

## INTRODUCTION

### The kibbutz puzzle

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#### THE ARGUMENT WITH MY UNCLE

I grew up in Jerusalem, but a central part of my life has always been the kibbutz, a place a few miles from the city and a world away. My grandmother was a founder of Kibbutz Negba in the South of Israel and remained a proud member for fifty-five years; my mother was born and raised in Negba; my aunt and uncle still live in Kibbutz Heftziba in the North; and my brother and his family are members of Kibbutz Ramat HaKovesh near the city of Kfar Saba.

As a child, I admired kibbutzim (plural of kibbutz). My younger brother<sup>1</sup> and I loved the freedom to wander around the kibbutz and to disappear for long hours—something our parents didn't mind because the kibbutz was so peaceful and safe. We used to walk barefoot all day in its green and spacious paths. We spent our days playing tennis, table tennis, soccer, and basketball. We loved swimming in the large pool, but we also enjoyed just getting wet in the shallower but warmer kid's pool. At noon ("and don't be late, kids!"), we lined up with all the kibbutzniks (nickname for kibbutz members) and guests

<sup>1</sup> My brother Gil is a year and a half younger than I am, and he was always a more natural fit for the kibbutz than I was. He could stay outside forever, his feet were tougher, and he could run barefoot on the hot concrete and on all surfaces, just like the other kibbutz kids. Indeed, he later married a kibbutz member (from Ramat HaKovesh) and moved to her kibbutz, where he is like a horse in a meadow.

in the communal dining hall, filled our plates with as much food and drink as we wanted (“Is it really all free, Mom?”), and joined other kibbutzniks at one of the long communal dining tables.

As a young teenager, I became even more charmed by kibbutzim. Not only was I having so much fun in Kibbutz Negba (and, less frequently, Kibbutz Heftziba), but the kibbutz principle of completely equal sharing seemed appealing, and the kibbutz way of life idyllic. A community in which everyone was provided for by the kibbutz according to her needs struck me as fair and virtuous.

But as I grew older, I began asking myself questions I couldn’t easily answer. Why didn’t our beloved family friend A., who always held high positions in the kibbutz and was so smart, talented, and hard-working, earn more than others who weren’t as talented and didn’t work as hard? Why didn’t the kibbutz reward his talent and efforts? And why didn’t he move with his family to Jerusalem or Tel Aviv, where he surely could earn more money and afford a higher quality of life? Why did A. agree to get paid for his esteemed job the same wage as the member who milked the cows or worked in the kibbutz kitchen?

And why did my Uncle U. work so hard at the irrigation factory, getting home late every night, when he would have earned exactly the same regardless of how hard or how long he worked? No one forced him to work hard; in fact, he had always been proud that there were no bosses at the factory and that everyone held the same rank. He liked his job, but I knew he always wished he could spend more time with his family. Why didn’t he, since his earnings would have remained the same?

As I studied hard and stressed over exams, I wondered whether my cousins and friends in the kibbutz had weaker incentives to excel in school; after all, in a classic kibbutz, a high school dropout and a computer engineer with a PhD would earn exactly the same wage. I could not help but think that living in a kibbutz seemed a particularly great deal for lazy people or those lacking talent. What could be better for such people than sharing the incomes of brighter and harder-working people like A. and U.?

In time, I realized that I was not the first to ask such questions: many people became skeptical of the kibbutz economy as they grew

older. As the cliché goes, any man under thirty who is not a socialist has no heart, but any man over thirty who is still a socialist has no brains.<sup>2</sup>

I remember distinctly one particular day in the late 1990s: I was in my twenties and pursuing my undergraduate degree in economics. My whole family was enjoying lunch at my aunt and uncle's house in Kibbutz Heftziba. By that time, it was acceptable and common for kibbutzniks to have meals at home when they had guests (and even when they didn't). Heftziba was no longer thriving economically and socially, and the atmosphere in the kibbutz was less upbeat than it had been a few years earlier. Heftziba was deeply in debt to the banks, as were many other kibbutzim at the time. Kibbutz members were discussing reforms to waste fewer resources and increase productivity, including radical ideas such as hiring outside managers to run the kibbutz factories and businesses. We sat on the sunny grass overlooking the kibbutz houses and paths, listening to the crickets chirping in the orange trees and greeting kibbutz members returning from lunch at the communal dining hall.

My uncle described the latest path-breaking innovation his plant had made to improve irrigation systems, and mentioned that the kibbutz plant was among the best in the country. I decided to provoke him. I told him that, according to economic theory, the kibbutz plant shouldn't be that good. In fact it, and the entire kibbutz itself, should not even exist. I pointed out that kibbutz members had strong incentives to shirk on their jobs. After all, why would anyone work hard if all she got was an equal share of the output? I told him the term I'd learned for this problem in my economics lectures: the free-rider problem. I also pointed out that the most educated and skilled members have strong incentives to leave the kibbutz—the problem of “brain drain”—so why would they choose to stay in a place that forced them to share their incomes with less skilled members? Surely they could earn higher wages in a nearby city such as Afula or Hadera.

<sup>2</sup> There are many versions of this aphorism, with varying ages and political labels, but the essence is always the same: the young lean left, but they typically become more conservative as they age. E.g., <http://quoteinvestigator.com/2014/02/24/heart-head/>.

I continued my (admittedly annoying) speech, adding that lazier and lower-skilled people have strong incentives to enter a kibbutz. Wouldn't it be great for someone who struggles to make a living in the city to enter a kibbutz and get subsidized by its more ambitious members? I had learned in intermediate microeconomics that this problem was called adverse selection, but knowing there was a term for it didn't convince my uncle.

He grew upset. Maybe economists are just too cynical, he said—wrongly believing that all people are selfish. In fact, he continued, everyone familiar with kibbutz history knows that the founders of kibbutzim were anything but selfish: they were idealists who wanted to create a “new human being” who, contrary to economists' traditional views of human nature, cared more about the collective than about himself.<sup>3</sup> Besides, he said, if economists are so smart, how did kibbutzim survive for so long despite all these incentive problems?

His arguments made sense to me, and they made me think: Did kibbutzniks respond to incentives, or did economic principles end at the kibbutz gate? How did kibbutzim survive, given the disincentives equal sharing created for talented people to join, work hard, and acquire skills? Did the kibbutz experience disprove the claims of the economists I had been studying as an undergrad?

A couple of years later, as I plunged into the world of economic research, I decided to focus my research efforts on these questions and to research the various perspectives behind kibbutzim's long persistence. I also wanted to understand why many kibbutzim had recently shifted away from income equality. I collected data on almost two hundred kibbutzim spanning the last seventy years: how many members they had; how many people left and how many entered—I was especially looking forward to finding my mother, who left the kibbutz in 1970, in the records; the degree of equality within the kibbutz; and which kibbutzim shifted away from equal sharing and when. I analyzed these data and wrote my PhD dissertation in economics on the kibbutz. My uncle was not wrong,

<sup>3</sup> This view of human nature is part of the notion of “*Homo economicus*,” which views humans as narrowly and rationally pursuing their self-interest. Creating a new ideal human being is a notion often associated with utopias in general and utopian socialism in particular (discussed further in chapter 11).

but I also learned that kibbutzim were not immune to the economic principles I had studied as an undergraduate. Socialist ideals founded the kibbutzim and played an ongoing role in their functioning, but economics also has a great deal to say about how they had survived and flourished for so long.

I continued studying the kibbutzim after I completed my PhD, extending the data collection to learn about the choices and behavior of kibbutz members, and delving into the questions of how kibbutzim sustained income equality and why they eventually shifted away from equal sharing. While the book focuses on kibbutzim, it aims to address bigger questions about equality and inequality in a manner that is easily accessible to the nonspecialist: Can we create a society in which people have equal incomes? What are the costs of doing so?

## WHAT THE KIBBUTZ EXPERIMENT TEACHES US ABOUT INCOME EQUALITY AND VOLUNTARY SOCIALISM

I quickly learned that the debate my uncle and I had was as old as the concept of the kibbutz itself. My uncle presented an idealistic view, which emphasized the role of idealism and ideology, in the survival of the kibbutz. The founders of kibbutzim were migrants from Eastern Europe who rejected capitalism. They wanted to establish a society based on voluntary socialism, adopting the elements that they liked from socialism but maintaining the freedom of members to leave if they chose so. I, in contrast, repeated to my uncle the most cynical economics view: an equal-sharing arrangement won't last because inherent and severe incentive problems will undermine it from the beginning.

This book brings an economic perspective to the study of kibbutzim. It addresses the following questions: How did kibbutzim maintain equal sharing for so long despite the inherent incentive problems? How did the voluntary egalitarian kibbutzim deal with the challenge of having a more capitalist world right outside their gates? What level of equality can be sustained within a kibbutz and under what conditions? What is the role of economic forces in the

behavior of kibbutzim and in members' decisions? The premise of the book is that kibbutzim are fascinating social experiments to study the survival of egalitarian principles.

Think about it: If people were given a choice to live in a society where all incomes and resources were shared equally, who would choose that option? And would their society thrive? What rules and norms would they choose to govern their society? These questions are hard to address, because people are not typically given such choice of where to live. Former communist countries can't help us answer these questions because their citizens couldn't exit at will and couldn't vote against socialism. Liberal socialist countries like Sweden and Denmark offer more individual choice—and I discuss them later—but their egalitarian and socialist principles are more difficult to disentangle from other factors. Kibbutzim, in contrast, offer a laboratory with which to address these questions.

This book suggests that under the right circumstances, it is possible to create a viable egalitarian society. Equality worked in the kibbutzim for many decades, and it still does in a handful of them today. To be sure, economic theory did not stop at the kibbutz gate. Shirking was always an issue, and the best workers were the first to leave. But these problems were not nearly as devastating as naive economic logic would suggest. For example, kibbutz members have always had relatively high levels of schooling, even in periods when full equal sharing was practiced and kibbutzim offered no monetary returns to schooling. Kibbutz children did invest more in their schooling once their kibbutz shifted away from full equal sharing, but this effect was relatively small in magnitude and concentrated among children with less-educated parents. Overall, kibbutzim survived, and many of them thrived, for almost a century.

How did kibbutzim survive? Income equality provided much-needed insurance to kibbutzniks in the early days. Idealism, team spirit, and culture helped to sustain equality, as did homogeneity of preferences and abilities among members. Governmental support also helped. But members did not rely on idealism, goodwill, and external support alone. Social sanctions against shirkers were effective because the communities were small with limited privacy;

communal property served as a bond, and training in kibbutz-specific education and skills helped retain productive members; and screening and trial periods were used to regulate the quality of entrants. Kibbutzim effectively mitigated these challenges, but at the cost of individual privacy, which is a price that many were unwilling to pay. The decline in commitment of kibbutz values among younger generations, however, made these challenges increasingly difficult to solve. As practical considerations took over ideological ones, many productive members left, and the kibbutzim not only lost talented workers but also faced the question of who would take care of the aging founding generation.

Being rich helped. Rich kibbutzim could attain equal sharing through high levels of redistribution, without losing all their most-skilled members, whereas poorer kibbutzim could not. Once a financial crisis forced many kibbutzim to reduce living standards, their most-educated and highest-skilled members left, and these kibbutzim shifted away from equal sharing to improve economic incentives and retain talent.

### A WORD ON THE ECONOMIC PERSPECTIVE USED IN THIS BOOK

The economic perspective offers insights that extend beyond kibbutzim. Any society, country, or firm that wishes to increase economic equality, even if it does not reach full equality, must deal with challenges such as free-riding and adverse selection described in this book. These issues are key to understanding the feasibility and desirability of equality from an economic perspective. In this sense, kibbutzim are an important social experiment from which all societies striving to increase equality can learn.

Although naive economic logic might seem at odds with the past success of kibbutzim, in fact a broader economic perspective that borrows insights from other disciplines can go a long way toward explaining why kibbutzim were created, what form they took, how they thrived for so long, and why they eventually declined. Thus, while the book focuses on economics, it also incorporates insights from history, sociology, and psychology. When it comes

to quantitative sources, however, the sources are biased toward the more recent period, so that the empirical evidence on earlier periods is less systematic. Moreover, by taking a primarily economic perspective, this book misses out or touches only briefly on several important aspects of kibbutzim, such as identity, culture, politics, and social structure. For example, it only briefly mentions the topics of gender and ethnic inequality in the kibbutz, family and social arrangements, the internal politics of the kibbutz movements, the complex political involvement of the kibbutz movement with Zionist and labor politics, and issues of identity formation. These topics are explored thoroughly elsewhere.

Kibbutzim are not the first such social experiments. There have been many attempts to create communities that share a vision and follow alternative lifestyles. Such “intentional communities” are often labeled “utopian” by those who believe they are doomed to fail. Intentional communities ranging from cooperatives to communes to monasteries often strive for cooperation and mutual aid and are motivated by a common vision and a desire for a thoughtful alternative lifestyle. There is a large literature on intentional communities, which I touch only briefly in this book when I discuss other communes in chapter 11. Similarly, I do not discuss in detail the intellectual history of socialism or key figures in that intellectual tradition, such as Henri de Saint-Simon, Charles Fourier, Robert Owen, and Karl Marx.<sup>4</sup> Their insights and the experience of other intentional communities, however, surely influenced my thinking.

As even the most idealist members of the most sincere utopia, kibbutzniks too are not angels, and they are motivated by diverse motives, including economic and noneconomic considerations. For example, getting satisfaction from being appreciated by the social group is a substitute for getting a higher income. While I discuss these other motives throughout the book, my economics training may tempt me to discuss economic considerations in greater detail. Let me thus emphasize from the beginning that a kibbutz is a social unit and not merely an economic organization; culture, and

<sup>4</sup> See also Skinner’s utopian novel *Walden Two* (1974).

specifically pride in being a kibbutznik, is an important glue, and human behavior is complex and diverse.

In a number of ways, kibbutzim offer an exceptional environment to examine the potential tradeoff between equality and incentives. Unlike members of many other communally based living arrangements, kibbutzniks were never at the margin of society. They have always interacted with the rest of the population and played an important role in Israeli society. In fact, kibbutzniks were once considered elites, and they were over-represented in leadership positions in both the government and the military. They thus had good opportunities outside the kibbutz, and the option to leave. This lies in contrast to many other communes, whose members have often been more marginal and isolated from the outside world. In this sense, the study of kibbutzim teaches us more about economic organizations than does the study of other communes.

In general, people might tolerate the existing social order if they are unaware that there are better alternatives, which could explain why many communes tend to keep members unaware of the world outside. Communist countries often restricted news media and printing presses, imposed import restrictions, blocked Internet access, and tightly controlled international travel and emigration.<sup>5</sup> In contrast, kibbutz members interact with nonmembers through Israel's mandatory military service, not to mention that many kibbutz members (especially since the 1980s) study and work outside their kibbutzim.

At the same time, the trade-off between equality and incentives is not specific to kibbutzim. In fact, this trade-off lies at the heart of modern economics and emerges in seemingly diverse settings, such as insurance, executive compensation, taxes, extended families, and immigration policies. Kibbutzim used mechanisms such as abolishing private property to limit brain drain, screening to regulate the quality of entrants, and social sanctions to limit shirking. Similar mechanisms have been used by a number of other organizations

<sup>5</sup> Isabelle Sin and I showed how former communist countries in Eastern Europe restricted the translation of Western books and how, following the collapse of communism, book translations increased dramatically and translation rates converged to Western Europe's translation rates (Abramitzky and Sin 2014).

and communities, ranging from professional partnerships, cooperatives, and academic departments, to village economies in developing countries, communist countries, and welfare states. However, such measures must typically be used in extreme ways if a community strives for full income equality because members receive zero monetary returns from working hard. In the case of kibbutzim, this meant, among other things, not allowing members to have any of their own savings, and taking away most of their privacy; in the case of many communist countries, individuals were often forbidden to leave. Such tough measures might explain why societies based on income equality are so rare.

## BOOK STRUCTURE AND CHAPTER DESCRIPTION

The book has three parts. The first is about the rise of the kibbutz. Chapter 1 introduces the kibbutz way of life and early history through the lens of the personal story of my family—how my grandparents moved from Poland to Palestine and helped found one kibbutz, how they lived there in early days, and what my mother and her generation's life in the kibbutz looked like. I also continue to tell my family history in separate interludes and in the epilogue. It is the contrast between my economic knowledge and my personal experience with kibbutzim that triggered my interest and curiosity in studying them. I am well aware that including personal details about the author in a scholarly book is not standard, and some scholars might even find it outrageous. I invite such scholars to skip chapter 1 and the interludes and go straight to the analysis. However, I felt that my book, which mostly uses economic logic and systematic data analysis of almost two hundred kibbutzim, would be incomplete without also introducing the beautiful humanity underlying this unique experiment of kibbutzim.

My hope is that the personal history illustrates some of the concepts in the book, provides content, and adds warmth to the models and statistics. I also realize that while my family's story is close to my heart, there are thousands of similar stories and many different ones as well. In this sense, my family history is not intended to provide an exhaustive and accurate history of the kibbutz movement.

Rather, it tells the story of three generations of one family—my family—in one kibbutz. You can think about my family history as one anecdote. Like all anecdotes, it was not chosen at random. But, unlike most anecdotes, here the reader knows exactly how I chose that one. Similarly, even objective scholars (and I strive to be one) come with their unconscious personal bias to any topic. Sharing my family history should allow readers to evaluate any potential bias I might bring to the analysis.

In chapter 2, I present a brief bird's-eye view of the history of kibbutzim before a financial crisis hit them in the mid-1980s. The population of kibbutzim grew dramatically before the 1980s, although the percentage of kibbutz members in the Jewish population constantly declined. Dozens of new kibbutzim, each with up to a few hundred members, were established. Members' quality of life increased substantially over this period. These demographic and economic developments of kibbutzim during this period raise a number of puzzles that the rest of the book aims to explain: How were small and struggling egalitarian communities able to grow from a dozen members to many thousands and offer members living standards higher than the country's average? Why did only a small share of the Jewish population choose to live in a kibbutz? How were kibbutzim able to retain many kibbutz-born individuals? Who chose to leave their kibbutz? Why not create one large kibbutz instead of dozens of small ones? And how did kibbutzim thrive within the broader Israeli society despite the incentive problems that were arguably inherent to full income equality?

This book is not intended to be a complete and exhaustive history of the kibbutz movement, which is done ably elsewhere in a large literature on which I draw. Four books proved particularly useful—the impressive two volumes on the history of the kibbutz movement by Near (1992, 1997), and the books by Gavron (2000) and Mort and Brenner (2003) that beautifully tell the in-depth story of a number of kibbutzim. Together with my conversations with dozens of members over many years, these helped me better understand kibbutzim beyond the statistics and models.

In chapter 3, I discuss the economic issues involved in creating a kibbutz. I first discuss the attraction of equal sharing for a society.

In the early days of kibbutzim, equal sharing was appealing not just for ideological reasons but also for economic reasons: it provided a safety net, insurance against the many risks that life could bring. I then imagine a conversation between the founders of kibbutzim and an economist from the same era. If the economist had the sensibilities of my undergraduate self, she would probably tell the founders that their idea for a kibbutz was flawed. But if she had foresight on how economics would develop over the next century, and the humility to borrow insights from other social sciences, she might actually advise them to create a kibbutz with exactly the same rules and norms that they chose without any expert advice. A classic kibbutz with its initial rules and norms was a great way to enable a group of people to enjoy the insurance and ideological benefits of equal sharing, while fighting the incentive problems of free-riding (lack of incentive to work hard), adverse selection (the tendency of less-productive workers to enter), brain drain (the tendency of the most productive members to exit), and underinvestment in human capital (lack of incentive to study hard).

The second part of the book focuses on the survival of egalitarian kibbutzim. After a short interlude on how the kibbutz provided a safety net to my grandmother and why my mother decided to leave, I discuss in chapter 4 the way in which the driving force behind kibbutzim evolved over time. The idealistic zeal of kibbutz founders, coupled with favorable historical circumstances, sparked the creation of kibbutzim. But idealism and favorable circumstance declined over subsequent generations, and practical considerations took over as the dominant force behind members' behaviors and decisions. Kibbutzim survived in part because they set up their rules and norms so that they could survive long after the idealism and favorable circumstances of their inception had faded.

In the next few chapters, I discuss the various incentive problems and how kibbutzim dealt with them during this equal-sharing period: chapter 5 covers the free-rider problem, chapter 6 adverse selection and brain drain, and chapter 7 underinvestment in human capital. In each of these chapters, I first explain the economics of the problem. I then use census data on kibbutz members to empirically test the extent to which the problem was present in kibbutzim

during this period. Finally, I explain how kibbutzim dealt with the problem. The bottom line is that these problems were all present in kibbutzim, but they could have been much worse if kibbutzim hadn't abolished private property, screened entrants, and encouraged social sanctions. I suggest that the norms and rules that helped kibbutzim deal with these incentive problems could also explain why kibbutzim were small, why many Israeli Jews did not find living in a kibbutz attractive, and ultimately how kibbutzim survived for many years despite the incentive problems.

Did the founders of the kibbutz actively think through the economic rationale and intentionally design their kibbutz to avoid incentive problems? It's possible. It's equally likely, however, that kibbutz members might have behaved as if they were trying to solve incentive problems even though this was not their main objective.<sup>6</sup> Whether or not this was their intention, the society that kibbutz members designed was remarkably successful at fighting incentive problems.

The third part of the book moves on to the decline of egalitarian kibbutzim. Chapter 8 starts by explaining why kibbutzim shifted away from equal sharing and why this didn't occur until the 1990s. Winds of change started to be felt in kibbutzim as early as the 1970s. Until that time, kibbutz children slept outside their parents' homes in special residences; beginning in the 1970s, many kibbutzim abolished these communal sleeping arrangements and moved children into their parents' homes. In 1977, a right-wing government was elected in Israel for the first time, and kibbutzim could no longer expect the explicit and implicit support they were accustomed to. This political development was followed in the late 1980s by an upheaval known as "the kibbutz crisis." A number of elements of kibbutz life came under stress: many kibbutzim had

<sup>6</sup> And note that the fact that they didn't have an explicit economic model in mind doesn't mean they didn't act as if they did. To give an analogy, the expert billiard player doesn't need to know the laws of physics to be a great champion, but the laws of physics still apply on the billiard table (Friedman and Savage 1948). The expert billiard player acts as if he knows the rules of physics, hitting the ball at a certain angle and taking friction into account as he attempts to land the ball in the pocket at the corner of the table.

borrowed heavily and then experienced financial difficulty when interest rates rose; the development of a high-tech economy in Israel offered potentially larger rewards for high-ability workers; and all the while, ideological commitment to the socialist aspect of kibbutz life continued to wane.

I then document the shift away from equal sharing that has been taking place in kibbutzim over the last twenty years. Kibbutzim have introduced various degrees of reforms, ranging from small deviations from equal sharing to substantial ones wherein a member's budget is mostly based on her earnings.<sup>7</sup> As of 2011, about 25 percent of kibbutzim still maintained completely equal sharing between members,<sup>8</sup> but the majority of kibbutzim had adopted a "safety net" model, whereby members keep some fraction of their earnings and share the rest with their fellow members. Despite the large deviation from the original model, the language used to describe reformed kibbutzim conveys that even kibbutzim that have shifted away from equal sharing still provide a safety net to members in need, revealing the importance of insurance and mutual support in kibbutzim's ongoing mission. To be sure, the safety net was a compromise—a way to achieve the majority required in a vote for the "capitalistic" reform that rescued the kibbutz. Moreover, as is often the case, those who stood to lose from the reforms—here the elderly and the less skilled workers—had an obvious interest in a generous safety net and they had the ability to impose it. The end result, however, is that insurance and mutual support remain important principles of the kibbutz. In a brief interlude, I return to the final chapter of my family's story: the lives today of my brother and his wife and children in a reformed kibbutz.

In chapter 9, I explain how these recent developments in kibbutzim allowed me to test an economic theory of the limits of equality. The financial crisis of the 1980s and the Israeli high-tech boom of the 1990s in particular exacerbated the brain-drain problem, and

<sup>7</sup> The information on kibbutzim's degree of equality was collected by Shlomo Getz of the Institute for Kibbutz Research based on kibbutzim's self-reported degree of income equality.

<sup>8</sup> Sixty-three out of 266 in Getz (2011).

can explain the degree to which different kibbutzim shifted away from equal sharing. Economic theory predicts that wealthier kibbutzim would experience lower exit rates, would be able to retain most of their talented workers, and would choose more equal sharing. Less wealthy kibbutzim, on the other hand, would experience higher exit rates, lose talented workers in greater numbers, and would thus shift away from equal sharing in order to retain the most talented workers. The fact that the financial crisis hit some kibbutzim harder than others created differences in the wealth and living standards of kibbutzim that enabled me to test these predictions.

I continue by analyzing my findings of why some kibbutzim remained egalitarian and others did not, and why kibbutzim have shifted away from equal sharing to different degrees since the late 1990s. I first describe the kibbutz-level data I collected, which includes such information as kibbutzim's wealth, financial circumstances, size, age distribution, exit rates, ideological affiliation, and voting in national elections, and whether they shifted away from equal sharing. I then present the empirical findings and discuss what they tell us about the roles of communal wealth, group size, age distribution, and ideology in maintaining equal sharing.

Chapter 10 moves forward in time and considers the consequences of the rising income inequality in kibbutzim. The shift away from equal sharing increased the return to education of kibbutz members. Economic theory predicts that people will invest more in their educations when the return is higher. To test this prediction, Victor Lavy and I collected data on kibbutz students and their high school and post-secondary schooling outcomes before and after the reforms. We find that kibbutz students took high school more seriously and invested more in their education once their kibbutz shifted away from equal sharing, especially men and those whose parents were less educated. Besides improving education, I also present empirical evidence that the recent shift away from equal sharing, by increasing the monetary cost of raising children, discouraged members from having as many children as previously. There is also some suggestive evidence that the shift away from equal sharing improved work ethic in kibbutzim, but might have come at the cost of decreased happiness.

In chapter 11, I compare the experience of kibbutzim with other communes. Similarly to kibbutzim, nineteenth-century communes in the United States designed their societies to mitigate incentive problems by facilitating social sanctions, enhancing commitment, loyalty, and cooperation, and creating lock-in devices. Ideology, especially when religion-based, helped fight incentive problems. As ideology declined and outside opportunities for members improved, incentive problems worsened and communes' stability was threatened. To survive, communes used one of two opposite strategies. Kibbutzim, as we saw, shifted away from equal sharing and became more like the world around them. Communal groups such as the Hutterites, in contrast, increased their isolation, fighting brain drain by reducing members' knowledge of what the outside world had to offer.

Chapter 12 concludes and suggests, in light of the analysis in the book, an economic reinterpretation of the rise, survival, and decline of kibbutzim. The kibbutz experience suggests that income equality does not come for free. What you gain in a safety net, you lose in individual incentives; but if you raise incentives, inequality follows. Still, even under equal sharing, incentive problems were not nearly as severe as would be suggested by a naive economic logic. Even in the absence of monetary returns, kibbutzniks worked long hours and acquired education and skill, while talented members who could earn more outside often stayed in their kibbutz, allowing many kibbutzim to thrive. Even kibbutzim that shifted away from equal sharing continue to provide a safety net to weak members and maintain mutual assistance as a building block of the kibbutz. This chapter and the epilogue also discuss the broader lessons from the book for organizations and societies that wish to be more supportive and equal.

In the final account, it is impossible to know exactly how much of kibbutzim's success in maintaining equality stemmed from the ways in which they were able to successfully overcome various problems, and how much came from the support they received from the state of Israel (and the pre-state Jewish Yishuv). Both were crucial. I show that aspects of kibbutzim's community design and their responses to changes in their internal and external environments

were critical to their survival. At the same time, I discuss how the fact that kibbutzim were heavily subsidized in various ways and for many years aided their success. These subsidies included transfer of land and other factors of production to kibbutzim, subsidies to the farming sector in the form of water and capital investments, subsidies for the consumption of farm goods in the state of Israel, and reduced competition by allocating production quotas and preventing the importation of food and industrial goods produced by the kibbutzim. This approach of subsidies and protectionism was not unique for the kibbutzim, but they surely enjoyed it. However, state support is not the whole story. For example, governmental support does not prevent kibbutz members from shirking and does not help kibbutzim with solving adverse selection in entry. Similarly, while the fact that the political environment became less friendly to the kibbutzim starting in the mid-1970s can partially explain why kibbutzim got into economic trouble and subsequently began to abandon socialism, it cannot explain why some kibbutzim remained fully egalitarian even in the absence of political support or why some kibbutzim remained equal and others did not.

At the end of the book, you will find a brief timeline of some of the key events in the history of kibbutzim. On my website,<sup>9</sup> you will find a list of all kibbutzim with information on each of them: the year they were established, movement affiliation, group size, economic circumstances following the financial crisis, and whether and when they shifted away from equal sharing.

<sup>9</sup> See <https://people.stanford.edu/ranabr/the-mystery-of-the-kibbutz>.