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**Urban Planners, Economic Development Planners,
and Economic Growth**

**APPROVED BY
SUPERVISING COMMITTEE:**

Supervisor:

Michael Oden

Ming Zhang

**Urban Planners, Economic Development Planners,
and Economic Growth**

by

Aynaz Nahavandi, B.E.; M.S.

Report

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Abstract

Urban Planners, Economic Development Planners, and Economic Growth

Aynaz Nahavandi, M.S.C.R.P

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Supervisor: Michael Oden

A central goal of urban and economic development planning is producing policies and programs to promote economic growth. Urban planners and economic planners always struggle to define economic development policies to improve the growth in way that enhance the quality of life in the community people live and work. Hence, investigation of factors affecting economic growth at the regional level helps decision makers such as urban planners and economic development planners develop smarter policies to increase more opportunities for economic growth.

This project aims to look at economic growth from the perspective of urban economic development planners. The main questions of this study include: What is economic growth at the regional level, and what factors influence the growth of US urban regions? Is there any relationship between transportation investments and economic growth? What can urban planners and economic development planners learn from the findings of the growth literature that can better link urban planning with economic

development planning and policies? I used research synthesis/meta-study method to review a wide range of studies devoted to economic growth. As neoclassical economists discussed, labor, capital, and human capital and technology are the primary production factors. However, contemporary literature reveals secondary factors that stimulate the efficiency and quality of these primary factors. My findings show that secondary factors such as transportation infrastructure, amenities (schools, housing, weather, and historical, cultural, and recreational centers) and disamenities (pollution, road congestion, and crime rate) influence regional economic growth process. These material factors of economic growth are typically addressed by economists and economic development planners via quantitative analysis of the variables associated with per-capita regional GDP growth. I find, however; that urban planners address a qualitative set of secondary factors related to social norms and institutions. The normative factors include equity, diversity, and housing affordability, and the procedural factors are: public participation, government policies over land use and land development. By reviewing existing regional economic planning, I highlight the lack of strong linkage between economic development planners and urban planners. In the end, an economic growth guideline is developed which might help decision makers such as urban planners and economic development planners derive smarter policies to increase opportunities for economic growth and development.

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Chapter 1: Introduction

1.1 The Need of Investigation of Economic Growth for Urban Planners

Economic growth increases the chances that residents of a community will experience a higher standard of living and quality of life. A community with no growth or negative economic growth will face higher unemployment, poverty, and likely higher rates of crime. For example, Hong Kong had high poverty rates and low levels of personal income in the early 1960s, but now it is a wealthy financial capital because of its rapid economic growth (Noell and Smith, 2013). Not only for developing communities, but also for developed area economic growth opens up opportunities. For instance, healthy rates of economic growth facilitate the transition to greener and more sustainable development in high income countries such as the US (Noell and Smith, 2013). Economic growth means increase in community's ability to take care of itself. With economic growth communities are better able to buy essential goods that meet basic needs such as shelter, food, basic health care, and so forth. In developed communities it allows for stronger social safety nets and more expensive choices. In a word, economic growth tends to make economic growth communities better off.

Taking into account the critical role of economic growth, a central goal of urban development and planning is developing policies and programs to promote economic growth and development. From the perspective of economic development planners, as Boothroyd argues in his study, economic development of a region has been viewed as primarily related to attracting major exporters of goods or services to the region. The

more contemporary approaches to growth emphasize a much broader set of factors that might support a strategic planning approach involving multiple private and public sector actors (Boothroyd, 1993). Robinson states that economic development planning in the US mostly concentrates on real estate development, particularly in central business districts. He also believes that the creation of jobs is the indirect outcome of this approach. In other words, from his perspective economic development planning mostly stresses real estate development as vehicle to increase labor supply and expand the tax base (Robinson, 1989). Urban planners also focus on plans that can improve the quality of life in the community in which the workers lives. Hence, investigation of factors affecting economic growth at the regional level helps decision makers such as urban planners to understand how various planning and local investment initiatives might relate to overall economic performance of a region or jurisdiction.

1.2 Research Questions and Hypotheses

In order to develop a better roadmap for urban planners on how various planning interventions might promote economic growth, I will address the following research questions:

1. How do we define economic growth at the regional level, and what factors influence the growth of US urban regions?
2. Is there a strong relationship between transportation systems and investment and economic growth?

3. What can urban planners and economic development planners learn from the findings of the economic growth literature that can better link urban and economic development planning and policies?

1.3 Methodology

There is a general interest from many fields in regional economic growth and the factors associated with economic growth. I will use research synthesis/meta-study method to review a wide range of studies devoted to economic growth. Research synthesis combines the outcomes of multiple works that study the same phenomena and use similar or comparable metrics. Through this methodology I will provide an explanatory context for economic growth and draw out from existing studies the factors associated with regional growth performance. Therefore, in this study I review relevant theories, critically analyze the research they cover, interpret results of analyses, and come up with recommendations for urban planners to develop smarter policies to increase economic growth.

Chapter 2: Economic Growth and Factors Influencing Growth and Development of Regions

Taking into account the main goal of this study, first of all it is essential to define and delineate the meaning of economic growth. This section will begin by distinguishing between economic growth and economic development. In addition, I will review literatures that focus on the factors that are associated with economic growth. Finally, I will synthesize the findings of the growth literature and distinguish between the primary and secondary factors influencing regional growth processes.

2.1 Economic growth vs. economic development

Brinkman discusses the difference between economic growth and economic development (Brinkman, 1995). He states that a frequent distinction between these two concepts is that economic growth refers to a quantitative increase in GNP/capita, and economic development is qualitative changes in institutions and structure. He also mentions that the difference between economic growth and development is the difference between "statics" and "dynamics." He believes that a static analysis deals with changes within a structure, but a dynamic analysis deals with a sequential pattern of structural transformation as a process through which one structure gives rise to the next (Brinkman, 1995). In addition, he states that "growth by itself, as more and more of the same, will not result in development, but ultimately leads to a leveling characteristic of a logistic growth curve" (Brinkman, 1995).

Haller expands on Brinkman's argument and notes that development cannot be achieved without growth; however, economic growth will not necessarily transfer into development. Economic growth is essential for the consolidation of society as well as increasing the quality of the human factor and the standard of living (Haller, 2012). He also distinguishes between "extensive" and "intensive" economic growth. From his perspective, the former implies the rise of the volume of inputs such as labor, capital, raw materials, lands, etc., and the latter implies the increase of labor productivity and of inputs efficiency such as the reduction of total and per-product costs, the improvement of the price/quality ratio, augmentation of the degree of competitiveness, etc. (Haller, 2012)

The World Bank highlights the quantitative aspect of economic growth, and states "economic growth is quantitative change or expansion in a country's economy". Extensive and intensive aspects of economic growth also have been addressed by World Bank. In this regard the World Bank states "Economic growth comes in two forms: An economy can either grow 'extensively' by using more resources (such as physical, human, or natural capital) or 'intensively' by using the same amount of resources more efficiently (productively)". The World Bank also implies the productivity of labor force and states "When economic growth is achieved by using more labor, it does not result in per capita income growth. But when economic growth is achieved through more productive use of all resources, including labor, it results in higher per capita income and improvement in people's average standard of living" (World Bank Group, 2004).

Kuznets believes that economic growth is a process by which basic materials or inputs are transformed in a production process to yield final outputs. In his assumption economic material is represented as productive resources such as land, mineral deposits, rivers and waterways, population (labor supply), reproducible wealth (accumulated capital) in the form of all types of equipment, inventories and so forth (Kuznets, 1947). In his framework growth is a function of increasing material inputs and the nature, and efficiency of their transformation in the process of production.

According to the definition of Brinkman, Kuznets's identifies inputs in terms of quantitative growth, but the process of transformation refers to qualitative and efficiency improvements which are aspects of economic development. In addition, the value and qualitative dimensions of some material inputs he mentions such as land and mineral deposits have themselves transformed over time via technological change. For example, water ways were a critical source for transportation by early 20 century, but the value of this recourse has been changed as the modes of transportation for carrying goods evolved.

To sum up briefly, economic growth refers principally to quantitative growth (volume or output per capita) and economic development refers more to the qualitative dimensions of growth (diversity, institutional complexity, connectivity, productivity, etc.). An increase in additional quantities and qualities of goods and services is the basic concept that will guide this research.

2.2 Growth Theory

The debate about economic growth began with early classical economist Adam Smith. Smith notes “what encourages the progress of population and improvement encourages that of real wealth and greatness” (Smith, 1976). Smith recognized only three production factors: capital, labor and land. His production function may be expressed as:

$$Y = f(L, K, A)$$

where Y is output, L is labor, K is capital and A is land.

In his classical theory land growth was dependent on conquest of new lands (e.g. colonization) or technological improvements of fertility of old lands (Smith, 1976). Smith mostly emphasizes capital accumulation and the labor force. His production function does not include diminishing marginal productivity, and the growing division of labor did not merely depend on technological improvement. In his view, over time the size of market increases which in turn depends on the availability of capital. Hence, he concluded that capital accumulation is a prerequisite to the division of labor, and economic growth is mostly dependent on capital accumulation.

More contemporary growth theory was advanced by two neoclassical economists Robert Solow and Trevor Swan in 1950s. They developed a model (Solow-Swan Growth Model) which involved a series of equations that show the relationship between labor, capital, technology, and output. Solow’s study shows that only the small portion of the growth in the US is attributed to increased capital intensity and the remaining

productivity growth is reflected as general technological change (Scherer, 1999). Their study had two important implications. The first one is that the productivity of labor force is related to the general improvement in technology. Second, there are diminishing returns to labor and capital inputs and as a result, poorer countries will grow faster and their per-capita incomes will converge toward an international average (Solow, 1956).

Solow's model began with a production function of Cobb-Douglas:

$$Y = AK^{\alpha}L^{1-\alpha} \quad \text{where } 0 < \alpha < 1$$

$$y = \frac{Y}{L} = \frac{AK^{\alpha}L^{1-\alpha}}{L} = \frac{AK^{\alpha}}{L^{\alpha}} = A\left(\frac{K}{L}\right)^{\alpha} = Ak^{\alpha}$$

Y = total production (the real value of all goods produced in a year).

L = labor input (the total number of person-hours worked in a year).

K = capital input (the real value of all machinery, equipment, and buildings).

A = total factor productivity.

α and β are the output elasticities of capital and labor.

y = output (GDP) per worker as function of capital to labor ratio (k).

However, Solow's growth theory does not show how and why technical change occurs in an economy or how specifically it influenced growth. Economic growth is different across nations cannot be explained based only on different rates of capital investment. In addition, in Solow's growth theory government and market policies cannot increase economic growth in the long run. In late 1980s and 1990s, economic growth

theory was advanced through the work of economist Romer and Lucas who developed what they termed an Endogenous Growth Model. The Endogenous Growth Model attempted to address these criticisms and shortfalls of the earlier neo-classical model, and argued that the rate of technological change can be increased through innovation and investment in human capital (e.g. education and training). In this model, government and market policies can have an effect on long-term growth (Yueh, 2013). This fundamental proposition opened up a key theoretical channel for public policy at both the national and regional levels.

Romer and Lucas believe that long-run economic growth results from increasing returns associated with knowledge. Their Endogenous Growth Model, presents a distinct explanation of technological advancement (e.g. innovation), and a new concept of growth in human capital (via increased education and knowledge creation). They believe increasing human capital makes workers productive. In addition, they accentuate the public-private nature of the innovation. Technology and innovation can be generated inside private firms. Competition between firms could generate positive external effects, and these positive externalities contribute to increasing returns in the production of goods and services (Ruttan, 2001). To sum up briefly, the main focus of their study is about the crucial role of increasing human capital (e.g. education) and technological change in explaining growth performance (e.g. innovation) (Helpman, 2004).

Taking into account of what has been discussed above, economic growth refers to a dynamic process of continuous increase in three production factors – labor, physical

capital, and technology. By measuring these changes in these production factors, economic growth be could explained. However, these factors are not fixed and themselves exhibit different rates of change. Therefore, it seems there are some other secondary factors that affect the rates of change in these primary production factors. The controversies and difficulties in measuring the determinants of factor change are highly relevant to better understanding regional growth dynamics and the influences of local urban and economic development planners. Hence, in the next section I aim to find other factors which influence the primary factors shaping growth in GDP per capita. I review contemporary empirical studies that have gone beyond neoclassical growth theory, and I explore other factors in addition to labor, capital, human capital, and technological change that could stimulate economic growth through secondary channels.

2.3 Contemporary Measurement of Economic Growth

I will review contemporary studies and explore secondary factors which stimulate growth in the primary production factors. My research shows that scholars have addressed the primary factors; however, in some cases they also have considered secondary factors as control variables such as transportation, housing, amenities, and disamenities, which are listed as follows:

2.2.1 Economic Growth and Human Capital

Growth in the quantity and quality human capital accumulation of labor force is the main factor that most scholars agree influences regional economic growth. The relationship between labor force and economic growth has been validated by

considerable empirical research both at the regional and national levels. Qadri et al. examine the relationship between human capital and economic growth by using a cross sectional sample of 106 countries. Their research shows that human capital is positively and strongly related with economic growth. However, the rate of return on human capital is higher in low-income countries as compared to the overall returns of human capital across the world (Qadri et al., 2013). Asteriou et al. also present in their research that in the case of Greece there is a relationship between education attainment of the labor force as measured by enrollment rates in primary, secondary, and higher education and GDP per capita (Asteriou, 2001).

Research presented in Florida et al.'s analysis measures the relationship between the regional development (income and wages) and two alternative measures of human capital -education versus occupation of human capital (i.e. the creative class) and factors that affect the distribution of the labor force. Their analysis examines the independent effects of human capital, the creative class, technology, tolerance¹, and other factors on both regional wages and incomes. They find that human capital and the creative class affect regional development, and tolerance is significantly associated with both human capital and the creative class as well as with wages and income (Florida et al., 2008).

During the last century, a highly educated and skilled labor force has been a key factor driving economic growth of countries such as the US or Germany and Japan. Scholars believe that the concentration of skilled labor leads to innovation, the creation of

¹ In their studies this variable has been measured by the concentration of gay and lesbian households and the concentration of individuals employed in the arts and design

specialized industrial centers, and globally competitive firms. As Saxenian argues by bringing skilled people together, cities produce more new ideas and new more efficient ways to produce existing products. Silicon Valley is the famous example of a community where idea producers come together and consistently learn from one another (Saxenian, 1994). In the article Who Is Us, Reich is trying to answer: How can the US improve its competitive performance in the global economy? He believes well-trained workers are an effective element for American's economic future. He discusses that well-trained workers attract global corporations (even foreign-own corporations), the workers can have good jobs, their income will rise, and it improves the country's standard of living. Likewise, skills and knowledge move upward and this leads to accumulated experience which adds greater and greater value to the world (Reich, 1990). Hence, human capital accumulation could increase economic growth via personal and public sector investments in education training and research and development.

2.2.2 Economic Growth and Technology

As discussed before, the debate about economic growth and technology began with Robert Solow and Trevor Swan in the 1950s. In their empirical study, Solow and Swan argue about the productivity of the labor force and how it is related to technological improvements (Solow, 1956). From their perspective technological improvements, as distinct from human capital growth reduce the cost of production and increase the quantity of output per worker (productivity). The relation between economic growth and technology has been the subject of a large literature which I summarize below.

In his study, Sedgley, examines the link between the technology gap and economic growth across the US. He uses a panel data for 48 states which includes variables such as gross state product (GSP), government expenditure, population growth, education variable (as a proxy for human capital), population density, and average daily temperature. He presents strong evidence of the impact of local innovation on local growth (Sedgley, 1998). He believes that local innovation could be measured by variables such as research and development expenditures, patent activity, and scientists and engineers. Finally, his results show a strong tendency for convergence in productivity levels among states (Sedgley, 1998).

Colecchia et al. study the impact of information and communication technology (ICT) investment on economic growth in nine OECD² countries during the past two decades. Their empirical study shows that ICT investment contributed to economic growth between 0.2% and 0.5% per year; however, during the second half of the 1990s, this contribution rose to 0.3 to 0.9 percent per year. Their results show that all countries have benefited from the positive effects of ICT capital investment on economic growth, however, between countries, the United States has experienced an acceleration of these effects, because in the United States the rate of growth in IT equipment has growth during the second half of the 1990s (Colecchia et al., 2002).

The influence of technology in economic growth is not restricted to the developed countries. Yoo also shows in his study that IT investment contributes to economic growth

² Organization for Economic Co-operation and Development

in developing countries as well. He uses cross-country analysis based on data from 56 developing countries for the years 1970–1998 and applies variables such as GDP per capita, ratios of real domestic investment to real GDP, ratios of gross domestic IT investment to nominal GDP, growth rate of working-age, and percentage of the working-age population. He believes that not only physical capital and human capital, but also IT investment specifically influences economic growth significantly (Yoo, 2003).

Lin and Song show in their cross-sectional analyses that several factors, such as foreign investment, labor force growth, urban infrastructure like paved roads, government expenditure on science and technology, and other government expenditures are positively related to per capita GDP growth. Their analyses are based on the data from 189 large and medium-sized Chinese cities for the period of 1991–98. Their findings show that a city where government spent more on science and technology experienced a faster rate of economic growth (Lin and Song, 2002).

Most of the reviewed studies have measured government expenditure on science and technology to prove the relationship between technology and economic growth. I believe that only considering government expenditure on science and technology is not an adequate variable for evaluation, because progress in technology could happen through research, development and technology investment by private firms. As Peck et al. argue in their study, R&D investment in private markets stimulated the Japanese economic growth directly after the Second World War, because the Japanese firms have been a major source of investment on technology. This example shows that government

expenditure on technology is not a perfect variable to measure the relationship between economic growth and technology, because technology is not only public goods, and could be also private goods. However, Peck et al. argue that a higher ratio of private R&D was not the key feature of Japan's high growth era. They state that government policies which controlled technology imports and gave priority to the target industries in economic growth helped the economic performance of Japan in the 1950s and 1960s (Peck et al., 1981). Hence, not only private investment in science and technology could advance economic growth, but also government policies that shape technological and industrial development could shape economic growth.

2.2.3 Economic Growth and Transportation

The analysis of transportation effects (infrastructure investments and networks) on economic growth is important for at least four reasons. First, as Weisbrod and Melo et al. argue by enhancing mobility, production and distribution could become more efficient, and subsequently, the size of the market for local producers will increase (Weisbrod, 2008, Melo et al., 2011). Second, transportation improvements could lead to a reduction in firms' input costs, and thereby increase their productivity and competitiveness (Melo et al., 2011). Third, a better transportation system might enhance accessibility to more diverse and specialized labor forces. As Glaeser states, a successful transportation system can agglomerate people and a concentration of creative people creates chains of innovation (Glaeser, 2010). In addition, not only the agglomeration of creative people, but also the agglomeration of firms could stimulate economic growth (Melo et al., 2013).

Finally, transportation is a large segment of the economy. The median U.S. household devotes about 19% of its income to road transportation (United States Bureau of Transportation Statistics, 2010). In addition, all levels of government together spend \$200 billion dollars annually for transportation (United States Bureau of Transportation Statistics, 2010). Higher than average transportation investments in a region could hence be seen to boost regional growth through direct demand effects.

Lin and Song show in their regression analysis that the growth rate of paved roads has a positive coefficient and is significantly correlated to economic growth (Lin and Song, 2002). Easterly and Rebelo in their research show that government expenditure on transport is consistently correlated to economic growth at the national level (Easterly and Rebelo, 1993).

Melo et al. in their empirical analysis use several inputs like labor force, capital, transport investment and various external environmental factors like education or public investment in health and hospital services. The results of their analysis indicate that “the productivity effect of transport infrastructure can vary across main industry groups and appears to have lower values for the service industries, compared to the primary sector, manufacturing, and construction industries”. Their results also show that higher productivity effects roads compared to other transport modes such as airports, railways, and ports. In addition, they find that the output elasticity of transport is higher for the US economy, compared to European countries. This result is likely influenced by the fact that the US is more dependent on road transport than Europe. Another interesting result

from their meta-analysis is that the effect of transport infrastructure on economic growth appears to be considerably stronger in the long run. They also believe that transport improvements lead to a reduction in firms' input costs and if the saved money is invested in R&D, this circumstance increases productivity. Eventually, it can foster competition levels, which in turn result in a higher overall productivity growth. Finally, they state that transportation investment affects another factor, agglomeration effects. Agglomeration economies occur when economic agents (firms, workers) benefit from being close to other economic agents (Melo et al., 2013).

Mahady and Lahr present in their research how road improvement could improve the economic growth in the case of Peace Bridge between Buffalo, New York, and Fort Erie, Ontario, and Canada. They measured it by variables such as (a) the measured travel time enhancements, and (b) the forecast value of shipments by each industry. They show that an improved travel time encourages producers to extend their market areas and thereby increases their production in the short run. They believe that the transportation infrastructure can make production and distribution processes more efficient, increase the scale of an economy, increase specialization, change logistics systems, and reduce transportation costs. All of these benefit an economy's productivity (Mahady and Lahr, 2008).

Berechman looks at the transportation infrastructure investment from a wider view. He believes that there is a mutual interdependency between transportation infrastructure and economic growth that economic growth also stimulates further demand for

transportation infrastructure. Not only does he look at the increases in human capital, and agglomeration, but also he considers negative transportation effects such as air and noise pollution, road congestion, and accident rate. In his study he discusses three types of impacts generated by transportation investment. He names these three impacts the investment effect, the accessibility effect and the externality effect. From his perspective, the investment effect refers to additional employment, increased regional income, and consumption. He believes that because of congestion more labor resources will be used for the economy. The accessibility effect refers to increase in spatial mobility and connectivity which could be measured by outcomes such as reduced travel time, increased speed of travel, and traffic flow. The externality effect refers to environmental issues such as air and noise pollution, road congestion, and accidents (Berechman, 1994).

Moreover, he mentions that returns from improved transportation infrastructure could be enhanced by traffic management technologies (e.g., the introduction of Intelligent Vehicle Highway System), institutional changes (e.g. changing rules that regulate transport markets) and alternative forms of infrastructure (e.g., investment in rail vs. in highway). A major conclusion from his analysis is that the transportation infrastructure stimulates economic growth if it has increased accessibility. Meanwhile, it should not generate significant negative environmental externalities which, in return, require real resources in order to overcome them. His work points to a specific policy and decision-making framework whereby the effects of transportation investments on growth could be maximized.

Bhatta and Drenann in their study aim to address the question of whether public investments in transportation yield long-term economic benefits. They list the possible long-run economic benefits of public investments in transportation as follows (Bhatta and Drenann, 2004):

- “1. Increases in output;
2. Increases in productivity (output per unit of input);
3. Reductions in costs of production or supply side;
4. Increases in income, property values, employment, and real wages;
5. Rate of return equal to or greater than the social cost of capital; and
6. Reductions in noncommercial travel time, improved access, and improved quality of life.”

What might be problematic is that accessibility is not limited to the transportation network. In other work in the planning field other factors such as land use policies can increase or decrease accessibility dramatically. Theoretically, it is likely that transportation infrastructure investment would generally increase the accessibility and through this channel it could stimulate economic growth. But what Bhatta and Drenann are referring to, is only mobility not accessibility. Therefore, to prove the effect of accessibility on economic growth, land uses should be considered as well.

2.2.4 Economic Growth and Housing

The analysis of housing is important because of several reasons. As Zhang argues, housing is the largest part of non-human wealth for households. In addition, housing costs are a fundamental part of household consumption. Third, real estate investment in the US is more than 50% of total private investment, and around 60% of the nation's wealth, of which about 70% of it is residential investment (Zhang, 2011). Taking into account the above reasons, several studies which address the relationship between housing and economic growth are reviewed below.

The empirical study of Miller et al., on 379 metropolitan statistical areas (MSAs) in the U.S. from 1980 to 2008 analyzes the aggregate effect of house price changes on local economic growth, which is measured with the Gross Metropolitan Product (GMP). Moreover, median household income, population, unemployment rate, and single family house permits are considered in this study as important MSA level control variables in their regression analysis. Their analysis reveals three facts. First, they assume that GMP changes might affect household income and might cause migrations and population changes, and subsequently it would affect the demand for housing. Second, GMP changes might affect local industrial structures and labor force, and thus it might cause migrations of labor force, and consequently it would affect both the demand and supply for housing. They use the unemployment rate to capture this effect of GMP. Third, the housing constructions industry could change GMP, and also affect housing supply and eventually house prices (Miller et al. 2011).

I believe what these scholars show does not really estimate the influence of housing on economic growth. Their interpretations mostly show causal associations. However, other evidence reviewed below does show that housing prices, neighborhood safety and access to good schools are local amenities that might attract firm investment and skill labor to a region. For example, good job and housing balances could increase the productivity of labor force. Efficient spatial distribution of housing units could increase the accessibility of employees to jobs and eventually could increase the efficiency of the labor force. Second, housing as an amenity plays an important role to attract labor forces to a region. If the price of housing units meets the needs of both existing and new incoming residents, this circumstance could increase in-migration and decrease out-migration, and eventually can increase the labor force. Hence, there is a rational relationship between housing and regional economic growth. However, building permits are not a perfect measure, because the quantity of housing could not increase the economic growth. What stimulates the economic growth is the spatial distribution of housing, affordability and neighborhood quality.

2.2.5 Economic Growth and Amenities and Disamenities

Both workers and firms take local living conditions and labor markets into account in their locational decision-making. As Oden et al. discuss, urban amenities affect the quality of space and eventually influence regional economic growth through three channels. First, firms prefer to invest in a high amenity region. Second, talented professionals who are basically mobile prefer high amenity area, and the agglomeration

of talented professionals in various occupations attracts firms demanding skilled labor in those occupations. Finally, high amenity regions attract tourism and income from outside (Oden et al., 2007).

Oden et al. review several empirical studies that show the effects of amenities on economic outcomes. Their studies show that specific neighborhood amenities such as schools' quality, housing affordability, low crime and mobility could affect both firm and worker location, and environmental amenities (clean air, access to parks and recreational amenities) are more important for firms and workers. In addition, while neighborhood amenities and environmental amenities are considered, regions that benefit from cultural amenities might also attract firms and workers/households. They also clarify the definition of urban amenities and divide it into three categories – neighborhood amenities, urban amenities, and environmental amenities.

Table 2.1 Significant urban amenities – Source: (Oden et al, 2007)

Field	Specific Amenity	Example of Indicators
Neighborhood amenities	Housing Price	Medium home price; Medium Mortgage and rental payment; Occupancy rate.
	Quality of Elementary and Secondary Education	Student teacher ratios; Student Drop-up rates; Student Achievement Scores.
	Personal Safety	Violent and property crimes per capita; Road accidents per capita.
	Healthcare	Doctors and hospital beds per capita; Medium healthcare costs; Elderly care facilities per capita.
	Personal Mobility	Average commute time; Mass transit miles per capita.
Specific Urban Amenities	Art, Science and Children's Museums	Museums per capita.
	Performing Art and Musical Venues and Events	Symphony, ballet and theatrical venues per capita; Art galleries and live music venues per capita, Artists and musicians per capita.
	Libraries	Libraries and library books per capita.
	Other Entertainment Events and Venues	Professional sports teams; Amusement parks and zoos and aquariums per capita.
	Dining	Restaurants and coffee houses per capita.
	Urban Architecture	Number of prize winning buildings per capita
	Historic Character	Heritage sites per capita; Number of historically preserved building per capita.
	Urban Density	People per unit of urban land.
	Colleges and Universities	Colleges and University Students as a share of population.
	Racial and Ethnic Diversity	Metro area diversity index.
Specific Environmental Amenities	Climate	Average and seasonal temperatures; Sunlight per day.
	Air Quality	Particulates, Volatile organic Compounds and ozone level.
	Water Quality	Dangerous organic and inorganic compounds in local ocean; lakes and streams; quality of drinking water.
	Absence of Hazardous Waste and Landfill Sites	Number of hazardous waste and landfill sites per urban land area.
	Parks and Open space	Public park land and open space area per capita.
	Outdoor Recreation Opportunities	Public swimming pools, golf course, area of inland water and coastline per capita; Hike and bike trails per capita.

Deller et al. prove in their empirical research that economic growth is conditional upon regional amenity factors such as climate, land, water, winter recreation, and developed recreational infrastructure.³ In addition, they use growth rates in population, employment, per capita income from 1985 to 1995 as variable influencing regional economic growth. Their empirical study shows all five amenities appear to play a significant role in regional economic growth. Among them, climate appears to strongly influence growth levels, but climate influences mostly in population growth, has no role in employment growth, and has a weak influence on per capita income growth. Moreover, only sunny days in January and July temperatures do not influence the final measure significantly. Overall they believe that amenities play an important role in increasing migration, and with the rise in employment the demand for amenities will increase (Deller et al., 2001).

As Glaeser argues, the demand for living in a region could be not only because of economic returns, but also non-market costs and benefits such as weather, safety, or public goods (Glaeser, 2009). Pack also states factors such as climate and the existence of research universities or research enclaves have propelled regional growth. For example, she argues Phoenix and San Jose have experienced rapid growth because of climate in Phoenix and the proximity of Stanford University in San Jose (Pack, 2002). In her

³ In their studies, developed recreational infrastructure includes pools, playgrounds, and significant historical and cultural dimensions. Land variables represent land resources, such as the percentage of acres included in federal wilderness areas, forestland, farmland, and state park land. In the set of water variables, they want to capture a region's river, lakes, and bays, and associated resources for recreational activities such as canoeing, diving, and fishing.

empirical analysis she shows that at MSA-level the coefficient on climate variable even in January is positive and highly significant. Her example to show the relationship between weather and economic growth is the establishment of Disney World which has generated rapid growth for Orlando, Florida. According to her idea Disney World is an outdoor park which cannot be established in MSAs such as Buffalo, Utica, or New York. This example shows that some business decisions are responsive to climate (Pack, 2002). Sedgley also believes that average daily temperature is an important variable in explaining net state migration (Sedgley, 1998). In his study he shows the relationship between technology and economic growth, but he also considers average daily temperature as a control variable.

However, as Glaeser argues, air conditioning could make a place more bearable and increase the people's willingness to further economic return versus pursuit of a pleasant climate. For example, some cold regions such Minnesota or Alaska, or some hot regions like Midland and Odessa in Texas are the examples that show weather as less critical. However, in another example, he states Los Angeles eventually developed not because of being a proper place for production; it was only a beautiful place with a great climate (Glaeser, 2009).

Gottlieb shows that residential amenities play an important role in the location decisions of certain types of firms in 365 municipalities in northern New Jersey. He believes that amenities attract workers and this workforce, in turn, attracts firms. His residential amenity variables as independent variables include seven sections- business,

traffic, crime, pollution, recreation, public education and public services. In addition, he considers employment growth a factor influencing economic growth. His results show that because of high coefficient violent crime plays an important role in reducing economic growth. Residential amenities affect the composition of employment, but not employment density. Finally, the location decisions of high-tech and professional service firms are dependent on amenities and agglomeration; however, agglomeration is still most important for professional service and high-tech firms.

Agglomeration economies were not a key factor for all types of firms. Unlike high-tech firms, other firms like fashion design entrepreneurs consider urban amenities to be more important than agglomeration economies for their location decision. Wenting et al. present in their study that the locational behavior of fashion design entrepreneurs is better explained by urban amenities than by agglomeration economies. They believe that designer profit from superior networking opportunities with peers both within and outside cluster more than from agglomeration economies (Wenting, 2010).

Kahsai et al. assess the relationship between amenities (natural and built) and regional economic growth within 299 counties in the Northeast (NE) region of the US. Their analysis examines the independent effects of amenity variables on the growth of county population including climate, natural resources, land based outdoor recreational facilities, water based outdoor recreational facilities, winter based outdoor recreational facilities, and historical and cultural amenities. Their results show that historical and cultural amenities (like museums, historical sites, zoos, and other attractions) as well as water

based recreational amenities play a positive role in increasing the growth of population. One of their interesting findings is evidence of indirect spillover effects coming from surrounding counties. It means that a county lacks natural or historical attractions can still benefit from the rich natural amenities of its surrounding counties (Kahsai, 2011).

What might be problematic is that most studies on the influence of amenities on economic growth do not consider the accessibility of location based amenities or their quality. The accessibility of a location based amenity should consider the spatial mobility and connectivity of people to that amenity. The reviewed literature showed that to measure amenity indexes, scholars considered only quantity of amenities, but certainly the quality of amenities and their accessibility to resident in a specific region is also important. For example, a region might have numerous natural amenities, but the accessibility for much of population might be very low. So, the high quantity of amenities in a region may not related to broad labor force attraction that would influence potential economic growth.

In addition, reviewed literature did not consider some kind of disamenities such as noise, pollutants, and densely populated neighborhood. Although recreational and consumption amenities could increase the growth in population, employment, income and even housing price, disamenities could have inverse effect.

Finally, as discussed, recreational and consumption amenities could make a region delightful and increase the population, workforce and investment. In addition, recreational and consumption amenities not only could increase the permanent residents,

but also they can increase temporary visitors, and tourists in a region. Tourism is an industry that could easily stimulate economic growth in a host region by bringing in external income and supporting the growth of important sectors (restaurants, hotels retail etc.). Tourism provides employment opportunities for domestic workers which this means the increase in demand for human capital.

2.3 Conclusion

Economic growth refers to a dynamic process of continuous increase in primary production factors – labor, physical capital, human capital and technological change. By measuring these primary production factors, economic growth can be explained. However, the quality of these primary factors can be affected by some secondary factors. Reviewing contemporary empirical research helped to expand upon neoclassical growth theory and showed the necessity of consideration of these secondary factors. As shown in Table 2.2, all of these studies applied different indicators via empirical analysis to show that human capital, technology, transportation, amenities and disamenities can affect economic growth.

Moreover, in neoclassical growth theory the increase in quantity of three core production factors has been shown. This study shows that not only the quantity of these three production factors, but also the qualitative increase of them can stimulate the economic growth, and secondary factors can influence both the qualitative and qualitative levels of primary factors. For example, transportation investment can increase mobility and decrease the commuting time of labor force (increase in quality of movement and

hence productivity of the labor force), or transportation investment can decrease the production costs and stimulate economic growth. Or in the other example, amenities can attract talented workers and this can increase both the qualitative and quantitative level of a local labor force making existing local firms more productive and attracting new investments to a region.

There is a debate about the influence of increase in secondary factors on economic growth including issues of causality. In the case of housing development, for example, increases in GDP cause an increase in income, which eventually leads to increases in housing demand and subsequently housing permits or housing prices. Therefore, increase in housing permits or housing prices results in an increase in labor force income (first effect) and increase in GDP (initial cause). In other words, building permits are understood as a consequence of the first event (increase in GDP). However, it is important how to look at the relationship between the secondary factors and economic growth. For example, job and housing balance can increase the productivity of the labor force. Efficient spatial distribution of housing units can increase the accessibility of employees to jobs and eventually can increase the efficiency of the labor market. Also, housing as an amenity plays an important role to attract labor force to a region. If the price of housing units meets the needs of both existing and new incoming residents, this circumstance can increase in-migration, decrease out-migration, and eventually can increase labor force. Hence, not only quantity but also quality of housing units can stimulate the economic growth.

In addition, it is pertinent to ask, especially from the perspective of local planners, how growth should be considered in terms of a target or optimal level of growth. For example, it is acceptable that congestion and other disamenities may escalate with a high rate of regional growth. Can we avoid a brutal “natural adjustment process” whereby high growth generated increasing disamenities, eventually drive growth down? Again understanding the key interrelationships among the primary and secondary drivers of growth can provide insights about how urban and economic development planners might work in concert.

What has been discussed above shows the definition of economic growth from the perspective of economists and economic development planners. In the next chapter, I will look at economic growth from the perspective of urban planners and explore some other secondary factors that affect economic growth. Meanwhile I will look at the existing regional economic development plans to see how economic development planners implement economic growth in action.

Table 2.2 Summery of studies

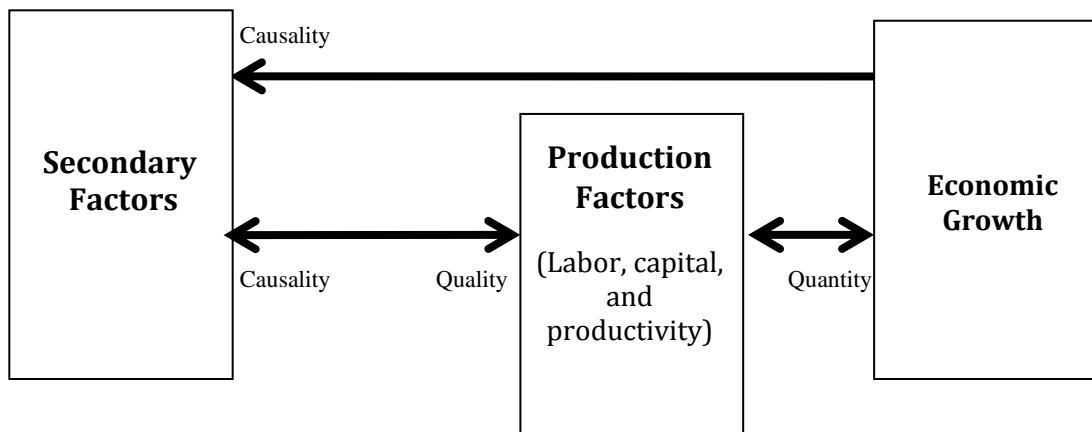
Variables	Index	Level	Findings / Issues
Economic Growth	GDP (Gross Domestic Product)/Capita. GMP (Gross Metropolitan Product)/Capita. GNP (Gross National Product)/Capita. Income and wage .	National/ regional/ local	The Simplest measurement of economic growth
Human capital	Population growth, Population density. Growth rate of labor force. Education attainment (enrolment rate) of labor force. Labor force with a bachelor's degree. Creative class*. Unemployment rate.	National/ regional/ local	Growth in labor force and human capital accumulation can increase economic growth as long as the qualitative level (education level) is adequate.
Technology	High technology industrial output. ICT capital investment. Ratios of gross domestic IT investment to nominal GDP. Government expenditure on science and technology. Patents per worker.	National/ Regional	Both public and private investment in R&D and technology is positively associated with growth.
Transportation	Government expenditure on transport. Transport investment. Travel time/speed of travel. Paved roads. Traffic flow.	National/ Regional	Transportation investment is positively associated with growth. Traffic management technology, land use policies, and oil price can increase/decrease capacities of transportation infrastructure as well.
Housing	Housing price change. Building permits. 30 year mortgage rates.	National/ Regional	Quality of housing as a local amenity generally positively associated with growth. Regulatory environment can made development difficult and increase costs. Public goods such as infrastructure and local public services can affect housing markets. Finally, not only housing but also real estate investment can improve economic growth.
Amenities	Weather: average daily temperature. Natural capital: water, land(areas, forestland, farmland, and state park land), winter recreation. Developed recreational infrastructure: playgrounds, and historical and cultural amenities. Public services like schools.	Regional	In many studies local amenities attract skilled labor and firm investment and can positively influence regional growth. Not only quantitative factors, but also qualitative factors (accessibility to amenities) must be considered.
Disamenities	Noise and air pollution. Road congestion and accidents. Crime rate.	Regional	Generally seen to have a negative effect on skilled labor attraction and capital investment.

* Computer and math occupations; architecture and engineering; life, physical and social science; education, training and library positions; arts and design work and selected entertainment, sports and media occupations (Florida et al, 2008)

Table 2.3 The factors that stimulate economic growth

Primarily Factors		
Human Capital and Technology	Physical Capital	Labor Force Growth
What influence Primarily Factors?		
Skilled labor force Technology and Innovation Transport quality Agglomeration economies	Regulatory Environment Technology and Innovation Transport Costs (Location to market) Local Amenities Labor costs / units	Job seek /opportunities Wage levels Residential Cost Local Amenities
Secondary Factors		
Higher Education Local public and private R&D investment Transport Investments Land Use Policies	Location / distance to market School quality Safety Labor skills Wage Unionization Local R&D Environment and affordable Energy Costs	Local labor market Labor pools Land use and job, and housing balance Housing costs Wage level Schools Safety Climate Urban Amenities Healthcare

Figure 2.1 The factors that stimulate economic growth



Chapter 3: Interpretation of Economic Growth from the Perspective of Urban Planners, and Regional Economic Development Planners

3.1 Urban and Regional Planning Debate around Economic Growth

From the perspective of economic development planners, economic development means promoting growth in jobs, income, or business activity (Boothroyd, 1993). However for urban planners, increase in employment is associated with increase in average income, more consumption, more demand, increases in property value, and subsequently increase in tax revenue. As Boothroyd argues in his study, economic development planning has historically focused on the attraction of major exporters of goods or services to the locality. He also argues that more contemporary approach to growth emphasizes a comprehensive strategic approach involving all private and public actors in a broader range of local development efforts (Boothroyd, 1993). Robinson states that economic urban planning in the US mostly concentrates on real estate development, particularly in central business districts. He also believes that the creation of jobs is an indirect outcome of this approach (Robinson, 1989). In other words, from the perspective of urban planners, real estate development, expansion of tax base and mitigating the disamenities of growth are the major concerns.

But more recently it could be argued that urban planners are increasingly attentive to planning interventions that could improve the quality of life in the community for both the residents and workers. For today's urban planners, trying to define a growth plan for a community might also require consideration of a set of concerns that may have a more

normative character such as the importance of equity, diversity, and affordability. Susan Fainstein offers a vision in her last book, *The Just City*; in which the principles of democracy and equity should take precedence over growth (Fainstein, 2010).

Now this question arises: What is the relationship between equity and economic growth? As discussed in previous sections, attracting talented workers and investing in innovation industries lead to economic growth in a region. However, if this economic growth is associated with polarization in occupational and income structure, and creates two clusters of income--high-paid professionals and low-paid service workers--this could undercut a stable or sustainable growth path. These circumstances can easily lead to more segregation, gentrification, and higher crime rate. In another example, growth without fair distribution may not make the vast majority better off and high growth may be associated with high resource use and environmental impact. Therefore, combining economic growth with equity policies such as affordable housing, more public transportation, and economic integration of income groups in a community, the negative consequences of economic growth can be addressed and a more sustainable growth path charted. Today's urban planners are aware of these issues and try to implement the importance of equity, affordability and diversity in their plans.

In addition to normative factors, urban planners consider procedural factors such as public participation tools, and apply it to any economic, physical, and social development plans. Urban planners are aware of the power of collaborative planning, and they know community involvement and the additional information gained can improve the chances

for success in various development strategies. Government decisions about economic growth both depend upon and affect business firms, and effective strategies and implementation of plans depends on understanding needs and concerns of key civic actors. Hence, both urban planners and economic development entities have applied the public participatory approach as a procedural objective

To understand better economic development planners' debates around economic growth in the US, I review the existing economic development plans of fast growing and/or most populous MSAs in the US. I restate the goals and strategies of these plans and review the factors they have addressed in efforts to bolster economic development performance. Meanwhile, I contrast these various plans with the findings from my review of the broader growth literature as summarized in Table 3.1 above. At the end, I will summarize how contemporary economic development plans from these regions align with the findings of the growth literature.

3.2 Existing Regional Economic Development Plans

3.2.1 Regional Economic Development Councils – New York

In 2011, 10 Regional Councils were defined by Governor Cuomo to develop strategic plans for economic growth in the state of New York. These councils are made up public and private actors from local exports, stakeholders from business, academia, local government, and non-governmental organizations. \$1.5 billion has been awarded to implement regional strategies and priorities. As part of the process, Regional Economic

Development Councils have defined several regional economic development plans with realistic strategies for regional growth. These strategic plans are five-year roadmaps for each region. Each plan points out the region's strengths and weaknesses, defines a vision, and recommends some solutions for job creation in the region (Regional Economic Development Councils, 2011). The summary of these plans are listed as follows:

- **Western New York**

WNY's regional plan is built on three core strategies for eight strategic industry sectors. Three core strategies include building on the assets of human capital through workforce development, promoting entrepreneurship, and place making by applying smart growth principles. The workforce development within this plan focuses on the necessity of maintaining and building talented local workers and stronger partnerships between educators and employers. In addition, the plan refers to the efficiency of smart growth principles that can reduce the cost of new infrastructure, and foster sustainable communities that are attractive to creative talented workers who drive today's economy. Moreover, this plan mentions that WNY sees itself as the precipice of transformation into an innovation economy, so promoting entrepreneurship can stimulate this transformation. These core fundamentals will set the stage for business growth and development of eight strategic industry sectors: health and life sciences, advanced manufacturing, energy, higher education, professional services, agriculture, bi-national logistics and tourism (Western New York Regional Economic Development Council, 2011).

- **Finger Lakes**

Finger Lakes Regional Economic Development Plan emphasizes knowledge-based economy and seeks to change the Finger Lakes into a nationally recognized leader and innovator in next-generation technologies in energy innovation, medicine, optics and imaging, business services, telecommunication, and food processing. The plan includes four regional strategies: 1) optimize business creation, retention, and expansion, 2) strengthen academic and industry partnership, 3) align workforce development efforts with sector needs, and 4) invest in community and industrial development and infrastructure. In addition, the plan aims to expand a successful history of collaboration between public and private institutions to optimize Finger Lakes region's performance in advance manufacturing, the arts, tourism, and basic and applied research in medicine, science, engineering, and technology (Finger Lakes Regional Economic Development Council, 2011).

- **Southern Tier**

Based on the opportunities and weaknesses of the Southern Tier region, the plan uses a collaborative approach to define the five strategies: 1) New York's leader in energy efficiency and renewable energy technology, 2) building next generation transportation technology and manufacturing, 3) integrating health care providers, higher education and cutting-edge technology, 4) revitalizing the rural farm- and forest-based economy of the Southern Tier, and 5) strengthen the Southern Tier's economic development backbone. These strategies are designed to improve business climate, support sustainable economic growth, increase community vitality and quality of life, continue workforce development,

and improve infrastructure (Southern Tier Regional Economic Development Council, 2011).

- **Central New York**

Based on nine strategies, the plan describes a comprehensive approach toward economic growth over the next five years. The plan emphasizes bringing high-quality new jobs, building the research and development capacity of academic institutions and industry sectors, encouraging the exporting of regional products to new and growing international markets, and revitalizing Central New York region's urban cores, main streets, and neighborhoods. The strategies of this plan are listed as following: 1) invest in existing regional industry concentrations and businesses, 2) encourage cross-industry collaborations, 3) attract outside investment and interest, 4) prioritize investments in research, innovation, and commercialization, 5) build a 21st century infrastructure, 6) maximize human capital, 7) rethink our urban redevelopment efforts by leveraging the region's exemplary anchor institutions in education, health and medicine, and arts and culture, 8) repurpose existing infrastructure to recreate density in development and capitalize on regional assets, and 9) retrain to develop the Workforce of Tomorrow (Central New York Regional Economic Development Council, 2011).

- **Mohawk Valley**

This plan aims to build a vibrant economic future for Mohawk Valley region. Mohawk Valley Strategic Plan is guided by seven core principles: 1) building a diverse,

integrated and dynamic economy that leverages technology and innovation, 2) driving efficiency, collaboration and inclusiveness for business and local government region, 3) becoming regionally networked and globally connected, 4) Cultivating, attracting and empowering skilled workers, 5) fostering an entrepreneurial spirit and renewal of our communities, 6) preserving and building upon our abundant natural, cultural and geographical resources, and 7) securing a rewarding quality of life for all. In addition to these core principles, the plan includes five strategies: 1) Leverage business, industry and employment concentrations with high growth potential 2) Increase the supply of skilled workers 3) investment in innovation and technology 4) Increase region's efficiency and productivity through infrastructure and physical and natural assets, and 5) Modernize the region's system of governance and civic institutions to (Mohawk Valley Regional Economic Development Council, 2011).

- **North Country**

North County Regional Economic Development Strategic Plan includes comprehensive strategies to achieve its Vision. This plan is guided by broad-based public participation and driving towards a transformed economy in the North County. Three main strategies shaped the vision of this plan. First, this plan aims to increase and retain jobs in industries that exports products and imports money (manufacturing, agriculture, tourism, biotech, and renewable energy). Second the plan focuses on strengthening existing resources, building capacity and fostering entrepreneurial opportunities. Third,

the plan emphasizes an increase in jobs (North County Regional Economic Development Council, 2011)

- **Capital Region**

Capital Region with the collaboration of the key stakeholders and feedback from community has established these strategies: 1) leverage existing partnerships while building new collaborations across academia, the private sector, and government, 2) create ready access to capital by making it easy to identify existing sources, 3) leverage the strength of the education system, from kindergarten through post-graduate, while collaborating with public and private sectors, 4) ensure that a 21st century infrastructure exists, 5) capitalize on urban centers, 6) attract visitors, new residents, and businesses, and 7) create and celebrate distinct and comprehensive regional identity (Capital Region Regional Economic Development Council, 2011).

- **Mid-Hudson**

Mid-Hudson Council's regional economic development strategy was formed by 32 of council members and their supporting teams and nearly 1,000 citizens gathered at eight public and private sector groups. The Mid-Hudson Regional Council is proposing a series of 15 goals and supporting strategies. This may seem like a large number, but the Council recognizes that the diversity of the Mid-Hudson is strength for its preservation, and must be a central tenant of their Strategic Plan. These 15 goals are listed as follows: 1) developing technology-based industries, 2) retain and stimulate more mature industries

such as distribution, financial and professional services, food and beverage, and health care, 3) Leverage the region's outstanding natural resources, its tourism industry, and agriculture in a "natural infrastructure" strategy, 4) improve key regional infrastructure, 5) foster housing investment to attract jobs to the region, 6) support the revitalization of our urban centers, 7) enhance the region's talent pipeline through its colleges, universities, and schools, 8) promote entrepreneurship, start-ups, and small businesses, 9) make the region and New York State more business friendly by adopting appropriate tax and administrative policies, 10) develop non-mandated programs that encourage, educate, and foster green development projects, 11) embrace inter-regional partnerships that leverage cross-region resources, 12) make the Mid-Hudson region more attractive to young educated professionals, 13) promote waterfront development in order to enhance tourism, recreation, and trade, 14) support MWBEs (Minority and Women Business Enterprises), and 15) align public-private support (Mid-Hudson Regional Economic Development Council, 2011).

- **New York City**

New York City's economic development strategy is based on four key pillars: 1) Improve quality of life (focuses on seven critical areas: public safety, education, parks and waterfront, cultural institutions, sanitation, clear air and water, diverse and thriving neighborhoods, 2) Create a pro-growth, pro-jobs environment, 3) Invest in the Future (it falls int six critical areas: transportation, housing, commercial real estate distribution network, other infrastructure like water and energy, and supporting human capital), and

4) Foster innovation and inter regional cooperation (the city's program addresses three fundamental needs for any innovation cluster: real estate, access to capital, and availability of talent) (New York City Regional Economic Development Council, 2011).

- **Long Island**

The Long Island strategic plan seeks to leverage Long Island's considerable competitive advantages. The key strategies of the plan are : 1) create a cohesive education and workforce training strategy through partnerships among a range of stakeholders, 2) develop innovation and industry clusters, 3) enhance and develop multi-faceted, interdisciplinary facilities aimed at incubating and accelerating the commercialization of innovative products generated, 4) reinvigorate Long Island's manufacturing sector through continued transformation from traditional defense and aerospace work to advanced technology products, creating skilled, high-value jobs, 5) produce a new generation of sustainable, well-paying jobs in the legacy sectors of agriculture, aquaculture, fisheries and tourism, 6) Rebuild and expand infrastructure to improve job access, revitalize downtowns and transit hubs, speed trade (Long Island Regional Economic Development Council, 2011).

Almost all of these ten regional economic development plans of the state of New York have addressed the primary factors. The goals and strategies of all of these plans are based on knowledge-based economy, and almost all of them aim to increase high-quality jobs and talented workers in their region. In addition, all of these plans are guided by broad-based public participation. However, social norms like equity or housing

affordability have been neglected in them. The influence of government land use policies has been referred to in only one plan. These results show the urgent need of collaboration between urban planners and economic development planners.

3.2.2 Capital Area Comprehensive Economic Development Strategy – Austin MSA

COPCOG at Austin MSA provides a Comprehensive Economic Development Strategy or CEDS every five years to serve an economic development plan of the region. CEDS includes representatives from government, higher education, workforce development, economic development, chambers of commerce, and the private sector. The goal of this plan is not to provide guidance to individual cities about what they need to do; rather this plan looks at Austin MSA as a unit of cities and counties that compete globally for employers and workers. The 2010-2015 CEDS is only a 16 page plan, and its outputs are four goals (Capital Area Economic Development District, 2010):

- 1) Develop a globally competitive workforce that encourages businesses to start, locate, and expand in the Capital Area.
- 2) Make the Capital Area the most entrepreneur-friendly region in the US.
- 3) Enhance the Capital Area's economic competitiveness.
- 4) Make the Capital Area a leader in the clean energy economy.

This plan only refers to the talented workers and factors that attract entrepreneurs. However, it does not address primary factors such as technology and capital, or secondary factors such as amenities or transportation infrastructures. Social norms also

have been neglected in this plan; however, the procedural factors like public participation have been applied.

3.2.3 Strategic Plan for Economic Development – Los Angeles

Strategic Plan for Economic Development is defined by the Los Angeles County Economic Development Corporation (LAEDC) in 2009. This plan includes representatives from more than 1,080 stakeholders from business, government, labor, education, environmental, and community-based organizations. This community developed plan includes 12 objectives and 52 strategies to achieve five core goals. The goals and objectives of the plan are listed as follows (LAEDC, 2009):

1. Prepare an Educated Workforce
 - Ensure successful education outcomes at every level, i.e., all students should, at a minimum, achieve grade-level proficiency and graduate.
 - Ensure that businesses have enough workers with the right skill sets to meet their needs.
 - Prepare job seekers and incumbent workers to enter sectors with high-value jobs – as measured by wages, benefits and additional income attracted into the County– and built-in career ladders.
2. Create a Business-Friendly Environment
 - Establish and promote a business-friendly environment to create and retain good quality jobs.
 - Retain and expand the existing job base while pro-actively attracting new businesses, industries, jobs and investment.

- Leverage the county's research and development facilities for the commercialization of research, technology and similar opportunities.
3. Enhance our Quality of Life.
 - Make our communities more desirable places to live.
 - Use all available resources and adopt new approaches to revitalize low-income communities.
 4. Implement Smart Land use Policies.
 - Maintain an adequate supply of jobs-creating land.
 - Develop and rehabilitate land to meet strategic economic development objectives.
 5. Build a 21st century infrastructure.
 - Fix the broken infrastructure development process.
 - Build and maintain critical infrastructure for Los Angeles County.

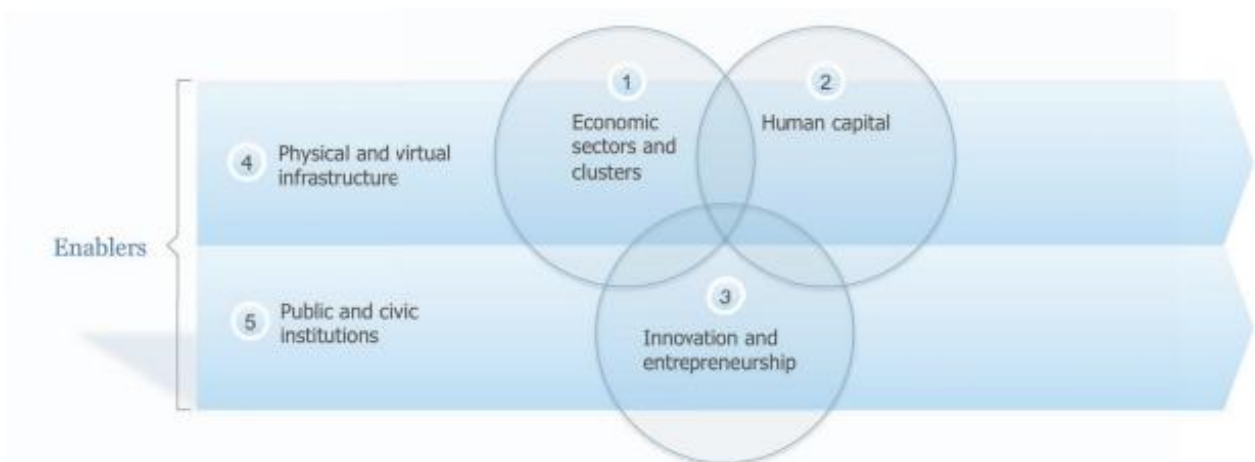
In this plan among the primary factors only human capital has been addressed and technology and capital have been neglected. Regarding secondary factors, only transportation infrastructure has been mentioned. This plan has been prepared through a participatory approach; however, social norms like equity, housing affordability, diversity, etc have been neglected.

3.2.4 Plan for Economic Growth and Jobs - Chicago

World Business Chicago (WBC) has defined a plan for economic growth and jobs for Chicago. In addition to WBC, the Brookings Institution, McKinsey & Company, Metropolis Strategies and RW Ventures also supported the plan. The plan

aims to accelerate growth in Gross Regional Product (GRP), employment, productivity, income and wages. The plan includes ten strategies which follow five market levers - economic sectors and clusters, human capital, innovation and entrepreneurship, physical and virtual infrastructure, and public and civic institutions (WBC, 2012). The strategies of this plan are listed as following: 1) become a leading hub of advanced manufacturing, 2) increase the region's attractiveness as a center for business services and headquarters, 3) enhance our competitive position as a leading transportation and logistics hub, 4) Make Chicago a premier destination for tourism and entertainment, 5) make Chicago a nationally leading exporter, 6) develop our workforce in a demand-driven and targeted manner, 7) support entrepreneurship and foster innovation in mature and emerging sectors, 8) Invest to create next-generation infrastructure, 9) develop and deploy neighborhood assets to align with regional economic growth, and 10) Create an environment in which businesses can flourish.

Figure 3.1 Five markets levers that drive economic growth in Chicago
Source: WBC, 2012.

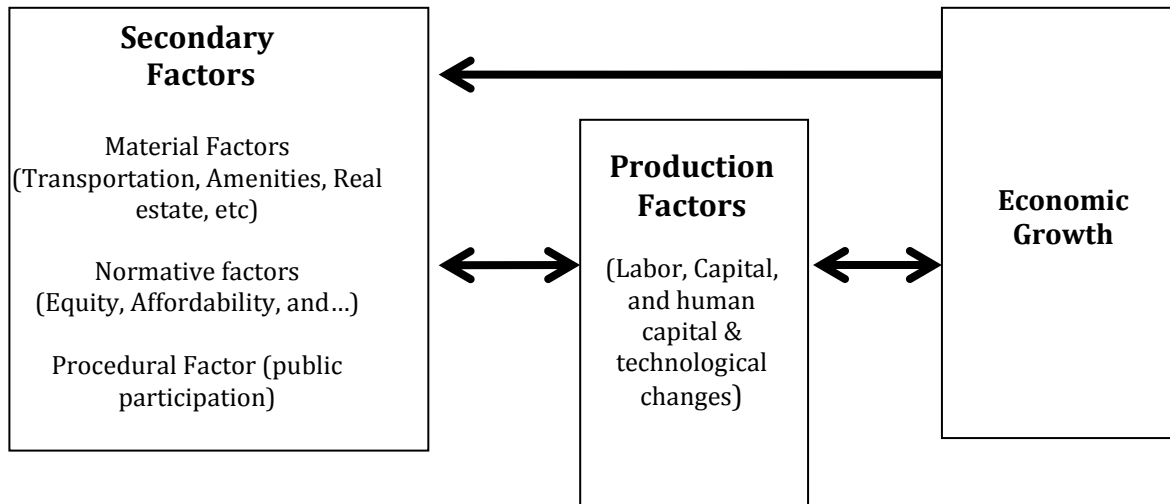


Like previous plans, the plan does not address normative factors like equity and affordability; but it mentions all of the primary factors. Human capital, technology and innovation are core principles that have shaped some strategies in this plan. About the secondary factors, only physical infrastructure and tourism have been referred.

3.3 Conceptual Frame Work about Economic Growth

According to the findings of the second chapter and based on the neoclassical growth theory, economic growth refers to a dynamic process of continuous increase in primary production factors – labor, physical capital, human capital and technological change. However, contemporary literature reveals secondary factors that stimulate the efficiency and quality of these primary factors. My findings show that secondary factors such as transportation infrastructure, amenities (schools, housing, weather, and historical, cultural, and recreational centers) and disamenities (pollution, road congestion, and crime rate) influence regional economic growth process. These material factors of economic growth are typically addressed by economists and economic development planners via quantitative analysis of the variables associated with per-capita regional GDP growth. I find, however; that urban planners address a qualitative set of secondary factors related to social norms and institutions. The institutive and procedural factors are: public participation, government policies over land use and land development, and the normative factors include equity, diversity, and housing affordability. Figure 3.2 shows the factors that stimulate economic growth.

Figure 3.2 The factors that stimulate economic growth



3.4 Determination of Urban Planners and Economic Development Planners’

Intervention to Promote Economic Growth

It seems that the existing regional economic development plans include representatives from local exports, stakeholders from business, academia, local government, and non-governmental organizations, but they usually are finalized under the direction of government experts who are economic development planners. This means that the performance of these existing regional economic development plans shows the knowledge and attitude of economic development planners toward economic growth.

I evaluated the existing regional economic development plans according to my findings from previous chapters to find the difference between urban planners’ views and economic development planners’ views about economic growth. As shown in Table 3.1,

among these plans human labor is the most frequent factors that can increase economic growth. After labor force, attracting physical capital (firm investment) capital and promoting technological improvement are the most frequent factors. This shows that the influence of primary factors on economic growth is obvious for regional economic planners and informs actual plans. Participatory approaches also have been considered important in the process of developing these plans and almost all of these plans have been prepared through some type of participatory approach. However, more normative and social factors such as equity, housing affordability as well as the power of government policies about land use are the less frequent factors.

Reviewing existing regional economic development plans shows the lack of linkage between urban planners and regional economic planners. From the perspective of urban planners, qualitative level of economic growth and secondary factors such as amenities, land use policies, real estate development, equity, diversity, affordability, etc is important. However, economists and regional economic planners mostly concentrate on quantitative level of primary production factors (labor force, capital, and productivity), and rarely they consider investment in amenities and transportation infrastructures.

The direction of economic growth is mostly in the hands of economic development planners; hence, their knowledge and expertise about economy of a region can affect the efficiency of regional economic plans. Therefore, shifting the quantitative approach of economic development planners toward qualitative and normative factors can enhance the success of these economic growth plans in promoting more sustainable growth paths.

Figure 3.3 Urban and economic development planners' intervention toward economic growth

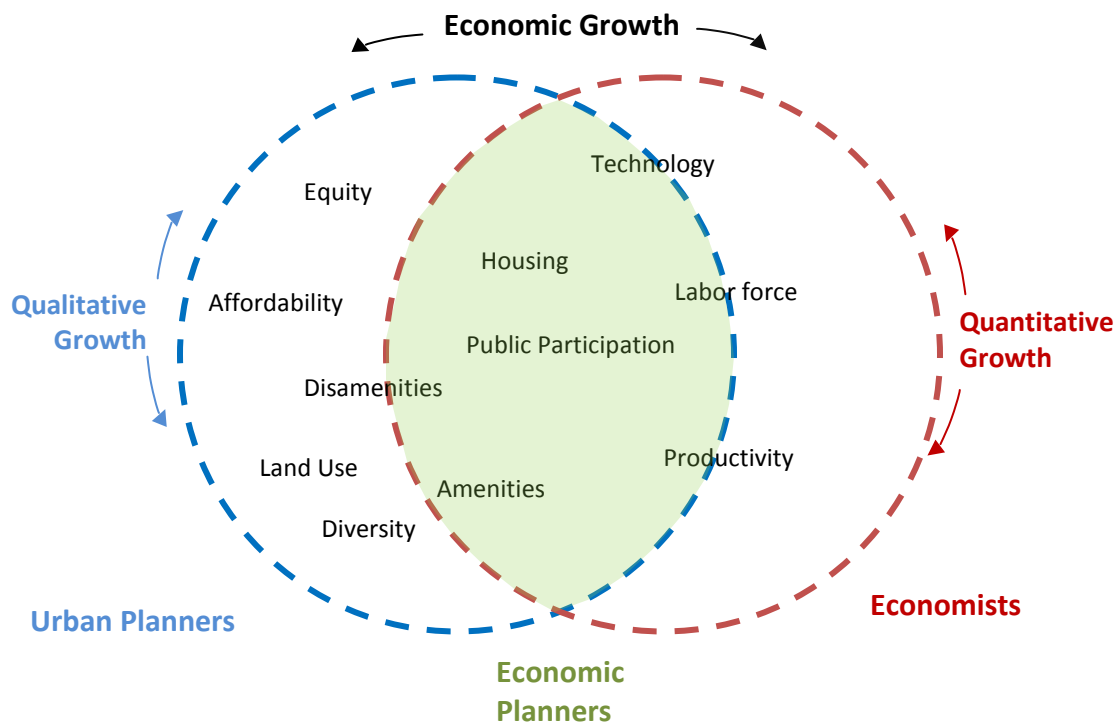


Table 3.1 The summery of existing regional economic development plans

Table 3.1 The summary of existing regional economic development plans		Labor f Force Human capital & Technology Capital			Transportation & Infrastructure Amenities a & Disamenities Real Estate Development			Moral factors (Equity, Affordability, Collaborative Participation Government policies (e.g. Land use)		
Strategic Plans	Highlights									
Regional Economic Strategic Plans -New York State		Primary Production Factors			Material Factors			Procedural & Moral Factors		
					Secondary Factors					
Western New York	<ul style="list-style-type: none">• Workforce development.• Promoting entrepreneurship.• Place making by applying smart growth.• Development across all WNY’s strategic industries: health and life sciences, advanced manufacturing, energy, higher education, professional services, agriculture, bi-national logistics and tourism.	×	×	×		×				×
Finger Lakes	<ul style="list-style-type: none">• Knowledge-based economy by collaboration between public and private institutions.• Renewable energy and technology innovation.• Builds on the region’s significant natural resources, a talented and educated workforce, and a commitment to innovation and technology.	×	×	×		×			×	

Table 3.1 The summary of existing regional economic development plans (continued)

Southern Tier	<ul style="list-style-type: none"> • Balance between a high tech economy, grounded in higher education, and larger employers, and the appeals of small-town life. • Renewable energy technology. • Transportation technology and manufacturing sector. • Integrate health care and higher education. • Revitalization of rural farm and forest based economy. 	×	×	×	×	×				
Central New York	<ul style="list-style-type: none"> • High-quality new jobs. • Investment in R&D. • Workforce training. • International global exports. • Build a 21st century infrastructure. • Promote entrepreneurship, small business development. • Community revitalization by public and private partnership. 	×	×	×	×				×	
Mohawk Valley	<ul style="list-style-type: none"> • Technological innovation. • Multi-mode of transportation. • Workforce skills. • Expand the development of new products, services, and technologies. 	×	×	×	×					
North Country	<ul style="list-style-type: none"> • Increase and retain jobs. • Strengthening existing resources. • Fostering entrepreneurial opportunities. 	×								

Table 3.1 The summery of existing regional economic development plans (continued)

Capital Region	<ul style="list-style-type: none"> • Collaborating with public and private sectors. • Create ready access to capital. • Revitalization of urban centers. • Education, research, technology. • Investment in infrastructure. • Attract new visitors and businesses. 		×	×	×		×		×	
Mid-Hudson	<ul style="list-style-type: none"> • Leverage the region's natural resources (tourism and agriculture). • Investment in infrastructure. • Foster housing. • Revitalization of urban center. • Education, research, technology. • Promote entrepreneurship and small businesses. • Align public-private support. 		×	×	×	×	×		×	
New York City	<ul style="list-style-type: none"> • Improve quality of life through public safety, education, parks and waterfront, cultural institutions, sanitation, clear air and water, diverse and thriving neighborhoods. • Create a pro-growth, pro-jobs environment. • Investing in transportation, housing, commercial real estate distribution network, other infrastructure like water and energy, and supporting human capital. • Foster innovation and inter regional cooperation. 	×	×	×	×	×	×		×	
Long Island	<ul style="list-style-type: none"> • Educated workforce. • Attractive natural assets. • High-tech businesses. • New employment in agriculture, aquaculture, fisheries and Tourism. • Entrepreneurial opportunities. • Expand infrastructure. 	×	×		×	×				

Table 3.1 The summary of existing regional economic development plans (continued)

Comprehensive Economic development Strategy –Austin MSA										
	<ul style="list-style-type: none">Competitive workforce.Entrepreneur-friendly region.Economic competitiveness.Clean energy economy.	×								
Strategic Plan for Economic Development – Los Angeles										
	<ul style="list-style-type: none">Educated Workforce.Create a Business-Friendly Environment.Enhance our Quality of Life.Implement Smart Land use Policies.Build 21st Century infrastructure.	×			×	×				×
Plan for Economic Growth and Jobs – Chicago										
	<ul style="list-style-type: none">Advanced manufacturing.Tourism.Human Capital.Innovation and entrepreneurship.Physical and virtual infrastructure.Public and civic institutions.	×	×	×	×	×			×	
Frequently		11	10	9	9	8	4	0	6	2

3.5 Determination of General Goals for Economic Growth

The findings of the first chapter show what primary factors can influence economic growth. The findings of the second chapter show how urban planners and economic development planners look at economic growth and what secondary factors can stimulate economic growth. The combination of these findings has been summarized in Table 3.2.

Table 3.2 Debate about factors stimulating economic growth

Index	Debate about stimulator factors stimulation of economic growth
Labor force, Capital, and Human capital & Technology	<ul style="list-style-type: none"> -Agglomeration of high educated labor force (human capital). - Agglomeration of productive occupations and firms (talented labor demand, labor pooling). - Information and communication technology (ICT) capital accumulation. - Government expenditure and private investment in R&D, science and technology. - Higher Education.
Transportation	<ul style="list-style-type: none"> - Enhancing accessibility between employments, production sectors, and distribution.
Housing and Real estate	<ul style="list-style-type: none"> - Affordable housing price which is according to the labor force's income. Not-affordable housing causes increase in out-migration and decrease in in-migration. - Investment in real estate can bring considerable revenue for a region and subsequently it can improve public services and attract more labor force and firms.
Amenities and Disamenities	<ul style="list-style-type: none"> - Better weather attracts more labor forces and firms - Natural and built amenities can attract more labors and firms. In addition, it can stimulate tourism industry. - Decreasing crime rate, pollutants can increase the growth in population, employment, and real estate investment.
Social Norms	<p>Equity, affordability, etc can lead to sustainable growth.</p> <p>Public participation could guarantee the success of policies and their implementations.</p>

Taking to the account the results of the reviewed literature, and regional planning debate around economic development, proposed general goals for economic growth have been presented in Table 3.3. It seems that economic growth is deeply associated with these goals. I believe that a combination of these goals with collaborative partnership will result in real success.

Table 3.3 General goals for economic growth

Index	General goals for economic growth
Labor force	Enhancing the quantity and quality of labor force.
Technology	Enhancing technology capital accumulation.
Transportation	Enhancing accessibility between employments, production section and distribution.
Housing and real estate	Adjusting housing value with labor force earning. Enhancing real estate development.
Amenities and Disamenities	Enhancing the quality and quantity of built and natural consumption amenities. Decreasing disamenities which can affect the growth in population, employment, and real estate investment.
Social Norms	Enhancing equity.

Chapter 4: Conclusion -Economic Growth Guidelines for Urban and economic Development Planners

4.1 Reviewing Research Questions

Question-1: How do we define economic growth at the regional level, and what factors influence the growth of US urban regions?

Based on the neoclassical growth theory, economic growth refers to a dynamic process of continuous increase in primary production factors – labor, physical capital, human capital and technological change. However, contemporary literature reveals secondary factors that stimulate the efficiency and quality of these primary factors. My findings show that secondary factors such as transportation infrastructure, amenities (schools, housing, weather, and historical, cultural, and recreational centers) and disamenities (pollution, road congestion, and crime rate) influence regional economic growth process. These material factors of economic growth are typically addressed by economists and economic development planners via quantitative analysis of the variables associated with per-capita regional GDP growth. I find, however that urban planners address a qualitative set of secondary factors related to social norms and institutions. The institutive and procedural factors are: public participation, government policies over land use and land development. The normative factors include equity, diversity, and housing affordability.

Question-2: Is there a strong relationship between transportation systems and investment and economic growth?

Transportation as a key element of urban form can increase productivity of the labor force because of three reasons. By enhancing the accessibility and mobility production and distribution could become more efficient, and subsequently, the size of the market for local producers will increase. Second transportation improvements could lead to a reduction in firms' input costs, and if the saved money is invested in R&D, this circumstance increases productivity. Finally transportation can agglomerate particularly talented workers as well as firms. This enhances the chains of innovation and stimulates economic growth.

Question-3: What can urban planners and economic development planners learn from the findings of the economic growth literature that can better link urban and economic development planning and policies?

Reviewing the related literatures and existing regional economic development plans reveals the lack of linkage between urban planners and economic development planners. In the end, economic growth guidelines are developed which might help decision makers such as urban and economic development planners derive smarter policies to increase economic growth and development opportunities. The proposed guidelines cover all factors which could stimulate economic growth. As it has been discussed before, secondary factors related to social norms and institutions have been neglected in existing regional economic development plans. However, these guidelines cover both primary and secondary factors and could fill the gaps between economic development planners and urban planners.

It should be noted that there is a debate about that the influence of secondary factors on economic growth including issues of causality. In the case of housing development, for example, increases in GDP cause an increase in income, eventually leading to an increase in housing demand and subsequently housing permits or housing prices. Therefore, an increase in housing permits or housing prices are the result of an increase in labor force income (first effect) and increase in GDP (initial cause). In other words, building permits are understood as a consequence of the first event (increase in GDP). However, it is important how to look at the relationship between the secondary factors and economic growth. For example, job and housing balance can increase the productivity of the labor force. Efficient spatial distribution of housing units can increase the accessibility of jobs to employees and eventually can increase the efficiency of the labor market. Also, housing as an amenity plays an important role to attract a labor force into a region. If the price of housing units meets the needs of both existing and new incoming residents, this circumstance can increase in-migration and decrease out-migration, and eventually can increase the labor force. Hence, not only quantity but also quality of housing units can stimulate the economic growth.

In addition, it is pertinent to ask, especially from the perspective of local planners, how growth should be considered in terms of a target or optimal level of growth. For example, it is acceptable that congestion and other amenities may escalate with a high rate of regional growth. Can we avoid a brutal “natural adjustment process” whereby high growth generated increasing disamenities, eventually driving growth down? Again understanding the key interrelationship among the primary and secondary drivers of

growth can provide insights about how urban and economic development planners might work in concert.

4.2 The Structure of Economic Growth Guideline

This guideline includes two sections – the goals and objectives section, and the implantation section. First, I suggest the goals and objectives which increase economic growth and in the next section I propose several implementations to address these goals. The defined goals and implementation objectives cover all factors which could stimulate economic growth. As discussed before, there are different approaches toward economic growth in the US metropolitan areas. These guidelines help decision makers such as urban planners develop smarter policies to increase economic growth opportunities as they engage with certain planning problems and objectives.

4.2.1 Goals and Objectives

4.2.1.1 Objective Goals

G1- Enhancing the quantity and productivity of labor force.

G1.1: Enhancing technological capital accumulation.

G1.2: Enhancing accessibility between employments, production section and distribution.

G1.3: Adjusting housing price with labor forces' wages.

G1.4: Enhancing real estate development.

G1.5: Enhancing the quality and quantity of built and natural consumption amenities to attract more labor forces and firms.

G1.6: Decreasing disamenities affecting the growth in population, employment, and real estate investment.

G1.7: Increasing equity.

4.2.1.2 Procedural Goals

G2 - Adjusting public policies and land use regulations with economic developments plans and policies.

G3 – Enhancing public participation.

G3.1 – Enhancing the presence of residents in all steps of economic development planning process.

G3.2- Enhancing the public awareness about the critical role of participatory planning in economic development planning process.

4.2.2 Implementation

4.2.2.1 Subjective implementation

- Increasing educated labor force demand in innovation industries (e.g. high-tech⁴ industry, or advanced manufacturing) is recommended.

⁴ As Malecki argue, “High technology is best defined as non-routine economic activities directed toward developing new products and processes, and toward small-volume production of innovative products and services” (Malecki, 1984). Aerospace, biotechnology, automotive, artificial intelligence, photonic,

- Determination of proper innovation industries for a region.
- Adjusting taxation policies to the preference of major exporters of goods or services.⁵ (For example, offering a low corporate, sales and property tax rate or even impact fee waiver in special cases to major exporters of goods or services).
- Flexible zoning and regulations to meet the needs of major exporters of goods or services and to give them freedom to develop quickly.⁶
- Providing desirable amenities for workforce and major exporters of goods or services. (For example, providing cultural and social activities that improve an area's "quality of life" like symphony orchestras, opera and dance companies, theaters, museums, and libraries. In addition, providing the good schools and well-maintained public facilities demanded by professional employees [Social infrastructure]).
- Preparing a package (proposed suitable lands) for major exporters of goods or services. A feasibility analysis should be done by the government body to recognize suitable parcels in a city for major exporters of goods or services. It is easier for major exporters of goods or services to buy a shirt which is ready in a shop than ordering it.

information technology, electrical engineering, robotics, nanotechnology, nuclear physics, and telecommunication are all high-tech industry.

⁵ To determine a proper tax rate, a feasibility analysis about risk and return must be done.

⁶ For example, in Silicon Valley, the buildings have a large footprint and are low rise with a lot of open space and surface parking in large lots. Therefore, the regulations and guidelines of proposed parcels must be in accordance to the needs of high-technology industrial centers.

- The infrastructures and utilities must be provided in accordance with the needs of major exporters of goods or services. For example, local airline services are the most important location factor for corporate offices and is second (after professional labor) for R&D (Browning 1980, 58).
- Adjusting urban form to increase the efficiency of major exporters of goods or services. For example, designing open spaces within activity centers. This can increase the chance of social interactions between professionals for building relationship and sharing knowledge.
- Increasing the supply side of an educated labor force.
 - Produce more graduates in advance manufacturing and innovation industries by increasing the quantity and quality of applied science institutions, and providing connections between academia, and entrepreneurial activities and jobs.
 - Investment in innovations industries, educational programs, or any programs that train high-income workers. Providing well-training workers in the region can encourage innovation industries to move to that region.
 - Gathering labor market data, publishing research on workforce shortages (skill gap).
 - Upgrading the skills of an existing workforce by expanding workforce training programs to give workers the skills that major exporters of goods or services seek.

Risks:

The growth of professional jobs might lead to an increase in low-paid service jobs to serve high-paid professionals. Thus, this creates polarization in occupational and income structure in cities. So, there will be two expanded clusters of employment: high-paid professionals, and low-paid service workers. Eventually, it might result in gentrification and segregation (Sassen, 1991).

Investments in high-technology industries might increase the revenue of a jurisdiction because of property and sales taxes; however, this investment is associated with high risk. The competitiveness between regions in terms of lower tax rates or offering better services and facilitates might result in a fast relocation of high-tech firms which means a sudden cut in planned revenue. This cut can easily lead to a huge deficit for a jurisdiction's budget. Therefore, any regions that are the host of any high-tech firms must be aware of other opportunities for those firms and attempt to keep the high-tech firms satisfied. However, the agreement between a city and high-tech industry must be a win-win arrangement. This means that it must be a good deal for both parties and each party must be willing to accept his share of risk. Usually this kind of competition is tilted in favor of high-tech firms. Competing with other US regions to offer lower tax rates to other international high-tech firms should only be done in special cases where the firm's investment and commitment to the community is clear. To enhance the benefit for the US regions (more revenue from taxes), it is better to have a set of federal policies or regulations about tax exceptions.

b. Technology capital accumulation

- Increasing government expenditure on technology and science.
- Facilitate stronger connections between academic research and private industry to promote higher rates of innovation in R&D.
- Developing policies for innovation industries to invest more on R&D (For example:, offering tax exceptions to companies investing more in R&D).
- Increasing the potential of creating new ideas through knowledge capital accumulation. (For example, creating R&D hubs like Silicon Valley).
- Developing government policies control technology imports and giving priority to the main industries in economic growth.
- Attracting private firms that invest significantly on R&D by offering low taxation rates.

c. Build new century transportation infrastructure

- Increasing the accessibility to activity centers.
- Reduce travel time, increase speed of travel and reduce traffic flow by providing rapid public transit. ⁷
- Measuring the mobility, accessibility and connectivity between jobs and a more diverse and specialized labor force, and enhancing them by

⁷ To increase public transit ridership, changing the culture of people from automobile dependency to dependency on public transit is an inevitable factor. This could be achieved by increasing the gas tax, high parking costs, and higher accessibility to public transit networks than highways.

providing multiple modes of transportation and multiple routes between activity centers and residential areas.

- Enhancing mobility, accessibility and connectivity between production sectors and distribution sectors as well as distribution sectors and people.
- Investment in alternative form of transportation infrastructure (for example, investment in rail vs. highway).
- Increase government expenditures on transportation infrastructures.
- Applying for federal grants to build new century transportation infrastructure like TODs.
- Investment in traffic management technologies.
- Changing rules and regulations to increase accessibility for employment, production sectors and distribution (for example, changing zoning and putting job centers near residential centers).
- Reducing the cost of production by decreasing transportation costs for firms (for example, a lower gas tax for truck and trailer).
- Directing transportation infrastructure investments in corridors that have a higher workforce ridership and decrease travel time and travel costs for workers.

Risk

Transit Oriented Development (TOD) might lead to gentrifications. This kind of urban projects usually revitalize an area by some kind of mixed used development,

potentially the land value may increase and subsequently it will lead to gentrification, and the replacement of low income residents.

d. Housing and real estate development

- Providing policies like density bonuses and subsidies to encourage developers to invest in CDB and residential neighborhoods.
- Tracking GDP changes⁸, unemployment rates, and in-migration and out-migration to estimate the required housing units, to maintain the balance between housing supply and demand.
- Developing regulatory regime that encourages more density around activity centers.
- Providing better amenities because it increases the value of real estate developments and attracts more developers to invest.
- Rising workers' income, because their income reflects consumer expectations of real estate development. The higher income the more need for higher value real estate development.
- Decreasing the difficulty of obtaining regulatory approval for building new real estate development.
- Addressing urgent needs of affordable housing by smart policies such as:

⁸ GMP changes might affect household income and cause in-migrations and out-migration.

- **“Community Land Trusts-** Programs that separate ownership of the land from the ownership of housing, thus making the housing unit more affordable.
- **Employment Assisted Housing** – Identified broadly as any type of activity whereby an employer assists its employees in buying homes.
- **Housing Trust funds** – Provide flexible funding resources to help in meeting low-and moderate – income housing needs.
- **Job/Housing Linkage** – These programs require that developers of commercial properties construct or provide financial assistance for the production of affordable housing as a condition of building permit approval.
- **Inclusionary Zoning** – Requires that developers provide a percentage of affordable housing units as part of a proposed residential development project.
- **Community organization ownership of property** – This model can be used to preserve commercial affordability” (PolicyLink, 2000).
- **City Owned property for community use** – “By reserving key properties for strategic uses, communities can manage the

long-term direction of development in their neighborhood”
(Kennedy and Leonard, 2001).

Risks

Gentrification is the most important risk for housing and real estate developments. Revitalization of an area by mixed used development will increase the land value, and subsequently might lead to gentrification. In addition to gentrification, the urgent need to provide affordable housing units for low-income workers is another issue. In some years, because of polarization in occupational and income structures two clusters of employment (high-paid professionals and low-paid service workers) are expanding dramatically. Unfortunately the housing demand for low-income workers is increasing and the housing supply is decreasing. Hence, keeping housing supply and demand balanced for low income workers by affordable housing units is inevitable and must be addressed by smart local government housing policies.

e. Natural and built amenities, as well as disamenities

- Investing in urban amenities that attract talented workers.
- Increasing safety to attract more people, workforce, and firms.
- Decreasing disamenities like noise and pollutant, as well as producing clean and affordable energy.
- Improving the accessibility to amenities.
- Investing in tourist industry.

- Providing some recreational facilities such as stadium, tennis courts, parks, public golf course, playground, camps, public swimming pools, hunting, fishing camps, public fishing camp, skiing centers, Disney World, etc.
- Providing historical and cultural amenities such museums, memorials, historical sites, zoos and aquarium, festivals, arts and other attractions
- Investing in hotel developments and lodges.

Risk

Tourism investment is speculative and must be tied to the development and preservation of amenities and a range of attractions. While tourism growth bolsters regional economic performance, these industries typically have a very bi-furcated wage structure. On the other hand, protecting and improving amenities that might attract tourism may enhance the attractiveness of a region for existing residents and workers and bolster growth through other channels.

4.3.2.2 Procedural implementations

- Enhancing the ability of citizens to influence on local decisions by investing in capacity building.
- Organizing festival, block parties, or free recreational training classes at neighborhood centers to improve social capital at the neighborhood level.

- Organizing public meetings to decide about plans and policies about regional economic growth.
- Adjusting smart regulations and land use policies that improve accessibility, stimulate affordable housing, increase workforce and firms, and increase recreational, historical and cultural amenities.
- Prioritizing mixed use development rather than other kinds of land use because of the agglomeration effect.

Risks:

There are several risks that are associated with participatory planning, but the most important risks are lack of trust between community and planning team, and conflict between stakeholders. So, the planning team must build a relationship with the community early in the process and try to transparently present their goal. Second, to prevent conflict between stakeholders, each stakeholder must define their expectations of the plan, and this must be done early in the process in order to help formulate a coherent understanding of the controversies at hand.

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