are often less attractive places to work, with poorer benefits, lower wages, fewer employment rights, and little or no chance of promotion.³² The economists David Dorn, Johannes Schmieder, and James Spletzer write that “domestic outsourcing has thoroughly transformed the nature of the employment relationship for a vast number of jobs, ranging from relatively low skilled tasks like cleaning and security to high skilled tasks like human resources and accounting.”³³ They estimate that about a quarter of workers in cleaning occupations and in security worked for business service firms in 2015; more than four times as many workers are employed by business service firms than was the case in 1950. As of March 2019, Google had more temps and contractors than it did employees, even though the former work alongside the latter and sometimes do similar work.³⁴ The growth of outsourcing and its downgrading of work help undermine working-class lives.

The spread of these practices would surely have been contested by more powerful unions collectively bargaining on behalf of their members. Unions, where they exist, are, or once were, a countervailing power to management in the allocation of the firm’s value added between wages and profits, pushing for higher wages, better working conditions, and

more benefits and restraining the power of management. In early 2019, 10.5 percent of workers were unionized, compared with 20.1 percent in 1983, when the modern data begin. In the private sector, only 6.4 percent of workers belong to unions. At the peak, in the 1940s and early 1950s, a third of all households had at least one union member.³⁵

Weaker unions, whose lobby in Washington has been overwhelmed by business lobbies, are also one reason why the federal minimum wage has remained at \$7.25 an hour since July 2009, in spite of the fact that seven out of ten Americans think it ought to be raised. (That said, and as we have noted, many states have raised their minimum wage rates, and twenty-nine states have higher rates, ranging from \$8.25 in Illinois to \$12.00 in Washington State, so that, weighted by the number of workers, effective minimum wages have actually risen by 10.8 percent from 2007 to 2016.)³⁶

Corporate Behavior

As unions faded in importance, firms were run differently. Management moved away from a model in which the firm was seen as serving not only its shareholders but also its employees, its customers, and the community, toward an exclusive attention to the interests of the shareholders, the owners of capital. Perhaps surprisingly, there is controversy over the purpose of the corporation:³⁷ Who exactly is the board responsible to? The majority view today is that the board's sole obligation is to the shareholders, but there are other interpretations, including that the board is responsible to the corporation itself, or to a wider range of stakeholders, including consumers and employees. States also have jurisdiction, and what they do varies from state to state—for example, California requires that boards have at least one female member. In spite of increased recent questioning, maximization of shareholder value has become the norm in recent years. Of course, shareholders do not directly manage firms, but managers have been increasingly incentivized to act in the shareholders' interest by being paid in stock and stock options, so that their own fortunes become more aligned with the market valuation of the firm. This market value is the value that shareholders assign to the profits that they expect the firm to make in the future, so managers lose out personally

if they act so as to benefit other stakeholders, whether employees, customers, or the community, except insofar as treating them well results in higher profits.

The threat that a raider might take over the firm serves to further enforce the exclusive attention to profits. If a well-funded outsider believes that the firm is underperforming in profits, the raider can buy up enough shares to force a change in policy, or to dismiss the management, or even to dismember the firm for the value of its assets. Such attacks have become easier and cheaper in today's world, where a large fraction of shares is held by passive investors (who do not try to influence the board), such as Vanguard or BlackRock, so the raider can gain control with a small fraction of shares.

Many people think that the value of the stock market is a positive indicator of the state of the American economy, and they follow the Dow Jones Index or the S&P 500 in the same way they follow baseball scores, rejoicing in ups and bemoaning downs. While it is true that better future growth prospects will generally lift the market, which everyone agrees is good, it is also true that the market will rise if wages fall or managers replace workers with cheaper robots. The stock market rewards redistribution away from labor and toward capital. As we have seen, managers are increasingly incentivized to make this sort of redistribution happen. But there is another group that is less often discussed in this context: shareholders who hold 401(k) retirement plans, or indeed anyone who has a defined-contribution pension plan. Once upon a time, employees were much more likely to have a defined-*benefit* scheme, which someone else was responsible for funding; the value of the stock market might be relevant to the funder, but not directly to the employee. But employees who have defined-contribution plans, invested in the market, have a direct interest in the market doing well, and thus are rewarded when wages fall or workers are replaced by automation. Yet those holding such assets are predominantly the people with college degrees, whose wages have been doing well. The replacement of defined-benefit by defined-contribution pension schemes has therefore given more-educated and successful Americans an interest in less educated Americans doing badly. We do not suggest that the educated elite agitates

against working-class Americans. But they have certainly been well paid for their acquiescence; since 1990, the S&P 500 has risen at more than 7 percent a year.

Corporations and Labor in Washington

A by-product of having very large, profitable firms, and a large number of very wealthy individuals, is the influence that they bring to bear on politics. In particular, we run the risk that those with deep pockets participate more effectively in American politics, and that ordinary people, those with less education whose deaths are the topic of this book, are left as nonparticipants; their interests silenced, they become casualties in the interests of the rich. Democracy in America today is not working well, and its malfunctions have much to do with the way that money works in Washington.³⁸

There were 11,654 registered lobbyists in Washington in 2018, who spent \$3.46 *billion* on their activities.³⁹ That is 22 lobbyists for each of the 535 senators and representatives, or \$6.5 million available to lobby each one of them. This is in addition to outside money spent on campaign finance; in 2018 this was \$1.3 billion. These numbers are large, and have a large effect on politics in Washington, but are small relative to the scale of corporate budgets—for example, relative to the \$47 billion that auto manufacturers spent on advertising in 2015.⁴⁰

There have always been lobbyists who tried to persuade government to act in their interests, yet it was not until the regulatory changes of the 1970s that corporations responded by ramping up their lobbying. In 1971, future Supreme Court justice Lewis Powell Jr. wrote in a now famous memo that “the American economic system is under broad attack,” and that business must cultivate political power and use it “aggressively and with determination,”⁴¹ a recommendation that was abundantly followed in the subsequent years. Before the 1970s, business was represented in Washington not through lobbying on behalf of individual corporations but by their collective trade associations, which often were (and remain) effective in seeking special favors for their members, such as doctors or realtors.

Most companies do not have lobbyists in Washington, but those that do tend to be large. Ordered by amount spent in 2018, the biggest individual company was Alphabet (Google), followed by AT&T, Boeing, Comcast, Amazon, Northrop Grumman, Lockheed Martin, and Facebook (\$12.6 million). Bigger still, ranked by spending, are business associations, the Chamber of Commerce (\$94.8 million), the National Association of Realtors, and the associations of pharmaceutical manufacturers, hospitals, insurers, and doctors, whose American Medical Association spent about the same in 2018 as Alphabet. The only non-business group in the top twenty spenders is the Open Society Policy Center, backed by George Soros, which lobbies on national security, civil rights, and immigration, among other issues. The healthcare industry as a whole (including pharma, hospitals, insurers, and doctors) spent more than half a billion dollars in 2018, as did the finance industry; labor groups collectively spent less than one-tenth as much as either, \$47 million.⁴²

Just as is true within firms, the power of labor in Washington has declined relative to that of corporations, especially large corporations.

The lobbying system, contrary to what is often thought, is not a machine whereby firms and individuals with deep pockets can write their own legislation and have it passed by bought-and-paid-for senators and representatives. There is too much competition and too many lobbyists on all sides of the big issues. Lobbying is important, but it has not rigged the system so that it only works for the paymasters. What it does do is suck up the energy in Washington, so those who cannot or do not lobby have less and less influence. Once-powerful groups, such as unions, have been swamped. If you cannot afford to lobby, you are not represented, and worse, in the oft-used but accurate Washington phrase, if you do not have a seat at the table, you are probably on the menu.

It is around these Washington tables, where working people are rarely represented, that upward redistribution is designed and implemented. The interests of ordinary people are pushed off the table in favor of the matters that corporations care about. Congresspeople and senators, who should be representing the interests of all of their constituents, consistently vote the interests of the wealthier people they represent, ignoring the interests of others.⁴³ Just as, or more, important is that much

of what concerns working people—minimum wages being only one example—is never put to the vote. Democracy plus lobbying is a selective democracy.

Corporations and Workers, in Summary

In chapter 13, we argued that the high and rising cost of healthcare bears much responsibility for the decline in wages and working conditions among less educated workers. Other mandatory benefits to which employers have to contribute, such as Social Security and Medicare payments, unemployment insurance, and compensation insurance for workplace injury, have the same effects, albeit on a smaller scale. Ironically, these benefits were long fought for by unions, but once legislated, they made belonging to a union less attractive. These labor costs also make it more profitable for employers to outsource some of the work, and to reduce the number of direct employees.

Workers are losing out in other ways. While they have shared in the benefits of new technologies, and the goods and services that these have provided, the markets in which they sell their labor have become increasingly hostile. The decline of manufacturing, the threat of being effectively replaced by foreign workers through trade, and the decline of unions in the private sector have all reduced the bargaining power of less educated workers at work,⁴⁴ just as the rise of corporate lobbying has deprived them of bargaining power in Washington. Many employers have at least some market power over the wages of their less skilled employees, and they often use it to hold wages below the competitive level. Outsourcing has taken good jobs with good benefits and turned them into precarious jobs with few benefits.⁴⁵ The meaning that came from being part of an admirable enterprise, serving the public as well as its shareholders, has been lost for many less educated Americans.

Less educated workers live in a much more hostile world than did less educated workers of half a century ago. Much of this hostility can be seen not only in the United States but also in other rich countries. Wages and working conditions have deteriorated in several of them; they too have experienced a decline in manufacturing in favor of services, slowing rates

of economic growth, and a decline in unionization. But these other countries do not face the costs of the American healthcare system, and they have much more comprehensive systems of social protection. None has seen wage stagnation for as long as has the United States. All of which could explain why we do not see epidemics of deaths of despair across the rich world. Yet it remains a real concern that, for all less skilled workers, Western capitalism has a clouded future.

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What to Do?

WE WOULD LIKE TO see an America that is more just. The problem is that different people have very different and mutually incompatible ideas of justice. But we can go a long way focusing instead on obvious *injustices*, features of society on whose wrongness many people can agree. We do not have to complete the whole jigsaw puzzle of justice to make arguments for reform. This is what the economist and philosopher Amartya Sen calls the comparative approach, which he contrasts with the transcendental approach that begins by describing an ideal society.¹ If we can agree on the identification of a list of injustices, each one removed takes us toward a better world.

To take some concrete examples, there is wide agreement that making money out of human suffering is wrong, and that wealth inequality based on that suffering is unjust. There is also broad agreement, on both right and left, among people with very different political views, that rent-seeking and crony capitalism are unjust. Whatever we think about wealth seeking, we can agree that it is unjust to get rich through special favors, such as those excoriated by Adam Smith as supporting “absurd and oppressive monopolies.” By contrast, there is no such agreement that any action that reduces income inequality is thereby automatically desirable.

Many economists who think about income distribution endorse the view, first extensively used in economics,² and which philosophers now call “prioritarianism,”³ that the more people have, the less weight (priority) their wellbeing should be given in policy making. Prioritarians endorse equality, and economic prioritarians design tax systems that aim

for income equality while recognizing the limitations that come from the fact that the more heavily people are taxed, the less they will contribute to the economy. The resulting tax system depends on factual issues, particularly on how people respond to taxes, and on how much the rich contribute to the wellbeing of others. It also rests on values, and particularly on prioritarianism, which not everyone endorses; indeed, we suspect that the majority of Americans do not. In particular, it is a controversial ethical position to argue, as economic prioritarians do, that the value to society of giving additional income to those in the top 1 percent of the income distribution is so small that it can be ignored.⁴

We should declare our own values on these matters. We believe that those in distress deserve priority, but not that there should be any decline in priority with income or wealth among those who are not in distress. The anguish associated with deaths of despair is a matter of the greatest importance; reducing inequality by redistributing from the seriously rich to the merely rich, or even to the educated middle classes, does not seem important to us unless it brings other benefits. That is why we are not disturbed by inequality in and of itself, but very concerned with the inequality that comes about through theft and rent-seeking, or through the involuntary upward redistribution that we have described throughout this book. To be clear, we are not denying that inequality can sometimes have consequences that undermine other important social goals—for example, if the rich use their wealth to corrupt democracy, or to agitate against public goods on which most people depend. But we are against the high marginal rates on top incomes that result from prioritarian calculations. Instead, we prefer to fight rent-seeking directly, which, if successful, will do much to reduce inequality.

Opioids

Drug overdoses are the single largest category of deaths of despair. They are part of a broader epidemic that includes death from alcoholism and suicide, a reflection of the social failures that we have described in this book. Yet the behavior of the pharmaceutical companies caused more deaths than would otherwise have happened, showering gasoline on

smoldering despair. Stopping the drug epidemic will not eliminate the root causes of deaths of despair, but it will save many lives and should be an immediate priority.

Addiction is extremely hard to treat, even with the cooperation of the addict. There appears to be wide agreement that medication-assisted treatment can be effective, but it is not available to everyone, often because of cost. There are accounts of substantial reductions in drug deaths in some places—for example, in Dayton, Ohio, where there was a statewide Medicaid expansion under Governor John Kasich, and where the police and public health officials worked together to focus on treatment over policing.⁵ Further expansion of Medicaid would be helpful, for drug problems as well as other medical care.

The dangers of opioid prescriptions are much better understood by physicians than was true early in the epidemic, and the prescribing rate peaked in 2012. But as late as 2017 there were still fifty-eight opioid prescriptions for every hundred Americans, three times the rate in 1999, with the average prescription for an eighteen-day supply.⁶ As we have seen, this two-decade expansion in prescriptions of opioids has done nothing to decrease reports of pain, and while we are sympathetic to those who are suffering, we believe that opioids are still being wildly overprescribed for chronic pain. The healthcare system needs to explore better options, including the wide range of alternative treatments that were used before 1999. Insurers should pay for such treatments, even if they are more expensive than prescribing a pill.

The American pharmaceutical industry is currently dysfunctional, as is healthcare more generally. OxyContin should not have been approved without consideration of the likely consequences of a large-scale release of an addictive drug into the population. As part of healthcare reform more generally, America needs an agency such as Britain's National Institute for Health and Care Excellence (NICE) that assesses the benefits and costs of treatments and has the power to prevent the adoption of treatments whose benefits fail to exceed their costs. This is, of course, an example of government interference in the market. Yet, as we have already argued, the market for pharmaceuticals is nothing like a free market, nor could it ever be.

Healthcare

The generally powerful arguments for the social benefits of free markets do not apply to healthcare.⁷ Unregulated markets for health are not socially beneficial, and regulated markets can work well; in Britain, NICE appears to have resisted the political pressures that could have either closed it or turned it into a magnet for rent seekers.⁸ America should follow other rich countries in providing universal insurance and in controlling healthcare costs; the former is important, and the latter even more so. America currently has the worst of both worlds, where government interference, instead of controlling costs, creates opportunities for rent-seeking that inflate costs. It is not possible for an unregulated market to provide a socially acceptable degree of coverage; as Kenneth Arrow noted long ago, “The *laissez-faire* solution for medicine is intolerable.”⁹ Some amount of compulsion is required, as are subsidies for those who cannot pay. Reforms that deny those facts are doomed.

While there are many difficulties, there is a hugely positive aspect to a better healthcare system, at least in principle. Because the current American system is so wasteful, it is possible to have a better, more efficient system that will improve health while saving immense sums of money and improving fairness of access. Such a system not only could cover the 28.5 million Americans (as of 2017) without insurance¹⁰ but also could increase the take-home pay of typical employees. Many unionists and politicians fear the removal of the present system on the grounds that less educated workers have had no or less than no increase in earnings for many years, and that removing their employer-provided healthcare would be a further insult. It needs to be more widely understood that the employer-provided healthcare is one of the main reasons why wages have not done better.

It need not be true, as is often stated by the alarmists, that universal healthcare is unaffordable and, if provided by the government, would require enormous additional taxes for the indefinite future. We know that what may sound like a utopian dream is far from utopian, because other countries do it. Yet it is true that getting there will be far from easy. What we would do if we were designing a system from the ground up is very

different from what we will have to do today to improve today's mess. Even so, the huge benefits that are possible need to be constantly kept in mind and should set both a goal and an inspiration.

No viable scheme can work without compulsion to prevent those who do not need insurance from refusing to pay, nor without cost control, which will cut the incomes of providers, not all of whom are extremely rich. It would also deny some people some of the insurance products or treatments that they currently have and like. No one likes compulsion, perhaps especially Americans, who hate the idea that healthcare should be rationed, although apparently not when the rationing is done by money, excluding those who cannot pay. They also want mutually contradictory outcomes, such as having coverage for pre-existing conditions without having to buy insurance before those conditions exist. Every cent we spend on healthcare shows up as someone's income, and those someones will fight to preserve the status quo. But it needs to be understood that they are fighting to preserve their incomes, not fighting for health, or to preserve the mythical free market for health that pharmaceutical firms like to talk about when threatened with price controls.

We are not endorsing any of the several plans that are currently being discussed; there are many options in play, including variants of what other countries do, which themselves differ from one country to another. It is not true, for example, that the only alternative to what currently exists is the British system, where the government actually delivers care, paying doctors and hospitals. There are also many alternatives to the extremely expensive idea that the federal government should provide Medicare for all, opening the scheme to those under age sixty-five and bearing the total cost out of taxes. Other countries work with a smaller and tightly regulated insurance sector and with private providers, but all have some way of ensuring that everyone is in the system, that there are subsidies for some, and that costs are controlled.¹¹ What works for other countries may not work in the United States, where people have different incomes, different traditions, and different expectations. The economist Victor Fuchs, who has devoted much of his life to thinking about healthcare, writes, "The United States can learn from the experience of

others, but must fashion a system consistent with US history, circumstances, and its values.”¹² He has developed a detailed plan using vouchers that is not a single-payer system.¹³ It does have a cost-control board like Britain’s NICE, and it is financed through a dedicated value-added tax. Other plans work to extend Medicare in a way that does not immediately switch the total cost to the government,¹⁴ requiring employers to continue to provide insurance or, if they do not, pay toward a federal scheme.

It will almost certainly be necessary to increase government expenditure at the rollout, while controlling the escalation of costs over time so that providers, instead of facing reductions of income at once, would slowly gain less than they would otherwise have done. The healthcare lobby is the most powerful in Washington, and it is almost certainly impossible to have reform without paying them off at the time of the reform. The alternative is to keep paying them off forever, and a well-designed reform, with cost control, will slowly reduce the tribute we have to pay them by controlling the diffusion of ever more expensive treatments that do little. Again, we emphasize that while the questions involved in designing and financing an alternative scheme are challenging, the problem is not one of finding a large amount of new money to fund a new entitlement program. The money that is already being spent is more than enough. The problem is in part one of technical and financial engineering, of finding ways to reallocate money, and in part a political one, of doing the engineering in a way that buys off the opposition of those who are currently benefiting, while recouping this buy-off over time. The Labour Party minister of health, Nye Bevan, when he opened the British National Health Service in 1946, was asked how he dealt with the doctors’ lobby, which had compared him to a Nazi medical *führer*. His response was that he succeeded “by stuffing their mouths with gold.”¹⁵

Corporate Governance

The decline of unions has tipped power away from employees and toward managers and the owners of capital. Although we would like to see a

reversal of the decline in unions, or at least a restoration of the services that unions used to provide, we think a rebirth of unions is unlikely or, if it does happen, is likely to be slow.

A comprehensive reform of US corporations, in which employees are represented on corporate boards, as occurs in many parts of Europe, is also unlikely. A less attractive but still useful reform would be to regulate some of the harmful practices in which firms now engage. For example, it should be possible to ensure that outsourcing firms do not exist simply to cut benefits or to undercut wages using undocumented immigrants. Noncompete clauses could be outlawed everywhere, as is the case today in California.

Tax and Benefit Policies

European safety nets were, for many years, strong enough to prevent any increase in inequality in take-home incomes, in spite of increases in inequality in incomes before tax.¹⁶ We have already seen a recent example in Britain where the safety net effectively offset the more rapid growth of incomes at higher percentiles of the income distribution. Even so, there is currently no smoking gun that links deaths of despair to a lack of safety nets, either within countries or between them. In particular, the white less educated men and women in America who are at the epicenter of the epidemic are far from the poorest people in America, and we have documented that neither their poverty status nor fluctuations in their incomes through the 1990s, the 2000s, and the Great Recession have any obvious link to the mortality rates.

Rewinding the clock forty years, a more generous safety net would have made the transitions wrought by globalization and automation less painful for those who lost their jobs and their incomes. So would have universal healthcare. Unconditional benefits would also have eased the downward pressure on wages, because people would have found it less urgent to find work in the short term, and universal healthcare would have reduced the incentives for firms to shed workers. Some benefits that do exist, such as the Earned Income Tax Credit, can only be obtained conditional on work. The active labor-market policies that are favored by

Scandinavian countries would have helped by stemming the outflow of workers from the labor market.

Yet it would be wise not to rely too heavily on a stronger safety net. If Michael Young's division into the "populists" and the "hypocrisy" is ongoing, with educational success dividing the US population, as well as populations in Europe, the safety net is something of a Band-Aid, useful but incapable of addressing the fundamental problem. That said, we have no recipe for policies that *would* address that issue. The philosopher Kwame Anthony Appiah has argued that we need to valorize a wider range of talents beyond the passing of meritocratic exams, but it is unclear, at least to us, how that might be implemented.¹⁷

The idea of a universal basic income (UBI) has many adherents, and it would make sense that, in a world in which robots have replaced many or even most workers, something of the kind would be required to ensure that all of the national income did not go to the owners of and inventors of the robots. But we are still a long way from such a dystopia. Yet even today, there are powerful and persuasive arguments for a UBI, just as there are arguments for universal healthcare and universal education; people in a free society should have a free basic allocation of time to use as they choose. We particularly recommend the eloquent and persuasive argument by Philippe van Parijs and Yannick Vanderborght,¹⁸ that a UBI would enhance freedom for everyone. Many believe that politics and democracy would work much better with a UBI, and may not work at all without it, especially in places where subsistence is not guaranteed.¹⁹ There is also a powerful ethical argument about the source of earnings in rich countries, which, although they are certainly dependent on current efforts, are to a much larger extent supported by our national patrimony—the infrastructure of education and jobs, as well as the physical and social capital that we owe to earlier generations.²⁰ We are all entitled to a share of our patrimony.

Yet we are not in favor of a UBI under current circumstances. The oft-cited support on both right and left dissolves in the face of arithmetic. On the right, the benefit replaces all other government transfers, including pensions and disability payments, so that many elderly and disabled people would be worse off than now. On the left, the UBI is seen as an addition to the current system, which makes it extraordinarily expensive;

a universal benefit of \$10,000 per person a year would approximately double the amount of taxes that are currently collected. More realistic possibilities lie between those two extremes, and they could be implemented by tinkering with current benefits and taxes to make the system more like a UBI—for example, by designing benefits so that poor people do not face high taxes on anything extra that they earn. Even this, it turns out, is extraordinarily hard to do at a feasible cost.²¹

A deeper issue with UBI is what to think about work. Defenders of the UBI are split between, on the one hand, those who want to demonstrate that a UBI would not make people less likely to work and, on the other hand, those who see the freedom not to work as a feature, not a bug. There is little doubt that for many taxpayers, some of whom are unhappy about paying for others' healthcare, or the education of other people's children, paying for their leisure is a step too far. The economist Robert Frank has conjured up an image of a hardworking dentist in Indianapolis who drives through the snow to spend his day treating bad-tempered patients who begrudge his fees and care not at all about his varicose veins, and who sees on television a commune of adults, reading poetry and cultivating the arts, all bankrolled from their pooled UBIs.²² Many Americans believe that work is essential if one is to fully participate in life, and that if a UBI reduces people's willingness to work and takes pressure off them to find gainful employment, it will diminish their life chances. Which makes the political feasibility of the UBI depend on its effects on labor supply. It is possible that a UBI would give people whose jobs have been lost the freedom to train for new jobs, undertake new activities, and contribute to their communities, as well as to participate more fully in democratic political activity and, in the long run, rebuild their own lives. For us, who are concerned about deaths of despair and the loss of meaning and status that has come with job destruction, we find it hard to see a UBI as the best way forward.

Antitrust

Antitrust enforcement is a hugely controversial topic in economics and law today. One side sees increasing concentration, market power, and exploitation while the enforcers sleep, or have been put to sleep. Others

see no evidence of harm and see much benefit, especially to consumers. We reviewed these debates in chapter 15. We agree that there are real problems in some industries, such as healthcare and finance, but we are not persuaded that there is a general issue of monopoly. Market power in labor markets—monopsony—is another matter, and there is good evidence of employers finding ways of paying their workers less than the competitive wage.

Even so, it is important that the debate take place. Industry is changing rapidly with technological change and with trade, and even if current policies work today, that may not continue to be the case. It is also good that European regulators and politicians think differently, so we get practical experience of alternatives, even if they are sometimes inspired by protectionism against American companies. Monopsony is illegal but is difficult to prosecute and to police; work needs to be done to figure out ways of doing this better. We also think it would be a good idea if anti-trust policy were more active in scrutinizing mergers and, in particular, in preventing already large firms from acquiring potential competitors. Perhaps the burden of proof should be moved more firmly from the regulatory agency to the firms proposing the merger. We also endorse the idea of making Amazon, Facebook, and Google pay every time they use the information that they acquire from their users.²³ This is a good example of making capitalism stronger by extending markets, rather than by undermining them.

Wage Policies

A main argument of this book is that the loss of good jobs for less educated Americans not only is hurting those who are directly affected but is also hurting others, through the devastation of many communities and the destruction of a way of life. There is then a strong case for public policy that props up wages because, left to themselves, labor markets do not take account of the external effects. This could be done through a system of wage subsidies, or by raising the minimum wage. Wage subsidies create jobs and raise both wages and profits; among others, they have long been advocated by the Nobel Prize-winning economist

Edmund Phelps, and more recently by the conservative commentator Oren Cass.²⁴ Raising the minimum wage also increases wages. Whether it costs jobs will depend both on the size of the increase and on whether labor markets are competitive; either way, firm profits will likely fall. Those on the right tend to favor subsidies and oppose increases in the minimum wage; those on the left take the opposite view.

We are not opposed to wage subsidies; for us the key is to restore jobs. But we think the recent work on the minimum wage in the United States provides compelling evidence that small increases do not cost jobs but simply shift people from below the minimum to above it, with knock-on effects for workers originally above the minimum, presumably to restore pay differentials in occupations where they are important. We are also impressed by what happened to low pay in Britain after the introduction of a minimum wage in 1999. Both sets of evidence are discussed in chapter 15. It is also relevant that so many Americans are in favor of an increase in the minimum wage, as this means that implementing it is likely to be politically easier than implementing a wage subsidy.

We are therefore in favor of a modest increase in the minimum wage and support the campaign to gradually raise the federal minimum to \$15.00 from \$7.25 an hour today. We see an increase in the minimum wage as part of our more general aim to redistribute power and money from corporations to labor. In 2017, according to the Bureau of Labor Statistics, about two-thirds of the 1.8 million Americans who earned at or below the minimum wage worked in service occupations, mostly preparing and serving food.²⁵ These are not the good jobs that less educated Americans have been losing but rather the jobs that they risk having to turn to after losing their job. Raising the minimum wage, similar to extending the safety net, would help cushion that transition.

Rent-Seeking

Joan Robinson described what she called the *paradox of patents*, that they obstruct diffusion so as to make more of it.²⁶ Patents are publicly granted licenses to acquire rents, but their terms are not set in stone, and they are the subject of intense lobbying. Brink Lindsey and Steven Teles²⁷ argue

that copyright laws and patents, as well as licensing requirements and local land-use rules, have grown rapidly in favor of rent-seekers, for incumbents and against challengers, and are slowing down innovation and economic growth. As software has replaced physical capital in much of industry, copyright has become much more aggressively applied; buildings can be protected with fences and guards, but code is easily duplicated. There are sound arguments for the existence of copyrights, patents, land-use regulations, and licensing but, when abused to redistribute upward, from those who are competing and innovating to those who are already established and are trying to protect their lucrative positions, they need to be reined in. There are good arguments that much of patent protection is unnecessary and against the public interest,²⁸ that in current practice the costs far outweigh the benefits.

In chapter 15, our discussion of lobbying focused mostly on corporate lobbying by large businesses like Google, AT&T, or Boeing. But small businesses often spend even more, not directly but through their associations, such as the US Chamber of Commerce, the National Association of Realtors, and the American Medical Association. These organizations are powerful not just because of the money they spend but also because their members are scattered around the country, represented in every community, or more relevantly, in every state and every congressional district. They lobby for special treatment for small businesses, such as exemptions from regulations that bigger businesses face, or for special tax breaks—for example, for realtors.²⁹ Car dealers are protected by state laws that prevent manufacturers from selling directly to consumers. Physicians and their associations control access to medical schools, keeping the number of doctors down and keeping their salaries high. They enforce residency requirements that effectively exclude foreign doctors; professionals in the elite are much better than less educated workers at preventing challenges from foreign workers.

Rent-seeking and protection for small businesses are two keys to understanding inequality in America. The economists Matthew Smith, Danny Yagan, Owen Zidar, and Eric Zwick have examined tax data on firms and their owners, and find that entrepreneurs who actively manage their firms are key contributors to top income inequality. For top

inequality, these rich owners are much more important than corporate CEOs, both in amounts of income and in numbers of people; they are “in professional services (e.g., consultants, lawyers, specialty tradespeople) or health services (e.g., physicians, dentists). A typical example owned by the top 0.1% is a regional business with \$20M in sales and 100 employees, such as an auto dealer, beverage distributor, or a large law firm.”³⁰ Nearly all of these businesses are protected by lobbying in Washington or in state houses through licensing requirements, the “laws that may be said to be written in blood,” according to Adam Smith.³¹ The lawyers advise the rent seekers on what laws to target for writing or amendment, and help keep them out of jail.

There is nothing to stop trade associations or corporations from lobbying elected officials for protection. The weight that federal and state lawmakers give to these solicitations may depend on what voters know about the protections being granted, and how much they would care if they did know. We suspect that voters are generally unaware that they are being nickel-and-dimed (or worse). Increasing the flow of information on who is lobbying, for what, and the consequences might provide a brake on the effectiveness of this activity.

Education

Over and again in this book, we have seen the divide between those with and without a four-year college degree, with a whole range of bad outcomes, up to and including death, being visited on those with less education. Would the world be a better place if everyone had a bachelor's degree?

Perhaps so. The United States led the world in universal primary schooling and, when technology changed to require it, provided universal high school education to everyone. With the current revolution in information and communication, perhaps it is time to up our game to make college the norm?

We think that many of those who do not have a bachelor's degree today could have obtained one, or could obtain one now, and that they, and the rest of us to a lesser extent, would be better off as a result. That is

especially true of those who have talent and who cannot go to college, either for financial reasons or, even worse, because they do not realize that people like them can go on to tertiary education. Many people argue that educational access for such people is tougher today than it once was, with fewer low-cost opportunities for high school graduates to get back into school and go to college. The financial returns on a bachelor's degree are high enough to support the investment in college, even today, but there are real risks, and about half of those entering college today do not graduate, and so can be left with debt and no qualifications. The fraction of young people entering college has continued to rise, but the fraction graduating with a bachelor's degree has nearly stalled, which is unfortunate in many ways. Having had some college but not graduating appears to provide relatively few benefits, so the current situation is extremely wasteful. Any policy that addresses these issues would help, although free college for everyone would be extremely expensive and would distribute most of the benefits to those who need them least.

More broadly, there is obviously nothing in a bachelor's degree that insulates the holder against being replaced by a machine or outcompeted by cheaper labor in the rest of the world. A bachelor's degree is not a suit of armor that protects you against change. It is entirely possible that, just as African Americans were the first to suffer from job loss and community destruction fifty years ago and whites without a college degree are suffering today, many of those with a college degree will be next in line. Educating everyone will not prevent such an outcome.

The sharp division between those with and without a college degree does not characterize other rich countries. In Britain, fewer people go to college, although the numbers are rising rapidly, in spite of rising costs. Germany has its famous apprenticeship system, which many people choose over going to college, and which fosters great pride of work and craftsmanship among people without college degrees. One argument against apprenticeships is that they tie people into specific skills, as opposed to providing them with the flexibility and adaptability that is supposed to come with a liberal arts education. Yet German workers do not seem to suffer from this, and retraining in the face of change is routine.

We think that the US must consider alternatives. The sharp bachelor's degree cutoff in America is divisive and unproductive. The K–12 educational system is largely designed to prepare people to go to college, although only a third succeed in doing so, something that is both wasteful and unjust.³² Those who do not make it risk being branded as failures and left feeling either that they themselves are at fault or that the system is rigged, or both.³³

Lessons for Other Rich Countries

We have spent a good deal of space on what the US can learn from other countries so that we might undo the epidemic of deaths of despair. But what about the threat to other countries? While we do not believe that the American experience must, in time, spread elsewhere, there is much for other countries to learn from what has happened in the US, much of it negative—what *not* to do.

The most obvious and immediate lesson is to maintain the controls on opioids that are currently in place. European (including British) doctors are much more conservative about prescribing for pain in the first place, and the evidence suggests that their patients do not suffer as a result. There is certainly no sign of the midlife pain epidemic in European countries. Opioids, such as OxyContin, are used in hospitals immediately after surgery but are rarely prescribed in the community. Yet the opioid manufacturers have taken a page out of the book of the tobacco companies and are pushing their drugs as remedies for pain relief around the world. Purdue Pharmaceutical has a set of international subsidiaries called Mundipharma that pay doctors and other advocates to tout opioids and encourage doctors to overcome their “opioidphobia.”³⁴ Pieces by doctors arguing for the relaxation of prescription regulations pop up regularly in European medical journals. The American example should not be followed; rather, it should act as a terrible warning to other countries of what happens when people's lives are sacrificed to corporate profits.

Politics in Europe today are almost as fraught as politics in America. Many of the people who voted for Brexit, or for right-wing or populist

parties in Europe, feel as disenfranchised from the political process as do many less educated Americans. As in the United States, the traditional social democratic parties that represented labor are no longer seen as very different from the parties representing capital. At the same time, and perhaps as a consequence, ordinary people in some (but not all) European countries, including Britain, have suffered a decade of stagnant wages and austerity, which brought a decline in public services, including health-care.³⁵ Our story of American distress is that, at a time when working people were increasingly vulnerable to automation and trade, politicians and corporations, instead of working to cushion the harm, seized the chance to benefit themselves, redistributing upward from labor to managers and shareholders. In Britain, austerity is playing a similar role, weakening the safety net at a time when it is most needed.

There has been no sustained decrease in life expectancy in Britain, but the previously long-established and sustained increase has slowed or ceased. A decade of lost wage growth in Britain is very different from half a century of wage decline in America, but there are surely enough warning signs to undermine complacency. It would be ironic if Britain, whose Labour government built the first modern welfare state after 1945, was one of the first to destroy it, causing young people in Britain, like many young people in America, to see capitalism as their enemy.

Future, Not Failure

If we are to stop deaths of despair, we must somehow stop or reverse the decline of wages for less educated Americans. Pessimists might argue that we are looking at the inevitable consequences of disruptions in trade and technology about which nothing can be done. If so, we will just have to wait until the tide turns, and accept that many will be lost in the meantime.

Perhaps the troubles of the working class have nothing to do with wages and jobs, or any other external circumstance, but rather, as argued by the political scientist Charles Murray, come from a loss of industriousness and other American virtues among less educated white Americans.³⁶ If so, it is not clear that policies can help; a moral or religious

revival is needed. We do not share this view. In chapter 11 on the labor market, we saw that both labor force participation and wage rates were declining for less educated whites, for men for many years, and more recently for women. That participation and wages should decline together is a clear indication that employers want fewer less skilled workers; there are fewer jobs, and workers are reacting either by withdrawing from the market (lower participation) or by taking worse jobs (lower wages). If lower participation is to be explained by falling industriousness—a lower willingness to work—wages should *rise* as employers compete for the smaller number of available workers. That is not what happened.

The deaths neither were nor are inevitable. They are not happening at anywhere near this scale in any other wealthy country. We believe that the extent of despair and of deaths in America reflects specific American policies and circumstances. The organization of the American healthcare system is a disaster for the harm it does to health, but even more because it is draining the livelihoods of Americans in order to make a rich minority richer. Pharmaceutical companies are reaping enormous profits from their patients' addictions, and from pricing strategies that deny ordinary people access to decades-old medical advances. Elsewhere in the economy, as trade and automation have made working-class people more vulnerable, corporations and legislators have not taken the opportunity to strengthen the safety net to minimize the harm. If anything, they have taken the opportunity to exploit labor's weaknesses, reducing wages and distributing income upward, away from labor and toward capital, and away from ordinary people and toward the elite. The political system, strangled by lobbying and by legislators' need for deep-pocketed backers, has increasingly become a battleground for competing commercial and professional interests. Congress, which in a better-functioning democracy would have protected the interests of the majority, has mostly ignored them. The law, which ought to have protected the weak against rent-seeking by the strong, has increasingly moved to support the shake-down. The Sheriff of Nottingham has taken up residence in Washington, DC, and the good cops have left town. Robin Hood is nowhere to be seen.

Yet we are optimistic. We considered using the phrase "the *failure* of capitalism" in our title but opted instead for "the *future* of capitalism," a

future that we hope will be better. We believe that capitalism is an immensely powerful force for progress and for good, but it needs to serve people and not have people serve it. Capitalism needs to be better monitored and regulated, not to be replaced by some fantastical socialist utopia in which the state takes over industry. Democracy can rise to the challenge. The state can do more than it does, and do it well, but we are acutely aware of the risks of government and the danger that larger government means more rent-seeking and yet more inequality.³⁷ Many of the reforms above are pro-market, not anti-market, and should command support from both Right and Left, from market fundamentalists on the right, and from the critics of excessive inequality on the left. We favor a fairer tax system than the present one, but we do not prioritize higher taxes on the rich, because we do not see inequality as the fundamental problem. The fundamental problem is *unfairness*, that the great wealth at the top is seen as ill-gotten in a system that gives no chance to many. We argue that limiting rent-seeking and reducing plunder will rein in the rich and reduce unfair top incomes without high taxes on income or wealth that is widely seen as fairly earned.

Democracy is fully capable of serving people better than it now does. Democracy in America is not working well, but it is far from dead, and it can work again if people push hard enough, just as it was made to work better in the Progressive Era a century ago and in the New Deal of the 1930s.

For readers who have persisted with us this far, our recommendations will have come as no surprise. They mostly follow from our account of what has gone wrong. Even so, it is useful to put them in one place. We cannot describe policies in detail, and it is neither our purpose nor within our competence to choose among the many varieties of healthcare reform and safety net design that have already been comprehensively described by others. Yet we hope that the sheer awfulness of the epidemic of deaths, as well as the extremes of inequality that have been generated by rent-seeking and upward redistribution, will generate an opportunity where schemes that have been long thought about might be put into place. It is past time.

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20. From the late 1990s to 2017, the fraction of forty-five-to-fifty-four-year-olds with a bachelor's degree remained nearly constant at around one-third. If the fraction with and without a bachelor's degree had changed dramatically since the late 1990s, there would be a worry that what we are seeing in the figure are not changes in death rates but rather changes in the kind of people who do and do not have a bachelor's degree. The stability of the shares of the population makes such an account unlikely.

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