BIRTH RATE CRISIS

RECLAIMING FAMILY AND PURPOSE IN A DOPAMINE-DRIVEN WORLD

JIM PENMAN

ANDREA PEARSON

Introduction

Jim's Story

I'm the second of four children, and we're very much alike. We're forceful and argumentative, bookish, and interested in ideas. But in one way, we are quite different. My older sister had two children, my younger sister one, and my brother none. All by choice. I have ten, and I would dearly have liked more.

I enjoyed children from a very early age, and I began babysitting from the age of 15. When families visited our home, I took the kids down to play monsters in the park. The parents thought I was being thoughtful, but that wasn't the case—I simply enjoyed spending time with them.

Later, living on my own as a university student, something fully set in—I didn't just enjoy spending time with kids. I wanted my own, and a lot of them.

Children from a family across the road spent much of their time at my house. We had BBQs, played games, and passed hours having fun together. After becoming a Christian at 28, I taught youth Sunday School at every opportunity. I also spent some of my happiest days doing improv theater at an evangelical conference. This was an on-stage performance, helping to entertain and teach kids while their parents attended sessions.

My desire to have a large family fully cemented during my twenties, but none of the time I spent with others' children prepared me for the amazing privilege of having my own.

I started my family while working as a lawn-mowing contractor. Money was tight—we were in debt and living in a small apartment. Eating out was a rare luxury, and we vacationed in a tent. My wife was a full-time student and then a full-time mother, so working outside the home wasn't an option for her. But we never considered waiting to have kids until we were better off. I worked the hours needed, and over time, the business grew alongside our family.

I've made it a key principle never to let the search for wealth crowd out the time I spend with my children. Even today, I drive my youngest son to school each morning. I was heavily involved in raising all ten of my children, and I spend as much time with all of them as possible.

One of my favorite sayings is, "No other success can compensate for failure in the home." Financial success matters, but so does success at rearing children to be decent, productive human beings. My children, and a growing tribe of grandkids, have brought joy, meaning, and purpose to my life.

Why am I so different from my siblings, though? We were raised by the same parents, after all, and yet our attitudes toward children couldn't be more different. I believe this stems from early life experiences that changed me on a biological level. In short, I was living the principles we lay out in this book from an early age, even though I didn't understand the reasons. Living this lifestyle changed me in a fundamental way.

But my interest in birth rates and demography had nothing to do with my desire for a family. It stemmed from reading about the ancient world as a teenager. I asked myself the same question so many have asked: Why did the Roman Empire collapse? This mattered to me because I could see parallels to our time.

Rome went through several changes, starting in the second century BCE. People focused more and more on wealth, leading to a growing gap between rich and poor. At the end of the first century BCE, the republic gave way to rule by emperors. After this, trade and industry boomed for a century or so before gradually declining. Throughout all of it, leaders, philosophers, and satirists sounded alarms about declining birth rates. Finally, after four centuries, the empire collapsed.

These concerns about fertility in particular fascinated me. Rome was affluent, with little hunger and no famine. It didn't make biological sense. People and animals respond to hunger in much the same way—we don't like being hungry, and so we search avidly for food. But our *social* response, in this case, seems to have been entirely different. When animals have plentiful food and few predators, their populations tend to expand. Yet the native Roman seemed to pursue wealth and comfort over posterity.

I found similar cases in ancient Greece, which also experienced concerns about birth rates during prosperous times. Why are humans so different from animals?

This research of mine occurred in the late 1960s, when our fertility rate was still above replacement level. But it had already fallen sharply since the baby boom of the 1950s. There were other parallels with Rome such as relaxed standards of sexual behavior and a greater focus on novelty and wealth. If we were going through the same process, then the birth rate was about to decline still further. And there were other implications, such as political changes. The Romans had lost their republic. Could we lose ours?

I wanted to find out if we really were on the same track.

With this in mind, I entered college in 1971, eventually gaining a PhD in history. My thesis focused on demographic changes, both short and long term, and the shifts in society that accompanied them. I concluded that all these demographic, political, economic, and cultural changes stemmed from *biology*. I'll explain my reasoning behind this in future chapters.

To continue my research, at some point I'd need to move into fields such as neuroscience and genetics, in which I had no training. And to take the investigation further, I needed a great deal of money. At this time, I was some $30,000 in debt, and my part-time lawn-mowing business was barely enough to live on. So, I set about turning this business into what has become the largest franchise network in the Southern Hemisphere, currently with just under 6,000 franchisees.

Even as the business grew, the underlying question never left me. The social trends I'd been keeping my eye on were becoming more obvious, and I could not imagine any goal more important than trying to avert what I saw as an oncoming disaster. Eventually, I had enough income to begin funding a research program at La Trobe University in Melbourne, Australia. We've focused most of our efforts on finding ways to reverse the change.

The results of this research, and further reading, helped me to develop the theory outlined in this book. This only covers an aspect of the theory, though it is the one most relevant to the collapsing birth rate. A fuller account, under the title *Biohistory 2026*, can be downloaded free from my website.

While growing the business and setting up my research lab, I noticed some concerning changes in society, much as I'd predicted. There was a decline in work ethic and productivity, a rise in one-parent families, and a continued fall in birth rates. The only change I did not anticipate was that the fall in birth rates would be as extreme as it has been. I thought it would take decades for fertility rates to fall *to* replacement levels. But today, no high-income country apart from Israel is having nearly enough babies to sustain its population.

Some, especially in East Asia, are having only half the number of children they need to maintain their populations. South Koreans are giving birth to only a third of that number.

People across the world are starting to express concern about the declining birth rate, especially governments. As Chapter Two will show, lawmakers spend hundreds of billions each year to encourage their citizens to have more children.

In this book, I propose that the birth-rate crisis stems less from a lack of money and more from a deep change in character—in people's values, priorities, and motivations. I argue that many today are having fewer children because they enjoy kids less and other activities more. This same shift may also be reflected in a declining interest in marriage, weaker community ties, shorter-term priorities, lower religiosity, and declining happiness.

The numbers we'll discuss in this book don't apply to everyone, of course, and many people still want children and value family. Many also work hard and engage with their

communities. But I believe there has been a shift in priorities that's making a profound difference in society.

The encouraging part about this understanding is that it points toward a solution. Not a government program, but a treatment, potentially medical, that will help people live better and happier lives, to have better marriages and closer friendships, to achieve more, and to resist the temptations of drugs, pornography, gambling, and alcohol. To stop the rising tide of anxiety and depression, and to prevent more schools from shutting down because there aren't enough kids to fill them.

My research team is looking into solutions, and we'll discuss those later in the book. But developing a treatment, based on what we've been studying, would cost only a fraction of what's now spent on government incentives. The birth-rate crisis can be solved, but only if we're willing to consider new ideas and a different approach. My goal is to help facilitate this approach.

This book brings together two perspectives—mine, as someone who has spent decades in research, and my co-author's, who is experienced as a writer, an editor, a wife, and a mother.

Andrea's Story

I came to this project from a very different background than Jim. I'm the third of seven at the tail end of Generation X, and every child in my family cares deeply about kids and large families. All of my siblings who have completed their families have had four or more. My brother Mike has always paid close attention to global trends. He read Jim's first book *Biohistory* (2015), absolutely loved Jim's opinion, and connected with him via email.

In 2023, Jim mentioned to Mike that he was looking for someone to help him publish his latest research into what would become *Birth-Rate Crisis*. Mike immediately thought of me and made the introduction, and Jim brought me on as a publishing consultant.

During our back-and-forth on *Birth-Rate Crisis*, Jim asked me to give him feedback on his business autobiography, *No Other Success: How a Lawn-mowing Business Transformed Thousands of Lives*. I offered suggestions on how to improve it, and he hired me as an editor, something I rarely do for clients.

Jim liked my work and asked me to edit *Birth-Rate Crisis* as well. As a *USA Today* bestselling author of over 85 fiction titles, I've interacted with a wide variety of readers and have learned how people interpret writing—something Jim felt he was missing.

Although my background is primarily in fiction, I was passionate about the topic and eager to help shape the material for a general audience. As we continued working together, I gradually took on more of a writing role, and in time, Jim invited me to co-author.

Jim and I share the same concern about the trend toward small (or no) families. The only thing I wanted growing up was to have my own kids—and lots of them. My plan was to get married young and have anywhere from eight to twelve children. Unfortunately, that didn't turn out how I hoped it would. My husband and I didn't find each other until later in life, something we both deeply wish had been different.

All through my college years and beyond, I prioritized my plans for marriage and family. I viewed my writing career as something I'd pursue only until I got married and could start a family, and then continue on the side while focusing on raising my kids full-time. But a failed engagement, followed by my next fiancé passing away suddenly from a heart attack, and then a series of boyfriends who weren't interested in marriage all postponed my biggest goal until I was nearly 29.

Even after marriage, things didn't go as we hoped. Multiple joint surgeries on my part spaced our children out, and my biological clock already wasn't on my side. Years of struggling with infertility recently led us to make the difficult decision to be done after only three kids. Given how things have gone for some of my friends, we feel incredibly blessed to have that many.

Editing and co-authoring this book so soon after my husband and I lost twins (our third and fourth miscarriages) was both heartbreaking and cathartic—heartbreaking because so much of the infertility discussed in the book applies to me, and cathartic because I'm able to tell my story and hopefully help prevent others from experiencing the same heartbreak.

As someone who pursued fertility treatments—and for whom those treatments failed—I'm surrounded by women in the same situation, spending thousands and thousands of dollars trying to achieve something I believe many women deeply want: a family. But in most of these cases, they're seeking their first child, not their fourth. Many have said they feel lied to by society about how easy technology makes it to have a family later in life.

My biggest goal is to help adults, especially women, recognize what they may be giving up when they choose to put careers over family—when they choose to wait until their thirties to settle down, or feel they have all the time in the world, only to later regret that choice. I hope to help them recognize that delaying the start of a family increases the chance that they may have fewer children than they hoped for—or, in some cases, none at all.

Above all, I hope to help readers recognize the consequences of the change in character that Jim has researched for decades. Many of the problems modern society faces relate to this change, and I pray you'll read this book with an open heart and mind.

I've sprinkled a lot of my own experiences and opinions throughout and written significant portions of the book, but because the research and theories are Jim's, *Birth-Rate Crisis* is told in his voice.

What This Book Will Cover

This book unfolds in six stages. The first looks at the global drop in fertility rates (hereafter referred to as just "fertility") and the danger it represents. We'll consider the reasons people give for not having more children, including a lack of money.

Second, we'll see that a key reason for falling fertility is a change in priorities. Most people today still value children and family, but less than they did in the past. Many are more likely to focus on other goals, such as careers, wealth, and status. This represents a significant shift in character.

Third, we'll examine dopamine—the system of the brain that drives motivation, reward, and habit—and how the modern environment is reshaping it. We'll explore how this shift may be influencing behavior at scale, helping explain changing priorities and the patterns we now see in declining birth rates and broader social trends.

Fourth, we'll look back to ancient Rome, Greece, and Egypt to see what it looked like when these wealthy civilizations experienced fertility concerns. We'll also examine trends around economic depressions and growth, and how each affected fertility.

Fifth, we'll examine communities that go against this trend, including Orthodox Jews and the Amish. We'll also look at Israel, the only wealthy country with fertility rates well above replacement level. What makes these groups so different?

Finally, we'll consider solutions, exploring how a better understanding of human nature can help us live happier lives, and how science may offer an effective answer to the birth-rate crisis.

Publication is not the end of this project. Andrea, my research team, and I will continue investigating the questions raised in this book, evaluating new research, and refining our understanding as we learn more. We invite you to visit the following website, where we'll share updates and new findings: https://biohistory.org/updates.

Chapter One: The Threat Nobody Feared

In 1968, a group of prominent individuals began meeting to discuss global issues. Members included current and former heads of state, business leaders, diplomats, scientists, and economists from around the world. Because this gathering was held in Rome, they called it the Club of Rome.[1]

In 1972, the Club of Rome released a study called *The Limits to Growth*.[2] This study warned that the world was on a path to disaster. At that time, population was growing at more than two percent per year, at which rate it would double every 30 years. That would mean 20 billion people in a hundred years, and 100 billion in the century thereafter.

The study made clear that continued growth at that level would lead to the world running out of resources. Mass starvation would result, since there would be too little farmland to feed so many people.

Zero Population Growth

This report suggested a demand for zero population growth, something many at the time wanted. Achieving this would require people to have only enough children to replace those who died.

Countries across the world took notice of the report, and some began to act. In 1975, India's government declared a state of emergency and suspended all civil rights. It jailed opposition and trade union leaders, gagged the press, and cowed the courts into submission.[3]

This enabled drastic policies to limit population growth, including sterilization. As part of this campaign, the regime sterilized more than eight million men within a few months, many by force. Hundreds, possibly thousands, died from botched operations,[4] and the indirect effects of increased mistrust in healthcare systems likely cost many more lives.[5]

The Chinese also saw their fast-growing population as a danger and an obstacle to economic growth. In 1979, the government introduced the one-child policy, supported by widespread propaganda campaigns. The regime enforced it through measures such as forced sterilizations and abortions. Because many parents preferred sons, most victims were girls. The policy may have prevented as many as 400 million births.[6]

In country after country, governments enacted policies to stabilize population growth. What they didn't seem to notice was that birth rates in each nation were already falling. In effect, many of these policies became obsolete almost as soon as they were launched. The irony

is striking: governments had treated overpopulation as the threat only to discover that the real danger was the opposite—population decline.

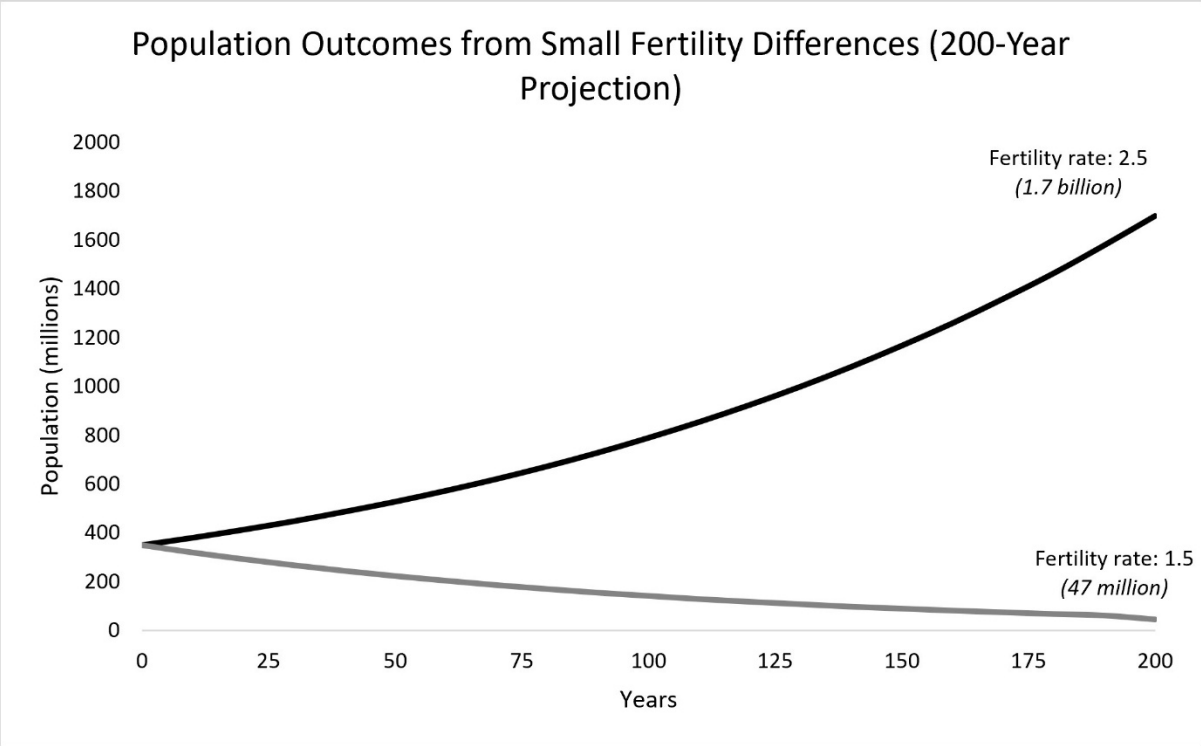
What Is the Birth-Rate Crisis?

As concerns about overpopulation faded, a new demographic challenge came into focus.

Across a large portion of the world, birth rates have been falling below what's known as replacement level. This is the point at which a population can sustain itself from one generation to the next. When the numbers fall below this point, populations begin to shrink.

To understand this, we need two key terms. The fertility rate refers to the average number of children born per woman. The replacement rate, which is widely accepted as 2.1, represents the level needed to maintain a stable population over time.

A small change in fertility rate makes a big difference. The current American population is around 350 million. Below is a simple graph that shows what could happen if the fertility rate were to increase to 2.5 or decrease to 1.5.



Graph created by the authors.
Illustrative purposes only. This graph assumes constant fertility and mortality rates and no migration. Actual demographic projections are more complex.

To give a better idea of the lower number of 47 million, this is roughly the same as the population of Colombia. In two centuries, a difference of just one fertility point produces a

population gap of more than 1.6 billion people. All of this assumes that immigration and emigration numbers are equal to each other. For example, a decline in birth rate can be offset, for a time, by large-scale population inflows.

Therefore, many who live in countries with high immigration rates, but low fertility, may not even notice the decline yet. But incorporating foreigners isn't a long-term solution. The fertility rate of immigrants tends to fall quickly, as newcomers adopt the behavior and culture of the locals.

Also, the vast majority of source countries are also experiencing declines in birth rate. Those with higher fertility usually have cultural differences that often cause concern among the native-born.

This global decline isn't a temporary dip likely to reverse on its own. Historically, once countries fall below replacement level, they don't recover, and birth rates continue to trend downward worldwide. While the decline is most visible in wealthy nations, it's also spreading to middle- and lower-income countries such as Mexico and India.

This trend isn't confined to any particular religion or ideology. Countries affected have belief systems that include Christianity, Buddhism, Hinduism, Confucianism, Communism, and even (though to a lesser extent) Islam.

If trends continue, populations won't just age—they'll shrink significantly and even permanently. Long-term results include not just economic strain, but loss of populations, traditions, and cultures.

This ongoing global shift is what defines the birth-rate crisis.

Why This Matters

At first glance, lower birth rates may seem beneficial. Some commentators welcome the prospect of falling populations, often for environmental reasons. They argue that fewer people could reduce pressure on natural resources, requiring fewer mines and quarries and leaving more land available for wildlife. Lower population levels might also reduce demand for energy and irrigation water, allowing rivers to run more freely.

Advocates of this view also suggest that smaller populations could reduce carbon dioxide emissions and other forms of pollution, including plastic waste and chemicals that damage the ozone. From this perspective, cleaner air and water could follow, potentially improving human health.[7]

This perspective, however, depends on a critical assumption—that modern societies can continue to function even though they fail to replace themselves. That assumption conflicts with how these systems actually operate. Modern economies, public programs, and infrastructure all depend on a stable base of working-age individuals. When replacement slows or stops, the effects begin to appear gradually across multiple areas of society.

One of the most immediate concerns is economic. As populations age, the cost of retirement benefits and healthcare rises, placing increasing pressure on a smaller working population. At the same time, a shrinking workforce can limit economic growth and reduce the pace of innovation.[8] But the effects aren't limited to economic output.

Modern infrastructure depends on a steady workforce to function day-to-day. Core utilities such as power generation and distribution, along with water and sewage systems, require ongoing oversight. Public infrastructure—roads, bridges, traffic systems, and public transit—relies on coordination and operation.

Transportation and logistics networks move goods through trucking, shipping, ports, and warehousing, while the food system depends on farming, processing, distribution, and retail. Construction and skilled laborers build the spaces where people live and work, and when something fails or someone is hurt, responders such as firefighters and EMTs are needed to step in.

These systems tend to operate reliably, which can make them easy to take for granted. In practice, that reliability depends on a consistent supply of workers across many roles, numbering in the tens of millions within the United States alone.

This dependence extends beyond physically intensive work. White-collar roles are just as essential to keeping these systems functioning. Finance and administration keep money moving and organizations operating. Education trains the next generation of workers. Business operations, healthcare support, and engineering provide structure and oversight. The technology that communication depends on requires innovation and coordination.

All of this ultimately depends on people—not only to build each and every system, but to keep them operating now and over time. As populations shrink and age, the workforce available to sustain them declines.

In a lot of countries, this shift is already visible. With fewer people overall, many move to bigger cities where infrastructure and economic opportunities are strongest. As a result, the smaller towns throughout these countries slowly empty, leaving those who stay behind with fewer resources and reduced services. [9]

These trends aren't abstract. They're already shaping the lives of individuals and families. Many people expect to have two or three children and find, for a range of reasons, that they have fewer, or none at all. Others delay starting a family, assuming there will be time later, only to discover that biology places limits on that plan. What appears as a gradual demographic shift at the national level is, in reality, a series of personal outcomes repeated across millions of households.

As mentioned earlier, in countries that experience high levels of immigration, these effects may not be as noticeable. However, birth-rate decline has been underway for decades, and several countries are already experiencing its long-term consequences. This includes a loss of culture.

Culture Disappearance

In this section, we'll explore what countries stand to lose as their cultures begin to fade, moving from the personal level, to the community, and ultimately to society as a whole.

On a personal level, the changes are often small at first. Family reunions—a long-standing tradition for many cultures—and shared holidays will necessarily grow smaller as fewer children are born. In some cases, these gatherings may disappear altogether because there might not be enough people to attend. When a family line ends, there isn't anyone left to carry on the recipes, stories, heirlooms, and traditions.

The effects extend to daily life as well. Some elderly individuals have no children or grandchildren to visit them. Others must rely on relatives who may be already stretched thin, caring not only for their own parents and grandparents, but also for aunts and uncles who don't have children of their own. Even family businesses that would have passed down through generations must close permanently when there's no one to take over.

At the community level, these patterns become more visible. Neighborhoods that were once filled with children become quiet as populations transition to older residents. Schools close due to low enrollment—a trend already visible in the United States and long underway in other parts of the world.[10]

Local institutions begin to follow. Churches, community centers, and clubs would need to shut their doors as participation declines. In many places, main streets are already lined with shuttered businesses, and rural towns are considerably shrinking.[11]

At the same time, aging populations place a growing strain on care systems. Waitlists for nursing homes lengthen and costs increase even as staffing shortages make it difficult to keep hospitals and care facilities open. [12]

At the societal level, the losses become harder to ignore. Festivals that once defined entire regions would cease to exist when attendance can no longer sustain them. Languages and dialects disappear, and unfortunately, some are already gone. Others are close.[13]

The physical landscape shifts as well. In many parts of the world, housing is increasingly designed for elderly and single individuals rather than families, reflecting the same demographic trends.[14] In some countries, particularly in parts of East Asia, dating markets have already become imbalanced, with significantly more men than women, creating long-term social challenges.[15]

Many countries are already experiencing everything outlined in this section. The loss isn't only economic or structural, but it affects family dynamics, relationships, and even cultures. And once these patterns begin, they're difficult to reverse. As stated already, we have no example of a society that reversed its decline once they dropped below replacement level.

In the following chapter, we'll examine several countries experiencing declining birth rates. These include locations where citizens already see the impact, as well as countries—such as the U.S.—where it's not yet as obvious.

Chapter Two: An Unexplained Global Trend

For each country in this chapter, we'll focus on several key elements: current fertility rates, whether citizens notice the decline, levels of immigration and emigration, the reasons people give for not wanting children, and how governments are responding.

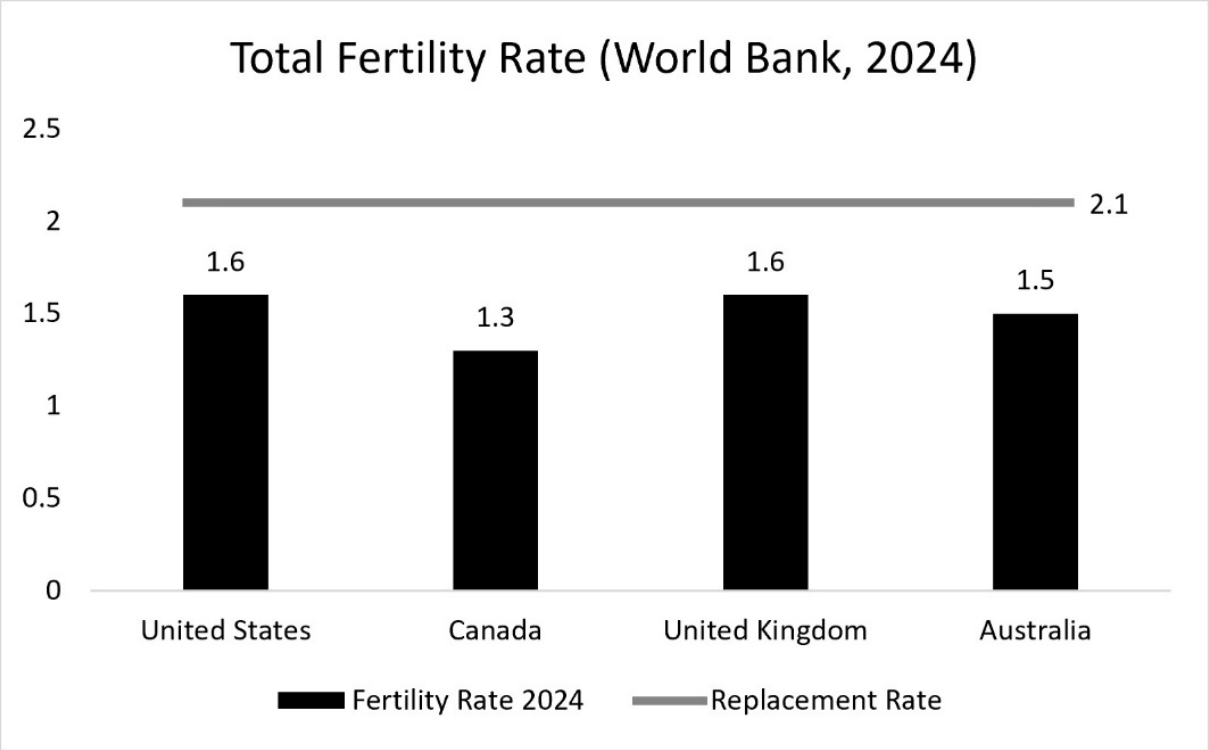
As we move from country to country, several patterns begin to emerge. First, the decline is widespread and isn't limited to a handful of East Asian nations. It also doesn't appear to be purely cultural. Instead, similar trends are appearing across very different societies, economies, and policy environments. And, as many have begun to figure out, it's not a temporary decline.

Another pattern is just as evident. Despite differences in culture, the reasons people give for delaying or avoiding parenthood are often consistent. This holds true in countries where the issue is widely discussed and in those where it receives little attention. In some places, even single young adults express real concern about the decline, yet still choose to delay or avoid starting families.

We'll explore what may be the deeper cause of the drop in fertility in later chapters. For now, our goal is to present the global patterns. As you read, consider a few questions: If cultures differ so widely, why are the outcomes so similar? If governments are investing heavily, why aren't results changing? And if the problem is recognized, why aren't behaviors adjusting accordingly?

English-Speaking Countries

As we've researched and gathered input for this book, we noticed that efforts to increase birth rates often face the most resistance in wealthy English-speaking countries such as the United Kingdom, United States, Canada, and Australia. Fertility rates in these countries are shown in the graph below.



Data from: World Bank. https://data.worldbank.org/indicator/SP.DYN.TFRT.IN
Graph created by the authors.

Each of these countries has high levels of immigration, which helps offset declining fertility and can make issues less noticeable to citizens. Approximately 16 percent of people in the United Kingdom were born overseas,[16] compared to 14 percent in the United States,[17] 23 percent in Canada,[18] and 32 percent in Australia.[19] As a result, populations in these countries continue to grow—ranging from about one percent per year in the United States to as high as three percent in Canada.[20]

This continued growth may help explain why concern about declining birth rates tends to be more muted in English-speaking countries than in other wealthy regions. Many voices even welcome the prospect of slower population growth, [21] as discussed earlier. At the same time, a growing number of people are beginning to express concern, and in some cases, alarm.

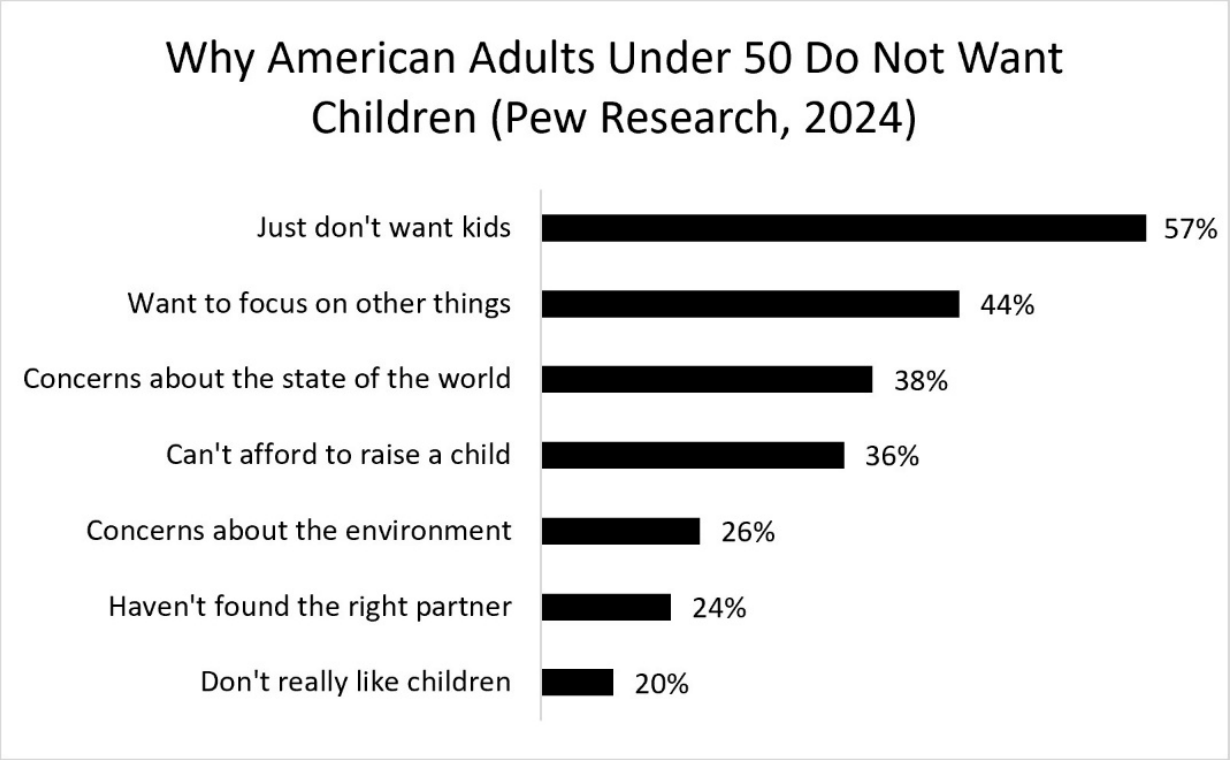
To see how this dynamic plays out, we'll now look at each of these, and other, countries individually.

United States

In 1960, the fertility rate in the United States stood at 3.7 births per woman. By 1980, it had fallen to 1.84—below replacement level—and was most recently at 1.6 in 2024.[22] Despite this long-term decline, high levels of immigration have made the effects less visible. As a result,

many Americans don't readily recognize the signs of falling birth rates. When consequences do appear—such as school closures mentioned in the previous chapter—they aren't always connected to underlying demographic shifts.

The following graph shows the reasons childless American adults under 50, who report being unlikely to ever have children, give for not wanting to have children.



Data from: Pew Research Center, "Reasons Adults Give for Not Having Children," July 25, 2024.
https://www.pewresearch.org/social-trends/2024/07/25/reasons-adults-give-for-not-having-children
Graph created by the authors.

The U.S. government is beginning to respond to this downward trend. The Trump administration has proposed small financial incentives for having children[23] and has expressed interest in helping families cover the cost of IVF and other fertility treatments.[24]

Many, though not all, experts expect fertility rates to remain around 1.6 through 2055.[25] Even if they don't continue to decline, such a level would still result in an aging population. Immigration may sustain overall population growth for a time, but the population itself would become steadily older.[26]

Canada

Canada's 2024 fertility rate stands at 1.3.[27] Despite this, the population continues to grow due to high levels of immigration, which can make the decline less noticeable to many citizens.

Public opinion is divided on whether falling birth rates constitute a crisis, with 43 percent saying they do and 42 percent saying they don't.[28]

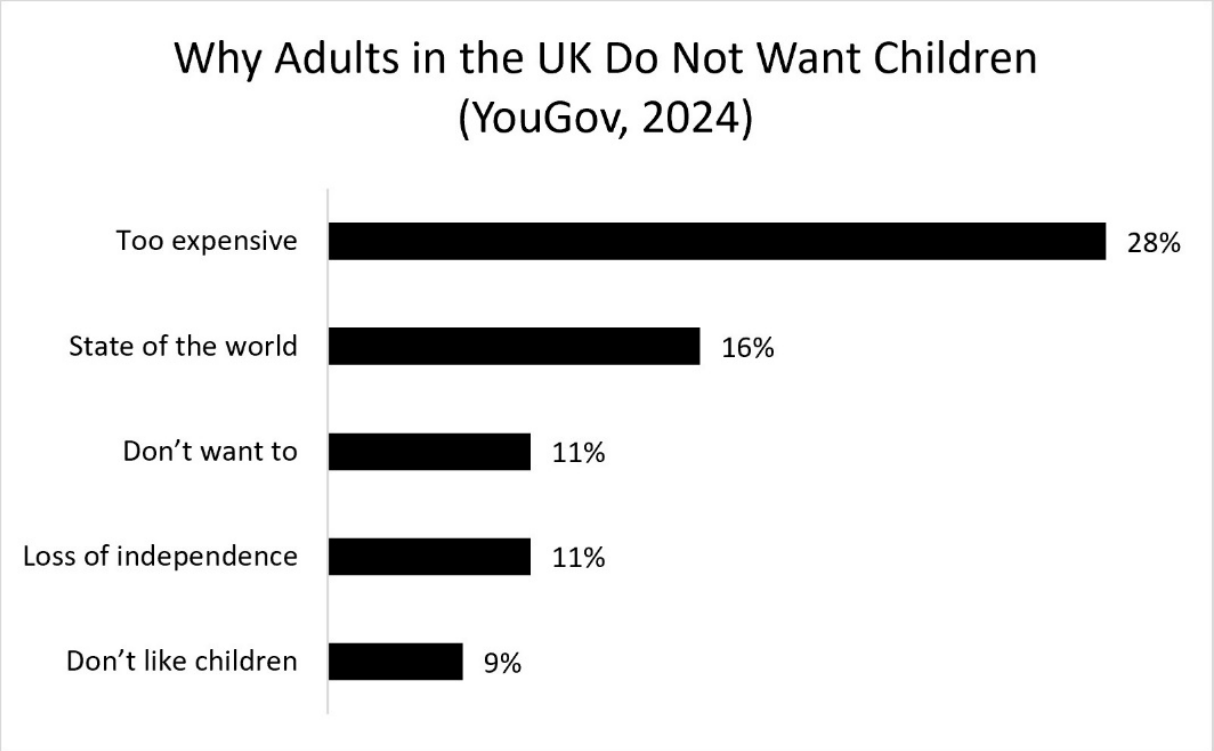
In 2022, one-third of Canadian adults aged 15 to 49 said they did not intend to have children, with younger respondents the most likely to express this view.[29] Even among those who have and eventually want more children, there are many reasons for Canadians to delay childbearing, including the desire to grow as a person, save money, and focus on their career.[30]

Canada doesn't currently have specific policies aimed at increasing the birth rate.[31]

United Kingdom

The United Kingdom's 2024 fertility rate is 1.6.[32] Public awareness of the issue is beginning to grow, particularly as reports highlight that deaths now outnumber births.[33] Similar to the United States, the UK is also experiencing school closures linked to declining enrollment.[34] However, many people don't view falling birth rates as a cause for concern.

When they are asked why they don't want children, childless adults ages 18-40 who do not plan to have children gave the following responses:



Data from: YouGov UK, Dylan Difford, "Why Do Some Britons Not Want Children?" https://yougov.co.uk/society/articles/51749-why-do-some-britons-not-want-children
Graph created by the authors. While other graphs in this section are "select all that apply," meaning people could select multiple options, this survey only offers the primary reason given. This is why the percentages are lower than the other graphs in this section.

While the United Kingdom offers a range of benefits to parents, it doesn't have a clearly defined or targeted strategy aimed at increasing birth rates.

Australia

In 2024, fertility rates in Australia were 1.5.[35] Despite high levels of immigration, many Australians are beginning to take note of the decline, with some recognizing that it may pose a problem.[36]

When asked why they aren't having more children, Australians point to a range of factors. These include practical considerations such as age, lack of a partner, health and fertility challenges, as well as personal preferences. These preferences include lifestyle choices and a dislike of children. Others cite concerns about the impact on their careers, financial pressures, doubts about their ability to be good parents, beliefs that the world isn't a good place to raise children, and worries about overpopulation.[37]

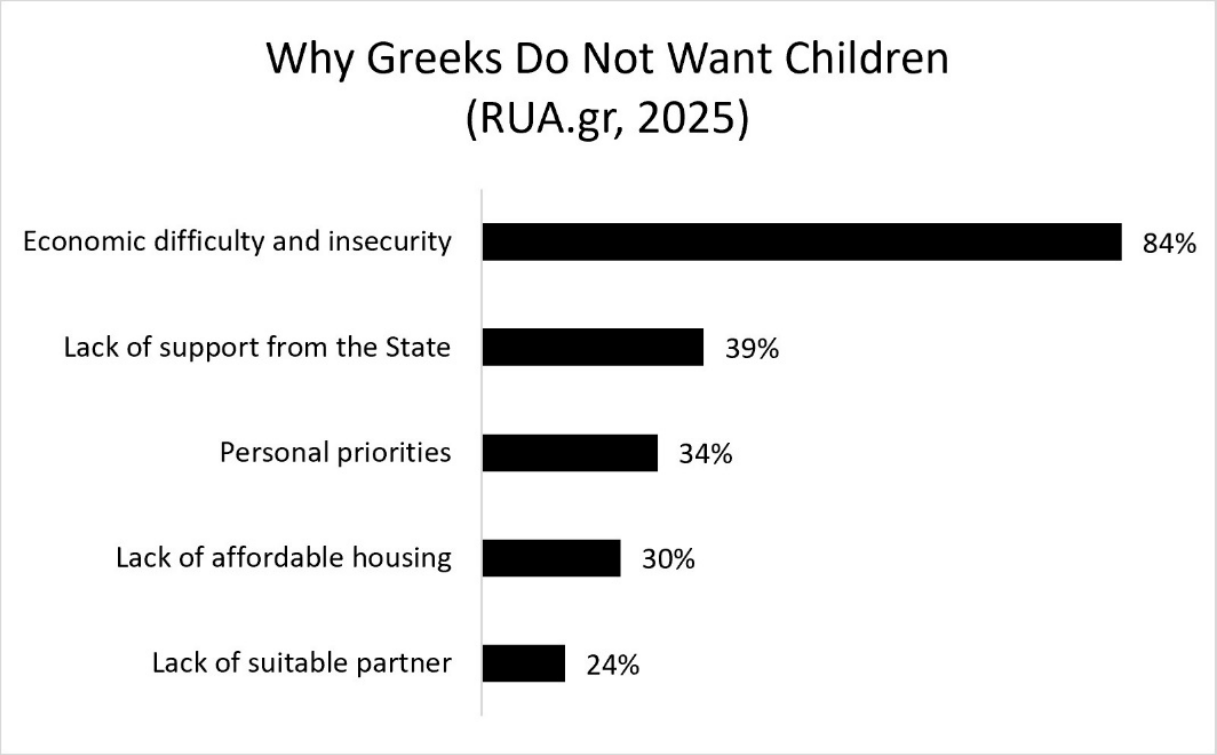
Australia has offered a baby bonus since 2004.[38] While fertility rose from 1.8 in 2004 to a peak of 2.0 in 2008, it has declined steadily since then.[39]

Greece

Greece's 2024 fertility rate stands at 1.2.[40] Many Greeks express concern, largely because the country's population has been in steady decline since 2011. Due to a combination of low birth rates and high emigration, the Greek population has fallen by approximately 400,000-500,000 since 2009. Total births are now roughly half of total deaths.[41]

This decline is already creating visible challenges, including labor shortages and increased strain on systems that support older adults (ages 65+), who make up nearly a quarter of the population.[42] The impact is especially pronounced in rural areas, with some villages and islands now home to very few young people.[43]

The main reasons Greeks ages 17+ give for not having children are shown in the graph below.



Data from: "Demography: Why Don't the Greeks Start Families? What New Studies Show," January 31, 2025. https://en.rua.gr/2025/01/31/demography-why-dont-the-greeks-start-families-what-new-studies-show
Graph created by the authors.

In response, the government is spending roughly one billion euros each year on incentives to increase the birth rate, such as child credits and maternity benefits.[44] On current trends, the Greek population in 200 years wouldn't fill a decent-sized football stadium.

Hungary

Few countries have invested as heavily in raising birth rates as Hungary, which as of 2024, has a fertility rate of 1.4.[45] The topic of migration in Hungary is a complex one, largely because the country has historically opposed permanent immigration. While it's less willing to allow people to settle permanently, it still relies heavily on immigrants to offset labor shortages caused by emigration and low fertility.[46]

At the same time, Hungary has a high emigration rate, as many citizens leave for wealthier European countries such as Germany and Austria.[47] Due to ongoing media coverage and public discussion, most Hungarians are aware of the issue surrounding birth rates, and those with a stronger national identity are less likely to report planning to remain childless.[48]

When asked why they aren't having children, young people often point to dissatisfaction with healthcare and education, along with limited availability of daycare and childcare services. Many also express uncertainty about their future in Hungary.[49]

In 2019, Prime Minister Viktor Orbán introduced a series of policies aimed at encouraging family growth. These included offering women under 40 a loan equivalent to $35,000 upon first marriage, which would be forgiven after the birth of three children. Mothers with four or more children were granted a lifetime exemption from income tax.

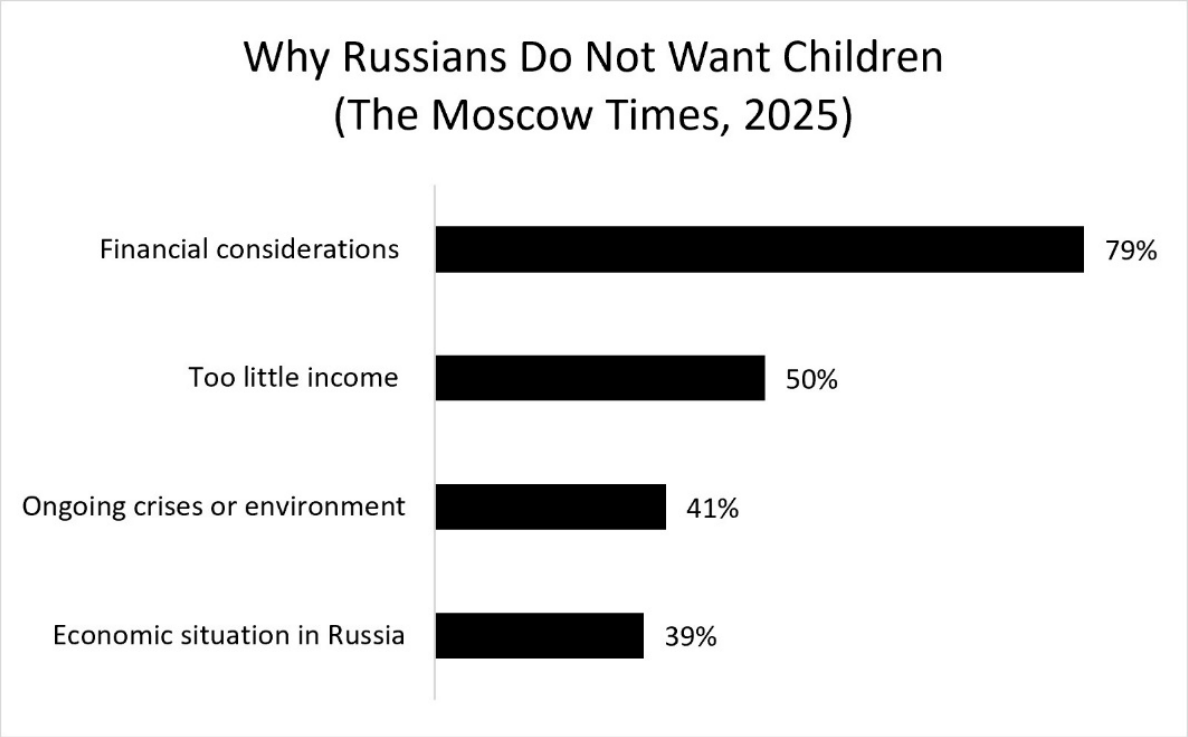
The cost of these programs is estimated at around five percent of GDP, roughly four times the country's defense budget. Fertility rates have risen from a low of 1.2 in 2011 to a peak of 1.6 in 2021 following program introductions, but have since declined to 1.4.[50]

Russia

Russia's 2024 fertility rate was 1.4.[51] The situation is compounded by high male mortality, driven by factors such as alcohol abuse, poor diet, accidents, suicide, and more recently, the war in Ukraine.[52] While many citizens are aware of the country's fertility challenges, their childbearing decisions tend to center more on economic insecurity than on long-term demographic change.[53]

Immigration levels—around eight percent[54]—are also significantly lower than in English-speaking countries. Immigration does little to offset the decline, as many migrants don't remain in the country permanently—indeed, Russia's net migration was negative for both 2024 and 2025.[55] Combined with low fertility, high emigration, and elevated death rates, this has led to an overall population decline.[56]

The reasons Russians give for not having children are shown in the graph below.



Data from: The Moscow Times, "Financial Insecurity Is Russians' Top Reason Not to Start a Family – Poll," June 30, 2025. https://www.themoscowtimes.com/2025/06/30/financial-insecurity-is-russians-top-reason-not-to-start-a-family-poll-a89623
Graph created by the authors.

The Russian government is actively concerned about population decline. As early as 2006, Putin cited demography as "the most acute problem facing our country today."[57] A particular concern among leaders is the higher birth rate of citizens who aren't ethnically Russian, such as Chechens.[58]

The government has responded by banning "child-free propaganda," including content that promotes a single lifestyle or same-sex relationships, and by restricting abortion.[59]

On current trends, the most likely future is a gradual shift in population, with ethnic Russians being replaced by higher-fertility groups such as Chechens within the Russian Federation, or by neighboring countries such as Afghanistan, where the fertility rate was 4.8 in 2024.[60]

Japan

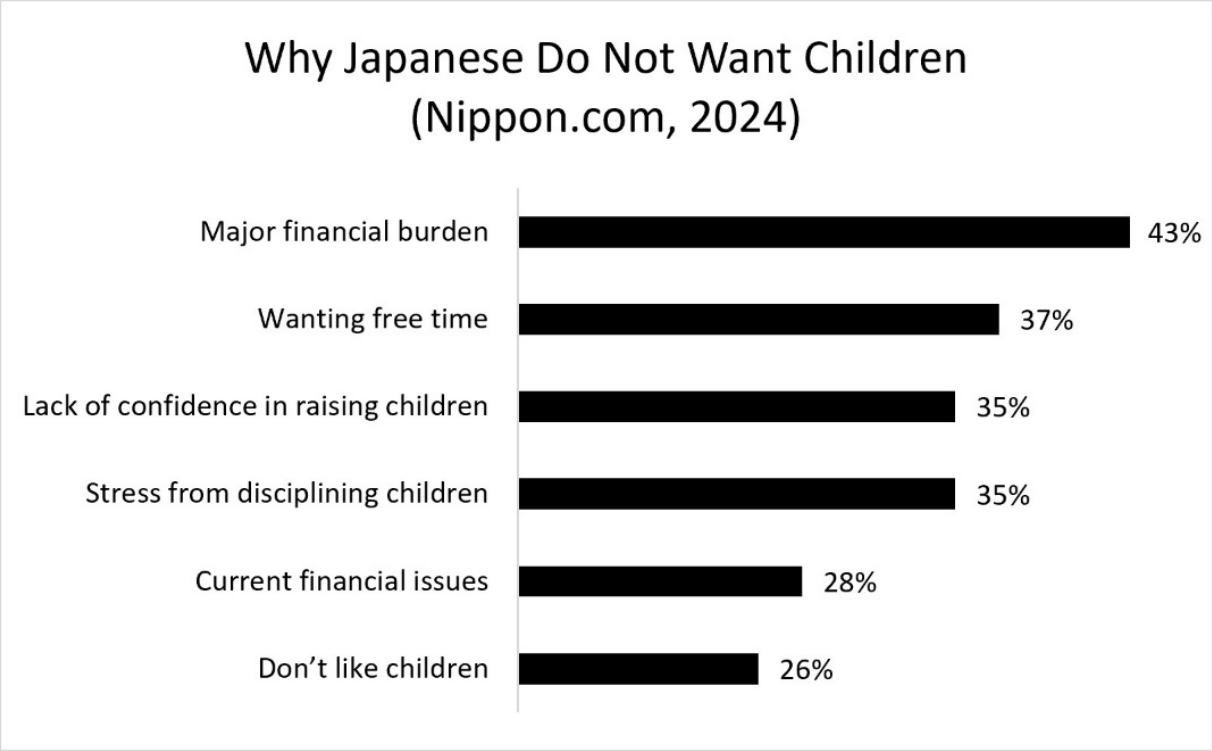
Japan was one of the first countries to experience sustained population decline. The country grew rapidly in the 1920s, when women had, on average, more than five children. However, between the 1940s and 1950s, Japan's fertility rate more than halved, falling to 2.04.[61] It then held somewhat steady just above replacement level for several years before beginning to decline again. By 1980, it was below replacement level, and has since dropped to 1.1.[62]

The number of Japanese residents is falling by close to a million a year.[63] Nearly a third of the population is retirement age (65+),[64] creating growing challenges for pensions and elder care.

Japanese citizens are more concerned about the decline in fertility than those in the countries we've discussed so far, and they have been for a while. A 1995 survey found that the percentage of people who believe getting married later isn't good is roughly three times that of those who think it's beneficial. A large share of citizens (42.3 percent) believe the declining fertility rate is bad, compared to only 5.1 percent who think it's good.[65] A significant portion of the population (over 80 percent) in 1995 also agreed that steps should be taken to increase the birth rate.[66]

More recent data shows that Japanese citizens remain concerned about the low fertility rate and the aging population; however, these concerns may reinforce the choice for some Japanese citizens not to have children. A recent survey of Japanese individuals ages 15-45 found that 20 percent of respondents who reported not wanting children cited concerns about the future. The most commonly reported concerns were "economic downturn and collapse of healthcare/pension system" and "decline in labor force due to shrinking population."[67]

The following graph shows the reasons Japanese people give for not wanting children.



Data from: nippon.com, "Economic Concerns a Key Factor Shaping Japan's Declining Birthrate," Dec 23, 2024. https://www.nippon.com/en/japan-data/h02225/
Graph created by the authors.

The government has been trying to counter the decline for more than a decade. Measures include subsidies related to childbirth and housing, as well as efforts to encourage fathers to take paternity leave.[68]

China

As mentioned earlier, the Chinese government was slow to recognize that its one-child policy had contributed to lower birth rates than intended. By 2015, however, it had become clear that a low fertility rate was creating serious problems.[69] There was a growing shortage of women, and a smaller workforce threatened the economy.[70] At the same time, the number of elderly people was increasing, raising concerns about who would care for them.[71]

In 2016, when China's fertility rate stood at 1.8, the government began allowing couples to have a second child.[72] Instead of rising, however, the birth rate continued to fall, dropping to 1.0 by 2022.[73] The policy was later expanded to allow more children and supports for parents,[74] yet over the past three years, the population has continued to shrink,[75] and the birth rate hasn't risen above 1.0 as of 2024.[76]

Chinese citizens are aware of the ongoing demographic crisis. In a recent survey, however, more than 60 percent of people aged 18 to 35 said they did not want children at all. Reasons given include the high cost of living, fear of childbirth, limited career opportunities, and lingering effects of the one-child policy.[77] These lingering effects include a shortage of women due to sex-selective abortion and infanticide, as well as a lack of role models for larger families.[78]

In recent years, the government has attempted to reverse the decline through tax breaks and other incentives. It has also expanded access to IVF and discouraged abortion.[79]

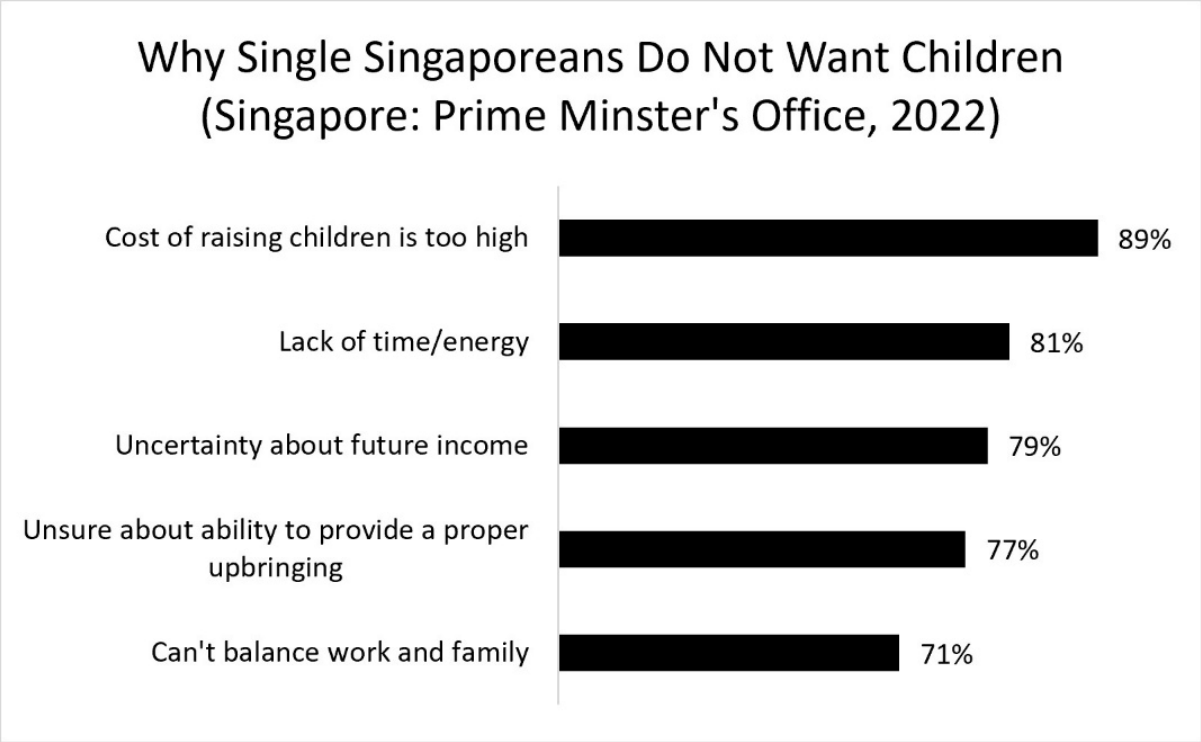
Singapore

In 1966, even before *Limits to Growth* was published, the Singapore government introduced policies to discourage people from having more children. These included promoting family planning, ending paid maternity leave for civil servants after their second child, and charging higher hospital fees for third and subsequent children. Parents who chose sterilization to prevent additional births were even rewarded with preferential access to top schools for their kids.[80]

The fertility rate was 4.5 in 1966. By 1984, it had fallen to 1.6.[81] At that point, Prime Minister Lee Kuan Yew began encouraging college-educated women to have more children. The government also introduced education and housing priorities, tax benefits, and other incentives.[82] Despite these efforts, fertility continued to fall to 1.0 in 2024[83], with preliminary figures for 2025 placing it at around 0.9.[84]

To help offset low birth rates, immigration remains high, with the government granting permanent residence to many thousands of individuals each year.[85] Even so, challenges remain. For example, there are concerns that permanent residents may be less willing to defend Singapore in the event of war.[86]

Citizens of Singapore are aware of the decline in fertility, but like people in other countries, they tend to focus more on immediate concerns. The graph below shows the most common reasons single Singaporean adults who don't want children give when asked why.



Data from: Singapore: Prime Minister's Office, 2022, Annex B, https://www.population.gov.sg/files/media-centre/press-releases/annex%20b.pdf
Graph created by the authors.

Despite more than 40 years of government policies aimed at increasing fertility, the number of births continues to decline. Deputy Prime Minister Gan Kim Yong noted that even if fertility rates remain at 0.87, for every 100 citizens there would be 44 children and only 19 grandchildren.[87] However, with rates continuing to fall, it's unlikely that 0.87 will remain the level going forward.

South Korea

The most drastic decline in birth rates has taken place in South Korea. In 1960, Korean women had, on average, six children. It took only 25 years for the fertility rate to fall below replacement level. As of 2024, it was down to 0.7—roughly one-third of what's needed to maintain the population.[88] Seoul, the largest city, has a fertility rate of around 0.6.[89]

Citizens of South Korea are highly concerned about the decline. It's discussed in daily life, and many people feel pessimistic, even resigned, about the situation. Younger generations are especially concerned, yet they still delay or avoid having children altogether. [90]

Reasons given for not having children include the impact on a woman's career, the high cost of housing, and the expense of private education, which is widely seen as necessary in their highly competitive environment.[91] Given these costs, raising a child in South Korea is often considered more expensive than anywhere else in the world.[92]

The government has introduced multiple incentives to encourage higher birth rates, including baby bonuses, cash payments, and subsidized housing. It has even provided free taxis for parents with infants up to 24 months who have difficulty using public transportation. Authorities cover hospital bills and IVF treatments to reduce the cost of having children. In total, South Korea has spent more than $270 billion over the past 16 years on this issue.[93]

On current trends, South Korea's population could shrink dramatically over the next century, with some projections suggesting declines of 85 percent or more.[94]

The Bigger Picture

The birth-rate decline isn't confined to a handful of wealthy countries. Two-thirds of the world's population now live in countries where fertility is at or below replacement level. This includes middle-income countries such as Turkey, Colombia, and Mexico. Even the most fertile countries, particularly in Africa, are seeing declining birth rates. For example, between 1978 and 2024, Nigeria's fertility rate fell from 6.9 to 4.4,[95] a decline that is predicted to continue across Nigeria and many other historically high-fertility nations.[96]

As noted earlier, many people welcome this decline, especially in places where immigration has long been part of national life. This is largely because populations in these countries continue to grow.

On current trends, countries that oppose immigration, such as Japan, South Korea, and Hungary, may see significant population declines over the next century. But history suggests

that fertile lands don't remain empty for long. Even though birth rates are falling worldwide, regions like sub-Saharan Africa still have growing populations and millions who wish to emigrate.[97]

Unchecked population growth would have been a disaster. Few people want a world population of 100 billion or more. But a growing number of observers now believe the decline has gone too far, especially since several of the countries facing the sharpest declines are also responsible for producing vital goods and supporting systems that drive technology and innovation.

We share these concerns. As societies age and the number of working people declines, the economic consequences can become severe, making it increasingly difficult to sustain both prosperity and the social systems modern populations depend on.

The decline in birth rates has accelerated over the past two decades, and governments have responded by spending billions on incentives and baby bonuses. But what if the reasons people give for not having children don't reach the core of the problem? What if something deeper is holding them back?

In the following chapters, we'll explore what may be the true cause of the birth-rate crisis—one that differs from the explanations most commonly offered.

Chapter Three: We May Be Asking the Wrong Question

In Chapter Two, we examined the global pattern of declining birth rates and the consistent reasons people give for delaying or avoiding having children. Yet if people are aware of the decline, are concerned about it, and say they want children, why are birth rates continuing to fall? The common explanations may be true, but they're likely incomplete.

In this chapter, we'll look more closely at the cultural and behavioral changes that may be shaping these choices. We'll begin with the most frequently cited reason before moving into related shifts in behavior, such as later marriage and delayed parenting, and the biological realities that affect fertility, including the limits of treatments like IVF. We'll then turn to broader cultural changes, including shifts in priorities, values, and social norms. Along the way, we'll see how these factors interact and reinforce one another, often in ways that aren't immediately obvious.

The reasons people give—especially financial ones—are real, and our aim isn't to dismiss them. Many people are making thoughtful, practical decisions based on their circumstances. But taken together, those reasons don't fully explain the scale and consistency of the decline. Something deeper may be influencing these patterns, shaping not only what people do, but what they value and expect from life.

Money

As seen in the last chapter, when people around the world are asked why they aren't having children, the most common response is cost—especially housing and the expense of raising and educating children. People in every country cite financial reasons, but these concerns are especially pronounced in places with struggling economies such as Greece and Hungary, where job insecurity is also a significant challenge.

There's no doubt that people are telling the truth when they say that lack of money is a major reason for not having more children. Many are genuinely struggling financially, which is why it makes sense that governments have offered incentives to encourage more births.

Yet a broader pattern complicates this explanation. Fertility tends to be lowest in affluent metropolitan areas. Babies are scarcer in cities such as New York, San Francisco, London, Tokyo, and Seoul—places with higher incomes as well as higher costs of living.[98]

The cost of living is certainly part of the picture, but it may not be enough on its own to explain the scale and consistency of the decline. If financial pressure were the primary cause, we'd expect rising wealth to lead to more births. Instead, the opposite pattern often appears.

This suggests that while money matters, it may not fully explain what's happening. To understand the decline in fertility, we need to look beyond economics.

Later Age of Marriage and Parenting

One reason for the declining birth rate is that people are marrying later than they have previously. Looking at the United States, in 1956, the median age of first marriage was 22.5 for men and 20.1 for women.[99] As of 2024, it's 30.8 for men and 28.8 for women.[100] An increasing proportion of U.S. citizens now never marry at all.[101]

One result of delayed marriage is that people are having children much later than in the past. In 1970, U.S. women had their first baby at an average age of 21.[102] As of 2023, it was closer to 28.[103] This is a worldwide trend, and the United States isn't an extreme case. Similar patterns appear globally, particularly in Europe and East Asia. In 1980, Japanese women had their first child at an average age of 26.4. By 2020, this had risen to 30.7.[104]

South Korea shows a similar pattern. Marriage rates are half what they were 30 years ago, and the average age of marriage has risen by over five years—to 33.9 for men and 31.6 for women in 2024.[105]

Globally, the average maternal age at birth of first child is typically between 27 to 32 years in high-income countries.[106]

This delay is rational, given modern priorities and necessities. Women today are more likely to want—and often need—the security a career provides, especially with a rise in divorce and single-parent families.[107] Delaying also gives couples a better chance to buy and partially pay off a home, particularly in a good neighborhood. Stronger finances can help support the raising and education of children.

But does this fully explain the decline?

Infertility Struggles

One result of delayed childbearing is lower fertility. A woman in her early to mid-twenties has a 25–30 percent chance of becoming pregnant from intercourse each month. By age 40, this falls to about five percent.[108] Even if she does become pregnant, her eggs are less healthy and may not result in a live birth. The decline is especially rapid after the mid-thirties.[109]

Assisted reproductive technologies (ART), such as in vitro fertilization (IVF), have grown dramatically in response. As of 2018, estimates suggest that up to 13 million children worldwide have been born through ART,[110] yet these procedures remain costly, emotionally and physically taxing, and have limited success for older women.

National 2022 data from the United States found that when using a mother's own eggs, over 40 percent of embryo transfers resulted in a live birth for women under 35. By age 40, this drops to 31.6 percent. After 40, success rates continue to drop by two to four percentage points each year, with only a 10.4 percent success rate for women over 45.[111]

One difficulty in discussing IVF success rates is that the numbers refer to different stages of the process. The chances of success depend heavily on whether embryos are fresh or frozen and whether they've been genetically tested. For example, transfers of untested fresh embryos in women over 40 have relatively low success rates.

However, when a genetically normal embryo is identified through testing and then transferred, the chance of a live birth per transfer significantly increases, approaching a 50 percent success rate in women over 40,[112] though success is still lower among older women, even with healthy eggs.[113] The complication is that as women age, it becomes increasingly difficult to produce healthy eggs.[114]

In other words, the success rate for transferring a normal embryo can be reasonably high, but the odds of obtaining such an embryo decline sharply with age. Despite advances in technology, many couples find themselves unable to have the family they want, leaving them with a deep sense of loss and regret.

As mentioned in the introduction, my co-author, Andrea, experienced this firsthand. She always wanted a large family and did not delay marriage or childbearing by choice, yet life didn't unfold as planned. Circumstances outside her control led to a later start than she intended, and health challenges, along with the realities of age, gradually closed the door to a larger family. None of her fertility treatments, even with IVF, were successful, and she and her husband were unable to have the number of children they had hoped for.

While Andrea's experiences with fertility treatments were discouraging, we don't want readers to assume this will be the case with everyone in a similar situation. It's important to be realistic, but many women do have success with fertility treatments, including Andrea's sister-in-law, who recently gave birth to a healthy boy through IVF.

Many who struggle with infertility choose to adopt. While adoption won't resolve the crisis, the same personality who wants a large family would be drawn to it. People can have children by accident, but most who adopt find child-rearing meaningful and satisfying.

Another factor contributing to infertility is the rise in sexually transmitted infections (STIs). Since 2000, rates of chlamydia and gonorrhea—two infections strongly linked to infertility—rose steadily in the United States through 2021. Preliminary 2024 data suggests some progress has been made in reducing these numbers. However, they remain high.[115] Over

2 million new cases of chlamydia and gonorrhea were reported in provisional 2024 data,[116] though the true number is likely higher because many infections show no symptoms and go unreported.[117]

Globally, the World Health Organization reports a similar trend, with 2020 estimates suggesting that more than 1 million curable STIs (chlamydia, gonorrhea, trichomoniasis, and syphilis) are acquired *daily* among individuals between 15 and 49 years old (approximately 374 million new cases annually), most of whom are asymptomatic.[118] These infections are a major cause of pelvic inflammatory disease in women, leading to scarring of the fallopian tubes, ectopic pregnancies, and infertility.

Male infertility rates are also rising. Sperm counts have more than halved over the past 40 years, and sperm quality has declined.[119] Contributing factors to this decline in count and quality include environmental toxins, dietary choices, and obesity.[120] Obese women are also less fertile due to irregular menstrual cycles and a higher risk of miscarriage.[121]

Most people still want children, but delaying family formation into the thirties often leads to fewer births than intended. Many plan for two or three children but ultimately have only one, or none at all.

Changing Priorities

Something to consider is that priorities are shifting. Many people today place a stronger emphasis on career and financial stability than previous generations did. While they may still want children, marriage and family are often postponed and don't always rank as the first or even second item on lists of major life goals.

One way to see how these priorities have changed is to look at the data. For example, the Monitoring the Future study is a large-scale study of attitudes, opinions, and behavior. Launched in the United States in 1976, it has been conducted annually ever since.[122]

When asked about their priorities in 1976, over 70 percent of high school seniors rated "having a good marriage and family life" as important or extremely important. While this rating remained high for several decades, it has declined over the past decade to only 57 percent of boys and 69 percent of girls in 2021. During this same time period, the percent of high school seniors who rated having a lot of money as important or extremely important increased substantially, particularly among girls, where it has nearly doubled from 35 percent in 1976 to 68 percent in 2021.[123]

Consider what this might look like in practice. Imagine a young couple for whom family is their highest priority. Their income is limited and will shrink further when the wife stops working for a time. Eating out is an occasional luxury, and vacations likely mean a tent rather than a resort. Money is tight, but their greatest desire is to have children. Because they're young, the wife becomes pregnant easily. More children follow, and the joy of raising them outweighs the strain on their finances.

On a personal level, as mentioned in the introduction, I started raising a family while working as a mowing contractor. We couldn't afford to buy a house. Our only car was a battered wreck, and our vacations were rare and inexpensive. My wife and I started having children because we wanted them more than we wanted a better lifestyle.

And not once did I ever believe that raising children was solely my wife's responsibility. I found immense joy in being involved not only in the day-to-day moments of their lives, but also in their overall growth and development. I never resented the time I spent with them, even when it came at the expense of my business.

Even when business followed me home, my children were often around me as I worked. The little ones would sit under my desk, sometimes "signing" hundreds of scraps of paper in imitation of my check writing. And when my first wife and I divorced, I terribly missed their constant presence.

Money was never a consideration when we added each new child, and my parents followed the same set of priorities when I was a child in the 1950s and early 1960s. We lived in a small house with no air-conditioning and had only one car. Soft drinks and foods such as chicken—which was very expensive at the time—were rare treats. We often ate meats such as tongue and brain, which I disliked. We never ate out. Yet my parents thought nothing of having four children, and we certainly didn't see ourselves as poor.

Things are very different now. For a start, young people are much less likely to get married, and women tend not to want children unless they're married. Globally, young people are more likely to cohabit than in the past, but an increasing number are neither married nor cohabiting.[124] For young men, "playing the field" may seem more attractive than monogamy, especially as social norms around casual sex have shifted.

Young women who want to settle down often struggle to find a steady and reliable partner. They may be living with a man, yet remain uncertain whether he's the right person to father their children. At the same time, many underestimate how difficult it can be to have a child later in life. Because the media frequently highlights successful IVF outcomes, it can create the impression that there's plenty of time.

Let's now consider what a couple from today might look like in practice. They marry at a much later age than the couple we discussed earlier, and their highest priorities are careers and having a stable household. A few years after marriage, they've grown accustomed to a more comfortable lifestyle. The wife's career is progressing well, and losing her income would be a serious setback. They may also reason that a home in a better neighborhood would give their future children a stronger start.

As a result, they conclude that one child—or perhaps two at most—is all they can reasonably afford. But by this point, becoming pregnant is more difficult, and they may not even have the first child.

This couple is neither unreasonable nor selfish. They sincerely want the best for their children and hope to give them every possible advantage. When asked why they delayed having children, they can honestly point to financial pressures. Yet the broader outcome of decisions like these is a steady decline in fertility.

Changing Priorities: Wealth over Family

Surveys show not only a declining priority of marriage and family, but also a broader shift toward material success. The American Freshman Survey asked entering college students in 1967 whether being "very well off financially" was either essential or very important to them as a goal. Only about 40 percent agreed that it was. By 2016, that proportion had risen to over 80 percent.[125]

Responses like these, of course, reflect prevailing values to some extent. In 1967, saying that wealth was a major life goal would likely have been viewed as less socially acceptable than it is today, which may have influenced how people answered. The more important question, however, is *why* people today feel more comfortable identifying wealth as a central pursuit.

This shift isn't confined to the United States. Nearly half of Koreans—and just over half of Korean women surveyed—believe that marriage isn't necessary and often isn't feasible for financial reasons.[126] Young Japanese also tend to prioritize careers, personal growth, and independence over marriage and family.[127] Similar changes in attitudes have been observed across Europe.[128]

An increasing number of people around the world are losing interest in both marriage and children. The collapse in birth rates, therefore, can't be explained by economic pressures

alone, as is often assumed. The evidence points to a deeper shift in priorities. As those priorities change, smaller families increasingly become the social norm.

Social Norms

When I was born in 1952, larger families were common and widely accepted. I grew up as one of four children, and that wasn't seen as unusual. I remember a friend of my parents once admitting that she did not enjoy being a mother at all. Yet at that time, social expectations were strong enough that she still ended up having three children.

Today, expectations are reversed. As fewer babies are born, smaller families become the norm. Four of my children are in their twenties and thirties with great partners, and none of them plan to have more than two children. The same is true for most of the people they associate with. This is also reflected in the media.

I often find myself counting the children in films and television shows, and it's now quite unusual to see families with more than one or two. In many cases, there are no children at all. Part of this may be practical—child actors can be expensive, and producers often try to limit costs. Even so, the lives portrayed in Hollywood are widely admired, and many people are influenced by those images.

An irony of the birth-rate crisis is that if people actually had the number of children they want, there would be no crisis at all. The most commonly desired family size is two. Some people want fewer, while others want more. Averaged out, if people had the families they say they want, the number of children per family would be slightly above replacement level.[129]

If priorities have changed, it shouldn't surprise us that parenting itself feels different than it did in the past. In many ways, it's becoming more burdensome and less joyful. This changing perception of parenthood is the subject of the next chapter.

Chapter Four: What Happened to the Village?

Parents—especially mothers—have always had to endure sleepless nights and dirty diapers, but parenting required less constant attention when I was a child. We were often sent outside to amuse ourselves or allowed to head off on our bikes.

Today's parents face far greater pressure.[130] They're expected to do everything possible to help their children succeed, and many feel they'll be judged by how well they do. When a child struggles or falls short, mothers and fathers often feel it reflects on them personally.[131]

Parents today are increasingly concerned with their children's progress, both in and out of school. In recent years, there has been a marked increase in the use of tutors and structured after-school lessons.

One consequence of this increase has been a decline in opportunities for free play. A 2023 paper in *The Journal of Pediatrics* posited that "a primary cause of the rise in mental disorders is a decline in opportunities for children and teens to play, roam, and engage in other activities independent of direct oversight and control by adults."[132] Multiple studies show that reducing free play can harm mental health.[133]

Pressure to achieve is also reflected in the push for children to excel in sports from a very young age. Many parents drive their children to practices year-round, often traveling long distances in the hope of giving them an early advantage. This, too, comes at the expense of free play.

Intense parenting may be harmful in other ways. Parental overcontrol has been found to make children anxious and timid, lacking resilience and a sense of competence, and these impacts can follow children into adulthood.[134] While it's not good for the child, it's not good for the parents either, as it turns child-rearing into a burden.

Nowhere is this pressure more intense than in East Asian societies such as Japan, Taiwan, Singapore, South Korea, and now China. This may be one reason why the birth-rate collapse in these countries has been more extreme than in Europe and North America.

For example, children in Japan are expected to begin excelling as early as preschool, where they're taught not only reading, writing, and arithmetic, but also discipline, obedience, and diligence. [135] One of the most important drivers is the need to perform well on entrance exams, which determine whether students can attend preferred schools or later qualify for top universities.

To prepare for these exams, most children attend *juku* schools, which offer after-hours and weekend lessons in subjects like mathematics, science, and English.[136] This places intense pressure on parents, typically mothers, who must manage school schedules and routines. They must ensure their children meet the additional demands of *juku* while also encouraging them and helping them believe in themselves. Meanwhile, fathers often work long hours in high-pressure jobs, leaving them with little time for their children.[137]

The cost of educating children in Japan, including *juku* fees and extracurricular activities, is high. As of this writing, parents can expect to spend around $4,000 for kindergarten, up to $73,000 for six years of primary school, up to $34,000 for three years of middle school, and up to $30,000 for three years of secondary school. This only counts for tuition fees, and the cost depends on the prestige of the school.[138]

This same expectation of constant oversight extends beyond achievement and into how parents approach safety.

Obsession with Safety

Parenting has also become more of a burden because of society's growing focus on safety. Parents are expected to monitor their children closely, driving them from one activity to another and rarely letting them out of sight. Raising children the way my mother did could, in some places, violate the law or even result in legal consequences.

This is partly a reaction to fears about child abduction, even though kidnappings of children are extraordinarily rare. They may appear to be more common because of how connected the world is today—we hear of kidnappings that occur across the country that we wouldn't have heard of previously.

To give a sense of how rare these cases are, a Department of Justice study estimated that about 115 stereotypical stranger kidnappings occurred in 1997 and 105 in 2011, with later evidence suggesting such cases have become less deadly in the years since, particularly with the advent of Amber Alerts, cell phones, and faster reporting systems.[139]

Overconcern about safety may, ironically, be making children less safe. For a start, in the United States, children are far more likely to be killed in a car accident than kidnapped, and thousands of times more likely to be injured in an accident.[140] Driving a child to multiple appointments and keeping them busy with extracurricular activities doesn't protect them—especially when car accidents pose a far greater risk than abduction.

Parents are also concerned about grooming, trafficking, and sexual predators, but keeping children at home with access to screens may increase this risk. A recent study found that one in every six respondents reported having experienced one or more episodes of online sexual abuse before they turned 18.[141]

In fact, the 2023 CyberTipline report found a 323-percent increase in "online enticement of children for sexual acts" from 2021 to 2023, and an 883-percent increase in "unsolicited obscene material sent to a child" during the same period.[142] The same report mentions an increasing use of generative AI, which may partially account for the dramatic rise.

And yet, despite the risks of the online world, smartphones have become deeply embedded in adolescent life. About 95 percent of teenagers in the United States now use one, making constant connectivity the norm rather than the exception. Not surprisingly, the number of teens who say they're "almost constantly" online has roughly doubled since 2014–2015.[143]

This pattern begins early. U.S. children are receiving their first smartphone at 10.9 years on average.[144] Similar patterns are seen across high-income European and Asian countries.[145] Combine such early exposure with the pressures and anxieties of puberty, and it's not surprising that the most likely age for online exploitation is between 13 and 17.[146]

Nonstop supervision may not be keeping children safe, particularly when danger can reach them through the very devices we place in their hands.

We should also not overlook another benefit of allowing children some freedom to roam. When kids are trusted to explore the world on their own, they gradually develop confidence and the ability to trust their instincts. Researchers note that opportunities for independent activity—such as self-directed play and roaming without constant adult oversight—help children develop the psychological capacities needed to handle real-world challenges.[147]

Qualities such as judgment and confidence are important for safety as well as independence. Predators often rely on manipulation rather than force, attempting to gain a child's trust or persuade them to keep secrets.[148]

A child who has learned to think independently and speak up for themselves is far more likely to question suspicious behavior or refuse an uncomfortable request. In this way, the confidence gained through ordinary independence may help children protect themselves from those who would attempt to groom or exploit them.

So why, then, does society—and in some places, even the law—seem to demand this level of constant supervision? Expectations like these can make raising children feel far more demanding than it once did. When parenting is widely perceived as requiring constant oversight

and intense involvement, some couples may understandably hesitate before deciding to have children at all.

This focus on children's performance and safety has become even more burdensome with the rise of social media. Parents can now more easily compare their children to others based on what they see online. Any perceived failure—whether academic or related to safety—can feel like a reflection on them.

And these pressures are compounded by another shift: the growing isolation of modern families.

Social Isolation

Another factor increasing the burden of parenting is social isolation. For most of human history, people lived in close communities. Among current hunter-gatherers, children often have ten or more caregivers, and sometimes as many as 20. These can include neighbors, relatives, and older children and adolescents. In many cases, a crying baby is attended by one of these caregivers more often than by the mother.[149] Both men and women tend to work in groups, so other adults are normally close at hand.[150]

Timothy Carney's book *Family Unfriendly* shows how modern communities can make raising children more of a joy and less of a burden. One initiative described by the author involved setting up a local sports program through his church where any child could be involved, with burgers and hot dogs paid for by donation. It proved so successful that people continued coming even when their children were too old to play simply to enjoy the low-pressure family time. [151]

Another example Carney gives is a street called Pearl Place, where four large Catholic families have chosen to live near one another. It has become a kind of "summer camp" where children create their own fun, joined by others who bike or walk in. Meanwhile, parents garden, run errands, or simply spend time talking together.[152]

Kemp Mill is a neighborhood in Washington, D.C. with two Orthodox synagogues where most residents don't drive on the Sabbath and therefore live within walking distance. On Saturdays and holidays, children fill the streets without constant supervision. As one parent explained:

> Everybody knows everyone's kids, which gives a sense of freedom and security… If your kid falls, not only will someone help them, that person will probably know them… When people move in here, they never leave.[153]

Today, even a woman who deeply values motherhood can find it hard to spend long days alone with only an infant or small child for company. There's a large chance she'll be alone for eight or more hours a day and won't have another adult to talk to, aside from carefully arranged playdates. Even when the child is older, concerns about safety can keep her mostly at home.

Friends and family might be available online, but no one is physically there to help. In the modern world, nuclear families often live far from relatives, separated by long commutes or distance. They may be in different cities or even different states.

Suburban zoning has also made many areas less walkable than they once were. Instead of nearby shops where the mother is known and might run into neighbors, she has to get in the car and drive to a big-box store. Prices may be lower, but contact with familiar people is harder to find.

Isolation and loneliness are among the key drivers of perinatal depression. When asked, women diagnosed with perinatal depression often say they feel cut off from their previous identities and relationships, confined to the home, and unsupported by friends and family.[154] Because of the stigma surrounding depression, they may hide their symptoms for fear of being seen as a "bad mother," even while feeling let down by their partners and the community around them.[155]

This isolation adds to the weight of parenting. When couples feel overwhelmed, they may delay having a second child. Mothers who feel unsupported may stop at one.

The opposite pattern appears when extended family members live nearby. Grandparents can provide childcare, help during emergencies, and give parents occasional relief from the constant demands of young children. Their presence reduces both stress and financial pressure, lowering the risk of burnout. Studies consistently find that access to family support—particularly from grandparents—is associated with higher fertility and a greater likelihood of having additional children.[156]

The baby bust can't be explained simply by a loss of desire for children. Financial strain, infertility, social isolation, and the growing burden of parenting all contribute. But these pressures themselves arise within a larger cultural shift. To understand why family life now feels so different, we must look at deeper changes in how people think about everyday experiences. That's the subject of the next chapter.

Chapter Five: Rising Comfort and Declining Happiness

The declining birth rate reflects a broader change in character within the general population—a shift away from valuing family and children as highly as in the past. In this chapter, we'll look at several other signs of this transformation. We'll consider changing attitudes toward work, community, faith, and money, and explore how these shifts shape people's lives. Finally, we'll examine what these changes may mean for happiness and mental health.

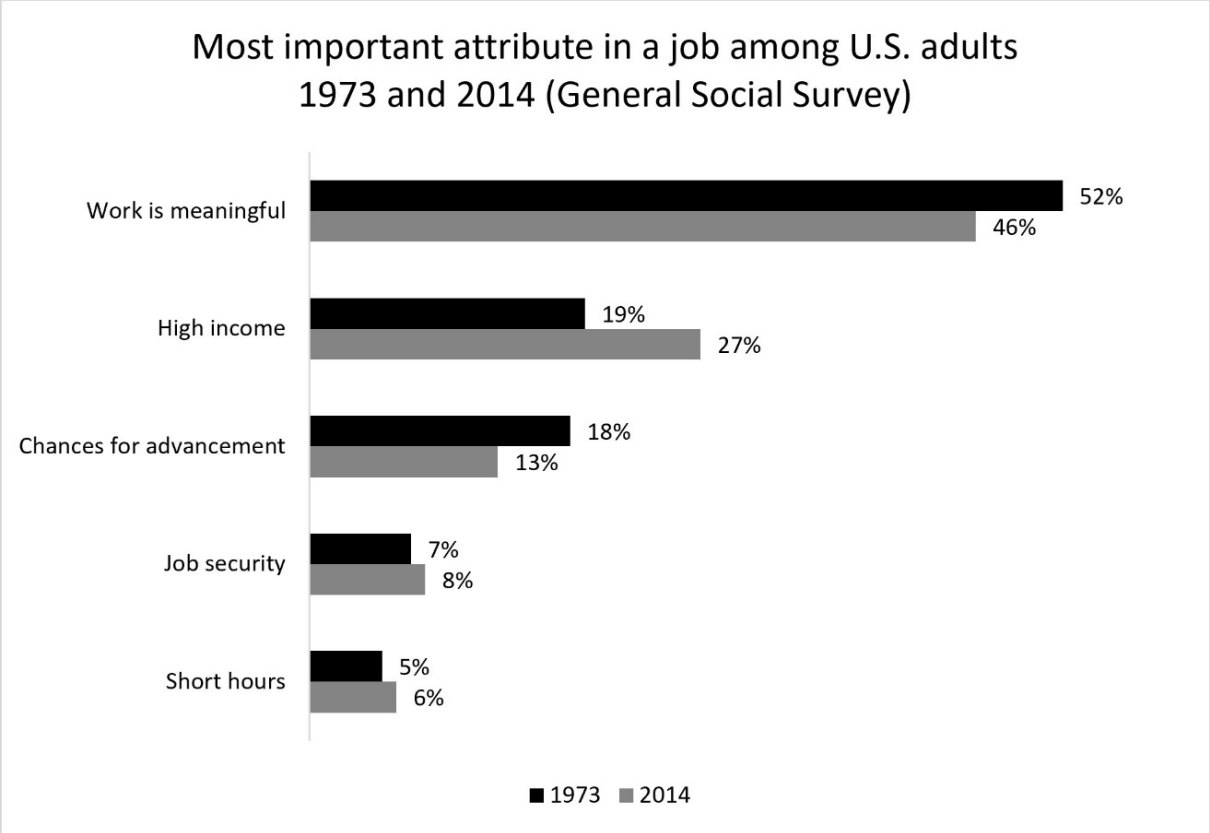
Work

We've seen survey data showing that people today place a higher priority on career and financial security than in the past, and a lower priority on family. If these priorities were driving behavior, we might expect people to be working harder. But the opposite appears to be true: people are working *less*.

This change is reflected in responses to the General Social Survey (GSS). [157] Starting in 1973, the survey asked a representative sample of Americans over the age of 18 which aspect of a job mattered most. The options were:

- "No danger of being fired"
- "Working hours are short, lots of free time"
- "Work [is] important and gives a feeling of accomplishment"
- "High Income"
- "Chances for advancement"

Work as a source of accomplishment remains the most popular option, but this became less important by 2014, while income, job security, and shorter hours have slightly increased in importance, as seen in the graph below.



Data from: General Social Survey, Job Preferences, 1973 and 2014. NORC at the University of Chicago. https://gss.norc.org
Graph created by the authors.

Other studies show a similar trend among teens in the United States. Between 1976 and 2008, the importance teens placed on having a job they deemed worthwhile to society declined while the importance of having a high income increased.[158]

Interest in work hasn't disappeared. Close to half of the adult respondents still ranked a sense of accomplishment and interesting work as their top priority, but significantly fewer do so than in the past.

Compared to unemployed men three decades earlier, those without work in 2003–2005 devoted less time to productive pursuits. They were less likely to be looking for employment, participating in education or job training, or taking care of household responsibilities. They also spent less time involved in civic or religious organizations and engaged less often in activities such as exercise, sports, hobbies, and reading.[159]

Meaningful work contributes to happiness.[160] Unemployed people are more likely to experience depression and anxiety, partly because of feelings of worthlessness, a reduced sense of purpose, and less enjoyment in daily activities.[161] Lack of money may be a less-important factor.[162] Some studies indicate that even those who are voluntarily unemployed tend to experience poorer mental health.[163]

Since 2006, employment surveys have found more young men out of the workforce. They're less likely to start or complete bachelor's or advanced degrees, where women now form a clear majority.[164] But they're also avoiding the trades, which often offer strong earning potential straight out of high school. As a result, more than 40 percent of skilled trade workers are now over the age of 45.[165]

Even those who are employed are working fewer hours. In 1950, the average American worker spent 2,004 hours on the job each year. By 2024, that figure had fallen to 1,796 hours.[166]

Despite this decline, Americans still rank among the hardest workers across high-income countries. Australians currently average 1,627 hours per year, while the British work about 1,538. At the lower end, German workers log as few as 1,334 hours annually.[167]

The decline has continued over the past two decades and shows little sign of slowing.[168] These are averages, of course, and millions of people still see work as a mission and find deep satisfaction in doing it well. But there is a clear shift.

Even Japan, long known for its demanding work culture, is beginning to change. A survey of 3,000 workers aged 20 to 59 found that 45 percent admitted they were doing only the bare minimum to keep their jobs—in other words, just enough to avoid being fired.[169] This was especially true among younger workers in their twenties. As one young man said:

> I don't hate my job and I know I have to work to pay my rent and bills, but I would much rather be meeting up with my friends, traveling or listening to live music…. I know that my grandfather and even my parents' generation thought they had no choice but to work hard and earn more money, but I do not understand that way of thinking.[170]

Americans also cite work-life balance as a reason for working fewer hours.[171] But the decline in hours worked has occurred at a time when people are also spending less time with family and community, as we'll see later in this chapter.

Speaking personally, I love training and supporting franchisees in my company, and I've always enjoyed working. I completed a PhD in the 1970s and early 1980s with the goal of an academic career. When that didn't happen, I turned my part-time yardwork business into a full-time operation.

Lawn care is less prestigious than academia, but it provided a great lifestyle for me. There was satisfaction in a job well done, in learning how to improve, and in spending time outdoors in contact with nature. That eventually led to expanding the business into what is now Australia's largest franchise chain.

It concerns us that younger generations are less interested in meaningful work for its own sake, and more focused on the money and lifestyle it can provide. And they're not always willing to do the work required to achieve that lifestyle.

This change isn't just about work, but also about how people engage with their communities.

The Decline of Community and Faith

Another recent change is the decline of social connection. Community has been a key feature of American life since the founding of the country. Alexis de Tocqueville was a French diplomat and political philosopher who toured America in the early nineteenth century, writing *Democracy in America* to record his observations. He was struck by the Americans' willingness to form voluntary organizations.

> Americans of all ages, all stations of life and all types of disposition are forever forming associations. There are not only commercial and industrial associations in which all take part, but others of a thousand types—religious, moral, serious, futile, very general and very limited, immensely large and very minute.[172]

Churchgoing was far from universal, but by 1890, about 45 percent of Americans identified with a particular denomination—something that usually implied regular attendance.[173]

Community reached a peak in the 1950s, during the baby boom. Groups that flourished in this period included labor unions, Freemasons, political parties, the Boy Scouts, veterans' groups, and the Red Cross. Churches and other religious organizations did especially well. In the 1950s and 1960s, 70 to 75 percent of Americans viewed religion as "very important." By 2025, fewer than half of Americans said the same.[174]

Over time, this pattern began to change. In his classic 2000 book *Bowling Alone*, Robert D. Putnam documented a marked decline in broad social ties over the preceding 50 years. The kinds of communities described above had been steadily shrinking. Those that did grow during this period, such as the Sierra Club, typically required little more than a membership fee and involved minimal face-to-face interaction.[175]

The book's title reflected the finding that while more people than ever went bowling, fewer were doing it as part of an organized league. Instead of group activities, they spent more time in solitary pursuits, such as watching television.

The loss of social engagement has become even more pronounced since then, especially with the rise of social media. People spend less time with friends than they did even 20 years ago and are far less likely to report having close friends at all.[176]

Heavy use of social media is no substitute for face-to-face interaction and has been linked to rising loneliness.[177] Real friendships are often replaced by virtual interactions, which tend to be much shallower. Someone may have a thousand Facebook "friends," yet still have no one to share their troubles with or rely on in times of need.

Social connections are one of the most important factors associated with happiness, and face-to-face connection consistently outperforms virtual interactions.[178] This is often found through relationships, involvement in community groups, volunteering, and participation in churches or other local organizations.[179] Those who volunteer for community service also tend to report higher levels of well-being. The benefits appear to come both from a stronger sense of purpose and from the close personal friendships such activities create.[180]

Loss of community is especially evident in the decline of religion. In 2007, 78 percent of U.S. adults identified as Christian. By 2024, that figure had fallen to 62 percent—a significant decline in less than two decades. Meanwhile, the share of Americans reporting no religious affiliation rose from 16 to 29 percent. These rates, however, have leveled off over the past five years. Those who are unaffiliated are more likely to be men, college graduates, and younger adults.[181]

But the real problem may not be the decline of faith itself, but the loss of religious community. Religious people tend to be happier than others, but mainly when they're actively engaged in a congregation.[182] Today, only 30 percent of Americans attend religious services on any given weekend, compared with 42 percent two decades ago.[183] Even so, Americans are still more religious than people in most other wealthy nations. Europeans, Canadians, and Australians are far less likely to say that religion is important.[184]

The same pattern can be seen in Asia. In Japan, 62 percent of people profess no religious belief, though they may identify culturally with Buddhism or Shinto.[185] Only 13 percent visit religious facilities on a monthly basis.[186] More than a third of Buddhist temples are expected to close over the next 25 years, and one in six already has no resident priest. Studies also show that funerals are increasingly likely to be secular.[187]

Buddhism and Christianity have also declined in South Korea since 2000, particularly among younger people. In 2025, 76 percent of South Koreans in their twenties reported no religious affiliation, compared to 48 to 61 percent of those in their forties through sixties.[188]

Faith can bring profound joy. No event in my life gave me a greater boost in happiness than when I became a Christian, quite suddenly, at the age of 28. Much of that joy grew out of joining a warm and welcoming community. The only experience that compares is meeting my wife 25 years ago, and a large part of our life together has been our active involvement in our church.

Focus on Money

Another cultural change in recent years has been an increased focus on money. We've seen this as a reason for later marriage and fewer children, and also in attitudes toward work. As mentioned earlier, young adults today are more likely to value jobs for their financial rewards and less for the satisfaction they bring. The question is how this increased focus affects happiness.

The first point to note is that an increased focus on money doesn't necessarily build wealth. A fair number of my nearly 6,000 franchisees have become quite well-off, with at least 20 I know of generating more than a million dollars a year. But they are not, in my experience, obsessed with money. They focus on great customer service, looking after their staff, and steadily improving their operations.

People who focus on money first often end up taking shortcuts, damaging their reputation, and ultimately failing. Even when this doesn't happen, it's risky to pursue wealth without the hard work and skill needed to earn it.

This helps explain the appeal of gambling and lotteries, as well as speculative ventures such as cryptocurrencies or stock speculation. These are all based on the hope of selling to someone else at a higher price rather than earning returns from the asset's underlying value. Often, that buyer never materializes.

The same mindset leaves people vulnerable to "get-rich-quick" schemes that promise high returns but rarely deliver. But even a more reasonable pursuit of wealth, when it comes at the expense of other priorities such as family and community, is unlikely to bring lasting satisfaction.

To put this on a personal level, some of the best years of my life were in the early 1980s, when I was a struggling lawn-mowing contractor working 60 hours a week to dig myself out of a mountain of debt—but in a job I loved, newly and joyfully married, with children starting to arrive. I could hardly have been happier.

Ten years later, I was running a fast-growing franchise network worth millions—but divorced and alone, cut off from my children for two years over a dispute with my ex-wife. It was the most miserable time of my life.

Today, my business generates around nine million Australian dollars a year, of which I draw perhaps three percent for living costs. The rest is reinvested or used to fund my research. By most people's standards, I'm wealthy. But a far greater wealth is a marriage to a wife I adore, along with the wonderful children we've had together. I know which one I fear losing most.

Few would argue that children should be raised without reliable food or shelter, but that's not the situation most people face. In the past, families typically lived in smaller houses and owned basic cars—often just one per household. Eating out was an occasional treat rather than a routine habit. Faced with that kind of lifestyle today, many would hesitate to start a family at all, let alone have three or four children.

Most people assume that a higher standard of living will make them happier, but survey data suggests this isn't necessarily the case. Researchers have found that beyond a certain point, additional income makes only a small difference to overall happiness.[189] The reason may lie not in the value of extra money itself, but in the fact that happier people are often more likely to succeed.[190] As best-selling author and happiness researcher Shawn Achor explains:

> More than a decade of groundbreaking research in the field of positive psychology and neuroscience has proven in no uncertain terms that . . . happiness is the precursor to success, not merely the result. And that happiness and optimism actually *fuel* performance and achievement—giving us the competitive edge that I call the Happiness Advantage.[191]

Chasing wealth, fame, and status rarely brings the happiness people expect. Studies consistently find that those who prioritize these goals tend to be less satisfied with life than those who pursue deeper sources of fulfillment.[192] A strong focus on possessions often increases envy and dissatisfaction, largely because material success invites constant comparison with others. There will always be someone who has more.

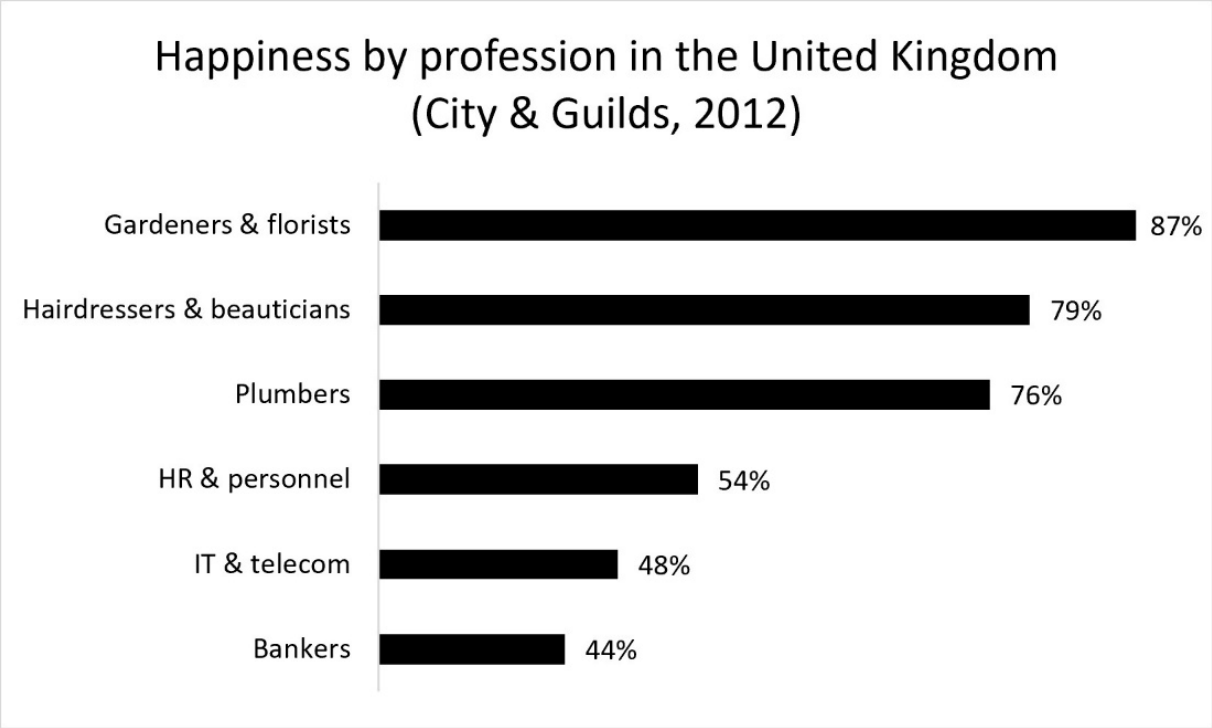
Owning a bigger house or a better car may bring an initial surge of pleasure, but the effect soon fades. Before long, the house or car simply becomes part of the background of everyday life. This is known as the "hedonic effect"—the psychological tendency for people to return quickly to a baseline level of happiness despite major positive or negative life changes.

This is most vividly illustrated by follow-up studies of lottery winners. Although winners initially report greater happiness, within a year or so, their life satisfaction typically returns to

roughly the same level as those who did not win, in part because everyday experiences begin to feel less pleasurable.[193]

A popular saying often attributed to Theodore Roosevelt states, "Comparison is the thief of joy." This dynamic applies not only to material possessions but also to social media. The profiles we follow often present carefully curated images of happiness and success, inviting unfavorable comparisons. At the same time, the pressure to accumulate "likes" can turn social interaction into a form of status competition—one reason heavy social media use is strongly associated with depression.

The same dynamic appears in how we think about work. Even highly respected and well-paid careers are no guarantee of happiness. A UK study asked people in different professions how happy they were with their work. The three happiest and three least happy groups by profession are shown in the graph below.



Data from: City & Guilds. The Key to Happiness at Work: Career Happiness Index 2012. (London: City & Guilds, 2012.) https://www.cityandguilds.com/-/media/cityandguilds-site/documents/news/cghappinesslongformfinalpdf.ashx?
Graph created by the authors.

A growing body of evidence suggests that a single-minded focus on financial success rarely produces lasting happiness, especially when it comes at the expense of family and a purpose-filled life.

Declining Mental Health

Putting these trends together, it's not surprising that measures of happiness and well-being appear to be moving in the wrong direction. One of the clearest indicators of this shift is the rise in suicide. In the United States, the suicide rate increased from 10.5 deaths per 100,000 people in 2000 to about 14.5 per 100,000 by 2018—a 35 percent increase over less than two decades.[194] This rise is somewhat unique to the United States, as most high-income countries have seen lower suicide rates over this same time period.[195]

However, rates of anxiety and depression have also risen across higher-income countries. This trend has been observed not only in the United States, but also in the UK, Australia, New Zealand, Japan, and South Korea.[196] Globally, large spikes in both depression and anxiety were seen following the COVID-19 pandemic, a time of unprecedented social isolation.[197]

Perhaps the most alarming aspect of these changes is that they are most evident among the young. Compared with their peers just a generation ago, young adults today are less likely to say they want marriage and children.[198] They're also less engaged in work, civic life, and community institutions while reporting far higher levels of mental illness.[199]

Even more troubling is what the data shows for youth in America. Among children ages 10 to 14, suicide rates tripled between 2007 and 2018.[200] What was once considered an exceedingly rare tragedy in this age group has become far more common in a relatively short period of time.

In the decade leading up to the 2020 pandemic, feelings of persistent sadness among children and teenagers increased by roughly 40 percent.[201] The rise has been especially pronounced among girls. From 2009 to 2019, the percentage of U.S. teenage girls who experienced a major depressive episode in the past year increased from 11.4 percent to 23.4 percent—more than double the rate.[202]

The decline in overall mental health is perhaps most clearly reflected in what researchers call "deaths of despair," a category that includes suicide, drug overdoses, and alcohol-related diseases such as liver failure and cirrhosis.[203] These deaths often reflect profound distress, though the precise cause isn't always clear. A drug overdose, for instance, may be accidental or may represent a deliberate act of self-harm.

Even when individuals struggling with addiction don't intend to end their lives, substances are often used to cope with deep emotional pain, including depression. In the effort to numb or manage that pain, they may take risks that significantly increase the chance of a fatal overdose.

In America, deaths of despair have risen across all social classes, but they're most common among people without a college degree. This is also the group that has seen the steepest decline in community and marriage, in work ethic, and in religious engagement.[204] Deaths of despair have also risen in other English-speaking countries such as Canada, Ireland, the UK, and Australia, though at a slower rate than the United States.[205]

Several forces likely contribute to these trends. Earlier, we discussed how increased helicopter parenting may unintentionally leave people more vulnerable to anxiety and depression and less prepared to cope with setbacks. Growing loneliness also plays a significant role, leaving many feeling socially disconnected.

That sense of isolation carries serious consequences. Studies consistently show that loneliness increases the risk of depression, physical illness, and even premature death.[206]

Many observers attribute much of the recent rise in mental health problems to the rapid spread of smartphones and the growth of social media, which have reshaped how people—especially younger ones—measure success, experience social pressure, and interact. These influences are likely part of the explanation. However, deeper forces may also be at work, tied to the broader cultural shifts we've been discussing throughout this book.

These trends aren't reversing or even slowing—they're accelerating. If they continue, the coming decades may see less participation in work and community life, lower mental well-being, and fewer children being born. Birth rates, already at historic lows in many countries, are expected to keep falling.

A number of studies have supported the idea that changing values are the key reason for declining birth rates. In particular, Second Demographic Theory (SDT) proposes growing individualism as the driving force.[207] However, SDT provides limited insights into *why* this change has taken place, and provides no solution to the crisis.

To answer these questions, we will need to look deeper—beyond culture and into the biological forces that shape human behavior and motivation.

Chapter Six: The Hijacked Mind

The modern world is undergoing a shift in character that's reshaping our priorities. Commitments that anchor life hold less appeal than they once did, while the pull of wealth and immediate rewards has grown stronger.

At the center of this change is dopamine. Often described as the brain's "wanting" chemical, dopamine is the signal that drives us toward action. When we're hungry and see a Big Mac or a soda, dopamine activity rises, nudging us toward the purchase. Foods high in fat and sugar are especially effective at triggering this response, while simpler options—like a stick of celery—rarely compete on the same level.

More broadly, dopamine plays a central role in learning, reward, and habit formation. Repeated stimulation strengthens the behaviors that precede it, gradually shaping patterns of thought and action—for better or for worse.

Surges

A surge of dopamine feels good and encourages us to repeat whatever triggered it. But the brain isn't designed to be continuously flooded with dopamine. Humans respond strongly to cues linked to survival and reproduction—food, sex, achievement—because those behaviors have always been closely tied to human flourishing and the continuation of society.

When dopamine is overstimulated, however, the brain compensates. It reduces its sensitivity to the chemical in order to maintain balance. The more intense and frequent the surges, the greater this dampening effect becomes, and the less responsive we are over time.

This, in turn, drives us to seek out more of the stimulus, and often in stronger or more intense forms. As the pattern repeats, the brain becomes progressively less sensitive, requiring greater stimulation to produce the same effect. Taken far enough, this reinforcing cycle can develop into addiction.

The modern world is full of stimuli that trigger dopamine surges. Novelty is one of the most powerful: new social contacts, unfamiliar places, fresh experiences, travel. Even common environments, such as living in a dense city surrounded by strangers, or spending time in a lively party or nightclub, can provide a steady stream of stimulation that keeps the system activated.[208]

Sex is an especially potent stimulus, particularly when combined with the novelty of multiple or changing partners. Porn achieves the same effect with much less trouble or expense,

and it offers an endless supply of different virtual partners, streaming from any device. The rise of the internet has made it abundant, cheap, and easy to hide—something that would have been unimaginable just a generation ago.

At the extreme, this results in sexual addiction, which can cause brain changes similar to drug addiction.[209] This problem is especially acute when vulnerable youth are consistently exposed to graphic sexual material, often violent or degrading to women.[210]

Status-seeking and competition are deeply rooted in human nature, but an excessive focus on them can drive repeated surges of dopamine.[211] In contrast, most societies throughout history—whether hunter-gatherer groups, peasant farming communities, or even our own until relatively recently—have been far more group-oriented and cooperative.

Status competition was less intense and kept more in check by social norms, and people often disapproved when it went too far. In many traditional societies, this restraint was reinforced by moral frameworks—for example, Christianity's view of pride and envy as two of the seven deadly sins.

Chasing likes on social media also triggers dopamine release, despite offering no meaningful real-world benefit.[212] As Facebook co-founder Sean Parker has acknowledged, features such as the "like" button were intentionally designed to deliver these small dopamine hits, encouraging users to share more content and spend increasing amounts of time on the platform.[213]

Immersive video games can also produce strong dopamine surges. Some studies have found that even a single session of gameplay can trigger significant dopamine release,[214] making everyday activities far less appealing and strengthening the urge to return to the game. These effects become even more pronounced with continued play.[215]

Gambling is another powerful trigger for dopamine. When people place bets—whether in a casino, on a slot machine, or through a lottery—the brain's reward system activates. Dopamine is released not only with wins, but even with near-misses and losses, reinforcing the urge to continue.[216] Over time, this cycle can become compulsive. Gambling disorder is now classified alongside substance addictions, reflecting its similar patterns of craving, impaired control, and serious life disruption.[217]

The rapid expansion of online sports betting has intensified this dynamic. When the Supreme Court overturned the federal ban on sports betting in 2018, Americans legally wagered less than $5 billion annually. By 2025, that figure had climbed to roughly $150 billion.[218]

This explosive growth has coincided with rising numbers of people seeking help for gambling addiction.[219] Young men appear especially vulnerable, both to the addictive dopamine surges caused by constant mobile wagering and to the financial damage that often follows.[220]

Despite the associated problems with gambling, federal oversight remains limited. While national agencies address alcohol and drug misuse, there's no comparable federal body devoted specifically to gambling, and no nationwide restrictions on sports betting advertisements. As a result, promotions—often featuring popular athletes—are broadcast widely, reaching audiences of all ages and further normalizing a behavior that can, for many, become deeply destructive.[221]

Some forms of investing resemble gambling—particularly when they focus on chasing rapid gains through volatile assets such as cryptocurrency or speculative stock trading.[222] This is very different from the disciplined effort and long-term perspective required to build a successful business or invest steadily in diversified index funds. These are two very different ways of attempting to build wealth, something we will return to in a later chapter.

Then there are chemical stimulants. Illicit drugs are the most obvious example, but alcohol and tobacco also engage the brain's reward system. As noted earlier, highly processed, calorie-dense foods can do the same. Even caffeine, such as that found in soda and coffee, has a mild effect. It increases dopamine activity, though far less dramatically than most of the activities and substances mentioned above.[223]

Many people who struggle with addiction feel deep shame and genuinely want to stop. The challenge isn't simply a lack of willpower, however.[224] Addiction can weaken the role of deliberate choice, making the ability to consciously follow through on decisions increasingly difficult. Over time, repeated dopamine spikes can rewire the brain, dulling its response to normal rewards and strengthening habits that keep pulling a person back—even when the consequences are painful.[225]

Understanding this biology helps explain why quitting can be extraordinarily difficult. I'm not drawn to gambling or alcohol, but even in my own life, I see how certain foods can become surprisingly hard to resist—my family knows the Nutella jar is safest when it's kept out of my sight!

But addiction represents only the extreme edge of a much broader problem. Even moderate engagement in high-stimulation activities such as gambling and porn can make the brain less sensitive to dopamine, causing quieter, everyday activities to feel unappealing.

By contrast, more ordinary activities still produce dopamine, but at lower, steadier levels that don't erode sensitivity over time. We refer to this pattern as the "ebb and flow."

Ebb and Flow

We need dopamine for a happy and fulfilling life. Lack of it causes serious problems such as poor learning and motivation, inability to concentrate, and depression. Absence of dopamine may take away the motivation to seek food and drink, conditions known as aphagia and adipsia, respectively.[226]

We benefit greatly from activities that produce gentle ebbs and flows of dopamine rather than sudden surges. These include time spent with family and friends, a walk in nature, prayer, and meditation. Notably, none of these are typically addictive.[227]

To use an analogy, ebb and flow is like ripples lapping the seashore, allowing toddlers to play in the shallows. The surge is like a giant wave, sweeping over the beach and into the landscape beyond.

An absorbing project is also an effective source of ebb and flow. When major goals are broken into smaller, manageable tasks, each completed step produces a modest reward signal. This reinforces effort without overwhelming the system. As a result, progress itself becomes satisfying.

Tasks such as writing an article, repairing a broken sprinkler, learning a new language, or building a chicken coop all follow this pattern. Each milestone provides a sense of accomplishment, and the satisfaction that follows accumulates over time rather than spiking sharply.

Exercise works in much the same way.[228] Repetition, small gains, and visible progress create slow, steady reinforcement. These activities stimulate without overstimulating. In other words, they reward effort while preserving the brain's sensitivity to dopamine and avoiding dramatic spikes.

Because the reward is tied to mastery and forward movement rather than novelty, ebb-and-flow activities build capacity instead of depleting it. This is one reason why absorbing projects are often important for recovery from addiction. They help the brain relearn how to find satisfaction in consistent progress rather than extreme stimulation.[229] In effect, they strengthen the dopamine pathways tied to effort, which sustains motivation while reducing the need for surges.[230]

Another sustainable source of dopamine is group activities with friends, church, or community. These include shared meals, rituals, volunteering, group singing, and dancing. They release not only dopamine, but oxytocin and other chemicals that regulate emotion. The result is a sense of meaning, belonging, and shared identity. [231] These social connections provide natural and meaningful rewards that satisfy the brain's need for reinforcement and reduce the desire for more intense, damaging rewards.[232]

Even some surge activities can be helpful if they build relationships. Sex between husband and wife bonds them together. Playing in-person games such as cards or chess may be competitive but can strengthen friendships. Food can build community, such as when my church group meets every fortnight. Sharing trips to new places may bring family and friends together. These relationships then provide the ebb and flow that we need.

The Cost of Constant Stimulation

It is my theory that the changes we've noted in previous chapters seem to share a common denominator. Our brains have been so bombarded by surges prevalent in the modern world that we've become far less sensitive to dopamine.

Perhaps people marry later, at least in part, because the ebb and flow of dopamine from a steady relationship isn't enough to satisfy their dopamine-insensitive brains. They're more likely to crave the intense surges from sexual variety, including porn. Lively parties, especially combined with alcohol and drugs, are also attractive. So, too, are gambling and chasing likes on social media.

The same goes for children. Engagement with kids may seem boring and restrictive for the dopamine-insensitive mind, which craves variety and stimulation. Career success and travel fulfill this need. Children, by and large, don't. And because dopamine-insensitive people have a greater focus on status and success, child-rearing becomes difficult and demanding.

Routine work tends to be less satisfying for the dopamine-insensitive. They may favor careers such as acting, being an influencer, and professional sports, which have the potential to bring fame and wealth with less routine and repetition. For those who can't achieve this, video games may provide a substitute.

The same goes for community and friendship, which involve a deep commitment to familiar and specific people. This tends to be difficult for the dopamine-insensitive, who may find such relationships difficult and stressful. It may be easier for them to chase dopamine-

boosting likes from a hundred friends on Facebook, “doom scroll,” or follow the lives of the rich and famous on TV and social media.

People who are insensitive to dopamine have the same problem with religion. Faith communities require a commitment to a specified group of people, with unchanging rules of behavior and familiar rituals. The ego needs to be subject to the will of others and to God, which brings ebb-and-flow dopamine, not the more intense surges from individual assertion and success.

By chasing surges, people forgo the ebb-and-flow activities that are the real source of purpose and well-being. The result is rising misery and mental illness, especially among the young, along with a growing attraction to the quick rewards of things like junk food. This helps explain, at least in part, the increase in obesity.

Even more extreme is the attraction of alcohol and drugs, which can be especially appealing to a dopamine-insensitive mind. In turn, they worsen the problem, contributing to a rise in “deaths of despair,” including drug overdoses, alcohol poisoning, and suicide.

If dopamine insensitivity is driving these patterns, the obvious question is whether it can be reversed.

Restoring Dopamine Sensitivity Is Difficult in Practice

In theory, it wouldn’t be hard to restore dopamine sensitivity. Reducing or eliminating the surge activities mentioned throughout this chapter can help return the brain to a healthier baseline. Practices such as fasting, putting phones aside for multiple hours a day, abstinence from sex, and a sustained focus on slower, steadier activities—like routine work or religious rituals—can also support this process. In practice, however, these changes aren’t easy to make.

Another challenge is that dopamine sensitivity is shaped to a significant degree early in life, as we will discuss in a later chapter. And while adult behavior can improve sensitivity, its impact is often limited in comparison.

In addition to biological constraints, the forces in modern society that promote dopamine surges are both powerful and pervasive. They’re deeply embedded in our culture and technology, often designed to be as irresistible as possible. Education and rational calculation struggle to compete with biological drives that have long been tied to survival and reproduction. In today’s environment, however, these same drives often lead us astray.

Yet this isn't an entirely new phenomenon. Similar dopamine-surge patterns appear to have taken place in past societies—and when they did, the consequences seem to be similar. To understand what may lie ahead, it helps to look at how these dynamics played out before.

Chapter Seven: What Happened to Rome?

As a teenager in the 1960s, I was captivated by ancient Rome. I saw striking parallels with our own society—including more relaxed sexual norms—and I often wondered whether we were heading down a similar path. What intrigued me most, however, was the decline in Rome's population.

Throughout most of history, population decline has typically followed war, famine, or plague. The Black Death, which began in 1348, killed 30 to 50 percent of Europeans.[233] The Thirty Years' War, fought from 1618 to 1648, reduced the population of some parts of Germany by more than 50 percent.[234]

But the Roman population appears to have declined among the elite—those best able to afford children. This runs counter to what we'd expect from basic biological principles. When animals are given plenty of food and are left free to breed, their numbers explode. Why should humans be so different?

Yet the parallels between ancient Roman society and our own have become increasingly difficult to ignore. Today, as countries have become wealthier and more focused on innovation and novelty, birth rates have rapidly declined. While there are numerous competing theories regarding the population decline and ultimate fall of the Roman Empire, it is my theory that a focus on pursuing wealth and novelty over the ebb and flow of family life played an important role.

After years of war, in the late first century BCE, Rome appeared to be facing a different kind of threat: falling fertility among the elites. While fertility numbers are notoriously difficult to measure and are debated by modern demographers,[235] concerns about falling fertility rates are evident by a series of laws enacted by Augustus, the first Roman emperor. These laws aimed to encourage his leading citizens to marry and have children.

Specifically, the *Lex Julia de Maritandis Ordinibus* of 18 BCE[236] sought to promote marriage and childbearing by penalizing those who remained unmarried or childless. Under the law, unmarried men above a certain age, as well as women without children, faced restrictions on inheritance.

Later, the *Lex Papia Poppaea* of 9 CE strengthened these measures by adding incentives, including tax benefits and expanded inheritance rights for those who married and had children. [237] In 9 C.E., Augustus publicly criticized his leading citizens for their failure to have more children, accusing them of betraying their ancestors and undermining the State.[238] Cassius Dios' *Roman History* attributes the following quote to Augustus:

> For you are committing murder in not begetting in the first place those who ought to be your descendants; you are committing sacrilege in putting an end to the names and honours of your ancestors; and you are guilty of impiety in that you are abolishing your families, which were instituted by the gods, and destroying the greatest of offerings to them, — human life, — thus overthrowing their rites and their temples.[239]

A number of Augustus's contemporaries and those who followed seemed to share these concerns. Tacitus, a Roman historian during the first and second centuries CE, wrote of how Augustus's statutes did little to address these issues, saying, "And yet, marriages and the rearing of children did not become more frequent, so powerful were the attractions of a childless state."[240]

The writings of Juvenal, a renowned satirist and critic of Roman society, provide more insights into the "attractions" disrupting family life at this time:

> In days of old, the wives of Latium were kept chaste by their humble fortunes. It was toil and brief slumbers that kept vice from polluting their modest homes. . . . Since the day when Roman poverty perished, no deed of crime or lust has been wanting to us. [241]

To me, it appears that as Roman society became wealthier, large families became less attractive. Women in elite circles were more involved in roles outside the home.[242] Fewer children meant that more resources could be devoted to each of them, including better education and a higher standing in an increasingly competitive society.[243] Limiting births was also relatively easy. Romans were familiar with methods of contraception and abortion, and in

some cases unwanted infants were abandoned—a practice historians call "exposure," where infants were left outdoors to die or be rescued by others.[244]

Fertility declines may have extended beyond the elite, although the extent of a widespread decline in Italy remains debated. While I believe the laws and writings of this time present a strong narrative of fertility declines, I must exercise caution in my discussion of population decline due to the limited surviving records from this time and the competing interpretations of modern scholars.[245]

In particular, historians disagree about what the Augustan census figures counted, and how they should be reconciled with other demographic and historical evidence. This leads to vastly different estimates of Italy's population during the Augustan period, ranging from roughly 6 million to 14 million.[246]

Similarly, scholars debate whether fertility declined substantially across Italy and, if so, how widespread such a decline may have been. Among the competing interpretations, I find Peter Brunt's reconstruction the most persuasive. According to Brunt, declining fertility, including deliberate limitation of family size, likely contributed to Italy's demographic trajectory during the late Republic and early Empire.[247]

Other demographers have questioned whether the available evidence is sufficient to support intentional family limitation across Italy.[248] However, in my view, this skepticism gives insufficient weight to the persistent concerns about fertility expressed in Augustan legislation and other contemporary writings, as well as the well-documented knowledge of methods to limit family size.[249]

Under Brunt's reconstruction, in a time of peace and prosperity, people in Italy were likely having fewer children than in earlier times. Unlike today, enough babies were being born to maintain or slowly grow the population. Their "birth-rate crisis" was far less severe than ours.

This pattern of behavior is strikingly similar to what we see in the modern world. Not all changes were negative, as this was an intensely creative period. The first century BCE is often regarded as the Golden Age of Latin literature, producing writers such as Cicero and Livy, who are still read today. We also live in a society that's highly innovative in areas from technology and science to the arts. It can be explained, at least in part, by the craving for novelty felt by dopamine-insensitive people.

Greece

A similar pattern of wealth leading to concerns about fertility can be seen somewhat earlier in Greece. From at least the eighth century BCE, the population of the Greek city-states had been steadily rising, with colonies established across the Mediterranean. Between 492 and 479 BCE, cities such as Athens and Sparta joined forces to repel two invasions by the vast Persian Empire.

In the period that followed, Greece entered a golden age. Its architecture and sculpture would go on to influence the Romans and continue to be admired thousands of years later. Playwrights such as Euripides and Sophocles helped lay the foundations of theater, while historians like Herodotus, Thucydides, and Xenophon helped establish the way we still write and think about history today. Socrates, in turn, laid the groundwork for multiple schools of philosophy. Like in Rome, we also saw women becoming more active in roles outside the home.[250]

Many of these accomplishments unfolded despite the immense destruction and cost of the Peloponnesian War in the late fifth century BCE.

This period reflected a growing willingness to question tradition. Socrates, in particular, challenged conventional beliefs, insisting that ideas be tested through reason rather than accepted uncritically. Even during his lifetime, this approach provoked strong opposition. He was accused of impiety and corrupting the youth, and some of his followers were associated with behavior seen as immoral, including acts that showed open contempt for the gods.[251]

Socrates himself condemned such conduct, but many remained suspicious of him. In the aftermath of Athens' defeat in 404 BCE, many Athenians came to see him as part of a broader cultural decline. In 399 BCE, he was tried, convicted, and ultimately forced to take his own life.[252]

The fourth century was more prosperous than the fifth, yet it was during this period that the population appeared to decline. This is perhaps most apparent in Sparta, which faced a demographic crisis in the fourth century, as the number of citizens declined sharply. Both ancient writers and modern scholars estimate that the population declined from around 8,000 individuals to fewer than 1,000 individuals over an approximate 150-year period.[253] While there were many factors beyond fertility at play in this decline,[254] fertility rates appear to be an important component.

Similar to Rome, laws were passed that offered rewards to men with larger families, but these efforts proved ineffective.[255] A key problem in Sparta was that wealth depended almost entirely on land ownership. Families with fewer children could pass that land on to fewer heirs,

making each child richer, while larger families had to divide their property more thinly. Aristotle described these issues:

> For the lawgiver desiring to make the Spartiates as numerous as possible holds out inducements to the citizens to have as many children as possible: for they have a law releasing the man who has been father of three sons from military service, and exempting the father of four from all taxes. Yet it is clear that if a number of sons are born and the land is correspondingly divided there will inevitably come to be many poor men.[256]

Like in both Rome and modern society, it appears that Sparta's focus on wealth accumulation and preservation contributed to declining birth rates.

Population decline extended beyond Sparta. Centuries later, as Greece was falling to Rome, Greek historian Polybius discussed how low fertility rates had become widespread and more dire, blaming greed and the pursuit of wealth as the cause:

> In our own time the whole of Greece has been subject to a low birth-rate and a general decrease of the population, owing to which cities have become deserted and the land has ceased to yield fruit, although there have neither been continuous wars nor epidemics. . . . For as men had fallen into such a state of pretentiousness, avarice, and indolence that they did not wish to marry, or if they married to rear the children born to them, or at most as a rule but one or two of them, so as to leave these in affluence and bring them up to waste their substance, the evil rapidly and insensibly grew. [257]

Despite population declines, Greek culture seemed to spread. This influence included thinkers such as Plato and Aristotle, who explored ideas about politics, ethics, and how people should live. Artists and architects focused on realistic, balanced designs, while plays examined characters' choices and moral struggles. Religion remained important, but new ways of thinking, combined with social change, led many to question older traditions. This culture proved highly attractive to other people, including the Romans, who conquered Greece but retained much of Greek culture.

Egypt

Nowhere was the impact of Greek culture stronger than in Egypt during the Ptolemaic Period, beginning when it was conquered by Alexander in the fourth century BCE and continuing for three centuries as the descendants of Ptolemy, one of Alexander's generals, ruled.[258] Greek remained the official language of the court and of administration, and the famous Library of Alexandria promoted Greek learning and literature.[259]

Centuries later, Egypt was annexed by Rome and was influenced further by Roman culture. As we saw in both Rome and Greece, women in Egypt were also taking on more diverse roles in society during this time.[260]

While concerns of fertility decline were not as prevalent as in ancient Rome and ancient Greece, we do see another striking similarity in that fertility decline seemed to be centered in wealthier, more urban cities. Census data in Roman Egypt is substantially better than most ancient countries, allowing for estimates of total fertility rates. A recent study estimated that the rural total fertility rate during this time was 8.57, while the urban fertility rate was only 3.37.[261]

Throughout the book, we've established 2.1 as the replacement rate, but that only applies to modern times. During ancient times, the rate would have been higher as it was more common for children not to reach adulthood due to disease, injury, accident, and other causes.

This pattern of fertility decline is familiar, and something we are seeing today on a global scale—as areas urbanize, fertility rates fall, often consistently and rapidly.[262] Interestingly, in some countries, fertility trends in rural areas follow what occurs in the urban areas, while in other countries, rural fertility remains high.[263] One of the factors at play in these trends appears to be how isolated rural communities are from the urbanized communities. In those that are more connected, the fertility decline appears to quickly follow.

A Common Pattern

The wealthy, urban demographic of each of these societies experienced fertility concerns. These cultures also became increasingly creative, with traditional values appearing to give way to a stronger focus on career and social standing for both men and women. Women in general spent more time away from their families.

This isn't to suggest that women working is a problem. My wife has worked with me in our business and really enjoys the time she spends there. Andrea has continued writing her own books and consulting for other authors on the side from home while raising and homeschooling her children. She and her husband share our commitment to putting family first.

In both of our experiences, meaningful work doesn't have to come at the expense of what matters most. We have always prioritized our children, relationships, and faith.

In the ancient societies we've examined, however, rising competition for status often came at a cost. Those who had children had fewer of them, and for some, family may have

dropped on the list of priorities. In every case, government efforts to reverse declining fertility proved largely ineffective.

This same pattern helps explain what we see today. Although these societies existed at different times, they show a consistent shift in what people valued, suggesting that something deeper than culture or policy alone was at work.

As wealth increases and societies become more focused on status and commercial life, the surrounding environment becomes more stimulating. Status-seeking and high levels of consumption create frequent bursts of reward in the brain. These repeated surges of dopamine—the brain's "wanting" signal—gradually reshape how everyday life is experienced.

Over time, this reduced sensitivity makes ordinary, slower-paced activities such as steady work, family life, religion, children, and community lose their appeal. In this setting, marriage and children can begin to feel less like sources of meaning and more like constraints.

Across time and culture, the pattern is clear: as societies urbanize and grow wealthier, they become less inclined toward family and childbearing.

This Change in the Modern World Is Far More Extreme

There is one key difference between our time and the past: earlier societies' fertility declines were far less drastic than what we are seeing today. Mortality rates were substantially higher. Fertility replacement rate estimates range from four children to nine children, depending on the time and place.

With those mortality rates, imagine if the Romans, Greeks, or Egyptians had matched the fertility rates seen in modern Korea. The remaining population would have been so small that it could fit comfortably into my living room.

These societies experienced changes similar to those we see in the modern world, though in a far milder form. If we are on the same trajectory, their outcomes may foreshadow our own—with the same pattern playing out far more quickly and on a larger scale today.

In all of these regions, birth rates eventually rebounded, though the original societies were replaced in the process. Fertility rose only after periods of political and military weakness allowed more warlike and fertile populations to take over, such as Germanic groups in the West and Arab expansions in the East.

As stated earlier, there isn't a known case of fertility being restored within a wealthy, commercial society itself.

With one exception. The postwar baby boom from 1945 to 1965 saw fertility rise well above replacement levels in many Western countries. The recovery proved temporary and was followed by an even steeper decline, but understanding why it occurred may offer important clues for how a more lasting recovery could be achieved.

Chapter Eight: What Really Caused the Baby Boom?

This chapter examines a different explanation for the baby boom—one that begins not with the prosperity of the postwar years, but with the hardship that came before them. Specifically, we consider the role of the Great Depression and its long-term effects on the children who lived through it.

The explanation given most often is that World War II and its aftermath drove the rise in fertility through prosperity and government support, including programs like the GI Bill and expanded access to housing. At first glance, this explanation might make sense. Birth rates rose sharply immediately after World War II and remained elevated through the 1950s before declining in the 1960s.

But why, then, did birth rates fall during the 1920s—a time of great prosperity and abundance? And why don't other major wars and government stimulus efforts produce similar baby booms?

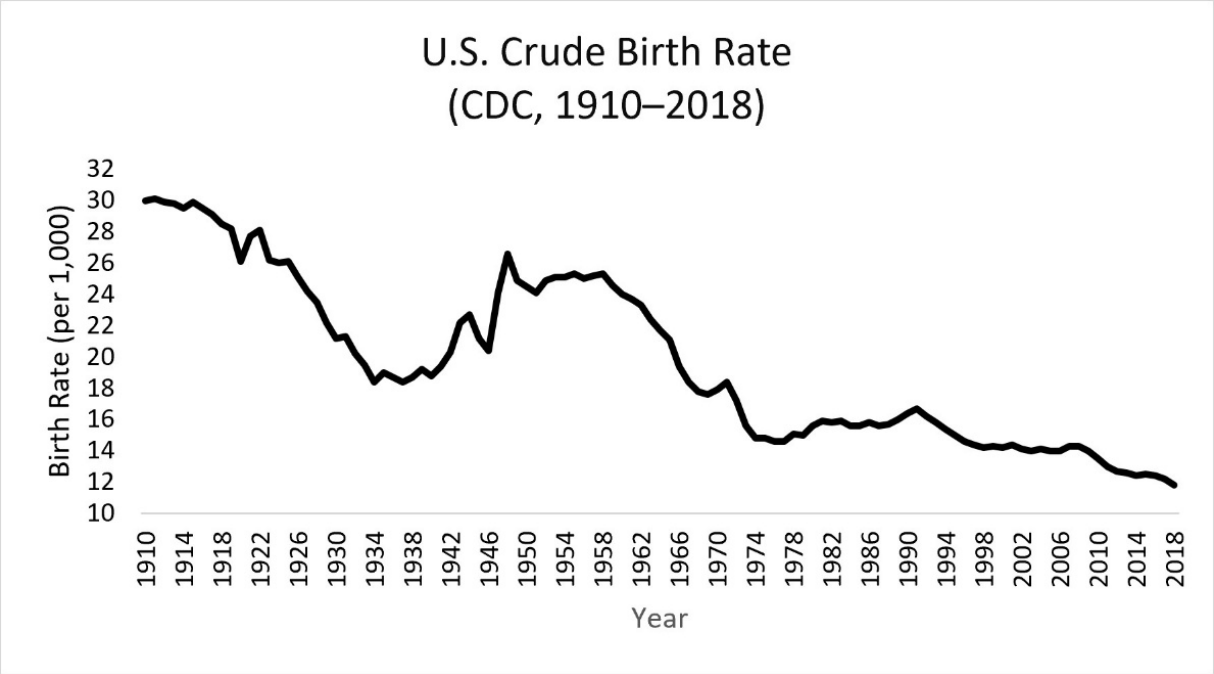
The key cohort we will focus on throughout this chapter is people born roughly between 1921 and 1931. This group were children during the Great Depression and became adults just before or after World War II. Compared to previous and subsequent generations, they had disproportionately high fertility.

What caused birth rates to decline before the Great Depression and then surge after World War II? Was it truly the end of the war and the rise of economic prosperity, or were deeper forces already shaping this generation's behavior long before the war ended?

Throughout this chapter, we'll examine data, research, and historical examples that point to a different explanation—one rooted not in postwar prosperity, but in the experiences that came before it.

The Conventional Explanation and Its Limits

The general consensus is that the improved economic conditions following World War II caused the baby boom.[264] At first glance, this seems logical, especially when we look at the data surrounding the war: the birth rate dropping until the 1930s and rising sharply as soon as the war was over, as seen in the below graph:



Data from https://www.cdc.gov/nchs/data-visualization/natality-trends/index.htm.
Graph created by the authors.
Note: Throughout this book and chapter, we generally use the Total Fertility Rate (TFR), which is the *estimated total* number of children a woman will have in her lifetime. Here, we have chosen to use the Crude Birth Rate (which is the number of births per 1,000 people) given the lack of reliable TFR data prior to 1933.

Several factors are commonly cited to support this view. Postwar prosperity is one of the most prominent. Incomes were rising, job security was strong, and many people felt optimistic about the future—understandably so, given their experiences during the Great Depression and the war.

The GI Bill is also frequently highlighted. It expanded access to education, made mortgages more affordable, and offered a path to a stable, middle-class life.[265]

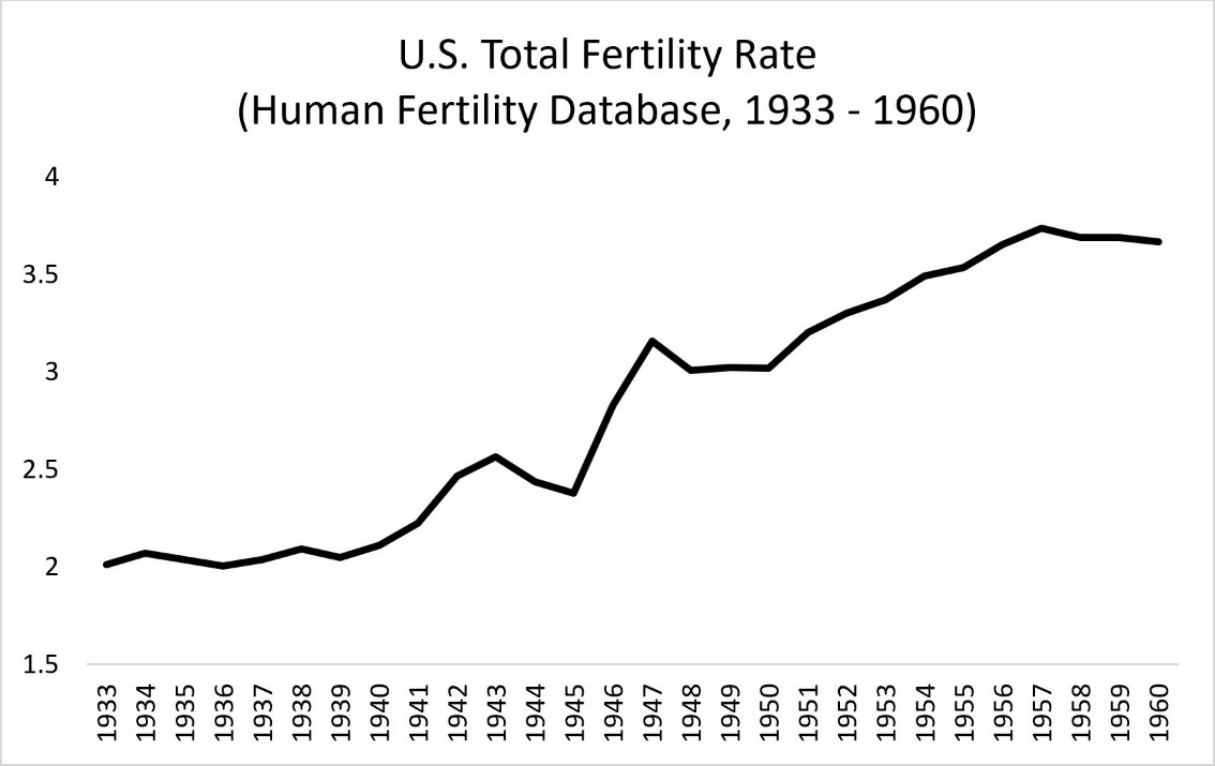
Housing expansion, particularly in the suburbs, is another piece of the conventional explanation. Mass homebuilding increased space for families and made homeownership more accessible.[266]

Cultural pressures and norms are also often included. Marriage occurred earlier,[267] and social expectations around starting a family were strong, with domestic life placed at the center of society.

Taken together, these factors create a compelling narrative, and it's easy to see why many conclude that the end of World War II caused the baby boom. But this explanation raises a couple of important questions.

First, if prosperity and economic optimism naturally lead to higher birth rates, wouldn't we expect to see this pattern in other periods of economic expansion? The 1920s were among the most economically dynamic and optimistic in modern history, yet birth rates declined during that time.[268]

Second, if we look at the chart below showing the years 1932 through 1958, fertility was already rising before men went off to war. The sharp spike around 1947 correlates with soldiers returning home, but it raises a natural question: If World War II had not occurred—and men had not gone off to war—would there have been a drop in fertility between 1943 and 1945? Or would fertility have continued rising into what we now call the baby boom?



Data from https://www.humanfertility.org/Country/Country?cntr=USA&lastUpdate=20260323.
Graph created by the authors.

These questions suggest that prosperity and the end of World War II alone can't fully explain the baby boom. Something else must have been happening beneath the surface.

Prosperity and Fertility: A Mismatch

We've seen how much wealth modern societies have accumulated over the past several decades—during a period when birth rates have steadily declined. The same pattern appears in ancient Egypt, Greece, and Rome: as wealth increased, fertility appeared to fall. This is the opposite of what we'd expect if prosperity—like that following World War II—were the primary driver of higher birth rates.

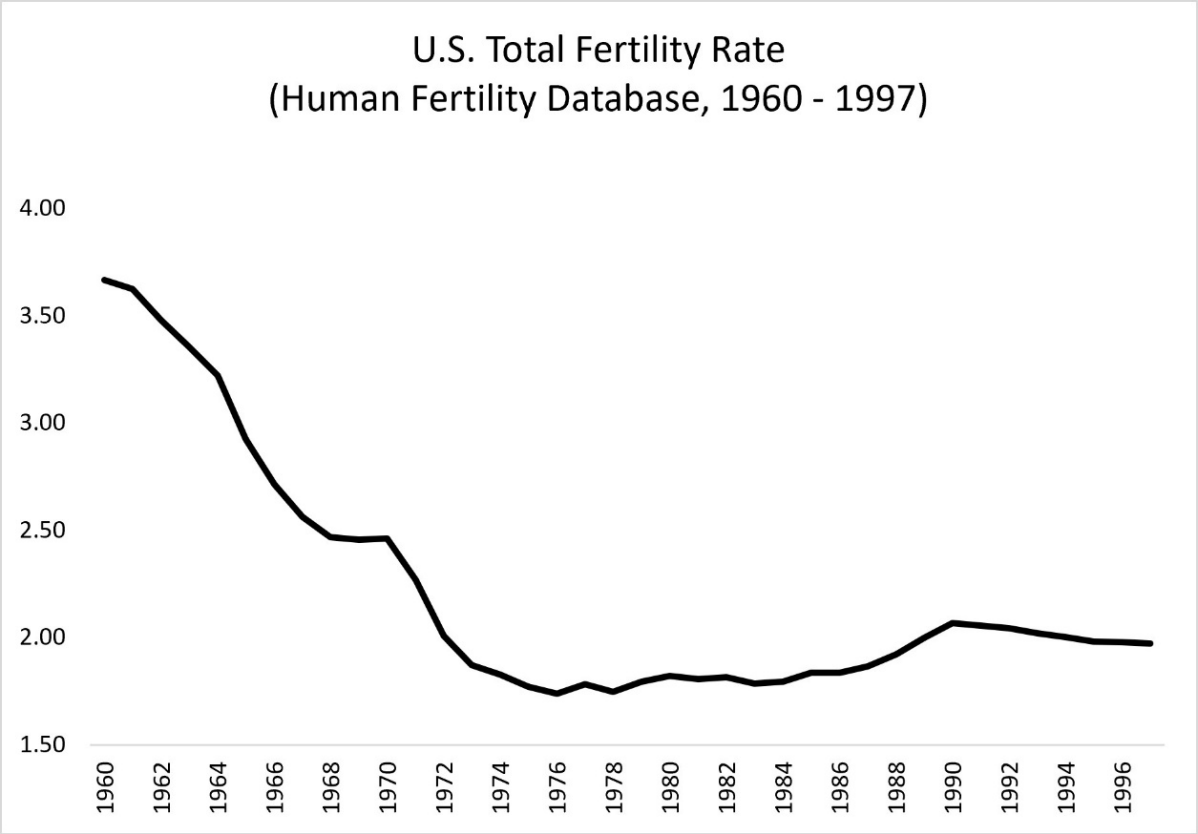
As we study history, we see multiple periods in which birth rates declined after war rather than increased. For example, after the trauma of World War I, birth rates fell sharply during the period known as the Roaring Twenties. This pattern appeared across the industrialized world, including the United States, Australia, and Western Europe.[269]

A similar pattern followed the American Civil War, the most traumatic conflict in U.S. history. Around 600,000 soldiers died—more than two percent of the population. Measured per capita, this was nearly ten times the fatality rate of World War II. Yet in the 20 years following the war, fertility declined rather than increased, falling from an estimated 5.2 in 1865 to 4.6 in

1885 among white Americans (reliable data was not collected among other racial or ethnic groups at this time).[270]

The same trend can be seen in the United Kingdom a few decades earlier. The British fertility rate plunged after the Napoleonic wars, from an estimated 5.53 in 1815 to 4.85 in 1840. It declined still further in the next decade, a time of depression and poor harvests known as the Hungry Forties, reaching 4.76 in 1850. Then it began to recover, reaching a new peak of 4.93 in 1865, and remained fairly stable through 1880.[271]

Even the economic difficulties of the 1970s and 1980s—though far less severe than the Great Depression or the Hungry Forties—show a similar effect. Fertility rates remained relatively steady during this period, followed by a modest increase around 1990, as shown in the graph below.



Data from https://www.humanfertility.org/Country/Country?cntr=USA&lastUpdate=20260323.
Graph created by the authors.

These three cases show the same pattern. A rapid decline in birth rate before the recession. A slower decline or rates holding steady during the recession. A recovery that starts at the end of the recession. And a new peak around 20 years after the mid-point of the recession.

This suggests that prosperity and postwar recovery alone aren't reliable drivers of higher birth rates. If economic growth led to more children, periods like the 1920s—and others marked by rising wealth—would have produced increases rather than declines.

The next question to consider: What shapes people's preferences around marriage, community, and family? As we've seen—and will explore further in the following chapter—fertility isn't simply a financial decision. It reflects deeper priorities and motivations.

One possible framework for understanding these shifts comes from research on dopamine and how the brain responds to stimulation and reward. As discussed earlier, environments rich in novelty and stimulation can reduce sensitivity to dopamine, requiring stronger and more frequent stimulation for the same sense of reward.

Periods of scarcity may have the opposite effect. When everyday activities—such as caring for children, interacting face-to-face with friends and neighbors, and attending church—feel more rewarding, people may be more inclined toward stable relationships and larger families. When these slower ebb-and-flow activities feel less satisfying, priorities tend to shift away from them.

The Roaring Twenties: Rising Stimulation, Falling Fertility

The 1920s—often called the "Roaring Twenties"—show many signs of rising dopamine insensitivity. It was a period of prosperity and rapid urbanization,[272] accompanied by a surge in economic optimism. The Dow Jones Industrial Average increased more than fivefold between 1921 and 1929,[273] and stock ownership spread widely, with millions of Americans buying stocks with borrowed money rather than paying the full price upfront.[274]

This reflects the kind of "get-rich-quick" mindset associated with dopamine insensitivity—the desire for wealth without the steady, routine work that most reliably produces it.

It was also a time of rapid innovation and cultural change. Jazz rose in popularity, along with new architectural and design styles such as Art Deco. In the visual arts, movements like expressionism and surrealism broke with older traditions. These developments aren't inherently positive or negative, but they do reflect a growing appetite for novelty—one of the hallmarks of a dopamine-insensitive mind, as discussed in the chapter on ancient societies.

At the same time, other changes caused concern among older generations. Skirts became shorter, and social limits on sexual behavior relaxed among the young. Most notably, the U.S. fertility rate declined sharply during the 1920s, from 3.3 to 2.5.[275]

Similar patterns appeared across Europe. In countries such as Britain, France, and Germany, cities expanded. More women pursued extended education and career paths, often delaying marriage and family formation.[276] Sexual behavior also shifted, with more premarital relationships, wider use of birth control, and more open discussion of sexuality.[277] Cultural trends such as the emerging image of the "modern woman," jazz, film, and consumer goods reflected these changes.[278]

These developments point to a growing pursuit of stimulation—through novelty, sex, and excitement. Alongside this shift, I propose, came a declining interest in the slower ebb-and-flow activities of family and child-rearing, and with it, lower fertility. This suggests that dopamine insensitivity was rising unusually fast in the 1920s, especially among the young.

The Great Depression: A Shift in Environment

In earlier chapters, we saw that rising insensitivity to dopamine in recent decades has been accompanied by increasing unhappiness, most clearly reflected in deaths of despair. A similar pattern appears in drug use. Substances such as cocaine sharply reduce dopamine sensitivity, which in turn raises cortisol levels. Addicts often feel anxiety and stress, leading to further drug use as they seek relief from misery.[279]

This helps us to understand what happened during the 1920s and thereafter. We can see evidence that young people appeared to be so insensitive to dopamine, and pursued dopamine surges so intensely, that the effect was a kind of behavioral addiction. As these surges became more extreme, they were followed by elevated stress levels, contributing to growing pessimism. And as with drug use, this often led to a search for even more stimulation to counteract the discomfort.

More evidence of rising anxiety beneath the surface of exuberant optimism can be seen in literature, art, and intellectual life. Popular films such as *The Cabinet of Dr. Caligari*, released in 1920, explored themes of madness, authority, and fear. Writers such as F. Scott Fitzgerald and Ernest Hemingway portrayed the moral and emotional emptiness beneath wealth and glamour in works such as *The Great Gatsby* (1925) and *The Sun Also Rises* (1926).[280]

In art, expressionist works often emphasized distortion, tension, and emotional intensity. Dr. Freud explored themes of repression and the instability of the self, seeing humans as less rational and more conflicted than in the past.[281] Poet W. H. Auden titled his Pulitzer prize-winning exploration of the human condition during this time "The Age of Anxiety."[282]

Chronic stress affects how the brain processes emotions and expectations. Prolonged exposure to stress hormones like cortisol can make individuals more likely to focus on negative outcomes, expect failure, and feel less in control. Over time, this contributes to a more pessimistic outlook, often associated with anxiety and depression, which further reinforces negative thinking patterns.[283]

This isn't a cycle of doom. In a later chapter, we will discuss how individuals can break free and achieve real happiness. But that's not what happened in the 1920s—the stock market collapsed in 1929, and millions lost their jobs in the following years. By that point, the optimism rooted in the dopamine-intense hopes of get-rich-quick schemes gave way to widespread pessimism.[284]

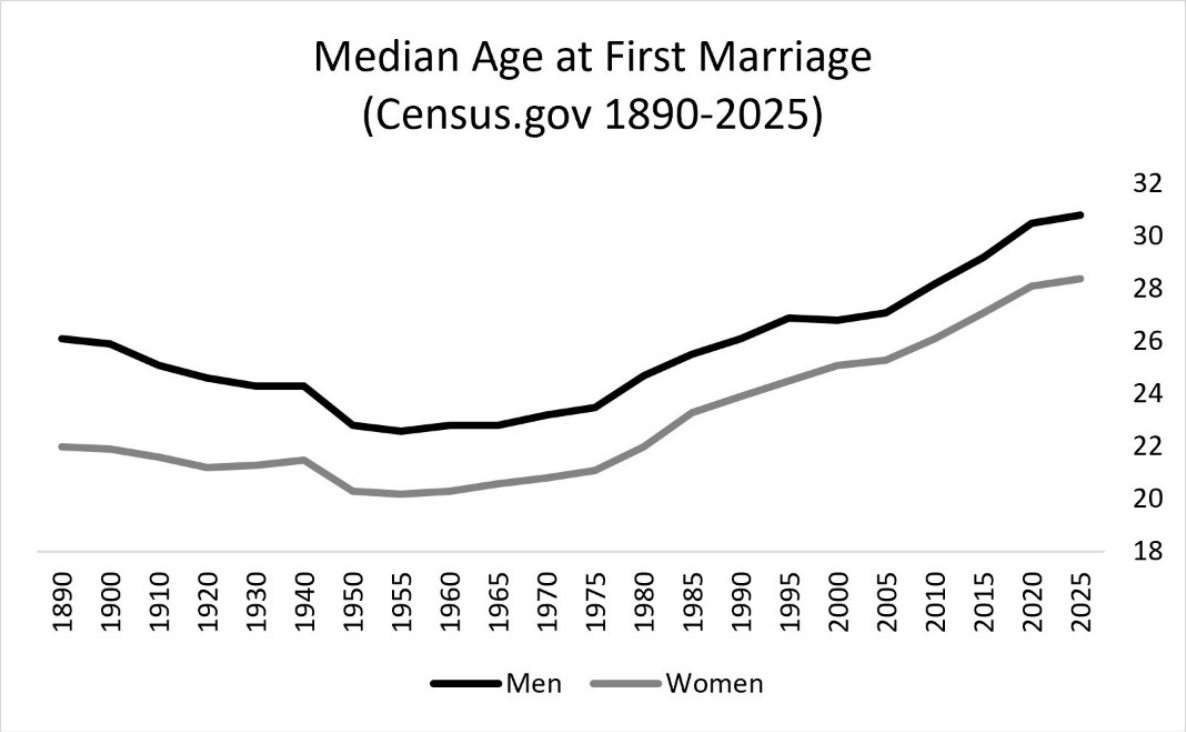
In Chapter Six, we examined the surge activities that reduce dopamine sensitivity—things like high-calorie food, novelty and excitement, gambling, the pursuit of status, and sexual activity involving porn or multiple partners. We also discussed the type of things that increase dopamine sensitivity, including ebb-and-flow sources such as family, community, and routine work, as well as practices like sexual abstinence in youth and even hunger.

The effects of the Great Depression were severe and left lasting marks on those who lived through it. Many experienced real hunger. Others endured cold due to a lack of heating or adequate clothing. Even those who remained employed had far less access to entertainment, travel, and social events—the very activities that had fueled the dopamine surges of the 1920s.

These conditions align with what we'd expect to restore dopamine sensitivity: a sharp reduction in surge activities and, for many, the presence of genuine scarcity. If our theory that this led to the baby boom is correct, we'd expect to see evidence of these shifts in behavior alongside the rise in birth rates. That evidence appears in several measurable changes.

Other Behavioral Shifts

One of the clearest indicators is that the median age of first marriage was consistently lower throughout the 1940s and on through the 1960s, as seen in the graph below. I believe that postponing marriage is a strong indicator that minds might not be sensitive to ebb-and-flow activities.



Source: https://www2.census.gov/programs-surveys/demo/tables/families/time-series/marital/ms2.xls
Graph created by the authors.

As we've seen, when dopamine sensitivity is high, the slower-paced ebb-and-flow activities of family and community become more appealing. Couples are more inclined to marry earlier, extending the number of childbearing years and allowing them to have the size of family that feels right to them rather than being constrained by biology.

This pattern extended beyond the home. The 1950s were also a period when community life was at a peak. Membership in a wide range of organizations reached some of its highest levels, including churches, trade unions, fraternal groups such as the Elks and Masons, and even bowling leagues. A vivid picture of this period, and of the decline in community since then, is offered in Putnam's *Bowling Alone*, mentioned earlier.[285]

Family, children, and community life are all signs of higher dopamine sensitivity—when people can take real satisfaction in the quiet ebb and flow of ordinary life rather than needing intense or constant stimulation to feel content.

This helps explain why prosperity alone doesn't produce the same results. Periods of wealth tend to bring frequent dopamine surges, which over time can reduce sensitivity and are associated with declining birth rates. In contrast, hardship and deprivation can increase sensitivity, making people more inclined toward marriage, family life, and community involvement. War alone doesn't explain the pattern, as seen in other conflicts where birth rates declined instead of increasing.

The timing of the baby boom reflects this pattern. The generation that went on to have the most children was born between 1921 and 1931, meaning their later childhood occurred during the Great Depression. This cohort had the highest fertility rates in modern society, while their parents—who weren't shaped by the Depression in childhood—and their descendants both had lower fertility.

This was not the only effect. Anonymous surveys since 1997 have asked U.S. adults how often they feel nervous, hopeless, worthless, depressed, or that everything is an effort, a standard test for mental distress. Even after accounting for age, the lowest rates were expressed by people born in 1920-1930, compared with those born before or after.[286] Despite being the most physically vulnerable group during the COVID-19 pandemic, those born before 1946 showed lower rates of anxiety throughout the pandemic.[287]

U.S. suicide rates show a similar pattern, with the Silent Generation (people born between 1925-1945) dying by suicide less often than any other cohort. More specifically, the lowest rates of suicide are seen by those born in the 1930s.[288]

I've included comments and data on this topic in the endnotes for those interested in exploring it further.[289]

The same applies to the case of both the Hungry Forties and the economic recession of the 1970s. The peak recovery of fertility comes just 20 years after the mid-point of the recession. I believe this suggests that the most influential period may be when the individual is between six and twelve—while his or her brain is still developing. Adolescence is likely to be important as well.

In other words, those who experience challenges in childhood may develop a heightened sensitivity to dopamine. As adults, they show a stronger interest in marriage, are more community-minded and religious, have more children, and tend to be happier.

In effect, the Great Depression may have achieved what government incentives couldn't. It appears to have reshaped people's priorities, making family and community more attractive and reducing emphasis on high-surge pursuits such as status competition and constant novelty. The idea that the Great Depression contributed to the increase in fertility is the best-fit explanation.

It's ironic that an economic disaster appears to have achieved what baby bonuses couldn't. The Great Depression may have restored dopamine sensitivity and increased the birth rate. That said, it was a horrifying experience that traumatized millions and left deep scars on a generation. There has to be a better way of achieving this result. This is something we will discuss at the end of the book.

This information raises important questions about family life—whether having children is worth it, if larger families are good for the children themselves, and how financially feasible they are. These are the topics we'll explore in the next chapter.

Chapter Nine: Parenthood: The Joy We Forgot

In the last chapter, we saw that the Great Depression boosted dopamine sensitivity in people who experienced the hardship in late childhood. As adults, they were far more interested in family and community than previous and following generations. These were the parents of the baby boom.

But there are families in the modern world who have resisted the trend of decreasing fertility. In them, we will see the attitudes and values that were common in the baby boom era. These same attitudes and values were also common in the more distant past, when the birth rate was much higher.

Catherine Pakaluk, Director of Social Research and Associate Professor at the Catholic University of America, set out to study large families in the modern world. Her findings were published in *Hannah's Children: The Women Quietly Defying the Birth Dearth*.[290] We've found her book very enlightening and will mention it throughout this chapter.

Values and Priorities of Large Families

A mother of eight herself, Catherine Pakaluk and her research team interviewed 55 college-educated women across ten regions of the United States, each of whom had chosen to have five or more children. The group represented a wide range of economic backgrounds, from those living below the poverty line to those who were well-off.

Throughout this book, we've seen that declining fertility is a direct consequence of changing priorities. Basically, people increasingly placing greater value on personal success and individual goals, and less on children and family.

But the women in this study consciously chose to prioritize marriage and family—along with service to God and their communities—over personal needs and interests. They rejected what they saw as the self-focused lifestyle of the broader culture and returned instead to older traditions by stepping away from that form of individualism.

They had many children because they valued them above anything they'd given up, including careers, hobbies, comfort, time alone, and even sleep. Their children gave them a deep sense of purpose and became their greatest joy and blessing. In many ways, they simply seemed to enjoy children more than many women do in the modern age.

As one mother said when asked what she liked best about her family life:

> Oh, my goodness. There's just never a dull moment. It's that there's just so much joy . . . You know, those relationships and watching them grow at every stage, and accomplishments, and watching them become their own independent person and you just can't replace that with anything else. It's remarkable. It's precious. It's life's greatest gift, right?[291]

This sentiment is shared by many women who prioritize children, including Andrea, my co-author, who looked forward to having her own children while growing up and has found immense joy and satisfaction in motherhood.

The women of Pakaluk's study also rejected the idea that self-fulfillment and career success should be the key aim of life. As one of them put it,

> From a personal point of view, there is a very strong push in our society for following your dreams and doing what pleases yourself. And having children and parenting is all about living for someone else, not yourself.[292]

We agree that few things offer more lasting gratification than parenting. It brings a depth of contentment that pursuing personal achievement or ambition alone rarely matches. And it doesn't prevent families from achieving goals or becoming successful—many of Andrea's relatives are considered very successful by today's standards and have four or more children. But they prioritized family first, then reached success after or even along the way.

The family values Pakaluk identifies aren't limited to her study. In our own conversations with couples who have chosen to have many children, we found the same patterns appearing again and again.

How These Values Play Out in Real Life

While researching for this book, we interviewed thirty couples who had four or more children. Across these conversations, a number of consistent patterns emerged.

First, all of the parents chose meaning over convenience. They found deep fulfillment and purpose in their children. While most openly acknowledged the difficulties of raising a large family—especially during the early years—none of them described their children as a burden.

Another clear pattern was a lack of rigid planning. Few of the couples followed a fixed blueprint for how many children they would have or when. Some had an ideal number in mind, but most approached family size one child at a time. In a couple of cases, the husbands were initially hesitant about having more children, but were willing to move forward and found that they grew into the demands and rewards of a larger family. They were ultimately very content with their kids.

Financial concerns, often cited as a primary reason for limiting family size, were consistently viewed by the couples as overstated and even dramatized. While all acknowledged that costs increase with additional children, they also emphasized that their lifestyles adapted accordingly. Priorities for how to spend available money shifted, and what initially seemed daunting was surprisingly manageable. Again and again, the same idea surfaced: a family-oriented mindset mattered more than income.

A fourth pattern was the contrast between short-term difficulty and long-term reward. The early years were frequently described as intense and demanding, but every family pointed to the later years as deeply rewarding. As children grew, their relationships with their parents strengthened. Communication improved as the kids matured, and the long-term payoff was well worth the challenging times.

Several additional themes appeared. Many of the families cited their faith in God as an important influence in their decisions, though not always the sole reason. Just as consistently, parents described raising children as one of the most effective ways they'd found to develop character—both in themselves and in their children—particularly in learning selflessness.

They also emphasized the strength of sibling relationships, noting that children in larger families often develop close, lasting bonds as they learn to cooperate, support one another, and grow together.

These patterns reinforce a central idea of this chapter: that the experience of parenthood, especially in larger families, is shaped less by circumstance and more by values and priorities.

But what about the expense? Is there some truth to the financial reasons people cite for not having children?

Challenging the Assumption

In 2015, the U.S. Department of Agriculture released a study that made massive waves online. According to the report, the estimated cost to raise a child from birth to age 17 was $233,610 in 2015 dollars.[293] Accounting for inflation, that figure rises to over $330,000 per child in 2026 dollars.[294] Because these numbers came from official sources, many people accepted them without question, often overlooking what those "costs" actually included.

Taken at face value, it's easy to see why couples feel anxious about the financial burden of raising children. For some, these numbers may even have reinforced the belief that they needed to delay starting a family until they felt more financially secure.

The problem is that these estimates don't reflect how most families actually live. Not only that, but the way many of the costs were calculated was misleading. The report assigns a wide range of expenses to each individual child—things like mortgage or rent, utilities, major appliances, furniture, flooring in houses, airfare, and entertainment such as video games or portable media devices.

Yet many of these are shared costs, and some are expenses a household will incur regardless of whether or not they have children. Couples already pay for vehicles, housing, utilities, and basic household needs before children enter the picture. And as families grow, costs are often spread out rather than multiplied. Items like baby gear, furniture, books, and toys can be reused and passed down. Many families swap used clothing with each other, significantly dropping expenses.

From our perspective, and from the experiences shared in our interviews, the cost to raise a family doesn't come even close to what these estimates suggest. Many parents find that while the first child or two bring bigger expenses (cribs, car seats, first sets of clothing, etc.), the children who follow are much easier to provide for. Families adapt, prioritize, and make things work during tight seasons, and their finances adjust over time.

But finances are only one part of the equation. What about the children themselves? Do they benefit more from having many siblings, or fewer?

Are Large Families Good for Children?

Large families come with real, research-backed benefits for both parents and children. Having multiple siblings creates a unique home environment, one that looks very different from life in smaller families or single-child households. In this setting, children are shaped in meaningful and often positive ways.

One of the most immediate benefits is built-in companionship. The women in Pakaluk's study, as well as the couples in our interviews, noted that large families tend to foster close relationships where loneliness is much less common. There's almost always someone to spend time with, and without the need to rely on a busy parent to coordinate schedules. Daily interaction with children of different ages becomes a natural part of life rather than another item on a to-do list.[295]

Another benefit is the strong sibling bonds that often develop in large families. While children may squabble when they're young, those relationships can grow into lasting friendships that carry into adulthood, providing a steady network of connection and support. This usually offers both emotional and practical help throughout life.

A third benefit of large families is how naturally they build social and practical skills. Kids often grow up sharing space with siblings for years, which means there are always people underfoot. A survey of 2,000 U.K. adults found that nearly half of respondents who reported sharing a room view the experience positively, while nearly two-thirds believed this experience helped them adjust more easily later on not only to difficult life circumstances, but also to roommates and spouses.[296]

Research also demonstrates that closer sibling relationships tend to lead to stronger conflict-resolution skills—learning how to share, work through disagreements, and cooperate with others.[297] These types of situations occur nearly every day, and kids in large families get more practice than their counterparts.

Another benefit of large families shows up in the relationships between older and younger siblings. Older children often have tasks and opportunities that build responsibility and leadership, while younger ones have built-in role models to learn from. Research suggests that in areas such as math and English, older siblings can influence younger children's outcomes as much, if not more, as parents do.[298]

A fifth benefit of large families is the strong sense of belonging they create. Kids often grow up with a clear sense of "we," something that can be harder to develop in smaller households. Their identity is grounded in family relationships, giving them a steady foundation as they grow into adulthood.[299] Research also suggests that children with healthy sibling relationships tend to rely less on outside validation, since they already have built-in encouragement and support at home.[300]

It's important to note that children learn appropriate coping skills from the adults around them. Most of the studies cited in this section found that if children only have negative interactions with their siblings, those relationships had a higher chance of souring over time.[301] This doesn't mean parents should hover over their kids, but it does mean there's value in stepping in at times to help children work through difficult moments and learn healthier ways to handle conflict.

Overall, many parents find deep satisfaction in watching sibling relationships grow and strengthen over time, and research shows that children do benefit from being in larger families.

What This Looks Like for Us

The benefits of large families are ones we've both experienced. My first five children, all close in age, formed a tight-knit group—they loved spending time together and created a lively, energetic household. Those relationships have only deepened over time, and most remain close today, even with one now living in Taiwan with his wife.

My youngest son, now 17, has often wished for a younger brother, since his next oldest sibling is six years older—a significant gap for children. Now that his sisters have moved out, though, those relationships have shifted. They make a point of staying connected, regularly planning visits and enjoying time together.

As one of seven, Andrea rarely felt bored or alone growing up. There was always someone to play with or talk to. She also had plenty of opportunities to help her younger siblings learn important skills. When her mother became very ill when Andrea was thirteen, Andrea stepped in and became a mother figure to her two youngest brothers. She cared for them day to day—feeding them, helping with things like potty training, and spending hours reading to and playing with them.

Not once did she resent the responsibility. She genuinely enjoyed that time with her brothers, and it gave her the chance to develop skills she would later draw on as a mother herself.

Andrea and her youngest brother have been close friends ever since, turning to each other during stressful times despite an 11-year age gap. They've held weekly game nights for years and chat almost daily. When they got married, their spouses naturally blended in, adding to the richness of the relationships.

Both make an effort to stay connected with their other siblings as well. Their family has long kept traditions like regular dinners and annual reunions, which have helped bonds remain strong.

Andrea and I have experienced a lot of joy in our families across the years. We believe this joy is something that's difficult to find anywhere else. But what about the studies suggesting that parents of young children are unhappy?

Are Parents of Young Children Less Happy?

A number of studies have suggested that parenting leads to unhappiness. Other research has reached the opposite conclusion, finding that parents are, in fact, happier. [302] So, which is more accurate?

The answer, in part, comes down to how happiness is defined. This has led to the need to distinguish between a happy life and a meaningful life. Happiness is focused on fulfilling wants and needs in the present moment. Meaningfulness focuses on long-term purpose and integrates the past, present, and future.[303]

Much of the research suggesting that parenthood leads to better outcomes focuses on the meaning it provides.[304] If that element is set aside and attention is given only to the challenges—sleepless nights, endless diapers, and frequent tantrums—it becomes easy to understand why some studies report lower happiness.

But surveys that ask only, "Are you happy right *now*?" overlook a crucial point: the difficult early years often give way to a deep, lasting sense of joy and purpose that's hard to find outside of parenthood. This also helps explain the research that shows parents become happier with age.[305]

While we both have found a lot of joy, purpose, and meaning in parenthood, we realize we may be exceptions to the norm when it comes to the difficult early years. I was undeniably happy when there were young children in the house, and I do miss them.

Andrea's favorite stage of childhood is the toddler years—a demanding season for parents, but one she found especially fun and rewarding. At least some of Pakaluk's respondents expressed a similar sentiment about young children.

This joy in parenthood also seems to have been the prevalent view in Victorian England, when birth rates were at an all-time high. Hippolyte Taine, a French historian and philosopher, made the following remarks about his time in Victorian England:

> Every Englishman has, in the matter of marriage, a romantic spot in his heart. He imagines a "home," with the woman of his choice, the pair of them alone with their children. That is his own little universe, closed to the world.[306]

Historian John Tosh later said that this statement "correctly summed up the view prevailing in the 1850s."[307] Even religious ideas began to reflect this shift. By the mid-nineteenth century, the image of the afterlife had changed into a place where the departed would be reunited with their loved ones and live in eternal domestic bliss.[308]

People who enjoy having children tend to see parenting as meaningful and worth the effort, even when it's hard. Research shows that while daily parenting can be stressful, it often brings a strong sense of purpose overall.[309] These parents are more likely to accept challenges as normal, focus on building a close relationship with their kids, and treat them as independent individuals rather than something to control.[310] They also keep realistic expectations regarding the normal behavior of children, which helps them enjoy everyday moments more.[311]

These parents also tend to have a flexible, long-term mindset. Seeing parenting as a process of growth—for both themselves and their child—makes it easier to handle difficulties.[312] While factors like income and marital status certainly play an important role in parents' happiness, whether parenthood is enjoyed may depend less on how hard parenting is and more on how people think about it.[313]

It's also worth considering how modern culture defines happiness. It's often measured in moment-to-moment feelings that are easily disrupted by small frustrations like traffic or spilling something on a favorite outfit.

More concerning, perhaps, is the tendency to believe that happiness should be our default state. This is not true. Happiness exists only in contrast to other feelings, including sadness, frustration, and pain. Consistently avoiding painful experiences while seeking and expecting happiness, rather than seeking meaning in life, generally increases suffering in the long-term.[314]

For parents who embrace their role, that sense of fulfillment often helps alleviate the day-to-day stresses of raising children. [315] As we found in our interviews, even those who struggled in the early years could not—and would not—imagine life without their children.

Therefore, disagreements among researchers about happiness in parenthood have more to do with the type of happiness being measured. Short-term frustrations and challenges,

especially in the early years, are unavoidable. But when we understand happiness as a sense of purpose and long-term fulfillment, the evidence from research and our interviews becomes far more consistent.

For many people, recognizing that it's challenging to raise children isn't a contradiction to happiness—it's part of what makes that deeper happiness possible.

Modern Parenting, Dopamine, and Faith

We also need to consider the role dopamine plays in how we experience parenting. As discussed in Chapter Six, a brain accustomed to constant, high-stimulation activities can find the natural ebb and flow of family life less engaging while placing greater value on career achievement and consumption.

At the same time, modern approaches like helicopter parenting can turn child-rearing into something that feels heavy and burdensome. In that context, it's not surprising that some parents report lower day-to-day happiness. It perhaps reflects the conditions of modern life more than the nature of parenthood itself.

The families in Pakaluk's study, however, have chosen a different path—one centered on meaning rather than consumption. By spending less on lifestyle upgrades, constant entertainment, and status-driven purchases, they free up both time and financial resources.

This not only makes larger families more feasible, but also changes how rewarding family life feels. As they step away from the constant pull of high-stimulation rewards and focus more on relationships, time with their children becomes deeply satisfying.

Faith often plays an important role in reinforcing this shift. All of the women in Pakaluk's study held deeply rooted beliefs across a range of traditions, including Jewish, Evangelical, Catholic, and Latter-day Saint backgrounds. Most of the individuals we interviewed reflected a similar pattern. It's well established that those with strong faith commitments are more likely to have and desire larger families, and that secularism is associated with lower fertility rates globally.[316]

The connection runs both ways. People who are more sensitive to dopamine may be drawn to faith, while active participation in a religious community can help recalibrate that sensitivity. This often happens by discouraging high-stimulation activities such as gambling, heavy drinking, and sexual permissiveness while encouraging commitment to community and alignment with the will of God. Over time, this shift makes slower, relationship-centered experiences—like family life—more rewarding.

In this chapter, we've looked at individual families—both through research and direct interviews—who have resisted the broader trend toward smaller households, along with the attitudes that support that choice. In the next chapter, we'll look at entire communities that have done the same, and the shared norms and traditions that make it possible.

Chapter Ten: Why Some Communities Still Grow

The pull of the modern world is powerful, and the trend toward smaller families is hard to resist. It's worth looking into certain groups that have achieved larger families. In this chapter, we will consider not only the customs that set them apart, but the reasons why these customs matter. In effect, these are traditions and beliefs that serve to strengthen dopamine sensitivity and resist the surge activities that undermine it.

The Amish: Fertility Through Separation

One group that has been especially successful at maintaining fertility is the Amish.[317] They're best known as a distinct people who drive horse-drawn buggies and wear old-fashioned clothing. In recent years, they've become something of a tourist attraction, with a lot of demand for Amish handicrafts.

The Amish are among the most fertile societies in the world, something they've maintained for a very long time. An estimated 3,000-4,000 Amish migrated to North America between the early eighteenth century and the mid-nineteenth century.[318] In the generations that followed, many Amish communities assimilated into the broader American society, while relatively few converts joined from outside.[319]

In addition, a minority of Amish (approximately 15 percent) leave the community or choose not to be baptized into the Amish church with each generation.[320]

And yet, the Amish in Canada and the United States today number more than 400,000.[321] Their numbers are approximately doubling each generation, with families typically averaging a total fertility rate of 6.1 children per woman.[322] Compare this to the 1.6 or less in the wider populations of the States and Canada.

As mentioned earlier, a key to maintaining dopamine sensitivity is that individuals be willing to sacrifice and subject themselves to the influence of others, often including a higher power. The Amish remain strongly religious, with very high levels of participation in church life and community observance. They're also known for strong traditions of cooperation and mutual aid. The Amish "barn raising," demonstrated by films such as *Witness* (1985),[323] is a well-known example of communal labor and collective support.[324]

Amish culture strongly emphasizes humility, conformity, and community over individual self-promotion, which is a potent driver for dopamine surges. Compared with mainstream American society, the Amish generally place less emphasis on personal status and competition.

Church decisions are often made collectively, seeking broad agreement within the congregation. Leadership roles—bishops, ministers, and deacons—are unpaid and are commonly selected by lot from among eligible men. Although the role carries respect within the community, it's also regarded as a serious spiritual and practical responsibility, and some men are reluctant to accept the responsibilities.[325]

Amish clothing styles are intentionally simple and uniform, reflecting religious ideals of modesty, humility, and separation from worldly vanity. Jewelry and most forms of decorative adornment are discouraged or forbidden, and women generally don't wear makeup.[326]

Amish children are socialized from an early age into values such as obedience, politeness, cooperation, and respect for elders. Children are gradually given household and farm responsibilities as they mature. These norms are reinforced not only within the family but also through Amish schools, churches, and the wider community.[327]

The Amish strongly discourage sexual relations outside marriage and place considerable emphasis on marital fidelity. Adultery is regarded as a serious offense and may result in church discipline, including excommunication and shunning. Divorce is generally prohibited except in rare circumstances. Because Amish communities are small and socially close-knit, personal behavior is often highly visible to others.[328]

Pornography is also strongly condemned and historically has been less accessible in Amish communities because of restrictions on media and technology.[329]

Given that sex is one of the strongest sources of dopamine surges, restriction at this level is a powerful and effective way of making brains more sensitive. The biggest influence is on adolescents, who experience severe limits at an age when their brains are the most plastic—meaning, their brains are malleable.

Another way of strengthening dopamine sensitivity is through food restriction or fasting, an element of most religious traditions. Some Amish communities observe fasting practices on occasions such as Good Friday, sometimes abstaining from food until evening. However, fasting isn't as central in their religious life as practices such as church attendance, mutual aid, humility, and separation from the wider world.[330]

All of the above show that the Amish cut off surge influences as much as possible. They also strongly support ebb-and-flow activities such as family, community, and work. The Amish are widely known for valuing hard work, self-discipline, and practical labor.

Farming has traditionally held especially high status within their society, although many Amish today also work in trades, small businesses, and manufacturing. Their communities often make careful decisions about labor-saving technologies, adopting or limiting them based on whether they support or weaken family life, community cohesion, and religious values.[331]

And yet, they strictly observe the Sabbath as a day of rest on which they're reluctant to travel, and they do no more than the minimum of chores.[332] This pattern of hard work and a day of rest seems to be especially potent as a way of keeping dopamine sensitivity strong.

Although Amish life involves hard physical work and fewer modern conveniences, many express strong attachment to their way of living and prefer it to mainstream society.

Rules regarding mobile phones vary considerably between communities: some forbid them while others permit restricted use, often for business purposes and sometimes requiring that they be kept outside the home.[333]

Amish communities are structured in ways that limit exposure to many aspects of mainstream consumer culture. Most don't use social media, video games, or online gambling, and many communities prohibit private ownership of automobiles. Living largely in rural areas, they also experience less of the anonymity and rapid social change associated with urban life. These practices are intended to preserve community cohesion, humility, and separation from influences viewed as disruptive to Amish values.[334]

A further form of separation is linguistic. Amish people generally speak English fluently, especially when dealing with outsiders, but many also use Pennsylvania Dutch in everyday family and community life. High German is additionally used in religious services and scripture reading.[335]

The Amish also limit participation in higher education and many forms of professional life. Formal schooling usually ends after the eighth grade. As mentioned earlier, farming has traditionally been the preferred occupation, although rising land prices have led many Amish men into other avenues of work. Women commonly focus on domestic and family responsibilities rather than careers outside the home. Together, these customs help maintain a distinctive religious and cultural identity.[336]

The Amish even employ a form of safety valve so that those less committed to the lifestyle earlier on may leave. They allow a period of greater social freedom during adolescence known as *Rumspringa* ("running around"). Beginning in the mid-teenage years, young people may participate in peer-group activities and experience aspects of the outside world while still living at home.[337]

This period often includes courtship and usually ends with adult baptism and marriage, commonly in the early twenties. While practices vary greatly across communities, some adolescents experiment temporarily with non-Amish practices, such as driving cars or attending mainstream entertainment venues.[338]

About 85 percent of Amish youth ultimately choose baptism and remain within the church.[339] Baptism represents a formal commitment to Amish religious life and is generally expected before marriage. Members who are baptized and later leave the church may be subject to shunning, depending on the community and circumstances, while those who never join formally are usually not shunned.[340]

The extraordinary fertility of the Amish is made possible by this extreme set of circumstances and maintained only through the most rigorous controls on behavior. The Amish of Ohio are far more fertile than other Americans, though not all to the same degree. The Andy Weavers, the strictest group, had an average of 6.3 children per couple at the time of measurement, the somewhat more moderate Old Order Amish 5.2, and the New Order Amish 4.8.[341]

These numbers may seem low compared to the total fertility rate for the entire Amish population we presented earlier (6.1), but when looking at averages in this context, it does not account for the children a woman is likely to have in the future the way the total fertility rate does.

The more open groups are to the technology and practices of the outside world, the lower their fertility.[342] Farming households also appear to have about one more child on average than non-farming households among the Amish.[343]

Latter-day Saints: Fertility Within a Modern Society

The Amish maintain high fertility by shutting themselves off, as much as possible, from the wider society. We will now look at another group that has remained above the fertility replacement rate while engaging far more with the world. This is The Church of Jesus Christ of Latter-day Saints, better known as the Mormons.

Latter-day Saint fertility isn't at Amish levels, but it's still well above that of the general population. While estimates of fertility among Latter-day Saints are not as recent or clear as the Amish, a 2015 Pew Research Center study found that members aged 40-59 have had an average of 3.4 children in their lifetime, well above the general population's average that same year.[344]

As with the Amish, levels of activity and community support are high. Most members are given a "calling" that helps them take part in the running of the local congregation or ward.[345] Members are also assigned to provide regular support to other households through a system called "ministering." In addition, congregations organize practical assistance for members in need, including new mothers, the sick, and the elderly.[346]

The Church places a strong emphasis on personal conduct and adherence to shared religious standards. To participate in certain sacred ordinances, members meet one-on-one with local church leaders to discuss aspects of religious belief, personal behavior, and observance of church teachings.[347]

Members vary widely in income and wealth, but from my own interactions with those of this faith, respect is often tied more to service and commitment within the Church than it is to financial success. One of the most respected figures in a congregation is typically the bishop, an unpaid local leader who temporarily serves as the head of the ward.

This strong sense of community and shared expectations helps reduce some of the status competition and envy that can fuel dopamine-driven behavior in the modern world. While not as socially separate from wider society as groups such as the Amish, active members of the Church often display relatively strong family ties, high levels of community involvement, and adherence to shared behavioral standards.

Studies have frequently noted comparatively high levels of religious participation, volunteering, and social cohesion among active Latter-day Saints.[348]

Sexual conduct occupies an important place in Latter-day Saint teaching. The Church reserves sexual relations for marriage between a man and a woman. Young people in particular receive regular instruction on chastity and sexual self-control.[349] Church teachings also

discourage pornography and other sexual behavior regarded as violations of the "law of chastity."[350]

Masturbation has traditionally been discouraged, with members encouraged to practice self-control and, when appropriate, repentance. Questions about personal conduct may arise in worthiness interviews with church leaders. In some cases, members may be asked to refrain temporarily from certain forms of participation, such as taking the sacrament or entering the temple.[351]

Fasting is also practiced in the Church, typically as a 24-hour fast once each month, usually before a "fast and testimony meeting" in which members may voluntarily share personal expressions of faith. Members are also encouraged to donate the value of missed meals as "fast offerings" to help those in need.[352]

As with the Amish, however, fasting likely plays only a minor role in maintaining dopamine sensitivity. For most members, abstaining from food for 24 hours isn't especially difficult, since food is normally plentiful and going without is only a temporary inconvenience. Avoiding impure thoughts and actions is likely far more difficult.

Particularly significant is the avoidance of substances such as alcohol, tobacco, coffee, and non-herbal tea, which are prohibited under the Church's health code known as the "Word of Wisdom." Adherence to these practices may also reinforce a distinct group identity and help distinguish active members from broader social norms.[353]

Latter-day Saints place a strong emphasis on marriage and family in both doctrine and daily life. About two-thirds of adult members are married, compared to less than half of the general population.[354] Regular Sunday instruction often includes topics relating to marriage, parenting, personal conduct, and family life. Church culture also places considerable emphasis on self-reliance, emergency preparedness, and prudent financial management.[355]

Members are also encouraged to set aside regular times for "family home evenings," a long-standing church practice intended to strengthen family relationships through shared time, religious instruction, and family activities.[356] Reflecting this emphasis, a well-known Church saying I've mentioned teaches that "No other success can compensate for failure in the home."[357]

Young men in the Church are encouraged to serve a two-year full-time proselytizing mission with a highly structured set of rules and expectations, while young women may also volunteer for 18-month missions. Missionaries follow strict behavioral standards, including limits on entertainment and media use, and are expected to stay with an assigned companion at

almost all times. They also follow rules about interactions with others, including avoiding being alone with members of the opposite sex or with children.[358]

Because most missionaries begin service around age 18, this period likely plays a significant role in shaping habits of discipline and self-control while also serving as an effective way to set dopamine sensitivity at a permanently high level. Missionary service is, of course, an effective way to expand Church membership, but it also functions as a way to build character.

Members are encouraged to keep Sunday as a day of rest, worship, and family activity, though generally less strictly than groups such as the Amish. Working on the Sabbath is accepted only when necessary, such as in caregiving professions, emergency services, or other essential work.[359]

Like the Amish, Latter-day Saints are widely known for a strong work ethic, which has contributed to notable economic and business success. Although the Church represents a relatively small percentage of the population, members of The Church of Jesus Christ of Latter-day Saints have often achieved notable prominence and levels of professional and financial success disproportionate to their numbers in the United States.[360]

Examples include Mitt Romney, former cofounder of Bain Capital; Jon Huntsman Sr., founder of Huntsman Corporation; and David Neeleman, founder of several airlines including JetBlue. Other prominent Latter-day Saints in business include Stephen Covey, author and management consultant, and Clayton Christensen, the influential business theorist and Harvard Business School professor.[361]

The Marriott International hotel chain was founded by the Marriott family, who belong to the Church. Family members who continue to hold leadership roles in the company have also remained active in the faith.[362]

Latter-day Saints have also been notably visible in some elite professional and educational environments, including institutions such as Harvard Business School. Commentators and alumni have sometimes jokingly referred to the "three M's" at such institutions—McKinsey, the military, and Mormons—reflecting a perception that practicing Latter-day Saints were represented more prominently than their small share of the American population might suggest.[363]

One factor contributing to the success of Latter-day Saints is the strong emphasis on self-reliance and industriousness, principles deeply embedded in Church teachings. From an early age, members are encouraged to develop practical skills, pursue education, and plan

responsibly for the future, reflecting the Church's broader emphasis on self-reliance and personal improvement.[364]

The Church also supports these values through initiatives such as the Perpetual Education Fund, which provides financial assistance for vocational training and higher education, particularly in developing nations.[365]

Studies have found that active members of the Church tend to report better mental health than nonmembers.[366]

Maintaining these differences while living fully within modern society, however, appears to be difficult. One way this is evident is that Latter-day Saint couples who are dispersed across the country have historically had lower fertility rates than those who live in highly concentrated Latter-day Saint areas like Utah and Idaho.[367]

Unlike the Amish, whose birth rates have remained consistently high, Latter-day Saints are having fewer children than in previous generations, though fertility rates still remain higher than replacement level and those of the general population.[368]

Other Denominations and Religions

A similar pattern can be seen across other Christian denominations. Regular churchgoers tend to have more children than those who rarely attend or don't attend at all, though generally not enough to offset declining membership as increasing numbers leave organized religion.

Within Christianity, fertility also tends to vary according to how strongly members retain traditional beliefs and how actively they participate in religious life. Among Protestants, liberal denominations generally have lower fertility rates, while conservative and Pentecostal groups tend to have higher rates. Women who attend church weekly also tend to have more children than those who attend less frequently.[369]

Similar patterns can be seen in other strong religious communities around the world, including Muslims, who have very demanding practices and family-centered norms and also tend to have higher fertility rates than the vast majority of other groups, yet most Muslim countries have also seen substantial declines in fertility.[370]

But nowhere is the gap in fertility by level of orthodoxy more striking than among Jewish communities.

Chapter Eleven: The Fertile Nation

Among Christian groups, those who cut themselves off from wider society, such as the Amish, have much higher fertility than those that don't. It's easier to resist the attractions of the outside world in an isolated rural community. Such communities often forgo higher education and focus on hard, routine work such as farming.

But there is one group that has maintained high fertility even while living in large commercial cities. Furthermore, they've done so for thousands of years. That group is Orthodox Jews, and Haredi Jews in particular.

Orthodox Jews: Discipline, Obligation, and Continuity

The key to maintaining fertility in all the groups we've studied is a community that tightly controls behavior, subjecting it to a system of rules and regulations with divine sanction. This of itself is effective in building dopamine sensitivity, all the more so when it limits surge influences such as sex and the competition for status.

Orthodox Jews' way of life is based on the Halakha, a body of laws derived from the Torah—the first five books of the Bible—with additions and interpretations added over time. For the Orthodox, everyday life is guided by detailed regulations. For example, they may not eat certain animals, and even those permitted must be properly slaughtered. Certain combinations of food, such as meat and milk, are also not allowed. Religious rituals and prayers are pervasive.[371]

When it comes to the Sabbath, Orthodox Jews are expected not only to refrain from work but also from using electronic devices. They may not buy or sell anything, ride in a car, write, or even carry certain objects. Therefore, a strict observance of the Sabbath would require living within walking distance of the synagogue, another factor that promotes community.[372]

Like the Amish and Latter-day Saints, Orthodox Jews confine sex to marriage. Masturbation is strictly prohibited and considered a severe sin.[373]

A recent study of over a thousand Orthodox Jewish teenagers in Israel found that most report high levels of moral disapproval and sexual shame,[374] suggesting that many adolescents take these teachings seriously and may have no legitimate sexual outlet. Even within marriage, a woman may not have intercourse until after her ritual bath seven days after the end of her period.[375] In effect, this means sexual activity is forbidden for roughly half the month.

Observant Jews are also required to fast six days a year. The major fasts, including Yom Kippur and Tisha B'Av, prohibit food and drink for about 25 hours, while additional minor fast days are also observed.[376]

Some Orthodox Jewish communities have often been noted for strong traditions of education, discipline, and occupational achievement. Historians have linked Jewish success in specific business and professional fields not only to hard work, but also to longstanding cultural emphases on literacy, learning, family stability, mutual support, and adaptability.[377]

One critical factor is the emphasis on education, which has been central to Jewish culture for centuries. Many Jewish communities, including both Orthodox and non-Orthodox, have traditionally placed a high value on both secular and religious learning. This focus on education has historically equipped Jewish individuals with the skills and knowledge needed to excel in competitive environments. Jewish populations, particularly in Western countries, also tend to have higher levels of education than other groups.[378]

Another important aspect is the community's tradition of mutual support and networking. Jewish communities often foster strong connections among members, providing mentorship, funding, and opportunities for collaboration. Organizations such as the Jewish Federation and various local Jewish business councils actively support professional growth and community welfare, enabling members to achieve success while contributing to communal goals.[379]

Work is expected to be done ethically and for ethical purposes. There's a time not to work, such as on the Sabbath or when others—especially family—need time and attention. Distinct from other Jewish denominations, Haredi Jews tend to place less emphasis on secular studies and a greater value on religious scholarship, even though it often brings little or no financial benefit.[380]

As with the Amish, the use of a distinct language helps maintain separation. Hebrew is the typical language of prayer and worship across Jewish communities. Although its use has declined, Yiddish remains widely spoken among many American Haredi communities today.[381]

Orthodox teaching certainly promotes large families. Marriage and childbearing are strongly valued within Orthodox Judaism. Traditional interpretations of Jewish law regard procreation as a religious obligation, while family life and the raising of children are widely treated as sacred responsibilities. In many Orthodox communities, large families are viewed positively both as the fulfillment of religious commandments and as an important means of preserving religious continuity across generations.[382]

As with the other groups, Orthodox Jews place strong importance on community and mutual support. Neighbors and relatives often help parents care for children, share resources, and provide assistance during illness, financial hardship, or other times of need.[383] Like other fertile groups, they tend to marry young,[384] and women focus heavily on child-rearing during the early years of family life.[385] All of these factors make larger families less of a burden.

The training of children is perhaps as intense as that of any helicopter parenting in wider society, but with very different goals. Children are taught to be obedient, considerate of others, and to develop habits of self-discipline that will allow them to honor their family and community. The effectiveness of this training is reinforced by the close integration of family, school, synagogue, and community life. Children grow up in environments where religious expectations are consistently modeled and reinforced from one generation to the next.[386]

Orthodox Judaism includes both the Modern or Centralist Orthodox and Haredi Jews. Haredi Jews are also referred to as *Ultra-Orthodox.* The most common groups of Haredi Jews include Hasidic, Yeshivish, and Sephardi Jews.

While Modern Orthodox Jews generally follow all the same teachings and practices as Haredi Jews, they do so with more liberal interpretations of the Halakha (Jewish Law). An example of this might be that many Modern Orthodox Jews will not drive on the Sabbath, with the exception of going to synagogue, while most Haredi Jews would be less likely to make such an exception, and thus, would ensure they lived within walking distance from a synagogue.

In short, both Modern Orthodox and Haredi Jews generally share the same beliefs and practices, but Haredi practice stricter observance and remain more separate from the secular world. Despite the similarities, in terms of fertility, we see an astonishing difference between these two groups.

Using public-use Pew Research Center data,[387] we compared 208 American Haredi Jews to 207 American non-Haredi Orthodox Jews and found that the Haredi group's average number of children was 6.6, while the non-Haredi Orthodox group was only 2.8. These are unweighted averages, meaning they do not represent the whole population. In the official Pew report, Orthodox subgroups are combined due to small sample sizes. While these numbers should be interpreted with caution, a recent study using Yiddish and Hebrew as proxies to distinguish between Haredi and Orthodox Jews in America produced similar results.[388]

It is my theory that the Haredi Jews having more children may have less to do with direct teaching than with temperament. After all, the beliefs are widely the same between these two groups, but the implementation of these beliefs differs. Haredi Jews' strict observance of Jewish

law greatly limits activities that cause dopamine surges. Controls on behavior and increased separation from the secular may further reinforce the ebb and flow of dopamine among Haredi Jews.

The result is a brain highly sensitive to dopamine, making surges less necessary and ebb and flow more satisfying. People with this temperament find time spent with children more rewarding and meaningful. For such people, having large families is natural and not especially difficult. Teachings about family size therefore align with their own desires.

This temperament, shaped by thousands of years of strict adherence to Jewish law, was to have a major impact when Jews began returning to the new nation of Israel.

This way of life has proved uniquely successful in maintaining dopamine sensitivity and thus fertility, even while living in cities and engaging in business. Given the attractions of wider society, however, this is always a challenge.

Israel

Israel is the one developed nation that has resisted the trend toward lower birth rates. Israeli fertility levels remain well above replacement level at 2.9 in 2024.[389] This is double the average rate of 1.4 among nations in the Organization for Economic Cooperation and Development.[390]

One reason is the large and growing number of Haredi Jews, who make up some eight percent of Israeli adults. Another ten percent are Dati, or modern Orthodox, following aspects of Jewish law such as keeping kosher and honoring the Sabbath. A further 23 percent show some level of religious observance. In addition, 18 percent are Muslim, a group that also has a relatively high birth rate.[391]

As we saw among American Jews, the level of fertility is closely related to the degree of strictness. In Israel, Haredi women have an average of 6.38 children, Dati (similar to Modern Orthodox in America) women have 3.77, while secular Jewish women have an average of 1.98 children.[392] This is the same pattern seen in Christian denominations: the more rigorous the demands, the higher the fertility.

It is interesting that fertility rates among secular Israeli Jews remain substantially higher than fertility rates among other high-income secular countries. Perhaps this is due in part to the role religious and family traditions play in Israeli society. Jewish holidays such as Passover and Yom Kippur remain widely observed, and Friday evening Shabbat dinners are an important social institution extending well beyond the religious population.[393]

Even many secular Jewish Israelis participate in rituals such as *kiddush* (the blessing over wine). Surveys have found that large majorities of Jewish Israelis regularly share Friday night meals with family or friends, reflecting the continuing strength of family and communal life across much of Israeli society.[394]

Their society also shows a strong sense of the collective. Schools, youth movements, military service, and civic institutions emphasize responsibility to the wider community alongside individual achievement. Israeli youth movements, including scouting organizations, commonly encourage leadership by older adolescents and group-based activities intended to build cohesion and responsibility.[395]

Military service has been one of the major institutions shaping Israeli social identity. Most Jewish Israelis perform compulsory military service, and that experience often contributes to later professional and social networks.[396] Hebrew terms such as *gibush* ("cohesion" or "group bonding") reflect the cultural importance attached to solidarity and collective responsibility.[397]

At the same time, attitudes toward military service vary considerably. One major concern is the exemption granted to many Haredi men engaged in Torah study, especially as that group has grown. Many Haredim argue that religious study contributes spiritually to the protection and continuity of the Jewish people, though this view remains controversial within wider Israeli society. [398]

Authoritative parenting, which balances strict, high expectations with emotional warmth and closeness is the most common Israeli parenting style.[399] Involvement in youth movements often affords Israeli children opportunities to experience relatively high levels of independence in daily life and social interaction. Scholars have also noted that Israeli culture often places strong value on informality, resilience, and group participation alongside academic achievement.[400]

Despite this, or perhaps because of it, Israelis show astonishing levels of creativity, with a vibrant and fast-growing economy, especially in technology-related fields.[401]

Israelis have many reasons to feel stressed. Wars for survival remain vivid memories for many, along with the lingering trauma of the Holocaust. Even in recent times, air-raid sirens have warned of rocket attacks. Many Israeli adults have reported in surveys that either they or someone they know has been a victim of a terror attack.[402]

And yet, according to the annual World Happiness Report and other measures, Israelis rank among the happiest people in the world, alongside peaceful and prosperous Scandinavian countries.[403]

Israel also has relatively lower rates of drug and alcohol use.[404] Compared to other OECD countries, Israel had the lowest suicide rate in 2022.[405]

Considering that friendship and community are two of the strongest factors influencing personal happiness, this result shouldn't be surprising. Above all, these unique features of Israeli society reflect a temperament that differs from that of many other nations.

Fertile Family Temperament and Behavior

The groups that have maintained high birth rates are strikingly similar in many ways. In an increasingly secular age, they remain intensely religiously observant. They follow strict rules that govern much of ordinary life. Compared to outsiders, they place greater value on faith and community and less on individual goals and career, though intense self-discipline and hard work may also allow them to do well financially. Their behavioral standards shape everyday life and create some degree of separation from the outside world.

Another shared factor is the strong discouragement of sexual activity outside marriage, including masturbation. Marriage also tends to be both early and near-universal, at least compared to wider society.

As far as can be determined, these groups also appear to be happier. This is consistent with findings from happiness research, which show that marriage, personal connections, and religious engagement are all strongly linked to happiness.[406]

These attitudes reflect not just a specific culture, but a temperament that differs greatly from that of the wider community. Shared values encourage people to act in certain ways, but this is only effective if their temperament is broadly aligned with those values. People can leave these communities, and some do. Haredim can move to less rigorous congregations, while young Amish can choose not to be baptized without suffering ostracism.

But most Amish choose to remain in the faith. Similarly, the majority (67 percent) of American Orthodox Jews remain Orthodox into adulthood.[407] In Israel, we see even stronger retention, with approximately 94 percent of Haredi Jews remaining in their community.[408]

Young people in these communities accept limits on personal freedom and choice that most outsiders would find unacceptable. They're able to do so because they differ not only culturally, but psychologically. Their priorities are different from those of the wider community.

These are, of course, many of the same behaviors and attitudes that were common in our more fertile past: a greater commitment to marriage and children at a younger age, less early sexual activity, a stronger sense of community, greater religious involvement, and a more positive attitude toward work.

These are the behaviors and attitudes that have declined in recent times alongside the rise of selfish individualism and collapsing birth rates. They're also the behaviors and attitudes that must be restored if we are to solve the birth-rate crisis. How to restore them will be the subject of the rest of this book.

Chapter Twelve: How Dopamine Shapes Character

The key reason for our collapsing birth rate is that modern life has given us access to a wide range of substances and activities that produce intense surges of dopamine. Over the next few chapters, we'll discuss several things individuals, families, and society can do to help reduce these surges and address the deeper problems behind declining fertility.

As we've seen throughout the book, dopamine spikes contribute to a range of problems, including depression, a decline in work ethic, and a reduced enjoyment of the gentler ebb-and-flow activities that support family life. Our goal is to offer practical guidelines for restoring dopamine sensitivity so that family and community become more appealing and bring greater long-term fulfillment. Most of these guidelines can be applied regardless of individual circumstances or family size.

In principle, rebuilding dopamine sensitivity shouldn't be difficult. We need to reduce activities and substances that produce dopamine surges while focusing more on ebb-and-flow

activities. This is the basis for the growing popularity of what's often called dopamine detox or dopamine fasting, which involves minimizing dopamine surges for a period of time.

Dopamine Detox

The list of forbidden activities in a dopamine detox varies, but may include sex; the use of social media and digital devices in general; alcohol, caffeine, and sugar. Some people eat very little food, and others even try to avoid social interactions. The aim is to make the brain more sensitive to dopamine so that everyday activities become more pleasurable.

Some studies have found that reducing some or all of these influences can make people less impulsive and anxious, more task-focused, and better able to enjoy everyday life. Critics of the practice point out that the phrase itself is inaccurate. We can't fast from dopamine itself, since even looking out the window causes the brain to release dopamine. Limiting food can also result in malnutrition, while social isolation may cause anxiety and loneliness.[409]

However, the principles behind this practice are valid, bearing in mind some of the lessons from our study of fertile groups such as the Amish. There are also limits to what it can achieve, which we'll discuss later.

As sensitivity to dopamine improves, ebb-and-flow activities become more attractive and rewarding. We feel less need to chase dangerous surge activities such as alcohol, drugs, gambling, porn, and promiscuous sex. The result is a greater sense of purpose and happiness, along with better financial and physical health.

To do this, we need to reduce surge activities. In many ways, the goal and the method are the same thing. The good news is that these activities are not "all or nothing." Even small reductions can help, and some habits are much easier to change than others. At the same time, not every dopamine surge is harmful. Things like shared meals can be beneficial when they strengthen relationships and support other ebb-and-flow activities such as family and community.

We also need to actively encourage ebb-and-flow activities themselves, which reward and reinforce positive behavior over time. One of the most important places to begin is with how we raise our children.

Raising Dopamine-Sensitive Children

In order to raise children who aren't dependent on constant dopamine surges and who are therefore more likely to lead fulfilling and successful lives, we must first help them learn delayed gratification.

One of the best ways to teach this is through meaningful chores and household responsibilities, which help children become more comfortable with delayed rewards rather than constant stimulation. These are traits associated with a more dopamine-sensitive mindset.

In past societies, children often carried significant responsibilities that genuinely mattered to the household. Responsibilities such as feeding and watering animals, tending gardens, milking cows, chopping wood, helping with harvests, preserving food, and sewing clothing were common parts of childhood life.[410] These responsibilities weren't given simply to keep children occupied—they were necessary to the survival and well-being of the family.

Today, kids are often trusted with far less responsibility, which may unintentionally limit opportunities to develop confidence, resilience, and a sense of purpose. Research has found that kids who begin doing chores as early as kindergarten tend to perform better in school, are better socially adjusted, and demonstrate greater competence and self-efficacy. The same research found that children who don't regularly participate in chores are more likely to struggle in these same areas.[411]

Kids who learn to tolerate boredom, frustration, and routine responsibility are better prepared to enjoy the slower ebb-and-flow activities that give life long-term meaning and stability.

Children must also be taught patience and the value of waiting. Some personalities are naturally more patient than others, but even energetic and impulsive children can learn that not every desire or frustration needs an immediate solution.

This is especially important when it comes to stimulation and entertainment. A child who is given a screen whenever they become bored or upset may have fewer opportunities to develop patience, self-control, and the ability to tolerate boredom.[412] And boredom itself, in moderation, may actually be beneficial.[413] Children who regularly experience periods without constant entertainment often learn how to occupy themselves independently, which may help encourage creativity, reasoning, and problem-solving skills.[414]

Food habits also matter. Childhood obesity rates have risen dramatically,[415] and one reason may be the constant availability of sugary and highly processed foods. Beyond increasing the risks of obesity and disordered eating, constant snacking may also reinforce the

habit of eating out of boredom rather than hunger. Experiencing occasional hunger and learning not to graze constantly throughout the day may help children become less dependent on the dopamine surges associated with food.

Another thing to consider is the importance of family routines that help children learn to enjoy ebb-and-flow activities and find fulfillment. Shared meals, playing and spending time together, and involvement in faith and religious communities all contribute to a healthier family culture. More importantly, they teach kids that happiness and meaning often come from everyday experiences rather than constant novelty and stimulation.

Children raised in stable, supportive homes are generally better able to delay gratification and regulate their behavior, [416] likely in part because their dopamine systems have been shaped to support these habits. Consistent discipline appears to have similar effects. This includes clear expectations, predictable consequences, warmth combined with structure, and steady routines.[417]

The fertile families and communities discussed in earlier chapters demonstrate many of these same patterns. They tend to emphasize obedience, respect for others, meaningful work, and expectations that children contribute to the household. These values become even more powerful when reinforced by the wider community.

Marriage and Child-Rearing

One benefit of curbing highly addictive, dopamine-surging sexual activities such as pornography is that it promotes marriage. Marriage is an ebb-and-flow activity that reinforces positive behavior through small, steady releases of dopamine.[418] A loving, faithful marriage is an effective way to increase sensitivity to dopamine, in sharp contrast to the surge effects of short-term affairs and porn.

Unlike novelty-driven relationships, long-term family life depends on stability, familiarity, emotional attachment, and enduring commitment. Much of marriage and family life is built around ordinary routines repeated over years—shared meals, work, conversations, caregiving, traditions, and time spent together.

Time spent caring for children has a similar effect. These warm, familiar relationships generate small but ongoing rewards that strengthen emotional bonds. As discussed earlier, many parents describe child-rearing as one of the deepest sources of meaning and fulfillment in their lives, despite the sacrifices involved.

Fatherhood also reduces testosterone in men, an indirect indicator of reduced dopamine activity.[419] In addition, men with greater dopamine sensitivity are more likely to have the work ethic needed to support a family, helping make marriages more stable.

Having said this, many men would prefer higher levels of testosterone, with the stronger libido and confidence it may bring. It really comes down to life goals, and what people consider important. High testosterone may be valuable in approaching and convincing women to date and marry men, but it can be less useful in maintaining a happy marriage due to an increase in competitiveness and risk-taking.[420]

The relationship therefore works in both directions. People with more dopamine-sensitive minds are generally more likely to value marriage, children, stability, and long-term commitment. In turn, marriage and child-rearing further reinforce these traits by encouraging responsibility, emotional bonding, patience, and routine care for others.

In the next chapter, we'll discuss practical ways to build a healthier and more dopamine-sensitive lifestyle.

Chapter Thirteen: Reducing Surges, Reclaiming Life

The habits that continue shaping dopamine sensitivity don't end with childhood. The same principles that influence children also affect adults throughout life, though to a lesser extent in regards to fertility. Modern life constantly pushes us toward convenience, novelty, entertainment, and stimulation, often in ways that feel normal and harmless. Over time, however, these habits may lead us to devalue ebb-and-flow activities.

In the previous chapter, we focused largely on the importance of family life, parenting, marriage, and the values that help shape character in the younger years. In this chapter, we'll

turn to practical habits and routines that may help restore dopamine sensitivity in everyday life. These include the substances we consume, our relationship with food, and the role of meaningful work and physical activity.

Even small reductions in surge activities may be beneficial, especially when combined with routines and behaviors that reinforce patience, self-discipline, social connection, and long-term fulfillment. We'll begin with alcohol, drugs, tobacco, and other influences that produce some of the strongest dopamine surges in modern life.

Alcohol, Drugs, Tobacco, and Caffeine

Some of the strongest dopamine surges in modern life come from alcohol, drugs, tobacco, and similar stimulants, all of which may be harmful to character and well-being. These are the things we should seek to avoid if our goal is to become less dependent on dopamine surges.

Many users of cocaine and other drugs initially believe their use is under control, but over time, they experience growing problems including addiction, anxiety, paranoia, and depression.[421] The same can be said of alcohol. Even moderate drinking may contribute to anxiety and depression, in addition to damaging physical health and increasing mortality risk.[422] Marijuana is another substance that can worsen anxiety, depression, and paranoia, while heavy use increases the risk of psychosis.[423]

These effects are concerning, but they also conceal a deeper problem. Such substances are appealing because they create dopamine surges that gradually desensitize the brain. As a result, even moderate use without addiction or obvious mental health issues can still be harmful. Multiple studies of alcohol and drug consumption, including animal studies, show lower moods in the hours or days that follow. Effects on humans include increased anxiety, irritability, and reduced motivation.[424]

Smoking is best known for the damage it causes to physical health, but it can also harm mental health because nicotine produces a powerful dopamine surge.[425] Long-term tobacco use is associated with higher rates of anxiety, depression, stress, and substance dependence. Smokers often report short-term calming or mood improvement from nicotine, but research suggests this mainly results from relieving nicotine withdrawal symptoms.[426]

Finally, caffeinated beverages including tea, coffee, and energy drinks increase dopamine signaling in the brain, though some of these may be protective for some health outcomes and not generally harmful to health when consumed in moderation.[427]

Successful religious groups often discourage the use of these "surge" substances. Islam prohibits alcohol.[428] Seventh-day Adventists and Latter-day Saints prohibit or strongly discourage alcohol, tobacco, coffee, and tea, apart from herbal teas that contain no caffeine.[429] Both groups arose after tobacco, coffee, and tea became widespread, and part of their success may be linked to the greater overall life satisfaction that can come from reducing dopamine surges.

There are also long-term effects. As we've discussed previously, people who are less sensitive to dopamine often find ebb-and-flow activities such as marriage, children, work, and community less engaging. Other surge activities and substances, including the drug itself, also become more attractive. The end result is a reduced sense of purpose and life satisfaction.

High-Calorie Food

During one of my experiments, a research assistant noticed that the condition of our lab rats differed significantly from what she'd seen in other labs. This was not accidental. It was part of our ongoing research into how mild hardship affects behavior.

The hardship we studied involved food restriction, though only at a modest level. The rats received between 25 to 50 percent less food than they would eat if given unlimited access, and usually only 25 percent less. They showed no obvious signs of stress and, in fact, tended to live longer and healthier lives. Still, they experienced periodic hunger, making their conditions loosely comparable to those faced by many people during the Great Depression or what religious individuals might experience during a fast.

Compared with rats that had unlimited access to food throughout their lives, we found that when rats were consistently calorie restricted, they expressed fewer behaviors associated with anxiety.[430]

However, one of the most striking differences appeared in maternal behavior. Females that experienced mild food restriction during lactation showed more attentive care toward their young. They spent more time with their offspring, built better nests, and were more active in retrieving wandering pups back into the nest.[431]

While we can't directly measure subjective experience in rats, their behavior may suggest that motherhood had become more rewarding relative to other activities. These results may suggest that mild scarcity can reduce overstimulation and restore sensitivity to everyday rewards. Human societies are far more complex, but the underlying biological systems are similar.

A more interesting picture emerges when we also look at rats that were fed high-fat foods, which has become an increasing part of modern diets. While research in this area remains limited, one study found that rats fed high-fat diets tended to spend less time licking and grooming their young.[432] This may be related to reductions in dopamine sensitivity, as research has shown that "junk food" diets impact the brain's reward system in rats.[433] More harrowing, research suggests that these changes are transmitted to offspring.[434]

The modern abundance of food plays an important role in dopamine sensitivity in high-income countries. We're wealthier than any society in history. Even in Roman times, death from hunger and malnutrition was common, especially among the poor. Today, nearly three-quarters of American adults are overweight or obese.[435] In high-income countries, poorer people and those with less education, who in the past—or who in low-income countries today—are likely to have suffered from hunger, are now more likely to struggle with obesity.[436]

High-calorie, plentiful food is a key driver in the decline in dopamine sensitivity that appears to be affecting birth rates as well as other social ills. Research shows that processed, calorie-dense foods are associated not only with obesity, but also with increased risks of depression, anxiety, and poorer long-term mental health.[437]

One way to counter this may be through occasional fasting, which can help build dopamine sensitivity. We saw this most clearly in the effects of the Great Depression in giving rise to the baby boom. Some research also suggests that intermittent fasting may help restore sensitivity to natural rewards.[438]

These benefits seem to occur even when food is generally plentiful, as long as people experience hunger at times. All the fertile family groups we've studied practice occasional fasting, yet they may still be overweight. Latter-day Saints and Orthodox Jews may be at slightly higher risk of obesity than other groups in their geographic regions.[439]

One reason may be that most religious traditions include celebratory meals, which help strengthen social bonds. For example, many Muslim communities enjoy communal meals that include special foods after dark during Ramadan. This means that although they don't eat or drink during daylight hours, they typically maintain similar total calorie consumption,[440] with some groups actually reporting weight gain.[441]

The Amish also enjoy communal meals featuring rich traditional foods at events such as weddings, harvest gatherings, and barn raisings.[442] The same is true among the Haredi during religious festivals and the Sabbath.[443]

As a method of restoring dopamine sensitivity, restricting food is less useful than some other methods. Fasting can increase irritability, and extreme fasting can contribute to

psychological problems such as depression and anxiety and may also undermine physical health.[444]

Overall, intermittent fasting and avoiding excessive high-calorie food may benefit mental as well as physical health. At the same time, shared meals can still play an important role in strengthening relationships and social bonds.

Routine Work and Exercise

Work hours have fallen, as discussed earlier. The proportion of men working fewer than 40 hours per week has risen dramatically in recent decades, especially among the working class. Compared to the past, many more people are also receiving disability payments. It's now possible to survive without paid employment, though the unemployed are far more likely to suffer from depression. This appears to apply often even to people who choose not to work.[445]

Increased leisure is both a reflection of declining dopamine sensitivity and, in part, a cause of it. Work provides opportunities for structured social interactions and can stimulate dopamine systems by providing a sense of achievement and progress, reinforcing habits of self-discipline.[446] In doing so, it may also reduce the appeal of surge activities that gradually desensitize the mind.

Regular physical exercise is also beneficial. It influences dopamine signaling in the brain, including systems involved in motivation, reward, learning, and movement. Exercise may increase dopamine release and improve the functioning of dopamine receptors over time. These effects contribute to improved mood and reduced stress.[447]

Work that involves physical exertion combines both these benefits and may be especially helpful. I worked for 15 years as a lawn-care contractor, first part-time as a student and then full-time while building my business. I found it deeply satisfying, and even today, I spend 10–12 hours a week doing yard work, growing vegetables, and developing an orchard with fruit and nut trees.

I speak regularly with franchisees in my system who perform tasks such as cleaning cars and washing dogs. The greatest satisfaction is often found when people can do work connected to their existing interests, such as a lifelong love of cars or animals. I find yard work especially rewarding because of my love of the outdoors and connection with nature.

I especially noticed the value of work when Australian COVID-19 restrictions took my people off the road. Though government funds paid the bills, many still missed the sense of accomplishment and purpose that meaningful work provided.

The same principle applies even to household tasks. My wife and I could easily afford domestic help, but we choose to do much of the work ourselves. This includes cooking (her job), cleaning up after and doing the dishes (mine), laundry (shared), taking out the trash (mine), and more.

The best life involves meaningful work, especially work that includes some form of physical activity. Regular exercise is also essential, along with the self-discipline needed to make these habits possible.

How We Live These Principles

As mentioned earlier, I have many of the tendencies associated with dopamine sensitivity, along with the lifestyle that tends to support it. I followed the principles in this book starting from an early age. I believe this is why I'm so different from my siblings, though it has taken me more than half a century to understand why my early experience mattered so much. I enjoy children where my sisters and brother didn't, and I've raised ten of them.

I'm also a regular churchgoer with a close circle of friends and family. I've lived in the same house for decades and enjoy a lifestyle that's comfortable but not especially different from that of most Australians. I buy my clothes from K-Mart and didn't even own a brand-new car until three years ago, and only then because I wanted to switch to an electric vehicle.

I don't drink or smoke, rarely consume desserts or sweet drinks, and avoid tea and coffee. I love my wife and feel no temptation to stray. I also practice 16/8 fasting, which means experiencing some mild hunger each day.

Andrea's life shows nearly the same patterns. She and her husband go on long walks every day and love spending time outdoors with their children. She's active in her faith community and lives in a tight-knit neighborhood where people of multiple faiths regularly talk with one another and generally know what's happening in each other's lives. Andrea frequently hosts barbecues for their neighborhood.

She also doesn't smoke or drink alcohol, coffee, or tea, and she doesn't even have a sweet tooth. (But keep her away from anything cheese flavored!) She and her husband have never owned a brand-new car. Their newest vehicle is 11 years old, while their favorite is still running after 21 years. Andrea also practices intermittent fasting daily and enjoys building things with her hands, including bookshelves for their living room and a large coop for their chickens.

None of this is meant to suggest perfect lives or perfect discipline. Like everyone else, we have struggles and goals and make promises to ourselves to do better each day. We're

shaped by our personalities, upbringing, strengths, weaknesses, and environments. But we do believe these kinds of ordinary routines and habits help reinforce the slower ebb-and-flow activities that bring stability, meaning, and long-term fulfillment.

One of the central arguments of this book is that having genuinely satisfying lives is possible, even—and sometimes especially—without many of the surge activities modern culture constantly encourages.

Yet individual habits are only part of the story. The wider culture around us can either strengthen these patterns or gradually degrade them. To understand the birth-rate crisis more fully, we also need to examine the technologies and social pressures that shape everyday behavior.

Chapter Fourteen: Rebuilding the Village

In previous chapters, we focused largely on individuals, families, and the everyday habits that shape dopamine sensitivity. But people don't live in isolation. Our behaviors are also influenced by the wider culture around us and the habits constantly reinforced by that culture.

Modern life surrounds us with multiple opportunities for dopamine surges. Wealth, entertainment, advertising, social media, gambling, and status competition all encourage not only constant comparison, but also novelty and stimulation. Many of these influences extend far beyond individual choices, and they shape communities and even entire cultures. Over time, they can gradually weaken the appeal of the slower ebb-and-flow activities that support long-term happiness.

In this chapter, we'll look at several of these broader cultural influences. We'll also examine dopamine-sensitive business practices, and why governments have struggled to reverse falling birth rates despite extensive efforts and incentives.

The goal isn't to suggest that wealth, technology, ambition, or success are inherently bad. Rather, the challenge is learning how to live in a prosperous modern world without allowing competition, novelty, and the pursuit of status to dominate our lives and reshape our priorities.

Status-Seeking, Gambling, and Social Media

The sheer wealth of the modern world makes dopamine surges more available than ever before, including countless ways to pursue status. These include gambling of all kinds, not just slot machines and casinos, but also online gambling and speculative trading in stock markets, cryptocurrencies, and similar investments aimed at rapid gains. This reflects the "get-rich-quick" attitude so prevalent in the modern world: the drive for wealth without the hard work normally required to achieve it.

The drive for status also appears in spending meant to impress others. This includes cars, clothes, larger-than-necessary houses, expensive vacations, and similar displays of wealth. Each purchase provides a temporary dopamine boost that fades as the novelty wears off, often leading to the desire for something newer or more impressive.

Differences in wealth are also far more visible today than in the past. A century ago, someone without wealthy neighbors knew little about the lifestyles of the rich and famous. Today, those lifestyles are displayed constantly through television, news reports, and social media.

Platforms designed around comparison and attention have a unique ability to encourage envy and status competition. Video games can also create the illusion of status and power. Together, these influences promote a constant focus on wealth, novelty, and social comparison, all of which reduce dopamine sensitivity.

Never before in history has technology made it possible for so much of the population to live in cities, and never before have cities been so large. Cities increase contact with new people, with novelty itself being a major source of dopamine surges. They also allow greater anonymity, weakening some of the social bonds and expectations that are more common in smaller communities.

But it's still possible to live a mentally healthy lifestyle, even in cities. The key is to reduce competition and embrace cooperation and community involvement. And we need close,

in-person friendships. Social media can be used to strengthen relationships with friends and family rather than encouraging endless scrolling through the lives of strangers.

Studies have shown that materialism or status spending is associated with poorer relationships and lower life satisfaction.[448] By contrast, spending money on experiences or on others—through gifts, charity, or direct assistance—often produces stronger and more durable improvements in well-being.[449] Giving can strengthen social bonds, create a sense of purpose, and reinforce personal values, all of which are associated with higher life satisfaction.These patterns appear across income levels and cultures.[450]

All of these behaviors are most clearly promoted in faith communities, where we submit to the will of God and accept controls on what we may do based on the tenets of the faith. Religious leaders and prophets have been preaching these principles for thousands of years, and they're transferable to secular contexts.

Dopamine-Sensitive Business Practices

The drive to display status and impress others is a classic surge activity. But a dopamine-sensitive lifestyle need not rule out financial success. Orthodox Jews have thrived in business for thousands of years without compromising their faith and way of life. Latter-day Saints are increasingly successful in economic and political roles. Israel has a vibrant and fast-growing economy. And I have had some success in business myself.

It's largely a matter of priorities. Dopamine-sensitive people don't lack ambition, but are less likely to put it ahead of community, faith, and family. Nor are they driven primarily by personal ego.

Jim Collins, in his books *Built to Last* and *Good to Great*, sought to discover what made companies enduringly successful. He observed what appears to be a form of servant leadership in men who put the good of the company ahead of themselves.

> The good-to-great leaders never wanted to become larger-than-life heroes. They never aspired to be put on a pedestal or become unreachable icons. They were seemingly ordinary people quietly producing extraordinary results. …It is very important to grasp that Level 5 leadership is not just about humility and modesty. It is equally about ferocious resolve, an almost stoic determination to do whatever needs to be done to make the company great.[451]

This kind of thinking encourages long-term discipline, efficiency, and steady wealth creation rather than the pursuit of status or quick gains.

Berkshire Hathaway partners Warren Buffett and Charlie Munger followed a long-term approach to business and investing. For more than 50 years, they succeeded by giving companies stable ownership and allowing managers to focus on long-term growth.[452]

Buffett rarely promotes Berkshire's share price and has even welcomed lower prices when the company can buy back undervalued shares. He has also often warned investors not to expect the company's future growth to equal its exceptional past performance.[453] This stands in sharp contrast to the speculative mindset typical of dopamine-insensitive thinking.

As seen in Buffett's shareholder letters, it seems that Berkshire attracts shareholders with similar attitudes that prioritize long-term investment as business owners rather than short-term traders.[454]

Buffett himself is known for being humble and self-effacing, openly discussing his mistakes and limitations. He still lives in the same house he bought in 1958 for $31,500.[455] About this home, Buffett said:

> All things considered, the third best investment I ever made was the purchase of my home, though I would have made far more money had I instead rented and used the purchase money to buy stocks. (The two best investments were wedding rings.) For the $31,500 I paid for our house, my family and I gained 52 years of terrific memories with more to come.[456]

Both Buffett and Charlie Munger placed strong emphasis on family, long-term friendships, and philanthropy, committing the overwhelming majority of their wealth to charitable causes.[457]

A relentless focus on personal success can achieve short-term gains, but often at the expense of the wider community. The collapse of Enron in 2001 resulted largely from managers pushing up the share price through fraudulent accounting, enriching themselves while neglecting the basic task of running a profitable and sustainable business. The end result was bankruptcy and—for several executives—prison.[458]

A similar mindset contributed to the 2008 financial crisis. Financial firms made large profits by packaging risky mortgages and selling them to banks and investors. When borrowers failed to repay them, the losses caused widespread economic damage.[459]

Greedy speculation both reflects declining dopamine sensitivity and contributes to it. Religions have long encouraged the opposite mindset: submission to God, restraint of selfish desires, and concern for the wider community. Such attitudes help build character, strengthen

families and communities, and promote long-term stability rather than short-term speculative gain.

Most non-professional traders in the stock market face substantial losses.[460] S&P Dow Jones Indices reports that approximately 85 to 95 percent of actively managed stock funds underperform their benchmark indices over a 20-year period.[461] People who invest in index funds and hold them for many years generally do much better.[462]

The speculative mindset buys something mainly in the hope that someone else will later pay more for it. The Warren Buffett approach, by contrast, means buying shares and companies that already have real value, then patiently helping increase that value over time. This kind of long-term thinking creates real wealth rather than the temporary excitement of speculation.

My own business is run with more of a dopamine-sensitive mindset, similar to Berkshire Hathaway rather than Enron. It's a private company without shareholders to impress. We invest heavily for long-term benefit, particularly in IT. We rarely think about competitors. Instead, we focus on continually improving our service to customers and franchisees while trying to keep egos in check—especially mine!

But this isn't the dominant mindset of the modern world, especially among large corporations. The drive for personal success and an ever-rising share price are powerful dopamine boosters. Yet it's entirely possible to achieve financial success without sacrificing family, faith, and long-term values.

Can Government Halt the Birth-Rate Decline?

Most people today have an enduring faith in the power of government to fix society's problems. All we need, it's often assumed, is the right mix of incentives and regulations, and people will go along. But governments have far less power than we suppose. Their greatest ability lies in stopping people from doing things.

For example, Mao's policies in China weakened private enterprise and kept the country poor for decades. This was not his intention. The Great Leap Forward, launched in 1958 to rapidly increase production, instead caused a famine in which an estimated 16.5 – 30 million individuals died from starvation.[463] In effect, government policies prevented a naturally hard-working and enterprising people from becoming rich.

The Chinese government was also successful in curbing births through the one-child policy. But getting people to have more babies has proved far more difficult. Xi Jinping is one of the most powerful leaders in the world. He controls the media, and his officials can restrict

movement and direct job assignments. Party members are active in every area of society, promoting higher fertility through relentless propaganda. Yet the authorities can't persuade their citizens to have more children.[464]

Getting people to stop doing things is often possible. Getting them to actually *do* things, such as having more babies, is far more difficult.

We've seen this in attempts to encourage childbearing through baby bonuses and similar policies. These approaches are quite reasonably based on fixing the problems people say are causing them not to have children. But none of the policies work because the reasons people give aren't the ones that really matter. People have children because they want children—due to their character—not because they're paid to.

A seemingly more sensible approach would be to encourage the revival of traditional values.

Few world leaders have emphasized the importance of religion and national tradition as strongly as Vladimir Putin. Under his leadership, the Russian government has actively supported the revival of the Russian Orthodox Church and promoted conservative social values. Religious education and traditional values have become more prominent in schools, while state-controlled media frequently presents Orthodoxy and patriotism as central parts of Russian identity.[465]

Putin's government has also used its strong political control to limit competing cultural and political voices. Independent media outlets have faced restrictions, opposition movements have been weakened, and critics of the government have often been marginalized or punished.[466]

And yet, the people aren't responding. Russians today are more likely to describe themselves as Orthodox than they were 20 years ago, but they are no more likely to attend church.[467] And as mentioned in Chapter Two, the Russian fertility rate has fallen to 1.4, below that of the U.S. and countries that give no support to organized religion.

This is why fertility decline has proved so resistant to political solutions. Governments can make having children easier, but they can't make people want children. The birth-rate crisis is therefore not merely a policy failure. It reflects a deeper change in priorities and behavior. This raises an important question: If politics can't solve the problem, could cultural or religious revival do so instead?

Revival?

As we've discussed previously, secularism is consistently associated with declining fertility rates across the globe.[468] Among those who most clearly recognize the problem, a religious revival might seem to be an obvious solution. If people can be brought back to faith, surely the birth rate will begin to rise.

Unfortunately, this isn't happening on anything like the scale required. There have been movements such as the Asbury Revival, which took place at Asbury University in Wilmore, Kentucky, and began in February 2023. What started as an ordinary chapel service grew into continuous prayer and worship gatherings that attracted thousands of visitors seeking spiritual renewal.[469] Other scattered revivals have been seen across religious groups.[470]

But to significantly affect fertility rates would require millions of people returning to faith. That's not occurring.

Instead, fertility rates show no sign of rising in any country. And based on the attitudes of younger generations, they're likely to continue falling.

In this and previous chapters, we've proposed changes that may help individuals live happier and more fulfilling lives. But the effects of wealth and modern technology push so strongly in the opposite direction that there's little reason to expect such changes to succeed on a society-wide scale.

The next chapter will consider what we might actually be able to do to solve the birth-rate crisis.

Chapter Fifteen: A Different Kind of Cure: How Modern Life Requires Modern Solutions

Despite our belief in any given individual's ability to make the kinds of changes discussed throughout this book, modern life makes those changes extraordinarily difficult. Humans are shaped by their environments. For most of history, people lived in conditions of scarcity, close community ties, religious belief, and limited stimulation. Pleasure came mainly through ordinary life: family, friendship, work, community, and worship.

The modern world is profoundly different. We're surrounded by constant opportunities for dopamine surges. Gambling, pornography, doom scrolling, celebrity culture, and endless novelty seeking may represent the more extreme forms of stimulation, but many of the most powerful influences are considered completely normal and acceptable. Smartphones, processed food, streaming entertainment, shopping, and social media are woven into daily life. Most people aren't interested in avoiding them.

All of these aggressively compete for our attention. Entire industries are built around keeping people stimulated and engaged for as long as possible. These are constant pressures that shape behavior day after day, beginning in childhood.

Unfortunately, many of the good things in life now require us to stay plugged in as well. Work, education, relationships, and even religion increasingly depend on smartphones and the internet. As a result, many people find it extremely difficult to maintain lifestyles that conflict with their environment. Advice about discipline or moderation often works only temporarily before old habits return.

This isn't merely a failure of willpower. The modern environment strongly rewards behaviors that produce dopamine surges while making ebb-and-flow activities feel less satisfying by comparison. This helps explain why so many people say they want marriage and children while simultaneously delaying or avoiding the choices needed to achieve them.

In a dopamine-desensitized brain, the quieter rewards of ordinary life can begin to feel emotionally insufficient, often without the person even recognizing it. They find themselves picking up their phone instead of talking to someone face-to-face or spending time with loved ones or outdoors.

In theory, people could resist these pressures by separating themselves from much of the modern world. Some groups, such as the Amish, have done this almost completely. Others,

including Orthodox Jews, have done so partially. These communities preserve stronger family structures and higher fertility by emphasizing religion, community, and self-discipline.

Andrea and her husband have focused on raising their kids somewhat separated from the wider society. While not easy, it's possible, and they find it rewarding. They homeschool, as mentioned earlier, and they don't have processed "junk" foods available to snack on throughout the day. Meals are cooked from scratch, and TV and computer time is limited. Their kids have ample free time to roam and play in the neighborhood, and they attend church services every Sunday and religious activities throughout the week.

Despite external pressure, Andrea and her husband have chosen not to allow their kids to have phones until they're 18 and can pay for them entirely on their own. They are both actively involved in their kids' lives and have frequent, open conversations about many of the topics discussed in this book, in an effort to help prepare them for adulthood in modern society. All three of her children are excited to have a lot of kids, and they talk about their future families regularly.

Since Andrea's oldest is in her early teens, Andrea and her husband don't know what the outcome of these efforts will be. But even before they knew me or were familiar with the challenges that dopamine surges can create, their goal has always been to give their kids the best possible chance to live a healthy ebb-and-flow life.

But living this way would require sacrifice for many, and we're not unaware of how hard it can be. It would mean accepting strong community expectations, limiting exposure to modern stimulation, and giving up many forms of status-seeking and entertainment that dominate modern life. Maintaining that separation would also require strict limits on internet access and smartphones, especially for children.

Even then, the challenge remains immense because the influence of the wider society is so hard to ignore. We have limited influence over our children when they are young, and virtually none when they grow up. I admire what Andrea has done, but I have not been totally successful myself in passing on my faith and my passion for large families. Only one of my ten children is a regular churchgoer who has three children, with one more on the way.

My other kids are hardworking, responsible, successful in their careers, want to have children, and are devoted to those they have. But they are unlikely to have more than two. As Andrea and I have interacted with readers and others who wish their children would have kids, we both understand how much of a struggle it can be. Not even the best parenting—and we're not claiming to be the best possible parents—can totally shield children from the world.

Groups such as the Amish raise children from birth in environments designed to reinforce strong values and healthier patterns of behavior, yet, some 15 percent of Amish young people eventually leave the community.

People raised in the broader modern culture would find an Amish lifestyle vastly harder to adopt than these young people. Joining such Amish communities from the outside is especially rare. In a population database of 263,158 Amish individuals in North America, only 154 converts were identified over the past century.[471] Orthodox Judaism has more converts, but the process is still difficult.[472] Even candidates who find a rabbi willing to sponsor them may ultimately be rejected by a rabbinical court.[473]

The Church of Jesus Christ of Latter-day Saints reported 385,490 conversions for 2025,[474] their highest number so far, but to maintain dopamine sensitivity while remaining integrated within the broader modern world is proving exceptionally difficult. As discussed earlier, active Latter-day Saints follow unusually strong standards, yet even among them, fertility is declining.[475]

Despite the fact that we've discussed religion so much in this book, we don't actually believe involvement in a religious community is a must to maintaining higher fertility levels. We both know large families that don't belong to any particular religion and rarely—if ever—attend services. We've focused a great deal on a handful of religious groups because they seem to be doing the best at it overall, and we recognize the benefit that comes from being involved in a faith community.

Either way, the difficulty of helping people find joy in ebb-and-flow activities helps explain why government attempts to reverse falling birth rates have largely failed. Policies may ease financial pressures, but they don't address the deeper problem. They don't make people more sensitive to the ordinary rewards of family life.

Individual people can and do change their lives, sometimes dramatically. But expecting entire populations to voluntarily reject the most stimulating aspects of modern life is unrealistic. The forces pushing in the opposite direction are simply too strong.

If this understanding is correct, any long-term solution to the birth-rate crisis must account for biology as well as culture. It's not enough to tell people to simply live differently.

In some ways, we need something similar to the Great Depression, but without suffering or damage to the economy. The Depression appears to have increased dopamine sensitivity through hardship, scarcity, and delayed gratification, helping produce the generation that later created the baby boom. But no modern society should willingly accept such an answer.

This raises the possibility that scientific interventions may become necessary—not as a replacement for family, religion, or community, but as a way of making those things emotionally meaningful again. Challenging as this may be, our best hope may lie in science, especially in treatments capable of recalibrating the brain's dopamine response system.

As we discuss these potential therapies, it is important to emphasize that medication alone is unlikely to be effective. It must be accompanied by lifestyle changes that prioritize the ebb-and-flow activities that we discussed in the last three chapters.

Yet, medication may be needed to pave the way for these meaningful lifestyle changes.

Benefits of a Treatment

Stopping the birth-rate crisis isn't the only potential benefit of a treatment designed to restore dopamine sensitivity. By helping the brain become more responsive to ebb-and-flow activities, such a treatment could also help address some of the most difficult problems people struggle with today, including addiction, anxiety, depression, and lack of motivation.

One possible pathway for developing these treatments lies in the growing field of epigenetics, the study of how the environment affects the activity of our genes. Genes can be thought of as a series of tiny faucets that produce proteins. The environment influences whether those are turned up, turned down, or switched off entirely, especially during early life when the brain is most adaptable. Recent advances in this field have opened possibilities that scarcely existed even a decade ago.

As discussed earlier, conditions such as food restriction appear to increase dopamine sensitivity. We now understand many of these biological changes involved. The challenge is to reproduce those benefits without the suffering associated with true deprivation.

A treatment that resensitizes the brain to dopamine could potentially reduce the need for extreme dopamine surges. This may make it useful in treating drug addiction and alcoholism by weakening the constant drive toward artificial stimulation. It may also help with conditions such as ADHD by increasing the appeal of focused work and delayed rewards for those who struggle with that.

Another possible use would be to help mothers bond with their babies, which could alleviate some cases of postnatal depression. Though this condition can occur in mothers who bond strongly with their infants, it's more likely to occur when they don't.[476]

The effects could extend well beyond the treatment of illness. Many people struggle not because they lack knowledge, but because healthy behaviors feel emotionally unrewarding

compared to modern distractions. A treatment that restores dopamine sensitivity could make exercise, work, family life, and self-discipline feel naturally more satisfying.

People might find it easier to focus, to build routines, to maintain relationships, and to pursue long-term goals rather than constantly seeking novelty and stimulation. Some may simply experience a greater sense of meaning and purpose in everyday life.

In this sense, such treatments could resemble drugs originally developed for diabetes that later became widely used for weight loss. A therapy first approved for addiction, depression, or attention disorders could eventually see much broader use among people seeking healthier and more productive lives.

As more people take up such treatments, especially the young, they would likely become more sensitive to the ordinary rewards of family and community life. Marriage and children would become more appealing, not through government pressure or financial incentives, but because people would once again find deeper satisfaction in ebb-and-flow activities. Over time, the birth-rate crisis could begin to reverse naturally.

There are several possible ways in which such treatments might work.

Odors

One possible approach would be to use odors. We've conducted experiments in which rats were exposed to the soiled bedding of calorie-restricted rats. These animals began behaving more like the food-restricted rats themselves, becoming, for example, more exploratory. The effect was weaker than actual food restriction, but it was still significant. We concluded that pheromones—chemical messengers—released by the food-restricted rats were likely responsible for these behavioral changes.[477]

Such findings can't be applied directly to humans because human pheromones differ from those of rats. However, we intend to conduct similar experiments with people, using sweat rather than urine. This is difficult in Australia, where government regulations make such studies prohibitively expensive. It's one reason we're moving much of the research to China.

If people are exposed to the sweat of individuals on a strict diet, will they begin acting, to some extent, as though they themselves are dieting? If so, we could identify the pheromones that differ in the sweat of dieters and test whether they have any effect when used as a treatment.

Drug Development

A more promising approach may be to develop drugs that produce effects similar to food restriction. Medications are among the great triumphs of modern science, successfully treating conditions such as diabetes, high blood pressure, and asthma.

My research team has begun this search with GLP-1s, which are weight-loss drugs such as semaglutide. Early evidence suggests GLP-1s may reduce interest in activities associated with dopamine surges. For example, there is growing support for GLP-1s in the treatment of alcohol use disorder, nicotine dependence, and opioid use.[478] Although the evidence is more limited, there is also preliminary support for GLP-1s aiding in the reduction of compulsive behaviors, such as gambling, that warrants continued research.[479]

These weight-loss drugs carry risks and can produce side effects in some users, including nausea, vomiting, and gall-bladder problems,[480] but modifying them could provide a useful starting point.

To screen potential treatments efficiently, we grow human brain cells in laboratory dishes and use robotics to test thousands of different drugs. We then look for epigenetic changes associated with calorie restriction. The most promising candidates are tested on rats, with particular attention given to improvements in maternal behavior as well as possible side effects. Any successful drugs could eventually move to clinical trials in humans, most likely beginning with serious conditions such as addiction.

CRISPR

Another important approach is CRISPR, a powerful gene-editing technology that allows scientists to make highly targeted changes to DNA. Researchers can use CRISPR systems to cut DNA at specific locations and remove, disable, or replace particular genetic sequences. Recent advances in precision, delivery methods, and safety have led to increasing use of CRISPR-based therapies in experimental medicine.[481]

Several treatments for human diseases, including neurodegenerative diseases, cardiovascular diseases, and certain cancers have entered clinical trials.[482]

One early success that has received FDA approval has been in the treatment of sickle cell disease,[483] an inherited blood disorder most common among people with African ancestry. The disease alters the shape of red blood cells, causing them to become rigid and block blood

vessels. Complications can include severe pain crises, organ damage, stroke, vision problems, and reduced life expectancy.

This treatment for sickle cell disease involves removing blood-forming stem cells from the patient, editing them with CRISPR, and then returning them to the body after chemotherapy. Clinical trials of CRISPR have demonstrated substantial promise in treating other diseases, though these therapies remain experimental and are currently too expensive for widespread use.[484]

CRISPR can also be used to make epigenetic changes, altering how genes function without changing the DNA itself. Scientists can switch genes on or off, or change how strongly they operate. Because the DNA isn't permanently altered, epigenetic editing may prove safer and more reversible than conventional gene editing, although its long-term effects are still being studied.[485]

CRISPR may eventually become a more precise way than drugs to reproduce some of the effects of food restriction. Unlike many drugs that affect the entire body, CRISPR could target specific tissues and direct epigenetic changes to particular regions of the brain. [486]

Another advantage is that CRISPR could potentially mimic some of the lasting effects of early life experience. As mentioned earlier, young brains are more plastic, meaning certain epigenetic changes are easier to establish during childhood. This may help explain why people who spend their late childhood during periods of hardship, such as the Great Depression, tend to have more children later in life.

CRISPR could potentially target these same systems, producing a stronger and longer-lasting effect, and as mentioned earlier, without the suffering or damage to the economy.

Cautions and Limitations

We'd like to make sure readers know that we are in no way encouraging governments or policy makers to manipulate, coerce, or adopt any dishonest behavior, as we recognize that social engineering may be considered in this light. We believe such behavior wouldn't be necessary, though. As we have seen in earlier chapters, growing dopamine sensitivity has helped fuel a rise in addiction, loneliness and suicide, weaker marriages, and a declining work ethic. We believe a treatment that alleviates any or all of these issues would have widespread appeal.

The first medically approved uses would undoubtedly be for serious issues such as drug addiction and depression. But as the benefits become clear, public demand would create demand in other areas. This is what has happened in the last decade when certain diabetes

treatments were found to aid weight loss, and have since been applied to the effort to quit smoking.

Nor would such treatments appear overnight. Any successful therapy would likely emerge gradually. Early versions may be expensive, imperfect, or limited in effectiveness. Public acceptance would also take time, especially given understandable concerns about treatments that influence the brain so directly.

It also wouldn't be necessary for most people to take them. A small minority that proved happier and more successful would undoubtedly encourage others to follow, and birth rates should simply cease their decline and start to grow.

We also recognize the danger of oversimplifying human behavior. Not every social problem can be explained by dopamine alone. Family structure, religion, culture, economic stability, and personal choice all remain important in shaping how people live and the kinds of societies they build.

A treatment that restores dopamine sensitivity wouldn't automatically create healthy societies or happy families. It would simply make the ebb and flow of ordinary life feel more rewarding. People would still need strong communities, meaningful work, moral guidance, and stable relationships.

And lifestyle changes would still matter greatly. Sleep, exercise, strong relationships, religious involvement, time outdoors, reduced exposure to constant stimulation, and purpose-driven work would continue to shape mental health and dopamine sensitivity. Treatments of the kind discussed here shouldn't be seen as replacements for healthy living, but as tools that help people regain the capacity to enjoy and sustain healthier ways of life.

Even so, the scale of the modern crisis may eventually cause societies to consider solutions that once seemed unthinkable. Humans have already accepted powerful medical interventions for conditions ranging from anxiety to obesity to infertility.

If falling birth rates, loneliness, addiction, depression, and social breakdown continue to worsen, treatments aimed at restoring dopamine sensitivity may ultimately come to be viewed in much the same way—not as unnatural enhancements, but as necessary responses to an environment unlike anything humans have ever experienced before.

Chapter Sixteen: Turning the Tide of the Global Decline

Societies around the world are experiencing a dramatic collapse in fertility, one that threatens their long-term stability and future survival. Governments have responded with baby bonuses, tax incentives, subsidized childcare, housing assistance, and expanded fertility treatments. Yet despite spending hundreds of billions of dollars, no wealthy society that has fallen below replacement level has successfully reversed the trend.

This failure suggests that the birth-rate crisis isn't primarily economic. Financial pressures are real, and many people genuinely struggle with living costs. But economics alone can't explain why the decline appears across countries with vastly different cultures, governments, religions, and social systems. Nor does it explain why fertility is often lowest in the wealthiest and most comfortable societies.

Throughout this book, we've argued that the deeper cause is a change in character and motivation driven by constant stimulation. Social media, entertainment, pornography, gambling, highly processed foods, status-seeking, alcohol, and endless novelty create repeated dopamine surges that reduce sensitivity to ordinary sources of satisfaction.

In contrast, the deepest forms of human fulfillment tend to arise from ebb-and-flow activities such as marriage, children, friendship, meaningful work, faith, and community. These produce quieter rewards rather than intense surges of stimulation.

As dopamine sensitivity declines, people increasingly experience life differently. Child-rearing and marriage appear restrictive rather than fulfilling. Work becomes something to endure rather than a source of accomplishment and purpose. Faith and community lose much of their emotional pull. At the same time, short-term pleasures and personal freedom become more attractive and more difficult to resist.

Other effects of this change include rising anxiety and depression, declining work ethic, increasing loneliness and social isolation, weakening religious involvement, and the growing difficulty many people experience in finding lasting meaning and satisfaction. This change is especially visible among younger generations, which suggests these problems may become even more serious in the years ahead.

History offers sobering parallels. Ancient Greece and Rome experienced substantial fertility concerns during periods of prosperity. But the modern world differs in that the speed and scale of the decline is far greater. Our highly stimulated environment amplifies these pressures far beyond anything seen in earlier eras.

We also examined communities that resist these trends. Groups such as the Amish, Orthodox Jews, Latter-day Saints, and others continue to maintain fertility rates above replacement levels and create stronger family bonds.

While they differ in theology and lifestyle, these groups tend to structure their lives in ways that attempt to protect family and community from many of the pressures of the modern world. They place strong emphasis on ebb-and-flow activities while limiting and discouraging exposure to aspects of modern culture that encourage constant dopamine surges and short-term gratification.

We've also considered ways of living that may help people achieve happier and more productive lives. Individuals who pursue ebb-and-flow activities and avoid exposure to addictive stimulation often report greater life satisfaction and a stronger attachment to marriage and children.

Yet we've also argued that solutions of this kind are unlikely to work on a society-wide scale. Government can't reshape the values and priorities of an entire population.

Even strong political efforts, such as those in Hungary and Russia, have produced only modest or short-term effects. A broad religious revival remains the hope of many believers worldwide, but it may face major obstacles in societies increasingly shaped by dopamine-saturated environments.

For this reason, we've proposed a more controversial possibility: that the birth-rate crisis may ultimately require a biological solution and not just a cultural one. Modern neuroscience has found that dopamine systems are highly responsive to environment and experience. Research into addiction, reward sensitivity, and motivation raises the possibility that future treatments could help restore healthier dopamine function.

My research team is actively investigating such treatments. Technological and medical advances may eventually make it possible to alter how the brain responds to reward and stimulation. Immediate benefits could include improvements in addiction, anxiety, depression, motivation, and self-control. In the process, the birth-rate crisis itself might largely disappear.

Differences between groups may be explained less by genetics and more by the way environment shapes the brain over time. In terms of genes, people across the world are remarkably similar. Change the epigenetic pressures acting on the brain, and behavior itself may begin to change.

Such possibilities raise ethical questions of their own. The earth has limited resources, and a return to rapid population growth would create serious challenges. But governments have historically found it easier to reduce births than to increase them, and there are many possible

approaches that are neither dangerous nor cruel. Managing future population growth would therefore remain a political and social challenge.

But the central point of our message is simpler than politics or economics. The birth-rate crisis reflects a deeper change in character, and until we recognize that reality, most attempts to solve the problem are likely to fail.

For readers, there are two simple takeaways. The first is following the principles set out in Chapters Twelve, Thirteen, and Fourteen. These principles can help anyone to live a happier and more productive life. They're similar to the advice given in many excellent books, some of which are listed in the Appendix, and perhaps readers will have a better understanding of the science behind the advice after reading *Birth-Rate Crisis*.

Second, we'd like to encourage philanthropists and political leaders to fund research into the epigenetics of social behavior, including (but not limited to) working with me on these goals. Drug companies may take this on, and publicly funded research is more likely to make the treatments affordable.

This book gives only a partial look at the science behind my theory and the research I've conducted over the years. For readers interested in more detail, I refer you to *Biohistory 2026*, available online by visiting the following website: https://biohistory.org/the-books/. (If you tap on "Download E-Book," it'll give you a free PDF.)

We'd like readers to know that publication is not the end of this project. Andrea, my research team, and I will continue investigating the questions raised in this book, evaluating new research, and refining our understanding as we learn more. We invite you to visit the following website, where we'll share updates and new findings: https://biohistory.org/updates.

Appendix: Health and Happiness Books

The key to a happy and meaningful life is to avoid those experiences that artificially boost dopamine and to pursue those that strengthen your brain's reaction to dopamine naturally. Here are some books that will help you to do just that, even though they don't express it in the same ways we do in *Birth-Rate Crisis*.

Atomic Habits: An Easy and Proven Way to Build Good Habits and Break Bad Ones, James Clear. A practical guide on creating good habits and getting rid of poor ones.

Tiny Habits: The Small Changes that Change Everything, B.J. Fogg. Similar, but even more practical in that it shows how change can start with very small adjustments of behavior.

The 5 Types of Wealth: A Transformative Guide to Design Your Life, Sahil Bloom. An immensely practical guide on how to build real wealth, not just in financial terms but in relationships, sense of purpose, proper use of time, and mental and physical health.

The 7 Habits of Highly Effective People, Stephen Covey. How to develop real character rather than simply looking to manipulate people.

Curious Habits: Why We Do What We Do and How to Change, Luke Mathers. Another useful book on the same subject that provides different aspects and reinforces the main points.

Ultra-Processed People: Why We Can't Stop Eating Food That Isn't Food, Chris van Tulleken. This book is excellent on the health dangers of ultra-processed food. I would add, though the author did not, that poor diet also has mental health implications.

The Expectation Effect: How Your Mindset Can Change Your World, David Robson. How what we expect influences our body and mind. Some of the information about diet is really extraordinary, such as that food can be more or less filling depending on how we think about it. I've read this book twice in the past year alone.

The Psychology of Money: Timeless Lessons on Wealth, Greed, and Happiness, Morgan Housel. A beautifully written book about the irrationality of the way we look at money.

Happiness by Design: Change What You Do, Not How You Think, Paul Dolan. A practical account of how to achieve happiness based on well-designed studies.

The Laws of Connection: The Scientific Secrets of Building a Strong Social Network, David Robson. A practical guide to building great relationships.

Exercised: Why Something We Never Evolved to Do Is Healthy and Rewarding, Daniel Lieberman. You think you know everything about exercise, but here's a whole lot more.

Dopamine Nation: Finding Balance in an Age of Indulgence, Anna Lembke. Why drugs, alcohol, junk food, and other dopamine boosters don't make people happy. The brain adjusts by making us less sensitive to the effects of dopamine, leading to a generally poorer mood. Her idea of "gremlins" in the brain is colorful and memorable.

The Happiness Hypothesis: Finding Modern Truth in Ancient Wisdom, Jonathan Haidt. Money and success are not the keys to happiness.

The Happiness Files: Insights on Work and Life, Arthur Brooks. Happiness lies in friendship, family, and community, not in striving for wealth and status. Money makes very little difference after basic needs are met, and the best way to spend it is to give it away. The value of having a purpose in life and meaningful work.

Get Married: Why Americans Must Defy the Elites, Forge Strong Families, and Save Civilization, Brad Wilcox. A guide to healthy unions and why they matter so much to happiness and well-being.

Stolen Focus: Why You Can't Pay Attention—and How to Think Deeply Again, Johann Hari. A good account of the danger of smartphones, among many other things.

The Sweet Spot: The Pleasures of Suffering and the Search for Meaning, Paul Bloom. The activities that provide the most satisfaction are often the ones that involve the greatest sacrifice.

Why We Eat (Too Much): The New Science of Appetite, Andrew Jenkinson. A practical guide on how to lose weight and keep it off.

The Talent Code: Greatness Isn't Born, It's Grown. Here's How, Daniel Coyle. A practical guide on how to achieve your full potential.

The Village Effect: Why Face-to-Face Contact Matters, Susan Pinker. Why social media is not nearly enough to satisfy our needs.

How Not to Diet: The Groundbreaking Science of Healthy, Permanent Weight Loss, Michael Greger. The advantages of plant-based food and the dangers of anything else.

How Not to Die: Discover the Foods Scientifically Proven to Prevent and Reverse Disease, Michael Greger. Similar excellent information.

The Anxious Generation: How the Great Rewiring of Childhood Is Causing an Epidemic of Mental Illness, Jonathan Haidt. The terrible damage done by smartphones to the mental health of teenagers. Every parent should read this book.

The Chaos Machine: The Inside Story of How Social Media Rewired Our Minds and Our World, Max Fisher. A frightening account of how social media algorithms lead people into dark places and make the world worse.

Bad Therapy: Why the Kids Aren't Growing Up, Abigail Shrier. The ever-growing use of therapy may actually be harming the mental health of our youth. We'd be better off taking meaningful action and spending less time thinking about our lives. I find this book very convincing.

The Circadian Code: Lose Weight, Supercharge Your Energy, and Transform Your Health from Morning to Midnight, Satchin Panda. A powerful case for the benefit of good sleep, and advice on how to achieve it.

Lost Connections: Uncovering the Real Causes of Depression—and the Unexpected Solutions, Johann Hari. A convincing argument against the use of anti-depressants.

The Good Life: Lessons from the World's Longest Scientific Study of Happiness, Robert J. Waldinger and Marc Schulz. Good advice on how to live a healthy, happy life based on a study that's been running since 1938. Key lesson: focus on relationships above everything else.

Family Unfriendly: How Our Culture Makes Raising Kids Much Harder Than It Needs to Be, Timothy Carney. Our kids will be much better off if we stop pushing them to achieve and allow more time for free play. I bought multiple copies of this book and gave them to my kids, who are having children of their own.

Selfish Reasons to Have More Kids: Why Being a Great Parent is Less Work and More Fun Than You Think, Bryan Caplan. A similar message. Parents cannot read too much on this topic.

Why Has Nobody Told Me This Before? An International Bestselling Guide to Mental Health and Emotional Resilience from a Clinical Psychologist, Julie Smith. A very practical account of how to deal with depression and anxiety. I especially liked her emphasis on finding purpose and taking action as a way of coping with bad times.

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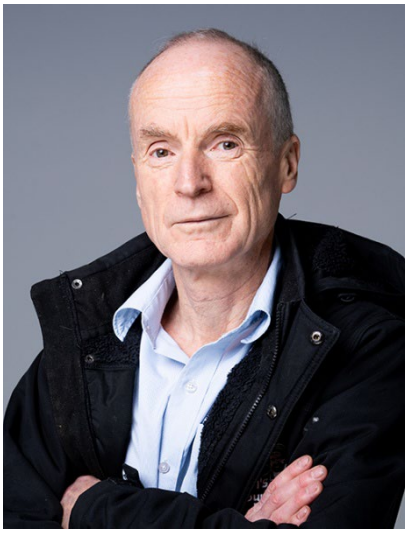
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About the Authors

Jim Penman



The founder and owner of Jim's Group, Jim Penman is one of Australia's best-known entrepreneurs. He has written several books and is a popular speaker on topics including business, health, happiness, and political issues such as Australian zoning laws.

While studying for a PhD in history at La Trobe University in Melbourne, Jim developed ideas that challenged existing thinking on the reasons for social and political change. In particular, he came to believe that biology and neuroscience were key underlying factors.

On completing his doctorate, he turned his part-time lawn-mowing business into what became the largest franchise chain in the Southern Hemisphere, with 5,700 franchisees in Australia, New Zealand, and Canada.

He continued his academic interests, and in recent years has funded an ongoing research program, with 12 papers published in high-ranking academic journals including *Physiology and Behavior*, and *Behavioural Brain Research*. The program is based at La Trobe University, with labs now operating in Nanjing and Chongqing, China, and collaborators in the U.S. and elsewhere.

A particular interest is the epigenetic effects of the environment, especially of mild food restriction and parental care, and also of the physiology and behavior of cycling animals such as lemmings and muskrats.

He also continues to be active in the business, providing his direct contact details to every franchisee in the system and fielding multiple inquiries a day, as well as taking an active role with regard to customer service issues.

Jim is an evangelical Christian and active in his local church, living simply on a fraction of his income. Above all, he sees his key job as a husband and father of ten wonderful children. He believes true success isn't measured in bank accounts or business holdings, but in the people you love and the legacy left behind; and that no material gains, however great, can compensate for failure in the home.

Learn more about Jim and his work at his website: jimpenman.com.au.

Andrea Pearson



Andrea Pearson is a *USA Today* bestselling author, speaker, entrepreneur, and podcast host with more than 15 years of professional writing and public speaking experience. She has authored more than 85 books and over two million published words under three pen names. Through her books, speaking engagements, and online platforms, she has spent more than a decade helping writers and business owners transform passion into sustainable careers.

Throughout her life, Andrea has been deeply interested in marriage and the role of parenthood. As both a mother and a lifelong student of human behavior, she has seen firsthand the joy and meaning that family can bring. Those interests made this project a natural fit and fueled her desire to help bring its message to a wider audience.

In addition to her writing career, Andrea hosts *The Andrea Pearson Show*, where she explores topics related to personal growth, business, finance, relationships, and anything that

would help listeners lead a more intentional life. She has taught and spoken at conferences and workshops throughout the United States and previously served as Executive Director of Indie Author Hub.

More than anything, Andrea considers her greatest accomplishments to be found in her family. While professional success can be rewarding, nothing compares to the joy she finds at home with her husband and their three children. Learn more about her from her website: andreapearsonofficial.com.

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The Great Depression extended from 1930 to 1940, so someone born in 1926 would have experienced it between the ages of four and 14. People born in 1916 would have experienced it as adolescents and young adults, and in 1936 as infants. Neither of these cohorts had as many children.

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