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ABSTRACT

It is proposed in this document that the selectivity of migration, in terms of both people and places become a more imposing influence in urbanization as the role of natural increase as a source of urban growth diminishes. Recent U.S. growth policy proposals have frequently been marked by a simplistic view of how urban growth works, compounded by an exaggerated sense of what policy has in its power to do. On the one hand, policymakers fail to perceive the full momentum of demographic change that could be guided; but they also underestimate the force of demographic constraints on their intended actions. This paper considers five aspects of the migration process related to these points: (1) the concentration of migratory growth in only a few metropolitan areas; (2) migration's apparently one-sided economic wisdom, arising out of the weakness of economic 'push'; (3) the potential for return migration, which derives from latent migratory predispositions coupled with new sources of retirement income; (4) wide local variations among metropolitan areas in the rate of migratory circulation; and (5) the intensifying phenomenon of urban population decline, now a characteristic of entire metropolitan areas. It is possible for a national growth policy to be development-oriented and for it to build on the processes of change. (Author/JM)

GUIDING URBAN GROWTH: POLICY ISSUES AND DEMOGRAPHIC CONSTRAINTS

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ABSTRACT

Recent U.S. growth policy proposals have frequently been marked by a simplistic view of how urban growth works, compounded by an exaggerated sense of what policy has in its power to do. On the one hand, policymakers fail to perceive the full momentum of demographic change that could be guided; but they also underestimate the force of demographic constraints on their intended actions. This paper considers five aspects of the migration process related to these points:

1. The concentration of migratory growth in only a few metropolitan areas.

2. Migration's apparently one-sided economic wisdom, arising out of the weakness of economic "push".

3. The potential for return migration, which derives from latent migratory predispositions coupled with new sources of retirement income.

4. Wide local variations among metropolitan areas in the rate of migratory circulation.

5. The intensifying phenomenon of urban population decline, now a characteristic of entire metropolitan areas, not merely their central cities.

The selectivity of migration, in terms of both people and places, becomes a more imposing influence on urbanization as the role of natural increase as a source of urban growth diminishes.

GUIDING URBAN GROWTH: POLICY ISSUES AND DEMOGRAPHIC CONSTRAINTS*

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I. INTRODUCTION

As an audience of demographers can testify, demography is an exacting, but inexact science, dependent on inadequate data and subject to analytic ambiguity. Nonetheless, it can make vital contributions to policymaking if one caveat is observed: that our understanding of how population growth and movement respond to national development trends, while improving, is imperfect.

This caveat was largely ignored in national growth policy proposals of the 1960s and early 1970s. They were often marked by a simplistic view of how urban growth works, compounded by an exaggerated sense of what policy has in its power to do.

In 1969, for example, one proposal called for a national program to build 10 new cities with populations of at least one million, and 100 new cities with populations of at least 100,000.** The logic of this proposal appeared to be: if cities are overcrowded, we will simply build new ones to siphon off the excess people. Bankers and government officials in powerful positions took the new cities idea seriously. It was an appealing solution to a new "problem."

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** National Committee on Urban Growth Policy, "Key National Leaders Recommend Large Program of New Cities for U.S.," Washington, D. C., Urban America, Inc., news release dated May 25, 1969.

Other "problem-solvers" catered to the national nostalgia for an earlier and simpler era. They decried the exodus from rural America--as though "rural America" were all one kind of place--and called for a policy of "balanced growth." No one has yet precisely defined "balanced growth" or the social purposes it would serve.* In his first annual report to the Congress this January, the Secretary of Agriculture seemed to say that it means creating a job for everyone, regardless of where they live, and reversing the longstanding trend of rural out-migration.**

There is, in these problem-solving ideas, a remarkable absence of appreciation of the constraints that demographic processes--migration in particular--impose on the attainment of stated or implied objectives. In the realm of urban growth policy at least, policymakers have too often pretended to knowledge and power that they simply do not possess. They have made a caricature of the real, enormously complex urban system by reducing it to a set of repetitive orderly relationships.

But it is not all the policymakers' fault, given some of the demographic influences on their thinking. For one thing, the policymaker is at the mercy of those intellectually treacherous measures that are used to describe concentration and dispersal or growth and decline. By a judicious choice of measure, any competent analyst can, in all honesty, show that the same population is either concentrating or dispersing.

The net migration measure, whose limitations are little appreciated outside the demographic discipline, may convey a grossly misleading impression of the process of migration and hence the dynamics of urban growth. Migration streams entail enormous slippage, and net migration is no measure of the many real-life moves involved. To say that the size of a population remained unchanged over a given interval is not to say that the same people comprised the population at the initial and terminal dates. The significance of this point will be developed later.

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*These issues are explored systematically in William Alonso, "Balanced Growth: Definitions and Alternatives," unpublished paper dated September 1973, mimeographed.

**Rural Development Goals, First Annual Report of the Secretary of Agriculture to the Congress (Washington: Department of Agriculture, 1974), pp. 1-5.

More important is the way that policymakers who seek to guide urban growth and plan development view local and regional population change. They fail to perceive the full momentum of demographic change that is available for guidance; but they also underestimate the force of demographic constraints on their intended actions.

The following sections describe several features of the migration process that warrant careful consideration by policymakers and more detailed analysis in policy-oriented demographic research. It is possible for a national growth policy to be development-oriented rather than problem-oriented; for it to build on the processes of change under way instead of ignoring or attempting to thwart them; for it to evolve as our understanding evolves, instead of catering to our yearning for master plans.

II. KEY FEATURES OF THE MIGRATION SYSTEM

1. CONCENTRATION OF MIGRATORY GROWTH

Migrants do not distribute themselves evenly among the nation's urban centers. On a national scale, population growth conferred by migration has concentrated in just a few metropolitan areas for several decades.*

For example, there were 23 metropolitan areas that grew by 20 percent or more between 1960 and 1970 due to net in-migration (Fig. 1).** As of 1965, those areas held only 10.8 percent of the entire metropolitan population, yet they drew 70.6 percent of the cumulative net migration that fed metropolitan growth during the decade, and they accounted for 27.5 percent of all metropolitan population growth.

Alonso and Medrich coined the term "spontaneous growth centers" (SGCs) to refer to these focal points in the migration system, but

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*William Alonso and Elliott Medrich, "Spontaneous Growth Centers in Twentieth-Century American Urbanization," in Niles Hansen, ed., Growth Centers in Regional Economic Development (New York: Free Press, 1972), pp. 229-265.

**All SMSAs are as of 1970; those in New England are defined as metropolitan State Economic Areas.

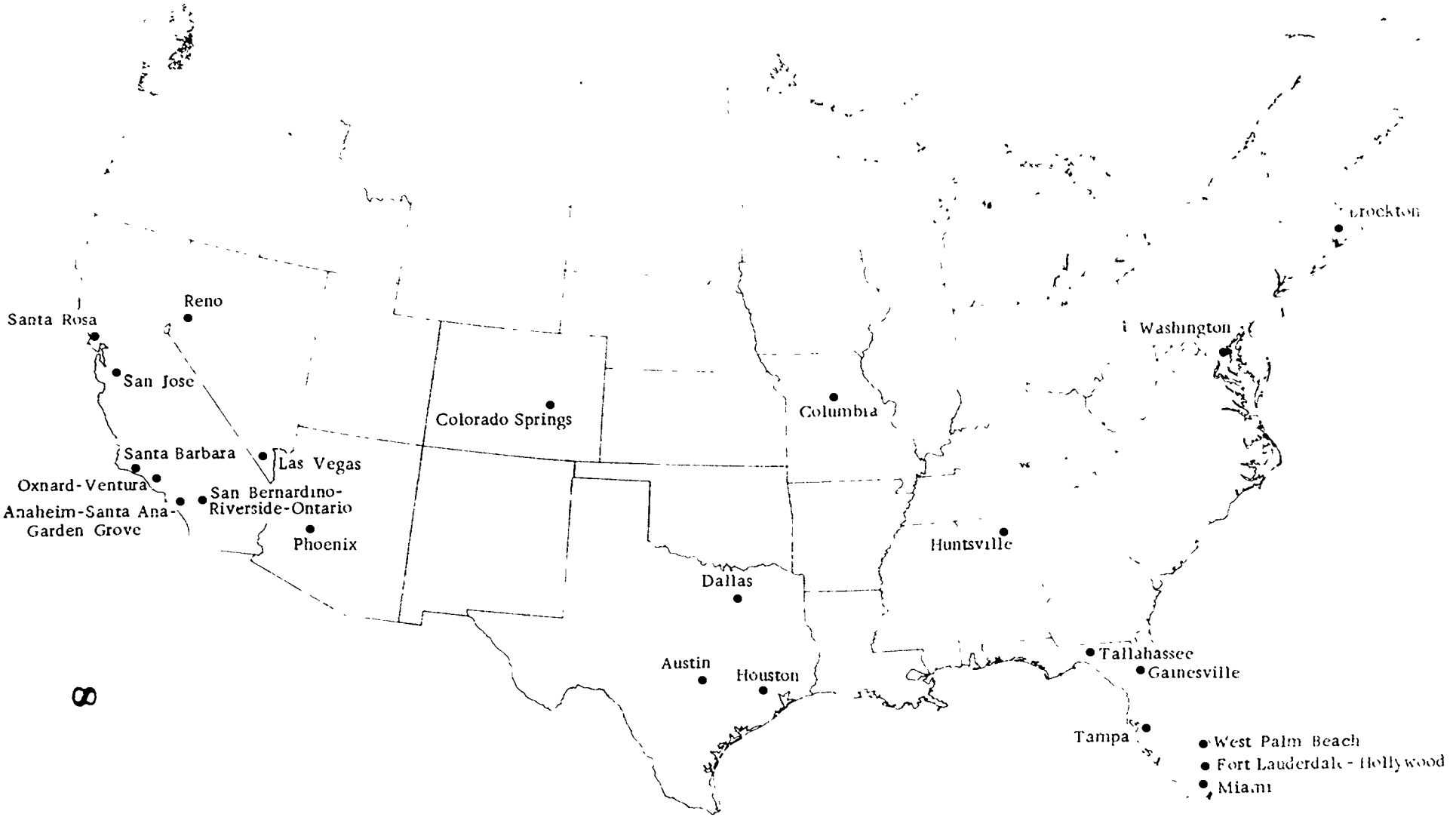

Fig. 1 -- Locations of 23 top-ranking spontaneous growth centers

"spontaneous" may not be quite exact. It is a matter of some interest whether growth related to defense expenditures and other federal activities can be called "spontaneous." Although there has been no systematic analysis of SGCs to ascertain their distinctive characteristics, one factor in their growth is certainly national defense expenditures which have exerted a major influence on the location of economic, and hence migratory, expansion.* The cumulative impact of such federal activities represents a de facto policy of selective urban growth.

2. MIGRATION'S ONE-SIDED ECONOMIC WISDOM

Migrants possess a seemingly one-sided economic wisdom. All studies agree that migrants find their way to areas where labor is in demand, but they may not always leave places where labor is in oversupply.**

Part of the explanation for out-migration's economic insensitivity may lie in people's grossly erroneous impressions of relative economic

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*James L. Clayton, "Defense Spending: Key to California's Growth," Western Political Quarterly, Vol. 15, 1962, pp. 280-293. Also see Brian J. L. Berry, "Population Growth in the Daily Urban Systems of the United States, 1980-2000," in Sara Mills Mazie (ed.), Research Reports, Vol. V: Population Distribution and Policy, Commission on Population Growth and the American Future, Washington, D. C., 1972, esp. p. 244.

**Studies which suggest this asymmetry are: Ira S. Lowry, Migration and Metropolitan Growth: Two Analytical Models (San Francisco: Chandler 1966); William Alonso, "The System of Intermetropolitan Population Flows," Working Paper No. 155, Center for Planning and Development Research, University of California, Berkeley, 1971. This interpretation receives further support at the micro level in a unique survey that illuminates behavioral aspects of this asymmetry for actual and would-be migrants. See John B. Lansing and Eva Mueller, The Geographic Mobility of Labor (Ann Arbor: Survey Research Center, Institute for Social Research, 1967).

Other studies, however, report finding a relationship between out-migration and economic conditions at origin. Blanco, Mazek, and Olvey each develop synthetic measures, like "prospective" or "potential" unemployment, to correct the improper specification of the unemployment variable. Renshaw reports that out-migration, although economically insensitive over the long term, is responsive to short-run changes in local employment growth, although not as responsive as in-migration. See: Cicely Blanco, "Prospective Unemployment and Interstate Population Movements," Review of Economics and Statistics, 46 (1964), pp. 221-222; Warren F. Mazek, "The Efficacy of Labor Migration with Special Emphasis on Depressed Areas," mimeographed, 1966; Lee Donne Olvey, "Regional Growth and Interregional Migration -- Their Pattern of Interaction," Ph.D. dissertation, Department of Economics, Harvard University, 1970; Vernon Renshaw, "The Role of Migration in Labor Market Adjustment," Ph.D. dissertation, Massachusetts Institute of Technology, 1970; "Using Gross

conditions elsewhere. Research has shown that over half the residents of federally-defined depressed areas think that conditions where they now live are just as good as anywhere else -- or even better. Nearly one-third believe that in other places the pay is lower, and jobs more scarce, in their line of work.* Furthermore, since the people who stay are generally the less migration-prone, the remaining population in areas of heavy out-migration can be expected to show a gradually-reduced potential for mobility.

Whatever the explanation may be, the question of whether migrants' wisdom is two-sided or only one-sided is of more than academic interest. The one-sided interpretation, which suggests that there is little or no economic "push," contradicts the logic of existing national policy toward distressed areas:

> A cornerstone assumption [of distressed area policy] ... is that economic distress leads to heavy outmigration, and that this inflicts upon the area of origin grave social costs as well as on the area of destination. Policies of investment in depressed areas have been based in large measure on an attempt to expand local economic opportunities and prevent economically-forced outmigration. In effect, they claim to provide people the freedom to stay in their own region ... [But if asymmetry holds,] programs of development would not have the effect of retaining the original inhabitants, but rather that of increasing the inflow of outsiders into areas which typically already suffer from a labor surplus.**

More generally, if the carrot is more influential than the stick, urban growth can be guided more readily by policies aimed at the destinations to which migrants can be attracted rather than, as some balanced-growth advocates suggest, the origins at which they cannot be retained.

Migration Data Compiled from the Social Security Sample File," Demography, Vol. 11, No. 1 (February 1974), pp. 143-148; Edward Miller, "Is Out-migration Affected by Economic Conditions?" Southern Economic Journal, Vol. 39, No. 3 (January 1973), pp. 396-405.

*Lansing and Mueller, op. cit.

**William Alonso, "The Policy Implications of Intermetropolitan Migration Flows," Proceedings of the Regional Economic Development Research Conference, U.S. Department of Commerce, Economic Development Administration, April 19, 1972, pp. 6-7.

3. THE POTENTIAL FOR RETURN MIGRATION

Contemporary migration patterns offer several striking illustrations of reverses in long-standing directions of movement. People who migrated in large numbers from the Ozark-Ouachita region* to California during the 1930s, 1940s, and 1950s appear to be reversing their steps. Between 1965 and 1970, two persons migrated from California to this region for every one who followed the traditional path leading west. Indeed, California contributed over one-third of the Ozark-Ouachita region's net migratory gain during this period.

The paths beaten by migrants thus run both ways. Many migrants, especially those who have left rural areas, maintain connections with their hometowns through family and friends, and some look forward to returning there one day. It is worth considering whether and how such sentiments for return migration might be translated into action.**

At least one group--those who are in or near retirement--appear to be a reservoir of potential return migrants. With a steady income assured regardless of location, people can become relatively footloose. People who migrated as young adults during the 1920s and 1940s, when the flow of rural-urban migrants was numerically large, have been approaching retirement age since the 1960s. Where they choose to live and whether some sizable proportion may return to their regions of origin are matters of considerable import.

New sources of income, such as the federal Supplemental Security Income Program and other income maintenance programs likely to be enacted in coming years, will expand the options of this group and may be viewed in the present context as a potential new "hidden" policy of population redistribution. They could create a population of floating consumers predisposed to migrate in highly directed ways to locales offering a favorable cost of living. In many cases these locales may be precisely the places from which such individuals departed as youths.

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*Defined here as State Economic Areas 1 through 4 and 9 in Arkansas, 7 and 8 in Missouri, and 8 through 10 in Oklahoma.

**On this point, see Calvin L. Beale, "Quantitative Dimensions of Decline and Stability Among Rural Communities," paper prepared for the conference on "Communities Left Behind: Alternatives for Development," Brookings, S.D.,May 14-16, 1973, pp. 18-19.

Attention to how urban growth evolved in the past may reveal effective ways to guide such growth in the future by strengthening these migratory predispositions selectively and according to a plan. We may be through with the past, as Bergen Evans once observed, but the past is not through with us.

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These first three points relate to national phenomena. Although the intensity of their effects on the local level may vary considerably from place to place, their principal significance is for national policy. There are two other points that pertain to the local level.

4. LOCAL VARIATIONS IN MIGRATORY CIRCULATION

Migrant influx and outflow affect the composition of a community's population and the resiliency of its labor market. But these important and basic effects are often obscure because migration is so poorly documented. For example, conventional measures severely understate the degree of migratory circulation. It is likely that the limitations of U.S. migration data and the analyses derived from them are responsible for policymakers' somewhat misshapen views of the demographic processes actually under way.

I have used Social Security Continuous Work History Sample data to estimate the approximate annual rates at which migrants enter and leave individual metropolitan areas.* These data, shown in Table 1, indicate

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*The Social Security Continuous Work History Sample registers information on a sample of one percent of the covered workers. (In 1966, covered workers comprised 88 percent of wage and salary workers nationally.) The key information for migration analysis is a report that originates in that county where an individual's earnings are recorded by his or her employer(s). Changes in this county code over time reflect migration. An overall analysis of how well the Continuous Work History Sample reflects migration is given in U.S. Bureau of the Census, Current Population Reports, Series P-23, No. 31.

Caution should be used in interpreting these data, which are not directly comparable to census migration figures. Migration behavior of workers, for example, may not provide a good indication of the migration behavior of other

Table 1

AVERAGE ANNUAL IN-MIGRATION AND OUT-MIGRATION RATES AMONG SOCIAL SECURITY-COVERED WORKERS, SELECTED LARGE METROPOLITAN AREAS[a]

Metropolitan Area[b]	Rate Per Hundred		Metropolitan Area[b]	Rate Per Hundred	
	In-Migration	Out-Migration		In-Migration	Out-Migration
Akron	6.9	7.4	Lancaster	6.1	6.2
Albany-Troy-Sch	7.0	6.2	Lansing	7.4	8.1
Albuquerque	14.4	14.8	Los Angeles	9.7	8.3
Allentown	5.7	6.1	Louisville	7.1	7.4
Atlanta	11.4	11.4	Memphis	9.5	9.9
Bakersfield	15.1	15.1	Miami	14.1	15.0
Baltimore	5.3	5.9	Milwaukee	5.3	5.6
Birmingham	8.6	10.4	Minneapolis-Stp	7.0	6.8
Boston	5.8	6.3	Mobile	11.2	11.9
Bridgeport	8.0	8.0	Nashville	9.0	9.4
Buffalo	4.8	5.9	Newark	9.0	9.8
Canton	5.9	5.7	New Haven	7.4	8.3
Charleston	9.1	10.1	New Orleans	10.4	10.3
Charlotte	12.8	13.7	New York	5.6	5.8
Chattanooga	7.8	8.9	Norfolk-Portsmo	11.1	11.8
Chicago	5.6	5.9	Oklahoma City	13.0	13.0
Cincinnati	6.2	7.0	Omaha	10.0	9.8
Cleveland	6.9	7.1	Orlando	19.1	17.5
Columbia (S.C.)	10.5	11.1	Paterson-Clf-Ps	11.2	11.6
Columbus	9.0	9.2	Peoria	7.5	7.0
Dallas	13.0	12.5	Philadelphia	5.8	6.4
Davenport-Rock	8.2	7.2	Phoenix	15.2	13.4
Dayton	7.0	6.9	Pittsburgh	5.5	5.7
Denver	12.4	11.1	Portland	9.6	9.4
Des Moines	9.8	11.2	Providence	5.6	6.5
Detroit	4.7	5.5	Reading	6.2	6.4
Duluth-Superior	6.9	8.1	Richmond	9.4	9.5
Erie	5.1	6.2	Rochester	6.1	5.5
Flint	5.1	5.1	Sacramento	16.0	12.3
Ft. Lauderdale	20.1	19.7	St. Louis	6.4	6.4
Fresno	14.2	14.7	Salt Lake City	9.9	9.8
Gary-Hammond-Ec	6.6	7.6	San Antonio	9.8	10.6
Grand Rapids	6.7	6.9	San Bernadino-R	17.4	16.6
Harrisburg	9.0	8.7	San Diego	11.5	12.7
Hartford	7.6	7.3	San Francisco	12.3	12.1
Honolulu	6.9	6.3	San Jose	19.6	17.6
Houston	12.8	12.5	Seattle-Everett	8.8	9.2
Huntington-Ashl	8.3	9.7	Shreveport	14.4	13.9
Indianapolis	7.8	8.2	Spokane	9.8	11.2
Jacksonville	16.1	15.3	Springfield-C-H	6.9	7.4
Jersey City	11.6	12.9	Syracuse	7.4	8.2
Johnstown	5.7	6.8	Tacoma	10.9	10.9
Kansas City	9.2	9.3	Tampa-St. Ptrsbg	13.3	13.3
Knoxville	9.4	7.9	Toledo	6.5	7.0

Table 1 (Contd.)

Metropolitan Area[b]	Rate Per Hundred	
	In-Migration	Out-Migration
Trenton	9.3	8.4
Tucson	14.6	13.1
Tulsa	12.6	11.7
Utica-Rome	6.9	7.5
Washington	10.9	9.7
Wichita	9.7	11.0
Wilkes-Barre-Hz	8.3	8.2
Wilmington	11.0	10.3
Worcester	6.6	7.0
Youngstown-Warr	5.8	7.8

[a]Average is the mean of annual rates per hundred residents of a metropolitan area for each year between 1959 and 1965. Migrants entering or leaving military service are excluded.

[b]Most metropolitan areas are defined exactly as by the Office of Management and Budget in 1970. Some metropolitan areas of necessity are defined slightly differently.

SOURCE: Social Security Continuous Work History Sample.

that the working-age population of the modern American metropolis is far more fluid than would otherwise be supposed.*

As is well known, net migratory gains or losses generally are only the surface ripples of powerful crosscurrents that are modifying a locality's labor force. For every decade there is a classic illustration of this point, and Albuquerque, N.M., is the undisputed one for the 1960's. Albuquerque's 1970 population of around a third of a million included a gain of just 22 "net migrants" since 1960--to all outward appearances, a quiet demographic existence. According to the Social Security data, however, things were nowhere near so quiet: this net figure masked the comings and goings of about 14 or 15 people per hundred working-age residents every year. In fact, each year of the decade, some 44,000 residents were last year's in-migrants and 44,000 were next year's out-migrants. What we imagine to be "the" population of Aubuquerque is actually a near procession.

Equally noteworthy in Table 1 is the considerable variation among metropolitan areas in the apparent rate of migratory circulation. In some areas, like San Jose or Fort Lauderdale, annual inflow and outflow rates hover around 18 or 20 per hundred working-age residents. In others, like Detroit or Milwaukee, the rates are only a quarter as high. This wide range of variation may have considerable economic and sociological significance for urban growth policy. Where workers come and go at a lively pace, adjustment to changes in the overall demand for labor, or to shifts in the mix of required skills, can occur promptly. With this demographic shock absorber, the area's labor market is likely to show resiliency to change. More generally, as population circulates through the nation's urban centers,

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population segments. The Social Security data shown here refer only to employed civilians in Social-Security-covered jobs--a subset of the entire population 5 years and older to which the census data refer. Thus, the Continuous Work History Sample excludes workers who are completely self-employed and unemployed, persons not in the labor force, and certain classes of workers (principally federal civilian employees, some state and local government employees, and railroad workers). I have also excluded migrants entering or leaving military service.

*Recent historical evidence also supports this point. From his data on cities in the nineteenth and early twentieth centuries, Thernstrom concludes:

> However glaring the differences...,they had in common a crucial demographic characteristic--their populations were leaving them for other destinations at a rapid and surprisingly uniform rate. Approximately half of their residents at any date were destined to disappear before 10 years had elapsed, to be replaced by other restless newcomers who had lived elsewhere a decade before. This was not a frontier phenomenon, or a big city phenomenon, but a national phenomenon.

Stephan Thernstrom, The Other Bostonians. Poverty and Progress in the American Metropolis, 1880-1970 (Cambridge: Harvard University Press, 1973), p. 227.

it may be undergoing a filtering process that tends to concentrate distinctive types of persons in the places through which migrants flow most quickly. San Jose or Fort Lauderdale, with their abundance of characteristically migratory persons, would acquire different kinds of residents than Detroit or Milwaukee, which are more heavily weighted with settled individuals.

A look at two competing models which have been advanced to describe the placement of new migrants in the urban class system will flesh out these speculations.* According to the "urban-escalator" model, newcomers start at the bottom of the economic ladder and, as they learn city ways, edge up, opening their low-level jobs to succeeding groups of newcomers. By contrast, what we might call the "moving-sidewalk" model sees migrants moving horizontally from good jobs to good jobs at the expense of long-term residents' upward mobility.

Each of these contrasting models, although rendering a highly simplified view, may be correct for a particular historical phase of the urbanization process. When cities were recruiting the bulk of their population from rural America and Europe, the status of migrants to the city was initially low compared to the urban natives they joined. Today, however, most urban in-migrants originate in other urban centers and are less likely to bear the handicaps in training and language that are associated with a rural or foreign background. Indeed, today's migrants to urban centers tend to rank higher in education and work experience than their residents.**

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*Thernstrom, op. cit., pp. 30-33.

**Peter M. Blau and Otis Dudley Duncan, The American Occupational Structure (New York: Wiley, 1967); Charles Tilly, "Race and Migration to the American City," in James Q. Wilson, ed., The Metropolitan Enigma (Cambridge: Harvard University Press, 1968), pp. 135-157.

The case of black migration from the South to the North appears to be more complicated. See Larry H. Long, "Poverty Status and Receipt of Welfare Among Migrants and Nonmigrants in Large Cities," American Sociological Review, Vol. 39 (1974), pp. 46-56; Larry H. Long and Lynne R. Heltman, "Income Differences Between Blacks and Whites Controlling for Education and Region of Birth," paper prepared for the annual meeting of the Population Association of America, April 18-20, 1974, New York.

If migration was once a means of upward social mobility, now it is more the practice of those near the top--sorting people out instead of boosting them up.

5. THE EMERGING PHENOMENON OF POPULATION DECLINE

It may seem paradoxical that in a period noted for something called "urban growth" there are so many cities in a state of population decline. The phenomenon is widespread now, and it is characteristic of entire metropolitan areas, not merely their central cities. Since the 1970 census nearly one of every ten metropolitan areas has recorded losses of population. The intensifying issues of decline and its local consequences are also issues of urban growth policy.

A decade ago, Calvin Beale directed our attention to population decline and described a variety of consequences of severe rural out-migration.* Beale's insights into the demography of decline were derived from rural contexts of the 1950s, but they have proved equally valid for the urban context of the 1960s and early 1970s. The City of St. Louis is a case in point. It illustrates how persistent and severe out-migration can so alter the structure of a local population as to affect its very capacity to regenerate itself.**

During the 1960s, St. Louis's white population underwent acute decline, mostly because of massive outward migration. A net 34 percent of the white city-dwellers moved away, chiefly to the suburbs. The resulting modifications in replacement capacity produced by age-selective out-migration are shown in Table 2, from we can see that:

- Women in the middle and later childbearing years had grown more scarce. In 1960, white women, aged 25 to 44, made up 22.1 percent of all white women in the city; by 1970 the figure had dropped to 17.6 percent. (Part of this drop stemmed from the changing national age distribution; for white women nationally, this age group declined

*Calvin L. Beale, "Rural Depopulation in the United States: Some Demographic Consequences of Agricultural Adjustments," Demography, Vol. 1, 1964, pp. 264-272; "Natural Decrease of Population: The Current and Prospective Status of an Emergent American Phenomenon," Demography, Vol. 6, No. 2, May 1969, pp. 91-99.

**The following material on St. Louis is drawn from Peter A. Morrison, San Jose and St. Louis in the 1960s: A Case Study of Changing Urban Populations, R-1313-NSF, The Rand Corporation, October 1973.

from 26.4 to 23.5 percent of the total population between 1960 and 1970.)

- The proportion of elderly whites had risen. Whites 65 and over made up 14.5 percent of the population in 1960, but 19.2 percent in 1970. (The corresponding figure nationally was 10 percent in both years.)
- Partially as a result of these changes in age structure, the crude birth rate per thousand whites declined from 22.1 in 1960 to 12.0 in 1972; and the crude death rate per thousand whites rose from 14.8 to 18.0. (Part of the decline in the birth rate was, of course, a consequence of the national trend in the birth rate, which dropped nearly 25 percent during the 1960s.)

Table 2

INDEXES OF CHANGE IN REPLACEMENT CAPACITY FOR ST. LOUIS'S BLACK AND WHITE POPULATION, 1960-1972

Indicator	1960	1970	1972
Percentage of women in later childbearing years (age 25-44)			
White	22.1%	17.6%	N.A.[a]
Black	27.1%	22.7%	N.A.
Percentage of population age 65+			
White	14.5%	19.2%	N.A.
Black	6.8%	8.3%	N.A.
Crude birth rate per thousand			
White	22.1	14.5	12.0
Black	34.4	25.1	24.9
Crude death rate per thousand			
White	14.8	17.7	18.0
Black	11.4	11.3	11.2

[a]N.A. = not available.

Since 1965, St. Louis's white population has ceased to replace itself. By 1972, the services of the undertaker were more in demand than those of the obstetrician by a margin of 3 to 2. Since it is now undergoing natural decrease, St. Louis's white population will continue to shrink whether or not net out-migration continues. Only a dramatic rise in fertility or a massive influx of childbearing families can alter this situation.

It was a different picture for blacks.* There was no gain or loss through net migration during the 1960s, but the black population rose 19.5 percent through natural increase, very close to its national rate of 21.6 percent. Annual population estimates, however, show St. Louis's nonwhite population to have peaked in 1968 at around 269,000. By 1972, it is estimated to have dropped below 250,000. In view of the black population's positive natural increase, the only explanation is that blacks have been migrating out of the city since at least 1968 (and almost certainly before).

The natural decrease of whites and the depopulation of nonwhites, combined, produce a powerful attrition in St. Louis. This new urban demographic phenomenon represents a drastic distortion of the demographic trends of the past century. It imposes powerful constraints on national policy, and its implications deserve wider recognition and fuller exploration.

The demography of urban population decline suggests that cities like St. Louis will be hard put to reverse the declining trend. First, a substantial proportion of whites are either entering or already within the high-mortality age brackets. The white population's crude death rate therefore will continue to rise. Second, prospective parents are becoming scarce among St. Louis's whites, and in any case, the national evidence that parents in general will choose to have small families continues to mount. The white population's crude birth rate is therefore likely to fall, barring a dramatic increase in fertility or a strong and sustained inflow of childbearing families. Nor is St. Louis's black population likely to grow substantially. It is expanding steadily through natural increase, but black migration out of the city is more than enough to cancel that increase.

III. CONCLUSION

The five demographic aspects of urban growth described in the foregoing pages point up some general considerations about guiding urban growth. The most judicious approach will be adaptive and developmental,

*In St. Louis, blacks make up 99 percent of the nonwhite population. Hence the terms "nonwhite" and "black" are used synonymously in the following discussion.

aimed at understanding the natural adjustment processes which urban growth entails, and working through them to achieve broad social purposes. A process-perfecting approach acknowledges that our understanding of urban growth dynamics is at best partial; that policymaking will inevitably be an evolving process of social learning; and that while there is scarcely the power (let alone the knowledge) to exercise direct control over the pattern of urban growth, we may be able to exercise influence indirectly by exploiting ongoing processes of change.

To be more specific, the selectivity of migration, in terms of both people and places, becomes a more imposing influence on urbanization as the role of natural increase as a source of urban growth diminishes. In the case of spontaneous growth centers and migration's possibly one-sided economic wisdom, the role of "hidden policies" in shaping U.S. urbanization patterns must be acknowledged. The inadvertent but nonetheless powerful secondary effect of existing governmental activities and programs is to create economic opportunities in certain places--the places to which migrants are drawn. If hidden policies channel the reduced national quota of population growth toward a certain few focal points of the migration system, the force of deliberate growth policies may be diminished proportionately.