
**GROWTH WITHOUT GROWTH:
AN ALTERNATIVE ECONOMIC DEVELOPMENT
GOAL FOR METROPOLITAN AREAS**

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ABSTRACT

Some argue that population growth is not an appropriate indicator of the economic health of metropolitan areas since negative effects such as increased traffic congestion, rising home prices and loss of open space are often associated with such growth. Per capita income growth may be closer to policy makers' true goal: to improve the economic welfare of its constituents. This thought paper examines whether it is possible for metropolitan areas to "grow without growth" -- increase per-capita income without expanding population. It analyzes long-term population and per capita income growth trends in the 100 largest metropolitan areas, categorizes these metro areas by their ability to achieve income growth without adding more people, and determines policy implications for regional economic development strategies.

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“GROWTH WITHOUT GROWTH”: AN ALTERNATIVE ECONOMIC DEVELOPMENT GOAL FOR METROPOLITAN AREAS

INTRODUCTION

“Florida is being invaded, not by a military force bent on its destruction, but by civilians choosing to establish residency in the Sunshine State. This population surge has the potential to destroy Florida as effectively as would a military campaign.”¹

What are we to make of this quotation, which was uttered at a public meeting in Florida? At first hearing, we might be inclined to reject this statement as being at the outer edge of acceptable political discourse. Many citizens living in attractive environments like Florida or the Pacific Northwest would dearly love to “pull up the drawbridge” so that future migrants do not follow them, crowding onto the landscape and lowering their quality of life. While this sentiment is certainly understandable, it seems to run counter to several time-honored principles of American law and policy. These principles include the right to free movement, the right to develop one’s land, and the need to avoid setting up arbitrary barriers to the movement of capital to those places where it can be productively employed. Even setting aside these lofty principles for a moment, what about the idea that our Florida citizen is simply being selfish, since somebody obviously left the drawbridge open for him at some time in the past?

But if we think about it for a moment, we might not be so quick to reject these complaints out of hand. Statements like the one above are so widespread - and so deeply felt - that if a local official ignored them she would not be fulfilling her responsibility to her constituents. Local officials were elected to meet the needs of incumbent residents, not necessarily potential in-migrants. To argue otherwise is to deny the very structure built into our federal system of government - or to stretch the definition of the word “constituent” beyond all reason. Simply put, if people ask for something as passionately as the Floridian quoted above, then they at least deserve a thoughtful hearing in the councils of state and local government.

The challenge, then, is to think about policies that might encourage slower population growth without restricting the mobility of people or capital. More specifically, local officials may want to avoid economic policies that target job growth as their primary objective, and instead enact policies that boost per-capita income. Per-capita income growth is the best proxy for the local policy maker’s true goal, which is to improve the economic welfare of current constituents.²

¹ Florida citizen, quoted in David Foffey and Jeffrey Wade, *Proceedings of the Governor’s Conference on Local Government in the 1990s* (Gainesville, Florida: Center for Governmental Responsibility, 1989).

² If policy makers view their primary goal as reducing unemployment, then job growth makes more sense as an objective. During the recent economic boom, however, unemployment was at historically low levels throughout the nation. A good argument can be made that the unemployment that remained during this period was structural, and so could not be remedied by increasing job demand.

This paper is a first attempt to address the feasibility of this simple but provocative policy idea, which I will now label “growth without growth.” I will postpone further discussion of its desirability, except to repeat that many local voters seem to want it. If it can be done without imposing barriers to the movement of people or capital - without interfering with economic efficiency, in other words - then most objections to the strategy should disappear.

The first question with regard to the feasibility of achieving “growth without growth” is whether it is possible for a region within the U.S. to enjoy per-capita income growth without population growth. The bulk of this report addresses this question, and the answer is a resounding “yes.”

A second, more difficult question is whether we can identify characteristics of high-income-growth, low-population-growth regions that cause this happy state of affairs. In other words, are there policy levers we can push at the regional scale to deliver “growth without growth?” My attempt to answer this question using regional data is in its early stages. While the results do not point to clear strategies that would guarantee “growth without growth” in the 21st century, they do put the economic structure of certain slow-growing metropolitan regions in a more favorable light than they have previously enjoyed. There also appears to be a significant relationship between high-technology status and “growth without growth.” This raises the prospect that so-called New Economy development strategies allow officials to “have their cake and eat it too” when it comes to increased incomes and quality of life.

The analysis in this report is conducted entirely at the metropolitan scale.³ This seemed like the best scale to use, since metropolitan areas are coherent economies (they are labor markets and also the proper scale for industry specializations), and this study is about fundamental relationships among economic outcomes. There are two drawbacks, however, to exploring “growth without growth” in metropolitan areas. There is essentially no elected leadership at this scale in the United States, so at least part of the natural audience for this study is missing. There may also be important welfare considerations operating at a smaller scale - central cities and suburban rings, for example - that this study is unable to address. The Brookings Center on Urban and Metropolitan Policy is concerned about economic and social welfare across and within metropolitan areas. The present study restricts itself to the category “across.”

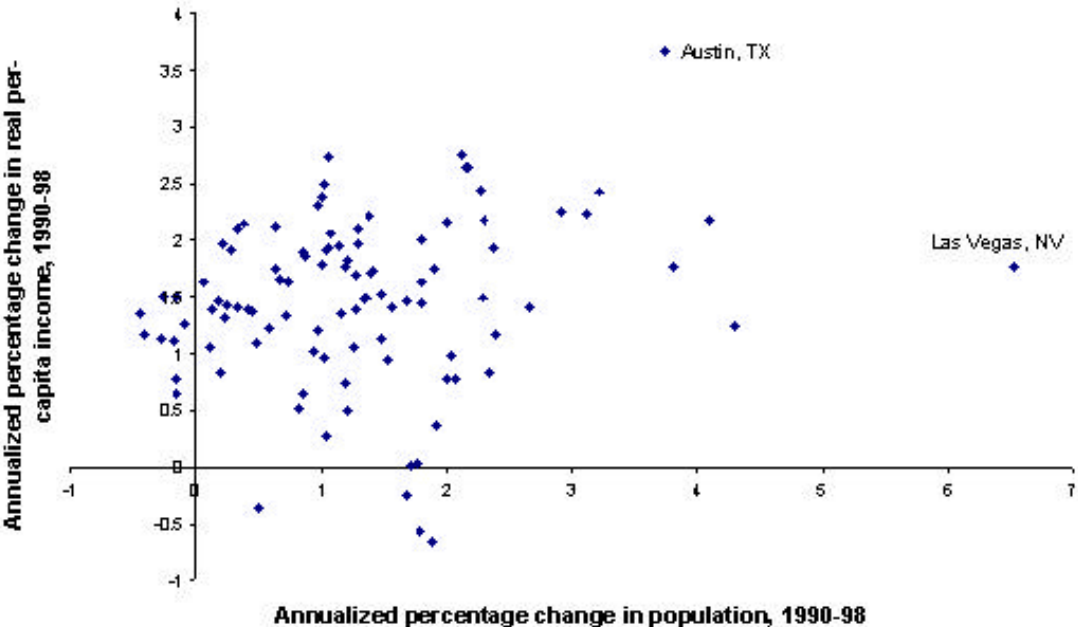
For every generalization made here, there are exceptions. This paper reexamines the ultimate goal of economic development policy, ranks metropolitan areas on this new goal, and begins the process of identifying related strategies. This paper also takes a moment to respond to critiques of this approach. Once we begin this policy conversation, we can use case studies and other techniques to clarify whether “growth without growth” is, in fact, an achievable goal.

³ My definition of metropolitan areas refers to Census-designated Consolidated Metropolitan Statistical Areas (CMSAs) where they exist, otherwise the reference is to the Metropolitan Statistical Area (MSA). I have not used Primary Metropolitan Statistical Area (PMSA) geography because CMSAs seem to be more coherent entities for looking at regional economic aggregates.

A. Population vs. Income Growth

Figure 1 shows the relationship between real per-capita income growth and population growth in the 100 largest metropolitan areas in the U.S. over the period 1990-1998. Clearly, the relationship between the two variables is not strong. The points scatter in a dense cloud, instead of sitting along a narrow, upward-sloping line. In fact, statistical analysis reveals a very weak positive relationship between per capita income and population growth. Not only is this relationship weak, but if Austin, Texas and Las Vegas, Nevada were removed from the sample it would disappear. To a statistician, this is little better than having no relationship at all, since the relationship that exists depends on only two cases.

Figure 1 - Change in real per-capita income as a function of change in population

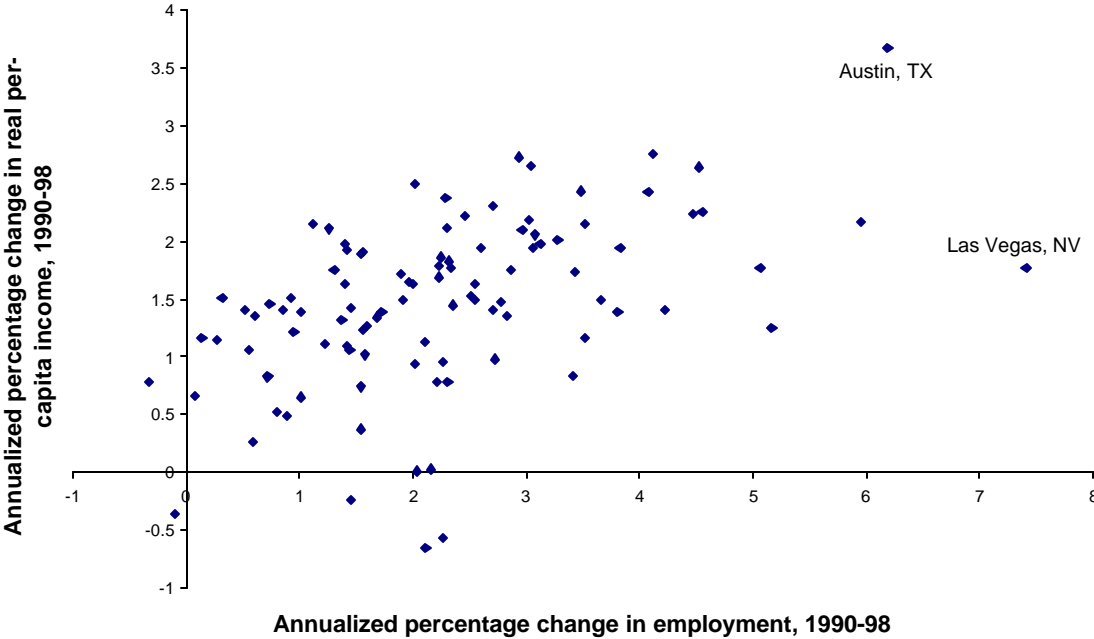


The main lesson from Figure 1 is that it is possible to achieve high per-capita income growth without putting up with high rates of population growth. The metropolitan areas in the upper-left-hand-quadrant of Figure 1 have already achieved this feat. Below, we identify these metropolitan areas, and ask whether their location in this upper-left quadrant is something that policy makers might influence.

B. Employment vs. Income Growth

But first we will look at the relationship between income growth and employment growth, which is depicted in Figure 2. The sample of metropolitan areas and time period are identical to those in Figure 1. The relationship in Figure 2 is stronger than that in Figure 1. It is clear, however, that many things other than employment growth “explain” per-capita income growth. If you, as a policy maker, were uncomfortable about adding jobs to your metropolitan area for some reason, you might want to seek out these other factors for policy intervention. Alternatively, you might want to keep job growth in your tool kit for improving what you really care about, which is per-capita income growth.

Figure 2 - Change in real per-capita income as a function of change in employment



Employment growth and population growth are also correlated with each other across U.S. metropolitan areas. The fact that employment and population growth are highly-correlated - though each has a different relationship to income growth - is not a contradiction. All three of these variables are correlated with each other to some degree. What you would like to do as a policy maker is identify those factors that cause the relationship *not* to hold in a particular case, and exploit those factors to your advantage. The broad scatterplots in Figures 1 and 2 suggest that you may be able to bring about income growth without adding either residents or workers to your economy.

There are three problems with job growth as the primary goal of economic development policy for metropolitan regions:

- **First**, there is no obvious relationship between jobs and incomes, since new jobs can pay poorly and may even reduce average earnings in a region.⁴
- **Second**, while many new jobs go to the unemployed - which is admittedly desirable - other jobs go to in-migrants who may not vote in the jurisdiction in which they work.⁵ Indeed, as soon as labor force participation “maxes out” in a region, all job growth must be associated with an increase in the number of adults and households.
- This leads to the **third** problem with job growth: it increases the number of bodies in a jurisdiction. It will therefore be associated with increased infrastructure costs, increased resource use, and a perception on the part of at least some existing residents that quality of life has declined.

All of these negative side effects of job growth would be welcome if job and population growth were a necessary precondition for growing the incomes of incumbent residents - the best means to the proper political end. But if job growth cannot be shown to cause income growth for current constituents, policy makers will be better served by focusing on the end itself.

In fact, given the admitted costs associated with increasing a region’s body count, policy makers may actually wish to *minimize* job and population growth as they attempt to increase incomes and wealth. They should try to make population control a natural side effect of a particular set of economic development policies, not a coercive main objective. This would help avoid criticism that they are imposing trade barriers or interfering with property rights - two criticisms of local population growth quotas that led to court challenges in the 1970s.⁶ This movement from a “stick” to a “carrot” approach to population management is a new way of looking at regional development policy.

For the remainder of this report I will ignore employment growth as a variable of interest. I argue that employment growth is of no concern to us politically because its impact on quality of life is minimal in the absence of population growth. For example, job growth without population growth might be the result of increased labor force participation. Although it increases commuting, increased labor force participation will not have as significant an impact on the environment as would net additions to a region’s population. Employment growth is also a *means* to the preferred *end* of

⁴ John Lombard, John Whaley, and Sean LaCroix. “Determining the Wage Impact of New Jobs on a Regional Economy.” Working Paper, Economic Development and Real Estate Resource Center, Old Dominion University, 2001.

⁵ In a thoughtful book on means and ends in economic development policy, economist Tim Bartik found that in the long run, as many as 78 percent of all new jobs in a metropolitan area go to in-migrants. See *Who Benefits from State and Local Economic Development Policies?* (Kalamazoo, MI: Upjohn Institute, 1991), p. 95.

⁶ The landmark cases involved the cities of Petaluma, California and Boulder, Colorado. For summaries, see Eric Damian Kelly, *Managing Community Growth* (Westport, CT: Praeger, 1993).

per-capita income growth, which is already included in the analysis. The correlation between population and employment growth is strong enough that they can effectively stand in for each other in the analysis. Allowing one variable to proxy the other permits us to examine the broader connection between per-capita income growth and growth in bodies, defined jointly as an increase in metropolitan jobs and the people who fill them. So all of the tables that follow will be about the relationship between per-capita income growth and population growth in U.S. metropolitan areas. This is how “growth without growth” will be defined.

II. FINDINGS: A METROPOLITAN TYPOLOGY OF “GROWTH WITHOUT GROWTH”

Tables 1 through 4 group the 100 largest metropolitan areas in the U.S. according to their demonstrated ability to “grow without growing” over the 1990s.

- Table 1 lists those metropolitan areas that we will call **Wealth Builders**. These 23 metropolitan areas had real per-capita income growth above the median for the 100 metropolitan areas, but population growth below the median. I argue that this is the best position to be in politically for policy makers concerned about the costs of growth.
- Table 2 lists those metropolitan areas that we will call **Population Magnets**. These 23 metropolitan areas had real per-capita income growth below the median for the 100 metropolitan areas, but population growth above the median. This may be the worst position to be in politically - though leaders and constituents may still view population growth as essential, especially if the metropolitan area is currently small.
- Table 3 lists those metropolitan areas that we will call **High Growth-Traditional**. These 27 metropolitan areas had real per-capita income growth *and* population growth above the median for the 100 metropolitan areas. These metropolitan areas reflect the conventional wisdom that high growth in per-capita income is associated with high growth in population.
- Table 4 lists those metropolitan areas that we will call **Low Growth-Traditional**. These 27 metropolitan areas had real per-capita income growth *and* population growth below the median for the 100 metropolitan areas. These metropolitan areas reflect the conventional wisdom that low growth in per-capita income is associated with low growth in population.

Tables 1 through 4 contain four columns in addition to metropolitan area name. The first of these columns is metropolitan area's Census-designated region. Second is real per-capita income growth.⁷ The third column is the population growth rate. The fourth column is simply the first column minus the second column. This variable represents a simple “growth without growth” index. The larger this number, the better the metropolitan area has been at widening the spread between income and population growth. A metropolitan area with 5 percent annual growth in per-capita income and 1 percent annual growth in population, for example, would have a growth-without-growth index of 4 percent (5 percent minus 1 percent). So would a metropolitan area that saw zero growth in per-capita income but experienced a 4 percent decline in population (0 percent minus - 4 percent = 4 percent). Even though this latter situation might be regarded as undesirable, the index simply measures the spread between the two rates of growth on the assumption that income growth is good while population growth is bad (meaning that mathematically, population decline must be good).

⁷ 1998 per-capita income was adjusted to 1990 dollars using the consumer price index from the Bureau of Labor Statistics that most closely-matched each metropolitan area's geography; e.g., northeast US-medium sized metro CPI, etc.

The metropolitan areas in each table are ranked on the basis of this index, so one can examine growth-without-growth performance within - as well as between - the four tables. All 100 metropolitan areas are combined in Appendix A, where they are ranked by the Growth-Without-Growth index. The map Appendix plots each metropolitan area.

Table 1. Wealth Builders

*Metropolitan areas with income growth above the median (1.49 percent) and
Population growth below the median (1.18 percent)*

| Metropolitan Area | Region | Annualized Percentage Change, 1990-98 | | "Growth Without Growth" Index |
|---|--------|--|------------|----------------------------------|
| | | Real Per-Capita Income | Population | |
| St. Louis, MO-IL | MW | 2.11 | 0.33 | 1.78 |
| Pittsburgh, PA | MW | 1.51 | -0.26 | 1.77 |
| Boston-Worcester-Lawrence-Lowell- Brocktn, MA-NH | NE | 2.15 | 0.38 | 1.76 |
| New Orleans, LA | S | 1.97 | 0.22 | 1.75 |
| Jackson, MS | S | 2.73 | 1.05 | 1.67 |
| Providence-Warwick-Pawtucket, RI | NE | 1.51 | -0.16 | 1.67 |
| Milwaukee-Racine, WI | MW | 1.92 | 0.27 | 1.64 |
| Saginaw-Bay City-Midland, MI | MW | 1.63 | 0.05 | 1.57 |
| Louisville, KY-IN | S | 2.12 | 0.64 | 1.48 |
| Memphis, TN-AR-MS | S | 2.49 | 1.02 | 1.47 |
| Omaha, NE-IA | MW | 2.37 | 1.01 | 1.37 |
| Little Rock-North Little Rock, AR | S | 2.31 | 0.98 | 1.33 |
| Detroit-Ann Arbor-Flint, MI | MW | 1.75 | 0.63 | 1.13 |
| Chicago-Gary-Kenosha, IL-IN-WI | MW | 1.89 | 0.86 | 1.03 |
| Cincinnati-Hamilton, OH-KY-IN | MW | 1.86 | 0.87 | 1.00 |
| Fort Wayne, IN | MW | 1.65 | 0.66 | 0.99 |
| Tampa-St. Petersburg-Clearwater, FL | S | 2.06 | 1.08 | 0.98 |
| Chattanooga, TN-GA | S | 1.63 | 0.74 | 0.89 |
| Baton Rouge, LA | S | 1.94 | 1.06 | 0.88 |
| San Francisco-Oakland-San Jose, CA | W | 1.91 | 1.04 | 0.87 |
| Columbus, OH | MW | 1.95 | 1.14 | 0.81 |
| Birmingham, AL | S | 1.78 | 1.00 | 0.78 |
| Kansas City, MO-KS | MW | 1.76 | 1.18 | 0.58 |

Table 2. Population Magnets

*Metropolitan areas with income growth below the median (1.49 percent) and
Population growth above the median (1.18 percent)*

| Metropolitan Area | Region | Annualized Percentage Change, 1990-98 | | "Growth Without Growth" Index |
|-----------------------------------|--------|--|------------|----------------------------------|
| | | Real Per-Capita Income | Population | |
| Des Moines, IA | MW | 1.49 | 1.34 | 0.15 |
| Sarasota-Bradenton, FL | S | 1.39 | 1.28 | 0.11 |
| Spokane, WA | W | 1.41 | 1.56 | -0.15 |
| Knoxville, TN | S | 1.48 | 1.67 | -0.19 |
| San Diego, CA | W | 1.06 | 1.26 | -0.20 |
| Wichita, KS | MW | 1.13 | 1.48 | -0.35 |
| Seattle-Tacoma-Bremerton, WA | W | 1.45 | 1.79 | -0.35 |
| Richmond-Petersburg, VA | S | 0.74 | 1.19 | -0.45 |
| Sacramento-Yolo, CA | W | 0.94 | 1.53 | -0.59 |
| Augusta-Aiken, GA-SC | S | 0.50 | 1.20 | -0.70 |
| Pensacola, FL | S | 0.98 | 2.04 | -1.06 |
| Daytona Beach, FL | S | 0.78 | 1.99 | -1.21 |
| Portland-Salem, OR-WA | W | 1.17 | 2.38 | -1.22 |
| Orlando, FL | S | 1.41 | 2.66 | -1.25 |
| El Paso, TX | S | 0.78 | 2.07 | -1.29 |
| West Palm Beach-Boca Raton, FL | S | 0.84 | 2.34 | -1.50 |
| Melbourne-Titusville-Palm Bay, FL | S | 0.37 | 1.91 | -1.54 |
| Modesto, CA | W | 0.01 | 1.72 | -1.71 |
| Miami-Fort Lauderdale, FL | S | 0.03 | 1.77 | -1.74 |
| Stockton-Lodi, CA | W | -0.24 | 1.69 | -1.93 |
| Fresno, CA | W | -0.56 | 1.79 | -2.35 |
| Bakersfield, CA | W | -0.65 | 1.88 | -2.53 |
| McAllen-Edinburg-Mission, TX | S | 1.25 | 4.29 | -3.04 |

Table 3. High Growth-Traditional

*Metropolitan areas with income growth above the median (1.49 percent) and
Population growth above the median (1.18 percent)*

| Metropolitan Area | Region | Annualized Percentage Change, 1990-98 | | "Growth Without Growth" Index |
|---|--------|--|------------|----------------------------------|
| | | Real Per- Capita Income | Population | |
| Minneapolis-St. Paul, MN-WI | MW | 2.22 | 1.38 | 0.83 |
| Grand Rapids-Muskegon-Holland, MI | MW | 2.10 | 1.29 | 0.82 |
| Lexington, KY | S | 1.98 | 1.29 | 0.69 |
| Nashville, TN | S | 2.75 | 2.11 | 0.64 |
| Indianapolis, IN | MW | 1.83 | 1.20 | 0.62 |
| Houston-Galveston-Brazoria, TX | S | 2.65 | 2.16 | 0.49 |
| Salt Lake City-Ogden, UT | W | 2.64 | 2.17 | 0.48 |
| Greenville-Spartanburg-Anderson, SC | S | 1.69 | 1.27 | 0.42 |
| Mobile, AL | S | 1.73 | 1.40 | 0.33 |
| Lakeland-Winter Haven, FL | S | 1.72 | 1.39 | 0.32 |
| Albuquerque, NM | W | 2.01 | 1.79 | 0.22 |
| Dallas-Fort Worth, TX | S | 2.44 | 2.27 | 0.17 |
| San Antonio, TX | S | 2.15 | 2.00 | 0.15 |
| Greensboro-Winston-Salem-High Point, NC | S | 1.50 | 1.35 | 0.14 |
| Columbia, SC | S | 1.53 | 1.48 | 0.05 |
| Austin-San Marcos, TX | S | 3.68 | 3.73 | -0.06 |
| Charlotte-Gastonia-Rock Hill, NC-SC | S | 2.18 | 2.30 | -0.11 |
| Madison, WI | MW | 1.75 | 1.90 | -0.15 |
| Jacksonville, FL | S | 1.63 | 1.79 | -0.17 |
| Denver-Boulder-Greeley, CO | W | 1.94 | 2.37 | -0.43 |
| Colorado Springs, CO | W | 2.25 | 2.92 | -0.66 |
| Tucson, AZ | W | 1.50 | 2.28 | -0.79 |
| Atlanta, GA | S | 2.43 | 3.22 | -0.79 |
| Raleigh-Durham-Chapel Hill, NC | S | 2.23 | 3.11 | -0.88 |
| Boise City, ID | W | 2.17 | 4.10 | -1.93 |
| Phoenix-Mesa, AZ | W | 1.77 | 3.81 | -2.05 |
| Las Vegas, NV-AZ | W | 1.77 | 6.52 | -4.75 |

Table 4. Low Growth-Traditional

*Metropolitan areas with income growth below the median (1.49 percent) and
Population growth below the median (1.18 percent)*

| Metropolitan Area | Region | Annualized Percentage Change, 1990-98 | | "Growth Without Growth" Index |
|--|--------|--|------------|----------------------------------|
| | | Real Per-Capita Income | Population | |
| Scranton-Wilkes-Barre-Hazleton, PA | NE | 1.35 | -0.45 | 1.80 |
| Buffalo-Niagara Falls, NY | NE | 1.17 | -0.41 | 1.57 |
| Springfield, MA | NE | 1.14 | -0.28 | 1.42 |
| Toledo, OH | MW | 1.27 | -0.09 | 1.36 |
| Youngstown-Warren, OH | MW | 1.11 | -0.17 | 1.28 |
| Philadelphia-Wilmington-Atlantic City, PA- NJ-DE-MD | NE | 1.46 | 0.18 | 1.28 |
| Dayton-Springfield, OH | MW | 1.40 | 0.12 | 1.28 |
| Canton-Massillon, OH | MW | 1.43 | 0.24 | 1.19 |
| Cleveland-Akron, OH | MW | 1.31 | 0.22 | 1.09 |
| New York-No. NJ-Long Island, NY-NJ- CT-PA | NE | 1.41 | 0.33 | 1.09 |
| Allentown-Bethlehem-Easton, PA | NE | 1.39 | 0.41 | 0.98 |
| Hartford, CT | NE | 0.79 | -0.17 | 0.96 |
| Albany-Schenectady-Troy, NY | NE | 1.06 | 0.11 | 0.95 |
| Kalamazoo-Battle Creek, MI | MW | 1.38 | 0.46 | 0.93 |
| Syracuse, NY | NE | 0.66 | -0.15 | 0.81 |
| Harrisburg-Lebanon-Carlisle, PA | NE | 1.23 | 0.58 | 0.66 |
| Rochester, NY | NE | 0.83 | 0.19 | 0.64 |
| Johnson City-Kingsport-Bristol, TN-VA | S | 1.34 | 0.72 | 0.63 |
| Lansing-East Lansing, MI | MW | 1.09 | 0.49 | 0.61 |
| Washington-Baltimore, DC-MD-VA-WV | S | 1.21 | 0.97 | 0.24 |
| Tulsa, OK | S | 1.35 | 1.16 | 0.19 |
| Lancaster, PA | NE | 1.02 | 0.94 | 0.08 |
| Oklahoma City, OK | S | 0.96 | 1.02 | -0.05 |
| Norfolk-VA Beach-Newport News, VA-NC | S | 0.65 | 0.86 | -0.20 |
| Charleston-North Charleston, SC | S | 0.52 | 0.82 | -0.29 |
| Los Angeles-Riverside-Orange, CA | W | 0.27 | 1.03 | -0.76 |
| Honolulu, HI | W | -0.36 | 0.50 | -0.86 |

The fact that Tables 1 and 2 each have only 23 metropolitan areas, while Tables 3 and 4 each have 27 metropolitan areas, is evidence of the extent to which the conventional wisdom about population and income growth holds. If the conventional wisdom held perfectly, then Tables 1 and 2 would be empty. This is very far from being the case. Since the count of metro areas in each table is almost equal, there is clearly no lockstep relationship between income and population growth across U.S. metropolitan areas. It follows that metropolitan areas have a considerable opportunity to “beat the system” linking population and income growth.

Which metropolitan areas have been able to achieve the exalted status of “growth without growth?” Table 1’s Wealth Builders is an interesting list. It contains mostly metropolitan areas that are in the middle of the country, and some, such as New Orleans and Milwaukee, that do not have reputations as economic powerhouses over the last ten years. Other interior cities, like Columbus and Pittsburgh, have done well in the New Economy, but without the kind of rapid population growth one might expect in Austin or Atlanta. Finally, Table 1 contains the Boston and San Francisco CMSAs, two of the premier centers of high-technology growth and innovation in America. These two metropolitan areas have experienced rapid income growth. But their population growth is applied to a large base, leading to a growth *rate* that is below the median of the 100 metropolitan areas.⁸

Table 2’s Population Magnets shows the mirror image of Table 1: metropolitan areas that have added population more rapidly than real per-capita income. Theory suggests that economies based on tourism or retirees are likely to fall into this quadrant. It should be no surprise, then, that a full seven of the metropolitan areas on this list are located in Florida. (Las Vegas missed this list by a hair, and shows up instead in Table 3.) With the exception of San Diego, the California metros on this list consist of interior economies like Bakersfield, Stockton, and Modesto that rely heavily on agricultural trade. Many Texas metropolitan areas have a similar economic profile.

How do we explain the appearance in Table 2 of New Economy metropolitan areas like San Diego, Seattle, and Portland? To the extent our consumer price index is geographically precise enough (see footnote 18), we may be seeing population growth that is so strong it pushes up the cost of living to the point where purchasing power - and therefore real per-capita income - starts to take a beating. Other possible explanations include the lack of large-city agglomeration economies and the after effects of the early 1990s recession, especially in San Diego.

In any case, if the “growth without growth” argument was made to the typical resident of Portland or Seattle, you would undoubtedly get a sympathetic hearing. You may find agreement that the gain from economic growth in these metropolitan areas was not worth the cost in increased

⁸ Which measure of population growth is the correct one on quality of life grounds? Some might argue that environmental and physical systems are stressed by the actual count of bodies entering a metropolitan area rather than by percentage growth. A larger metropolitan area extends over more territory, however, so in-migrants have more locations where they can be accommodated with minimal impact (e.g., on the larger circumference of the metro area, should they all decide to go to the fringe). The percentage growth rate automatically controls for metro area size: it is population added per unit of existing population, and so to some extent, per unit of urbanized land.

congestion. The status of these metro areas as Population Magnets would be little surprise to the people who live there - reflecting a political reality as much as an economic one.⁹

From the point of view of “growth without growth”, Tables 3 and 4 are clearly less interesting than Tables 1 and 2. As we might expect, Table 3 (High Growth-Traditional), has a strong sunbelt flavor to it. The exceptions to the sunbelt rule, like Minneapolis and Grand Rapids, are more closely-connected to the New Economy than they are frequently given credit for.¹⁰ Here also are the college towns, such as Austin, Texas, Raleigh-Durham, North Carolina, and Madison, Wisconsin.

By contrast, Table 4 (Low Growth-Traditional) has a marked frostbelt feel to it. On this list, the best “growth without growth” performers include cities such as Buffalo, Toledo, Youngstown, and Scranton-Wilkes Barre. Until now, none of these metropolitan areas had been touted as a success story over the 1990s. What we see here is the effect of population decline on our simple growth-without-growth index. Whether population decline actually improved quality of life in these areas is, of course, doubtful.

Some might argue that with population declining, the denominator in any per-capita income calculation is shrinking faster than the numerator - “growth without growth” is therefore an arithmetic artifact. This is generally not true: only people can earn income, and they take it with them when they go (contrast this with publicly-owned assets, for example). Of course if declining population is caused by shrinking family or household size, then increased per-capita income could, in fact, be a story of shrinking denominators. We have no evidence in this study for household sizes that change differentially across our sample of 100 metropolitan areas.

The bottom line is that the metropolitan areas in Table 4 experienced relatively poor per-capita income performance over the 1990s. The fact that they are not adding population is small comfort to them.

⁹ For recent evidence of this sentiment, see Sam Verhovek, “As Seattle’s Economy Slows, Many Like the Change of Pace.” *New York Times*, March 29, 2001, p. 1.

¹⁰ Both metropolitan areas do well on the proportion of workers in high technology industries, according to analyses by the Center for Regional Economic Issues.

III. THE DETERMINANTS OF “GROWTH WITHOUT GROWTH”

The useful part of this inquiry is to look at the Wealth Builders in Table 1 and ask whether these metropolitan areas are characterized by any conditions that policy makers can influence. Just because Wealth Builders happen to have certain characteristics does not mean that those characteristics caused them to be Wealth Builders. Structural characteristics and economic outcomes might both be caused by something even more fundamental, which we have yet to measure. Even if we identify metropolitan area characteristics that seem to create Wealth Builders (meaning at a minimum that they precede Wealth Builder status chronologically), one might still have very little control over these characteristics. In spite of these cautions, an investigation into the relationships among structural and outcome variables is a necessary first step toward exploring the tools policy makers have to achieve “growth without growth” as intentional economic policy.

A. Methodology

The easiest way to conduct this analysis is to focus on the final column of Tables 1 through 4: the difference between the per-capita income growth rate and the population growth rate for each metro area. This column presents us with a single, continuously-varying measure of growth-without-growth that we can compare to a number of additional variables in metropolitan areas.

One drawback of the growth-without-growth index is that it obscures metropolitan area performance on the two measures of welfare viewed separately. The similar index performance of St. Louis and Scranton-Wilkes Barre, for example (both around 1.8), is the product of relatively high income growth in the former and relatively low population growth in the latter. Which variable actually drives the growth-without-growth index presumably matters to policy makers - which is why St. Louis is properly classified as a Wealth Builder and Scranton as Low Growth-Traditional. Similarly, if we had created our four-part typology by ranking metropolitan areas on the simple spread between income and population growth, Las Vegas would clearly be a Population Magnet. But its above-average income performance is an important finding, putting Las Vegas into the High Growth-Traditional category.

A second way to conduct this analysis would be to measure the extent to which the simple classification of a given metropolitan area as a Wealth Builder (Table 1) can be explained by that metropolitan area’s structural characteristics. This approach keeps us closer to our preferred welfare measure (being above average on income growth and below average on population growth probably *is* the right goal politically), but it collapses continuous measures of economic performance into only two categories. Either you are a Wealth Builder or you are not, and that is all we seek to explain using this approach.

In order to account for these difficulties, we analyzed the statistical correlates of growth-without-growth three ways. **First** we looked at the impact of a set of structural variables on per-capita income growth and population growth taken separately. This is crucial if we want to understand the impact of these variables on the overall index, which combines income and

population growth into a single measure. We want to know, for example, if a given variable increases the growth-without-growth index by making population growth negative, since population decline is not typically a desired objective. We may be more favorably-disposed to those variables that increase the index by growing per-capita income, rather than by suppressing population growth.

This preliminary work provides the context for our **second** test, in which we relate structural variables to the overall index value in each metro area. The main lesson of these tests is that the growth-without-growth-index is useful for thinking about our combined economic objective in non-declining areas, but it should be used with caution elsewhere. All of these tests use simple ordinary least squares regression to examine variables associated with high income growth, low population growth, and a high index value (income growth minus population growth) and can be found in Appendix B.

The **third** test relates the structural variables directly to Wealth Builder status. This test is constructed as a logit regression, with metro areas coded '1' if they appear in Table 1 and '0' otherwise. The strength of this approach is that metropolitan areas must do relatively well on *both* underlying goals if they are to achieve growth-without-growth status. The drawback is that interval data are changed to categorical data.

B. Variables Chosen

The characteristics of metropolitan areas we looked at included population size, poverty rate, change in labor force participation, proportion of international immigrants, industry structure (manufacturing and services), high-tech jobs,¹¹ and bachelors' degree holders. Except for the change in labor force participation, all of these variables were measured in 1990 - preserving the possibility that they are causally-related to "growth without growth" over the 1990s. Our working hypothesis is that high-tech development strategies might be correlated with Wealth Builder status in a subsequent period, opening up the possibility that economic development officials can "have their cake and eat it too" as they simultaneously pursue high amenities and high tech. Therefore we shall pay particular attention to high-technology jobs and bachelors' degrees, which are popular intermediate-range goals for metropolitan areas that seek to generate so-called "new economy" vitality.¹²

¹¹ Our definition of high-tech jobs may be found in Paul D. Gottlieb, "Older Central Counties in the New Economy," (Washington, DC: U.S. Economic Development Administration, 2001), figure 3.

¹² These are two of sixteen fundamental inputs to new economy growth, according to *The Metropolitan New Economy Index* (Progressive Policy Institute and Center for Regional Economic Issues, 2001), <http://www.neweconomyindex.org/metro>.

Table 5:
Characteristics of High “Growth Without Growth” Index Metropolitan Areas: 1990-1998

Conditions associated with high per-capita income growth

1. Increased labor force participation, 1990-1999
2. High proportion of population in poverty, 1990
3. Low proportion of population that was immigrants in 1990
4. High proportion of workers in high-tech industries in 1990
5. High proportion of population that held a bachelors’ degree or better in 1990

Conditions associated with low population growth

1. High proportion of workers in the service sector in 1990
2. High proportion of workers in the manufacturing sector in 1990
3. Low proportion of population in poverty, 1990
4. Low proportion of population that held a bachelors’ degree or better in 1990

Conditions associated with high values on the growth-without-growth index (i.e., the spread between income and population growth rates) across metropolitan areas

1. Large metro population in 1990
2. High proportion of workers in the service sector in 1990
3. High proportion of workers in the manufacturing sector in 1990
4. Low proportion of population that was immigrants in 1990
5. Low proportion of population that held a bachelors’ degree or better in 1990

Table 6:
Characteristics of Wealth Builders: 1990-1998

Conditions associated with Wealth Builder status

1. **Large metro population in 1990**
2. **Low proportion of the population that were immigrants in 1990**
3. **High proportion of workers in high-technology jobs in 1990**

C. Discussion of Results

All of these results seem intuitive, with the possible exception of poverty rate and the proportion of the population that were immigrants in 1990.

We would hate to believe that high poverty rates are necessary to achieve high per-capita income growth, as suggested in Table 5. We should point out, however, that metropolitan poverty is poorly measured in the United States. It uses a national income threshold even though the cost of living varies widely across metropolitan areas. Until this measurement problem is corrected, any inference on the relationship between metropolitan poverty and economic growth should be treated with caution.¹³

Many frostbelt metropolitan areas in the United States are characterized by both low rates of international immigration and by slow population growth. It is therefore surprising that a low rate of international immigration appears to increase the growth-without-growth index not by reducing population, but by increasing per-capita income (Table 5).

We believe this phenomenon is driven by the California metropolitan areas in our sample. These cities have some of the highest proportions of immigrants in the country. Over the time period examined here, California experienced the worst regional recession in the U.S. - a slump from which it had not fully recovered by 1998. This performance is reflected in relatively weak per-capita income growth for metros in that state. It follows that low rates of immigration, which are the rule outside of California and Florida, were associated with relatively high income growth in this period.¹⁴

Another jarring finding from Table 5 is the apparent relationship between educational attainment and the index. It seems that the fewer college graduates you have in your metropolitan area, the greater the positive spread between income and population growth; the easier it is to “grow without growing.”

But looking again at the breakdown of the index into its two components, we see that low educational attainment increases the index value by suppressing population growth - not by increasing per-capita income. In fact, low educational attainment is associated with relatively poor income performance, other things equal. This is exactly what we would expect, and corroborates the findings of earlier studies.¹⁵

¹³ The impact of poverty on metropolitan growth is the subject of another paper by this author, which also made the point about the problem with federal poverty statistics. See Paul D. Gottlieb, “The Effects of Poverty on Metropolitan Area Economic Performance,” in *Urban –Suburban Interdependence: New Directions for Research and Policy* (Cambridge, MA: Lincoln Institute for Land Policy, 2000).

¹⁴ This story serves as a reminder that the rate of immigration should not be interpreted as having caused the economic performance; it simply characterizes a set of places that did poorly for other reasons. For the same reason, it is invalid to treat the poverty rate as causal.

¹⁵ See Paul Gottlieb and Michael Fogarty, “Educational Attainment and Metropolitan Growth” (Center for Regional Economic Issues and Milken Institute, 2000).

We see here the statistical influence of a set of frostbelt cities that have experienced population stasis or decline for many years.¹⁶ These cities tend to have a large manufacturing base and less-educated workers, on average. Both of these conditions contribute, along with climate, to relatively slow population growth. This has been a long run phenomenon in these places.

Whether this slow population growth is a worthwhile policy goal is another matter. Clearly, while population can grow too quickly in boom cities like Seattle, there comes a point where too little population growth - or outright population loss - becomes a problem, even for the quality of life. Our “growth without growth” index does not recognize this more complex reality about regional welfare, so structural conditions in declining rustbelt cities are identified as potentially desirable. Of course, no policy maker would intentionally reduce the educational attainment of his or her workforce in order to bring about population stasis or decline.

One way to correct the indexing problem is to classify metropolitan areas by whether they are above or below the median values of the two measures of welfare: income and population growth. In other words, what causes metropolitan areas to show up in Table 1 above?

The statistical analysis of what causes a metropolitan area to be a Wealth Builder generates two variables of interest (see Table 6). The first is metropolitan area size, although this variable shows up as significant in only one model in Table B-4, its strong relationship to the index justifies its discussion as a causal variable. This finding makes sense if you believe that very large metropolitan areas reach natural limits to population growth, but excel at creating “urbanization economies.” This is the idea that a large, dense concentration of activity in space leads to more efficient production. Urbanization economies can contribute to per-capita income growth, but a metropolitan area does not necessarily need to add more people in order to enjoy these economies if it is already large.

Unfortunately, city size is not a useful lever for politicians trying to bring about “growth without growth.” Chicago may be able to enjoy “growth without growth” because it is already big. But for a medium-sized metropolitan area to use size as its preferred lever for achieving “growth without growth” would be self-defeating, in light of the politics that make “growth without growth” desirable in the first place. Unfortunately, most metropolitan areas have to grow in order to become big.

Going into this analysis, we had hypothesized that “growth without growth” might be strongly-correlated with an educated workforce and lots of high-technology jobs. The hope was that policies regions use to join the so-called New Economy would automatically achieve “growth without growth.” These policies include greater funding for university research, government assistance to commercialize new inventions, venture capital funds, and policies aimed at stemming “brain drain,” among others.

¹⁶ Of the top 25 metropolitan areas on the Growth Without Growth index, none are in the Pacific or Southwest regions.

Table 6 shows that a region's proportion of jobs in high-tech industries is correlated with Wealth Builder status (the appearance of the metropolitan area in Table 1), although the coefficient is quite small. Assuming that becoming a Wealth Builder - and not simply suppressing population growth - is the true goal of policy makers, this is good news for technology-oriented economic development policies. There is some evidence that these policies, if conducted at a sufficient scale and combined with a bit of luck, can actually generate high-technology jobs in a region.¹⁷

In policy terms, this analysis has raised as many questions as it has answered. Does a technology-based economy actually *cause* "growth without growth", or are these findings driven by a particular set of metropolitan areas that just happened to have slow population growth over the 1990s? How do we explain Wealth Builder status in cities like Detroit and St. Louis, which are not known as high-tech hotbeds? On the other side of the coin, why do so many well known high-tech cities show up in the High Growth-Traditional and Population Magnet categories? If we break them down, what kinds of high-tech development policies might encourage "growth without growth?" What kinds of industries? And what is the proper way to weight population and income growth objectives in any formal analysis of this subject? We have used two methods; there may be more.

We believe these questions are potentially answerable with more detailed data and a more thorough model of economic and environmental welfare. We discuss some of these extensions in the following section.

¹⁷ See, e.g., Susan Engelking, *Austin's Opportunity Economy: A Model for Collaborative Technology Development* (New Academy of Sciences, April 1996).

IV. RESPONSE TO CRITIQUES OF “GROWTH WITHOUT GROWTH” APPROACH

The fundamental conclusions of this article - that “growth without growth” is a desirable policy objective and that the metropolitan areas listed in Table 1 are successful at achieving it - will no doubt generate many criticisms. Some of these criticisms will be methodological, others political. It is worth discussing these criticisms in order to see what the data in Tables 1 through 4 *can* and *cannot* tell us. By running through these cautions, we can also place this work in the context of mainstream economics, which was not the framework originally used to address this issue.

Caution A: Economic welfare does not necessarily go up when real per-capita income goes up.

One argument is that our real per-capita income measure may not adequately control for increases in the cost-of-living.¹⁸ A second argument is that it takes no account whatsoever of the relationship between earnings and amenities. To an economist, the higher the quality of life in a region, the less people will need to earn, other things equal. So lower income over time might actually be a sign that people are becoming better off, not worse off. As if the argument on wages were not enough, economists add that a high quality of life will increase rents. These increased rents will wind up in the metropolitan consumer price index, further suppressing real per-capita income. The bottom line? Unless you directly measure quality of life, you cannot tell how your constituents are faring one way or the other. You cannot make inferences about economic welfare from income data alone.

Technically this argument is flawless. There is no question that quality of life is the missing link in this analysis - as important as it is invisible. It is not, however, an easy thing to measure. Numerous controversies have arisen over the weights applied, for example, to create the metropolitan quality of life index in the [Places Rated Almanac](#).

A simpler argument, however, is to ask: Why don't we trust the political process and political leaders in metropolitan areas? If voters complain that their quality of life is deteriorating due to rapid population growth, why not believe them? And when politicians look for a measure of *economic*

¹⁸ A word about the price indices used to deflate the income numbers in this study: With the exception of the 25 largest metropolitan areas, the price indices currently available from the Bureau of Labor Statistics (BLS) cover such broad geographic areas that they are unable to capture price increases that follow city-specific economic booms (e.g., Austin, Texas). The BLS price data are the best available, however, so we are forced to live with them. Furthermore, it is likely that the availability of metro-level consumer price indices for all 100 metropolitan areas would only strengthen the case for Growth Without Growth. That is because price increases in metropolitan areas with the most rapid rates of population growth are probably understated in today's data, while price increases in slow growing metros are probably overstated, due to the use of averages across large census regions. It follows that small and medium-sized metropolitan areas with fast rates of population growth enjoy real per-capita income growth that is actually worse than that shown in Tables 2 and 3. For similar reasons, small and medium-sized metropolitan areas with slow rates of population growth enjoy real per-capita income growth that is even better than that shown in Tables 1 and 2. It follows that the political advantages of being a Wealth Builder (Table 1) would remain even if we had complete price data.

welfare - as opposed to quality of life - they have little choice but to track per-capita income and adjust it for cost of living as best they can. Since policy makers already use measures like per-capita income and population to think about economic objectives, we might as well understand how those measures correlate with the tools of economic development policy, such as high technology or tourism/retirement strategies.

Caution B: Quality of life does not necessarily go down when population increases.

If economic welfare does not necessarily go up when real per-capita income rises, then it is also true that quality of life does not necessarily go down when population increases. As any metropolitan area gets larger, it will improve the diversity, quality, and quantity of its urban amenities - things such as restaurants, arts and culture, and major league sports. And if population growth is vigorous property values will also rise, increasing the equity held by landowners. Whether it is truly worse to be in the category *High Growth-Traditional* than in the category *Wealth Builder* will therefore depend on how large your metropolitan area is today. Fast-growing traditional metropolitan areas like Boise City, ID, Columbia, SC, and Lakeland, FL may have little to worry about by being in Table 2 rather than Table 1. These places are not yet at the scale where population growth is a problem, as opposed to an opportunity.

On the other hand, the simple observation that quality of life does not always deteriorate when population grows ignores two related facts of economics and politics. First, people have different preferences for metropolitan area size. Since they are free to move, we can assume that they have already sorted themselves into metropolitan areas that meet their amenity preferences to some degree. Second, once people move into a metropolitan area whose size they like, they frequently resist any increase in growth beyond what they bought in the first place (this is the widely-reviled “pull up the drawbridge” phenomenon described in the Introduction). So while it is clear that metropolitan growth can increase quality of life for some abstract reference population, if policy makers want to address the needs of existing residents in a particular location, they can expect to encounter a strong preference for stability.

In any case, politicians can make determinations about the appetite for growth on the basis of what they hear from their constituents. If constituents clamor for job and population growth in order to improve both economic opportunities and big city amenities, then go for it. If they ask for economic growth without significant in-migration - or if they believe that their quality of life is about as high as it can possibly be - then it is time to read reports like this one.

Caution C: Nobody ever said population or employment growth are necessary in order to bring about income growth. Perhaps cause and effect run in the other direction. Does that change the implications of these data for public policy?

No, it does not. A preliminary look at the relationship between income growth and population growth *in both directions* did not find strong relationships whether the data are lagged by a year, five

years, or a decade. Economic theory suggests that a rise in real per-capita income relative to all other metropolitan areas should generate in-migration and population growth. Economic studies have found this effect to some degree, although there remains a debate about whether inter-metropolitan migration is mainly a quest for income (job and demand-driven) or a quest for lifestyle (amenity and supply-driven).

None of this discussion changes the fact that the empirical relationship between population and income growth across metropolitan areas is weak. And that only means that there are other variables at work, and these variables may be manipulated to bring about income growth without population growth inevitably following. Once again: the fact that Table 1 contains 23 metropolitan areas is all one needs to know. “Growth without growth” as defined here *exists*, and so it is at least within the realm of the possible.

Caution D: This analysis of constituent welfare is conducted at the wrong scale. What about the economic and amenity benefits flowing to disadvantaged city residents, as opposed to residents of the metropolitan area?

This is a serious and legitimate concern. Having selected metropolitan areas as the unit of analysis, we can say nothing about groups of citizens defined spatially *within* the metropolitan area. Brookings Fellow Janet Pack has pointed out that at least one of the metropolitan areas on our list of Wealth Builders - Detroit - suffered from extreme spatial inequality in 1990, with a central city poverty rate of 32.4 percent and a suburban poverty rate of 7 percent. A quick look at the Wealth Builders in Table 1 suggests that city distress is a common, if not inevitable, feature of many of these metropolitan areas. Perhaps the low population growth rate that qualifies a metropolitan area as a Wealth Builder actually contributes to the inequality within metropolitan areas.

If it is to be persuasive, any analysis of “growth without growth” must examine the full range of welfare measures that we care about. These measures should include not only income growth adjusted for amenities and cost of living, but also the distribution of income across places in the metropolitan area, the distribution of income across people in the metropolitan area, the rate of absolute distress (poverty), and, in the short run, unemployment. By design, the present paper has focused on very broad welfare criteria and measured them at the metropolitan scale.

Caution E: “Growth without growth” might be fine for one metropolitan area. But what if all metropolitan areas in the country managed to achieve it? Wouldn’t that be a serious problem for national economic welfare?

A powerful criticism of “growth without growth” is that while it may be good for the region, it will be bad for the country.¹⁹ Even if an individual metropolitan area chooses not to grow its population, the nation as a whole will still need to accommodate both the next generation and

¹⁹ For a related argument, see Benjamin Chinitz, “Growth Management: Good for the Town, Bad for the Nation?” *Journal of the American Planning Association*, Winter 1990, pp. 3-8.

productive international immigrants. How can this be done if all metropolitan areas seek to minimize population growth? In addition, is there something about the industrial composition or other characteristics of Wealth Builders that might be catastrophic for national macroeconomic performance?

The fact that Wealth Builders appear to be relatively high-tech, while Population Magnets include a number of tourism and retirement economies, should lay to rest any concern about industrial composition. High technology and high productivity strategies are fully consistent with “growth without growth”, while one of the surest ways to become a growth magnet is to pursue tourism - perhaps the only low-wage development strategy that American metropolitan areas have available to them. While tourism is clearly the best choice for some metropolitan areas, national economic policy encourages a high technology, high education path for states and regions.

The rest of this objection can be countered by pointing out that the policy vision laid out in this paper is meant to be non-coercive - a population control “carrot” rather than a population control “stick.” If the market decided that a million new residents should migrate to Salt Lake City, that would surely still occur in a “growth without growth” world.

The main point is that metropolitan and city leaders are already in the business of trying to guide their economies and demographics in certain directions. We do not complain when all metropolitan areas build sports stadiums, spruce up their downtowns, or put money into local universities in the hopes of building a high-tech industry. In all of these cases, metropolitan leaders gamble on a set of essentially unproven policies in order to achieve a set of welfare goals for their constituents. These welfare goals typically include some combination of income growth, job growth, amenity growth, and poverty alleviation.

“Growth without growth” is no different. It simply makes one widespread goal - quality of life through stasis - more explicit, and explores a policy mix that might have some leverage over this goal. It de-emphasizes job growth in favor of income growth as an objective, and puts a healthy democratic emphasis on the preferences of current constituents. Viewed this way, it is difficult to see how policies that serve the interests of America’s 300+ metropolitan areas individually could fail to serve their interests collectively.

With open borders and development rights protected, of course, it is not clear where growth without policies might lead. High-tech strategies can create entirely new industries, which often generate population booms (San Jose, Seattle in the ‘80s). Metropolitan areas are interdependent: if one increases its per-capita income relative to all others without creating congestion or raising housing prices, in-migrants will surely come knocking at its door. But these are all questions of the feasibility, not the desirability, of “growth without growth” policies. Figure 1 above remains the starting point on feasibility, and the story it tells is mostly promising.

VI. CONCLUSION

Again, this work is designed to be provocative in order to stimulate different thinking about metropolitan growth and development. It begins with some very simple observations about the weak relationship between real per-capita income growth and population growth. These are two very important goal variables for economic development. In some cases, metropolitan leaders might want both of these growth rates to be high. In other cases, they may want the first measure to be high and the second one to be low. It is worth asking when, where, and how this latter state of affairs can come about.

We have explored that question using the simplest possible data analysis. There is no formal economic model behind this analysis that specifies exactly how metropolitan income and migration respond to changes in amenities or agglomeration economies.²⁰ That analysis is important, but it should not substitute for signals given to us by the politicians and voters themselves. Put simply, few politicians read the *Journal of Regional Science*. Instead, they use data on income, population, and job growth in order to benchmark their economies and make adjustments in policy. This report is meant as a tool to help that process.

What are the policy conclusions of this work so far? We have punctured one important piece of conventional wisdom: the idea that achieving income growth in a metropolitan area requires population growth. Other findings confirm prior understandings. Tourism economies are more likely to be Population Magnets; high-tech economies are more likely to be Wealth Builders. Areas with rapid population growth are generally found in the sunbelt; areas with slow population growth in the frostbelt. One surprising finding is the large number of frostbelt metros that experienced above-average income growth in the 1990s, putting them into the Wealth Builder category. We do not normally think of metropolitan areas like Milwaukee, St. Louis, or Pittsburgh as economic success stories, but by this particular welfare measure they are.

Many metropolitan areas, like my own Cleveland, Ohio, are projected to have very low rates of population growth over the next twenty years, almost no matter what they do.²¹ The citizens of Greater Cleveland, a Low Growth-Traditional metro area, generally think of population stability as an asset, other things equal. Assuming that its low rate of population growth is a given, what can Cleveland do to become more like Wealth Builders St. Louis or Milwaukee in terms of its income growth? That is the policy question facing many frostbelt metros, and case studies ought be able to shed some light on it.

²⁰ The Brookings Institution sponsored formal economic modeling of the determinants of metropolitan income and population growth concurrent with the present paper. See Janet Rothenberg Pack, *Growth and Convergence in Metropolitan America* (Washington, DC: Brookings Institution Press, forthcoming, February 2002). Variables and findings in Pack's book are broadly consistent with those reported here.

²¹ There is some evidence that trends in population growth are more stable - less reversible - than trends in income growth over periods of a decade or more. This gives us further guidance as to which goal variables we may be able to influence.

In contrast, High Growth-Traditional metropolitan areas like Raleigh-Durham and Austin, TX have the opposite problem. They would like to know what Wealth Builders like Louisville, Fort Wayne, and Providence did that enabled them to avoid adding tens of thousands of bodies in the 1990s. Here again, case studies might be useful for teasing out policies or traits that are too nuanced to be picked up using a statistical approach. Although in this case we suspect the findings will be unsatisfying, as in: “eliminate your sunny climate” or “mount a national advertising campaign to fight your image as an attractive economic destination.”

We hope this report will begin a healthy debate on alternative economic development goals for metropolitan areas. While that debate is going on, we will continue to ask exactly how such alternative objectives might be achieved.

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