



# The IEDC Economic Development Journal

734 15th Street, NW Suite 900 • Washington, DC 20005

Volume 16 / Number 3 / Summer 2017

## Long-Term, Spatially Coordinated Economic Development Makes Sense

*By Emil Malizia, PH.D., FAICP*

### EVIDENCE FOR ECONOMIC DEVELOPERS

This article is based on an empirical analysis of 100 large metro areas in the U.S. Their economic base measured from 1970 to 2000 was associated with economic outcomes in 2010. Metro areas with a more dynamic economic base had higher household incomes and higher property values than more stagnant metros. The study provides support for this article's conclusion that long-term, spatially coordinated economic development makes sense.

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# long-term, spatially

## COORDINATED ECONOMIC DEVELOPMENT MAKES SENSE

By Emil Malizia, PH.D., FAICP

### INTRODUCTION

Economic developers are expected to deliver as soon as possible. Constituent expectations are high, and the pressure on developers is often intense. Yet most economic developers understand that long-term strategies and programs that build on strengths or mitigate weaknesses will be more impactful. Economic developers are hired by state and local jurisdictions. Although coordinated economic development implemented across a metro area holds more promise, economic developers are expected to pursue locality-specific strategies that are often competitive with other jurisdictions within their metro area. This article is based on a study commissioned by the Land Economics Foundation. The research examines the influence of metro-level factors on economic outcomes in central cities. The study results reported below offer support for long-term, area-wide approaches to economic development practice.

In the following three sections, the article presents the justifications for the factors included in the analysis. It then summarizes the empirical results and discusses the implications for economic development practice.

### FACTORS ANALYZED

Many economic developers must facilitate economic growth in the near-term. More jobs and larger tax base are the typical mantras. However in the long-term, higher levels of economic development are indicated when incomes increase, poverty and inequality decline and property values appre-

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ciate. The three outcome measures in this analysis reflect these developmental factors for central cities: median household income, percentage of households in poverty and downtown office capitalization rates that serve as surrogates for underlying property values. Median income and poverty are measured in 2010 for 103 central cities located in 100 large metro areas. The capitalization rates are measured in 2015; lower “cap” rates indicate more valuable property.

Both near-term economic growth and long-term economic development require a strong economic base. At any point in time, industries in the basic sector that are globally competitive can penetrate markets outside the metro area and receive payments that are spent and re-spent locally. Over time, metro economies that take on new specializations or increase productivity in existing ones are expected to thrive relative to metros with more stagnant economic bases. The essential idea is that, in a competitive global economy, dynamic metro areas that adapt to changing conditions and adopt new activities or improve existing ones are more likely to remain viable and outperform metro areas unwilling or unable to evolve. This dynamic version of economic base theory suggests that structural change in the past will influence current outcomes.<sup>1</sup>

In this analysis, Woods & Poole earnings data for 18 two-digit industrial sectors were used to ex-

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### EVIDENCE FOR ECONOMIC DEVELOPERS

This article is based on an empirical analysis of 100 large metro areas in the U.S. Their economic base measured from 1970 to 2000 was associated with economic outcomes in 2010. Metro areas with a more dynamic economic base had higher household incomes and higher property values than more stagnant metros. The study provides support for this article’s conclusion that long-term, spatially coordinated economic development makes sense.

amine the economic base of the 100 metro areas with 103 central cities.<sup>2</sup> Location quotients (LQs) were calculated to identify sector specializations, but LQs are not well suited for comparative analysis. Two well-known structural indicators were used instead: the Hirschman-Herfindahl Index (HHI) and the Krugman Specialization Index (KSI).<sup>3</sup>

Each index looks at economic structure differently. The HHI is an *absolute* measure that calculates how unequal the distribution of earnings is in each metro area without reference to any other place. More evenly distributed earnings are taken to indicate a less organized economic structure. As earnings become more concentrated, economic structure becomes more organized with deeper sectoral specializations and higher HHI values.

On the other hand, the KSI is a *relative* index. It compares the distribution of earnings in one metro area to another area, in this case, to all 366 census-defined metro areas in 2009. The KSI is the sum of the absolute differences between the earnings share in each sector compared to the average share in that sector for all metro areas. The KSI increases as the metro area's economic structure diverges from the average of all metro areas reflecting either more or less sectoral concentration of earnings.

Dynamic economic base theory calls for examining changes in these indexes over time to show changes in economic structure. For the HHI, the 2000 index values were divided by the 1970 index values. Over this 30-year period, reductions in HHI occurred indicating regression to a more disorganized or entropic state. Metro areas with higher ratios are considered more organized and therefore more dynamic. Higher ratios are expected to associate with better subsequent economic outcomes.

When the KSI values in 2000 and in 1970 are similar, the small differences between them indicate less temporal divergence from all-MSA norms. As the KSI values become more different, divergence compared to all metro areas has increased. Larger absolute KSI differences in 2000 compared to 1970 indicate greater divergence over time. Larger absolute differences therefore reflect metros with more dynamic economic structure.

These measures agree with the production-focused theories like economic base theory that emphasize functional specialization and inter-regional trade. Across all metro areas, businesses select or remain in their most profitable location and offer jobs at these locations. Workers are attracted to available employment opportunities (people follow jobs).<sup>4</sup> This logic was first articulated by Sir James Steuart in 1767 (nine years before Adam Smith published *The Wealth of Nations*).

I now proceed to the other class of inhabitants; the free hands who live upon the surplus of the farmers.

These I must subdivide into two conditions. The first, those to whom this surplus directly belongs, or who ... can purchase it. The second, those who purchase it with their daily labour or personal service.

Those of the first condition may live where they please; those of the second must live where they can (find work).<sup>5</sup>

However, another credible viewpoint emphasizes that cities also serve as centers of consumption. Aside from production advantages, amenity-rich cities are likely to be among the most attractive.<sup>6</sup> Richard Florida has applied amenity theory in the following way. Cities offering the amenities that talent craves will attract businesses (jobs follow people).<sup>7</sup>

Amenity theory is measured with per capita earnings in arts, entertainment and recreation (AER). Higher per capita values identify the metro areas offering more amenities to prospective residents. Higher levels and greater increases in per capita AER earnings from 1980 to 2000 should associate with central cities that experience better economic outcomes in 2010.

Two straightforward indicators of economic structure are the percentage of earnings in professional services and the percentage of earnings in manufacturing. For many years, the professional service sector has been growing whereas manufacturing has been declining across U.S. metro areas.

Two straightforward indicators of economic structure are the percentage of earnings in professional services and the percentage of earnings in manufacturing. For many years, the professional service sector has been growing whereas manufacturing has been declining across U.S. metro areas. Changes in earnings from 1980 to 2000 were expected to associate with central city economic outcomes, positively for professional services and negatively for manufacturing. Also, growth in professional services indicates metro areas where talent has increased either because people follow jobs (economic base theory) or because jobs follow people (amenity theory).

## EMPIRICAL RESULTS

The variable distributions and diagnostic tests indicated that ordinary least-squares regression analysis could be used to associate the three outcome measures with the factors identified above. Total employment in 2010 was added to control for differences in metro area size. Although cross-sectional models are by definition not causal, measuring the independent variables for 2000 or earlier and the outcome variables for 2010 or 2015 make before-after inferences plausible.

Variation explained (R-squared) needs to be high enough to warrant practitioners' attention. This was the case for the median income and cap rate models but not for the poverty models. Apparently, other factors have more influence on the variation in rates of central city poverty.<sup>8</sup>

Coordinated strategies for the entire regional economy may have greater impacts on income and property values than ones focused only on the central city or specific localities within the metro area. Furthermore, development strategies designed to deepen or broaden economic specializations should be more effective when applied consistently over time and coordinated across jurisdictions within the metro area.

With total employment as the control variable, changes in the HHI and KSI from 1970 to 2000 were associated with higher median household income in 2010 and lower 2015 cap rates, beyond the 5 percent level of significance. The models explained 30 percent of the variation in median incomes and 46 percent of the variation in cap rates with only these three independent variables. These results support the conclusion that metro areas with more dynamic economic bases have achieved higher levels of income and property values in their central cities.

On the other hand, neither the level of per capital AER earnings in 2000 nor changes in per capita AER earnings from 1980 to 2000 was associated with median income or cap rates. Furthermore, although the percentage of 2000 earnings in professional services was positively associated with median income and negatively associated with cap rates beyond the 1 percent level, *change* in professional service earnings from 1980 to 2000 was not significant in either model. These results support the idea that cities function as workshops first (economic base theory) and playgrounds second (amenity theory).

Perhaps the most interesting result pertains to manufacturing. The percent of 2000 earnings in manufacturing was significantly associated with the central-city variables in the expected negative direction: lower median incomes and higher cap rates. However, *change in manufacturing earnings*, that is, higher ratios of manufacturing earnings in 2000 divided by manufacturing earnings in 1980 at the metro level associated significantly with higher central-city household incomes at the 1 percent level and lower central-city cap rates at the 5 percent level.

Manufacturing has declined in importance over time as services have become more prominent; only six metro areas had more manufacturing in 2000 than in 1980. However, metro areas that maintained a greater share of earnings in manufacturing over this 20-year period experienced better central-city outcomes in 2010. The ability to retain employment and earnings in a declining sector may be an indicator of economic strength. Furthermore, retaining manufacturing may be especially impactful since it is a higher-wage sector with relatively strong local multiplier effects.

## IMPLICATIONS FOR ECONOMIC DEVELOPMENT PRACTICE

These empirical results have practical implications from both the temporal and spatial perspectives. In general, long-term strategies designed to facilitate change in a metro area's economic base over many years appear to have positive results and may turn out to be superior to near-term strategies. Coordinated strategies for the entire regional economy may have greater impacts on income and property values than ones focused only on the central city or specific localities within the metro area. Furthermore, development strategies designed to deepen or broaden economic specializations should be more effective when applied consistently over time and coordinated across jurisdictions within the metro area.

Although long-term strategies are more likely to have positive impacts than quick fixes, long-term coordinated strategies are hard to sustain for many reasons. The advocates for the long-term area-wide perspective are usually weak. Local, state and federal politicians focus on the near-term related to 2-6 year election cycles and are elected to serve specific jurisdictions. Publicly-held companies are locked into increasing quarterly shareholder returns, often at the cost of long-term competitiveness. Non-profits including universities financially supported by government and foundation sources are often expected to show meaningful results in only one or two years. The body politic especially during recessions or when living in declining cities clamors for jobs now.


The possibility of spatially coordinated economic development is also challenging. Although metro areas/city-regions function as the basic functional units in the global economy, constituent local jurisdictions have far more incentive to compete than to cooperate. The problem is exacerbated in home-rule states that suffer from political fragmentation and by income and wealth disparities that encourage "we-they" attitudes.

Attempting to present one set of long-term, comprehensive strategies applicable to all metro areas would be misguided. There is no silver bullet since every place is unique.

This reality is especially harsh for central cities. First, in-commuters who use city services contribute little to the city's tax base. Second, suburbanization has driven development for the past 60 years and has drawn wealth outward, leaving concentrated poverty in many inner city jurisdictions. Third, instead of strengthening the social safety net to counteract spatial segregation and fiscal disparities, the federal government with the exception of the Affordable Care Act has weakened the social safety net.

Attempting to present one set of long-term, comprehensive strategies applicable to all metro areas would be misguided. There is no silver bullet since every place is unique. Perhaps the most realistic viewpoint is to

accept that economic developers will have to devote most attention to industrial recruitment, incentives and other near-term tactics but may have time left for long-term strategic thinking about their region's unique situation. They could learn more by engaging other developers from the same metro area and work with them to coordinate development efforts. On the basis of this research, the following questions deserve serious attention: How should the basic sector be supported over time? How can productivity be enhanced in companies that are exporting goods or services? What specific social capital and physical infrastructure could make the local economic base more dynamic?

The Land Economics Foundation is an affiliate of Lambda Alpha International. The reader can access the report which includes an example of long-term regional economic development planning in Buffalo, New York and the complete data base at [www.lai-lef.org/](http://www.lai-lef.org/) Funded Research, "An Empirical Analysis of Central-City Decline..." The author will also provide the full study on request. [malizia@email.unc.edu](mailto:malizia@email.unc.edu) 

## ENDNOTES

- <sup>1</sup> Enrico Moretti, *The New Geography of Jobs*, Boston: Houghton Mifflin Harcourt, 2011; Michael Storper, *Keys to the City*, Princeton: University Press, 2013, especially Part I; Hans Blumenfeld, "The Economic Base of the Metropolis," *Journal of the American Institute of Planners*, 1955, 21: 114-132.
- <sup>2</sup> Emil Malizia, "An Empirical Analysis of Central-City Decline from the Perspective of Long-Term Economic Change in 100 U.S. Metro Areas," A Report Sponsored by the Land Economics Foundation, Lambda Alpha International, Chicago, 2016.
- <sup>3</sup> Albert Hirschman, "The Paternity of an Index," *American Economic Review*, 1964, 54: 761-762; Paul Krugman, *Geography and Trade*, Cambridge: MIT Press, 1991.
- <sup>4</sup> Note that within each metro area, non-exporting/local businesses are attracted to worker-households locations. Thus, people follow jobs at the inter-metro level, but jobs follow people at the intra-metro level.
- <sup>5</sup> Sir James Steuart, *An Inquiry into the Principles of Political Economy*, Book I, Chapter IX from [www.marxists.org/reference/subject/economics/Steuart](http://www.marxists.org/reference/subject/economics/Steuart).
- <sup>6</sup> Edward Glaeser, *Cities, Agglomeration, and Spatial Equilibrium*, Oxford: University Press, 2008; Edward Glaeser, *Triumph of the City*, New York: The Penguin Press, 2011.
- <sup>7</sup> Richard Florida, *Cities and the Creative Class*, New York: Routledge, 2005.
- <sup>8</sup> Michael Teitz and Karen Chapple, "The Causes of Inner-City Poverty: Eight Hypotheses in Search of Reality," *Cityscape* 1998, 3:33-70. Raj Chetty et al., "Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States," *Quarterly Journal of Economics*, 2014, 129: 1553-1623.

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