# AFTER THE PANDEMIC

# WHAT HAPPENS NEXT?

In the midst of the COVID-19 pandemic, we scramble to understand how the decade will unfold. We turn first to a tried-and-true futures methodology: alternative futures scenarios. We try to imagine a decade of growth or constraints.

Of collapse. Or perhaps transformation.

But already we see collapse looming large. As fast as the virus has spread through the world's population, a deeper underlying disease—perhaps we could call it a syndrome of co-infections—is careening through our collective futures.

And just as the novel coronavirus first showed up among the most vulnerable in our society—the old, the sick, the working poor and racially oppressed—it has also taken aim at the weakest parts of our global, national, and local systems. From a broken healthcare system and racial injustice to economic inequality, brittle supply chains, climate threats, political corruption, and a frayed social fabric, the virus has revealed a complex set of system failures that paint a picture of collapse.

As these systems fail, however, they also open pathways to something new. Even if the next decade sees attempts to reestablish business-as-usual growth or to live within the constraints of new protocols that are essential to securing our collective health, it will call on us to find our way through the multiple collapsing systems—whether it's our public health infrastructure, our struggling workforce, our faulty criminal justice systems, or our threatened electoral process—to discover what's next. It will call on us to create not just four alternative scenarios but many, many visions

This map, then, is a guide to starting the conversations about how we move beyond collapse and find the healthiest pathways to real and lasting transformation.



of transformation.

# FOUR SCENARIOS Alternative visions of the path forward





### Stimulus without structural change

Weighing the balance between death from the pandemic and the very real economic suffering of people everywhere, the United States rushes to return to work without a vaccine and in spite of clear indications of follow-on waves of the virus. Still, there is no instant recovery. The reality of double-digit unemployment means that re-employment is a long, slow process, with long-term educational and income divides as evident as ever. Ironically, the essential workers-so-called "heroes" of the first wave of the pandemic—fall disproportionately in the low-wage, less employable categories. And as companies race to regain lost productivity, trading on repeated stimulus packages, they frequently turn to job automation rather than rehiring less-credentialed workers.

The stimulus is skewed to the top. While some old economy industries (especially the airline industry) come to depend on government subsidies, the real winners are the big tech companies that kept the economy going during the shutdown. Companies like Apple, Google, Amazon, and Microsoft innovate their offerings in a health-vigilant society and work with governments to resuscitate the public health infrastructure, evolving into public-private monopolies deemed too essential to break up.

After a decade of public unrest and stimulus to the top, none of the recovery models—U, V, W, Z, or L-shaped—actually describe the decade. In the end, a savings glut at the top and growing debt at the bottom slowly depress long-term demand, and growth curves seem to echo the up-and-down waves of the early years of the pandemic.

**Public health:** Virtual care becomes gigmedicine. Widespread mental illness dominates the public health landscape.

**Food:** Mechanization and automation replace many jobs in agriculture, meatpacking, and food packaging.

**Work and jobs:** Work continues to be the primary measure of worthiness, leaving many without resources or dignity.

**Education:** Hybrid digital/in-person learning environments focus on generating certificates for skills verification.

**Data governance:** Relaxing of HIPAA regulations allows state-sanctioned health data surveillance by big data monopolies.

## Algorithmic disease management

With an overriding need to secure community health, a host of data-driven technologies enables increasingly precise models of health behaviors and community immunity. Early on, analog testing, contact tracing, and digital proximity alerts combine with algorithmic analysis to create a hierarchy of health statuses. At the top are those who are immune. Second are those tested and uninfected, but at risk of infection. Third are the untested, who include a wide range of people without access to tests. Although supposedly anonymous, geographic and digital clusters of the immune, the at-risk, and the untested begin to emerge.

These clusters come to be known as "germ pods," which become an unofficial tool for casual control and discrimination as different germ pods develop substantially different behaviors. These pods become more than health pods—they become economically, demographically, and socially homogenous micro-groups, subject to algorithmically designed public policies and market practices.

By 2030, a variety of pod clustering systems prove to be powerful gatekeeping tools, as algorithms set conditions for participation and pods become functionally invisible to people who don't qualify for membership. In the end, a technology once meant to publicly identify people with immunity or vulnerability to disease evolves into a tool that shields groups—both advantaged and disadvantaged—from public view.

**Public health:** Everything from attending school to gaining entrance to amusement parks relies on clear identifiers of health status.

**Food:** Food costs rise, marketing campaigns use germ pods to differentiate products, and restaurants segment their floors by pod.

**Work and jobs:** Essential service workers face increasing health and behavioral monitoring, compromising their privacy.

**Education:** Separate and unequal "germ-pod" schools emerge, reinforcing germ-pod discrimination in work and opportunity.

**Data governance:** Personal Online Datastores—the tech foundation of germ-pod identities—protect privacy and filter data access.





#### Masks and arms

The COVID-19 pandemic marks the first in a series of systemic collapses that brings the United States to its knees. Hardest hit among nations, with more cases and deaths than anywhere else on the planet, the country is a model for how not to govern in a time of pandemic. With anti-government forces lined up behind a leadership that prioritizes political wins, it's no surprise that battle lines are drawn early: Red Hats against Blue Masks, militant police against unprecedented numbers of protestors, armed vigilantes against all calls for unity and a new order. A seeming acceptance of 500,000 COVID-19 deaths by the end of 2021 - amidst widespread acts of White Nationalist terrorism and accusations of ANTIFA conspiracies—signals a corruption of both heart and brain for a nation once at the vanguard of leadership in the world.

With much of the federal government dismantled, the nation proves ungovernable. Political control flips between parties, but by mid-decade, Red Hat domination is clear. The Blue Masks see the writing on the wall, and with no democratic means to power, they rage in the streets. Every American city sees ongoing violent protest and guerilla warfare. The American military and police split down the middle, too, with roughly half of each resigning. Coalitions of states vie to lead a government in absentia while autonomous zones seek self-governance.

By 2030, the union is mortally fractured along political lines: cities, states, and regions are governed not by a single sovereign nation, but by a thicket of tenuous inter-jurisdictional agreements and looming violence.

**Public health:** Widespread hospital closures split health care between membership networks and street medics.

**Food:** Food identities are further politicized as so-called domestivores disrupt food supply chains to stockpile local food and boycott producers who export to other regions.

**Work and jobs:** Eschewing Red loyalty oaths required in many workplaces, undocumented workers swell the ranks of the growing white-collar, gray-market workforce.

**Education:** As public schools are defunded, parents and students accede to the ad hoc and uneven online learning strategies.

**Data governance:** Health data surveillance is expanded and deployed in the service of political discrimination and retribution.

## Universal basic well-being

In a nation unprepared for the onslaught of a global pandemic, a rising tide of mutual social commitment emerges across communities, large and small. Volunteer mask making and wearing signal a growing awareness that there is no such thing as private health—all health is public health. With unemployment in the double digits, public opinion shifts to support a universal basic income (UBI). With massive anti-racist protests in the streets around the world, the public mood bends toward fundamental institutional change.

These are the initial conditions for a sweeping transformation. Ironically, the path forward harkens back to the fledgling sharing economy of the 2000s, before profit motives co-opted that movement. But the sharing economy of the 2020s corrects a fatal flaw of earlier visions: grass roots mutualism isn't enough. Civic infrastructures of institutions, laws, regulations, and cultural norms are essential to sustaining mutualism, and by mid-decade, a nascent civic literacy seeks to balance local governance and community ownership with state, national, and even global oversight of everything from money flows, asset ownership, and social equality to disaster response.

The result by 2030 is the first glimpse of a Global New Deal in which mutualist ideology replaces neo-liberal dogmas. At the core of this new deal is a framework that reaches well beyond a UBI to advocate for universal basic assets—every human's right to the core resources that are essential to well-being.

**Public health:** Public health is reborn as a framework for assuring that "health is in the bloodstream" of every policy in every sector.

**Food:** The agricultural sector builds regional heterogeneity into food production, willfully accepting the tradeoffs between economies of scale and a more regenerative food economy.

**Work and jobs:** With UBI security, workers shift their focus to civic, creative, and care work as Modern Monetary Theory (MMT) supplants neoclassical economics.

**Education:** Civic activists reinvent public education as experiential learning about history, race, institutions, laws, and governance.

**Data governance:** Digital applications, protocols, and governance structures prioritize privacy while data trusts and data unions encourage civic-minded data contributions.

When a large disturbance shakes a complex system, the weakest parts of the system collapse first. Just as the coronavirus first showed up in the most vulnerable people in our society—the old, the sick, the working poor and racially disadvantaged—it has also taken aim at the widespread frailties in our social, economic, and political institutions. It has made their fragility painfully visible

These underlying weaknesses set the stage for the next decade. They are the core drivers of any scenario we can imagine. The way we address them, whether we simply shore them up as best we can or make major structural changes, will largely determine whether we see a decade of renewed growth or collapse, a reckoning with long-term limits to growth, or a deep shift in

Here then is an overview of these systemic weak points that will structure our future in the face of a global pandemic whose effects we're just beginning to experience.

> "It's not the virus that's killing us it's our social, economic, and political systems."

## **► ECONOMIC INEQUALITY**

The long-term growth of economic inequality in countries around the world is well documented. This inequality is typically measured in income and wealth as well as employment levels, each of which has already been exacerbated by the pandemic in the United States.

Economic inequality can also be measured in terms of geographies of opportunity and of health: more often than not, the zip code where people are born can predict their future wealth and health. In the midst of the pandemic, zip codes also may predict where disease and death will take their greatest toll. And these high-toll zip codes are often home to people of color.

Low-wage workers — disproportionately sacrificed as so-called essential workers—have been growing as a percentage of the workforce, with low-wage workers of color earning about a third less than white workers.

**Unemployment**—soaring among non-essential workers-has skewed higher for Black and Latinx workers, who are 25% more likely to be unemployed.

The bottom 50% own just 1%

of the wealth

cbo.gov

Gig economy platforms—which have been absorbing the exodus of full-time employees from corporations over the past several years undermine long-term security, health benefits, and worker unions.

Savings and debt—with growing debt at the bottom—is likely to suppress consumer demand as the wealthiest invest in savings that grow on the back of debt at the bottom.

Holdings of Family Wealth op 10 percent 51st to 89 percentile The cult of efficiency is deeply rooted in modern economic systems. Just-in-time supply chains and zero-overstock retail models offer low costs and high profits, but minor slowdowns and brief stoppages can have cascading impacts across product networks. Major system interruptions can be catastrophic.

**BRITTLE SUPPLY CHAIN** 

Supply chains are also disrupted by dysfunctions in the organization of labor, including the growth of monopsony labor markets that depress wages, automation that returns higher profits with stagnating wages, and dependence on immigrant labor that has become a politically divisive flashpoint. Any large-scale disruption can undermine these fragile systems.

**Food systems**—concentrated into a few complex global supply chains—are vulnerable to cascading shocks that lead to rising food prices, food waste, and precarious supplies for vulnerable populations.

**Medical supply chains**—where a mismatch between need and access can be deadlyare controlled by regulatory gatekeepers subject to political and private interests.

branded for highly normative behaviors—are slow to respond to sudden changes in those behaviors, leading to both panic buying as well as low stocks and overstocks.

Patent processes—which confer exclusive

typical for consumer goods are fatal when

rights and rents to their owners—are visibly flawed

in health care, where the rent-seeking behaviors

applied to life-and-death drugs and treatments.

Consumer goods—produced, packaged, and

Monopsonies-markets with only one major buyer for workers - dominate most of the U.S. labor market and depress wages



Studies over the past several decades reveal a decline in social trust, a deterioration of civil discourse, and a loss of the kind of civility that binds a society together. These patterns cross geographic borders and cultures and have been linked to everything from the rise of digital society to the growth of corruption and the economic inequalities that disadvantage entire communities,

FRAGILE SOCIAL FABRIC

Weaving through these apparent causes is the disruption of the long-standing social, educational, and cultural institutions that have been the source of cooperation and cohesion in the past.

Public social spaces—the critical spaces where civic life unfolds-have been commercialized, virtualized, and privatized over the past several decades, undermining the creation of a civic commons.

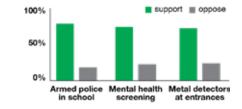
especially when it comes to health.

**Educational institutions**—where reasoning and a shared body of knowledge are cultivated—have shifted their focus from creating well-informed citizens to creating skilled workers.

**Cultural expression**—the living edge of social commentary and human innovationhas been consumerized by a celebrity culture and polarized by political media.

Civic boundaries — the demarcation of zones of shared civic benefits and responsibilitieshave been weaponized as tools of exclusion and control, whether at national borders or gates to walled communities.

A strong majority of parents with K-12 children approve of a wide array of safety protections in schools-from mental health screening and metal detectors to armed police in schools



# **BROKEN HEALTH SYSTEMS**

U.S. healthcare is riddled with fissures that leave it vulnerable to collapse in a time of pandemic. Health institutions, markets, and practices are split between public health and clinical health, mental health and physical health, infectious and chronic disease, and public and private financial schemes. These splits stop the flow of funds, resources, and knowledge. They create confusing mazes of policy and pricing that lead to unequal access, burdensome bureaucracy, and an inability to quickly mount a coordinated response to a crisis.

These false boundaries are reinforced by deep-seated cultural norms and perceptions that view humans as autonomous bodies. Human bodies are best considered, from a public health standpoint, as giant clouds of intermingling microbes and cells. As studies show that the effects of childhood trauma persist across generations, the individualist approach to health and healing continues to place impossible behavioral, psychological, and financial burdens on everyone. The result? In spite of its wealth and expertise, the United States is now one of the countries hardest hit by the pandemic.

Health expertise—spread across siloed disciplines and scales of study, from microbial to environmental—is slow to translate into clinical settings and accepted health practices.

Health costs—driven by a politicized patchwork of public and private markets create invisible barriers to public health as the most vulnerable avoid seeking care.

Healthcare premiums and deductibles

have risen significantly faster than

earnings for the past decade

Health outcomes—demonstrably linked to environmental factors beyond the control of individuals—prove discriminatory for poor people, people of color, the undocumented, and the socially isolated.

Health workers—burnt out before they were designated frontline "warriors" - now constitute a perhaps permanently traumatized workforce.

> Disproportionate incarceration overall inflation deductibles leads to disproportionate post-prison unemployment for Black men and women

RACIAL INJUSTICE

Racism is both a personal prejudice and a political system rooted in 18th century colonial economics. Without any real biogenetic definition of race, white supremacy has evolved and been embedded in systems that continue to disadvantage and disproportionately kill non-whites around the world. Markets reproduce and co-create race-based policies that take advantage of vulnerabilities produced by social and economic conditions that racist systems reinforce—for example, with race-specific diagnostics backed by dubious science.

As a political tool, racism has been wielded with renewed vengeance in the past few years, pitting the personal racism of White supremacists against the so-called color-blind policies that systematically disadvantage people of color. Both have the same results: disproportionate economic, health, and safety risks for people of color.

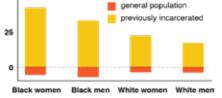
prisonpolicy.org

Equal opportunity—enshrined in the constitution—is undermined by systemic and legal discrimination that keeps people of color unemployed and underpaid at much higher rates while perpetuating the myth that "work=worth."

Public safety—the purview of police and prison systems—protects white privilege and power at the expense of the lives and livelihoods of people of color, as Black Lives Matter protests have revealed.

Communities of color—segregated into racedefined neighborhoods—are disproportionately incarcerated in prisons, including rapidly growing private prisons whose stock is traded on the major exchanges.

Shifting demographics—with a declining percentage of the white population in the United States—have set the stage for attacks on the voting rights of people of color.



# **POLITICAL DIVISION**

As a design for political systems, presidentialist democracies are prone to devolve into authoritarian systems. What keeps these systems from becoming autocracies is a shared set of political norms the general agreement to play by the rules of a constitution and to hold each branch of government in check.

Today, these norms are on life support in the United States. A sizable faction of well-armed citizens and elected representatives believe the country should be run exclusively by white, male, Christian leadership. Unwilling to recognize the other, they are pushing the country into a state of ungovernability. With diminishing procedural channels to change governance, political dissent of opposing views has become inflamed. Street protests, civil disobedience, and destruction of property are how the voiceless are heard. This cycle of protest and suppression of protest has replaced civil discourse within government structures. The resolution of similar crises in presidentialist systems is rarely peaceful.

Federal government—with its apparatus of bureaucracy and civil service—has been devalued, delegitimized, and deconstructed.

State and local governments—dependent on federal tax dollars—struggle with open federal hostility and a lack of coordinated leadership to meet national and global challenges.

Blue vs. Red divisions - amplified by culture wars and identity politics—have ossified into a more polarized and confrontational polity.

Political corruption - effectively legitimized a decade ago by the Citizens United ruling-has resulted in the exponential growth of influence by corporations and wealthy individuals to secure their private interests.

The Citizens United v. FEC ruling in 2010 led to a sharp rise in unrestricted Super PAC spending on elections a legitimized form of political corruption cusdi.org

1.200

# CLIMATE EMERGENCY

Impacts of the impending climate emergency already include radical shifts in regional ecosystems, measurable increases in sea level, and significant disruption of temperature and weather patterns.

Human and financial costs will continue to increase relentlessly as long as global warming remains uncontrolled, while remedies will demand a fundamental shift in global economic and technological systems. Prominent industries face restructuring or elimination, but few of the businesses and organizations enriched by climate-risk activities have shown a willingness to cease or radically change their operations in any useful time frame. In the meantime, the consequences of climate disruption can be seen across the spectrum of human systems, compounding every other system failure on the horizon.

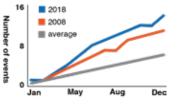
Climate science—with 97% consensus among scientists—has been subject to weaponized skepticism, creating the template for responding to other "inconvenient" scientific truths, such as pandemic science.

**Carbon industries**—which were already facing divestment before the pandemicare now seeing the impacts of economic slowdowns and COVID-19 travel restrictions as the cost of oil dives below \$0 per barrel.

**Environmental regulations**—designed to limit human impacts on the ecosystems—are embattled worldwide as old-economy interests struggle to hold on to their historical wealth and power.

Climate disaster preparedness—from community planning to resources for rescue and recovery operations-suffers from insufficient local, state, and federal budgets as well as political will.

Annual large climate-related disasters increased significantly in frequency from 2008 to 2018



# SAVING CAPITALISTS

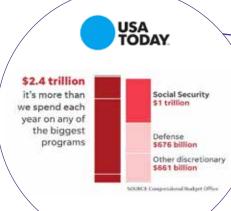
Valuing the economy Leveraging stimulus

Growth is erratic. As stimulus packages advantage investors, economic inequality continues to grow. The decade ends with a savings glut at the top that depresses demand by debt-burdened consumers and foreshadows trouble ahead.

RESPONSE | Rush to reopen

RESET | Automation, stimulus, surveillance

REINVENTION | Monopoly



With \$2.4 trillion already committed to stimulus, the Federal Reserve Bank promises to extend stimulus as needed.

Armed protestors object to mask policy at the Michigan State Capitol building.

theguardian.com

# COLLAPSE UNGOVERNING

Valuing political power Leveraging masks as symbols

With leadership that prioritizes political wins, battle lines are drawn between Red Hats and Blue Masks.

Street rage escalates as a deeply divided nation proves ungovernable.

Coalitions of secessionist states set the stage for a fractured union.

RESPONSE | Masked diversions

RESET | Violent protest, a divided military

REINVENTION | Exit strategies



Valuing social well-being Leveraging mutuality

Building on the best of collective grassroots actions to provide mutual aid in a moment of collapsing health, the country relaunches the sharing economy ethos of the 2000s with new civic infrastructures to provide and protect universal basic rights.

RESPONSE | Mutual aid
RESET | Sharing economies, civic literacies
REINVENTION | A global new deal





Valuing health
Leveraging testing and contact tracing

Data-driven health surveillance tools create algorithmic clusters of the immune, the at-risk, and the untested. Over the decade, these so-called germ pods expand to signify a wide range of identity markers and new cultural categories.

RESPONSE | Data-driven policy
RESET | Algorithmic epidemiology
REINVENTION | Pod-based gatekeeping

# AFTERTHEPANDEMIC

Hard-hit COVID-19 ureas overlap with high percentage

of non-white populations

high percent not white and high COVID-19 rate high percent not white and low COVID-19 rate

Americans believe that trust in government and

each other has been shrinking-

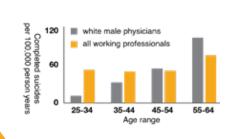
and that makes it harder to solve problems

low trust makes it hard to solve problem

# BROKEN HEALTH SYSTEMS

Health expertise | UNINTEGRATED
Health costs | POLITICIZED
Health outcomes | DISCRIMINATORY
Health workers | TRAUMATIZED

Even before the COVID-19 crisis, suicides among physicians 45 and older outpaced those in the general public



# CLIMATE EMERGENCY

Climate science | CONTESTED

Carbon industries | DIVESTED

Environmental regulations | EMBATTLED

Climate disaster preparedness | INSUFFICIENT

# ECONOMIC INEQUALITY

Low-wage workers | SACRIFICED

Gig economy platforms | FISSURED

Unemployment | SKEWED

Savings and debt | IMBALANCED

FRAGILE SOCIAL FABRIC

Public social spaces | VIRTUALIZED

Educational institutions | INTERRUPTED

Cultural expression | THREATENED

Civic boundaries | WEAPONIZED

Average air pollutants from 2000 to 2016 (left) are associated with an 8% increase in the COVID-19 death rate (right)



projects.ig.harvard.edu

# A DEEPER DISEASE RACIAL INJUSTICE

COVID-19 mortality rates are

disproportionately high among Blacks

share of state/city's population
 share of COVID-19 deaths

North Carolina 22% 22%

Equal opportunity | UNREALIZED

Public safety | UNSAFE

Communities of color | INCARCERATED

Shifting demographics | RESTRUCTURED

# VI-PASS, one of many startup lesigned to work as immunity cates, can scan user's status

COVI-PASS, one of many startup apps designed to work as immunity certificates, can scan user's status from up to 100 meters away.

# BRITTLE SUPPLY CHAIN

Food systems | SHOCKED

Medical supply chains | MISREGULATED

Patent processes | DEADLY

Consumer goods | MONOPSONIZED

# DIVISION eral government | DECONSTRUCTED and local governments | BANKRUPTEI

**POLITICAL** 

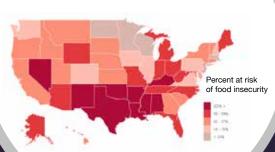
Federal government | DECONSTRUCTED

State and local governments | BANKRUPTED

Blue vs. Red | PERVASIVE

Political corruption | MILITARIZED

The projected rate of food insecurity across the country has more than tripled as a result of COVID-19



mount, the US is growing more divided along party lines on perceptions of the threat

78

Dem/Lean Dem

As COVID-19 cases and deaths



pewiesearch.org

INSTITUTE FOR THE FUTURE

# PATHS TO TRANSFORMATION

## How to use this map

This map is a conversation starter—and conversations are the best starting place for making a difference in a time of cascading system failures. Conversations bring together distinct points of view and experience. They activate our shared imaginations. They set things in motion. Here's what you can do:

#### Start a conversation

Invite a group of five or six people to discuss "What's next?"

**Scan the map together** and talk for a few minutes about which scenarios (growth, constraint, collapse, transformation) seem most likely.

**Then zoom in on the cascading system failures.** How are they connected? Which seem most urgent? Which seem most intractable? What's possible on the other side of failure? What does a fresh start look like?

**Don't forget the virus:** Ask each other, "What have we learned from our COVID-19 experience that can help us navigate the deeper disease in our society?"

## Start a list of action futures futures that start from a present-day action



Choose three system failures.

**Ask:** What are three bold actions we can take today that will change the future path of these three system failures? What are the future outcomes of each of these actions?

**Share your list** and invite others to do the same.

Try to build a list of a hundred future-focused actions.

### Create your own scenarios



#### Choose a core value you want the scenario to explore-

for example, economic growth, public health, racial justice, climate justice, or social consensus.

For each system failure, ask: What do people do to support your core value in the face of collapse—and in the face of competing values?

**Play out these actions over a ten-year timeline:** What happens first? Then what happens next? And, what does the world look like at the end of the decade?

**Ask:** What kind of scenario is this—growth, collapse, constraint, or transformation? Try to build at least one transformation scenario—one clear path from collapse to a world that's very, very different from the last decade.

For a deeper exploration of the paths forward in this moment of global crisis, try out IFTF's **After the Pandemic: Paths to Transformation** toolkit.

# FOR MORE INFORMATION, CONTACT:

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