

—CHAPTER 7—

Facing Current Reality: Building Understanding Through Systems Mapping



The pioneering social psychologist Kurt Lewin said, “If you really want to understand something, try to change it.” The link between insight and effective social change is critical. Too often people argue for solutions without a deep appreciation for not only how the current system operates, but also why. Too often the proposed solutions direct limited resources to solutions that make no difference in the long run or make matters worse.

The purpose of this chapter is to deepen your systems *understanding* by applying the storytelling devices introduced in chapter 4 to six cases. The cases focus on some examples that were introduced earlier—reorganizing responsibilities for K–12 education at the state level, criminal justice reform, and ending homelessness—and several new ones, such as improving rural housing and redesigning an early-childhood development and education system.

The emphasis in this chapter is on the first three tasks of facing current reality:

1. Identify people to interview about the history of the current situation and clarify what questions to ask.
2. Organize and begin to improve the quality of the information.
3. Develop a preliminary systems analysis of how different factors interact over time to support or undermine achievement of the vision.

Establish Systems Interviews

This first task will be more successful if you identify stakeholders with a wide range of views about the issue. This enables you to build a richer picture of how the system behaves and why. Most important, be sure to learn from stakeholders whose views you might otherwise dismiss. For instance, those spearheading a systems mapping project often exclude the most senior people involved in their issue because they believe they are too difficult to access or that they already know what those “at the top” think. Others too often excluded are administrative people (who might be affected by unwieldy processes and procedures), people whose work touches on the issue, and the ultimate beneficiaries of the work. In the cases we’ll examine, these beneficiaries include homeless people, patients, and students. Learning from a diverse group of stakeholders not only builds understanding but also develops the relationships required to shift how the system operates.

For example, in the Calhoun County project to develop a ten-year plan to end homelessness, Michael Goodman and I interviewed fifty people representing a population of one hundred thousand. These included:

- Leaders responsible for the overall social and economic health of the county—formal and informal opinion leaders, representatives of state and local government, and leaders in the business and civic sectors.
- People who influenced policies affecting the likely causes of as well as solutions to homelessness.
- Service providers who interacted with and tried to help homeless people.
- Homeless people themselves.

Interviews, whether one-on-one or in small focus groups, are preferable to surveys because they enable you to uncover not only what people think but also the reasoning that leads them to their conclusions. Interviewing also builds more direct relationships. If necessary, a survey based on interview findings can then be used to gather information from a broader sample of stakeholders.

Over time, we have developed a list of interview questions designed to build systemic insights. These can be adapted for any issue, and used to jump-start the process:

- Consider first what has been happening around the problem you want to explore. Does it have a known pattern of behavior over

time?

- If so, describe this pattern. Does it exhibit one or more of the following key variables over time:
 - Oscillations?
 - S-shaped growth?
 - Steeply rising, runaway growth?
 - Flat line, no growth?
 - Sharp ups and downs?
- State your definition of the problem by completing the following sentence: “Why has X been happening despite our best efforts to achieve a different goal?” “Why” rather than “how” questions ensure that your statements do not assume a solution. (For example, ask “Why does urban youth crime oscillate over time instead of continuously decline?” rather than “How can we toughen prison sentences to reduce crime even further?”)
- What are the earliest antecedents of the problem? Also, describe any previous attempts to solve the problem. What was tried, by whom, and with what outcome?
- What is already working? How do people succeed or survive in the system as it functions now?
- How would this issue look from the viewpoint of senior decision makers? What factors or components would that level see? How do they think about the issue?
- How would other stakeholders, including ultimate beneficiaries, see the issue? What is important to each of them? How do they think about it?
- What other causes are affecting this system? What other effects (particularly those that are distant or unintended) does the system produce?
- What part of the issue is internal to my organization? What is a manageable chunk that relates to my position?
- In what ways do I or my organization create or contribute to the issue through what I/we say (or choose not to say), do (or choose not to do), or think?
- What is the apparent purpose of this system? In other words, what appear to be the outcomes of people’s efforts? How is this different from what people really want?

It can also be helpful to tailor questions to the specific issue you want to address. For example, appendix B provides questions that were used to learn more about The After Prison Initiative, the Calhoun County Ten-Year Plan to End Homelessness, the effort to improve rural housing, and the Collaborating for Iowa's Kids project. The questions used for the Iowa project also represent a way of depicting an Accidental Adversaries relationship and were used in this case because the presenting issue was a difficult partnership.

Sometimes interviews are neither sufficient nor feasible to gain initial insight into an issue. It is still possible to draft a systems map using third-party reports drawn from such sources as written reports and meeting notes. For example, the initial systems map presented at the TAPI retreat was developed largely based on previous analyses of criminal justice reform supplemented by a few follow-up interviews. Preliminary insights into the root causes of civil war in Burundi came almost exclusively from written documents.

Organize Information

Here are four screens to use when organizing the information you gather:

- Listen for what is curious, confusing, or contrary among interviewees.
- Distinguish measurable data from how people interpret these data.
- Identify key variables, often thought of as critical success factors or key indicators.
- Look for recognizable story lines or archetypes.

The first screen involves noticing what concerns people or feels surprising to them. The focusing question itself, when phrased as “Why, despite our best efforts, have we been unable to . . . ?” evokes concern and curiosity. In their work to end homelessness, the leaders of Calhoun County wanted to understand how homeless people and vacant housing existed alongside each other. In seeking to improve rural housing, state and community leaders wanted to discern why some small towns appeared to have better housing stock than others. In the Collaborating for Iowa's Kids case, the two groups that shared a commitment to improve the state's K–12 education were curious about why it was difficult for them to work together.

The second involves learning not only what people think but also why. This means illuminating the assumptions and conclusions that people

draw from what they actually do and observe. One common discrepancy emerges between what people think *should* happen as a result of their actions and what *actually* happens. For example, policy makers assume that drug busts reduce crime when in fact they reduce the supply of drugs, thereby increasing the likelihood that people will commit crimes to get the fewer and hence higher-priced drugs available. Different people also interpret the same data differently (the elephant analogy), and you can help develop a richer picture of the system by pointing out how each interpretation is valid under different conditions. In the homelessness case, local shelter providers saw the immediate benefits they provided homeless people, while those in other communities who understood best practices for ending homelessness understood the long-term costs of depending on a shelter system and the need to redirect resources to affordable permanent housing to solve the problem more fundamentally.

The third screen helps identify critical success factors or key indicators, and systems thinking extends this process in several ways. It looks for interdependencies among these factors instead of describing a laundry list that is difficult to prioritize. It acknowledges and integrates quantitative factors that are measurable with qualitative ones such as how people think and feel. It also translates often vague factors that are difficult to track over time. In the case of food aid, for instance, it can translate the vague factor of “strategy” into those factors that are traceable over time—such as the level of investment in local agriculture, which is a measurable form of strategy in ending starvation.

The fourth screen helps you identify recognizable stories, based on the systems archetypes or the Bathtub Analogy, in the information you gather. Discerning these stories can provide the basis for a comprehensive systems analysis. While they might not explain everything that is happening, they can often be expanded upon and modified to make identifiable sense of rich, complex, and sometimes conflicting information.

Don’t expect, though, to find everything you need or want in the information you collect. It is important to recognize that people can learn a lot with incomplete information. All the data you want are rarely available, and yet people have to make decisions and take actions in any case. This process acknowledges that information gaps do exist and suggests two ways of responding to them. First, it always helps to approach systems change as a learner. People make hypotheses, take

actions, and learn more from their actions so that they can make wiser choices the next time. Second, gaps in knowledge can trigger valuable research. Asking what is not known and how to find it are powerful questions that you might answer before or in parallel with taking new actions, depending on how much risk and time delay you are willing to accept.

Develop a Preliminary Systems Analysis

In this section you will see how people working on a range of issues used the tools of system archetypes and the Bathtub Analogy to deepen their understanding of why they were not succeeding despite their best efforts. These insights in turn created catalytic conversations about the nature of their challenges and what they could do to overcome them—topics that are the subject of the next three chapters.

You will learn how these tools served as effective building blocks for evoking more comprehensive and accurate stories. There are several ways to enrich primary plot lines with multiple plots and subplots that embrace more of the reality people experience in dealing with these issues. In particular, you will explore different approaches for balancing people's need for insights that are *complex* enough to embrace their many diverse perspectives with their need for those *simple* enough to be understood and acted upon.

This section highlights cases that exemplify at least one of the five major archetypes or the Bathtub Analogy introduced in chapter 4. You will learn about the contexts that brought people together and the insights they developed, both basic and enriched, that led to deeper understanding.

FIXES THAT BACKFIRE

Fixes That Backfire is the story of unintended consequences. It was one of the key themes in The After Prison Initiative introduced in chapter 3. You'll recall that this initiative brought together a hundred progressive leaders—activists, academics, researchers, policy analysts, and lawyers—for a three-day retreat to clarify what else could be done to help people successfully reenter their communities after incarceration and to redress the underlying economic, social, and political conditions and policies that contribute to making the United States the world's largest incarcerator among developed nations. It was convened by the Open Society Institute

and organized by Joe Laur and Sara Schley of Seed Systems to help OSI gain more insight into the effectiveness of its funding in this area. Most of the participants at the retreat were Soros Justice Fellows or OSI grantees who competed for OSI funding at the same time that they shared a commitment to criminal justice reform.

Participants recognized that a primary driver of mass incarceration was not the level of violent crime itself, but the fear of others (especially people of color) that manifests as structural racism and the denial of these people's rights. While mass incarceration temporarily relieves the fear, as seen in balancing loop 1 (B1) in [figure 7.1](#), it also results over time in more and more people who are eventually released from prison (95 percent of those incarcerated) with significant disadvantages caused by their prison experience. The problems include: personal demons, poor health, disruptions to family and work life, restrictions to basic human rights (such as education, employment, housing, and voting), and failure of others to understand their challenges. These disadvantages in turn reduce access to such resources as education, housing, employment, and social support—thereby increasing the likelihood that many will commit another crime within three years and be sent back to prison. This can be seen in reinforcing loop 2 (R2) in [figure 7.1](#). The US Bureau of Justice Statistics reports that “Among prisoners released in 2005 in 23 states with available data on inmates returned to prison, 49.7% had either a parole or probation violation or an arrest for a new offense within 3 years that led to imprisonment, and 55.1% had a parole or probation violation or an arrest that led to imprisonment within 5 years.”¹

In addition, structural racism breeds more fear (R3), as evidenced in part by a more recent report by the Sentencing Project which found that “white Americans overestimate the proportion of crime committed by people of color, and associate people of color with criminality,” and that for some crimes the overestimation was “by 20–30 percent.”² The spiral of fear continues, even though the crime rate itself has actually been dropping for more than twenty years.

The participants at the retreat were engaged in many different efforts to reform the criminal justice system—not only those highlighted in [figure 7.1](#), which emphasizes providing services to recently released prisoners. These efforts included developing innovative service programs, sentencing reform, prohibiting re-incarceration for technical parole

violations, and fighting the growing prison lobby that favors mass incarceration for its own economic benefit.

So a second and richer diagram was developed to represent additional vicious cycles that need to be interrupted in order to shift the core dynamic and to describe the more complex advocacy required to transform the system (see [figure 7.2](#)). Mass incarceration creates economic benefits that result in a prison lobby supporting this fix (R4 in [figure 7.2](#)). Tight restrictions on paroles to reduce the political risk of high caseloads result in more technical violations that send people back to prison (R5). A combination of fear and repeat offenses increases political resistance to innovations that could help formerly incarcerated people reenter society more effectively and prevent such offenses (R6).

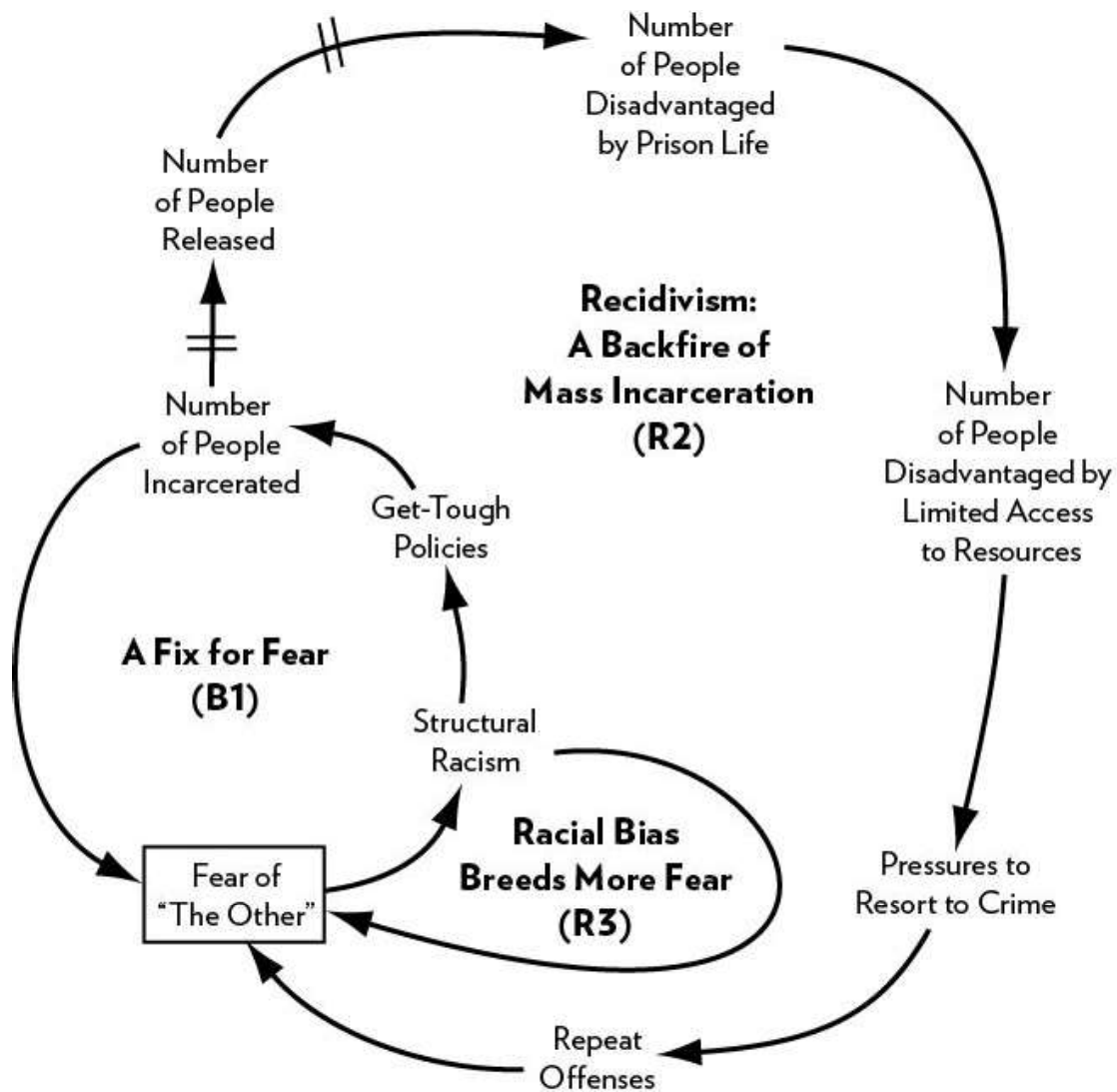


FIGURE 7.1 RACISM AND MASS INCARCERATION BREED FEAR. Although mass incarceration is a quick fix to people's fear of being victimized by crimes committed by people of color, it creates unintended consequences that further increase this fear over time. Modified from a diagram developed by Seed Systems for Open Society Institute

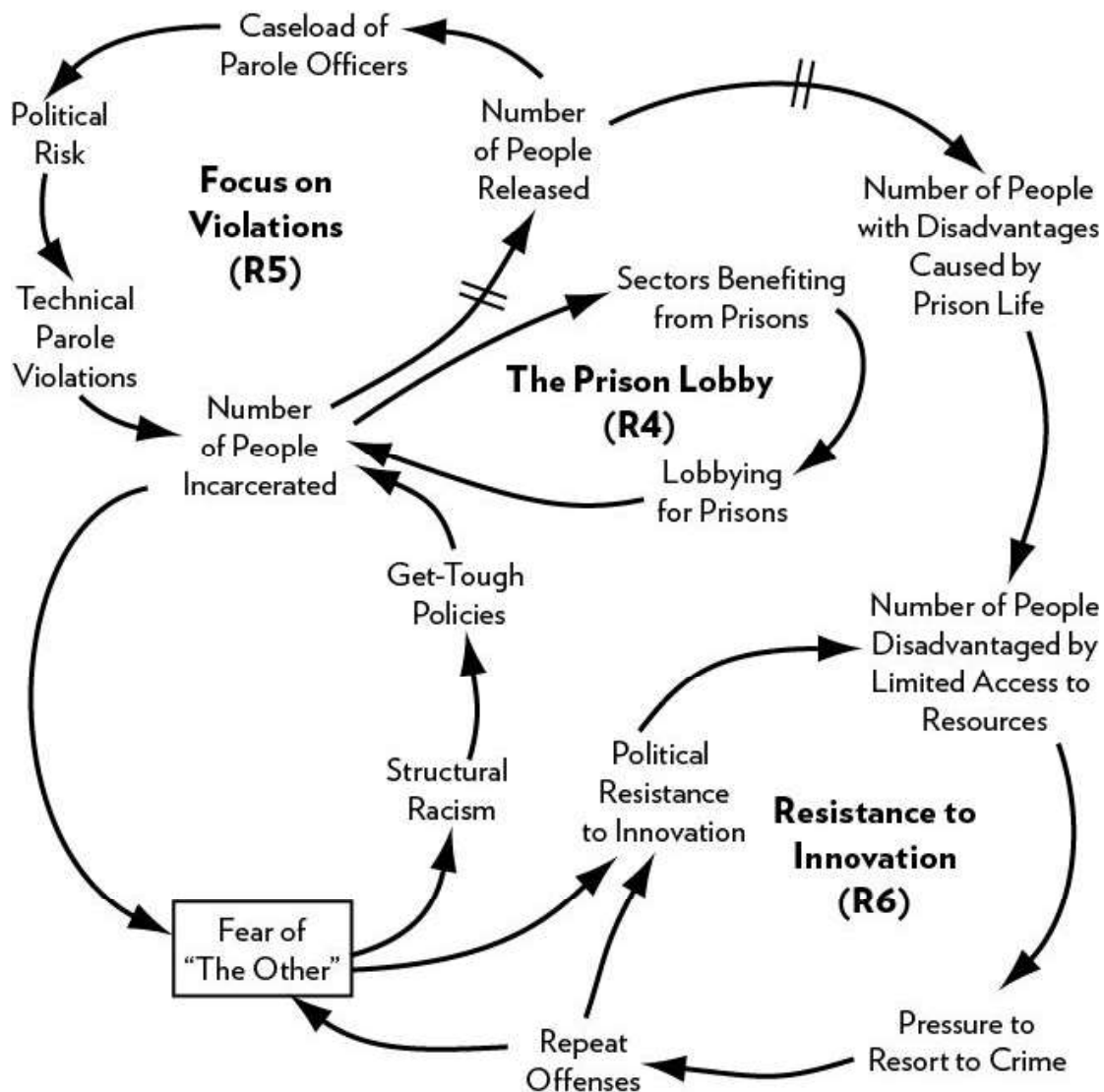


FIGURE 7.2 ADDITIONAL VICIOUS CYCLES PRODUCED BY MASS INCARCERATION. When the diagram in [figure 7.1](#) is enriched to include more variables, it shows that three other vicious cycles—R4, R5, and R6—compound the Fixes That Backfire dynamic. Modified from a diagram developed by Seed Systems for Open Society Institute

These two diagrams (along with the final buildout “An Addiction to Prison” shown in appendix C, [figure C.1](#)) provided participants at the retreat with a comprehensive and shared understanding of their respective efforts in meeting common challenges. It enabled some to recognize and potentially develop more collaborative ways of reducing the fear that drives over-incarceration—a fear based in structural racism, not just the actual rate of crime. It gave others a way of communicating the societal costs of mass incarceration to policy makers in the hope of

building a broader commitment to the underlying conditions and beliefs driving it.

SHIFTING THE BURDEN

Shifting the Burden is the story of unintended dependency. It is similar to Fixes That Backfire in that quick and seemingly obvious fixes to a problem tend to make the problem worse over time. The key distinction is that many of the people caught in a Shifting the Burden dynamic agree on what a more fundamental solution should be but have trouble implementing it.

This was the case in Calhoun County, where the community had made little progress in ending homelessness despite many years of effort. Those providing emergency and shelter services to the homeless had been meeting regularly for years but tended to work independently and compete for foundation and public dollars instead of collaborating.

The promise of state funding and local planning moneys motivated community leaders to take a different approach by agreeing to come together to develop a Ten-Year Plan to End Homelessness. They applied systems thinking to understand why homelessness persisted in the county and why they had been unable to implement best practices used by others around the country. These practices emphasized Housing First, where communities invest in developing safe, affordable permanent housing and encourage homeless people to live in it without first having to meet other conditions, such as substance-free living. This housing has easy access to support services for those who are mentally ill or suffer from substance abuse. For those forced to live on the streets for economic reasons, another part of the solution focused on education and economic development.

The initial systems map, depicted in [figure 7.3](#), shows one of the critical realizations people made: The shelter and emergency response systems that both providers and the homeless depended on were quick fixes and in fact constituted part of the problem (B1). While these supports helped the homeless cope with their situation, they were also clearly temporary. People could stay in shelters for only a limited number of nights before they had to return to the streets. Some moved into the woods outside the main city of Battle Creek and survived there as best they could. Many got sick, especially in the winter, and ended up in the emergency room; some committed an offense that led them to spend a

night in jail. Some spent nights sleeping on the couches of people they knew, but that solution also worked for only a limited time.

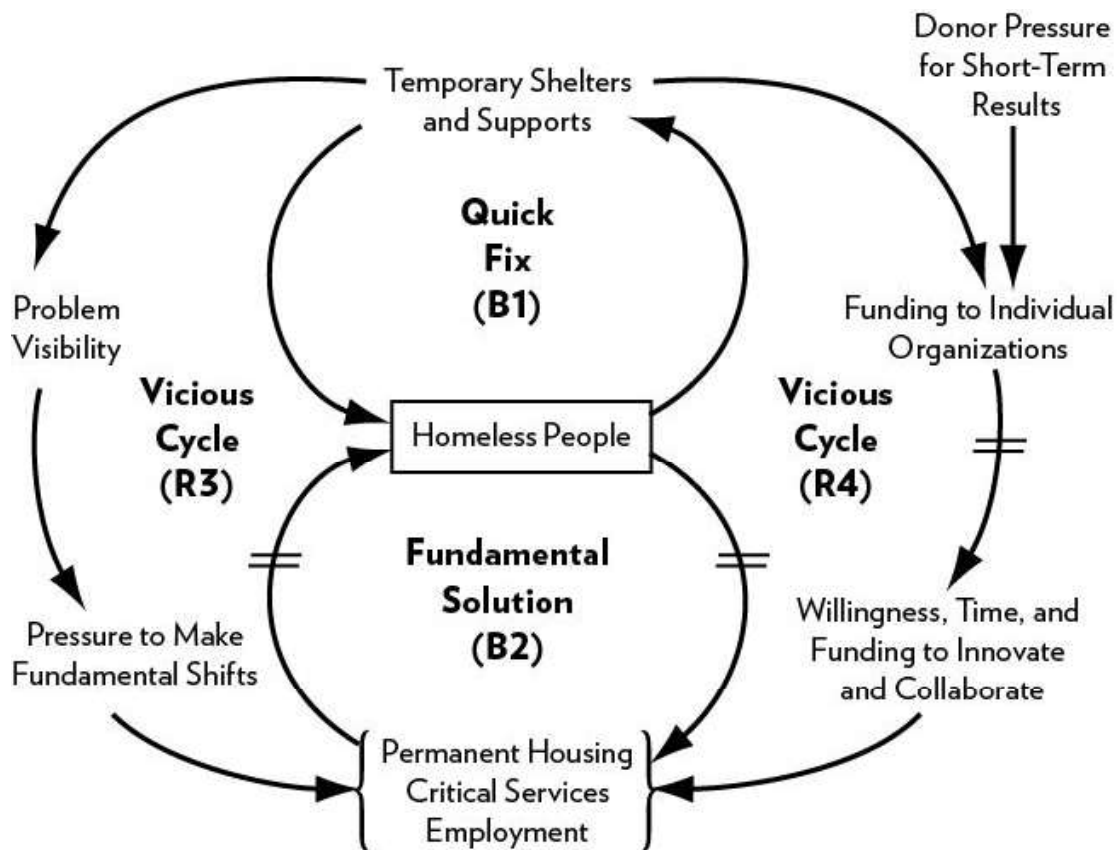


FIGURE 7.3 THE IRONY OF TEMPORARY SHELTERS. Because shelters and emergency supports temper the problem of homelessness, they also reduce people's motivation to implement a more fundamental solution that combines permanent housing, critical services, and employment. In addition, vicious cycles created by the quick fixes undermine the community's ability to implement the fundamental solutions even if it wants to. www.appliedsystemsthinking.com

Many people close to the issue recognized at least some of the elements of the best practices used in other parts of the country—critical services, permanent housing, and employment (B2). However, they had been unable to implement these practices locally and did not understand why. The community discovered that the emergency systems they depended on to help people cope with homelessness had actually led to negative unintended consequences that undermined people's ability to implement best practices required to end it.

The coping mechanisms described above decreased the visibility of the problem, thereby reducing the community's motivation to invest in best practices (R3). In addition, shelter and emergency service providers

were funded for the work they did and had little incentive to experiment with new ways of doing things either individually or in collaboration with others (R4). For example, shelter providers were often funded on the basis of the percentage of beds slept in every night—even though full shelters are fundamentally antithetical to the espoused goal of ending homelessness. Donors often unwittingly contributed to the problem by renewing funding for those who succeeded in implementing quick fixes. The loss of problem visibility and reinforcement of existing funding streams made it difficult to mobilize investment in best practices, which in turn increased homelessness and the further dependence on temporary shelters.

This understanding led people to begin to make significant shifts in the community's shelter and emergency response systems. For example, in an unprecedented move toward collaboration, service providers collectively agreed to redirect their next round of HUD funding from one service provider's transitional housing program to a permanent supportive housing program run by another provider. Their insights formed the basis for the Ten-Year Plan that was accepted and funded by the state. As noted in chapter 5, in the plan's first six years of operation from 2007 through 2012, Calhoun County did a remarkable job of securing permanent housing for the homeless, especially in the face of the economic downturn of 2008–09. Homelessness decreased by 14 percent (from 1,658 to 1,419) *despite* a 34 percent increase in unemployment and 7 percent increase in evictions.

The TAPI case also includes a Shifting the Burden dynamic. Many participants were engaged in the fundamental work of resettlement, which they defined as strengthening civic institutions and infrastructure and facilitating cross-agency collaborations, as well as supporting former prisoners to lead productive lives. However, it was difficult to implement these solutions, and the reformers found it helpful to develop a shared picture of the obstacles they faced: the barriers to resettlement that undermined their work directly and threatened the safety of residents in the poor minority neighborhoods to which most men and women returned after prison, as well as the investment in prisons that could otherwise be directed toward the strengthening of institutions in these poorer communities. This picture is shown in appendix C, [figure C.1](#).

Shifting the Burden is the story of *addiction*. The stories of both homelessness and imprisonment show how policy makers who want to

protect society from addicts (homeless people suffering from substance abuse or drug addicts who commit crimes) can ironically become addicted to solutions that exacerbate these social problems in the long run. Shelters tend to divert money from affordable permanent housing, and get-tough policies take money away from the very kinds of programs and institution building that could more permanently reduce crime, the fear of crime, and most significantly the fear of “the other.” The growing awareness of this consequence in the criminal justice system is prompting even some conservative public officials and their think tanks to question the value of mass incarceration and public policies such as the War on Drugs and mandatory minimums.³

LIMITS TO GROWTH

In 2011, a diverse group of state and local leaders gathered to explore ways of increasing the availability of affordable rural housing in South Dakota. The meeting was sponsored by the state’s Rural Learning Center (RLC) and Dakota Resources, a nonprofit dedicated to economic, community, and leadership development. Participants included representatives of nonprofit economic development centers; government at the federal, state, and local levels; and developers, lenders, and Realtors from the private sector.

Housing is a critical success factor in the development of viable rural communities. Affordable and appropriate housing affects and is affected by other factors such as jobs, health, and the quality of education in these areas. The availability of this housing is especially important in drawing in young professionals to settle in and reenergize these communities.

Providing such housing was challenging since the costs to develop sufficiently attractive homes often exceeded what mortgage lenders in the current regulatory environment were willing to finance. Although the RLC had done a lot of work to write a detailed playbook for overcoming these obstacles, it was too much information for communities to absorb and take advantage of. Therefore, the purpose of the meeting was to gain insight into why it was so difficult to increase the viable rural housing stock and to target just a few high-leverage actions people could take to expand it.

I worked with the conveners to draft a systems map in advance of the meeting that might better illuminate the problem and possible solutions. Since certain communities had achieved more success in this area than

others, it made sense to describe the dynamics in terms of Limits to Growth. We identified a core group of engines, or pumps, that could propel housing and economic growth but were weakened by balancing forces, or seepage, that reduced the effectiveness of these pumps. If the pumps could not produce housing and economic growth quickly enough, then the seepage would limit their effectiveness more severely. Therefore, it was important to prime the pumps powerfully and rapidly enough to overcome the negative effects of seepage.

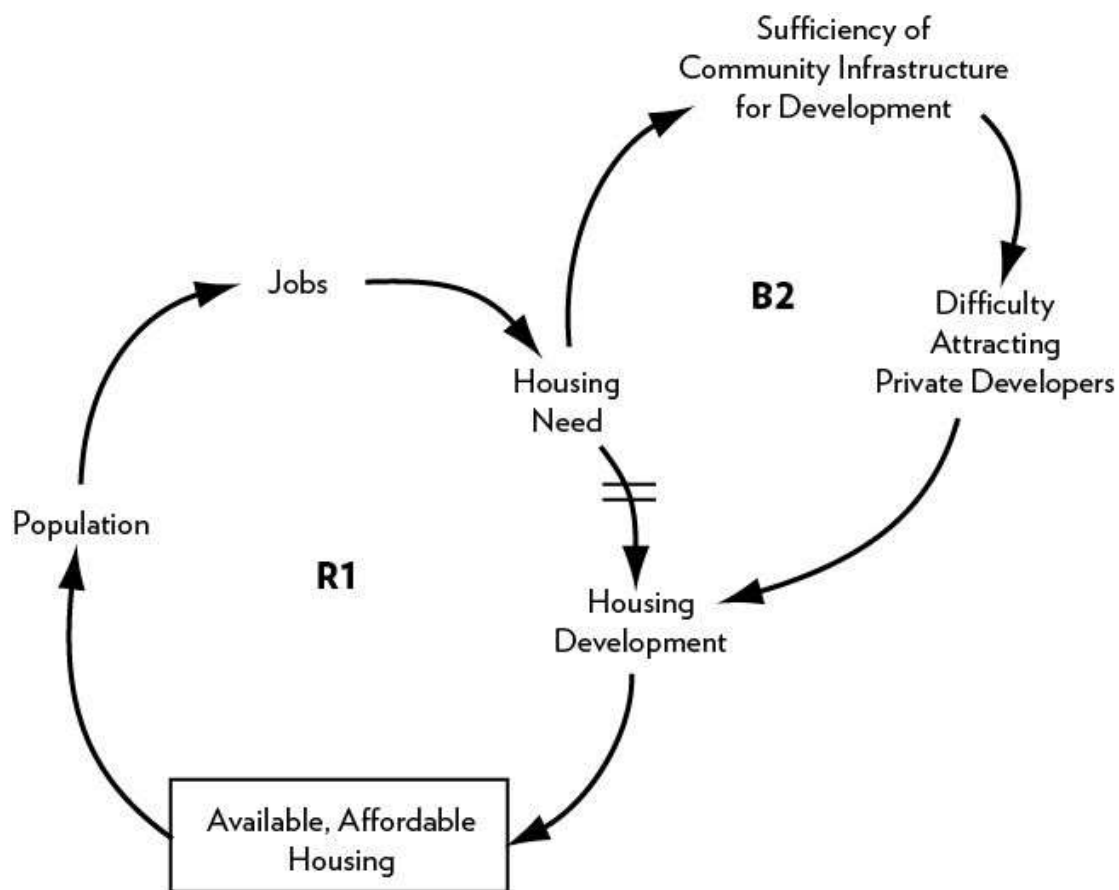


FIGURE 7.4 RURAL HOUSING: CORE LIMIT TO GROWTH. Without sufficient infrastructure for development, communities have difficulty attracting private developers to meet housing needs and thereby attract new people and jobs.

[Figure 7.4](#) shows the core pump or engine of growth and the primary source of seepage or limit to this growth. Successful communities built affordable housing that attracted population and jobs, which in turn increased housing need and led to additional housing development (R1). They had done this in part by creating the local infrastructure for economic development. However, less successful communities did not

have sufficient infrastructure to meet their housing needs, which made it more difficult for them to attract the private developers required to increase housing and grow (B2).

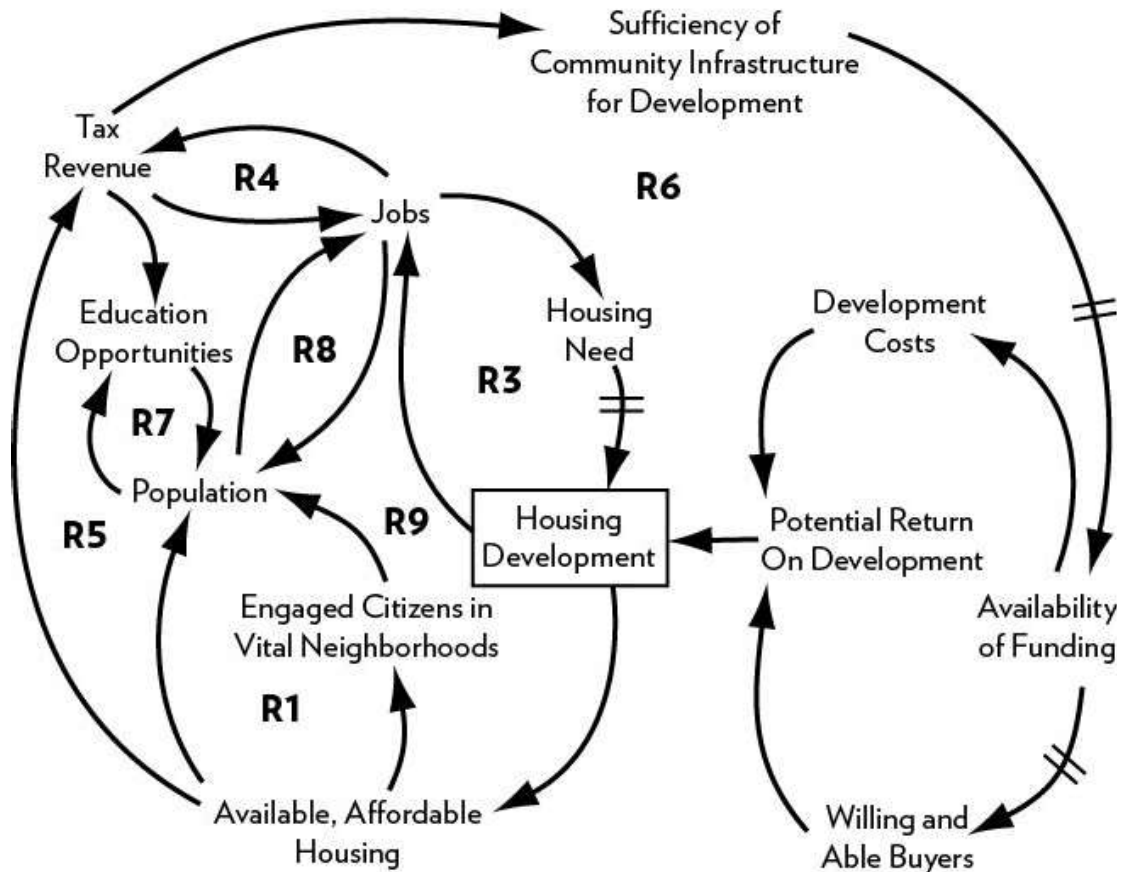


FIGURE 7.5 RURAL HOUSING: PRIMING ADDITIONAL PUMPS. Additional reinforcing relationships among jobs, housing, tax revenue, education, and population enhance community growth.

The communities identified other engines of growth as well, as depicted in [figure 7.5](#). They recognized that housing development would in and of itself create jobs (R3 in [figure 7.5](#)), and that jobs would increase the tax revenues required to attract more jobs (R4). The availability of affordable housing would also increase tax revenues directly (R5). Tax revenues could be used to strengthen the community infrastructure for development and increase available funding, which would in turn reduce development costs and increase the number of willing and able buyers, thereby increasing potential returns on development and housing itself (R6). Attracting new people to the community would increase educational opportunities and attract more people (R7), and increasing jobs would

have the same positive effect on population (R8). Finally, the availability of affordable housing would increase homeownership and engage citizens to contribute to building vital neighborhoods, thereby drawing in even more people to the community (R9).

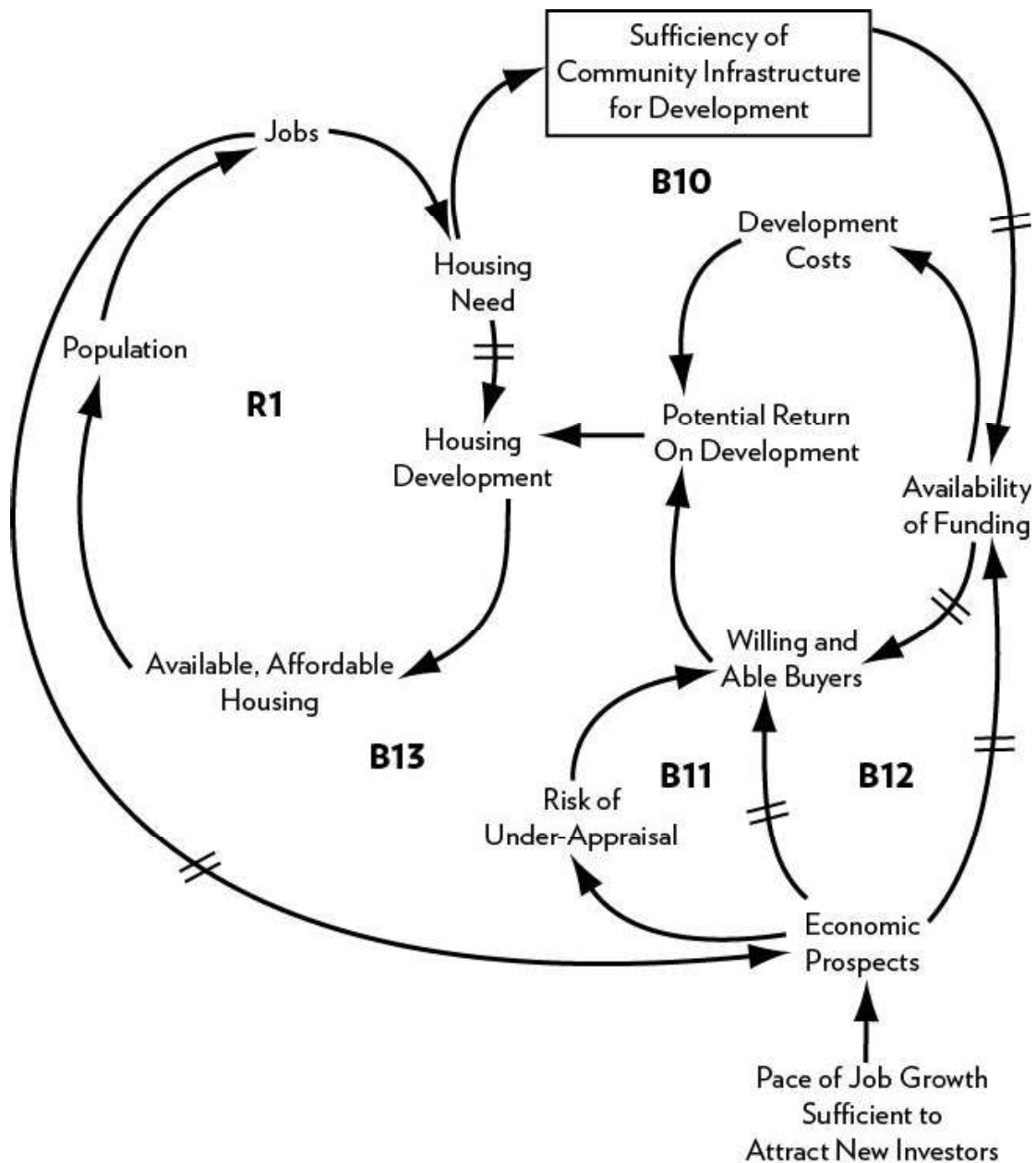


FIGURE 7.6 RURAL HOUSING: SEEPAGES. If communities do not invest sufficiently in their infrastructure for development, they will not bring in the funding required to increase potential returns on development. Moreover, if they do not create new jobs at a pace sufficient to attract additional investors, their perceived economic prospects will decline over time, thereby further limiting their ability to grow.

Priming the pumps in [figures 7.4](#) and [7.5](#) needed to occur quickly enough to overcome additional limits or seepages. Absent adequate infrastructure for development, communities could not attract the funding required to increase potential returns on development (B10 in [figure 7.6](#)). If they did not create new jobs at a pace sufficient to attract new investors, the community's perceived economic prospects would decline, thereby reducing the number of willing and able buyers over time (B11 in [figure 7.6](#)) and the availability of funding (B12). Moreover, weak economic prospects increased the risk of under-appraising the housing stock, thereby discouraging potential homeowners (B13).

In summary, the systems analysis enabled people to realize that committing to early investments in building or strengthening their communities' infrastructure for development was a critical first step to achieve greater growth.

SUCCESS TO THE SUCCESSFUL

Also in 2011 the William Caspar Graustein Memorial Fund (WCGMF) convened a multi-stakeholder process to create a blueprint for a statewide early-childhood development system in Connecticut that works for all children and families, regardless of race, income, or ability. The initiative, called Right from the Start, was designed and facilitated by the Interaction Institute for Social Change. It pulled together advocates, service providers, public agency staff, private funders, and community members/parents to explore and map what existed at that time, create a vision and underlying values for an equitable system, and identify key leverage points for change.

Several months into the process, I was asked to introduce the participants to systems thinking as a way of learning more about why their previous efforts to create a more equitable system had failed before jumping to propose new legislation and structures. Asking themselves why they had not succeeded until now despite their best efforts motivated many of them to ask more probing "why" questions as well. Since they were also committed members of the system, I encouraged them to consider how their own well-intentioned actions might contribute to the existing dynamics and what *they* might do differently in addition to recommending changes that the governor and other elected officials should make.

My encouragements to slow down and reflect more deeply before acting and to consider their own roles, however unintentional, in perpetuating the current system were confusing to design team members who viewed their charter solely in terms of rapidly producing recommendations about how others should change. A few chose to leave the project at this point while the majority took up the challenge to learn more before leaping ahead.

In a subsequent session I proposed a systems map to help them answer these questions. Since the core issue they presented had to do with inequity—the fact that children who struggled in school were primarily from disadvantaged black, Latino, and poor white families—I framed the underlying dynamic as Success to the Successful. Specifically, the education and income opportunities for people with higher incomes and political influence tended to increase over time as they successfully generated more resources for their children, while parents at risk (whether due to lower incomes, instability, and/or lack of service availability) tended over time to find it increasingly difficult to provide their children with the early foundations they needed to become successful. Moreover, the strong community bonds that poorer people often form to compensate for limited access to other resources frayed further as they and their children struggled more and more to succeed. These dynamics are summarized by loops R1, R2, and R3 in [figure 7.7](#).

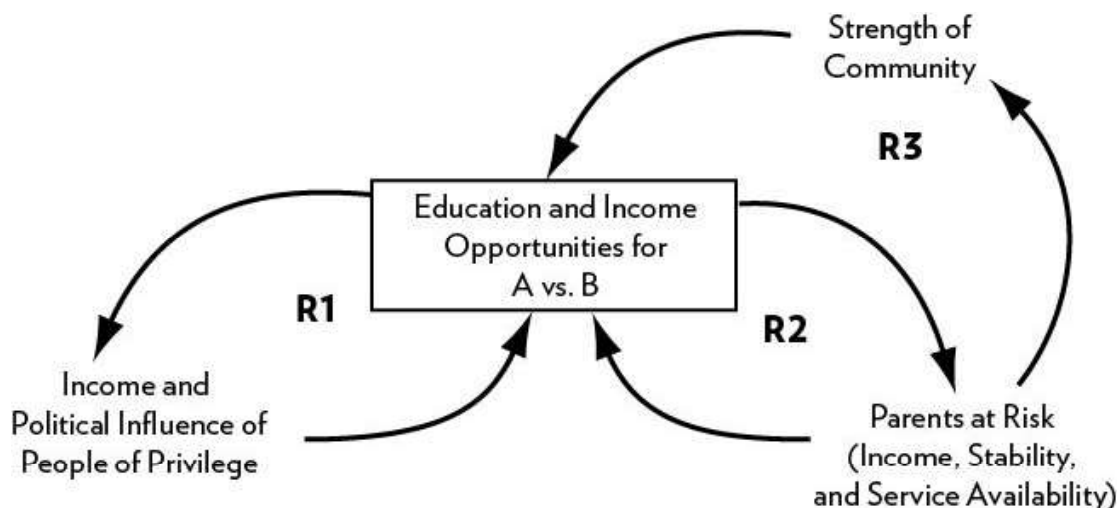


FIGURE 7.7 EARLY CHILDHOOD: THE RICH GET RICHER, AND THE POOR GET POORER. Children of parents of privilege are more able to experience the educational and subsequent income opportunities that lead to long-term success, while children of parents at risk are less able to generate these same opportunities over time.

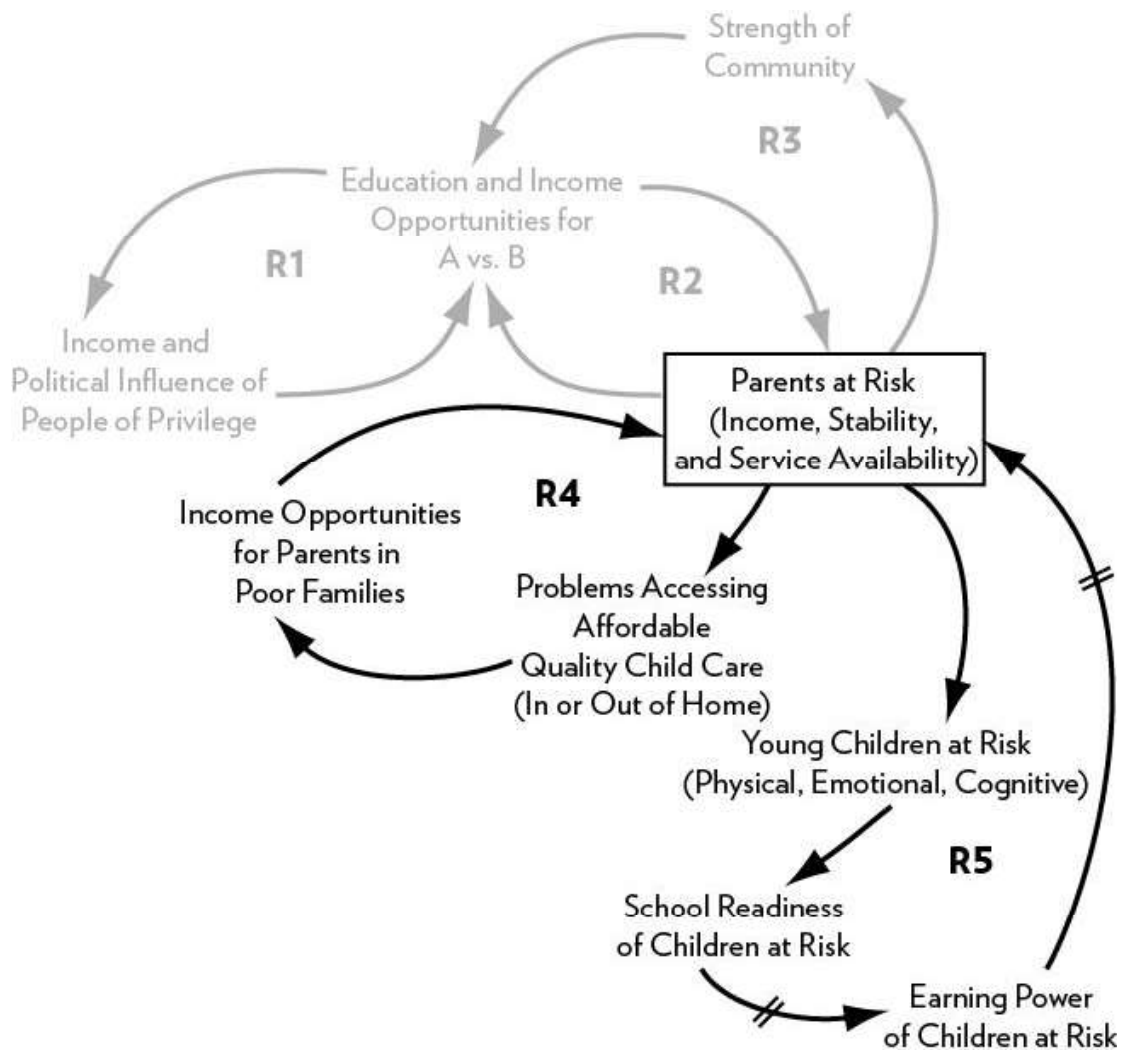


FIGURE 7.8 EARLY CHILDHOOD: THE GAP INCREASES. Parents at risk find it difficult to generate sufficient income because of their parental responsibilities, and to provide the safe and supportive environment their children need to thrive.

Parents at risk had difficulty supporting their children to succeed for several reasons, further fleshed out in [figure 7.8](#). They had more problems accessing affordable quality child care, which reduced their abilities to generate more income (R4 in [figure 7.8](#)). Because they themselves were more vulnerable, it was also harder for them to provide the physical, emotional, and cognitive supports required to help their children grow, especially at an early age when those supports are most necessary for healthy development. As a result, their children were less prepared for school and over time less able to succeed in school and thus generate the earning power required to escape becoming parents at risk themselves (R5).

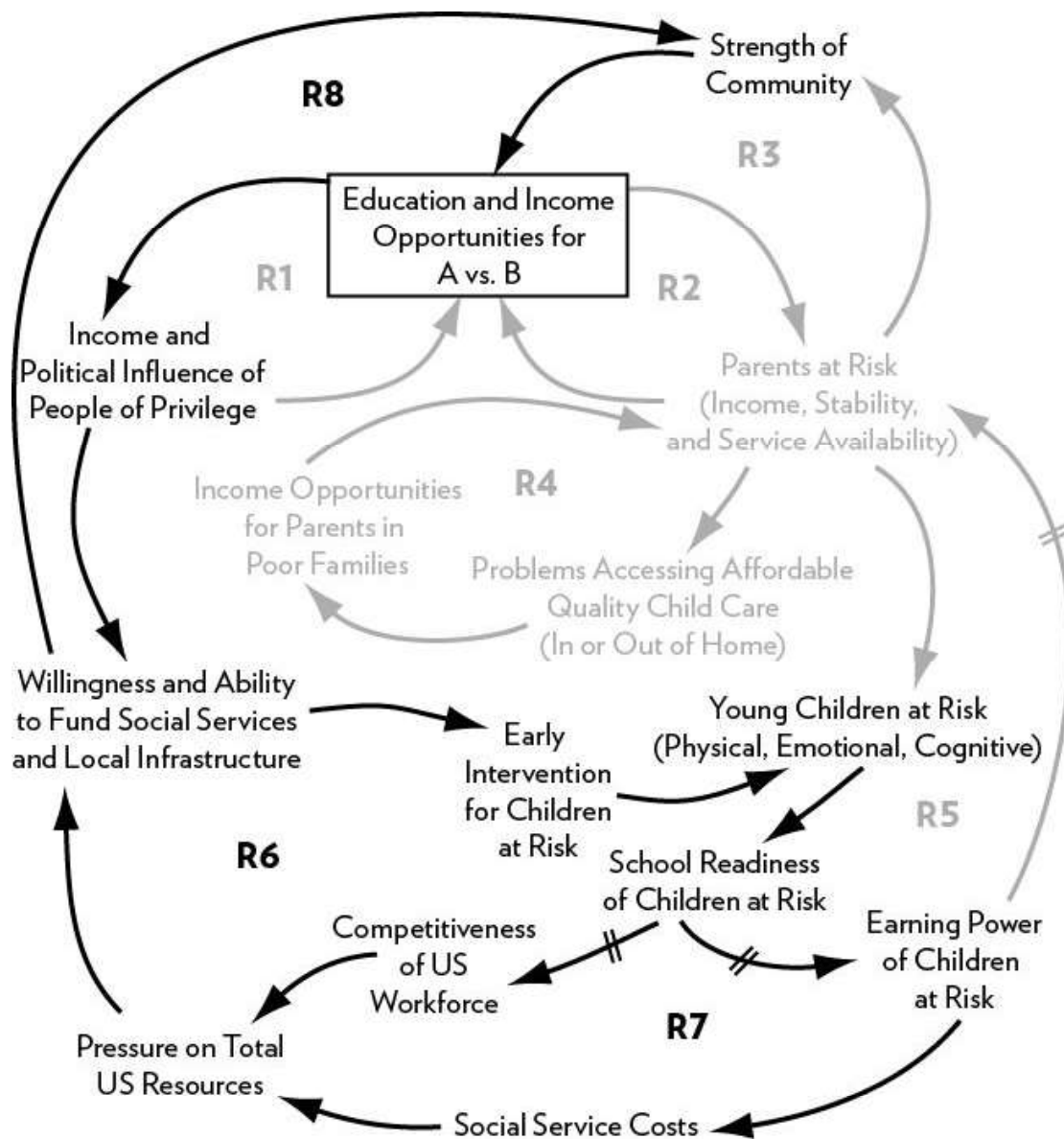


FIGURE 7.9 EARLY CHILDHOOD: THE GAP INCREASES EVEN FURTHER. The conservative nature of wealth combined with negative impacts of income inequality on public coffers undermine the prospects of children at risk even more.

Direct negative impacts on the children of parents at risk were exacerbated by the tendencies of parents of privilege to justify and hold on to their wealth, thereby widening the gap between rich and poor children even further. In the United States, those in the top 20 percent income bracket give away only 1.3 percent of their income, while those in the bottom 20 percent give away 3.2 percent.⁴ Dacher Keltner, a professor of psychology at the University of California–Berkeley and founder of the Greater Good Science Center, has found that, just as

generous deeds tend to inspire greater generosity, the conservative effects of increased wealth seem to curb the instinct for helpfulness.⁵ In addition, the weaker consumption and lower educational levels created by growing income inequality have reduced the availability of funds that can be invested in social services and local infrastructure. This next level of interrelated issues is mapped out in [figure 7.9](#).

As collective willingness and ability to support these societal resources have declined, less money has become available for early interventions to help children at risk, which reduces their school readiness, and over time the competitiveness of the US workforce, thereby putting more pressure on total US resources and further reducing the ability to publicly fund social investments (R6 in [figure 7.9](#)). Reduced school readiness also leads to lower earning power over time, higher social costs, and an even greater drain on public resources (R7). In addition, when investments in social services and local infrastructure are cut, poor communities suffer even more, leading to greater inequality of opportunity (R8).

The participants also inquired more deeply into the underlying beliefs and assumptions that kept these dynamics in place. They realized that the problem of structural racism, whereby wealthy white people are viewed and treated more favorably than poor minorities, extended to assumptions about how to correct this imbalance. In particular, alternative solutions tended to favor the views of those in power that:

- Formal structures (such as new laws or institutions) should be emphasized over informal structures (such as social networks in poor communities).
- State control over the new system is more crucial than local control.
- Quantitative measures are more important than qualitative ones in assessing what works.

A profound insight for those who wanted to redesign the system was that they tended to subscribe to these assumptions themselves, often against their better judgment.

The participants then used their analysis to identify four leverage points, core commitments that continue to ground the work of everyone involved and inspire them to engage in the long-term work of systems change. These were:

- Address inequities and consciously empower the disadvantaged.

- Support local community action—recognizing how different service providers and families are already connected and how they should be connected.
- Pay attention to the whole child, which includes paying attention to the whole family.
- Begin intervening with children as early as possible.

The high level and supporting recommendations of Right from the Start have been incorporated into the guiding principles of the state's Office of Early Childhood, an agency that did not exist when the group began its work. They are reinforced by a communications campaign that includes videos with discussion starters for civic dialogue.

David Nee, the executive director of WCGMF at the time, observed that the work had “enabled our grantees to collaborate more effectively and target changes where we can have the greatest impact collectively. It helped all of us distinguish symptoms from the disease, appreciate the value of improving relationships among parts of the system more than improving subsystems, and understand that we are all part of the system and there is no one outside it.” As a result of this understanding, the fund has strengthened its own will to deal directly with racism as an underlying problem.

ACCIDENTAL ADVERSARIES

The challenges experienced by the Iowa Department of Education and the state's Area Education Agencies (AEAs) are typical of organizations that want to be able to work together more effectively but find it difficult to do so. The Accidental Adversaries archetype provided a way for the two parties to surmount their differences in part because it gave them an opportunity to clarify how a stronger partnership would contribute to both of them. It also enabled them to see how the problems they experienced with each other were not intentionally caused by their counterpart. Finally, it showed them how they could capitalize on the benefits of partnership without unwittingly undermining each other.

Because Accidental Adversaries often fail to appreciate the value of their partnership at first, they benefit from learning to clearly articulate it. In this case, both sides acknowledged that the goals of the IDE were to provide guidance and governance for the overall education system across the state. They further agreed that the goals of the AEAs were to ensure quality educators in quality school systems for their respective

geographic areas. Having affirmed each other's goals, they determined that a successful IDE contributed clarity of statewide direction and outcomes for students and educators to AEAs, and that successful AEAs would support the IDE by developing a coherent, equitable system across the state. The prospects of the IDE–AEA partnership are shown as a virtuous cycle (R1) in [figure 7.10](#).

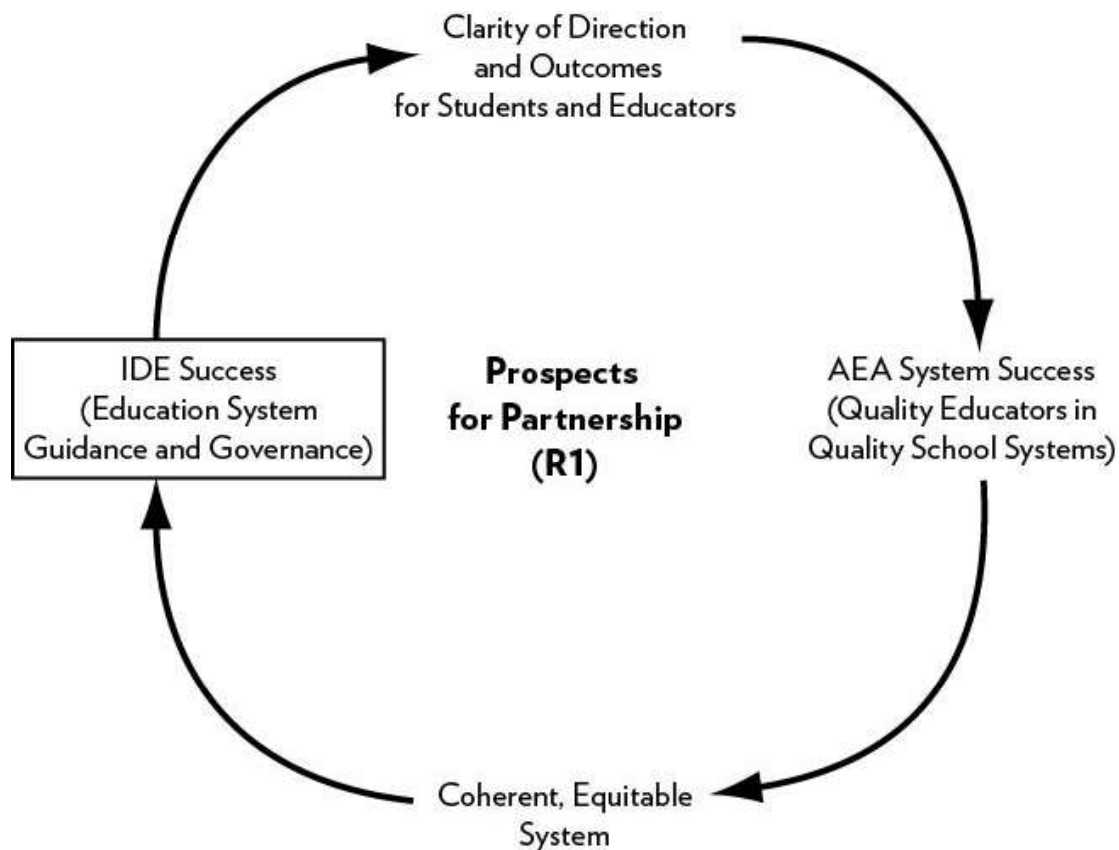


FIGURE 7.10 IDE–AEA (SYSTEM) RELATIONS: PROSPECTS FOR PARTNERSHIP. Both groups can benefit from the directional clarity provided by IDE and the coherence and equity ensured by AEAs.

Having defined the value of their prospective partnership, they then uncovered how each party's actions to improve its own performance unintentionally undermined the effectiveness of the other party—outlined in [figure 7.11](#). When IDE felt unable to provide adequate direction for the statewide education system, it designed and rolled out new programs to the AEAs (B2). While the existence of these new programs felt like progress to IDE, these initiatives made it more difficult for AEAs to allocate their limited resources with respect to the area initiatives they already had in place. In order to follow through on its own initiatives, each

AEA would either customize IDE's programs to fit into the AEA's current efforts or disengage from the state rollout (B3). The independent AEAs' responses increased IDE's difficulties in working with inconsistent, low-quality, and disconnected solutions at the state level—reducing IDE success and prompting it to once again introduce new programs. The combined actions of the two parties resulted in the Accidental Adversaries vicious cycle R4.

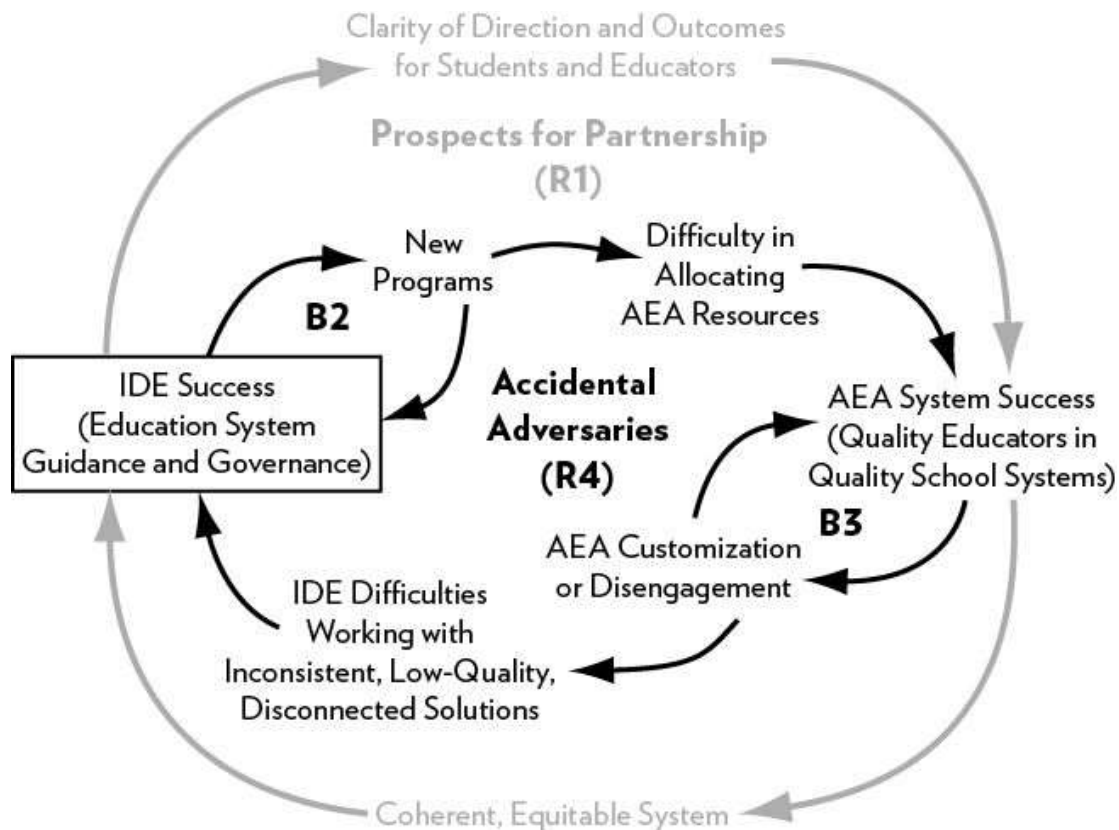


FIGURE 7.11 IDE–AEA SYSTEM RELATIONS: ACCIDENTAL ADVERSARIES. New programs created by IDE, and AEAs' efforts to customize or disengage from these programs, reduce both groups' effectiveness.

The IDE–AEA story represents a common tension between headquarters and field units in any system. Headquarters tries to achieve its centralized goals by rolling out new initiatives to the field, and field organizations customize or disengage from these initiatives in order to better concentrate on existing efforts to serve their own respective clients. In this case the IDE and AEAs applied their new insights to create win–win solutions that supported each of their goals while ultimately better serving their mutual beneficiary—Iowa's kids.

THE BATHTUB ANALOGY

As introduced in chapter 4, the Bathtub Analogy is useful when attention must be given to the flows of factors as well as their levels. It is also helpful when an issue unfolds in stages over time. Michael Goodman and I used the analogy as a complement to causal loop diagramming in the ending homelessness case, and he has also used it recently to build on the rural housing case described in the Limits to Growth story mentioned earlier in this chapter.

In the homelessness case, we noticed that the problem of homelessness proceeded in stages. First, out of the overall population of Calhoun County, certain people were more at risk of becoming homeless than others—whether the risk grew out of poverty, unemployment, domestic violence, substance abuse, or some combination of these factors. While emergency support services were provided to people at risk, a certain number of people in this group became homeless. Homeless people also entered this community after being released from a nearby Veterans Administration hospital and prison. They moved into temporary housing and often recycled over time through different provisional locations: a shelter, under the bridge or in the woods, staying at others' homes, in the emergency room or local jail. Few of the people in temporary housing broke out of this loop and moved into permanent, safe, affordable, and supportive housing. We generated the Bathtub diagram shown in [figure 7.12](#) to help them visualize the issue. The insight that the planning team got from that diagram is that the community needed to reduce the inflows into homelessness and accelerate the outflows from it in order to resolve the problem in a sustainable way.

One of the communities that participated in the South Dakota gathering to increase affordable rural housing was the community of Faulkton. Like many organizations and communities committed to managing a complex change, the Faulkton community group commissioned a study that proposed a lengthy list of recommendations to address its own needs for healthy and vibrant housing—seventeen in this case. Although the recommendations were categorized into multiple clusters, they seemed unwieldy given the community's limited resources.

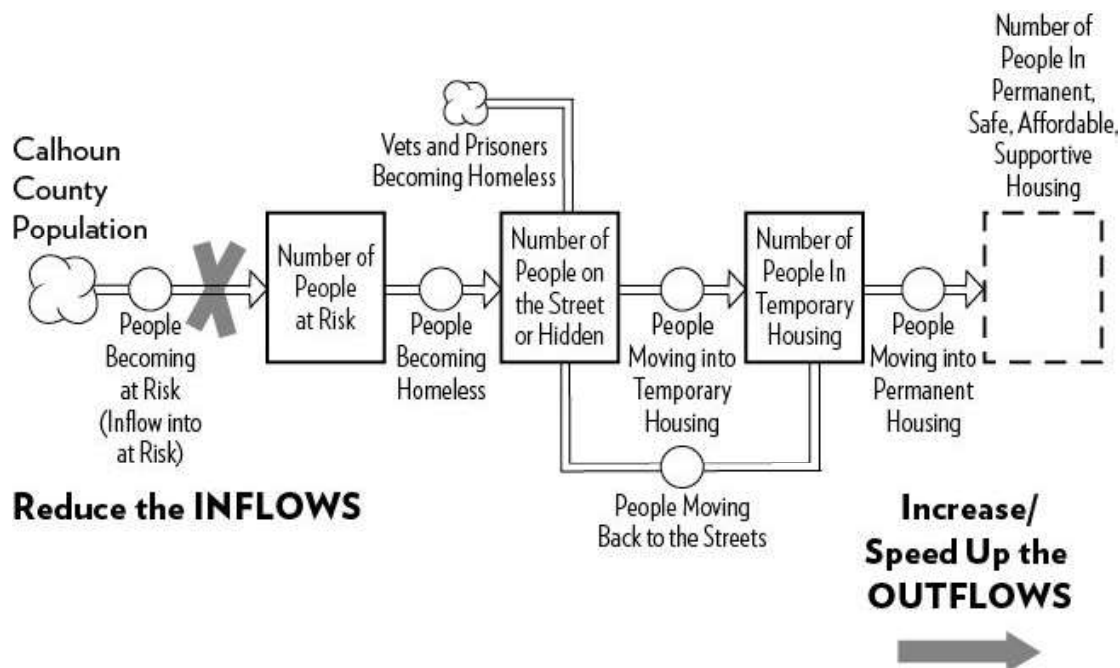


FIGURE 7.12 ENDING HOMELESSNESS IN CALHOUN COUNTY. In order to decrease homelessness, it is important to reduce the flow of people at risk and subsequently becoming homeless, and to increase the flow of people moving into permanent housing.
www.appliedsystemsthinking.com

Michael Goodman reviewed the report's findings (as part of a Dakota Resources Regional Systems Engagement Pilot funded by the Bush Foundation) and helped people focus on a few strategies that could have the greatest impact. He used the Bathtub Analogy to show the availability of four types of housing (see [figure 7.13](#)):

- New and sound housing that over time developed minor problems and became housing in need of minor repairs.
- Housing in need of minor repairs that, when left unattended, developed major problems and required major repairs.
- Housing in need of major repairs that, if left unattended, became dilapidated housing that needed to be rehabilitated.
- Dilapidated housing that needed to be removed to make way for new housing.

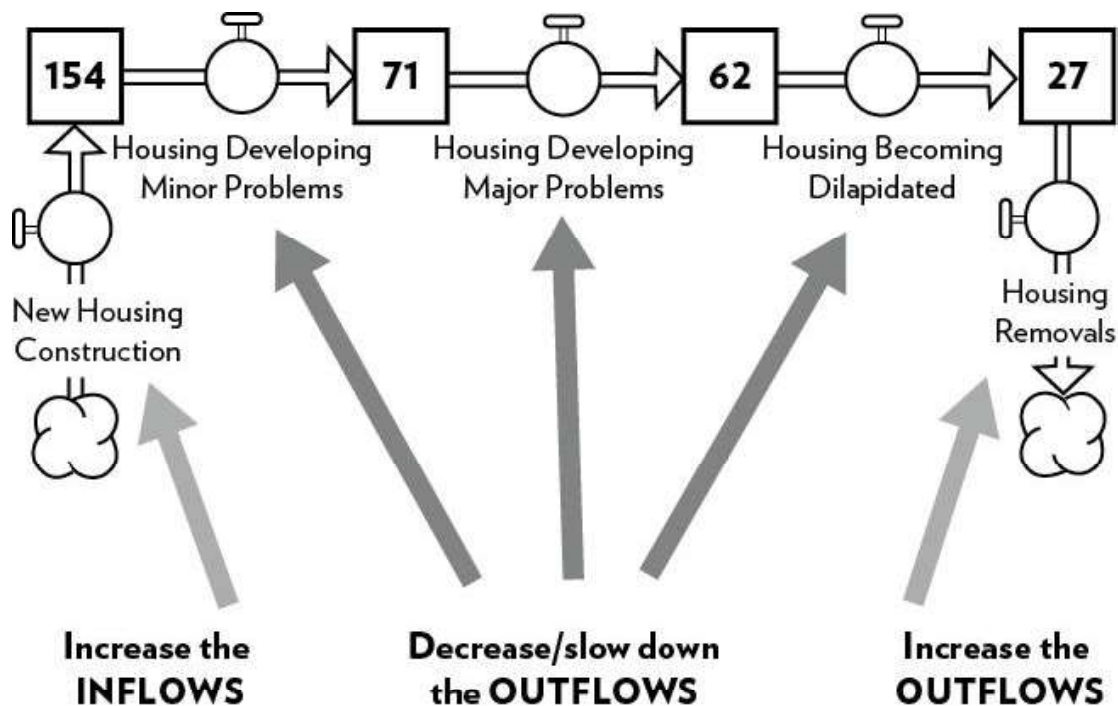


FIGURE 7.13 IMPROVING HOUSING QUALITY IN FAULKTON, SD. In order to improve local housing quality, it is important to speed up the flows of new housing stock and teardowns, while slowing down housing decay through repairs and rehabilitation. **Innovation Associates Organizational Learning**

The city realized that 28 percent of its housing stock was in need of major repairs or rehabilitation. They also determined through some simple simulation experiments using the housing stocks and flows that this number was likely to grow to 38 percent in twenty years if current trends continued. As a result, the community's seventeen recommendations evolved into just two primary strategies for meeting its housing needs:

- Decrease or slow down the outflows of good housing stock by repairing housing with minor and major problems, and by rehabilitating dilapidated housing where feasible.
- Increase inflows to the housing stock by building new housing and removing unrepairable dilapidated housing for new development.

Both Calhoun County and the community group of Faulkton benefited from using the Bathtub Analogy as a complement to causal loop diagramming and other forms of analysis. In the case of Calhoun County, the Shifting the Burden archetype pointed out that the community's unintentional dependence on temporary shelters as a way to help people cope with homelessness actually undermined its ability to end

homelessness. In the case of Faulkton, the insight that emerged from the Limits to Growth archetype in the Rural Learning Center–Dakota Resources gathering about the need for sufficient community infrastructure for development evolved into a focus on two primary strategies that communities could implement to further develop their housing stock.

How to Balance Simplicity and Complexity

One of the challenges in developing a systems analysis is that it should be simple enough to be understood by people yet complex enough to capture the richness of their diverse perspectives and experiences. In this final section we will look at several ways of achieving this balance:

- One archetype—no additional loops.
- One archetype—additional loops all enriching the same story.
- Multiple archetypes—often using more than one diagram.
- Bathtub—either on its own or in combination with one or more archetypes.
- Interdependence mapping.
- Computer modeling and simulation.

Of the six cases described above, the Accidental Adversaries story that contributed to Collaborating for Iowa’s Kids in [figures 7.10](#) and [7.11](#) is the best example of the tremendous leverage that can be achieved using just one archetype with no additional loops. Even here it was helpful to develop the story in two steps (Prospects for Partnership and Accidental Adversaries) since the archetype embeds four loops: a virtuous cycle, two overlapping Fixes That Backfire, and a vicious cycle resulting from the overlap.

The affordable housing analysis for South Dakota and the early-childhood development and education system for Connecticut are examples of one archetype with multiple loops that all amplify and enrich the core theme. In the affordable housing case ([figures 7.4](#) through [7.6](#)), there are multiple growth engines trying to prime the pump (the R loops) that are undermined by multiple limits (the B loops)—yet the combined loops tell the same essential story of Limits to Growth. In the early-childhood case, there are multiple vicious cycles in [figures 7.7](#) through [7.9](#) that aggravate the Success to the Successful dynamic.

The After Prison Initiative uses two archetypes to explain the reentry challenges facing formerly incarcerated people: Fixes That Backfire

([figures 7.1](#) and [7.2](#)) and Shifting the Burden (appendix C, [figure C.1](#)).

For those readers interested in resolving identity-based conflicts such as the Israeli–Palestinian issue, you can review three diagrams in appendix C ([figures C.2](#), [C.3](#), and [C.4](#)) that explain how such conflicts unfold from a combination of three dynamics: Shifting the Burden, Conflicting Goals, and Escalation.

The Bathtub Analogy represents another and sometimes more accessible way of understanding complexity. In the healthy and vibrant housing example presented to the community of Faulkton ([figure 7.13](#)), this analogy was extremely useful on its own. In the ending homelessness case in Calhoun County ([figure 7.12](#)), the Bathtub was used to complement the Shifting the Burden story described in [figure 7.3](#).

For those who want a simpler form of storytelling, interdependence mapping offers another way of connecting multiple factors and the organizations associated with them. One simple variation asks people to first list the many factors affecting an issue and then draw relevant connections among the factors. [Figure 7.14](#) represents such an example for ending homelessness.

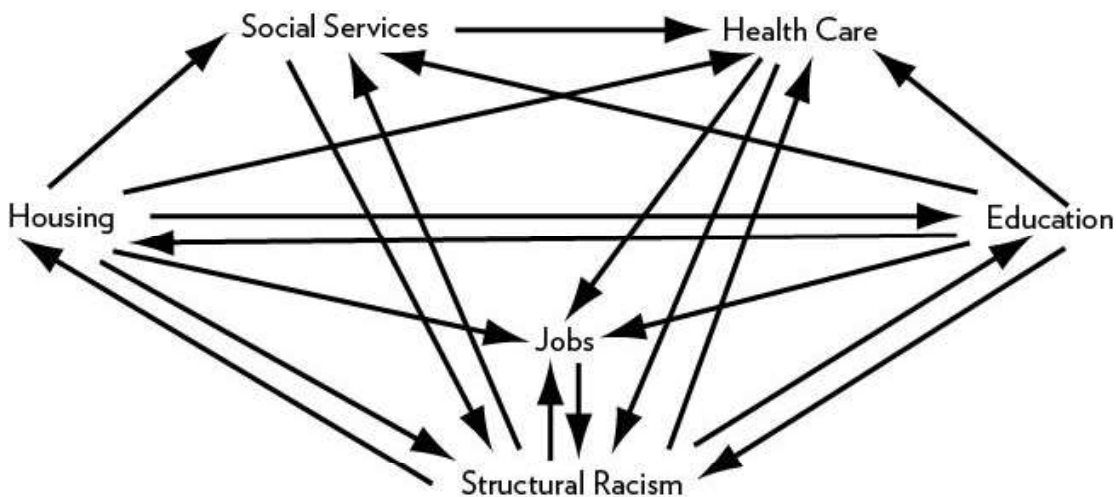


FIGURE 7.14 SIMPLE INTERDEPENDENCE MAP RELATED TO HOMELESSNESS.

Interdependence maps are an easy way to raise the awareness of diverse stakeholders that their work is connected.

Alternatively, people can clarify their interdependencies by drawing a linear input–output diagram or a Bathtub picture such as the one in [figure 7.12](#). Once people draw this map, they can place their respective organizations on it by locating those factors or stages that their work most

addresses. Stakeholders who see themselves on the map can then look at the bigger picture and reflect on the following questions:

- Whose work in this system do we support?
- Whose work in this system supports our own?
- What current relationships would it be helpful for us to improve?
- What new relationships would it be helpful for us to develop?

Since a system improves by strengthening the relationships among its parts, this simple exercise can be very effective in jump-starting the process.

On the other hand, computer modeling and simulation are helpful when the goals are to capture more complexity, validate that the systems map models known behavior, rapidly test different policy alternatives, paint different scenarios, and quantify the outcomes. These models incorporate both stock-and-flow dynamics as well as nonlinear and time-delayed feedback loops.⁶ A user interface or simulator can be developed that enables stakeholders to easily explore and discuss the implications of various options.

By using some form of systems mapping to show the big picture, and engaging stakeholders to build or refine the map as much as possible, people learn to stimulate more productive conversations about the issue. The new conversations increase collaboration because they illuminate such critical factors as personal responsibility, interdependence, time delay and the difference between long-term and short-term impacts, unintended consequences, and local versus systemwide optimization. Designing and facilitating these conversations to build support for a systems analysis is the topic of the next chapter.

Closing the Loop

- Learning from a diverse group of stakeholders not only builds understanding but also develops the relationships required to shift how the system operates.
- Organize information by listening for what is curious, distinguishing measurable data from how people interpret these data, identifying key variables, and looking for recognizable story lines or archetypes.
- Stakeholders can use system archetypes and the Bathtub Analogy to begin gaining insight into why their chronic, complex problem exists.

- There are at least six ways to develop a systems analysis that is both simple enough to be understood by many people and complex enough to capture the richness of their diverse perspectives and experiences.

—CHAPTER 8—

Facing Current Reality: Building Support by Bringing the System to Life



Even though systems maps can build understanding, people do not necessarily embrace the insights they offer. For example, some participants in The After Prison Initiative retreat questioned the value of the map since those who in their minds really needed to change—in this case the policy makers who support mass incarceration—were not present. In Right from the Start and other situations, people ask how the insights can be communicated since they are presented in a visual language that is foreign to those not familiar with it.

The insights generated by systems maps can be difficult to accept and communicate. One reason is that the maps are a visual form of storytelling, yet not all people are visual thinkers. Removed from discussion about what they reveal, the maps can also appear abstract and impersonal, when in fact the stories they are intended to communicate are deeply human. Moreover, most maps challenge people to take more responsibility for the current system than they believe is necessary. Finally, even if people understand and accept the implications of the maps for themselves, they are often not sure how to convey this “foreign language” to stakeholders who have not been initially exposed to it.

You can meet these challenges by:

- Engaging people to develop their own analysis as much as possible.
- Surfacing the mental models that influence how people behave.

- Creating catalytic conversations that stimulate awareness, acceptance, and alternatives.

Engage People in Developing Their Own Analysis

Engaging people in developing their own analysis builds ownership for the work and increases its accuracy. If you are leading a mapping effort, it's important to proceed with that engagement goal in mind. When using causal loop diagrams, begin by drafting your own initial analysis based on interviews, focus groups, and previous written observations about the issue. (The maps in chapter 7 represent the types of analyses you might develop on your own or with a coach.) Then invite a small group of representative stakeholders, such as a steering or design committee, to comment on how the preliminary map both increases their understanding and can be strengthened.

Rather than present your findings from the outset, consider how this group might arrive at similar insights on their own. You could show them the template for a systems archetype that seems particularly relevant to their situation (such as Shifting the Burden, Accidental Adversaries, or one of the others introduced in chapter 4) and ask them to fill in the template to illuminate their story. Or you could write some of the key variables on Post-it notes and ask them to draw the most important cause-and-effect relationships between the variables. After having developed their own insights, people can more readily interpret, internalize, and improve your draft. If you are consulting to a project and cannot work with a small group first, then it helps to ask one or more people involved with the project to comment on the initial map and refine it before engaging a larger audience.

Presenting effectively to a larger group begins with anchoring the analysis with a story. For example, one story in Calhoun County revolved around a man who had cycled continuously through the community's various forms of temporary shelter for many years: official shelters, the street or woods, emergency rooms, jails, and the couches of those who knew him. People wanted to help this man get on his feet and find more permanent housing but seemed unable to do so despite their caring and efforts. Why was it difficult for the community to break the cycle of temporary shelters and ongoing vulnerability? What might they do differently to create a more permanent and satisfying solution?

Before offering a map that might help answer people's questions, it is important to position this diagram as a catalyst for conversation and learning—not as a definitive answer. Remind people that they will be asked to comment on any map presented to ensure it reflects their experience. Then, after the presentation, invite them to offer their feedback and suggestions, which I find easiest to record on flip charts in the moment and later incorporate into the map offline.

When preparing and presenting your map, practice reverse translation—converting the systems language used to develop the map back into English. In order to make the map accessible to people unfamiliar with systems language, it helps to:

- Refine the map first to remove all jargon and communicate the loops in everyday terms such as *quick fix*, *vicious cycle*, and *growth engine*. In the rural affordable housing case, reinforcing loops were described as “pumps” and balancing or limiting loops as “seepage” to evoke an agricultural metaphor.
- Introduce relevant archetypes as stories common to the human experience—not just to the people in this particular situation. This helps people both recognize the story and relieve any shame associated with being caught up in it.
- Honor people's best intentions by acknowledging what they *want* to accomplish through their actions. For example, they want to reduce starvation and believe that sending food is the humane and right way to accomplish this, or they want to grow their community and believe that building new housing is the key to attracting new people and jobs.
- Then show how these well-intentioned actions fall short because of factors and consequences, often longer-term, that have not been taken into account. As we learned earlier, for instance, those who prioritize food aid when trying to end starvation unintentionally undermine local agricultural development by driving down food prices. They also create a spike in population growth years later as young children saved by food aid become of child-bearing age themselves, often leading to greater famine due to the compromised local food system.
- Introduce the diagram in stages using “builds.” For instance, in chapter 7 we saw several stories unfold in stages—including an

Accidental Adversaries story that first showed the prospects of partnership, and then showed how the potential partners accidentally become adversaries. Each diagram has its own recognizable theme as the story expands and deepens.

A lingering question you might have at this point is “how do we know if the map is accurate?” One way to establish accuracy is to engage people in developing it using the guidelines in this section. Another is to ensure that the map answers the focusing question posed at the beginning of the process and explains why key variables have trended over time as they have. A third test is more visceral: A useful map often evokes palpable silence on the part of participants. The silence communicates many feelings in rapid succession:

- Humility that comes with recognizing that, in the words of Walt Kelly’s Pogo, “We have met the enemy, and he is us.”
- Despair from acknowledging that we can no longer keep doing what we have been doing and expect a different result.
- Hope that we can find a more effective way forward by thinking and acting differently.

Maps can evolve to not only enrich and expand people’s understanding, but also sometimes to shift it profoundly. For example, a breakthrough insight for the TAPI participants was that the fear of being victimized by crime can drive behavior in the criminal justice system more than the level of crime itself. In a very different situation—the effort to rebuild civil society in Burundi after its 1990–94 civil war—NGOs that developed a systems analysis of the conflict determined that the driving factor in the war was not which tribe, Tutsis or Hutus, was in power, but the ability of an elite from either tribe to dominate the majority through ethnic manipulation.

Surface Mental Models

The comedienne Lily Tomlin once observed, “Reality is nothing more than a collective hunch.” One purpose of systems thinking is to make our hunches explicit so that we can question and modify them to better achieve what we deeply care about. Indeed, my colleague Michael Goodman says, “Systems thinking is mental models made explicit.” I think of it as a form of collective meditation: slowing down our thinking long enough to reflect on whether it serves us.

Our assumptions and beliefs drive many of the cause—effect relationships we experience. For example, consider if downsizing in an organization reduces or increases the morale of the remaining staff. The obvious answer is that cutting staff decreases morale because the other employees wonder, “When is the other shoe going to drop; will I be fired next?” or “My workload has increased even further as a result, and I can’t do it all.” Alternatively, the morale of remaining employees might increase because they think, “We have finally removed the deadwood,” and “I am considered important here and now have an opportunity to show even more of what I can do.” Different assumptions determine if the relationship between downsizing and morale is undermining or constructive.

These perceptions are the next deeper level of the iceberg that explains current reality (see [figure 3.2](#)). You can clarify them by asking participants to look at the causal loop diagram and answer the question, “What are the key assumptions that keep this dynamic in place?” It helps to begin by identifying assumptions people hold about why current solutions or ways of doing things *should* work: “This quick fix should solve the problem because . . .” or “This engine of success should assure continued growth because . . .”

Encourage people to locate each mental model on a specific cause—effect link if possible and identify which stakeholders hold that particular belief. Placing mental models directly on the diagram brings systems maps to life.¹ For example, [figure 8.1](#) shows the mental models various stakeholders had in Calhoun County that contributed to perpetuating homelessness. You can see that everyone held reasonable assumptions that unexpectedly contributed to the very problem they wanted to solve.

Sometimes people’s assumptions are so deeply embedded in the overall dynamic that it is easier to list them separately. For example, participants committed to redesigning the early-childhood development and education system in Connecticut uncovered mental models that constrained how they thought about potential solutions to their problem—even though their own experience often contradicted the assumptions they held. They recognized that their beliefs reflected those of their political sponsors, who thought that:

- Formal structures (such as new laws or institutions) should be emphasized over informal structures (such as social networks in poor communities).

- State control over the new system is more crucial than local control.
- Quantitative measures are more important than qualitative ones in assessing what works.

At other times it can be illuminating to go beyond the space limitations of thought bubbles and describe how different stakeholders see the problem in greater detail. One dramatic example of this was provided by Jon Walz, a doctor and former fellow in the Kentucky Public Health Leadership Institute. Dr. Walz distinguished the respective views of patients, medical providers, and politicians who faced the challenge of how to end smoking. I find his work especially illuminating because he describes six different lenses or paradigms that summarize people's diverse views: defiance, fear, entitlement, desperation, ignorance or functional illiteracy, and recognition (see [table 8.1](#) below). I suspect that these paradigms pervade people's views on other issues as well, although only one of them—the lens of recognition—promises a constructive solution.

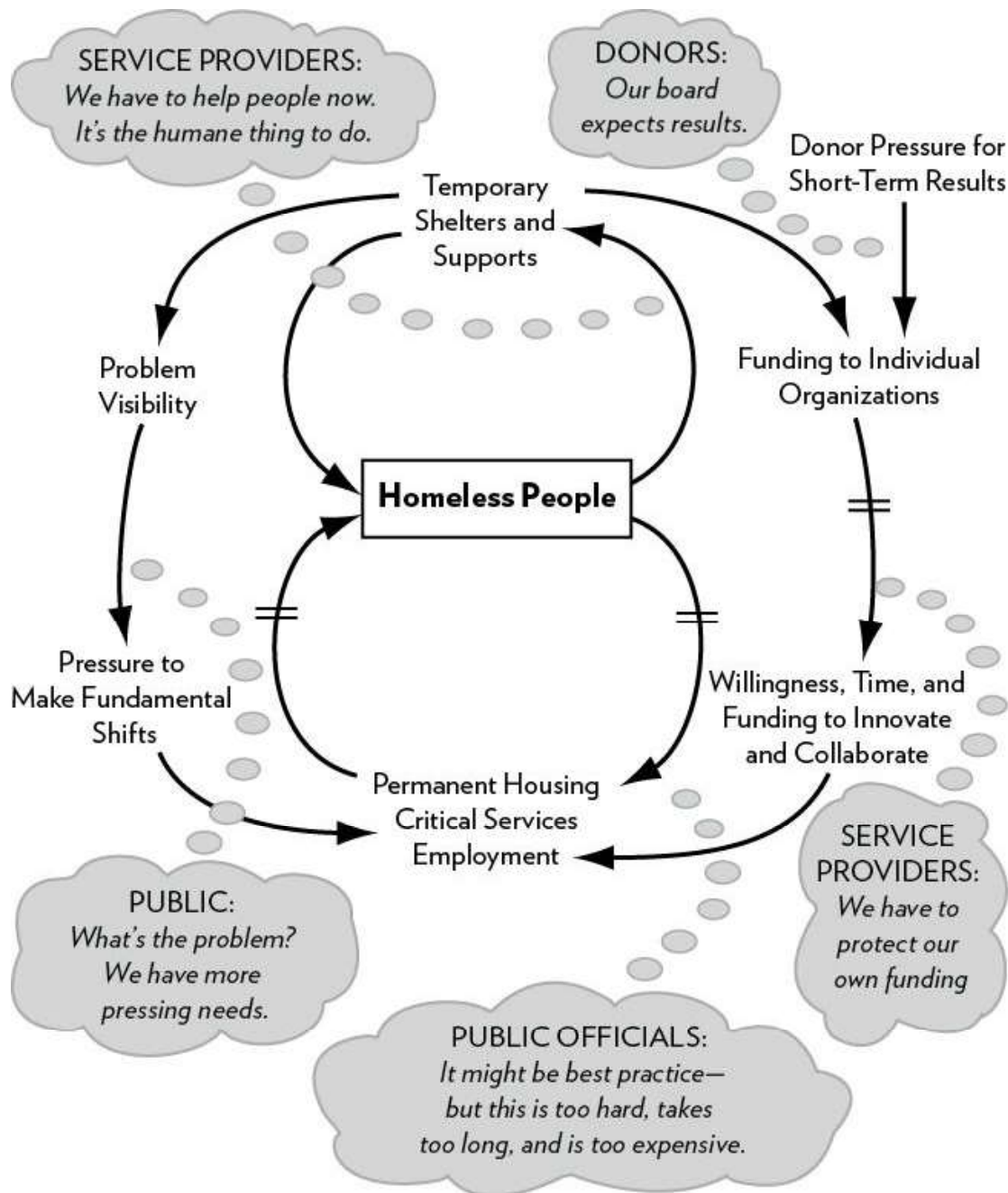


FIGURE 8.1 MENTAL MODELS IN CALHOUN COUNTY. Adding mental models to a systems map not only brings the map to life but also helps explain why certain dynamics persist. *Bridgeway Partners and Innovation Associates Organizational Learning*

Create Catalytic Conversations

The purpose of the systems map and inquiry into underlying mental models is to help stakeholders create catalytic conversations. Instead of re-creating familiar discussions about limited resources, who is to blame, and who else needs to change, these new conversations are designed to

deepen awareness, cultivate acceptance, and develop new alternatives. People learn to see the system more comprehensively and usefully, accept their responsibility for the issue, and expand their views about what they might do differently.

TABLE 8.1. MENTAL MODELS AROUND SMOKING CESSATION

	PATIENTS	PROVIDERS	POLITICIANS
Defiance	"I can smoke if I want to! My granddad smoked all his life and died from emphysema that he got from working in the mines."	"I don't personally care if you stop or not! If you want to get well you'll throw those smokes away now!"	"We can't just turn over our entire budget to keep people from killing themselves! We've got to get control of this thing and put the responsibility where it belongs . . . on the tobacco companies!"
Fear	"Nobody ever told me to stop . . . does smoking really cause cancer, Doc? I saw how my mom was when she passed and I don't want my kids to see me like that."	"Look, if you don't stop smoking, you are going to get worse and I'm afraid that I'll be criticized for your bad outcome after surgery."	"I think a man has a right to smoke if he wants to and I'm not going to let a little cancer get in the way of free choice! Why, I'll get run outta office if I vote to fund this cessation program!"
Entitlement	"I'm not going to stop until they buy my Chantix for as long as it takes . . . and if it makes me sick, I'm gonna sue the fire outta them!"	"If you don't stop, I'll be forced to refer you back to your old doctor!"	"The people in my community want CAT scanners and ambulances and that's what they're going to get. They don't care if a few kids smoke at school. I say, build the hospital now!"
Desperation	"I know it's killing me . . . but I just can't stop! Can't you hypnotize me or something . . . I'd give anything just to be able to breathe again."	"If you don't stop, there won't be anything I or anybody can do to help you when you really get sick!"	"If we fund this preventive health initiative, we won't have any money left to fund what we've already authorized and the state will go bankrupt!"
Ignorance or functional illiteracy	"I went to that class but I couldn't understand half what they said."	"There is nothing anybody can do for you! Cold turkey is the only thing that works and you just can't cut it! You're doomed!"	"None of this preventive stuff works anyway! Did you see the stats from California? They spent three and a half billion dollars on smoking education for kids and their lung cancer rates didn't change a bit! Are we going to waste our money like that?"
Recognition	"I've wanted to do this for a long time and this time I'm going to do it for myself! I deserve it!"	"I think you can do this if you really put your mind to it and let me point you toward some aids that are really proven to help! I'll work with you for as long as it takes!"	"This is a logical beginning to a long legacy of public health success here in Kentucky. By funding smoking cessation now, we will reduce the burden of disease now and in the future!"

Source: Courtesy of Jon H. Walz, DO, FAAFP

DEEPENING AWARENESS

The systems map builds deeper awareness by helping stakeholders understand the often non-obvious interdependencies and longer-term consequences that undermine their best intentions. Adding mental models to the diagram or conversation surfaces unquestioned assumptions that people can now test. The following questions prompt catalytic conversations based on these inputs:

- What new insights have emerged about why the problem persists despite our best efforts to solve it? How do we see things differently?
- What is surprising?
- How is our group in part responsible, albeit unwittingly, for the issue?
- What challenges do these dynamics present?

- What new opportunities do they offer?

You can also develop more specific questions that promote inquiry into certain dynamics. For example, a school district that saw Success to the Successful as the root cause of its challenge to reduce the achievement gap between rich and poor students found enormous value in considering two questions:

- Why do some students who come from privileged families perform poorly in school?
- Why do some students from families with limited means perform well in school?

These questions prompted the district to realize there are certain critical success factors that enable *all* students to be successful—no matter what their backgrounds. These include: role models/mentors who believe in them, family and community support structures, resiliency and self-regulation, and honoring individual learning differences.

CULTIVATING ACCEPTANCE

With growing awareness come new challenges. Understanding why a system operates the way it does despite people's best efforts to improve it requires that they move from blame to responsibility, independence to interdependence, and short-term to long-term thinking. Accepting responsibility for your contribution to the current dynamics is the first step because it supports interdependence and long-term thinking. It is an act of self-empowerment—for, as Churchill observed, "The price of power is responsibility."

Two seemingly opposite stances support people in developing this acceptance: compassion and confrontation. You need compassion to recognize that many problems are self-created, however unintentionally. Most people do not want to increase starvation or perpetuate homelessness or destroy the environment. It helps to assume that everyone is doing the best they can with what they know at the time. On the other hand, it is equally important to recognize that, at some level, people know not what they do and can be their own worst enemies. They implement quick fixes and assume that short-term improvements will last, or they build engines of success and assume that this success will sustain itself indefinitely. They try to optimize their part of the system

under the assumption that this is the best way to optimize the system as a whole.

Raising awareness and acceptance are not intended to replace blaming others with blaming yourself. Rather they are designed to enable people to achieve more of what they deeply care about—because it is ultimately easier to change yourself than to change others (no matter how tempting the latter notion). We know from experience that both compassion and confrontation are vital elements of change—as when we talk about the need for “tough love” or “ruthless compassion.”

As a convener or facilitator of systems change, it is also important to foster confrontation without contempt. Confrontation means raising people’s awareness of their actions in service of helping them achieve what really matters to *them as well as yourself*. Confrontation is founded on compassion. By contrast, contempt seeks to shame others into taking actions that serve *you* independent of what is important to them. Contempt often shows up for people in power, and it tends to evoke defensiveness rather than a willingness to change.

One group that is frequently viewed with contempt is publicly elected officials. Their actions often appear to be solely motivated by their desire to get reelected, and they do that by appealing to the public’s fears and short-term interests rather than to their constituents’ best interests. I raised this concern once with a former congressman who had successfully served his generally conservative district for twenty years, and then went on to chair his state’s nonprofit management association. I asked him how he had navigated the tension between getting reelected and his own higher value to serve the greater good. He told me that he viewed getting reelected as a baseline, a necessary condition to serve his constituency, but not as an end in itself. Similarly, as the famous management theorist Peter Drucker pointed out, profit is a necessary condition for business success but not its purpose, just as we need oxygen to breathe but breathing is not our purpose. I believe that many officials could be influenced on the basis of appealing to their higher values and thinking about how to help them get votes within that context, rather than by assuming that they are only motivated by immediate self-interest and belittling their views.

Lest this sound naive, think of leaders such as Martin Luther King Jr. and Nelson Mandela who confronted the power structure while at the same time empathizing with it. They appealed to the human dignity and

higher aspirations of those in power and sought to partner with them on that basis. When collaboration failed as an initial strategy, they were willing to “fight fire with fire” but then return to collaboration when their adversaries demonstrated more willingness to act as partners.

DEVELOPING NEW ALTERNATIVES

People’s willingness and ability to develop alternative solutions are founded on awareness and acceptance. When people become aware of why their own previous solutions have failed, and they accept their responsibility for these failures, then they are genuinely open to considering new ways of thinking and acting.

When you follow the previous steps in this chapter, people naturally begin to think about new solutions. It is fine to encourage fresh thinking at this point. At the same time, there is one other factor they need to consider before committing to alternative actions. The one other potential obstacle to moving forward is people’s underlying intentions. Most of us have multiple commitments—for example, the desire to meet our more immediate self-interests and the desire to realize our higher aspirations. When these commitments compete, we will try to move forward only to be drawn in another direction and then feel pulled back and forth between the two.

The next chapter helps people examine these pulls more closely and resolve these conflicts. Supporting people to align their actions with their highest aspirations with considered awareness of how to also address their short-term interests is vital to releasing their full energies in service of lasting change.

Closing the Loop

- While systems mapping can increase people’s understanding of why they have been unsuccessful despite their best efforts, it is not always easy to motivate people to act on these insights.
- To help people capitalize on the power of systems thinking, it is important to engage them as much as possible in developing the analysis.
- There are several ways to make systemic insights accessible to those who are not familiar with this way of thinking.
- Identifying the mental models that shape system dynamics not only breathes life into an analysis, but also provides a source of leverage

for shifting these dynamics.

- The ultimate purpose of systems mapping is to catalyze new conversations.
- These conversations are most productive when they deepen awareness, cultivate acceptance, and develop new alternatives.

—CHAPTER 9—

Making an Explicit Choice



The broad-based teamwork involved in solving complex social problems requires, as we've now seen, aligning diverse stakeholders with a common public purpose—even though each may have different private agendas. In chapter 6, for instance, we saw the conflicts that almost always emerge in coalitions trying to end homelessness. Everyone has different primary concerns: Elected officials worry about containing costs to keep voter support; downtown businesspeople worry about keeping homeless people away from their storefronts; and shelter providers worry about filling beds to keep their funding. The approach recommended in chapter 6 to align these different interests is to establish common ground by clarifying people's shared aspiration and their initial picture of current reality. But the work doesn't stop there.

While developing common ground is vital, it can miss the even deeper challenge of aligning people with *themselves*. The diversity of concerns held by different stakeholders makes it difficult to not only align people with one another, but also to align each stakeholder's highest aspiration with their own immediate self-interests.

Most people are pulled between achieving what they most deeply care about and meeting short-term goals.¹ We want to realize our divine nature while also ensuring that we meet more basic needs such as economic security, belonging, and recognition. Even our desire to help others relieve their immediate suffering can conflict with helping these same people become independently secure and fulfilled over time. The subsequent question for those who want social change is how to support people to realize their highest aspirations, particularly when these diverge from their more immediate concerns. How do we help people make an explicit choice in favor of what they most profoundly want?

The answer is to connect people even more closely with both their aspirations and current reality by uncovering the bottom of the iceberg—the purpose that inspires them and, often by contrast, the purpose that shapes their everyday actions. By becoming more aware of both purposes, people can make a more conscious commitment to their highest aspirations with full awareness of the potential costs, not only the benefits, of realizing them. In order to align stakeholders most powerfully around their avowed purpose, it is important to help them make an informed choice to commit to this purpose in full light of what it might take to get there. Making this choice is pivotal to aligning people's energies in service of meaningful change.

You can learn to create this alignment by supporting people to take four steps:

- Understand that there are payoffs to the existing system—a case for the status quo.
- Compare the case for the status quo with the case for change.
- Create solutions that serve both their long-term and their short-term interests—or make a trade-off with the recognition that meaningful change often requires letting something go.
- Make an explicit choice in favor of their higher purpose by weakening the case for the status quo and strengthening the case for change.

Understand Payoffs to the Existing System

Systems are perfectly designed to achieve the results they are achieving right now.² At first glance, when we look at how dysfunctional existing systems can be, this premise seems absurd. For example, why would people design a system that perpetuates homelessness, increases starvation, or undermines children's abilities to learn? The answer that emerges from a systems analysis is that people are accomplishing something they want now, something other than what they say they want. They are receiving payoffs or benefits from the status quo, and they are avoiding costs of change.

Payoffs to an existing system include quick fixes that work in the short run to reduce problem symptoms and the immediate gratification that comes from implementing them. In systems that unwittingly perpetuate homelessness, some of the payoffs to the existing ways of working are reduced visibility of the problem due to temporary shelters that keep

people off the streets or out of the public eye, reduced severity of the problem because some forms of shelter exist, good feelings on the part of both shelter providers and funders that they are helping people in need, and continued funding for the shelter system.

Costs of change that people prefer to avoid include financial investment, the discomfort of learning new skills and creating different work, having to act interdependently instead of independently, and being patient while waiting for investments to demonstrate returns over time. In the case of ending homelessness, some of the costs people avoid are investing in safe, permanent, affordable, and supportive housing; closing shelters or significantly shifting their mission and work; confronting fears on the part of citizens that they might have formerly homeless people as neighbors; and confronting fears on the part of homeless people that they might not be able to adjust to permanent housing.

The payoffs of the existing shelter system and the costs of changing it combine to yield a case for the status quo of helping people *cope with* homelessness. However, this case for the status quo actually undermines efforts to realize the avowed purpose of *ending* homelessness.

Compare the Case for Change with the Case for the Status Quo

The case for change includes the benefits of changing and the costs of not changing. These are often easier for people to clarify than the benefits of not changing and the costs of change. People have already been thinking about their vision for a desired future, and they can also imagine a negative future where the problems that concern them are not addressed.

In order to build the case for change, you can ask people what benefits would be derived from realizing their vision—benefits for their constituents and society as a whole, for their partners and other stakeholders, and for themselves. Those involved in trying to end (versus cope with) homelessness might respond:

- Reduced costs for the emergency response and social services associated with chronic homelessness—including shelters, hospital bills, and substance abuse treatment.
- Reduced unemployment costs for people who experience episodic homelessness because they have lost their jobs and ability to pay for housing.

- Ability to receive state and federal funds for meeting best-practice requirements to reduce homelessness.
- Positive feelings associated with providing people with permanent housing.

Then, to help people understand the costs of not changing, you can ask them to paint their nightmare scenario—to describe the worst that could happen if they do nothing differently now. For those same people working to end homelessness, the costs of not changing include:

- All the above costs continue to increase.
- Lost funding caused by failing to meet government requirements for implementing best practices.
- Lower quality of street life leading to economic decline.

In order to help people compare the case for change with the case for the status quo, it helps to complete a cost–benefit matrix, as shown in [table 9.1](#).

The cost–benefit matrix helps people understand at an even deeper level why change is not occurring despite their best efforts. It depicts the often hidden case for the status quo—one that is currently strong enough to override the case for change and perpetuate the way things are.

Create Both/and Solutions—or Make a Trade-Off

People ideally want to have their cake and eat it, too: They would like to keep the benefits of the status quo while also realizing the benefits of change. Indeed, both/and solutions are preferable where they can be found, and there are a number of methods such as Polarity Management for creating those solutions.³ In the effort to end homelessness, there are hundreds of community-based continuums of care throughout the nation providing housing and services for homeless people. Components may include: street outreach, emergency shelters (least permanent), transitional housing (supporting chronically homeless people to prepare to live in permanent housing), rapid rehousing (helping homeless people quickly move into permanent housing, usually in the private market), permanent supportive housing (permanent, affordable, safe housing combined with supportive services for chronically homeless people), and services only. There can be a place for all these alternatives as long as the overall system is incentivized to provide people with permanent housing as quickly as possible.

TABLE 9.1. COST–BENEFITS MATRIX FOR ENDING HOMELESSNESS

Case for Change	Case for Status Quo
Benefits of change • Reduced costs of emergency response, shelters, health care, substance abuse treatment, unemployment • Increased ability to receive government funding • Positive feelings associated with providing people with permanent housing	Benefits of not changing (payoffs of status quo) • Reduced visibility of the problem • Reduced severity of the problem • Good feelings of helping people in need • Continued funding for shelter system
Costs of not changing • Above costs continue to increase • Lost funding from failing to meet government requirements • Lower quality of street life leading to economic decline	Costs of change • Investment in safe, permanent, affordable, and supportive housing • Closing shelters or shifting their mission and work • Confronting fears of ordinary citizens • Confronting fears on the part of homeless people

Source: Bridgeway Partners and Innovation Associates Organizational Learning

However, more often than not, people have to make trade-offs. They have to decide if what they aspire to is worth giving up at least some of what they have. As much as we prefer not to let go of anything to have even more, we also understand “no pain, no gain,” “there is no such thing as a free lunch,” and “investing now for the future.” Not only do systems exhibit a tendency for better-before-worse behavior (for example, through quick fixes that undermine long-term effectiveness), but the reverse is also true. Things often have to get worse (or more difficult) before they get better. We have to let go of something such as comfort, security, and independence to have what we want even more. By contrast, the unwillingness to let go of such benefits to the status quo is the greatest obstacle to change.

Lyndia Downie, the president and executive director of Boston’s Pine Street Inn, one of the most respected shelters in the country, realized that the inn needed to totally transform its mission in order to truly tackle homelessness.⁴ She discovered that 5 percent of the homeless people in her shelters took up more than half of the beds on any given night, and

that these were the chronically homeless who most needed permanent housing. Committed to Housing First, which centers on providing homeless people with permanent housing quickly and then providing services as needed, she convinced her board to transform the inn's mission from emergency shelter provider to real estate developer and landlord. She describes the "hard-to-stomach" decision for both the board and staff that involved closing some shelters and shifting those resources to buy homes instead.

The COO of a nonprofit committed to providing health care for the homeless in a major city participated with all the stakeholders working with the homeless in her area in an exercise to develop a systems map. After reviewing the map and her organization's place in the larger system, she challenged her president and board at a meeting later that day, "What might we have to give up as an organization in order for the whole to succeed?" I had never heard the question put so boldly before and realized that it makes an enormously powerful statement.

As in the case of the Pine Street Inn, sometimes the greatest challenge begins with letting go of one self-image and replacing it with another:

- The Area Education Agencies and local school districts in Iowa realized that they needed to give up their identities as being solely responsible for the students in their respective geographies. In order to improve education outcomes across the state, they needed to access the power of interdependence and let go of a measure of independence with respect to each other and the state Department of Education.
- The regulator of food safety in a major city learned that it was more effective when it shifted its role with restaurant owners from being an enforcer to being an information provider and educator.
- A county public health department increased its ability to improve the health of a poor community when it shifted its role from being an arm's-length expert to becoming the facilitator of a community-driven process.

Make an Explicit Choice

You can support people to let go more easily by first weakening the case for the status quo, and then strengthening the case for change.

A systems map naturally helps weaken the case for the status quo by showing how people's current thinking and actions tend to lead them away from achieving the purpose they aspire to. For example, the emergency response system to cope with homelessness unwittingly diverts attention and resources away from ending it. Separately optimizing parts of the K–12 education in Iowa undermines the state's ability to improve education outcomes for all its children. Depending on enforcement as a way to motivate restaurant owners to increase food safety makes it more difficult to achieve the cooperation required to do so.

Strengthening the case for change involves two steps that deepen people's connections with their highest aspirations. The first is more *receptive* in nature and supports people to stop and listen to what calls to them most authentically. Otto Scharmer describes this as *presencing* in his pioneering book *Theory U: Leading from the Future as It Emerges*.⁵ He states:

Presencing—the blend of sensing and presence, means to connect with the Source of the highest future possibility and to bring it into the now. When moving into the state of presencing, perception begins to happen from a future possibility that depends on us to come into reality. In that state we step into our real being, who we really are, our authentic self.

Presencing evokes a deep connection described by different names in various wisdom traditions. Scharmer describes it as an eco-centered view, one captured by the famous philosopher Martin Buber when he encouraged people to “Listen to the course of being in the world . . . and bring it to reality as it desires.” Asking, “What is being called of us?” can lead people in a significantly different direction than one based on the question “What do we want to create?”—which risks focusing them on a more ego-centered place.

The second step in deepening people's connection to the case for change is more *active* in nature. It supports people to envision the ideal future that profoundly calls to them. The following guidelines for visioning are based on principles developed by Robert Fritz, a master of the creative process:

- Separate what you want from what you think is possible.
- Focus on what you want versus don't want.
- Focus on the results instead of the process.

- Include the consequences you want.
- See/experience the vision in the present.

I then ask people several questions to describe an ideal time in the future when the vision has been accomplished:

- How are the people you want to serve being served? What are they doing, seeing, feeling, hearing, and saying?
- How does serving these people contribute to other stakeholders and society as a whole?
- What is your group doing differently? What are you seeing, feeling, thinking, and hearing?
- What am I personally doing differently? How does realizing this vision serve my highest self?

Weakening the case for the status quo and connecting people more closely to the case for change through both deep listening and visioning help people make an explicit choice in favor of their highest aspirations.

What Can You Do When People Are Still Not Aligned?

While the four steps above stimulate alignment among diverse stakeholders, they do not guarantee it. One possible outcome is that you still cannot find common ground on which people want to build something together. In this case it helps to remember the alternatives proposed in chapter 6:

- Collaborate indirectly by legitimizing and addressing others' concerns, and then seeking to influence them through mutually respected third parties and/or to engage them at critical phases in the process.
- Work around the people you cannot work with.
- Work against them through such channels as advocacy, legislative policy, and nonviolent resistance.

It is also important to recognize that not everyone needs to agree at once on a new course of action in order for change to occur. Everett Rogers's famous study on the diffusion of innovations concluded that attitudes shift progressively through a population, and that the 15 percent who comprise innovators and early adopters can build sufficient momentum for others to follow.⁶

Another possible scenario is that people look clearly at the case for the status quo and the case for change—and deliberately decide to maintain