Into the Wild Blue Yonder:
The Urban Crisis, Rocket Science, and the Pursuit of Transformation
Housing Policy in the Great Society, Part Two

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**Introduction**

Of the several large and important domestic housing and urban programs produced by Lyndon Johnson’s Great Society administration, the best-known is Model Cities. Although it lasted only from 1966 to 1974, its advocates believed Model Cities had promised a better tomorrow for America’s cities and bitterly lamented its termination—blaming Richard Nixon’s policies, diversion of funds for the Vietnam war, and the nation’s lack of commitment to social progress.

Yet the legislation that created Model Cities was ambitious, contradictory, and vague. As such, it vividly expressed the idealistic impulses, currents of thought, and reactions to events that converged, however incoherently, in national urban policy of the 1960s.

At the center of the fervor for domestic policy was the president of the United States, Lyndon Johnson, who hungered for dramatic new programs that would transform the country the way New Deal policies had reshaped America in his youth. During a decade when a growing interest in solving problems afflicting urban areas came to a climax, many of the Johnson administration efforts inevitably focused on cities. But along the way, American intellectuals, journalists, and politicians had stretched the term, “urban,” to connote a wide array of physical and social ills, only some of which were confined to cities. Meanwhile, national events—especially the shocking riots in African American neighborhoods in cities across the country—magnified the multiplying concerns into the “urban crisis” and brought urgent calls for bold and innovative policies to save the urban poor.

The search for grand transformative solutions to urban problems produced wildly contradictory approaches. While unrest in the racial ghettos and the apparent failure of old programs encouraged bottom-up community participation in new programs, excitement over the military missile and space programs inspired policy makers, improbably, to apply top-down systems planning and budgeting methods to solve the “urban crisis.” Yet despite the feverish excitement, no one knew exactly how rocket science and large-scale systems management would cure the cities.

Intoxication with such new and incoherent ideas shaped the Model Cities legislation and as much as any other factor caused its demise. Indeed, the sober perspective of a later day reveals...
that policies such as Model Cities and the belief in the urban crisis itself arose from a unique historical moment when leaders and thinkers left the practical world and ascended into the celestial realms of imagination.

**Swinging for Home Runs**

More than any other president before or since, Lyndon Baines Johnson (LBJ) was passionately involved with American housing and urban policy. Over the course of LBJ’s five years in office, his administration produced four major housing programs (in 1964, 1965, 1966, and 1968), created a national cabinet department for housing and urban affairs, and incorporated into the Civil Rights Act of 1968 a far-reaching ban against discrimination in any kind of real estate transaction concerning housing.

As the long-time legislative leader of the Democratic Party in the Senate, Johnson generally thought of political achievement in terms of legislation. His ambition for his presidency was to induce the Congress to pass large and important programs, and he pushed himself and his staff relentlessly to do so. He did not wish to make small incremental steps. LBJ wanted, as he used to say, to hit home runs.

Events, to some degree, dictated Johnson’s priorities. Johnson already believed in racial equality, but the movement to protest segregation and discrimination—at first focused on the South—impelled civil rights to the top of the national agenda. LBJ had made rebuilding the nation’s cities one of his top domestic priorities, when, as the civil rights movement seemed to be cresting, a series of violent upheavals engulfed African American urban neighborhoods each summer of his presidency. In these disorders, often sparked by police arrests of a local resident, blacks fought police, started fires, and looted stores in riots. In 1964, sporadic violence broke out in several cities, including the widely separated neighborhoods of Harlem and Bedford-Stuyvesant in New York City. The following summer, on the evening of August 11, the Watts section of Los Angeles erupted, and after about a week at least thirty-four were dead, hundreds injured and almost 4,000 people arrested—the worst urban violence since the Detroit riot of 1943. In 1966, violence struck the West Side of Chicago and the Hough section of Cleveland. The following year numerous cities exploded, but the worst was Detroit, in which four days of upheavals left 43 persons dead and more than 7,200 people arrested. After the assassination of Martin Luther King, Jr. in April 1968, rioting hit numerous cities, to deadly effect in Chicago, Baltimore, and Washington, D.C.
Johnson both responded to and exploited the upheavals. With the national news media relentlessly reporting the riots and political leaders loudly decrying them, Johnson felt compelled to act. Shocked that the Watts upheaval occurred only days after he had signed the Voting Rights Act, LBJ went into hiding before finally speaking out on August 26. Although he was furious at the rioters, Johnson nonetheless sent over $29 million in aid to Los Angeles in the month of September.\(^1\) In the following years, the president condemned the lawlessness and destruction, but also proposed a wide range of urban and housing legislation to deal with the ghettos. In 1968 he used the occasion of the assassination of Martin Luther King, Jr. and the ensuing violence to persuade the Congress to adopt an unprecedentedly broad fair housing law.

Even though he was as shrewd a legislative politician as ever plied the trade, Lyndon Johnson was also a dreamer, who as much as anyone in the idealistic 1960s, longed for transformational change. A New Dealer in his youth, Johnson remembered the profound impact made by Roosevelt’s rural electrification program on the depressed farmlands and the promise and excitement of regional planning by the Tennessee Valley Authority (TVA). Throughout his presidency, he sought programs that would totally remake sections of American society such as the slums and ghettos. He described his programs in grandiose language as crucial steps toward achieving a new world. Whereas his Democratic predecessors in the White House called modestly for new approaches, be it a New Deal or a New Frontier, for the American people, Johnson wanted nothing less than to create a Great Society. In a strange sort of way, LBJ’s hunger for societal transformation resembled the “revolution” called for by extreme fringe elements in the United States of the 1960s. Indeed, Joseph Califano, Johnson’s trusted assistant for domestic policy, considers Johnson a “revolutionary” for his wish to remake the United States into a just society.\(^2\)

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The signature anti-poverty program of the Great Society agenda exemplifies LBJ’s urge to transform America. When Johnson learned from Walter Heller that members of Kennedy’s Council of Economic Advisers and Bureau of the Budget had proposed an experimental “attack on poverty,” LBJ told Heller he approved but wanted something “big and bold.” Instead of a set of low-key trial programs, Johnson raised the stakes by announcing in his first State of the Union address that his administration declared an unconditional war on poverty in America. The Economic Opportunity Act of 1964 provided a great sum of money for Sargent Shriver, whose arm Johnson twisted into leading the vaguely defined effort. In time, Johnson would be delighted by some of the Office of Economic Opportunity programs and dismayed by others. The anti-poverty effort was vintage LBJ: a grand sweeping declaration of goals followed by a rushed attempt to propose a general approach in legislation, and then finally putting a program in place—with little attention to administration. The creation of the Model Cities program followed much the same course.

When All the World Seemed Urban

Feeding the frenzy for policy making in LBJ’s Great Society was the craze for the all-encompassing concept known as “urban.” The obsession with the urban, which eventually became known as the urban crisis, brought to a climax a long effort to bring attention to urban problems and find ways to solve them.

Although a succession of improvers—sanitation and tenement reformers, settlement house workers, city planners, public housers, and the like—had struggled since before the Civil War to improve conditions for slum dwellers, it was not until the post-World War II era that American journalists, intellectuals, and lawmakers placed the affairs of cities and metropolitan areas at the top of the national agenda. After the war, many city leaders felt suddenly optimistic that they could reverse the bedraggled state of their long-neglected communities and supported the urban redevelopment subsidies embodied in the Housing Act of 1949. So that their cities could compete with the booming suburbs for upscale white residents, “new breed” mayors joined hands with corporate executives to tackle the job of improving local government (services), restoring downtown, and redeveloping blighted areas. At first most faced the challenges confidently, declaring that the choice of “progress or decay,” in the St. Louis Post Dispatch’s oft-repeated phrase of the day, required prompt and bold action. The national press acclaimed the

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3 Johnson, The Vantage Point, 71-81, 74 (quotation).
imaginative plans of “new breed” mayors and their city planners in cities such as Philadelphia and New Haven and awaited the physical and economic renewal that would result.\textsuperscript{4}

In the mid-1950s, however, the departure of the upper and upper-middle class, physical blight, and municipal fiscal troubles continued unabated, and a note of anxiety entered into the national discourse on cities. In the title of his 1955 book, Brooklyn journalist Fred Vigman declared a \textit{Crisis of the Cities}, apparently the first—but by no means the last—to invoke the urban crisis. With politicians incompetent to stave off insolvency, Vigman argued, the centers of cities such as New York, Chicago, Boston, Pittsburgh, and Los Angeles were dying like old mill and mining towns. The culprits were better-off city dwellers who “have stolen out of the corporate limits of the cities, taking with them the funds that could be taxed and the organizational abilities of the employing and white collar classes.”\textsuperscript{5}

The elastic term of “urban” could stretch over great sweeps of territory, incorporating not only suburban areas but much of the countryside as well. A chorus of commentators condemned fast-growing suburbs as bastions of sterile and possibly dangerous conformity and decried the spreading metropolitan landscape as ugly sprawl. Proponents of regional planning argued that the interdependent nature of metropolitan areas required controlling physical and economic development in the rural hinterland as well as the cities, ideas that opponents of suburban sprawl and highway congestion could embrace. The geographer Jean Gottman expanded the urban empire still further in propounding the concept of “megalopolis.” In his widely-heralded 1961 tome, Gottman argued that the entire northeastern seaboard of the United States, a region stretching from suburbs of Boston to the areas outside the District of Columbia and in which 38 million people dwelt, constituted a single urban entity.\textsuperscript{6} Still, most policy makers and commentators considered cities proper to be the major arenas for action, and this belief grew stronger as the events of the decade unfolded.


At first, many believed the problems of the cities primarily concerned physical planning and government services. Guided by editor William H. Whyte, in 1957, Fortune magazine produced a set of essays on the metropolitan scene that considered the topics of the car, city government, the slums, sprawl, and, in Jane Jacobs’ provocative debut of her urbanist theories, a critique of the attempts to revive downtown. The table of contents of Gordon Mitchell’s popular book, Sick Cities, published in 1963, reads like a directory of city government departments: water, recreation and parks, police, fire, schools, libraries, waste disposal, and municipal budgets. The list of worries also included air and water pollution, traffic congestion, and the perennial favorite, blight.\(^7\)

Gradually social problems gained importance in the discussion of the problems of the cities. The fear of crime first appeared in renewed public concern about “juvenile delinquency,” a focus of social and criminal justice reformers since the dawn of the twentieth century. In the late 1950s, juvenile delinquents gained the spotlight, thanks to lurid exposés in the popular press, melodramas on stage and film, and farcical attempts by the United States Senate to link their behavior to comic books and television. During the 1960s, rising urban crime rates propelled safety and law-and-order issues forward in local and national politics.

Increasingly, education became a popular solution for urban social problems. At first books and movies offered exposés of conditions in city schools that followed in the wake of the juvenile delinquency topic—most famously, in the mid-1950s the popular novel and film, Blackboard Jungle. In the 1960s, the glimpses of life in urban public schools progressed from Bel Kaufman's humorous if sympathetic account of teaching in a large high school, Up the Down Staircase (1964), to Jonathan Kozol's angry memoir, Death at an Early Age (1967). Efforts at improving the education of inner-city children ranged from local and metropolitan plans to achieve racial integration programs to federally funded anti-poverty programs such as Head Start (for pre-school children) and Upward Bound (for high school-age youth).\(^8\)

Most discussions of urban problems in the 1950s omitted or barely mentioned race relations, discrimination, or any sort of racial issue. This was surprising, given three inescapable

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trends in American society: the large influx of African Americans, Mexicans, and Puerto Ricans to large cities since World War II; the determined and sometimes violent resistance to their arrival in white neighborhoods; and the progress of the civil rights movement, including the Supreme Court’s decisions on discrimination in housing and schools. An unspoken taboo kept urban racial questions beneath the surface until the 1960s when first conflicts over school and housing integration efforts and later ghetto riots forced them to the top of everyone’s list of pressing city problems. The burning of the black neighborhoods, in particular, shocked Americans and transformed the way people thought about the plight of the cities. Race, in historian Robert Beauregard’s words, became the “defining characteristic of the urban crisis.” Thus, from the mid-1960s, racial issues increasingly influenced the debates over federal housing laws.9

Community Cures for Urban Ills
A flow of money followed the concern about urban problems, drumming up further interest in cities and broadening the scope of urban subjects. Numerous philanthropies, including the Twentieth Century Fund and the Russell Sage Foundation supported research on urban affairs. None was more active in funding urban initiatives and research than the Ford Foundation, which between 1957 and 1963 handed out $30 million for what it called urban and regional affairs. Supplementing corporate support, Ford helped the American Council to Improve Our Neighborhoods (ACTION) finance an ambitious series of volumes and conferences on city issues in the late 1950s and early 1960s. Ford’s $675,000 grant helped scholars from MIT and Harvard University to found the Joint Center for Urban Studies in 1959, one among several new urban research centers that foundations helped start in this period. Like others engaged in urban affairs, the founders of the Joint Center for Urban Studies cast their nets widely, setting out as their goal basic research “on the physical environment of cities and regions, the social, economic, governmental, legal, technical, and aesthetic forces that shape them, and the interrelations between urbanization and society.”10

In an effort to solve urban problems that would have profound implications for national policy, the Ford Foundation also began expending significant sums of money to sponsor experimental programs in several cities. Disillusionment with the earlier prescriptions for the city’s problems, metropolitan-scale government and urban renewal, led foundation officers—led by Paul Ylvisaker—to implement the Gray Areas programs. By giving grants to school departments, government projects, and nonprofit agencies, they hoped to devise new ways of delivering services in low-income neighborhoods and uplifting their residents. Ford also supported another initiative, Mobilization for Youth, started by Richard Cloward and Lloyd Ohlin, two faculty members at the Columbia School of Social Work, to combat juvenile delinquency on Manhattan’s Lower East Side. Cloward and Ohlin believed that individual frustration with slum conditions and racial discrimination caused juvenile delinquency and therefore they planned Mobilization for Youth as a broad attack—including job training and mental health counseling—on neighborhood social conditions.

These efforts laid the groundwork for the Johnson administration’s anti-poverty and urban programs, including the Community Action Program (a provision in the 1964 Economic Opportunity Act) and Model Cities programs. Reflecting the expansive definition of urban affairs, these projects spread out from discrete problems to large concepts of culture, economics, and discrimination with a field of action ranging from individuals to entire regions.11

Away from the mainstream of the large liberal foundations emerged a quite different approach to urban problems known as community organizing. During the late 1930s in Chicago’s impoverished Back-of-the-Yards neighborhood, Saul Alinsky, a University of Chicago criminologist, had pioneered the idea of applying union organizers’ methods to assist low-income urban residents in gaining political leverage to force local government and institutions to respond to their community needs. With the help of the Catholic Church and small foundations, he set up the Industrial Areas Foundation to help organize other powerless communities. Although Alinsky always adapted his tactics according to the situation, his core approach was to find home-grown leaders, and unite local residents to overcome their own problems. Charles Silberman brought Alinsky national attention in his best-selling book, Crisis

in Black and White, when he presented community organizing as one of the few viable solutions to urban racial problems (in contrast to the efforts of the Ford Foundation, which ironically had helped fund his book). The success of the Industrial Areas Foundation in mobilizing previously apathetic African American populations in cities such as Chicago and Rochester attracted civil rights and anti-poverty activists who studied his techniques and popularized the Alinsky motto of self-determination for local communities.  

Along with the civil rights movement, the community organizing field helped establish the idea that local citizens, even if poor, must shape urban programs. Whether or not they accepted the confrontational style that was a hallmark of Alinsky organizations, the leaders of the Ford Foundation and similar efforts adopted the goal of self-determination as a key to reversing the demoralization of the poor. As a result, the principle of citizen participation became enshrined in federal policy. In the 1960s, Johnson’s Community Action and Model Cities programs required local bodies to enable “maximum feasible,” “widespread,” or at the least “adequate” participation of a project’s area residents in its urban improvement schemes.

**The Federal Government Meets the Urban Crisis**

The occupants of the nation’s bully pulpit both tapped into the rising sense of urgency about cities and whipped it up further. Although President Dwight D. Eisenhower waxed and waned on city policies, near the end of his term in office, he sponsored a Commission on National Goals, which included urban and metropolitan issues on the list of priorities. John F. Kennedy, who had appealed directly to city interests in his campaign for the presidency, attempted unsuccessfully to establish a new federal cabinet department of “Urban Affairs and Housing,” similar to the Department of Agriculture but with broad jurisdiction over all federal programs that dealt with cities and their metropolitan areas. Less visible at first but influential was Kennedy’s President’s Committee on Juvenile Delinquency and Youth Crime, which was run out of the office of the Attorney General, Robert Kennedy. It was designed in part by Lloyd Ohlin and following a parallel track to Mobilization for Youth and the Gray Areas Programs.

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Thanks to the current of events, Lyndon Johnson, a man who knew little about cities, became the American chief executive most associated with urban affairs.¹³

Johnson took a breathtakingly wide-ranging approach to problems of the cities. In 1964, he sent Congress a special message on housing and community development, in which he discussed urban renewal and urban transportation. In January 1965 LBJ took up the issues of “The City” in his State of the Union address and called for development of entire metropolitan areas, beginning with neighborhood health and recreation centers. Two months later he delivered a special Message on Cities to the Congress. In it, he declared, “Throughout man's history, the city has been at the center of civilization. It is at the center of our own society.” The president then laid out the reasons for his housing and urban development legislative proposals in the broadest terms. The city’s problems, he explained, concerned people and the quality of their lives, homes and neighborhoods, schools, beauty and nature, recreation and an end to racial discrimination. In February 1968, Johnson sounded a grimmer note in a Special Message to the Congress on Urban Problems entitled “The Crisis of the Cities.” Entreaty the Congress to pass the ambitious Housing and Urban Development Act of 1968, he noted the ongoing decay, rising crime rates, illiteracy, disease, tenements, traffic jams, and rats.¹⁴

This broad approach to urban affairs informed the long campaign to create a special urban cabinet department, which in 1965 finally bore fruit. Almost lost to modern memory is the early aspiration that this new agency would preside over societal issues far beyond the responsibilities of its predecessor, the Home and Housing Finance Agency (HHFA). At a time when United States social policy focused heavily on cities, the label “urban” —originally to precede “housing” in the title of the agency—implied a constellation of programs, social and physical, covering entire metropolitan areas. Johnson officials seriously considered, for example, removing the sewer treatment system from the Department of Health, Education, and Welfare, and the community action program—the front-line force in the War on Poverty—from the Office of Economic Opportunity and placing both in the new urban department.¹⁵

¹³ Eisenhower in 1954 sponsored a landmark housing and urban renewal bill, but in the late 1950s attempted for fiscal reasons to cut the budgets of such domestic programs. Gelfand, Nation of Cities, 284, 323-335.
¹⁵ Gelfand, Nation of Cities, ibid; Memo, Harry McPherson to Bill Moyers, January 14, 1966, Folder, Dept. of HUD 11/21/65-01/25/66, Box 252, Lyndon Baines Johnson Library, Austin, Texas (hereafter LBJ); Whitney M. Young to
Because they wanted to replace the old housing agency with a wide-ranging urban policy department, Johnson and his deputies were especially keen to have a dynamic visionary lead the new agency. They preferred men such as Walter Reuther, the idealistic chief of the United Auto Workers or Ben Heineman, the imaginative head of the Northwestern railroad company. If they had to settle for Robert Weaver, a cautious housing expert whose public persona was drier than sand, Johnson’s men planned to surround him with “junior Goldbergs,” a reference to Arthur J. Goldberg, the energetic liberal labor lawyer Kennedy had named Secretary of Labor and Supreme Court Justice, “to bring to HUD some of the zeal – coupled with sound, tough executive management – of the New Deal days.” Johnson eventually chose Weaver to head the new department, which never acquired the other functions its planners had hoped it would. Political considerations scaled back the grand ambitions: the home builders, for example, demanded that the word “housing” be placed first in the title, and opposition from other agencies prevented the department from acquiring their programs. That HUD evolved into a basic housing and planning agency, however, should not obscure the original vision of a holistic, interdisciplinary entity implementing transformative programs covering the entire “urban” world of the United States.

Indeed, such was the excitement over urban policy in the late 1960s that some federal officials proposed connecting the two major battlefronts then facing the United States: cities and Vietnam. In 1967 Robert W. Komer, President Johnson’s special assistant for Vietnam, sent Robert Weaver a breathless memo inviting Weaver to gear up an urban policy machine—with all attendant planners, academic experts, and innovative solutions—to take to Saigon, South Vietnam’s capital and largest city, to remedy that nation’s urbanization problems in the postwar era. Nicknamed “Blowtorch Bob” for his scorching style of arguing, Komer possessed “a deathless optimism that the war would be won and a near-religious faith in the power of facts and statistics to help win it.” To assess the situation in Vietnam, Komer urged, Weaver should

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bring along the veteran public houser and international planning consultant, Charles Abrams. Komer suggested that Weaver also contract a think tank, such as the Institute of Urban Environment at Columbia University, and perhaps hire consultants, for example the well-known anthropologist Oscar Lewis, to nail down Vietnam’s incipient urban crisis. Although the following year the Tet Offensive put a damper on this plan among many others Americans had for Vietnam, the idea reflected both the excitement and comprehensiveness of the term, “urban” in the late 1960s. 18

In the meantime, the increasing outbreaks of violence in American cities gave an even greater sense of urgency to the urban crisis. Here and there, a few skeptical voices doubted that an all-encompassing emergency had engulfed the metropolitan areas of the United States. But with the headlines and television blaring the news of the latest ghetto riots, most experts and lawmakers concluded that something had to be done immediately, and whatever it was should be new and innovative.

The Military’s New Alchemies

The connection between the urban crisis and the war in Vietnam was not as far-fetched as at first it might seem. Just as the national anxiety about cities was peaking, government officials and policymakers outside government sought answers to the myriad of urban social and physical problems from, of all places, the United States military.

The military entered domestic policy by way of the idea of “systems”—and all the technological wonderments it connoted—which promised to solve all manners of problems, urban and otherwise. First developed at the end of and just after World War II in weapons design—especially of automated radar and gun control anti-aircraft artillery—the systems approach in the 1950s moved to large-scale military engineering of intercontinental missiles and air defense and during the 1960s reached large engineering projects—most spectacularly the space program but also notably the Bay Area Rapid Transit system. With its expanding number of esoteric techniques, the systems approach projected a vision of a world in which experts ran

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18 Robert W. Komer to Robert C. Weaver, April 6, 1967, Folder: Committee on Postwar Vietnam Planning, Box 10, General Records of HUD, RG 207, NA.
19 Perhaps the most articulate doubter was Edward C. Banfield. See The Unheavenly City: the Nature and Future of Our Urban Crisis (Boston, Little, Brown, 1970).
large-scale operations through the wizardry of complex mathematical computations and technically sophisticated machines.20

An array of messengers disseminated the vision to the public outside of weapons production. Norbert Weiner prepared the nation with his best-selling books on “cybernetics” (the science of communications and control) and automation, but none proselytized more effectively for the systems gospel than the RAND Corporation. The U.S. Air Force set up RAND—the simple acronym for Research and Development—in 1948 as an autonomous operation to help choose and evaluate new weapons systems. With an interdisciplinary staff that included social as well as physical scientists, RAND eventually took up a wide array of research projects that included civilian as well as military topics. To overcome the limitations of operations research and applied mathematics, RAND’s mathematicians and economists investigated a variety of methods—game theory, probability statistics, linear and dynamic programming, mathematical modeling and simulation, network theory, and cost-benefit analysis, among them—to create what they dubbed “systems analysis.” In the process, David Hounshell observes, they generated a mystique about RAND, systems analysis, and quantitative methods that proved hard to resist.21

The military-scientific collaborations both encouraged and profited from the advent of computers, and, of course, the new machines in turn produced their own electrifying aura of transformation. In 1944, a team of scientists, with the help of John von Neumann who is perhaps best known for his work on game theory, developed an early numerical computer for use of the U.S. Navy. In 1948 Bell Labs produced a machine that featured a stored program, an idea of von Neumann’s, and over the next ten years military and government funding fueled a stream of discoveries and inventions. By the late 1950s, the big boxes had begun to affect daily life and after the introduction of IBM’s System/360 in 1964 became almost a necessity for large businesses. With the ability to do rapid mathematical computations, computers made it feasible

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for researchers at RAND and elsewhere to carry out many highly complex methods of quantification, such as modeling. Like medieval alchemists, the ability of the systems analysts to draw upon the mysterious powers of the computers further added to their mystique.\textsuperscript{22}

Other organizations devoted to the systems approach found lucrative niches in the burgeoning military procurement and development business. The Ramo-Woolridge Corporation (today TRW, Inc.), for example, founded in 1953 by two scientists from the Hughes Aircraft Company, specialized in systems-engineering and management of the military’s large missile programs. The Massachusetts Institute of Technology's Digital Computer Laboratory and Lincoln Laboratory helped develop the continental air defense system, Semi-Automatic Ground Environment, and the MITRE Corporation was started by the Air Force in 1958 to run it. Not surprisingly the General Electric Company, a firm with a long history of research and development, started its own department, the Technical Military Planning Operation or TEMPO, to cash in on military contracts for rockets and missile planning and research.\textsuperscript{23}

Cold War rivalries propelled the nation’s space program, which proved even more spectacular to the public than the military’s ever-more deadly and far-reaching weaponry. The Soviet Union’s launch of Sputnik, the first man-made satellite, in October 1957 administered “the shock of the century” to the United States. With damaged national pride and fears that Russian satellites might someday be used to carry missiles, the American government leapt full tilt into a space program, creating in July 1958 the National Aeronautics and Space Administration (NASA). Soon after John F. Kennedy took office, the Soviets embarrassed the United States again by sending Yuri Gargarin on an orbit around the earth in 1961, thus laying claim to sending the first human in space. The next month Kennedy declared to Congress that the United States would send a man to the moon by the end of the decade. Throughout the 1960s, NASA, with great fanfare and national publicity, sent astronauts into space for increasing amounts of time and whetted the public’s appetite for ever-more astonishing feats. Military and rocket engineers became heroes of the day, featured on the covers of popular magazines, and the

\textsuperscript{22} Hughes and Hughes, “Introduction,” A Brief History of Computers and Networks, Part II, \texttt{<http://goldenink.com/computersandnetworks2.shtml>}.  
new aerospace industry joined the Pentagon as a source of research and development contracts for the military tech firms.

Like the military weaponry and strategy production, the space program depended upon the new systems approach. The common knowledge and practice of systems was unsurprising since the web of government agencies, companies, and university laboratories that researched and managed the nation’s space program overlapped so much as to be a department in the nation’s military-industrial complex.

During the 1950s and 1960s the new methods—including complex mathematical techniques such as modeling and the use of computers—migrated outwards from military and space programs to other sectors of American society, including those which dealt with the urban complex. Influenced in no small part by RAND and the other high-technology research and development companies, the academic social sciences—including economics, political science, and sociology—adopted the new quantification methods, computers, and systems. Urban planners rushed into the new world, seizing on models, computers, and satellite photography as the keys to analyze, forecast, and plan metropolitan land-use and traffic patterns. Public administration and city management professionals grew ecstatic over the idea that systems analysis and computers could bring local governments revolutionary gains in efficiency. Moreover, the systems approach permeated the thinking about urban problems and the ideas for policies to solve them.

The Promise and Reality of the Planning-Programming-Budgeting System

The new fashion for systems spread to accounting and management, quickly gaining popularity in business schools and from there to government agencies, including those whose purview was domestic welfare programs. Most famously, the “Whiz Kids,” a group of veterans of the Army Air Forces’ Statistical Control Office led by Robert McNamara, arrived at the Ford Motor Company after the war where they implemented systems management. Not long after McNamara completed his ascent to the presidency of Ford, president-elect John F. Kennedy named him to be his Secretary of Defense. Under presidents Kennedy and Johnson, he now helped complete the circular route of the systems approach, from the Air Force to business

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management and back to the armed services, including the Air Force. From the Pentagon, McNamara provided an impetus to spread the systems approach throughout the federal government—including the Department of Housing and Urban Development.

McNamara’s great accomplishment at the Department of Defense was to implement a new systems approach to management, accounting, and long-term planning similar to that which he and the other Whiz Kids had pioneered at Ford. With the help of RAND researchers Charles Hitch and Alain Enthoven, McNamara from 1961 to 1965 implemented the method known as Planning, Programming, and Budgeting (PPB) or sometimes Planning-Programming-Budgeting System (PPBS). According to Robert N. Anthony, an accountant who took a leave of absence from the Harvard Business School faculty to assist McNamara at the Defense Department, PPB consisted of strategic planning, management control, and operational control. Besides its technical complexity and apparent ability to plan far into the future, PPB had an added advantage to managers. As McNamara demonstrated with the generals and admirals of the armed services, the management system allowed a few top people to centralize control without a wholesale restructuring of the organization.

PPB and attendant systems analysis entered the civilian side of the federal government, oddly enough, through the War on Poverty. While preparing the administration’s anti-poverty program, Sargent Shriver began to consult with McNamara, and even named the Defense Secretary’s special assistant, Adam Yarmolinsky, to be his second in command. By then, two factions within the government were struggling over the character and direction of the nascent Community Action Program. On one side were the Council of Economic Advisers and the Bureau of the Budget who saw the Community Action Program as a method of coordinating the anti-poverty efforts. On the other side were those associated with the President’s Committee on Juvenile Delinquency and Youth Crime (set up by John F. Kennedy) who believed the involvement of the poor would help them break out of the isolation of poverty and alienation. When Southern legislators forced Yarmolinsky out of the new Office of Economic Opportunity for heretical views on civil rights, leaders of the latter group made community action into a

26 Jardini, “Out of the Blue Yonder,” 317-327. More particularly, PPB included such innovations as program accounting—bookkeeping by task rather than type of expenditure; multiyear costing, with estimates far beyond the customary single fiscal year; detailed explications of long-and short-term goals; zero-base budgeting, calculated for total expenditures rather than extrapolated from a previous year or base-line budget; and quantitative evaluations of alternatives, often through cost-benefit analysis. Lorentz A. Feltes, “Planning, Programming, and Budgeting; a Search for a Management Philosopher’s Stone,” Air University Review, Vol. 27 No. 2 (January-February 1976), 87-88.
highly decentralized and democratic system based on legislative language that called for “maximum feasible participation” of the poor.27

When the local community action organizations began stirring up political controversy around the country, the president insisted that the government get community action under control. The Bureau of the Budget officials under Charles L. Schultze set in motion a plan to use the PPB management approach to ride herd on the troublesome poverty program. For his assistant, Schultze relied on Henry Rowen, a Whiz Kid and former RAND associate. Schultze and Rowen proposed to Joseph Califano, LBJ’s domestic policy adviser and also a former member of McNamara’s Department of Defense staff, a plan to implement PPB in all the civilian government agencies. Califano was enthusiastic about the prospect of putting order on what he considered the “unsystematic and chaotic and anarchic” agencies.28

Deeply unhappy with the rowdy community action organizations and always drawn to big, bold, transformational-sounding approaches, Lyndon Johnson was unable to resist McNamara’s techno-planning management system. On August 25, 1965 the president ordered that the entire federal government adopt the planning-programming-budgeting system, an action he announced to the nation the same day at a press conference. Another president might have called it an innovative tool of accounting and policy to improve the efficiency of the government. Not LBJ. He proclaimed PPB to be “a very new and a very revolutionary system of planning and programming and budgeting,” so that “the full promise of a finer life can be brought to every American at the lowest possible cost.”29

As impressive as PPB sounded, however, its implementation at the federal housing agency resembled a dog chasing its own tail. In October 1965, the Bureau of the Budget sent instructions for implementing PPB to dozens of civilian federal agencies, including HHFA, soon to be subsumed in the Department of Housing and Urban Development. With experiments underway in several cities to adopt the defense department’s accounting and management methods, Federal Housing chief Weaver endorsed the new policy with the hope that modern data collection and analysis would make urban renewal more effective. But Schultze larded his

instructions for PPB with exotic new terms—program categories, program elements, systems analysis, operations research—and thorny tasks such as comparing benefits and costs of alternative programs and predicting the entire future budget of “total systems.” Few people outside the defense department had the slightest idea what he was talking about. To initiate government employees into the new accounting, the Budget Bureau arranged with leading universities to conduct a one-year training program to teach such unfamiliar skills as macro-economic theory, computer applications, and systems analysis in public policy.

Although Weaver invited HUD staff members to apply for the training, the assignment of implementing PPB at HUD fell to Weaver’s undersecretary for policy analysis, William B. Ross. May 1966 found Ross asking his colleagues to comment on whether such basic and timeworn phrases of housing policy as “increase the supply” and “decent, safe, and sanitary” reflected the kind of objectives for the department’s “Program Memoranda” that would pass muster at the Bureau of the Budget. Ross later bravely waded into the tangle of federal housing assistance programs, taking stabs at finding ways to compare them. Measuring federal “costs” was only somewhat complicated by interest rates and tax exemptions, but nothing compared to “benefits.” Quantifying them was difficult enough, but “non-quantifiable environmental impacts” proved too murky to reduce to numbers. Ross published his scheme in a leading economics journal with a plea for help with this Sisyphean task.30

Besides the difficulties of grafting alien methods of budgeting and policy analysis onto an entrenched bureaucratic structure, two core concepts imported from the military—a unified structure of analysis and a central command—complicated attempts to apply PPB to housing policy. Mapping existing federal housing programs seemed simple compared to plotting the intricate forces at work in cities. To diagram the ever-changing and almost infinite activities and conditions of urban life in a single model was virtually impossible. Systems zealots took up the challenge in the hopes of discovering effective methods of urban renewal, producing models that were complex to the point of absurdity and, more importantly, of little use in making policy decisions. At the same time, the systems’ advocates demand for single centralized control of

government efforts in the cities faced an enormous obstacle in the multiple nodes of entrenched political power within both cities and government bodies. Moreover, central command flew in the face of the rising clamor for citizen participation in social and urban programs.\textsuperscript{31}

**Rocket Science for Cities**

Inevitably, the urban crisis converged in the minds of technicians, academics, and government officials with weapons production, space engineering, and the new quantified management techniques. As city planning and management professions adopted the systems approach, true believers such as James Webb, NASA director from 1961 to 1968, celebrated the fusion of systems management and engineering practices which he dubbed “Space Age Management,” and proselytized for employing it in great social engineering projects—like the TVA—that would rescue the nation’s cities and metropolitan areas from their plight. Webb and similar-minded zealots saw urban regions as a complex of large-scale systems, analogous to the inter-continental missile production, and therefore amenable to a vast national application of systems methods like that in the space program. For these highly optimistic souls, the cities were complicated and dynamic but ultimately controllable. It was simply a matter of using rocket science.\textsuperscript{32}

Besides the propaganda, much of the impetus to bring the new technologies and management techniques to bear on urban problems came from aerospace companies looking for more work. In the early 1960s such groups as CONSAD Research Corporation, composed of former employees of RAND and major aircraft companies, and the Arthur D. Little Company led the way by pulling contracts from the governments of Pittsburgh and San Francisco to produce master plans and urban renewal programs. Simon Ramo, co-founder and vice chairman of the automobile part and aerospace concern TRW, Inc., pushed the company to diversify into “civil systems,” in which systems engineering and project management were applied to such areas as environmental recovery, mass transportation, housing, and health care delivery. In 1966, RAND itself set up a department to compete for urban planning and government administration jobs that would exploit their systems analysis, modeling and computing expertise, and General Bernard A.


Schriever, an expert in missile development and former head of the Air Force Systems Command, founded Urban Systems Associates, Inc. or USA, Inc. which teamed up with aerospace, defense, and technology firms including Lockheed, Northrop, Control Data, and Raytheon.33

The effort to apply science and engineering to the problems of the cities escalated in California, where governor Edmund “Pat” Brown was seeking ways to expand business opportunities for the aerospace and defense industries that had become vital to the state’s economic growth. In 1963, the Ford Foundation and NASA co-sponsored a “Conference on Space, Science, and Urban Life” in Oakland, California. Here prominent academics including Martin Meyerson, director of the Joint Center for Urban Studies, space and weapons industry engineers, and city officials gathered to discuss Oakland’s city manager challenge to defense and aerospace scientists and engineers to take up “the problems of our space-age cities.”34

Enthralled by the seemingly endless possibilities of space age engineering, the presidents of leading organizations of local governments— the National League of Cities, the International City Managers Association, National Association of Counties—wrote to vice-president Hubert Humphrey on May 20, 1965, to urge the use of “advanced scientific and technological capabilities …to increase the efficiency and effectiveness of urban government and to resolve some of our most difficult urban problems.” Specifically, the municipal officials asked Humphrey to encourage the federal government to set up a national program of research, development, and experimental applications of scientific and engineering programs relevant to urban problems, including the establishment of one or more national urban research centers to determine “the nature of the good city,” how to achieve it, and how federal research and development in the atomic energy, defense, and space programs could be applied to urban problems. The United States Conference of Mayors threw its support behind their counterparts’

34 Light, Warfare to Welfare, 111.
sweeping proposal, and the vice-president, a man of boundless enthusiasm, eagerly pressed the matter with Weaver.\textsuperscript{35}

Weaver wrote back to Humphrey that he strongly approved of exploring the use of science in urban affairs but, with customary caution and common sense rare at the time, the housing minister argued against getting carried away. Techniques such as operations research and systems analysis that worked in “closed systems” such as weapons production, Weaver pointed out, might not work in the “messy, ecological environment of the urban area” where individual decisions about where to live or what public services to use “can play havoc with any assumptions built into the analysis.” The numerous political decision-makers and differences in “community values” in cities further complicated the picture. And Weaver noted that the HHFA-funded studies of urban planning and transportation that used systems analysis neglected the non-quantitative social and aesthetic dimensions of urban affairs.

Although his misgivings about easy solutions were unusual among the advocates of technology and the systems approach in urban affairs, Weaver too believed that science was the way of the future. Already the agency had worked with the Department of Defense and representatives of the aerospace industry to work up proposals for using systems analysis to solve housing and urban design problems and eventually he hoped that the proposed new Department of Housing and Urban Development would contain an Institute of Urban Development to direct research utilizing the most advanced scientific methods.\textsuperscript{36}

With Weaver giving the green light, the staff of the federal housing agency went into action, plotting out the agency’s position vis-à-vis science and technology, planning a meeting of experts, and drafting a exploratory memo about the ways research and development might create “technological breakthroughs” to assist the mass production of low-income and vacation homes, housing rehabilitation, water and sewerage systems, and so on. Noting that mathematical modeling and systems analysis already were used in urban mass transportation planning, the report’s authors speculated about experimenting with such techniques to build a planned city of about 100,000 residents. By December 1965 the department had completed a short report to Humphrey on “Science, Urban Affairs, and the Federal Government.” The report spoke

\textsuperscript{35} Henry Maier, Mark E. Keane, and Edwin G. Michaelian to Hubert Humphrey, May 20, 1965, Folder: Conference on Science and Urban Affairs, Box 10 Committees and Conferences, Secretary Weaver’s Subject Files; 1960-69, RG 207, NA.

\textsuperscript{36} Robert C. Weaver to the Vice President Hubert Humphrey, June 16, 1965, ibid.
generally of communications, engineering, and systems aiding transportation construction and government management and contemplated funding universities to pursue research (much as the military did). Like the memo that preceded it, the report was long on possibilities and short on specifics.37

The municipal officials’ petition bore more fruit the following year when the newly formed Department of Housing and Urban Development (HUD) and the Office of Science and Technology in the Executive Office of the President put together in June 1966 a three-week Summer Study on Science and Urban Development in Woods Hole, Massachusetts. The location and format were significant—for years the Defense Department and NASA had used the facilities at Woods Hole to hold summer institutes on missile and space research. The government brought together almost 50 non-government experts and, for short stints, a rotation of almost an equal number of government officials. The civilian invitation list sprinkled a few housing reformers, architects, and doctors among many defense and technology experts and consultants—such as Thomas O. Paine of the General Electric Company and Jack H. Irving of the Aerospace Corporation. The newly appointed assistant secretary of HUD, Robert Wood, formerly a political scientist at MIT and a passionate believer in the urban uses of science, served as chair. By then even Weaver seemed to have gotten into the spirit of the thing, declaring that cities now required “the kind of forced-draft technological effort that characterized the development of space and weapons.”38

Under the theme of the “New City in the City,” the government officials called the experts to elaborate the technological possibilities in five categories: rehabilitation, new housing construction, environmental engineering, transportation, and health services. The problem was that besides research that was already underway elsewhere for other purposes—in the environmental arena or in planning, for example—there were few obvious applications of existing technology to urban problems.39

Perhaps for this reason, the participants used the summer seminar as an opportunity to dream. It fell to the writer of the conference’s glossy report to make the case for urban rocket science

even in the absence of actual applications. Comparing a city to a spaceship might seem absurd, but if one understood that the city was an intricate combination of systems—health, circulation, law enforcement, entertainment, and the like—the possible futures need only be imagined and invented. It was a matter of using systems analysis to understand and manipulate the black boxes that ran the cities.40

The health panel dreamed of holistic coordination: computer databases shared by health, welfare, schools, and police departments and neighborhood health care centers that—like the Model Cities program that was passed later that year—would focus federal, state, and local government agencies on providing not only medical but financial, legal, and educational services. The imaginative transportation panel proposed testing several elements of a complex HUD transportation system of jitneys, buses, “dynamically scheduled minibuses,” corridor flow control, and automated highways to reach an eventual goal of a computer-controlled system for 10,000 vehicles. Drawing inspiration from the recently formed communications satellite corporation, the participants in the rehab panel came up with an idea for a Comsat Corporation for Housing, which would fund large-scale builders and “systems companies new to the housing field such as Litton Industries and Lockheed” to mass-produce low-cost housing. Working at a large volume and with advanced technology would cut time and cost of construction in half.41

The New Housing panel was somewhat stumped by the roadblocks of the fragmented and small-scale housing industry, traditional building methods, and conservative local building codes, although it did envision computer simulations of HUD’s operating procedures and the housing market. To revolutionize the housing industry, the panel urged a national research and development for “advanced urban technology,” which would rely heavily on the physical sciences, and also “the economic, health, social, political, and legal sciences.”42

Underneath the enthusiasm for the brave, new world of urban rocket science, however, there ran in 1966 and 1967 a strong current of bewilderment about how exactly to solve urban problems. In one of those uncanny insights into a social milieu that artists can provide, the novelist Thomas Pynchon caught the sense of excited anticipation and incomprehension of

40 Torrey, Science and the City, 6-9.
Americans trying to contain the urban complex within the new technological order. In The Crying of Lot 49, published in 1966, a character sits on a hillside overlooking the urban sprawl of Southern California, the sight of which triggers an intense emotional experience fused with the memory of the time she first saw a printed electronic circuit inside a transistor radio.

The ordered swirl of houses and streets, from this high angle, sprang at her now with the same unexpected, astonishing clarity as the circuit card had. Though she knew even less about radios than about Southern Californians, there were to both outward patterns a hieroglyphic sense of concealed meaning, of an intent to communicate. There’d seemed no limit to what the printed circuit could have told her (if she had tried to find out); so in her first minute of San Narciso, a revelation also trembled just past the threshold of her understanding.43

So it was for the advocates of rocket science for cities. They too could sense the revelation that trembled just beyond apprehension, but the specifics of what to do—the exact applications of the new world of systems, operations, technology, and deep research—remained imperceptible somewhere over the horizon. Until the new world finally came into sight, most talked of process, potentials, and further research.

In June 1966, as RAND entered the urban field, RAND researcher Frederick T. Moore warned a gathering of operations research colleagues that in seeking to apply systems analysis to urban issues, they should stick to small problems. Dealing with large areas of urban and regional affairs raised enormous questions—how much to emphasize a policy area such as health or housing over the others; what criteria should be used to choose the proper mix of public and private methods; and how to protect individual privacy from the massive data collection urban analysts required. To answer such questions would require untold amounts of data.44

Indeed, absent precise ideas of how to proceed immediately, almost all the panels at the 1966 Woods Hole conference called for large, generously funded research programs, preferably carried out by think tanks. The road to the methods for applying operations and systems analysis, technology, and other aspects of rocket science was scientific research, composed of theoretical models, data collection, experimental programs, and evaluation, ideally with PPB, of the policies and programs. The idea of a RAND-type organization for urban scientific research

was already in the air—Weaver had proposed one as part of the new cabinet department before Congress threw it out—and RAND itself was bidding to become that very thing.45

But one think tank might not be enough—after all, a plethora of research laboratories fed off the military weaponry and space rocket contracts. To put urban research on a scientific basis, Robert Wood in 1962 had thought to create a network of “urban observatories,” analogous to the field stations and data centers used in the physical sciences. Three years later, Henry W. Maier, the mayor of Milwaukee, discovered the idea and enlisted help from the National League of Cities, the Urban Studies Department of the University of Wisconsin (Milwaukee), the Joint Center for Urban Studies of MIT and Harvard, and the Urban Studies Center of Rutgers—the latter three stocked with the sort of urban experts who might participate. In November 1967 the Ford Foundation gave MIT $3 million to establish an interdepartmental “laboratory for urban systems research.” In 1968 the National League of Cities obtained support from HUD and the federal Office of Education to establish several urban observatories where university scholars would conduct, in coordination with their counterparts at other research stations, general research on urban problems at a national scale and also carry out particular local research projects to help local governments.46

Although some cooler heads evinced skepticism about the high tech as a panacea, the cluster of ideas associated with rocket science rushed onwards unabated in the late 1960s. A national urban think tank, proposed repeatedly in reports and conferences on modern urban science and management and “explicitly modeled on RAND,” became reality after the Congress in 1968 accepted Johnson’s proposal to create what became the Urban Institute. The great hope that technological innovation could vastly increase housing production at lower costs inspired the President’s Committee on Urban Housing in 1968 to call for a “High Technology Housing

Industry,” although it acknowledged that the innovations that would create such an industry were unknown and lay in the future. More specifically, the search for technological innovations led George Romney, the Secretary of Housing and Urban Development during the first term of Richard Nixon, to champion Operation Breakthrough, a short-lived but well-publicized program for using new prefabricated building techniques.47

The Making of Model Cities

Perhaps no legislation expressed the welter of ideas and impulses at work in the Great Society more than the Model Cities program, officially established in the Demonstration Cities and Metropolitan Development Act of 1966. The frustration with the urban renewal and public housing programs, the desire for bold transformative programs, the belief in the holistic idea of “urban,” the urgency of racial issues arising from the violent eruptions in the nation’s ghettos, the belief in efficiencies to be obtained from great coordinated systemic efforts, and the faith that research and development would produce new knowledge and more effective methods (as seemed to be the case in the military and space programs)—all these helped produce and shape Model Cities. The program embodied both the notion of citizen participation in programs—which had powerfully shaped the Community Action Program of the Office of Economic Opportunity (OEO)—and contradictorily, the idea that government officials would control the implementation of the program.48

47 Light, From Warfare to Welfare, 223. Appointed in 1967, the President’s Committee on Urban Housing is often known as the Kaiser Committee after its chairman, Edgar Kaiser. President’s Committee on Urban Housing, Minutes of the Full Committee Meeting, April 27, 1968, Records of the President's Committee on Urban Housing, Box 41, LBJ; Lyndon B. Johnson, Special Message to the Congress on Urban Problems, “The Crisis of the Cities,” February 22, 1968; President’s Committee on Urban Housing, A Decent Home: The Report of the President’s Committee on Urban Housing (Washington, DC: Government Printing Office, 1969), 187-205.

The Model Cities program rose from the impulses that brought forth other Great Society social programs. The Kennedy Administration’s Committee on Juvenile Delinquency, the Ford Foundation’s Gray Areas Programs, and the Kennedy-Johnson anti-poverty initiatives inspired both Community Action and Model Cities. The central ideas behind these efforts, as Edward Banfield, summarized them, were “the prevention…of poverty, especially among the young, through concentration of efforts by a wide range of public and private agencies in order to change the character of an entire district in accordance with a carefully made plan.” In addition, the government and Ford Foundation officials believed in concentrating their funds in a few projects that would serve as demonstrations for others to follow and in inviting citizens, no matter how humble, to plan the government programs that affected them.49

Like other pieces of Johnson Administration legislation, Model Cities originated in a presidential task force, actually two task forces. The Task Force on Metropolitan and Urban Problems, one of thirteen domestic policy committees Johnson commissioned in 1964, recommended several items that would re-emerge two years later as elements of the proposals for Demonstration Cities. Chief among these were flexible block grants, intergovernmental coordination, and the choice of two or three existing “demonstration cities” to achieve socio-economic “balance” and discover effective ways to deploy present and future urban programs.50

The task force, chaired by MIT political economist Robert C. Wood and heavily influenced by the veteran planner-public houser Catherine Bauer Wurster, reflected the current thinking about urban affairs.51 It took as a starting point the need for new approaches because the old ones had fallen short: urban renewal had failed to stop the deterioration of neighborhoods and public housing served too few and was unpopular. Reflecting the broadening sense of urban affairs, the Task Force recommended that an attack on city problems involved improving both the physical and social environments, specifically recommending funds for social development

facilities (such as “community centers, health stations, and cultural and scientific centers”). With a call for coordination and concentration of program efforts, the committee combined old notions of coordinated city planning with the new belief in multifaceted systems approach.\(^{52}\)

At the end of a long list of diverse recommendations about urban renewal, transportation, housing, and economic development, the panel members called for “demonstration cities,” especially selected to try out existing and new programs based on long- and short-term planning “both for city-wide renewal and a comprehensive program of human services.” This last proposal was brief and one of many, but the panel attached a proposal in an appendix that went into somewhat more detail.\(^{53}\)

When Walter Reuther, the liberal head of the United Auto Workers, read the report—courtesy of task force member and mayor of Detroit Jerome Cavanaugh—the proposal in the appendix inspired him to write an eloquent memo to the president on behalf of such a city demonstration project. Reuther interlaced his argument with the sorts of images and ideas that appealed to LBJ. Invoking the vision of the Great Society—with Johnson’s own words at the famous University of Michigan speech—the labor leader urged the conversion of neighborhoods in six of the nation’s largest cities into “architecturally beautiful and socially meaningful communities.” He declared that these large-scale “singular dramatic and immediate” demonstrations of physical rebirth would serve as an “urban TVA” that would “stop the erosion of cities and people” as the original TVA had done for the countryside. In case that wasn’t exciting enough, Reuther also drew an analogy to the moon program, calling the demonstration projects “laboratories for the war against poverty and ugliness in the urban environment.”\(^{54}\)

Reuther hit the right notes. Johnson responded to the big, bold sound of the program, with its potential for completely transforming inner-city slum neighborhoods. The shocking violence that broke out in the Los Angeles district of Watts in August 1965 reinforced the president’s sense of urgency about a large new urban program. In September, he called for another task force and again chose Robert Wood to head it. To serve on the task force, presidential assistant Joseph Califano and Wood chose academics and nationally known figures

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in business, labor, and government—including Reuther and LBJ favored executives, Edgar Kaiser, head of Kaiser Industries and Ben Heineman, the president of the Chicago and North Western Railway.

At the outset, Califano pointed the task force toward two ideas in particular: demonstration projects that would rebuild entire neighborhoods and flexible federal block grants to cities. And, Califano told the Task Force, LBJ wanted proposals that would yield spectacular results while Johnson was still in office.55

Like many observers in the 1960s, the members of the 1965 task force believed that the “urban problem” covered a broad range of ills, and they reiterated those that the previous year’s task force had delineated. Among the many problems of cities, the task force declared, were unmet housing needs, a growing urban population, the chronic failure to build enough low-income housing, the inability of poor blacks to escape the racial ghettos, the lack of adequate transportation, the increasing cost of municipal government, and even air and water pollution.56

In the same all-encompassing spirit, the task force members set out principles for the demonstrations that were to contrast with the way that urban renewal and public housing programs had been carried out. The demonstration projects, the task force explained, should increase the total supply of low-income and moderate-income housing by massive amounts, combine physical reconstruction with social programs and a sensitivity to human concerns, allow local governments to operate flexibly and unconstrained by existing administrative arrangements, and alter existing building regulations and labor practices. In keeping with the widely-held perception that discrimination kept African Americans locked into ghettos, the panel also called for greater civil rights in the provision of housing.

An extraordinary agenda, to be sure, but the task force members believed they knew why the urban ills had not been solved before. The fragmented, uncoordinated, and rigid nature of government bodies was the problem. To remedy it, the task force called for concentrating all available government resources, coordinating efforts and aid, and mobilizing local leaders to involve the citizenry in their own decisions. Hence, the task force drew on the same divergent

55 Frieden and Kaplan, Politics of Neglect, 38; Banfield, “Making a New Federal Program,” 131. The other members were Whitney Young, director of the National Urban League, William Rafsky, urban renewal administrator for Philadelphia, Charles Haar, a professor at the Harvard Law School, and Kermit Gordon, a former member of the Council of Economic Advisers and director of Bureau of the Budget.
and contradictory ideas of systems efficiency and community participation that had inspired the Community Action Program.

The task force, not surprisingly, brought the government’s scientific engineering programs into the discussion. Following the precedent of research and development contracts for the space program and electron accelerator project, the task force recommended that government officials lay out criteria for the demonstration programs and then invite cities to compete for the funds. In this way, they could ensure that cities met their goals without the federal government dictating the methods or local approaches.57

In addition, the task force urged—like its 1964 predecessor—a full program of research and development to produce innovations in construction, technology, and building practices that would be essential to the success of the demonstration cities. Here again the space program captured the imagination of the people who contemplated the urban dilemma. This was the policy version of the popular saying of the time, which became a cliché, that if we could send a rocket to the moon, we should be able to fix the cities. Such thinking contributed to a provision in the Model Cities law that encouraged technological innovations through systems analysis and cost reduction techniques by way of Planning-Programming-Budgeting System.58

Despite the early notion that the demonstration would take place in a few carefully selected locales, the task force report called for demonstration projects in 66 cities. Panel member Connecticut Senator Abraham Ribicoff persuaded his colleagues that the Congress would only consider authorizing funds for the demonstration program if a large number of cities were included. Thus, to spread the appeal of the program to diverse geographic and types of communities, the report proposed that the program select from different regions sixty-six cities of different population sizes.

On December 22, 1965 the task force sent its report to the White House, which with almost no review adopted it as an important plank in the administration’s domestic policy. In the

57 The funding competition had the added advantage of encouraging local initiative, as the Community Action Program aimed to do, but without poaching on the authority of city officials. Frieden and Kaplan, Politics of Neglect, 44-45.

following month, the White House filled the first important posts at HUD—after an agonizing
process, the president named Weaver as Secretary, and task force chair Wood as Under
Secretary—and the new team at the agency translated the task force report into a bill. As usual,
Johnson approved the concept but took no interest in the details of the program. Califano
considered it only briefly, consulting with but paying no heed to Secretary of Labor Willard
Wirtz who did not think the scheme for concentrating federal funds in neighborhoods feasible.
At his State of the Union Address on January 12, 1966, Johnson recommended “a program to
rebuild completely, on a scale never before attempted, entire central and slum areas of several of
our cities.”

On January 26, a little more than a month after the report arrived in the White House, the
president sent a special message to Congress along with the bill to provide $2.3 billion to assist
demonstration programs for rebuilding slums and blighted areas, and providing services to
improve the welfare of those who live in those areas. The bill mostly followed the task force
recommendations, but it gravely weakened the coordinating administrative structure. The
administration’s legal draughtsmen had removed the task force’s provisions to create the office
of federal coordinator, set up a Council of Interdepartmental Coordination, and allow HUD to
draw on the funds of other agencies. The bill’s writers also did not specify the number of cities to
participate, but in testimony Weaver offered sixty to seventy, a figure in line with the task force’s
suggestion.

If the Demonstration Cities idea passed quickly through the Johnson administration, its
navigation through the Congress in 1966 was not so easy. The secrecy with which the Johnson
Administration had prepared the Demonstration Cities bill surprised congressional housing
subcommittees’ members and aides, who had not expected any major new proposals from the
administration. Moreover, because of problems in the economy, lagging spending in current
programs, and political campaigns, according to Robert Wood’s assessment, the Congress
viewed “any new domestic legislation” with suspicion. After the New York Times reported in
May 1966 that the program appeared dead in the Congress, an angry president ordered a full-

60 Frieden and Kaplan, Politics of Neglect, 53-54. According to Banfield, Weaver and Bureau of the Budget director
Charles Schultze thought the president wanted to start with five to ten cities, but quickly realized that the
61 Memorandum for the Files from Under Secretary Robert C. Wood, May 2, 1966, Subject: The Legislative
Situation, Folder 04/07/66-09/16/66, Box 253, LBJ; Frieden and Kaplan, Politics of Neglect, 56-58 (Daley
quotation, 57).
scale lobbying effort—mobilizing the major housing interest groups, the AFL-CIO, and a blue-ribbon committee of business leaders. 62

Ongoing debates over the race issue became entangled with the Model Cities legislation. The two task force goals of balanced communities and freedom from discrimination in housing survived in the proposed legislation in wording that pushed for freedom of choice in housing. This only raised the hackles of opponents of integration who deluged their representatives with letters protesting the bill, and southern Democrats in the Congress were wary. To mollify the conservatives, the bill’s managers dropped the explicit requirement that the projects counter segregation by race or income.

Further complicating the progress of the Demonstration Cities act were a set of hearings held by Abraham Ribicoff in August 1966 to investigate the urban crisis. Now in the third summer of ghetto riots, liberals such as Ribicoff felt anxious about the drift of events. Like the members of the presidential task forces, Ribicoff and his subcommittee colleagues defined the dimensions of the urban crisis as so far-flung as to take in almost every aspect of society. On the first day of the hearings, Ribicoff announced a sweeping agenda for exploring “the problems of police protection, health, justice, welfare, education, employment, economic development, finance, community organization, urban planning, housing, renewal and rehabilitation, transportation, environmental pollution, legal services, and more.” 63 Nothing less than a Marshall Plan, declared New York Senator Jacob Javits, would stem the crisis. Despite Ribicoff’s strong support for the Demonstration Cities program, the hearings became a forum for expressing discontent with the Johnson Administration’s policies. Leading the charge was Robert F. Kennedy, Johnson’s political rival who used the hearings to criticize the administration for not doing enough to cure ghetto conditions and promote his own program of local economic development. 64

With such threats raising the stakes, LBJ did what he could to get the bill passed, but the legislative campaign took its toll on the program. To garner more political support, the White

62 Banfield, “Making a New Federal Program,” 138; Frieden and Kaplan, Politics of Neglect, 57-58;
House scaled back the amount of money for Demonstration Cities to $900 million over two years, less than half of the original amount proposed. More significantly, the administration dangled before members of Congress the possibility of awards to cities in their districts. As a result, the understanding about the number of municipalities mushroomed to about 150. Thus, as the program’s historians have noted, the funds for what were to be massive coordinated efforts to transform slums physically and socially would now have to stretch over more than double the number of jurisdictions that the 1965 task force proposed, which itself was a far cry from the handful of experiments which the early proponents had envisioned.65

The bill that LBJ signed, the Demonstration Cities and Metropolitan Development Act on November 3, 1966, renamed the program Model Cities so it would not be associated with the protest demonstrations that had become a part of civic life in the 1960s.

**Model Cities and the Ineffable Urban Crisis**

But its name was the least of its problems. Rooted in the inchoate sense of the urban, the Model Cities law spoke of transformation but kept its goals wrapped in obscurity. From the time the law was passed, a number of observers outside government noted the vagueness of the program’s objectives and means. “The urban crisis,” Charles Haar concluded in retrospect, “and the solutions offered by the bill, like Lewis Carroll’s snark, were everywhere.”66

As to the program’s methods, contradictions abounded. Federal agencies, notoriously independent and jealous of their prerogatives, were to coordinate activities and pool budget funds, but HUD lacked the authority or compulsion to enforce their cooperation. HUD would lay out guidelines for local governments to construct detailed and comprehensive plans—even though the urban renewal program had been trying to affect a similar scheme since 1954 to no avail. As a result, despite HUD’s designation of coordinators to oversee the agencies’ work, the program never developed the kind of interagency and intra-governmental synchronization that the task forces had envisioned. In the communities, a model city agency was supposed to encourage local citizens to participate in planning in line with the desires of elected officials—at

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65 Califano, *Triumph and Tragedy* 133; Frieden and Kaplan, *Politics of Neglect*, 55-56, 59-60; Memo, Robert C. Weaver to Harry C. McPherson, January 24, 1966, Folder: Chron January-February, Box 184, Subject correspondence files of Robert C. Weaver, RG 207, NA.

a time when citizens were banding together to fight city hall on issues ranging from urban renewal to school integration. Once priorities and personnel were straightened out, this same body was to invent new ways to achieve the old goals of urban renewal, subsidized low-income housing, social services, education, and public health—each already administered by their own entrenched agencies—along with new goals such as employment training and placement.67

It was no surprise that the implementation of the Model Cities law began with confusion and delay. HUD staff members had to write and rewrite the guidelines that they sent to eager but befuddled local officials. Eventually, after much arguing about the decision-making process, the number and choice of citizens to take part in the agency and decisions, and the types of programs, the participating cities responded to HUD’s call for comprehensive plans and proposed an array of programs. Of course, the approach varied from one locale to the other. The hardest schemes—such as different kinds of economic development—often fell by the wayside.

Even after the Model Cities program was up and running, the methods of systems operations and rocket science were never realized. Memoranda from the Model Cities Administration spoke the language of information systems and program planning, but both federal staff and local communities were hard pressed to adopt the methods of rational planning and evaluation. Nor was the agency able to introduce the centralized control, unity of effort, data collection and analysis, or technological innovations that were associated with the new ways of running government programs. Existing bureaucratic red tape was one of the obstacles. So was the inability of the federal agency to provide technical assistance to its local partners, which like other aspects of Model Cities, was hindered by the program’s “all encompassing objectives.” Attempts to adapt systems-analysis game playing to Model Cities were, like so much of the contemporary thinking, divorced from concrete urban realities: in regard to the participants in a Model Cities game, a manual instructed “Do not let them discuss their real local situation.”68

Left to their own devices, local groups used Model Cities to expand the array of services that governments at one level or another provided. Many were community centers of one sort or another: elderly centers, day-care centers, youth centers, employment agencies, and health clinics. Local model cities agencies often included physical development, including construction of new and especially rehabilitation of existing housing, as part of the neighborhood plans,

67 This and the following are drawn from Frieden and Kaplan, Politics of Neglect, passim.
although often by parties outside the agencies and not always successfully. Even if many of the activities instigated by Model Cities programs were not new, they provided services that many neighborhood residents found worthwhile.69

And Model Cities accomplished something else valuable, which was not part of the original plan. It provided an entry point for members of ethnic groups that had been excluded from local government and political organizations. In the agencies, African Americans and Hispanic professionals and staff members, who might otherwise have been shut out of government, could start down the career tracks in public service and administration. They were able to participate because the citizen participation element of the program required leaders who had the trust of minority residents and because the local model cities agencies were created outside the existing structure of government.

Years later, liberals such as Califano blamed the administration of President Richard M. Nixon for not funding the program sufficiently, but vagueness about means and the internal contradictions of the notions about policy in vogue in the 1960s would have been obstacles no matter how much money was appropriated for the program.70

More surprising, perhaps, was that despite opposition to it from the president, high government officials such as Floyd Hyde and even John Ehrlichman supported the program. These administration officials saw the block grant approach of Model Cities as a version of the kind of revenue sharing they wanted to implement in federal domestic programs. After Model Cities was terminated in 1974, such features as urban development goals, local flexibility, and formula grants lived on in its successor program, community development block grants.71

**Conclusion**

The zeitgeist of the 1960s, with its infatuation with all-embracing concepts, revolutionary technology, and transformational methods, had perhaps the perfect leader in Lyndon Johnson. The Great Society administration embraced the urban crisis, synchronicity, rocket science, and PPB, and all while the president goaded his deputies to find more bold programs that would fundamentally change America for the better. As many have pointed out, the soaring goals Johnson proclaimed could never be fulfilled and therefore invited disillusionment. Still,

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69 Sasso and Priscilla Foley, *A Little Noticed Revolution*.
70 Joseph Califano, phone interview with author, New York City, April 28, 2008.
although his outsized personality makes it seem otherwise, Johnson was as much a product as a promulgator of his times. If Johnson exploited a widespread and bipartisan support for change, his field of action was defined in large part by the ideas that others produced.

In that regard, it is worth noting that in retrospect much of the fervent and at times feverish urban policy discussions of the 1960s concerned process more than substance. Despite the talk of revolutionary approaches, many of the government programs aimed at familiar targets. From the White House to city halls, government officials continued to hold tightly to the long-standing goals of better housing and urban renewal. Even the expansion of urban betterment efforts to include social programs—seen as an innovation at the time—for the most part only shifted to government the responsibility for certain social work that had been done previously by charitable and philanthropic organizations.

For the most part, the new approaches were about new methods. Some of these, such as systems analysis, were inspired by science and engineering. Others, such as citizen participation, came by way of grassroots social reform of the civil rights and community organizing movements. Their advocates presented them with breathless excitement about the new worlds they could create but few specifics about how they would get there.

Inevitably, perhaps, many of the largest ideas foundered when applied to actual political and social realities. PPB faltered when the Bureau of the Budget, which advised the president on departmental budget requests, tried to get the federal agencies to submit their reasoning not just their program budgets, a step that implied surrendering the basic function of the departments to decide what programs to pursue. In 1971 the Nixon administration dropped the PPB requirements of multi-year program and budget plans, analytical studies, and the like. The concept of the city as a set of large systems, which were amenable to systems analysis and operations research, fell apart when policymakers confronted the reality of urban life. The people in charge of running things in cities realized that the multiplicity and complexity of services, activities, and functions in and around urban areas required taking them up one at a time. The notion of synchronicity, which underlay the Model Cities program, gradually fell by the wayside. Localities could get some teamwork out of their local departments, but the

structure of the American polity precluded centrally controlled or even well-coordinated efforts by several federal agencies or federal and local agencies.

Many aspects of the ideas and methods that first emerged in the urban and housing policies of the 1960s endured, however, albeit not at the comprehensive scale at which they were supposed to operate. If no longer traveling under PPB or other rubrics, systems and policy planning methods such as cost-benefit analysis, mathematical modeling, and measurements of program “outcomes” became standard in policy evaluations by scholars, foundation officers, and government officials. Centralized control proved impossible, but the idea of decentralized programs and citizen participation, pioneered in the Community Action and Model Cities programs, took hold in community development block grants, enacted in 1974 and still popular today. Technologies that were trumpeted as innovative remedies for urban problems—Geographic Information Systems, cable television, and, of course, the now-ubiquitous computer—came to be used for many purposes, including but not restricted to urban affairs.\(^73\)

What changed most was the context of policy discussions. Sometime in the late 1970s or early 1980s, the urban crisis disappeared from the national dialogue about domestic problems. Since then liberal veterans of the 1960s have lamented its passing. Seeking culprits to blame for its disappearance from the national scene, they have pointed to Republican presidents Richard Nixon and Ronald Reagan and the general ascendancy of conservative politics—from the popularity of the “realist” social commentators to the backlash against civil rights.\(^74\)

Few of the mourners have understood, however, that the “urban crisis” was a product of the convergence for a brief time of certain perceptions about domestic issues in the United States. In the 1960s as in years past, reformers, local and federal government officials, and housing industry leaders believed that cities were failing, that national well-being depended on their vitality, and that physical improvements—of housing, redevelopment, and transportation in particular—were essential to reversing the decline. But now, urban advocates concluded that social and racial problems also plagued cities and these too must be solved if there were ever to be a genuine urban renewal. For those few intense years of political fervor, many spoke of a

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\(^{73}\) Light, *From Warfare to Welfare*, 124-231.

national urban policy, which included everything from planning new cities to providing day-care centers for inner-city toddlers.

Although the political move in a conservative direction helped to change the national agenda, what most undermined the urban crisis was the erosion of the fundamental assumptions upon which the concept rested. The first was that the nation needed healthy cities to survive. Although downtowns and inner-city neighborhoods continued their downward spiral, most Americans were more worried about inflation, unemployment, and high fuel prices. Furthermore, as more Americans came to live in the suburbs and exurbia than in cities, the sense of urgency about conditions in cities faded. In this context, the election of Reagan to the presidency in 1980 reflected the new order. Reagan, after all, had built his political career in California by championing suburban tax payers.75

The belief in physical redevelopment, the second concept integral to the notion of the urban crisis, persisted in the 1970s, but housing and rebuilding the cities became less of a priority. In addition to the change in political focus mentioned above, the failure of the policies of the 1960s to halt the shocking deterioration in certain inner-city neighborhoods—most notably those in the South Bronx—encouraged a retreat from the traditional building programs. New policies that emerged—such as the rental voucher and the Low-Income Housing Tax Credit—did not specifically address physical deterioration. At the same time, articles in the press that cheered the arrival of small numbers of upper-middle-class families in central city neighborhoods (a long-standing goal of urban redevelopment policies) as an urban revival may have further mitigated the sense of crisis.

Last, but by no means least, the fragmenting of the array of issues that clustered under the urban crisis umbrella destroyed the fundamental assumption of a holistic “urban.” Sensing interrelationships in the organic urban concept, in the 1960s the authors of policy prescriptions urged renewal programs that took on social as well as physical issues. But from the 1970s onward, the debate over poverty grew apart from the question of how to save the cities. Education, welfare, and civil rights became separate policy areas in which programs of charter

75 Robert A. Beauregard, “Why Passion for the City Has Been Lost,” Journal of Urban Affairs 18: 3, 217-231. In 1970 for the first time, the proportion of Americans living in suburbs (37 percent) was higher than in either cities or rural areas and a majority (54 percent) of the population of metropolitan areas dwelt in suburbs. In 1980, percentage of the national population living in suburbs had climbed to 45 percent and the suburban share of the total metropolitan population rose to 60 percent. Carl Abbott, Urban America in the Modern Age-1920 to the Present (Arlington Heights, Ill.: Harlan Davidson, 1987), 6-7.
schools, work requirements for aid, and affirmative action were debated without regard to housing or neighborhood revival. Indeed, both conservatives and liberals agreed on the necessity of uplifting members of the “underclass” so they could escape cities. Although still associated with cities, the solution to social problems no longer depended on solving city problems.

Of course, in the 1970s America’s cities still suffered from problems as great if not greater than before. The near-bankruptcy of the city governments (most spectacularly, that of New York), arson and building abandonment in inner-city neighborhoods, and continual high crime rates were but a few of the grave issues that urban areas faced. But the sense that the nation faced a single all-encompassing urban crisis faded, and with it went the belief that a grand sweeping government program—such as Model Cities—could mend broken city systems.

Gone was the brief but intense moment when urban policy escaped its practical and earthbound existence and, propelled by the power of imagination, soared up and away into the wild blue yonder.
The New Urban Crisis doesn’t look far beyond the US and UK. If it did, Florida would see that cities are more affordable and function better in countries where people respect each other more. Japan, for example, which is hardly mentioned, or the more equitable countries of northern Europe, or Canada. And the idea that the British government could not help solve London’s problems is laughable. No other body has the power to introduce rent regulation, to ensure that private landlords pay their taxes (huge numbers avoid it), to ensure that schools and hospitals are properly funded, that walking, cycling and public transport are encouraged, that the air is made cleaner, and so on and on. Florida says very little about public services. Futurama: Into the Wild Green Yonder is a 2009 American direct-to-video adult animated science fiction comedy-adventure film based on the animated series Futurama, and the fourth and final of the direct-to-DVD films that make up the show's fifth season. The film was written by Ken Keeler, based on a story by Keeler and David X. Cohen, and directed by Peter Avanzino. Guest stars include Phil Hendrie, Penn Jillette (credited with Teller), Snoop Dogg and Seth MacFarlane, who sings the theme song. In the