Options for Regional Decision Making in Metro Atlanta

Research Atlanta report

By Arthur Chris Nelson, PhD

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EXECUTIVE SUMMARY

By any measure, metropolitan Atlanta is a success story. Rising from the ashes of the Civil War, the city and its region have become one of the nation's largest metropolitan areas. Between 1970 and 1996, metropolitan Atlanta was the nation's second fastest growing major metropolitan area in population (behind Phoenix) and in rising income (behind Boston). By 2020, the metropolitan area will exceed five million people while its commuting shed will be home to nearly seven million people.

Despite this enviable track record, all is not rosy. Atlantans drive more and pollute more per capita than any other people in the nation. Its air quality has become among the nation's worst. The federal government has cut metropolitan Atlanta from certain highway funds. Many of Atlanta's freeway links rank among the nation's most congested. Rivers are polluted and over-silted. Farmland is lost at a rate of 50 acres a day and total open space at more than 100 acres a day. New schools open just as those already paid for close. Many communities have become so exclusive through their land use planning that school teachers, fire fighters, and police officers cannot afford to live in them. In short, Atlanta's heralded quality of life is eroding.

Atlantans have demonstrated a remarkable capacity to meet new challenges. Through savvy leadership, Atlanta had the foresight to build what has become the nation's busiest airport, clearly propelling the metropolitan area into world class status. Where other areas struggled with race relations, Atlantans faced up to the challenge and in many (albeit not all) ways overcame barriers. Despite its last minute bid, metro Atlantans landed what will likely remain the world's biggest Olympics, ever. Compared to challenges of the past, addressing current challenges should be child's-play; all that is needed is a way in which to engage in collaborative decision-making at the regional level.

Can something be done? Georgia's Constitution is one of the nation's most flexible. It provides the legislature and the Governor with numerous ways in which to: create a decision-making body to address one or more public policy issues; define its regions whether one county or several; compose it through appointment by local officials, the governor, or the public through elections; prescribe its powers including taxing powers; give local governments a reason to be meaningful stakeholders in regional decision-making; and provide a wide range of financial and permitting incentives and disincentives to do the right thing.

This report provides the policy and constitutional foundation for crafting regional decision-making approaches to meet regional challenges in a way that simultaneously sustains economic development and improves the quality of life.

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OVERVIEW

Who loses if nothing is done? The city of Atlanta, with its central location, mature transit network, excess capacity in utilities, and reasonably aggressive public officials will probably thrive no matter what happens outside the I-285 perimeter. Communities outside the boundaries of the ten-county Atlanta Regional Commission (ARC) area will enjoy the temporary fruits of being the next ring of new suburban development. Caught between the Atlanta magnet and the sprawling communities outside the ARC, ARC's suburban communities may bear the worst of the downside effects of the current regional decision-making structure. In the end, though, it is all of North Georgia that loses as congestion, pollution, rising taxes, and reduced quality of life diminish its attractiveness to economic development.

Between 1970 and 1996, metropolitan Atlanta was the nation's second fastest growing major metropolitan area (behind Phoenix) and second in rising income (after Boston). Its growth will continue. By 2020:

- The 10-county Atlanta Regional Commission area will exceed four million people.
- The 20-county Atlanta metropolitan statistical area will exceed five million people.
- The 59-county Atlanta metropolitan commuting shed will approach seven million people.

As the population grows, so, too does the concern about the quality of life in the region. Consider:

- At 34 miles per day per person, metro Atlantans drive longer distances and produce more tons of air pollution per capita than any other metro area in the nation. Los Angeles looks good by comparison.
- Homes are so far away from jobs, shopping, friends, and relatives that metro Atlantans spend the most amount of time in cars in the nation. Yet, many jobs go begging because they are simply too far away from people who need them.
- Declining air quality is driving people and businesses away; people with respiratory ailments are advised by their doctors to leave and companies such as Harley Davidson decide to locate elsewhere because of fears about limited ability to expand assembly.
- Around the bend there will be restrictions on water because of the "water wars." Alabama and Florida seem to want their share of water that passes through Georgia. They might have a point: Metro Atlantans consume 50 percent more water per capita than is assumed customarily based on planning standards.
- Open spaces are being lost at a rate of more than 100 acres per day. The result is less vegetation with which to help cleanse the air. It also means increased damage from flooding, not to mention loss of food production and scenery.
- Infrastructure is being overbuilt because development is moving away from where infrastructure already exists. Schools already bought and paid for in one part of the region close while new ones are built in another. The 10-county region comprising the

Atlanta Regional Commission (ARC) appears to have enough water to serve about 4.5 million people and sewer capacity to serve about 6.5 million people, yet it is possible that over the next generation most of the growth in North Georgia will occur outside the ARC leaving existing facilities underused.

Regional problems require regional solutions. What should be done? First, there needs to be consensus that certain problems can be addressed only through some effective form of decision-making coordinated on a regional basis. There appears to be consensus that at least the following issues rise to that level:

- Transportation because of growing congestion, decreasing accessibility throughout the metropolitan area, and air pollution.
- Air pollution because of federal sanctions and eroding public satisfaction with Atlanta's quality of life.
- Water quality and quantity because of impending restrictions associated with the multi-state "water wars."

To some extent, these challenges overlap. Air quality is affected in large part by traffic, which is a by-product of highway construction that chases rather than shapes development, which in turn consumes more land and leads to more water consumption and water pollution. Addressing these challenges necessarily requires addressing other issues reviewed in this report, namely:

- Improving the jobs-housing balance because it will reduce commuting distances and thus improve air quality.
- Reducing fiscal disparity among communities because disparity forces less-endowed communities to expand their property tax base regardless of regional impacts.
- Preserving open spaces because that helps cleanse the air, reduce the potential for groundwater pollution from septic systems used by more than one million people presently, and reduce the potential for low density urban sprawl that undermines transportation and air pollution control efforts.

Further challenging regional decision-making efforts is that each issue has its own "region."

- The air quality "region" includes a 13-county "nonattainment" area but it could just as easily include the 20 county metropolitan statistical area and more likely the 43 county airshed composing most of North Georgia.
- The water quality and quantity "region" may very well be those counties in Georgia through which the "water wars" rivers run (Chattahoochee, Flint, Coosa, and Tallapoosa); 50-plus counties extending from the North Georgia mountains to the Florida border.
- The transportation "region" is the commuting shed of the greater metropolitan area composed of the 59 Georgia counties of the Bureau of Economic Analysis's economic area for Atlanta.

Each of those regions is larger than the ARC. If an issue is addressed by a decision-making body that does not cover its true area, the issue will not be adequately addressed and perverse outcomes could arise. For example, if efforts to manage transportation and improve air quality are limited just to the ARC area, development could be shifted farther out, making the transportation and air quality problems worse.

What are the models of regional decision-making that may effectively address regional issues?

> **Single-purpose mechanisms** recognize that every problem or need for service has its own unique characteristics for optimal performance. One form of this approach are special districts. The ARC area has 44 special districts while Atlanta's commuting shed has 148. Local examples include:
>
> - Metropolitan Atlanta Rapid Transit Authority serving DeKalb and Fulton counties.
> - Grady Hospital Authority serving DeKalb and Fulton counties.
> - School districts that serve mostly entire counties with some exceptions (such as Atlanta and Marietta).
> - County water and wastewater authorities.
>
> Another form is contracting among local governments. For example, the city of Atlanta and Fulton County contract for wastewater treatment with cities and counties throughout the region. Privatization of some services with local government oversight is also a form of contracting. Asset sharing involves some local governments sharing in the cost of providing a service that everyone uses, such as MARTA. Mutual aid agreements are common in public safety.
>
> **Multi-purpose mechanisms** recognized that in large metropolitan areas, so many services overlap and service delivery can be so complex that coordinating them is important to improve efficiency. This can be done in a variety of ways. Regional (multicounty) government is a regional decision-making structure in which a single unified government serves an entire metropolitan region. Regional two-tier federations such as in Toronto, are a decision-making structure in which an upper-tier regional entity provides areawide functions and autonomous lower-tier local governments provide local functions. Regional multipurpose districts are decision-making systems in which an elected or appointed entity provides or coordinates two or more services throughout the region while autonomous local governments (counties, municipalities, townships, special-purpose governments) deliver other services to the area. Examples are the Portland (Oregon) Metropolitan Services District and the Minneapolis-St. Paul Twin Cities Metropolitan Council. City-county consolidation involves a central city and sometimes other municipal governments merging with the surrounding county to form a single government unit such as occurred in Athens/Clarke County, Georgia.

Which is best for metropolitan Atlanta? A single-purpose arrangement to address transportation, or a multi-purpose arrangement to address transportation, water, wastewater, stormwater, regional recreation, and other functions of regional significance?

Who will champion a regional decision-making effort? Experience shows that locally elected officials will not only eschew leadership but will fight it because they fear losing the ability to serve constituents' interests. Business leaders, legislators, and the governor hold the key.

Is the state constitution helpful? In a word, yes. In fact, Georgia's constitution is among the most flexible in the nation in enabling the legislature to address regional problems. Article III, Section VI, Paragraph VI provides:

> **Special districts.** As hereinafter provided in this Paragraph, special districts may be created for the provision of local government services within such districts; and fees, assessments, and taxes

may be levied and collected within such districts to pay, wholly or partially, the cost of providing such services therein and to construct and maintain facilities therefor. Such special districts may be created and fees, assessments, or taxes may be levied and collected therein by any one or more of the following methods:

(a) By general law which directly creates the districts.

(b) By general law which requires the creation of districts under conditions specified by such general law.

(c) By municipal or county ordinance or resolution, except that no such ordinance or resolution may supersede a law enacted by the General Assembly pursuant to subparagraphs (a) or (b) of this Paragraph.

The term *special districts* is not apparently limited to just municipal or county boundaries and would seem to include multiple counties and municipalities within them, nor is it apparently limited to the provision of a single service. The term *local government services* can include police and fire, solid waste, public health, streets and roads, parks and recreation, stormwater and wastewater, water, public housing, public transit, libraries, dock and port facilities, building codes, air quality control, and even pension systems as provided by the constitution. The term *methods of empowerment* can include outright formation by general law, or membership by local governments meeting certain criteria, such as being within an air quality nonattainment area. Membership can be construed as voluntary through action of local ordinance or resolution with the incentive given to voluntary membership being continuation of state grants.

Local governments' decisions are based mostly on self interest. When choosing between alternatives that would leave the local community better off but the region as a whole worse off, the decision will usually be that which advances self-interest even if it impacts adversely on nearby communities. One way to assure that decisions in local self-interest reflect regional concerns is to provide financial and permitting incentives to local governments that consider regional concerns. The constitutional basis for crafting financial incentives is found in Article VII, Section III, Paragraph III:

> *Grants to counties and municipalities. State funds may be granted to counties and municipalities within the state. The grants authorized by this Paragraph shall be made in such manner and form and subject to the procedures and conditions specified by law.*

The constitution provides additional basis for crafting regulatory incentives including conditions for permitting certain activities is found in Article IX, Section II, Paragraph III(c):

> *Nothing contained within this Paragraph shall operate to prohibit the General Assembly from enacting general laws relative to the subject matters listed in subparagraph (a) of the Paragraph (relating to police and fire protection, garbage and waste disposal and disposal, public health facilities, street and road and related facilities, parks and recreation facilities, storm water facilities, water facilities, public housing,*

public transportation facilities, libraries and related facilities, terminal and dock and related facilities, building codes, and air quality control measures) or to prohibit the General Assembly by general law from regulating, restricting, or limiting the exercise of powers listed therein.

Conceivably, everything local government does affecting development may be regulated by the General Assembly. Thus, water effluent permits, the authority to issue septic system permits, and a variety of other permitting exercises by local government could be incentives given to local governments for becoming members of multi-purpose, multi-jurisdictional special districts. How does this relate to "home rule" provisions of the constitution? It would appear that local governments may be free to act in their self interest but the legislature is also free to regulate the manner of action. The Georgia General Assembly appears indeed to enjoy considerable flexibility in crafting state-level approaches to addressing regional issues.

Policy Considerations

The question thus falls onto the legislature and the governor. Business leaders and interest groups that have regional orientations may also encourage regional decision-making approaches. Public opinion polls commissioned in 1998 by the Atlanta Journal-Constitution newspaper show that a majority of metropolitan Atlantans believe that certain issues are addressed best at the regional level. If the current structure for regional decision-making is to be crafted, a few considerations must be addressed such as:

- What are the issues to be within its jurisdiction? Would it be just transportation or water and air quality, or water and wastewater systems?
- What is the region of each issue? Is it the 10-county ARC, or the larger Census-defined 20-county metropolitan area, or the 40-60 county commuting shed?
- How shall a decision-making body be composed? Will it be appointed by local officials (as ARC is), or appointed by the governor (such as the Twin Cities Metropolitan Council), or elected (like metropolitan Portland)?
- What powers will it have?
- How can local governments become stakeholders in regional decision-making?
- Who backs it up legally, financially, and through permitting authority?

Who loses if nothing is done? The city of Atlanta, with its central location, mature transit network, excess capacity in utilities, and reasonably aggressive public officials will probably thrive no matter what happens outside the I-285 perimeter. Communities outside the boundaries of the ten-county Atlanta Regional Commission (ARC) area will enjoy the temporary fruits of being the next ring of new suburban development. Caught between the Atlanta magnet and the sprawling communities outside the ARC, ARC's suburban communities may bear the worst of the downside effects of the current regional decision-making structure. In the end, though, it is all of North Georgia that loses as congestion, pollution, rising taxes, and reduced quality of life diminish its attractiveness to economic development.

INTRODUCTION

What do London, Chicago, Moscow, and Atlanta have in common? They all burned to the ground but were reborn to become greater than before. By nearly every objective measure, metropolitan Atlanta is one of the nation's greatest success stories. Beginning as a town that could not decide on its own name (Marthasville and Terminus were its first names), it was burned to the ground during the Civil War just when it seemed to have found itself. In the more than 130 years since, Atlanta has grown from dust to a metropolitan area that is easily recognizable throughout the world. This is no accident.

The culture of Atlanta is decidedly pro-growth. Where the old money in cities of the North and much of the West seem protective of their station, Atlanta's leadership has always seemed to exclaim, "Y'all come down." Witness only the rapidity with which newcomers are welcomed and can become an integral part of the fabric of this dynamic community.

... metropolitan Atlanta is one of the nation's greatest success stories.

The newcomer sees a vibrant metropolitan area composed of about four million apparently very busy souls. To many it seems incredible that at the mid point of this century, Atlanta and Birmingham were nearly the same size. In the half century since, Atlanta has blossomed into the dominant city of the Southeast. By 2020, the area covered by the Atlanta Regional Commission (ARC) will grow to 4.2 million people while the Atlanta metropolitan statistical area (MSA) will exceed 5 million and its "commuting shed" will approach 7 million. Since 1970, the Atlanta MSA has surpassed Baltimore, Cleveland, Miami, Minneapolis-St. Paul, Pittsburgh, and St. Louis in population. By 2020 it will surpass Boston and Detroit on the way to becoming to the nation's ninth largest MSA.[1]

However, all is not rosy, as this report will detail. Atlantans drive more than any other people in the nation.[2] Its air quality has become among the nation's worst.[3] Many of Atlanta's freeway links rank among the nation's most congested.[4] Rivers are polluted and over-silted.[5] Farmland is being lost at a pace of 50 acres each day[6] and total open space at more than 100 acres each day.[7] As schools that have already been paid for close, new ones with new debt amounting to hundreds of millions of dollars are being built. The federal government, citing insufficient planning to bring the region into conformity with federal air quality standards, has cut off the Atlanta region from certain highway funds.[8] Recommendations by regional planners to local governments on issues of development go unheeded. Local governments do what they please because they do not suffer the consequences of their actions that affect others in the region.

Will success destroy Atlanta? Or will its people and their leaders come together to solve problems that affect everyone in the region so that growth is sustained? That is the central question guiding this report.

BACKGROUND

As Wayne Hill, Chairman of both the Gwinnett County Board of Commissioners and the Atlanta Regional Commission puts it, we are all here because Atlanta (the region) has been good to us.[9] We enjoy a favorable climate, attractive neighborhoods, reasonably efficient local governments with acceptable tax burdens, easy access, and pride in being in a place that is recognized world-wide. Incomes are rising, jobs are forming at a fast pace, and we can buy a mansion here for the same price people may pay for a hovel elsewhere. In short, the vast majority of us enjoy the good life. Astute, elected officials understand this and work to sustain it. The question is, how can our success be sustained given pressing challenges? But first, let us look at Atlanta's growth in relation to other metropolitan areas.

RESURGENS

Atlanta is the quintessential growth machine. Business, labor, education, political, African-American, and civic leaders seem of one mind when it comes to attracting growth. Business and labor leaders naturally desire growth for the increases in income, wages, and jobs it represents. Education leaders desire growth for the infusion of talent, ideas, and resources it represents. Political leaders desire growth for the improvement in the standard of living and quality of life it promises, not to mention more revenues with which to advance popular programs. African-American leaders would seem to desire growth for the opportunities it creates for historically disenfranchised Americans. Civic leaders seem to desire growth for its ability to elevate the social and cultural stature of the area. All groups tend to work together to facilitate growth, mostly with little regard to the costs of growth. Growth is such a part of the culture here that any idea even remotely affecting the growth machine status quo is to challenge its raison d'être.[10]

The regional landscape is also an element of this growth machine. The region is relatively flat to gently rolling and there are no major physical barriers to growth such as mountains or oceans. Although there are important farming areas within the region, the quality of land for farming is decidedly lower than that found in the northeast outside of Philadelphia, or in Florida's central landscape, or California's central valley, or Oregon's Willamette Valley. Impounded water is sufficient to accommodate the needs of millions of people while groundwater can accommodate yet more. Even the weather cooperates.

In short, it may seem that if there was ever a place in the United States for an area to grow, it is the Atlanta area. Between 1970 and 1996, the Atlanta MSA was the nation's second fastest growing large (over two million) metropolitan area in rate of growth, behind Phoenix (see Table 1). With growth has come rising incomes (table 2). During the same period, income in the Atlanta MSA rose at the second fastest pace among the largest MSAs, second only to Boston.

New jobs, rising incomes, emergence as a metropolitan area recognized around the world, Atlanta Resurgens is a study in success.

Will this success continue? Probably. Despite storm clouds on the horizon, the sheer momentum of development will mean that the Atlanta region will continue to grow. Table 3 posits that growth based on three regional landscapes: the ARC region, the Atlanta MSA, and the Atlanta economic area. The figures show that most of the region's growth is projected to occur within the ARC area,

Table 1

POPULATION CHANGE AMONG LARGEST METROPOLITAN AREAS
1970 - 1996

Rank	Metropolitan Area	Population		Change	% Change
		1970	1996		
1	Phoenix	1,049,680	2,753,043	1,703,363	162.27%
2	Atlanta	1,772,991	3,531,203	1,758,212	99.17%
3	Tampa-St. Pete	1,117,227	2,198,898	1,081,671	96.82%
4	San Diego	1,365,976	2,677,203	1,311,227	95.99%
5	Houston	2,193,261	4,239,927	2,046,666	93.32%
6	Dallas-Ft. Worth	2,438,346	4,565,324	2,126,978	87.23%
7	Miami	1,902,815	3,478,051	1,575,236	82.78%
8	Denver	1,336,088	2,271,732	935,644	70.03%
9	Portland	1,266,836	2,072,805	805,969	63.62%
10	Seattle	2,041,221	3,309,180	1,267,959	62.12%
11	Los Angeles	10,000,090	15,426,907	5,426,817	54.27%
12	San Francisco	4,763,476	6,616,009	1,852,533	38.89%
13	Minneapolis-St. Paul	2,031,513	2,760,404	728,891	35.88%
14	Washington	5,412,863	7,145,947	1,733,084	32.02%
15	Baltimore	2,094,838	2,468,790	373,952	17.85%
16	Boston	5,239,273	5,788,380	549,107	10.48%
17	Chicago	7,960,969	8,590,176	629,207	7.90%
18	Philadelphia	5,689,609	5,973,281	283,672	4.99%
19	St. Louis	2,456,251	2,548,410	92,159	3.75%
20	Detroit	5,321,467	5,423,379	101,912	1.92%
21	New York	19,455,308	19,799,710	344,402	1.77%
22	Cleveland	3,096,511	2,909,182	(187,329)	-6.05%
23	Pittsburgh	2,683,011	2,373,640	(309,371)	-11.53%

Table 2

PERSONAL PER CAPITA INCOME: 1970-1996
[Figures in 1992 dollars]

Rank	Metropolitan Area	Population		Change	Change
		1970	1996		
1	Boston	$18,442	$30,366	$11,924	64.66%
2	Atlanta	$16,699	$27,241	$10,542	63.13%
3	Denver	$18,083	$28,650	$10,567	58.44%
4	New York	$21,121	$33,303	$12,182	57.68%
5	Philadelphia	$18,046	$28,413	$10,367	57.45%
6	Washington	$19,228	$30,204	$10,976	57.08%
7	Tampa-St.Pete	$15,275	$23,984	$8,709	57.02%
8	Minneapolis-St.Paul	$18,684	$29,299	$10,615	56.82%
9	Houston	$17,021	$26,556	$9,535	56.01%
10	Seattle	$18,123	$28,269	$10,146	55.98%
11	San Francisco	$21,116	$32,933	$11,817	55.96%
12	Dallas-Ft.Worth	$17,272	$26,906	$9,634	55.78%
13	Baltimore	$17,300	$26,731	$9,431	54.52%
14	Pittsburgh	$16,445	$25,359	$8,914	54.21%
15	St. Louis	$17,260	$26,337	$9,077	52.59%
16	Detroit	$18,115	$27,113	$8,998	49.67%
17	Portland	$17,013	$25,343	$8,330	48.96%
18	Chicago	$19,781	$29,195	$9,414	47.59%
19	Cleveland	$17,949	$26,025	$8,076	44.99%
20	Phoenix	$16,420	$23,377	$6,957	42.37%
21	San Diego	$18,296	$24,282	$5,986	32.71%
22	Miami	$18,889	$24,341	$5,452	28.86%
23	Los Angeles	$19,640	$24,522	$4,882	24.86%

but just barely. If only 20 percent of the people projected to move into the ARC area actually choose to live farther out -- a scenario that is reasonable given current development trends and pro-growth attitudes of most counties outside the ARC region, the result would be that between now and 2020 most growth in the Atlanta commuting shed will occur outside the ARC.

Table 3

DISTRIBUTION OF POPULATION CHANGE
1995 - 2020

Region	Population		Change	Growth Outside ARC
	1995	2020		
ARC	2,847,000	4,169,700	1,322,700	
MSA	3,432,100	5,026,600	1,594,500	271,800
BEA-EA	4,626,700	6,776,200	2,149,500	826,800

SECTION I. WHAT IS THE "ATLANTA" REGION?

Just what is the Atlanta region?

Let us ask first what a region is. Some regions can be very small, such as the region around an elementary school where their residents' children go to learn. Some regions can be very large, such as the United States when it comes to national defense. Regions are defined in a number of different ways. The "mountain" region of the U.S. is logically that landscape dominated by the Rocky Mountains. The "southeastern" region is that landscape south of the "Mason-Dixon Line" and east of the Mississippi River. Within Georgia, there are the "North" and "South" Georgia regions based on location with respect to the "gnat" line. But "region" can also mean such landscapes as the "northern tier" composed of Atlanta's suburbs located roughly north of Interstate 20 and extending perhaps to the borders of the Carolinas, Tennessee, and Alabama. "West" Cobb as a region extends roughly west of Marietta while "South" Fulton extends southward from the city limits of Atlanta. When we talk about "region," what do we mean? The answer is that it depends.

Simply put, a region is a landscape over which everyone within it shares a common interest. For example, everyone using the rail system of the Metropolitan Atlanta Rapid Transit Authority (MARTA) can be considered within MARTA's region. Based on recent studies, this would be an area extending as far eastward as Jackson County,[11] But it could also be defined more narrowly as that landscape containing those people who tax themselves to provide this service, which is merely DeKalb and Fulton counties.

If the idea of "region" is amorphous, it is because it means a different landscape for different purposes. Consider the following politically-defined regions affecting the Atlanta area.

Statistical Regions

Bureau of Economic Analysis (BEA) Economic Areas. Using such indicators as newspaper distribution, broadcasting reception, commuting patterns, banking and financial relationships, and other means showing how people are socially and economically linked, the BEA has constructed 183 "economic areas" stretching across the United States. Figure 1 shows the counties assigned to the Atlanta economic area by the BEA based on the 1990 census.

... a region is a landscape over which everyone within it shares a common interest.

Metropolitan Statistical Areas. Using primarily population size, workplace location, and commuting patterns, the U.S. Bureau of the Census classifies counties as either metropolitan or nonmetropolitan, and assigns metropolitan counties to areas called "metropolitan statistical areas" (MSAs). When two or more MSAs share the same workforce, they are merged into "consolidated metropolitan statistical areas" (CMSAs). Many Georgia counties are currently assigned to one of eight MSAs (see Figure 1).

- Albany;
- Athens;
- Atlanta;
- Augusta;
- Chattanooga (Tennessee);
- Columbus;
- Macon; and
- Savannah

INSERT FIGURE 1

Georgia has no CMSAs presently. In light of development patterns, it is possible that by 2020 the Athens, Atlanta, Chattanooga, and Macon MSAs will be merged into an Atlanta CMSA.

Administrative Regions

For all intents and purposes, Georgia is composed of four tiers of decision-making engaged in by elected officials. They are:

- The state of Georgia, the legislative decision-making process for which is composed of 156 representatives and 56 senators, with an elected administrative structure composed of a governor, a lieutenant governor, an attorney general, a superintendent of public education, and five members of a public service commission. The state's judiciary is composed of elected members of the state court of appeal and supreme court, while superior court judges serving prescribed circuits are elected from voters of those circuits.

- Cities, of which there are 536 in Georgia managed by 3,232 elected officials.

- Counties, of which there are 159 in Georgia managed by 1,551 elected commissioners or judges.

- Special districts including school districts of which there are 604 in Georgia managed by 1,281 elected officials.

In an attempt to coordinate decisions on certain issues affecting collections of local governments, Georgia has created 16 "regional development centers" (RDCs), one of which is the Atlanta Regional Commission (ARC). Those issues include land use planning consistent with the Georgia Planning Act of 1989, transportation planning for those RDCs also serving as "metropolitan planning organizations" (MPOs) pursuant to Federal legislation, and the delivery of a variety of services provided by the state ranging from technical assistance to elderly care planning.

Environmental Regions

The environment knows no boundaries and does not elect people to represent its interests. The principal environmental regions presented here are those for air and water sheds.

Air Shed Region. The air Atlantans breathe comes from the same source as that which everyone on the planet breathes: the atmosphere. Yet, because of patterns of air movement, terrain, and other factors, an "air shed" region has been defined by the U.S. Environmental Protection Agency that affects all of the Atlanta MSA and much of the Atlanta economic region. This air shed is composed of all or parts of 43 counties. The air shed can be decomposed into two components: one for attainment and one for nonattainment of federal ambient air quality standards. There are 13 nonattainment counties, including all 10 counties of the ARC.

The quality of the air in the Atlanta area is monitored by the federal Environmental Protection Agency (EPA) and the Georgia Environmental Protection Division (EPD) of the Department of Natural Resources (DNR). Indeed, because of the region's inability to develop and implement a plan to meet federal ambient air quality standards, the U.S. Department of Transportation is now withholding certain transportation funds from use in the 13 counties comprising the nonattainment region. Lawsuits have been filed by the Southern Environmental Law Center, Georgia Conservancy, and the Sierra Club to prevent the Georgia Department of Transportation from using federal funds to build "grandfathered" projects -- those roads approved for construction before the withholding order was entered.

Watershed Regions. The Atlanta MSA is bisected by the Appalachian continental divide. Along much of Peachtree Street extending from downtown Atlanta through Buckhead, rainwater falling on the westerly side finds its way into the Gulf of Mexico while rainwater falling on the easterly side finds it way

to the Atlantic Ocean.

Water quality and supply is becoming a major regional issue. The city of Atlanta pays a daily fine of several thousand dollars to the state for its failure to meet state and federal standards relating to discharging undertreated wastewater into the Chattahoochee River. On a different front, Congress created an interstate compact commission to address concerns of Alabama and Florida on Georgia's use of water from the Chattahoochee and Coosa rivers which pass through those states.

Water quality is also affected by septic systems that fail and inject undertreated sewage into groundwater tables. According to the American Housing Survey for 1996, nearly 400,000 housing units, occupied by more than one million people, are on septic systems; this is more than a quarter of all homes in the Atlanta MSA. In some situations the presence of septic systems may be a time bomb waiting to pollute groundwater and nearby surface waters.

Real Estate Market Regions

Like the environment, the real estate market is not very sensitive to political boundaries, although there can be some influence at the margin. It is, however, sensitive to proximity to market places such as downtowns and edge cities, trans-shipment points, employment nodes, and other locations of centrality. In fact, the BEA's definition scheme for economic areas is a reasonably good proxy for the extent to which the real estate development market operates around central places.

Publicly Regulated Utility Regions

Publicly regulated utilities operate best at certain very large scales of economy but because of their peculiar economic characteristics, however, their boundaries of service must be akin to franchise limits. Otherwise, predatory pricing would occur and ultimately result in only one provider, who could then charge monopolistic prices.

Electrical Power and Natural Gas. Electricity used throughout north Georgia is provided primarily by Georgia Power, a subsidiary of the Southern Company. Olgethorpe power has some franchise areas as do a number of individual municipalities that own their own distribution (but not production) networks. The Atlanta Gas Light Company provides most of the region's natural gas. "Deregulation" of those utilities means that most existing boundaries will be meaningless within the next few years. For example, Atlanta Gas Light, long the region's only provider of natural gas, now must compete for customers who may now choose from several providers.

Telecommunications. The local calling area for the Atlanta region encompasses about 30 counties, the most in the nation. Several Alabama counties adjacent to this calling area also are eligible for local service. Because of its size, Atlantans can live and work practically 50 miles from the city center and still be considered "Atlanta" for advertising purposes. This is a subtle but influential factor helping to explain the sprawl the region presently faces.

Public Sector Functional Regions

Public finance economics seems preoccupied with finding the optimal size of a community wherein the desired level of public services are provided at minimum cost. This is called the correspondence principle. Essentially, at any given point in time and space, each public facility has its optimal service population across an optimal area. Unfortunately, the optimal population and area for one service is not the same as for another. For this reason, the services created by one jurisdiction may be delivered via contract to another, or a system of local governments may agree to come to the mutual aid of each other, or all local governments may come together to provide a common service beneficial to everyone.

Transportation Regions

The Atlanta area is composed of several overlapping transportation systems each operated by separate jurisdictions, sometimes without coordination between them. Arguably, the region of the federal interstate and secondary highway system is the nation while that of state highways, which cross county and city boundaries, is the state of Georgia. The Georgia Department of Transportation (GDOT) manages all state and federal highways. It receives funds from the federal government, state gasoline taxes (currently seven cents per gallon), a special sales tax (of three percent on motor fuel sales), some license and user fees, and hundreds of millions of dollars annually from the state general fund (fed mostly from state sales and income taxes). Cities and counties operate their own street networks.

The Metropolitan Atlanta Rapid Transportation Authority (MARTA) operates a rail and bus system serving just DeKalb and Fulton counties even though thousands of people living in other counties use that service. Actually, MARTA's charter given to it by the legislature includes five counties, Clayton, Cobb, DeKalb, Fulton, and Gwinnett, but only DeKalb and Fulton taxpayers have voted to support it financially. Cobb County operates Cobb Community Transit (CCT) while Gwinnett County recently revealed plans to operate its own system. CCT feeds into MARTA rail stations even though taxpayers of those counties do not share in the operating costs borne by DeKalb and Fulton county taxpayers. The Gwinnett county system will presumably also feed into MARTA.

The idea of region depends greatly on what the issue is.

Summary Observations

The Atlanta area is composed of many different regions. Indeed, from one perspective, the region of metropolitan Atlanta is the world. The idea of region depends greatly on what the issue is. Although much of this report focuses on the region served by the Atlanta Regional Commission, in fact many problems facing the ARC also affect the much larger "commuting shed." Because half or more of the growth in Atlanta's commuting shed may occur outside the ARC, it may be necessary to include all commuting-shed counties in regional decision-making to effective address air quality, water quality and quantity, and transportation.

SECTION II. WHAT ARE THE REGIONAL CHALLENGES?

Identifying the problems facing the ARC and its larger commuting shed probably depends on whom one asks, who they are, what they do for a living, and what their social-political-religious orientations are. Nonetheless, a reasonable list of regional concerns include:

- Air quality;
- Water quality and quantity;
- Open space preservation;
- Transportation;
- Jobs-housing balance;
- Services and taxes; and
- Fiscal disparities.

Each problem has its own region but they all affect everyone living in the ARC area and to some extent everyone living in the larger commuting region.

Air

In 1997, 18 percent of the respondents to an Atlanta Journal-Constitution survey indicated that air quality was their top environmental concern; in 1998 this concern rose to 31 percent.

In May 1996, the Federal Environmental Protection Agency (EPA) put the state of Georgia and the ARC on notice that the metropolitan Atlanta region would lose federal transportation funds after the current transportation improvement plan (TIP) expired. Federal funds presently account for about 80 percent of all funds for new or expanded highways. Forty-nine highway projects were "grandfathered" but even they may not be funded because of impending litigation. The reason metropolitan Atlanta is losing highway funding is simple: too much air pollution. Why is air pollution a problem? Research indicates that health impacts can be significant and that large portions of the population may be at risk because of high pollution levels (see Box 1).[12]

The federal Clean Air Act Amendments (CAAA) require all nonattainment areas such as metropolitan Atlanta to conform their transportation plans with their respective State Implementation Plan (SIP) for air quality attainment. In Georgia, the Environmental Protection Division of the Department of Natural Resources is responsible for the SIP.[13] A key element of the SIP is an "emissions budget." This is the total of all emissions from all sources (stationary, area, and mobile including reformulated gasoline, enhanced inspection and maintenance programs and transportation plans and programs) which a non-attainment area cannot exceed in accordance with federally prescribed time frames that must be incorporated into their SIP. In effect, budgets are a quantification of the "carrying capacity" of the region for each pollutant type and is reduced gradually over time as the area nears attainment. After an area attains the NAAQS, it cannot exceed this cap on emissions and thus must identify ways to offset emissions increases due to new population growth and jobs.

Atlanta's air pollution predicament is caused in part simply by geography. Although it is not hemmed in like Los Angeles, where air cannot escape in the late afternoon, the Atlanta area suffers from "air stagnation" (see Figure 2.) The air here moves less than the air in nearly all of the East Coast which means that emissions build up and are not swept out to other areas.

BOX 1

HEALTH EFFECTS OF AIR POLLUTION

Carbon Monoxide - Impairs the ability of blood to carry oxygen in the body. Affects primarily the cardiovascular system, causing angina pain in persons suffering from cardiac disease and leg pain in individuals with occlusive arterial disease. Affects animals, especially mammals, similarly.

Lead - Damages the cardiovascular, renal and nervous systems, resulting in anemia, brain damage, and kidney disease. Pre-school age children are particularly susceptible to brain damage effects. Similar effects are observed in other mammals. Affects animals, microorganisms, and plants.

Nitrogen Dioxide - Impacts the respiratory system, causing a high incidence of acute respiratory diseases. Young and pre-school children are especially at risk. Damages certain plants and materials. Degrades visibility due to its brownish color and the conversions to nitrate particles. Nitrate particles are also a major component of acid rain.

Ozone - Damages the respiratory system, reducing breathing capacity and causing pain, headache, nasal congestion and sore throat. Individuals with chronic respiratory diseases are especially susceptible to ozone. Injures some plants, trees and materials.

Particulates - Cause irritation and damage to the respiratory system, resulting in difficult breathing, inducement of bronchitis and aggravation of existing respiratory disease. Also, certain polycyclic aromatic hydrocarbons in particulate matter are carcinogenic. Individuals with respiratory and cardiovascular diseases, children and elderly persons are at the greatest risk. Damages soils, materials and impairs visibility.

Sulfur Dioxide - Aggravates asthma, resulting in sneezing, shortness of breath and coughing. Healthy persons exhibit the same responses at higher concentrations. Asthmatic and atopic individuals are the most sensitive groups, followed by those suffering from bronchitis, emphysema, bronchiectasis, cardiovascular disease, the elderly and children. Damages some plants and materials. Impairs visibility and contributes to acid deposition due to its conversion to sulfate particles.

Source: Adapted from Clean Air Briefs, Washington, DC: National Association of Regional Councils.

Since the CAAA requires SIPs only for nonattainment areas, an air pollution budget for the 13-county nonattainment area has been prepared by the SIP. However, Atlanta's airshed actually includes 43 counties (stretching Alabama on the west to North Carolina on the north to nearly South Carolins on the east including Athens and to Macon on the south), some or all of which may also fall into nonattainment. It is reported in Table 4.

Success of the state implementation depends on, among other things:

- Actions by utility companies to retrofit plants with air cleansing devices, including some 31 plants that have "grandfathered" status;

- Voluntary actions by citizens and firms such as carpooling, transportation demand management strategies, and increased use of public transportation;

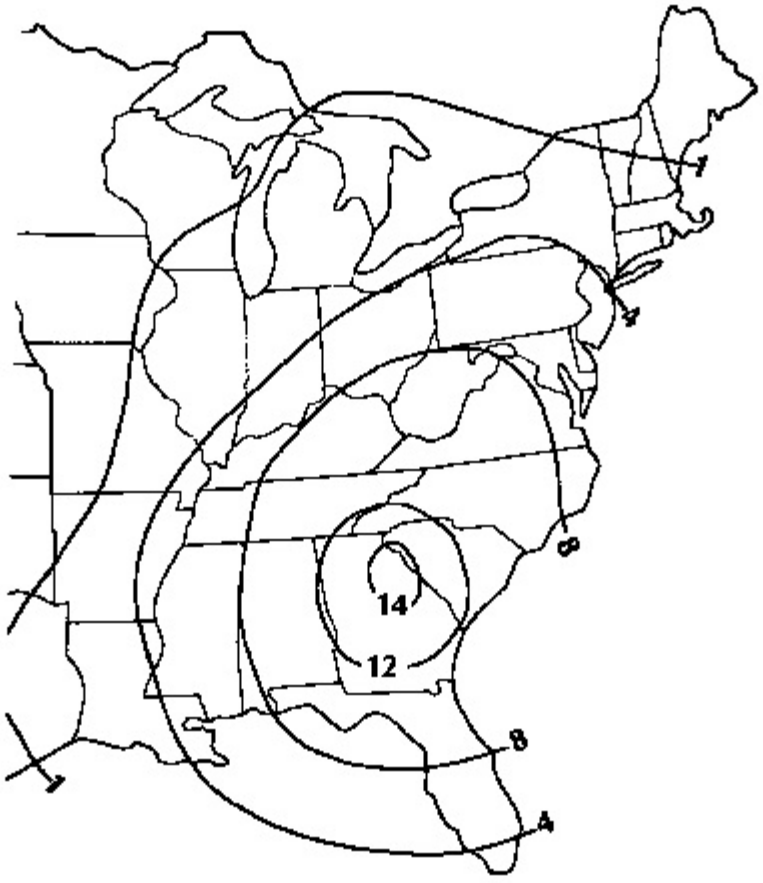

Figure 2. Air stagnation isobars for the Eastern seaboard. Notice that the natural center of the highest air stagnation area is Athens, Georgia, just east of Atlanta.

Table 4

NONATTAINMENT AREA NITROGEN OXIDE [NO_x] BUDGET

Category	2007 CAAA Base (tons)	State Plan Budget (tons)	Percent Reduction
Electric utilities (power plants)	92,946	30,158	68%
Nonutulity point (other industries)	34,012	20,472	40%
Area sources (biomass)	11,901	11,901	0%
On-road mobile (mostly autos)	88,363	77,901	12%
Non-road mobile (lawnwmowers, etc.)	27,151	22,714	16%
Total	254,373	162,935	36%

Source: Executive Summary for State Implementation Plan for the Atlanta Ozone Nonattainment Area, April 28, 1998 (p. 1-11).

- Delivery and use of cleaner "California-style" gasolines, which may add anywhere from 10 to 25 cents to the cost of a gallon of gasoline; and

- No surprises in the projected growth of the region's population or dramatic changes in the region's aggregate vehicle-miles-traveled (VMT).

Even if the assumptions of the SIP prove correct, however, the Atlanta region may fall back into nonattainment after 2010 simply because of its growth and development patterns.

Water

Virtually no rivers or streams flow into Georgia which means that nearly all surface waters originate in the state.[14] North Georgia's water supply comes mostly from surface sources such as rivers and reservoirs. The Chattahoochee River basin provides much of the water for North Georgia; it is also the smallest river on which any major metropolitan area depends in the nation.[15]

Water quality along the Chattahoochee downstream from Atlanta is poor. Stretches of the river rank as the nation's most polluted and people are advised to avoid eating fish from those sections. Indeed, many kinds of fish have disappeared from the river.[16]

The Federal Clean Water Act (CWA) restricts total maximum daily loads (TMDLs) to levels already present in surface waters plus a level of pollution affected waters can absorb. TMDLs thus vary by location. Between 1979 and 1996, Georgia failed to address nonpoint water pollution requirements and because of a court order has until 2001 to do so. A direct effect of the order is to limit the amount of pollutants entering surface waters. This may cause some industries to relocate. New wastewater effluent permits may be suspended. Compounding the water quality issues are two specific problems: Atlanta and the neighboring states.

... about 95 percent of all residents receive surface water that originates in or passes through Atlanta.

The city of Atlanta has paid daily fines of several thousand dollars because its combined sewer overflow (CSO) system failed to prevent the discharge of untreated water into the Chattahoochee River. Although improvements have been made and fines removed, downstream communities still receive

much of Atlanta's water pollution. Even within Georgia, about 95 percent of all residents receive surface water that originates in or passes through metropolitan Atlanta.

Georgia is presently in a "water war" with Alabama and Florida, who depend on water flowing through Georgia for their water supply. As metropolitan Atlanta has grown, the supply and quality of water leaving the area through the Chattahoochee-Flint and Coosa-Tallapoosa rivers has declined to levels that Alabama claims threaten its economic development opportunities and Florida claims threaten its Panhandle fisheries. All three states currently are involved in an interstate compact established by Congress. The result of the compact negotiations may be limits or "budgets" guiding each state's use of waters originating in Georgia. Those budgets may very well affect the region's growth by mandating:

- Industrial and municipal waste effluent permitting;
- Water rights allocations;
- Water consumption by residential households;
- Water and wastewater rates to achieve conservation and pollution control objectives; and
- Water rationing.

Until the compact negotiations are settled, perhaps after 1999, it is difficult to know in advance how the region will be affected.[17]

Open Spaces

Between 1972 and 1993, the 10-county ARC area lost two-thirds of its tree cover.[18] This loss of tree cover comes to about 30 acres each day. During the same period, the Atlanta MSA lost about a third of all farmland and during the period 1978 to 1992, it lost an average 50 acres of farmland each day (see Table 5). Even more profound is that the counties outside the metropolitan area lost farmland at a more rapid pace of 96 acres each day, and the Atlanta economic area inside Georgia lost an average of 146 farmland acres each day.

Table 5 also shows the rate of farmland loss per new dwelling unit constructed. The slowest rate of loss actually is within the ARC area, with one-third of an acre for every new dwelling unit constructed. For the balance of the Atlanta MSA, the loss is much greater at 2.6 acres for every new home constructed. The reason is that houses within ARC counties are mostly on public sewers but houses elsewhere are mostly on septic systems. Even greater farmland losses occur in the third-tier counties outside the Atlanta metropolitan area but within the Atlanta commuting shed. In those counties, large farms are being divided into five and ten acre homesites.

Table 5

FARMLAND LOSS IN ARC AND ATLANTA MSA
1978-92

Region	Farm and Loss		
	Acres	Daily Change	Dwelling
ARC	(110,850)	-22	-0.3
Rest of metro area	(143,656)	-28	-2.6
Total metro area	(254,506)	-50	-0.7
Economic area outside MSA[1]	(489,506)	-96	-6.5
Total economic area	(744,012)	-146	-1.6

Source: Census of Agriculture, 1978 and 1992, ARC, Atlanta MSA, and Atlanta economic area counties as defined in 1998.
Note: BEA economic area inside Georgia, including Chattanooga portion.

It seems that everyone wants an acre of land next to a farm, but few of us really like what farmers do on their farm. As urban development invades rural areas, it imposes "spillovers" on farmers and farmland. These spillovers reduce the productivity of resource land thereby making such land less valuable for farming or forest uses and more attractive for speculation or urban development. Box 2 reviews common spillover effects. Indeed, as urban sprawl scatters throughout rural areas, spillovers spread and the value of land for farming and forestry falls. Eventually, spillovers can reduce the supply of open space land to a level below the critical mass needed to sustain the regional resource economic base.

Open spaces provide important functions for the preservation of the world's ecosystem. For example, a single moderately sized tree can absorb 400 gallons of water per day and slow the force of rainwater hitting the ground; in both instances, water runoff is reduced.[19] Since 1986, the American Forests organization estimates that stormwater runoff has increased by 7.4 billion gallons in the 10-county ARC area. The cost to properly hold that runoff is estimated to run as high as $2 billion.[20] Beyond dampening stormwater runoff, open space serves a variety of ecosystem functions, as summarized in Box 3.

Transportation

Atlantans commute longer distances to work than in any other metropolitan area in the nation.[21] Atlanta's roadway congestion is the nation's tenth worst and second worst in the South (behind Miami).[22] For a city built on transportation, something seems to be wrong. Atlanta's urban sprawl is a modern-day legend. Consider the following facts (Appendix A provides additional comparisons between Atlanta and other major metropolitan areas):

BOX 2
COMMON URBAN SPILLOVERS ON OPEN SPACE

Thwarting productivity through restrictions on fertilizers, manure disposal, smells, slow-moving farm vehicles on commuter roads, use of pesticides and herbicides, noises, dust, glare, hours of operation, irrigation practices, and moving machinery on roads.

Increased property taxation to pay for new schools, roads, services, and facilities intended to serve needs of urban households.

Air pollution damage to crops and trees caused by automobiles, industrial activity, and even residential space heating.

Destruction of crops or equipment or harassment of farm animals by urban households living nearby; theft of tree crops, berries, and vegetables by nearby urban residents is common.

Eminent domain used to acquire farm and forest land for public uses serving primarily new urban residential development; roads, reservoirs, and schools are common eminent domain activities, consuming open space.

Source: Arthur C. Nelson, "Preserving Prime Farmland in the Face of Urbanization," Journal of the American Planning Association 58(4): 467-488 (1992).

- Atlanta is the most spread out major metropolitan area measured in terms of density. More land is consumed per person in metropolitan Atlanta than in anywhere else in the United States and perhaps the world. (See Table 6.)
- Atlanta leads the nation in vehicle-miles-traveled (VMT) per household (see Table 7.)
- Atlanta is near the bottom in carpooling to work (see Table 8.)
- Atlanta is near the bottom in people working at home (see Table 8.)
- Atlanta is at the bottom in people walking or bicycling to work (see Table 8.)

Why is this?

Part of the reason is that Georgia is the nation's largest state that does not have an urban public transportation effort within its state department of transportation. Indeed, the Metropolitan Atlanta Rapid Transit Authority (MARTA) is the only urban public transportation system that does not receive support from the state. Some may argue that the nation's smallest gasoline tax, and the state's Constitution prohibiting the use of gasoline tax funds for anything but roads discourages development of alternative transportation modes. On the other hand, several hundred million dollars annually are appropriated from the state's general fund to the state DOT for which there are no constitutional restrictions on use.

BOX 3
OPEN SPACE FUNCTIONS

Gas regulation by absorbing carbon monoxide and ozone, and reducing ultra-violate effects.

Climate regulation by moderating greenhouse gas production.

Disturbance regulation by providing flood control and drought recovery.

Water regulation through irrigation of crops and transportation via water.

Water supply by watershed, reservoirs, and groundwater.

Erosion and sediment control by preventing soil loss through wind, rain or other processes.

Soil formation through weathering of rock and accumulation of organic material.

Nutrient cycling through nitrogen fixation and processing.

Waste treatment in the form of water and air cleansing.

Pollination through movement of floral gametes to sustain plant production.

Biological control through preservation of herbivores by top predators.

Refugia in the form of nurseries, habitat for migratory species, and regional habitats.

Food production of fish, game, crops, nuts, fruits.

Raw materials such as production of wood for fuel or fodder.

Genetic resources for medicines, material sciences, resistance to pathogens and pests.

Recreation such as eco-tourism, sport fishing, hiking, camping.

Cultural in the form of aesthetic, artistic, spiritual, and/or scientific functions.

Source: Adapted from Robert Costanza et al., 1997, The value of the world's ecosystem services and natural capital, Nature 387: 253-260.

Another part of the reason is that there is no coordinated, regional approach to providing alternatives to the single-occupant-vehicle (SOV) mode.

Still another reason is that local governments throughout the Atlanta commuting shed are actively seeking growth but doing nothing to manage its transportation effects. As growth moves farther away from the center, VMT will surely rise and opportunities to increase non-SOV modes will become more difficult.

Table 6

POPULATION DENSITY IN LARGEST METROPOLITAN AREAS, 1990

Metropolitan Area	Density 1990	Acres Consumed/ Person
Los Angeles	1,433	0.45
Miami	1,342	0.48
New York	1,336	0.48
Chicago	1,059	0.60
Philadelphia	896	0.71
Washington	880	0.73
San Diego	871	0.73
San Francisco	841	0.76
Denver	818	0.78
Detroit	816	0.78
Baltimore	788	0.81
Boston	770	0.83
Portland	747	0.86
Seattle	733	0.87
Phoenix	669	0.96
St. Louis	661	0.97
Cleveland	652	0.98
Tampa	650	0.98
Houston	609	1.05
Cincinnati	586	1.09
Dallas	548	1.17
Pittsburgh	533	1.20
Minneapolis-St. Paul	483	1.32
Atlanta	469	1.36

Source - Compiled by author from 1990 Census of Population.

Table 7

VEHICLE-MILES-TRAVELED VIA AUTOMOBILE BY HOUSEHOLD FOR MAJOR METROPOLITAN AREAS, 1995

Metropolitan Area	Vehicle-Miles-Traveled/ Household
Atlanta	**25,542**
Denver	24,280
Houston	24,256
Detroit	23,128
Dallas	22,229
Miami	22,103
Average	**21,242**
Washington	21,234
Los Angeles	21,116
Tampa	20,989
St. Louis	20,538
Baltimore	20,484
Cleveland	20,247
Seattle	19,852
Boston	19,736
Minneapolis-St.Paul	19,664
Chicago	18,881
Cincinnati	18,084
Portland	17,911
San Diego	17,358
Philadelphia	16,894
Phoenix	14,986
Pittsburgh	14,484
San Francisco	12,890
New York	8,244

Source - Nationwide Personal Transportation Study 1995

Table 8

NON-SINGLE PERSON COMMUTING AMONG MAJOR METROPOLITAN AREAS, 1990

Metropolitan Area	Carpool	Transit	Walk, Bike	Home	Pop. Rank
Atlanta	14.05%	4.82%	1.58%	2.29%	11
Baltimore	16.73%	7.83%	3.46%	1.88%	17
Boston	10.29%	10.35%	9.77%	2.51%	8
Chicago	15.06%	13.95%	11.20%	5.58%	3
Cincinnati	12.61%	3.74%	1.73%	1.18%	23
Cleveland	11.44%	4.65%	2.66%	1.68%	15
Dallas	14.93%	2.41%	2.72%	3.11%	9
Denver	14.23%	4.40%	2.67%	2.40%	20
Detroit	10.87%	2.47%	3.72%	2.53%	7
Houston	16.08%	3.86%	3.10%	2.51%	10
Los Angeles	17.60%	4.69%	17.14%	12.85%	2
Miami	16.12%	4.44%	2.85%	2.01%	12
Minneapolis-St. Paul	12.88%	5.47%	3.28%	3.07%	13
New York	16.10%	27.22%	38.61%	13.99%	1
Philadelphia	14.95%	10.42%	10.79%	4.36%	5
Phoenix	16.07%	2.19%	2.78%	2.02%	19
Pittsburgh	15.20%	8.12%	3.43%	1.37%	21
Portland	14.27%	5.63%	1.94%	1.89%	24
San Diego	16.26%	3.45%	4.59%	4.23%	16
San Francisco	16.00%	9.63%	10.44%	7.70%	4
Seattle	13.94%	6.53%	3.65%	3.04%	14
St. Louis	13.13%	3.04%	1.79%	1.87%	18
Tampa	14.42%	1.50%	1.89%	1.43%	22
Washington	20.04%	14.05%	6.35%	4.34%	6

Source - Nationwide Personal Transportation Study 1995

Jobs-Housing Balance

What do air pollution, traffic congestion, and jobs that go unfilled have in common? A mismatch between where the jobs are and where people live. This is called the the Jobs-Housing Balance problem.

Since the 1980s, planners have seen job dispersal as one of the chief contributors to traffic congestion and overburdened roadways. As early as the 1960s, analysts found a mismatch between where jobs are and where people live. They noted potential economic efficiency and equity concerns in that many jobs go unfilled in the suburbs because inner city residents cannot access them. By balancing jobs with housing, jobs-housing balance strategies seek to promote geographic equilibrium between jobs and housing. To be effective, jobs-housing balance programs must emphasize not only a balance between the number of employment and housing opportunities, but, perhaps more importantly, a balance between work and housing that workers can afford. Strategies used to achieve the desired balance include mixed-use requirements, linkage programs, affordable housing density bonuses and public private partnerships.

Jobs-housing balance is more than just a catch-phrase. "Balanced" communities are those that provide housing opportunities for all the people that make it work. Unbalanced communities lead to longer commutes which require more highways and cause more air pollution. Moreover, where communities engage in exclusionary housing policies (see Appendix B for an example), low income jobs go unfilled and firms looking for new locations steer clear.

Exclusionary housing policies also exacerbate efforts to reduce poverty. For example, in 1990, the city of Atlanta was home to 43 percent of the entire ARC region's poor[23] despite accounting for only 15 percent of the population. Atlanta's share of the region's jobs fell from 40 percent in 1980 to 29 percent in 1990 while the region's share of jobs found in the northern tier suburbs rose from 40 percent to 52 percent. One outcome of this shift in jobs is that firms hiring less educated workers had an average job vacancy rate in 1993 that was three times higher in the northern suburbs than within the city.[24] Many of those jobs are simply not accessible to the working poor because there is no way to get to them.[25]

Services and Taxes

Urban development is fueled by infrastructure, particularly highways, schools, and water and sewer systems. Metropolitan Atlanta's development patterns result in the nation's longest commutes and its major highways are among the nation's most congested. A simple solution is to make development more compact and closer to employment centers, but this is not likely to happen any time soon, if at all.

... new development brings new demands on taxes.

As development spreads farther out, new infrastructure is needed even if existing infrastructure is sufficient to meet development needs. Local governments in the ARC region have invested billions of dollars in water and sewer systems to meet development needs now and for several years into the future. Water systems already in place have a collective capacity to provide about 830 million gallons of domestic water daily.[26] The regional average consumption of water is about 150 gallons per person per day (including industrial and commercial users). These water systems have the capacity to serve about 5.5 million people or enough to meet all development needs of the entire 20-county metropolitan area by 2020.

Wastewater treatment systems already in place have a collective capacity to provide about 492 million gallons of treatment daily.[27] The national average demand for water treatment is about 100 gallons per person per day (including industrial and commercial users). These wastewater systems have the capacity to serve about 5 million people which, like water, is enough to meet all development needs of the entire 20-county metropolitan area by 2020. In sum, water and wastewater expansion plans already approved will provide sufficient capacity to serve all development needs for the entire 59-county commuting shed by 2020.

The problem is that much of the new development in the commuting shed will locate outside the ARC region, so existing and planned systems will be underused collectively. As development moves farther out, exurban communities will need to build new or expanded water and wastewater facilities. The overall effect is substantial over-construction of infrastructure relative to demand. This is a recipe for higher taxes and fees.

In their effort to provide services to voters at the lowest possible cost in terms of taxes, local government officials seek new development that raises the assessed value of the community. This breeds new demands for services which requires more development to fund and the vicious cycle continues. Only those communities with relatively high assessed values per capita have the luxury of not having to be aggressive in seeking growth, but if they use exclusionary practices to maintain their individual well-being development is displaced, probably relocating farther out. A substantial share of urban sprawl is thus related to the maldistribution of property tax capacity combined with limitations on local governments that restrict their ability to raise most of their funds from other than property taxes.

Urban sprawl usually results in higher costs of services per unit of service delivered. One effect of sprawl is a vicious cycle of local government's need for new development for its tax base, but new development brings new demands on taxes. It is no surprise that metropolitan Atlanta has one of the fastest growing rates of tax increases in the nation. Consider the information provided in Table 9. Because all growing regions face higher taxes to meet growing demands, differences between regions in how growth is managed may affect the rate of tax increases. Table 9 shows the change in taxes for the 13 fastest growing metropolitan areas between 1982 and 1992 with populations exceeding 2 million in 1997. Notice that Atlanta ranks fifth on this list. In contrast, Phoenix, which outpaced Atlanta's growth considerably 1970, had the lowest rate of tax increases although its total revenues remained slightly higher than Atlanta's. One reason for Phoenix's relative success in keeping taxes in check is that regional allocation of water resources combined with finite land resources results in more compact development patterns and higher average density development than seen in Atlanta.

Fiscal Disparities

People want services and impose upon themselves taxes to pay for them. In Georgia, the local property tax is the primary taxing device available to raise funds for services. The local option sales tax is essentially a supplement to county operations while school districts have dedicated taxes from both the property and sales taxes (depending on exercise of local option sales taxes). The higher the value of local property the greater the ability of a municipality to raise taxes from assessments on property. In Georgia, the customary method of assessing property for taxation purposes is through estimates of the
value of property in its present use, called "use value," not its potential use, called "site value." Thus, parking lots in downtown Atlanta pay a property tax based on parking lot use while the skyscraper next door pays taxes on its skyscraper value.

Table 9

CHANGE IN REVENUES PER CAPITA AMONG RAPIDLY GROWING MAJOR METROPOLITAN AREAS
1982 - 1992
[All figures in 1992 dollars]

Metropolitan Area	Revenue Per Capita		Revenue Change	Percent Change
	1982	1992		
Tampa-St. Petersburg	$1,621	$2,373	$751	46.3%
Seattle	$2,092	$3,005	$913	43.6%
Dallas-Ft. Worth	$1,734	$2,461	$727	41.9%
Miami	$2,251	$3,131	$880	39.1%
Atlanta	**$2,088**	**$2,870**	**$781**	**37.4%**
Los Angeles	$2,627	$3,600	$972	37.0%
San Diego	$2,261	$3,026	$764	33.8%
Minneapolis-St. Paul	$2,473	$3,220	$747	30.2%
San Francisco	$2,890	$3,761	$872	30.2%
Houston	$1,924	$2,460	$536	27.9%
Portland	$2,054	$2,619	$566	27.6%
Denver	$2,255	$2,807	$552	24.5%
Phoenix	$2,486	$3,051	$565	22.7%

Source - Census of Government Finance for 1982 and 1992 compiled by the author.

A municipality with high demand for services and low supply of assessed property value must charge a relatively high "millage" rate on property. (One "mill" is equal to one dollar of taxation per $1,000 of valuation.) Lithonia, for example, has the region's fourth-lowest assessed value per capita ($7,774) but the region's highest millage rate, 51.64. In contrast, Peachtree City, with an assessed value of $17,975 per capita has a tax rate of 36.10 mills. (See Table 10.) At the county level, Cherokee County's assessed value per resident was nearly half that of Fulton County in 1992 (see Table 11).

Table 10

ASSESSED VALUE PER CAPITA FOR ARC MUNICIPALITIES, 1997
[Average is $22,603]

City	Assessed Value/Capita	City	Assessed Value/Capita	City	Assessed Value/Capita
Waleska	$5,493	Jonesboro	$17,807	Douglasville	$23,803
Rest Haven	$6,595	Forest Park	$18,735	Canton	$24,945
Lovejoy	$7,275	Buford	$19,132	Duluth	$26,152
Lithonia	$7,774	Austell	$19,203	Avondale Estates	$26,857
Pine Lake	$9,856	Fairburn	$19,385	Fayetteville	$27,294
Ball Ground	$10,484	Union City	$19,525	Peachtree City	$27,909
Stone Mountain	$10,732	Decatur	$20,360	Woodstock	$29,994
Clarkston	$10,777	McDonough	$21,765	College Park	$30,003
Hampton	$11,294	Lilburn	$22,116	Roswell	$30,457
Locust Grove	$12,881	Kennesaw	$22,314	Berkeley Lake	$30,974
Holly Springs	$13,299	Brooks	$22,371	Marietta	$32,405
Palmetto	$13,540	Atlanta	$22,696	Chamblee	$32,818
Dacula	$13,800	Lake City	$22,801	Suwanee	$35,750
East Point	$14,042	Stockbridge	$22,888	Doraville	$37,472
Sugar Hill	$15,851	Tyrone	$22,905	Conyers	$39,323
Riverdale	$16,448	Smyrna	$23,017	Norcross	$39,693
Powder Springs	$16,866	Grayson	$23,027	Alpharetta	$49,968
Acworth	$17,230	Snellville	$23,104	Morrow	$50,565
Mountain Park	$17,783	Lawrenceville	$23,500	Hapeville	$53,337

Source - Georgia Department of Revenue, 1997 Statistical Reports.

Table 11

ASSESSED VALUE PER CAPITA FOR
ARC COUNTIES, 1992
[Average is $22,603]

County	Assessed Value/Capita
Cherokee	$12,610
Clayton	$21,632
Cobb	$21,075
DeKalb	$21,109
Douglas	$15,161
Fayette	$18,962
Fulton	$23,837
Gwinnett	$22,982
Henry	$16,983
Rockdale	$19,055

SECTION III. DECISION-MAKING IN METROPOLITAN ATLANTA

There are more than 85,000 units of government in the United States managed by nearly one half million elected officials, or roughly one elected official for every 200 people. Of these, 39,000 are general purpose local governments including more than 3,000 counties, 19,000 cities, and 16,000 towns or townships. Of the 46,000 remaining governments, more than 14,000 are school districts and about 32,000 are special districts managing such diverse services as wastewater collection and treatment, airports, and mosquito control. The range of governmental units operating within counties is staggering. Allegheny County (Pittsburgh), Pennsylvania has nearly 300 governmental units: 86 cities, 42 townships, 43 school districts, and 124 other special districts. In contrast, New York City, the nation's largest and wealthiest, has but three: the city and two special districts.

One problem with the proliferation of local governments especially in metropolitan areas (either by formation of new cities and special districts or simply sprawling out to engulf formerly rural jurisdictions) is that as the number of governments and elected leaders increases, the ability to solve problems through joint decision-making is weakened.

Table 12 illustrates the sheer magnitude of local governments and elected officials in the ARC, the Atlanta metropolitan statistical area (MSA) as defined by the Census, and the Atlanta economic area (EA) as defined by the Bureau of Economic Analysis. The BEA's "economic area" for Atlanta includes 59 Georgia counties. This may be considered Atlanta's "commuting shed" because many new residents in those counties commute into the 20-county MSA for work.

The commuting shed has 517 units of local government managed by 2,515 elected officials. Each local government is created to serve the needs of its residents, workers, and taxpayers. Each locally elected official is responsible for serving their constituency. Not a single local government exists to address any problem facing the region. Not a single locally elected official is elected to serve people outside their local government boundaries.

How is regional decision-making achieved in metropolitan Atlanta? Because the Georgia constitution provides local governments with sweeping "home rule" powers and explicitly reserves to them the power of zoning, regional decision-making of the kind that influences development patterns is restricted. This does not mean that regional collaboration is impossible. Many kinds of regional decisions are being made on a daily basis by certain units of government, civic organizations, and businesses. But most government collaborations are limited to single purposes (Grady Hospital, MARTA) or just jurisdictions within counties (water and sewer authorities, school districts). If an issue rises above the county level, how is it addressed? For Clayton, Cherokee, Cobb, DeKalb, Douglas, Fayette, Fulton, Gwinnett, Henry, and Rockdale counties, the place to start is the Atlanta Regional Commission.

Background

The ARC and its predecessor agencies have coordinated the planning efforts in the region since 1947, when the first publicly-supported, multi-county planning agency in the United States was created. At that time, the Metropolitan Planning Commission (MPC) served just DeKalb and Fulton counties and the City of Atlanta. Since then, the ARC has grown to its current size of 10 counties and 64 municipalities.

Table 12

LOCAL GOVERNMENTS AND ELECTED OFFICIALS IN ATLANTA REGION

Statistical Region	Population 1990	Counties	Cities	School Districts	Special Districts	Total Local Governments
LOCAL GOVERNMENTS						
10-County Atlanta Regional Commission	2,514,066	10	58	14	58	130
20-County Atlanta Metropolitan Area[1]	2,939,531	20	103	28	96	227
59-County Atlanta Commuting Shed[2]	3,920,654	59	244	77	196	517
ELECTED OFFICIALS						
10-County Atlanta Regional Commission	2,514,066	97	357	82	44	580
20-County Atlanta Metropolitan Area	2,939,531	192	611	146	97	1,046
59-County Atlanta Commuting Shed	3,920,654	558	1,416	393	148	2,515

Source: Census of Governments 1992.

Notes

1. Bureau of Census "metropolitan statistical area" for 1993.
2. Bureau of Economic Analysis "economic area" excluding counties in Alabama and North Carolina.

The ARC is governed by a board composed of the following:

- One mayor from each of 10 counties, except Fulton County, chosen by a caucus of mayors from respective counties;
- One mayor from each of the northern and southern halves of Fulton County elected by a caucus of mayors within those areas;
- The mayor of the City of Atlanta;
- One member of the Atlanta City Council, chosen by the council;
- Fifteen private citizens, one each from 15 multi-jurisdictional districts of roughly equal population, elected by the 23 public officials otherwise composing the ARC board; and
- One non-voting member appointed by the Board of the Georgia Department of Community Affairs.

Each year, ARC Board adopts a program of work and a budget for the next calendar year. This includes all functional planning in the areas of aging, community services, economic development, environmental planning, governmental services, job training, land use and public facilities, transportation planning and data gathering and interpretation.

To the outsider, it would appear that all ARC does is try to coordinate land use and transportation decision-making among its constituent communities. In fact, ARC does many more things than planning

as illustrated in Box 4.

Of course, the ARC is best known for its role in planning. It really has four planning roles. Its first and original role is a provider of information for planning and generating regional land use plans. The second is implementing provisions of the Georgia Planning Act. The third is managing development along the Chattahoochee River corridor. The fourth is transportation improvement planning in its role as a Metropolitan Planning Organization (MPO).

Supporting Role

The ARC's principal role is simply providing information to local governments and fashioning regional plans that local governments hopefully will consider in making their own plans.

Information and data. The ARC is highly regarded for the quality of data it assembles, evaluates, and disseminates. In this role, it:

- evaluates population, land use, and employment patterns and makes projections for a variety of official uses;
- is the region's center of geographic information system mapping and data bases; and
- conducts surveys.

Regional plans. Through its role as a metropolitan planning organization (MPO), ARC is in charge of preparing regional transportation plans and considering land use implications. In 1975, for example, it redrew the long-range regional transportation plan to eliminate several expressways and freeways and instead rely on rail and buses. Due to a lack of interest and financial capacity of local governments and the inability of the State Department of Transportation to be a meaningful participant in multi-modal efforts, transit plans were not implemented and the canceled highways also were not built.

Georgia Planning Act

In 1989, the Georgia General Assembly passed the Georgia Planning Act, which established a coordinated planning program for the State of Georgia. This program provides local governments with opportunities to plan for their future and to improve communication with their neighboring governments. The Planning Act also assigns local governments certain minimum responsibilities to maintain "Qualified Local Government" (QLG) status to remain eligible for certain state funds. The Act requires regional development centers (RDCs), including the ARC, to perform the following functions:

- Review local plans for consistency with minimum planning standards;
- Mediate planning disputes between local governments;

BOX 4

What the ARC Does Other Than Development Planning

Area Agency on Aging. Planning, developing, implementing, and coordinating aging services for 300,000 adults age 60+.

Commute Connections. Designs commuter programs tailored to meet the needs and expectations of firms.

Vision 2020. Regional visioning to the year 2020. Ten Collaboratives (Diversity, Economic Development, Education, Environment, Governance, Health, Housing, Human Services, Public Safety, and Transportation) work on action plans. Key initiatives adopted in 1995 were produced with the involvement of thousands of citizens.

LINK. Leadership, Involvement, Networking, Knowledge (LINK) provides the region's leaders with visits to cities and regions to learn how they handle similar urban challenges. Visits have included Denver, Minneapolis-St. Paul, Portland, Seattle, and Toronto.

Metropolitan Atlanta Private Industry Council. MAPIC facilitates job training programs to help place low-income youth and unskilled adults usually through assistance from the federal Job Training Partnership Act (JTPA).

Regional Leadership Institute. The Metro Business Forum and the ARC established the Regional Leadership Institute (RLI) in 1991. Over 500 business and community leaders have gone through the program. Graduates become members of the Regional Leadership Foundation (RLF) and work to constructively address regional problems.

- Prepare and implement plans for Regionally Important Resources (RIRs);
- Evaluate and recommend disposition of Developments of Regional Impact (DRIs);
- Review development impact fee programs pursuant to the Development Impact Fee Act of 1990; and
- Review local solid waste plans pursuant to the Solid Waste of 1991.

There are a number of special roles the ARC plays in implementing the Planning Act.

Developments of Regional Impact. Under the Planning Act, development projects that are of sufficient size to have an impact beyond a local government's jurisdiction are subject to review as Developments of Regional Impact (DRI). This review is intended to improve communication among governments on large scale developments and to provide a means of identifying and assessing potential development impacts before conflicts relating to them arise. DCA has established minimum size thresholds for determining whether a development qualifies as a DRI.

The Planning Act, however, does not apply sanctions to local governments who act differently than recommended by ARC. A number of recommendations posed by ARC staff have been rejected by the ARC Board or local governments, or both.

Regionally Important Resources. A Regionally Important Resource (RIR) is a natural or historic resource that is designated by the Georgia Department of Community Affairs as being of sufficient importance to warrant special consideration by the local governments having jurisdiction over that resource. A resource plan is developed for each RIR that consists of policies and practices designed to manage and protect that resource. Examples of policies and practices that might be incorporated in a typical resource plan include: discouraging land uses which are incompatible with resource protection; encouraging

beautification activities, such as litter or sign control; providing incentives (tax breaks, infrastructure improvements, etc.) to encourage desirable types of development in and around the RIR; and directing publicly funded infrastructure improvements (water lines, roads, etc.) to enhance the long term value of the resource. An example of a RIR in the ARC area is the Chattahoochee River.

Metropolitan River Protection Act

In 1973, the Georgia Legislature adopted the Metropolitan River Protection Act, giving to the ARC the power to manage development along the Chattahoochee River corridor. All land within 2,000 feet of the river's edge or an impoundment of water serving the river is under ARC's jurisdiction. Impervious surfaces and siltation are main issues addressed by ARC when it reviews proposals for development in this corridor. The ARC's recommendation to local government is binding unless the local government appeals the recommendation to the Director of the Georgia Department of Natural Resources, who may uphold, void, or modify the recommendations. There has never been an appeal filed since this provision was instituted in the 1980s.

Transportation Planning

Since 1973, the ARC has served as the metropolitan planning organization (MPO) for the region. In this role, the ARC undertakes long-range planning for regional transportation plans (RTPs) and implements those plans through five-year Transportation Improvement Programs (TIPs). Funds to implement plans come primarily from the federal government. Funds are actually expended by state and local agencies.

ARC has made headlines recently for being given "conditional certification" by the Federal Highway Department and the Federal Transit Administration with requirements to modify its RTP and associated TIPs to, among other things:[28]

- Conform with the State Implementation Plan for air quality;
- Recast the RTP as a device to implement the Vision 2020 outcomes;
- Refine its modeling; and
- Enhance citizen participation in the transportation planning process.

In addition, a number of recommendations were made in the areas of improving multi-modalism, providing better public disclosure, coordinating transportation investment and management decision making between jurisdictions providing transportation facilities, creating progress evaluation protocols, and considering effects of ARC actions on adjacent counties.

Summary Observation

Logically, regional decision-making rests in the hands of the Atlanta Regional Commission. It is a nationally recognized, first rate, award-winning planning organization. But it has no authority to implement plans. Implementation depends on local governments volunteering to make decisions consistent with regional plans and decisions. Unfortunately, there is no penalty and no reward for doing so. Even the ARC chairman's own county rejects ARC decisions.

SECTION IV. ISSUES IN REGIONAL DECISION-MAKING

The idea of creating a regional decision-making structure is threatening to many people, particularly locally elected officials who fear losing influence over shaping their communities in ways they perceive their constituents desire. Appendix C provides a review of the theoretical arguments and empirical findings of the relationship between local government arrangements and dimensions of governance. Five issues of governance are of concern here:

- Efficiency of delivery;
- Efficiency of scale;
- Equity;
- Accountability and responsiveness; and
- Political participation.

The central message given in literature seems to be that, rhetoric aside, there is no hard and fast rule about the optimal arrangements for local governance. In summary, this literature suggests that:[29]

- Politically decentralized arrangements may have the edge with respect to efficiency, especially if special-purpose governments and other complex forms of service delivery are established to accommodate diverse resident preferences, properties of various services, and the cost-deflating effects of interjurisdictional competition.

- Politically integrated arrangements may have the edge with respect to standardizing levels of service, narrowing disparities in service levels, clarifying complex systems of who provides which services within a region, and engendering strong psychological attachments to an area.

- Little empirical evidence supports conventional wisdom on local governance. The traditional view holds that politically decentralized arrangements are superior in political terms given the democratic advantages of small-scale governance, while politically integrated arrangements are superior in terms of achieving economies of scale and minimizing externalities, both of which are dimensions of efficiency.

- There is an apparent tradeoff between optimizing one value of governance, for example efficiency, and another value, say equity, in local government arrangements. Different values of governance are more or less well served by a particular local government arrangement. For example, the most efficient systems will tend to be the least equitable; the most equitable will be the most inefficient.

- Decisions about local government arrangements are value-laden. Those who privilege equity over efficiency would tend to prefer regionalized governance, while those who privilege efficiency over equity would tend to support politically decentralized systems.

- Interest in regionalized government, paradoxically, comes not only from proponents of equity and service standardization, but also from business interests whose belief in the economic growth-inducing properties of consolidation apparently outweighs efficiency disadvantages associated with public service monopolies.

- An appropriate course for local officials and policymakers in any region, therefore, is to understand tradeoffs between dimensions of governance, ascertain which of these dimensions takes precedence within the region at a particular time, and craft alliances and systems of local governance accordingly.

Summary

Literature suggests that the optimal system of governance is some form of a federation, that is an arrangement that includes a mixture of large and small governments. Taken to its extreme, such an arrangement has clear drawbacks for democratic governance, not the least of which are service coordination problems and the practical inability to monitor and participate in hundreds of individual government units. In modified form, a federation would have a local and a regional layer of government, with functions allocated to appropriate layers to achieve desired levels of efficiency, equity, responsiveness, and other dimensions of governance.

SECTION V. REGIONAL DECISION-MAKING AND ECONOMIC WELL-BEING

Policy analysts and practitioners have long sought guidance on how to improve the welfare of people living in complex metropolitan areas through different governance arrangements. Competing views abound. Recent work by Nelson and Foster (1999) may help to narrow those views mostly by shedding light on the role of large, general purpose governments and regional decision-making structures and downplaying the role of small, numerous local governments in improving individual welfare.[30] Appendix D reviews their work in detail. This chapter summarizes the implications of their work for policy.

Perhaps the most important role any governance structure can play is improving personal per capita income. Nelson and Foster evaluated the relationship between governance structures in nearly 300 metropolitan statistical areas over the period 1977 through 1996 to determine which structures lead to higher, and lower income growth.

One kind of structure is the extent to which central cities dominate their metropolitan areas in terms of population share. Nelson and Foster found that when central cities are unable to expand their boundaries commensurate with growth, their metropolitan areas lag behind others in improving income. They also found that when allowed to be "elastic," as Rusk (1993, 1996) puts it, central cities can elevate incomes throughout metropolitan areas. Nonetheless, there is probably an upper limit to the territory over which central cities may operate to maximize metropolitan-wide income growth is that large.

Large suburban municipalities also contribute meaningfully to income growth. Very large suburban municipalities, perhaps rivaling their central cities and especially if they enjoy some level of elasticity, may be important factors in increasing metropolitan income. It is possible that a few large jurisdictions create a competitive environment which leads to more efficiencies in service delivery and ability to marshal resources to facilitate economic development. Thus, a region characterized by a few large municipalities may lead to higher incomes relative to regions dominated by only the central city and numerous small municipalities.

Nelson and Foster also found that as the percent of the metropolitan population living in unincorporated areas increases, income growth lags. Unincorporated populations are more likely to be served by numerous, small-scale special service districts than incorporated populations, and efficiencies may be lost.

Two other findings are important. First, the more fragmented decision-making throughout the region, as evidenced by numerous special districts and elected officials, the lower the growth in personal income. Second, the presence of a regional government has a decidedly positive effect on personal income growth, even when fragmentation may exist. This is consistent with the view that individual welfare improves with the presence of regional governance.

... the more fragmented decision-making throughout the region ... the lower the growth in personal income.

Summary

A reasonable conclusion drawn from recent research is that the interests of the individual within a complex metropolitan area appear to be advanced best by the presence of central cities that can expand commensurate with regional growth, few but large suburban municipalities, few elected special-service district officials, and a metropolitan-wide governance structure capable of coordinating decisions among local governments to address regional issues.

SECTION VI. MODELS OF REGIONAL DECISION-MAKING IN PRACTICE

In the face of multiple layers and types of local government, how are regional issues addressed here and in other places? This chapter reviews those options.

Single-Purpose Mechanisms

Single-purpose decision-making mechanisms recognize that every problem or need for service has its own unique characteristics for optimal performance. Wastewater treatment costs per unit usually decreases as the treatment system becomes larger. Parks, on the other hand, often provide the best service when the communities they serve are relatively small and nearby to those who can walk or ride a bicycle to them. A number of approaches are used to tailor the particular service to the needs of users at the lowest reasonable cost.

Special districts. This decision-making structure is essentially an autonomous single-purpose entity providing a region-wide function. The breadth of possible functions is wide, including transit, soil conservation, health, housing, libraries, parks and recreation, natural resources, sanitation, and water. In 1992, there were about 3,600 special-purpose governments nationwide serving two or more county areas and another 4,500 serving a single county. The ARC has 44 special districts while Atlanta's commuting shed has 148.[31] In the Atlanta area, examples include:

- Metropolitan Atlanta Rapid Transit Authority serving DeKalb and Fulton counties.
- Grady Hospital Authority serving DeKalb and Fulton counties.
- School districts that serve mostly entire counties with some exceptions where individual cities provide their own education systems (such as Atlanta and Marietta).
- County water and wastewater authorities.

Many special districts are governed by county commission boards but others are governed by elected officials. Each has its own revenue base and some receive substantial revenues from state agencies, particularly education systems.

Contracting among local governments. Often, one local government creates a service that because of its characteristics is less costly per unit of delivery if others use it. For example, the city of Atlanta and Fulton County contract for wastewater treatment with cities and counties throughout the region. Privatization of some services with local government oversight is also a form of contracting.

Asset sharing. Some local governments share in the cost of providing a service that everyone uses. These arrangements result in shared funding, even operation, of education, recreation, and transportation services. MARTA is an example.

Mutual aid agreements. Practically every emergency service and public safety operation in metropolitan Atlanta have mutual aid agreements thereby removing the concern about whose jurisdiction should respond in emergency situations. The 911 system operating throughout several metropolitan area counties (together with their dispatching function) is a form of mutual aid agreement.

Multi-Purpose Mechanisms

In large metropolitan areas, so many services overlap and service delivery can be so complex that coordinating them is important to improve efficiency. This can be done in a variety of ways from various forms of consolidation to revenue-base sharing to merely creating forums for local officials to share concerns within a regional context.

Regional (multicounty) government. This is a regional decision-making structure in which a single unified government serves an entire metropolitan region. More honored in theory than practice, no regional governments operate in U.S. metropolitan areas. The closest North American model is Unicity, the government serving Winnipeg and surrounding areas in Manitoba, Canada.

Regional two-tier federation. This is a decision-making structure in which an upper-tier regional entity provides areawide functions and autonomous lower-tier local governments provide local functions. No two-tier federations exist at the multi county scale in the United States. At the county scale, Miami-Dade County (Florida) has operated a countywide two-tier federation since 1957. A number of two-tier federations operate in Canada metropolitan regions, including Toronto, Hamilton-Wentworth, and Vancouver.

City-county consolidation. This decision-making structure involves a central city and sometimes other municipal governments merging with the surrounding county to form a single government unit. Most of the two-dozen or so city-county consolidations in the United States have involved small metropolitan areas in southern states characterized by strong county government and relatively few incorporated jurisdictions. Well-publicized city-county consolidations occurred in Nashville-Davidson County (Tennessee) in 1962, Jacksonville-Duval County (Florida) in 1967, and Indianapolis-Marion County in 1969. Georgia is a leader in consolidations, having three (Columbus-Muscogee County, Augusta-Richmond County, and Athens-Clarke County). Table 13 summarizes metropolitan-wide and city-county consolidations since the early 1800s.

Regional multipurpose district. These are decision-making systems in which an elected or appointed entity provides or coordinates two or more services throughout the region while autonomous local governments (counties, municipalities, townships, special-purpose governments) deliver other services to the area. The only elected regional multipurpose district in the United States is the Portland (Oregon) Metropolitan Services District, formed originally in 1978 and substantially reformed in 1992. The three-county district operates the regional zoo, provides regional solid waste disposal and tourism development, and coordinates land use, growth management, and transportation. A two-county, indirectly elected district, known as Metro, provides sewer services and bus transportation in Seattle metropolitan area. In the Minneapolis-St. Paul metropolitan area, the 17-member appointed Twin Cities Metro Council performs regional planning services, implements the region's fiscal disparities (tax base sharing) program, and coordinates transportation, sewer and other services provided by areawide entities. (See Table 14.)

General revenue-base sharing. At any point in time a formerly thriving area of a region is in decline and its revenue base deteriorates resulting in higher tax rates to meet basic levels of service while other parts of the same region enjoy increasing revenue bases thereby being able to keep tax rates down. Some regions around the nation engage in what is called "tax base" or "revenue base" or "asset" sharing. The best known example of this is the Minneapolis-St. Paul metropolitan area which, since the early 1970s, has pooled 40 percent of the region's incremental property tax revenue attributable to nonresidential development and redistributed it based on a formula. In the early years, Minneapolis was a net recipient but it is now a donor.

Table 13
METROPOLITAN AND CONSOLIDATED CITY-COUNTY GOVERNMENTS

Name	Population 1990	Formation Year
METROPOLITAN GOVERNMENTS		
Twin Cities Metropolitan Council, MN	2,464,124	1967
Metropolitan Portland, OR	1,239,842	1978
Total Metropolitan Government Population	3,703,966	
CITY-COUNTY CONSOLIDATIONS		
New Orleans-Orleans Parish, LA	496,938	1805
Boston-Suffolk County, MA	663,906	1821
Nantucket Town-Nantucket County, MA	6,012	1821
Philadelphia-Philadelphia County, PA	1,585,577	1854
San Francisco-San Francisco County, CA	723,959	1856
New York City (5 boroughs), New York	7,332,564	1874-98
Denver-Denver County, CO	467,610	1902
Honolulu-Honolulu County, HI	836,131	1907
Baton Rouge-East Baton Rouge Parish, LA	380,105	1947
Hampton-Elizabeth City County, VA	133,793	1952
Newport News-Warwick City, VA	170,045	1952-58
Chesapeake-South Norfolk-Norfolk County, VA	151,976	1962
Virginia Beach-Princess Ann County, VA	393,069	1962
Nashville-Davidson County, TN	510,784	1962
Jacksonville-Duval County, FL	672,971	1967
Juneau-Greater Juneau, AK	26,751	1969
Indianapolis-Marion County, IN	797,159	1969
Carson city-Ormsby County, NV	40,443	1969

Table 13
METROPOLITAN AND CONSOLIDATED CITY-COUNTY GOVERNMENTS (cont.)

CITY-COUNTY CONSOLIDATIONS (cont.)		
Columbus-Muscogee County, GA	179,278	1970
Sitka-Greater Sitka Borough, AK	8,588	1971
Lexington-Fayette County, KY	186,048	1972
Anchorage-Greater Anchorage Borough, AK	226,338	1975
Ananconda-Deer Lodge, MT	10,278	1976
Butte-Silver Bow County, MT	33,941	1976
Houma-Terrebonne Parish, LA	96,982	1984
Lynchburg City-Moore County, TN	4,741	1988
Athens-Clarke County, GA	87,594	1992
Augusta-Richmond, GA	189,719	1996
Total Consolidated Population	16,413,300	

Table 14

REGIONAL MULTI-PURPOSE DISTRICTS

Feature	Twin Cities	Metro Portland
Region	Metropolitan Minneapolis-St. Paul.	Metropolitan Portland, Oregon.
Governing body structure	Gubernatorially appointed 16 member council representing districts and one executive officer.	Six directly elected members representing districts and one executive elected at-large.
Management	Runs region's transit, water, and sewer services.	Runs the region's zoo and convention center.
Decision powers	Coordinates long range land use planning among local governments. Facilitates low income housing provision.	Coordinates long range land use planning within regional urban growth boundary; fair share housing and employment involvement.
Primary revenue sources	Member dues, transportation planning funds, water and sewer fees.	Member dues, zoo tax base, transportation planning funds, solid waste tipping fees.
Legal authority	Statutorily created; creature of the state.	Created by referendum as special district supported by majority of voters of affected counties.

Councils of Government. At last count there were about 540 regional councils of government (COGs), down about 20 percent since their height in the late 1970s. COGs are essentially voluntary associations although in some states (such as Georgia and Florida) they are created by statute. In Georgia they are

established by statute and known as regional development centers (RDCs). ARC is authorized by separate statutes, however. Their functions are typically limited to studying planning issues, recommending but not implementing regional development policies, and performing certain regional social service functions.

Metropolitan Planning Organizations. There are 340 federally supported metropolitan planning organizations (MPOs). They have substantial influence over the use of federal transportation funds in many states. MPOs prepare transportation plans that must meet air quality standards and attempt to influence local land use planning accordingly. Almost half of the MPOs are part of a COG, such as the ARC. It appears that ARC, however, is the only MPO to not have a transportation plan that meets target federal air quality standards.

Nonstructural Regional Cooperation Options

These regional decision-making approaches are characterized by autonomous local governments that collaborate to greater or lesser degrees to coordinate and/or provide supramunicipal service delivery. They include formalized regional governance networks, functional transfers, regional asset districts, intermunicipal service agreements, privatization or nonprofitization, and other forms of voluntary and formalized cooperation between government units. Although systematic, comparative data are not available, every metropolitan relies to at least some degree on nonstructural options for service delivery. For example, a recent survey of such organizations by the National Academy of Public Administration and the National Association of Regional Councils found several hundred such organizations including such forms as:

- Private sector and non-profit organizations providing one or more regional services (such as United Way);
- Regional problem-solving organizations (such as Regional Leadership Institute and its companion Regional Leadership Foundation);
- Regionally-based "think tanks" (such as Research Atlanta);
- College or university-based study institutes (such as Georgia State University's School of Policy Studies and Georgia Tech's Center for Transportation Studies); and
- Regional business and civic organizations (such as the Regional Business Coalition).

Summary

Models of regional governance abound. Each is designed to address issues, sometimes single issues and other times multiple issues. Each has its own scale of effectiveness, from merging municipalities within a single county with the county itself to two-tiered federations, where a regional government manages such services as transportation and water and local governments manage such functions as garbage collection and police. The Atlanta area has several forms of regional government but those that seem to be effective have one thing in common: they have certain powers and a financial base with which to exercise them.

SECTION VII. NOW WHAT?

An argument can be made that unless major issues facing metropolitan Atlanta are addressed through a regional decision-making process, the ability of the area to sustain economic development will be threatened. This chapter speculates on the extent to which there is consensus among locally elected officials on a different approach to making regional decisions affecting key issues, what the state constitution offers in the way of opportunities for the legislature to create metropolitan decision-making structures, and the key elements shaping those structures.

Is There Consensus?

There seems to be very little consensus among locally elected officials on what actions should be taken to address these and other issues at the regional level. Because they are elected to represent local, not regional, interests, their decisions may, in effect, advance the welfare of their constituents regardless of the costs imposed on others.

There may be three areas where locally elected officials appear to have reasonable consensus: (1) regional transportation; (2) air quality; and (3) water quality and supply. There is no consensus on how to address those policies area, however, mostly because elected officials argue that should be trusted with the job. Regional transportation has received the most attention.

The Metropolitan Atlanta Transportation Initiative (MATI), headed by metropolitan Atlanta's business leaders and composed of leading regional and state public officials, has advanced the idea that a single, regional transportation agency is needed.[32] Its recommendations include:

.. three areas where locally elected officials appear to have reasonable consensus: (1) regional transportation; (2) air quality; and (3) water quality and supply.

- Set and communicate short- and long-term performance objectives for Atlanta's regional transportation system;
- Adopt aspirations-based strategic planning and land use compliance incentives;
- Create a regional transit authority to plan and coordinate all transit in the region;
- Secure adequate and flexible funding for transportation needs;
- Build public awareness about transportation issues and alternatives to single occupancy vehicle travel;
- Mobilize the business community to support recommendations and change commuter behavior; and
- Empower one regionally focused agency with integrated responsibility for planning, resource allocation/authority, and monitoring of implementation for all forms of transportation in the Atlanta region.

Issues such as whether that authority should reside with ARC or an new unit of government, who would manage its decision-making (elected or appointed officials), how it would raise funds, and especially how it would interact with both local and state government agencies were left unanswered. Moreover, there is little evidence that regionalized transportation services alone will effect improvement in other areas of regional interest.

In all other respects, there is very little evidence of any consensus among locally elected officials for a need to reform regional decision-making to address any other issue of regional concern. Then, again, this should be expected. Indeed, efforts to create the metropolitan governance structures in Portland, Oregon, and in Minneapolis-St. Paul were led not by locally elected officials but by groups of business and civic leaders, and state legislators (see Savitch and Vogel, 1996; Abbott, Howe and Adler, 1994). This is not surprising. Numerous studies of solving problems that cross jurisdictions find that it is the state legislature that holds the key (for example, see Burby and May, 1997) because it is the only body that has the ability to rise above local interests.

The Constitutional Framework

To some, the Georgia Constitution appears to prevent any meaningful effort to address regional issues effectively. The constitution at Article IX, Section II provides at Paragraph IV:

> *Planning and zoning. The governing body of each county and of each municipality may adopt plans and may exercise the power of zoning.*

Combined with home rule authority, it is easy to dismiss as fruitless any role the state may advance to effect regional decision-making through local government planning and zoning. But this interpretation may be too narrow. Moreover, it ignores other provisions of the constitution that appear to provide the legislature with considerable flexibility in addressing regional problems. These provisions allow involvement in local planning and zoning, formation of regional multi-purpose districts patterned after metropolitan Portland or the Twin Cities, and the use of incentives to facilitate local efforts to meet regional challenges.

Local plans and zoning. Consider the rest of what Article IX, Section II say at Paragraph IV:

> *This authorization shall not prohibit the General Assembly from enacting general laws establishing procedures for the exercise of such power.*

The word procedures can include such elements as:

- Criteria for the content of plans;[33]
- The requirement that land use decisions be made consistent with plans and zoning;[34] and
- The requirement that plans and zoning be consistent with state environmental, natural resource, and vital area policies (see also Article III, Section VI, Paragraph II(1)).

It may be possible, at least in theory, to assure that locally prepared plans and zoning address meaningfully regional and state concerns.

Moreover, consider the following language when parsed from Article III, Section VI, Paragraph II:

> (a) *Without limitation of powers granted (elsewhere in the Constitution). . . the General Assembly shall have the power to provide by law for:*
>
> > (2) *The participation by the state and political subdivisions and instrumentalities of the state in federal programs and the compliance of laws relating thereto, including but not limited to the powers, which may be exercised to the extent and in the manner necessary to effect such participation and compliance, to tax, to expend public money, to condemn property, and to zone property.*

Consider, for example, that much of metropolitan Atlanta is no longer eligible for participation in federal highway funding programs and is not in compliance with federal clean air standards. This writer's understanding of the plain language of this part of the Georgia Constitutions suggests that the legislature could pass general laws that result in state-level zoning of property to achieve eligibility for federal highway funding and compliance with federal air quality standards. The clause "without limitation of other powers" suggests that this provision of the constitution may supersede home rule delegations.

Although much of this is speculative on both the willingness of the legislature to characterize constitutional meaning and the courts allowing the legislature to do so, it is interesting that the Georgia Constitution may be more flexible than some believe. The specific case of how House Bill 489 (HB 489) constitutional provisions to advance the state's interest over local government decisions will be discussed later.

Regional multi-purpose districts. Much has been made about the effectiveness of efforts in metropolitan Portland and the Twin Cities to address regional concerns while maintaining considerable latitude among local governments to manage locally important affairs. One interpretation of the Georgia Constitution indicates that the legislature could create a multi-purpose district affecting multiple jurisdictions, such as the current ARC area or the census-defined metropolitan statistical area or the larger commuting shed. Article III, Section VI, Paragraph VI provides:

> *Special districts. As hereinafter provided in this Paragraph, special districts may be created for the provision of local government services within such districts; and fees, assessments, and taxes may be levied and collected within such districts to pay, wholly or partially, the cost of providing such services therein and to construct and maintain facilities therefor. Such special districts may be created and fees, assessments, or taxes may be levied and collected therein by any one or more of the following methods:*
>
> > *(a) By general law which directly creates the districts.*
> >
> > *(b) By general law which requires the creation of districts under conditions specified by such general law.*
> >
> > *(c) By municipal or county ordinance or resolution, except that no such ordinance or resolution may supersede a law enacted by the General Assembly pursuant to subparagraphs (a) or (b) of this Paragraph.*

Parsing the words and phrases indicates the following:

- Special districts is not apparently limited to just municipality or county boundaries and would seem to include multiple counties and municipalities within them, nor is it apparently limited to the provision of a single service.

- Local government services may be defined by the legislature to mean any or all of those services listed in Article III, Section VI, Paragraph III which include streets and roads (subparagraph (c)), stormwater and wastewater systems (subparagraph (d)), water systems (subparagraph (e)), public transportation (subparagraph (f)), building codes (subparagraph (g)), and air quality control (subparagraph (h)).

- Methods of empowerment can include outright formation by general law, membership by local governments meeting certain criteria such as being within an air quality nonattainment area; an area affected by the impending water wars compact; a metropolitan statistical area as defined by the U.S. Bureau of the Census; or any other triggering device.

  Membership also can be construed as voluntary through action of local ordinance or resolution with the incentive given to voluntary membership being continuation of state grants (see below).

Incentives. Local governments' decisions seem based almost entirely on self interest. When choosing between alternatives that either would leave the local community better off but the region as a whole worse off or vice versa, the decision will usually be beggar-thy-neighbor. One way in which to assure that decisions made in local self-interest reflect regional concerns is to provide financial and permitting incentives to local governments that consider regional concerns. The constitutional basis for crafting financial incentives is found in Article VII, Section III, Paragraph III:

> *Grants to counties and municipalities. State funds may be granted to counties and municipalities within the state. The grants authorized by this Paragraph shall be made in such manner and form and subject to the procedures and conditions specified by law.*

The constitution provides additional basis for crafting regulatory incentives including conditions for permitting certain activities is found in Article IX, Section II, Paragraph III(c):

> *Nothing contained within this Paragraph shall operate to prohibit the General Assembly from enacting general laws relative to the subject matters listed in subparagraph (a) of the Paragraph (relating to police and fire protection, garbage and waste disposal and disposal, public health facilities, street and road and related facilities, parks and recreation facilities, storm water facilities, water facilities, public housing, public transportation facilities, libraries and related facilities, terminal and dock and related facilities, building codes, and air quality control measures) or to prohibit the General Assembly by general law from regulating, restricting, or limiting the exercise of powers listed therein.*

Conceivably, everything local government does affecting development may be regulated by the General Assembly. Thus, water effluent permits, the authority to issue septic system permits, and a variety of other permitting exercises by local government could be incentives given to local governments for becoming members of multi-purpose, multi-jurisdictional special districts.

How does this relate to "home rule" provisions elsewhere in the constitution? It would appear that local governments are free to act in each of those specified areas but the legislature is also free to regulate the manner of action. The local exercise of powers to provide those services may be made subject to state if not regional oversight.

The Georgia General Assembly appears to enjoy considerable flexibility in crafting state-level approaches to addressing regional issues.

A Working Model - HB 489

Because of its flexible constitutional framework, the Georgia General Assembly is free to advance innovations that can improve operations of local government. One innovation is the Service Delivery Strategy Act of 1997, known popularly as HB 489. It requires each county and the cities within that county to adopt a Service Delivery Strategy by July 1, 1999.[35] The legislation requires local governments to:

- Take a careful look at the services they provide;
- Identify overlap or gaps in service provision;
- Develop a more rational approach to allocating delivery; and
- Rationalize funding of those services among the various local governments and authorities in each county.

In effect, the legislation calls for the development of 159 Service Delivery Strategies, one for each county area. Counties are responsible for initiating the process. The legislation is intentionally vague, leaving much discretion to cities and counties in how they go about developing a Service Delivery Strategy. In general, each county Strategy must include:

- An identification of all services presently provided in the county by cities, counties and authorities;
- An assignment of which local government will be responsible for providing which service in what area of the county;
- A description of how all services will be funded; and
- An identification of intergovernmental contracts, ordinances, resolutions, etc. to be used in implementing the Strategy, including existing contracts.

The Strategy is supposed to also provide for (1) the elimination of duplication of services, or an explanation for its existence, justification of water and sewer rate differentials to customers located outside municipal boundaries, (3) identification of revenues to provide services for unincorporated areas, (4) elimination of conflicts land use plans between the county and its cities, and (5) formation of a process to resolve land use disputes over property to be annexed.

The major innovation involved in HB 489 is its use of financial and permitting incentives to encourage local government compliance with the statute. Beginning on July 1, 1999, state-administered financial assistance, grants, loans or permits will not be issued to any local government or authority which is not included in a DCA-verified Strategy. In addition, projects which are inconsistent with a Strategy will be ineligible for state funding and permits.

All local governments in a county are subject to the penalties for noncompliance even if only one jurisdiction within the county holds up adoption of a Strategy. Some examples of funds at stake are local area road project (LARP) grants, city-county road contracts, Georgia Environmental Financing Act (GEFA) water and sewer loans, recreation grants, and community development block grants (CDBG). The Act also applies to any permit administered by the State such as water withdrawal permits, wastewater treatment permits and solid waste disposal facility permits issued by the Environmental Protection Division.

The Framework for Structuring Regional Decision-Making

If the current structure for regional decision-making is to be modified, a number of considerations must be addressed such as

- What are the issues?
- What is the region associated with each issue?
- How shall a decision-making body be appointed?
- How shall a decision-making body be composed?
- What powers will it have?
- How can local governments become stakeholders in regional decision-making?
- Who backs it up?

What are the issues to be addressed? There are clearly three regional issues for which there already is consensus that something must be done:

- Transportation (because of congestion and air pollution);
- Air pollution (because of federal sanctions and public perception of eroding quality of life); and
- Water (because of impending "water wars" agreements affecting quality and supply).

These challenges overlap to some extent. Urban sprawl facilitated by highway proliferation consumes more land, creates more traffic which in turn increases both air and water pollution. Addressing these challenges in a coordinated manner, then, necessarily requires addressing other issues, namely:

- Improving jobs-housing balance (which will lead to reduced commuting and improve air quality);
- Making more efficient use of infrastructure (by avoiding construction of duplicative facilities and using existing infrastructure better);
- Reducing fiscal disparity among jurisdictions (otherwise there is little incentive for less-endowed communities not to pursue expansion of their property tax base); and

What is the region associated with each issue? Recall that each issue has its own "region," all of which extend beyond the 10-county ARC region to include anywhere from 13 to 59 counties or perhaps more. If an issue is addressed by a decision-making body that does not cover its true area, the issue will not be adequately addressed and perverse outcomes could arise. For example, if efforts to manage transportation and improve air quality are limited to just the ARC area, development could be shifted farther out probably making the transportation and air quality problems worse. Consider the following:

- The air quality "region" includes a 13-county "nonattainment" area but it could just as easily include the 20 county metropolitan statistical area and more likely the 43 county airshed composing most of North Georgia.
- The water quality and quantity "region" may very well be those counties in Georgia through which the "water wars" rivers run (Chattahoochee, Flint, Coosa, and Tallapoosa); 50-plus counties extending from the North Georgia mountains to the Florida border.
- The transportation "region" is the commuting shed of the greater metropolitan area composed of the 59 Georgia counties of the BEA's economic area for Atlanta.

How shall a decision-making body be appointed? The ARC is a creature of state law, as are all Georgia's RDCs and economic development regions. Those regions have little influence over local decision-making and so their efforts to address regional issues are not effective. It falls to the state legislature to use its

constitutional authority to create regional decision-making mechanisms.

How shall a decision-making body be composed? There are generally three options:

- Internal appointment. This is the case presently with the ARC and its sister RDCs around Georgia (see the selection format above).

- External appointment. The 17-member Twin Cities Metropolitan Council is appointed by the governor (with advice and consent by the state senate).

- Election. Only metropolitan Portland has an elected governing body (seven members from districts plus an elected executive officer and an elected auditor).

What powers shall it have? Three powers seem essential:

- The power to study an issue so that learning and education is part of the solution.

- The power to plan.

- The power to implement. This is the major shortcoming of present regional decision-making. The constitution appears to enable the legislature to create multi-purpose, multi-jurisdictional special districts and specify not only the powers but the method of financing. These powers are among the most broad of any state constitution, and need to be tapped here.

How can local governments become stakeholders in regional decision-making? Effective regional decision-making depends on all government units sharing common interests.

State resources could be withheld from local governments that fail to implement their part of regional plans devised through a regional decision-making process. This is possible in Florida, New Jersey, Oregon, and a few other places that also face serious regional problems. In Georgia, the state sends local governments millions of dollars annually for infrastructure, community development, and other purposes. Those resources may be considered an incentive to local government to implement their part of a regional plan. Home rule and local land use planning powers would not be affected because local government would have the option of implementing their part of regional plans and thereby receive state resources or simply going their own way without those resources.

This is the approach of the Strategic Service Delivery Act (HB 489). Recall that it requires each county and the cities within that county to adopt a Service Delivery Strategy that lays out which unit of government provides which service and how it will be financed. Among other things, the Act is intended to eliminate duplication of services.

The Strategic Service Delivery Act is an invention of the Georgia General Assembly to encourage local governments to improve the delivery of services and facilities within counties. It essentially makes local governments stakeholders in the service delivery planning process since they all share the same potential outcome: loss of state incentives to continue to grow. This approach, if extended to regional decision-making processes, may provide communities with sufficient reason to be meaningful partners in addressing regional problems.

More to the point, the state constitution appears to give the legislature the authority to use state financial and permitting authority as incentives. This is the approach Governor Roy Barnes is using to advance the state's interest in regional transportation through passage of SB 57 during the 1999 Legislative Assembly, creating the Georgia Regional Transportation Authority.[36]

Who backs it up? Every level of government is primarily interested in serving itself. Citizens elect city

council members and members of county boards of commissions to look after local affairs; to do otherwise is to violate the trust of the electorate. To "do the right thing," local government officials need someone to blame. The more distant the target of blame the better. Planning in Florida and Oregon to preserve and enhance quality of life is now realizing tangible benefits. One secret to their success is that local government officials are able to explain to their electorates that "the devil made me do it." Privately, many locally elected officials applaud the "backstop" role of higher levels of government.

Should a regional decision-making process be the backstop to assure that local governments "do the right thing?" Perhaps it would be better to have a state-level back up, thereby making regional decision-making processes facilitators. This arrangement makes RDCs and the ARC allies with their constituent local governments.

Summary

Research shows that effective regional decision-making depends on all government units sharing common interests. The Georgia Constitution seems to provide the mechanisms through which the state may create effective regional decision-making arrangements. It may do so by making all local governments stakeholders in regional decision-making. This is a lesson that seems to have learned in part through HB 489 and to a limited extent by SB 57 (creating the Georgia Regional Transportation Authority). One form of stakeholder interest is state financial support and permits granted to local governments. To create a regional decision-making arrangement that is truly effective in addressing regional concerns, state resources and permits especially for wastewater discharge may need to be withheld from local governments that fail to abide by regional decisions. Georgia sends local governments hundreds of millions of dollars annually for infrastructure, community development, and other purposes. Those resources may be considered an incentive for local governments to make local decisions consistent with regional decisions. Georgia also permits all wastewater treatment systems in the state for discharge into public waters. Those permits may be suspended or conditioned if local governments using those systems fail to abide by regional decisions. Home rule and local land use planning powers may not be affected because local government would have the option of acting consistent with regional decisions to receive state resources and maintain permits or going their own way without those resources or permits.

SECTION VIII. HOW TO SUSTAIN GROWTH

To continue its economic success story, metropolitan Atlanta must raise regional decision-making to a new level. Traditional methods of decision-making based primarily on individuals, firms, and politicians working in cozy settings straddling the Chattahoochee must give way to new forms of decision-making that protect the air and water, improve accessibility generally and especially to jobs, and make local decision-makers stakeholders in larger, regional concerns.

Can this be done? The consequences of not addressing truly regional issues through some decision-making mechanism that can solve problems include deteriorating quality of life, additional federal sanctions, and loss of state and federal support for continuing growth.

Changing how decisions are made is difficult and sometimes not worth the trouble. If nothing is done what would be the outcome? Consider that development will slow down as the region's perceived quality of life continues to deteriorate. Cleveland uses quality of life benchmarks to show that it is a better place to live than Atlanta. If Cleveland can make this claim, then certainly many other places with more pleasant locations will.

The region will continue to grow. The challenge is deciding how to manage it. This is done best through a regional decision-making process where everyone is a stakeholder.

APPENDIX A
Comparing Transportation Indicators Among Major Metropolitan Areas

One way to compare metropolitan Atlanta's transportation situation relative to other major metropolitan areas is to use an achievement index. "Achievement" is defined as the difference between an MSAs rank in total population and its rank in terms of percent of its population using other than single-occupant-vehicles (SOV) for their journey-to-work such as carpooling, transit, walking, bicycling, or working at home. The closer an MSA is to "0", the closer the match between population size and non-SOV use rank. Very large metropolitan areas, such as New York, Chicago, and Los Angeles, are so difficult to get around relative to smaller areas that carpooling and transit use will be higher. Alternatively, some metropolitan areas, such as Cincinnati and Portland, will be small enough that people can get around easily and so carpooling and transit use will be low relative to larger areas. For example, Table A-1 shows that the index for carpooling in Los Angeles is "0", which means that its rank for carpool use (2) is equal to its population ranking (2). Chicago and New York have a "0" for transit use, meaning that their ranks for transit use are equal to their population rankings (1 and 3 respectively).

A positive number means that a metropolitan area is performing well relative to its population rank. For example, San Diego's achievement index for people working at home (see Table A-1) is "8" which means that despite being the 16th largest metropolitan area, it ranked 8th in the percent of workers working at home. (New York, the largest metropolitan area and presumably the most difficult to get around, also has the highest rate of people working at home so its "achievement index" is a neutral "0".) A negative number means that a metropolitan area is performing poorly relative to its population rank. Atlanta's "-13" for people walking or bicycling to work means that despite being the 11th largest metropolitan area it ranked 24th (last) in the percent of people walking or bicycling to work (see Table A-2).

Using the "achievement index," Atlanta is shown to be bottom or near the bottom in three of four key categories of non-SOV use: carpooling, walking or bicycling, and working at home. It nearly achieved its expected rank in transit ("-1" which means it ranked 12th in percent of commuters using transit as compared to its 11th ranking in population).

Table A-3 sums all "achievement index" scores to gather an overall impression of how each metropolitan area fares in non-SOV use; only Detroit ranks worse than Atlanta. Although one may observe that because Atlanta is one of the fastest growing areas in the nation and has not had enough time to develop non-SOV opportunities, in fact the fastest growing area (Phoenix) had the sixth highest level of achievement and with the exception of Dallas every metropolitan area that grew more than 50 percent since 1970 achieved better than Atlanta.

Table A-1
CARPOOL AND TRANSIT ACHIEVEMENT INDEX

Metropolitan Area	Carpool Index	Metropolitan Area	Transit Index
Baltimore	14	Pittsburgh	14
San Diego	12	Portland	14
Phoenix	11	Baltimore	9
Pittsburgh	11	Cincinnati	5
Portland	9	Seattle	5
Tampa	8	Denver	4
Miami	7	Washington	4
Washington	5	Boston	3
Denver	4	Minneapolis-St.Paul	2
Houston	3	Cleveland	1
Cincinnati	2	Philadelphia	1
Los Angeles	0	Chicago	0
St. Louis	-1	New York	0
Dallas	-4	**Atlanta**	**-1**
Seattle	-4	San Francisco	-2
New York	-5	St. Louis	-2
San Francisco	-5	Tampa	-2
Atlanta	**-6**	Miami	-3
Cleveland	-7	San Diego	-3
Minneapolis-St.Paul	-7	Phoenix	-4
Philadelphia	-7	Houston	-7
Chicago	-8	Los Angeles	-11
Boston	-16	Dallas	-13
Detroit	-16	Detroit	-14

Source - Compiled by the author from Nationwide Personal Transportation Study 1995.

Table A-2
WALK-BIKE AND WORK-AT-HOME ACHIEVEMENT INDEX

Metropolitan Area	Walk-Bike Index	Metropolitan Area	Work-at-Home Index
Pittsburgh	9	San Diego	8
San Diego	8	Denver	6
Baltimore	6	Portland	6
Portland	4	Minneapolis-St.Paul	4
Seattle	4	Seattle	4
Phoenix	3	Phoenix	3
Boston	2	Dallas	1
Denver	2	San Francisco	1
Philadelphia	1	Los Angeles	0
Tampa	1	New York	0
Chicago	0	Philadelphia	0
Cincinnati	0	Tampa	0
Los Angeles	0	Washington	0
Minneapolis-St.Paul	0	Chicago	-1
New York	0	Cincinnati	-1
San Francisco	-1	Baltimore	-2
Washington	-1	Pittsburgh	-2
Detroit	-2	St. Louis	-2
Miami	-3	Houston	-3
Cleveland	-4	**Atlanta**	**-4**
Houston	-4	Boston	-4
St. Louis	-4	Detroit	-4
Dallas	-8	Miami	-5
Atlanta	**-13**	Cleveland	-6

Source - Compiled by author from Nationwide Personal Transportation Study 1995.

Table A-3

CUMULATIVE TRANSPORTATION ACHIEVEMENT INDEX

Metropolitan Area	Cumulative Index	Growth Pace
Portland	33	High
Pittsburgh	32	Low
Baltimore	27	Low
San Diego	26	High
Denver	16	High
Phoenix	13	High
Seattle	9	High
Washington	8	Moderate
Tampa	7	High
Cincinnati	6	Low
Minneapolis-St.Paul	-1	Moderate
Miami	-4	High
New York	-5	Low
Philadelphia	-5	Low
San Francisco	-7	Moderate
Chicago	-9	Low
St. Louis	-9	Low
Houston	-11	High
Los Angeles	-11	High
Boston	-15	Low
Cleveland	-16	Low
Atlanta	**-24**	**High**
Dallas	-24	High
Detroit	-36	Low

APPENDIX B
Jobs-Housing Balance Case Study

Jobs-housing balance cannot be achieved when people cannot afford to live near where they work. For example, several metropolitan counties use moratoria to prevent rezonings that allow for high density forms of housing such as condominiums, apartments, and small lots. Others simply limit new subdivisions to lots of very large size and homes of large finished areas. Consider the case of one suburban Atlanta county that routinely requires subdivision developers to build homes with a minimum of 1,500 to 1,800 square feet on lots with a minimum of 12,000 to 18,000 square feet. (There is no constructive purpose in revealing the county's name since it is not alone.) The rationale is that these requirements assure that the county will attract higher end jobs and improve local employment conditions. Table B-1 shows the house prices and incomes that result from such a policy in this county.

This presents two problems to home buyers. First, very few public employees can afford to buy new homes meeting the county's conditions. For example, Table B-2 shows the percent of full time employees of the county school district who presently own homes in county and those who could afford homes of the kind routinely required by the case study county. The new conditions are affordable to only 14 percent of the county's teachers. Clearly, when local development conditions result in housing beyond the reach of 85 percent of the county's school district employees, jobs-housing balance cannot be achieved. More commuting and associated air pollution is a consequence.

Second, what is the effect of such "exclusionary" housing practices on the ability of local labor to live in the very county in which they work? Using the county's own comprehensive plan as a guide, it appears from Table B-3 that only 15 percent of the households supported by new jobs projected to be created in this county between 1990 and 2010 would be able to afford to live in it.

The result of exclusionary housing policies is a jobs-housing mismatch. Thus, although the county is growing in both jobs and housing, the percent of residents who can live and work in the county is actually falling, as shown in Table B-4. Two trends are immediately obvious. First, the county has become a bedroom community within the metropolitan area. Second, more people commute into the county than live and work there. Obviously, if people who work in the county cannot afford to live there, commuting increases and so must traffic congestion and air pollution.

Table B-1

HOUSE PRICES AND INCOME REQUIRED OF TYPICAL COUNTY REZONINGS

Lot Size	House Size	House Price	Income Required [County Median = $55,000]
12,000	1,500	$180,800	$63,300
18,000	1,800	$230,200	$80,600

Source: Growth Management Analysts, Inc., 1999.

Table B-2

PERCENT OF SCHOOL EMPLOYEES ABLE TO AFFORD HOMES BASED ON COUNTY CONDITIONS

Consideration	Figure
Full time school district employees (approximate).[1]	1,500
Percent of full time employees owning homes in the case study county.[2]	50%
Percent of employees able to afford homes in subject county based on typical rezoning standards.[3]	14%

Notes:

1. Based on analysis of local school district budget and wages, fiscal year ending 1997. The median income, which included administrators, is about $30,000.
2. Based on comparison of county school district employees to the county property tax digest, fiscal year ending 1997. Others may own homes in other counties.
3. Estimated based on reported salaries plus a multiplier of 1.51 to reflect average workers per household from 1990 Census, plus 20 percent to account for inflation and other income such as temporary or supplemental employment.

Table B-3

COUNTY EMPLOYMENT INCOMES AND HOUSING AFFORDABILITY

Sector	Estimated Household Income[1]	New Jobs Projected 1990-2010	Can Afford County?[2]
Construction	$39,370	216	NO
Manufacturing	$38,256	2,498	NO
Transportation, Communications, Utilities	$50,717	1,078	YES
Wholesale	$58,307	58	YES
Retail	$17,426	1,595	NO
Finance, Insurance, Real Estate	$39,333	821	NO
Services	$27,492	677	NO
Total	$33,379	7,556	15% [1,136]

Notes:

1. Annualized labor income from County Business Patterns 1995 for county, multiplied by 1.51 workers per household (based on 1990 Census figures) plus 10 percent to adjust for 1998 dollars.
2. YES means household income plus 20 percent (for miscellaneous incomes or higher downpayments) is sufficient to afford the minimum home in the referenced development alternative, and assumes that all workers in the employment category are able to afford homes based on the county's typical development conditions. NO assumes that all workers in the employment category are not able to afford homes based on the county's typical development conditions.

Table B-4

COUNTY COMMUTING CHARACTERISTICS
1980 - 1990

Characteristics	Percent		Change
	1980	1990	
Workers 16+	16,273	29,845	83.4%
Drove Alone	72.0	81.7	13.5%
Carpool	23.5	14.0	-40.4%
Public Transit	1.0	0.4	-60.0%
Worked Outside	53.8	70.4	30.9%
Worked Inside	46.2	29.6	-35.9%
County Employment	10,534	19,012	80.5%
Employees Commuting	3,016	10,178	337.5%

Source: Adapted from County Comprehensive Plan supplemented with 1980 and 1990 Census data. "Worked Inside" is total minus "Worked Outside."

APPENDIX C
Issues of Governance

This appendix reviews five issues of governance that help provide some understanding of what we know and do not know about governance alternatives. The five issues are: (1) efficiency of service delivery; (2) efficiency of scale; (3) equity; (4) accountability and responsiveness; and (5) political participation. The following is adapted substantially from Kathryn A. Foster, author of *Governance in Erie County: A Foundation for Understanding* (Buffalo, NY: Institute for Local Government and Regional Growth, 1996).

Efficiency of Delivery

Virtually every taxpayer and policymaker wants efficiency; few, at least, would consistently prefer inefficiency to efficiency. Efficiency is based on two basic criteria:

- Goods and services are provided in the quantity and quality that people want; and
- Goods and services are produced at the lowest possible cost.

Efficiency is thus more than a simple measure of cost or consumer preferences. Rather, it is a measure of value, or colloquially, "bang for the buck." The criteria for efficiency yield two types of inefficiency. The first occurs when goods and services are not what consumers demand, even if they are produced at lowest possible cost. Using scarce resources to produce goods for which there is little demand -- whether manual typewriters, six-lane highways, or senior housing near the airport -- is inefficient even if their production is at lowest possible cost.

The second type of inefficiency occurs when the goods and services produced match consumer demands, but production of these items does not occur at lowest possible cost. Although residents and businesses may demand and receive high quality, twice-a-week garbage pickup, for example, service is inefficient if labor or equipment practices are wasteful, leading to higher-than-necessary costs for garbage services.

Review of the theory and evidence on efficiency can be divided into two areas: 1) the relative efficiency of public versus private sector service delivery; and 2) within the public sector, the relative efficiency of centralized (regional) versus decentralized (politically fragmented) local government arrangements.

Efficiency of Delivery: Public versus Private Sector Service Delivery

What do theory and practice tell us about the relative efficiency of public and private sector providers? Theory suggests that private service producers, or, more specifically, profit-seeking producers, have the greatest incentives to achieve efficiency in service delivery. This is because private corporations more than public or nonprofit corporations tend to operate under conditions of competition and client accountability. The greatest profits go to those who maximize the difference between the price a consumer is willing to pay for a product and the cost of producing it. Because buyers in a competitive economy can choose between many producers, there is a great incentive to minimize costs and maximize consumer satisfaction -- the building blocks of efficiency. In addition, because in the private sector the effects of inefficiency are highly concentrated -- typically only a small handful of owners stand to gain or lose significantly -- private corporations will tend to be more rigorous in achieving efficiency.

By contrast, public (and nonprofit) agencies generally lack the competitive pressure and profit incentive to efficiently produce goods and services. Municipal governments, for example, are often the only game in town and often enjoy a monopoly on public service provision within their borders. For dissatisfied citizens, inducing gains in public sector efficiency requires either credible threats to leave the municipality (analogous to brand switching in the private sector) or political pressure to unseat elected officials. That the costs to move are high and public officials often survive citizen opposition, however, weakens the incentives for a public sector agency to improve efficiency. Moreover, because citizens are so numerous and dispersed, they individually stand to lose or gain only slightly from any inefficient policy or efficient improvement. As a consequence, theory suggests that the intensity with which the general public insists upon efficiency improvements and the public sector feels compelled to respond tends to be less than in the private sector.

Theory does not guarantee, of course, that a private enterprise will be efficient (nor does it guarantee that a public sector will not be efficient). Theory does indicate that achieving efficiency requires competition and accountability. When these conditions are absent from a private market (as occurs with monopolies or long term franchises) or represent in a public one (as occurs with interjurisdictional competition or intense citizen scrutiny of government operations), the theoretical advantages of private enterprise and disadvantages of public sector are diminished.

Before considering the evidence, it is important to note that comparing the public and private sectors is problematic because these sectors may have different goals for service provision. Where the private sector wishes to receive the highest monetary return for investment, the public sector is more concerned about nonmonetary issues.

To measure efficiency requires information on consumer preferences, the cost of production inputs, and the quality and quantity of production outputs. For example, efficiency measures in education might be test scores per dollar spent, while efficiency in fire protection might be measured by property damage or response times in relation to costs.

In practice, because comparable data for these measures are difficult to come by, determining efficiency is difficult. Not surprisingly, empirical research on the comparative efficiency of various governance arrangements is actually scant, even though numerous articles imply such analysis. Most research more precisely focuses on the one aspect of efficiency for which data are readily available, namely the per capita costs of service delivery.

With this consideration in mind, consider the findings of a comprehensive literature review by John D. Donahue (1991) on the efficiency outcomes of public and private sector service delivery:

- Studies confirm the efficiency-inducing effects of competition and accountability. Provided there exist competition or a credible threat of losing customers through contract nonrenewal, private, profit-seeking agencies are potentially more efficient providers of services.

- In particular, studies of garbage collection, water utilities, electric utilities, office cleaning, firefighting, and transportation (airlines, railroads, buses) found that private providers were more efficient under conditions of competition and accountability. (Donahue, 1991; Spann, 1977).

- Notably, though, in several instances public provision was more efficient than private provision, even under competitive market conditions (Donahue, 1991). There were several possible explanations. First, in some cases private competitive firms may be too small to capture economies of scale in production or billing. Second, private firms may get away with higher prices by taking advantage of the fact that many consumers are unwilling or unable to shop around for the least expensive private provider. Third, despite competition, there is likely to be some duplication and waste when multiple private providers provide garbage pickup, water, firefighting or other services in a single neighborhood or area. Fourth,

networks of private competitors may in reality be more like private cartels that maintain high prices throughout an industry. A classic example of the latter is commercial garbage collection cartels that operate in some regions.

- More specifically, publicly monitored private contracts, that is, privatization, is consistently more efficient than either public provision or competitive private provision in garbage collection and firefighting services (studies in Donahue, 1991). Competition and accountability may be ensured by competitive bidding and municipal monitoring and enforcement of privatization contracts. The knowledge that a contract will not be renewed if service does not meet consumer demands appears to impel private contractors to reduce inefficiency.

- There appears to be no tendency for private water or electric utilities to be more efficient than their public counterparts; in some instances, the public providers are more efficient for these services (studies in Donahue, 1991). Analysts suggest that these results are due at least in part to the regulation of the profits of private utilities, which leads to higher than normal investment in relatively expensive capital equipment.

Efficiency of Scale: Centralized versus Decentralized Local Government Arrangements

A second topic of interest with respect to the efficiency effects of local government structure focuses on the degree of centralization or decentralization in local government arrangements. Since the earliest days of metropolitanization in the late 1800s, popular wisdom has held that politically fragmented metropolitan regions are inefficient due to duplication of service and lack of coordination in service delivery.[1] Since the 1950s a contrasting perspective has emerged that advances the opposite argument, namely that politically fragmented metropolitan regions with many competing jurisdictions are, like competitive private markets, more efficient than centralized, single provider arrangements.

This debate over the relationship between government arrangements and efficiency persists in part because each viewpoint has theoretical support. Bolstering the "politically decentralized arrangements are more efficient" view are economic principles related to consumer preferences and interjurisdictional competition. Bolstering the "one or a few large governments are more efficient" view are the principles of economies of scale and externalities.

Argument 1: Politically decentralized governance is more efficient. One source of support for the view that politically decentralized governance is more efficient is the principle that the closer the match between individual consumer demand and actual services delivered, the more efficient the service delivery.[2] The more homogenous a jurisdiction, then, with respect to service preferences, the greater the potential for achieving efficiency. Because individuals vary, no community is entirely homogeneous with respect to preferences for particular services, of course. It is likely, however, that smaller communities will have a smaller gap between individual preferences and the jurisdiction's actual service offerings than will large communities. Small communities are simply more likely to be homogeneous with respect to preferences, especially if residents are able to "self-sort" themselves into communities.

Note that it is diversity of preferences, not size per se, that matters. There is no inherent efficiency advantage to smaller communities. To the extent small communities are internally diverse with respect to preferences, the efficiency advantages of decentralization are diminished. Likewise, if large communities are homogeneous with respect to preferences, the efficiency disadvantages of centralization are diminished.

The greater likelihood of interjurisdictional competition in politically decentralized metropolitan regions provides a second theoretical support. Competition is well-known to compel efficiency. To the extent that political officials believe taxpayers/voters will express dissatisfaction about local services by migrating to another community, officials will strive to improve public sector performance. Government officials have a strong incentive to root out inefficiency in public service delivery.

The theoretical efficiency advantage of politically decentralized areas rests on the notions that competition between jurisdictions is more likely and taxpayer threats to move are more credible in areas with multiple jurisdictions. Under a regional government, which by definition limits relocation choices, there is virtually no jurisdictional competition and, because moving out of the jurisdiction requires moving out of the region, citizen threats to relocate are far less credible. On grounds of competition and preferences, then, theory favors politically fragmented regions over those with integrated government arrangements.

Argument 2: Politically centralized governance is more efficient. Economies of scale criteria imply that small units of government cannot achieve lowest cost service provision because they sacrifice the cost savings associated with large-scale production.[3] Economies of scale are especially relevant for capital-intensive services, such as water, sewer, and mass transit, and for administrative tasks, such as vital statistics or property recordkeeping. Once again, there is no guarantee that large units are more efficient. Large units may suffer from diseconomies of scale, that is, be too large for cost-effective service delivery. For example, a large regional sewer agency might sacrifice efficiency by attempting to serve remote areas or because of slack in a large bureaucracy.

A second argument favoring the efficiency of large-scale units of government concerns externalities, which are also known as spillovers or third-party effects. Externalities are impacts (either positive or negative) imposed by one party on another without any mechanism for the impact-generating party to compensate the affected party. Examples of externalities are air pollution, water pollution, traffic congestion, or the benefits of a central city zoo, all of which may be generated by the actions of one jurisdiction or person and experienced by other jurisdictions or persons. Externalities lead to inefficiency because the preferences of affected parties are not accounted for when the impact-generating party makes decisions about service delivery. As a consequence, a jurisdiction produces inefficiently large amounts of a service that generates negative externalities and inefficiently small amounts of a service that generates positive ones.

One traditional solution to externalities is to tailor the boundaries of jurisdictions so that they encompass the entire territory affected by their decisions on public services, a process known as internalizing the externality. Matching political borders to service areas ensures that everyone affected will contribute financially (through taxes) and have a political voice in service delivery decisions.

Unfortunately, the fact that externalities vary for different services complicates implementing the solution. Services with strong externalities, such as major cultural facilities, pollution generating activities, or airports, lend themselves to more regionalized government arrangements. Services with weak externalities, such as administrative tasks, curb ordinances, or a local tennis court, lend themselves to more local control. Some services, notably planning and public safety, have mixed externalities. Depending on the particular task, the appropriate government level may vary. Locating a region-serving retail mall or pursuing criminals across borders, for example, are more amenable to regionalized decision-making, while downtown sign ordinances and community policing patrols are well-suited to local control.

The presence of externalities, which differ for every service and function within services, implies that to

achieve efficiency requires a variety of governing units, each geographically tailored to be most efficient for a particular task. The impracticality and unwieldiness of such a system, which could have hundreds of different governments, has traditionally persuaded society to tolerate less than 100 percent internalization of externalities and, thus, less than 100 percent efficiency.

The practical problems associated with achieving efficiency given multiple services and fixed municipal borders has motivated intermunicipal service agreements and formation of special-purpose governments. Analysts agree that externalities (and also economies of scale and preference matching, though not competition) can be theoretically addressed by cooperative arrangements or overlay governments, the boundaries of which can be precisely tailored to encompass the efficient scales for a given service. A metropolitan region might establish, for example, a series of public authorities and special districts for water, sewer, health, parks, libraries, housing, and highways services. Likewise, two or more municipalities might join forces to capture economies of scale or internalize an externality associated with a service. Submunicipal, special-purpose governments can also satisfy specialized service preferences, much in the same way that downtown business improvement districts enable a higher level of public safety and maintenance services within a small area of a city.

In theory, then, if service preference and competition factors outweigh economies of scale and externalities considerations, then smaller decision units are most efficient. If not, then more regionalized governance arrangements are most efficient. Neither argument is inherently superior. In practice, the optimal arrangement will depend on resident preferences, the nature of services provided, the presence and intensity of externalities, and the level of competition.

More so than studies on public versus private sector efficiency, empirical studies on local government arrangements are essentially cost studies that measure the "buck" part of "bang for the buck". In that genre, there is a relatively large literature examining the link between local governance arrangements and per capita costs of service delivery. A review reveals several themes:

- The greater the number of multi-purpose governments in an area, the lower the amount of government spending on services (Adams, 1965; Isserman, 1976; Sjoquist, 1982; Nelson, 1987; Schneider, 1989). The preponderance of evidence indicates that competition between jurisdictions drives down costs. Apparently, the implied threat of outmigration by residents or businesses and the desire to attract new residents and businesses prompts municipalities to keep service costs low.

- For single-purpose governments, however, the greater the number of units in an area either has no effect or leads to higher per capita costs for services these units provide (Nelson 1986; Nelson 1987; Eberts and Gronberg, 1988). There are several possible explanations. First, because special-purpose governments provide different functions, a multiplicity of these entities does not guarantee the competition hypothesized to keep costs low; airport authorities and library districts, for example, do not compete with one another. Second, even when multiple special-purpose governments do provide the same service in an area, the possible erosion of economies of scale might outweigh cost reductions realized through greater competition. Third, because special-purpose governments often provide regional level services such as transit or sewer, multiple special-purpose providers may sacrifice

economies of scale and thus sacrifice lower costs. Fourth, managers of special-purpose governments may capitalize on the likelihood that most customers will not relocate if dissatisfied with a single service. Fifth, institutional specialization itself requires higher expenditures to cover the overhead and administrative costs of a separate government unit.

- Results are inconclusive with respect to whether fiscally centralized or decentralized areas (measured by the share of higher-level government spending to total higher- and lower-level government spending) spend more per capita for services. Some studies find that more fiscally decentralized states have higher government expenditures (Nelson, 1986; Oates, 1985). Others find the opposite (Giertz, 1981). At the metropolitan scale, two studies yield mixed results depending on the service (Wagner and Weber, 1975; DiLorenzo, 1983); a third found lower costs in areas that were more fiscally decentralized (Zax, 1989), while a fourth found the opposite, that costs were lower in more regionalized areas (Dolan, 1990).

- At least at the national scale, competition apparently holds down the growth rate of government expenditures over time (Marlow, 1988; Grossman, 1989; Lowery and Berry, 1983). Results are inconclusive at the metropolitan scale (Schneider, 1986, 1989).

- "Before and after" studies of metropolitan reorganizations reveal higher per capita costs for regionalized services following consolidation (Gusteley, 1977; Cook, 1978; Benton and Gamble, 1984). In Miami-Dade County (Florida), Metropolitan Toronto, and Jacksonville-Duval County (Florida), three areas that either formed two-tier federated governments or underwent city-county consolidation, per capita costs increased for regionally provided services (e.g., police and education), while there was no change in expenditures for locally provided services (e.g., sanitation). Higher costs were attributed in part to the "equalizing up" phenomenon in which post-consolidation spending levels are set equal to the highest pre-consolidation levels in individual jurisdictions prior to the reorganization. An alternative explanation is that the purpose of city-county consolidation was not cost savings but rather improved services, which tend to cost more.

- In short, studies on the cost effects of local government arrangements reinforce the importance of competition as a brake on local government spending. The greater the number of local governments in an area, the lower the per capita costs of service provision. This finding is reinforced by findings that greater concentration of spending power in higher level governments is associated with higher government spending. On cost grounds alone, it appears that the benefits of consolidated government (economies of scale, externalities) are outweighed by the drawbacks of large units of government (lack of competition, greater barriers to public scrutiny of government costs).

Equity and Local Government Arrangements

A third area of interest is the relationship between the arrangement of local governments and various measures of equity. Questions of equity focus on the distribution of resources across groups by neighborhood, race, age, gender, income class, and location within city, suburban, or rural area. For present purposes, equity refers to fairness in the incidence of taxes and distribution of public services.

Equity is not equivalent to equality. Few would expect absolute equality of tax payments or services received by individuals or groups, given very different needs and preferences. Equity is also not a universally defined or static concept. Not only do societies define what is fair in different ways, any single society continually redefines its own conceptions of fairness over time.

Two measures of equity are most frequently used to evaluate policies: ability-to-pay and benefits received. The ability-to-pay criterion holds that persons with equal ability to pay should pay equal taxes (a standard known as horizontal equity), and persons with greater ability to pay should pay more taxes than those with lesser ability (known as vertical equity). Thus, two persons with equal incomes, regardless of place of

residence, age, race, occupation or so forth, should pay equal taxes. Within any jurisdiction or region, vertical equity would require some form of redistribution or progressive taxing to ensure that those with more resources pay more.

The benefits criterion, sometimes referred to as fiscal equity, holds that persons should pay taxes or fees in proportion to the services received. That is, those who benefit pay; those who do not benefit, do not pay. Fiscal equity does not presume redistribution to accommodate different resources of the poor and rich.

Because the two measures of equity are often contradictory, depending on which one is considered a policy may appear to be equitable or inequitable. Naturally, this complicates the assessment of equity. If ability-to-pay is given greater weight, politically integrated regions are more likely to achieve horizontal equity than are politically decentralized ones. Given systems of local property taxation, there is a greater probability that two persons or households with identical resources will pay the same in taxes if they live in the same jurisdiction than if they live in different ones. With respect to vertical equity, there is no inherent advantage to either integrated or fragmented systems of governance. In either case, vertical equity requires fiscal policies that favor the poor. To the extent that integrated governments have a larger pool within which to draw funds and redistribute them according to progressive principles, however, most analysts agree that politically integrated systems may have greater potential for vertical equity at the metropolitan scale.[4]

If, by contrast, the benefits criterion of equity is given greater weight, achieving equity implies shifting from collective taxing systems to user fees and charges based on actual services used. This shift puts proportionally greater financial responsibility on those who receive relatively large amounts of public services, regardless of whether the government is regional or municipal. Because the poor typically receive large amounts of public services, often at considerable subsidy, the benefits criterion represents a potentially large threat to their well-being. Only to the extent that benefits principles are relaxed somewhat and used to justify collective funding for regionwide cultural or recreational institutions previously funded only by central city residents (who may have disproportionately high poverty rates) would regional government hold fiscal advantage for poorer households.

Another dimension of equity relates to the degree of disparity or standardization in service levels. By this criterion, the most socially equitable system would be one in which service disparities are most narrow. Theory suggests that centralized governance arrangements are more likely to achieve social equity than are decentralized ones. The reasoning is straightforward: decentralized arrangements imply variations across jurisdictions in tax burdens, taxable resources, and service levels. If the entire area is a single government, there is by design a single tax base and uniform tax rate for all residents.

To the extent that equity is influenced by planning and zoning laws, moreover, politically decentralized metropolitan areas would be expected to have higher levels of social, racial, and economic differentiation than would politically centralized areas. Through planning and zoning, a community has the legal power to insulate itself from outsiders it considers undesirable, promote its social values and community character, and ensure through devices such as minimum lot sizes that newcomers pay their fair share in property taxes. Given that each local government unit has planning and zoning powers, we would expect to find higher levels of segregation in politically decentralized metropolitan areas that have relatively small, demographically homogeneous jurisdictions. To the extent that economic, racial, or social integration is an equity-related goal for a region, politically integrated governance holds greater promise.

Although these arguments give preference to politically integrated metropolitan areas on equity grounds, there is no reason why decentralized systems could not achieve high levels of tax or service equity in practice. National, state, or regional systems of tax base sharing or grant equalization (in which the areas with the lowest tax bases or highest needs receive the largest grants) can be designed to redistribute wealth or aid to better equalize fiscal capacity. In addition, services for which a relatively standardized level of service or access to service are deemed important may be provided by the county or higher unit of government, which enables the pooling of resources from area jurisdictions. Such an arrangement often

occurs for social services such as public assistance and health, for which service equity is considered critical.

Most equity studies examine socioeconomic and/or racial segregation in politically decentralized metropolitan regions. These studies do not analyze similar patterns of segregation in politically consolidated regions (although some studies compare segregation within municipalities), so conclusions about local government structure are thwarted. Other studies examine pre- and post-consolidation standardization of service levels. Overall, empirical studies rarely address equity in centralized versus decentralized arrangements.

With these considerations in mind, studies show that:

- Political fragmentation of fiscal systems and planning laws facilitate segregation at the jurisdiction level (Danielson, 1976; Miller, 1981; Logan and Schneider, 1981; Weiher, 1991; Rusk, 1993). Political fragmentation allows persons to differentiate themselves by certain demographic characteristics into discrete and autonomous government units. Differences tend to be greater across jurisdiction boundaries than across informal neighborhood boundaries.

- Variation in income levels across jurisdictions increases as the number of jurisdictions in an area increases (Hill 1974). Such differentiation may result both from exclusionary laws and behaviors and also from individual residential choices within the metropolis.

- City to suburb per capita income ratios are lower in metropolitan areas with "inelastic" boundaries than in areas with "elastic" boundaries (Rusk, 1993). Elasticity refers to the ability of a central city to capture surrounding suburban areas through annexation or other means. Thus, areas with more expansive central cities, which tend to be more politically integrated, have narrower income gaps between the central city and suburbs than do areas with less expansive central cities, which tend to be more politically fragmented. To the extent that city-suburban differences are a measure of equity, politically integrated arrangements are superior means toward equity.

- Per capita spending for services tends to vary widely across jurisdictions (Paddison, 1983). Interpreting public service disparities requires caution, however. Given that persons have different service preferences and needs, variation is expected and well-accepted. Variations are also evident within jurisdictions.

- Within municipalities, per capita spending on services tends to be higher in low income areas compared to high income areas (Rich, 1982; Lineberry, 1977). Contrary to popular wisdom, studies suggest that low-income areas do not receive lower levels of public services. The finding is understandable from a service need viewpoint: poor, high-crime areas are likely to receive higher levels of social and public safety services than are affluent, low-crime areas.

- In Toronto, transfer of education, police, infrastructure, and social services to an upper-tier, regional level of government helped narrow intermunicipal fiscal and service disparities within the region (Frisken, 1993; Cook, 1973; Feldman, 1995).

Accountability, Responsiveness and Local Government Arrangements

Conventional wisdom holds that small government units are more accountable and responsive to residents and businesses than are larger units. The notion, often trumpeted by opponents of metropolitan government or service consolidation, is that big government equates to big bureaucracy, which equates to diminished accountability and responsiveness to citizen concerns.
Responsiveness can be measured by the match between citizen preferences, on the one hand, and actual policy and service outcomes, on the other. Accountability, defined as the extent to which public officials are answerable to constituents, is difficult to measure, although one might argue that in practice unaccountable public officials are more likely than accountable ones to be turned out of office by dissatisfied constituents.

Some of the same theoretical considerations discussed in the context of efficiency also pertain to the questions of responsiveness and accountability. This is understandable, given that one dimension of efficiency is providing people with the goods they desire, which is itself a measure of responsiveness.
There are two sides to the theoretical debate over the responsiveness advantages of different governance arrangements. On one side is the argument that decentralized government arrangements are superior to politically integrated arrangements in terms of accountability and responsiveness. By this reasoning, the fear that citizens or businesses will "vote with their feet" in a politically decentralized system to obtain a preferable public service package prompts governments to heed closely the wishes of their constituents. Because the threat of exit is credible only where municipal options are plentiful, politically decentralized arrangements are more likely to achieve political responsiveness.

On the other side is the argument that politically integrated governance arrangements provide clearer lines of citizen accountability and accessibility than do more complex decentralized arrangements. By serving as a place for "one-stop complaints" integrated governments are less able and apt to pass the buck and so may achieve greater responsiveness and accountability. A multiplicity of governments, by contrast, is considered more difficult to monitor and hold accountable.

Researchers encounter two types of problems in examining the link between local government arrangements and government responsiveness and accountability. The first is the difficulty separating the effects of jurisdiction size per se from the related but distinct effects of integrated versus decentralized local government arrangements. The second problem is devising a measure for responsiveness. In the former case, research designed to compare responsiveness for persons living under two different types of local government systems can disentangle the effects of political structure as opposed to jurisdiction size. In the latter case, analysts tend to substitute consumer satisfaction as a proxy for the more elusive concepts of responsiveness and accountability.

Unfortunately, consumer satisfaction studies focus on individuals within a single jurisdiction, rather than those living in different places. We know of only one study that examines consumer satisfaction levels across places distinguished by local government arrangements. The study, by W.E. Lyons, David Lowery, and Ruth Hoogland DeHoog (1992), compares service satisfaction levels for persons living in carefully matched neighborhoods in Louisville, Kentucky, a politically decentralized metropolitan region, and Lexington-Fayette County, Kentucky, a consolidated city-county metropolitan area. The findings of that study indicate that:

- Local government arrangements are only weakly related to service satisfaction levels. More important than these arrangement are a variety of factors related to service levels, personal characteristics, and, the researchers speculate, historical events and the quality of local leadership.

- There is, however, an indirect link between service satisfaction and local government arrangements. Citizens in politically consolidated areas were more satisfied with services than were citizens of localities in the decentralized system. This relationship was driven primarily by the higher number of services provided by the larger regional government.

Participation and Local Government Arrangements

An important question for democratic societies is how local government arrangements may influence levels of political participation. Participation comes in many forms, from voting, which is considered a relatively passive and minor level of involvement, to stronger levels of involvement such as attending public hearings, contacting public officials, joining or running community organizations, and serving as an elected or appointed public official.

There are large theoretical and empirical literatures on citizen participation. Much of these literatures address the pros and cons of participatory government, trends in participation over time, at what levels participation takes place, and the conditions for extensive participation in government. The last of these is of greatest interest to analysts of local government arrangements. What is the link between political structure and participation?

The conventional view is that small-scale democracy is most conducive to participation. As a consequence, small towns in which citizens know one another and their leaders are thought to be best-suited for extensive participation in government. The much-heralded New England town meeting remains an ideal form of democratic government to many, and a rhetorically valuable model for supporters of small government.

Without denying the importance of participation at the local scale, community-level participation cannot solve important problems of wider societal significance. For such problems, these analysts argue, the greater resources and broader outlook of a larger-scale government are necessary for effective participation. National level organizations and interest groups apparently succeed at prompting numerous citizens to participate in government.

Neither of these lines of reasoning addresses directly the question of whether participation is greatest in politically integrated or politically decentralized government arrangements. The most pertinent theoretical analyses are found in studies concerned with responses to dissatisfaction with government. This line of reasoning argues that people may exercise any one of four approaches to expressing dissatisfaction, two of which are considered active forms of participation. Active forms are "exit" (leaving the jurisdiction or opting for private services rather than public offerings) and "voice" (attending meetings, contacting officials, organizing petitions, and so forth). Passive forms of participation are "loyalty" (tolerating inferior government programs or policies and trusting public officials to work things out) and "neglect" (disregarding the community, ignoring public issues, and giving up on government's ability to work things out).

As noted in the discussion on efficiency, exit options are most available in politically decentralized metropolitan regions. To exit a politically integrated metropolis requires leaving the region altogether. Such constraints might be thought to induce higher levels of voice, loyalty, or neglect, however the precise theoretical link is unclear.

Reflecting the focus of the theoretical literature, empirical studies tend to focus on the relationship between personal characteristics, neighborhood attributes, and government size and levels of participation, rather than on the link between participation and local government arrangements. Surprisingly little is known, although findings on government size and participation shed some light and are thus of interest. In addition, the previously cited study by Lyons, Lowery and DeHoog examined levels of participation and feelings of political efficacy in Louisville and Lexington (KY) metropolitan areas.

Among the findings of these studies are that:

- There is no definitive answer to the question of whether there is an optimal size of government for political participation (Berry, Portney, and Thomson, 1993; Dahl and Tufte, 1973). At least at the national level, the size of a country is not correlated with levels of political participation.

- Demographic characteristics do not account for different levels of participation in community organizations (Berry, Portney, and Thomson, 1993). A study of citizen participation in 15 U.S. cities found that communities with low socio-economic status did not have significantly different participation rates from communities of high socio-economic status.

- Regardless of levels of political participation, residents of politically integrated government systems are more knowledgeable about which services are provided by their local government than are residents of jurisdictions in fragmented systems (Lyons, Lowery and DeHoog, 1992). Despite the argument that large-scale governance will by its size alone be more confusing to citizens, evidence suggests that consolidated government is more understandable to citizens than is a system comprised of municipal, county, and special-purpose governments. This finding is not surprising, given that a consolidated government may be the only government of consequence in an area.

- Residents of politically fragmented local government arrangements are slightly more likely to consider exit as a means of expressing dissatisfaction with government than are residents of politically integrated regions (Lyons, Lowery and DeHoog, 1992). Such a finding is expected, given the greater options for exit in decentralized government arrangements.

- Residents of consolidated systems are more attached to their communities than are residents of fragmented systems (Lyons, Lowery and DeHoog, 1992). Attachment was defined as a measure related to how pleased or disappointed a person would be to leave the community. Participation was positively associated with voice and loyalty forms of participation, thus suggesting that persons in consolidated areas are more likely to participate. This may, of course, be related to the fact that exit options are attenuated under a integrated metropolitan area.

ENDNOTES TO APPENDIX C

1. See, for example, Jon C. Teaford, *City and Suburb: The Political Fragmentation of Metropolitan America, 1850-1970*, Baltimore, MD: Johns Hopkins University Press (1979).

2. For a review, see Kathryn A. Foster, "Exploring the Links Between Political Structure and Metropolitan Growth," *Political Geography* 12, pp. 523-547 (1993).

3. See, for example, James McAndrews and Richard Voith, "Can Regionalism of Local Public Services Increase a Region's Wealth?" *Journal of Regional Science*, 33(3): 279-302 (1996).

4. For review, see Kathryn A. Foster, *Governance in Erie County*, Buffalo, NY: Institute for Local Governance and Regional Growth (1996).

APPENDIX D
Governance Arrangements and Metropolitan Economic Development

A growing literature addresses the link between the structure of governance at the metropolitan level and income growth (Foster, 1993; Nelson, 1990; Ward, 1987). In this appendix the relationship between metropolitan governance structures and the economic well-being of individuals is considered.

Literature indicates that metropolitan governance structure may affect choices by households, firms, and developers. Because government arrangements may influence the type and quantity of services, facilities, and amenities in an area, they may also influence residential and commercial location and investment decisions (Danielson and Doig, 1982). Little consensus exists, however, about how metropolitan governance structure may affect economic development, which is defined here as change in personal per capita income because, after all, it is the welfare of the individual that ought to be the ultimate objective of any governance arrangement. Three schools of thought contend for dominance in the debate over how to structure metropolitan governance may influence growth in per capita personal income: centrists, polycentrists, and regionalists.

Centrist Perspectives

Centrists argue that large, multiple-purpose governments are most efficient in administration and production. Potential investors are repelled by multiple layers of government, confusing lines of authority, duplication of service, and the transaction costs of interacting with multiple small units of government (Committee for Economic Development, 1970; Ward, 1987). Regional governments, centrists allege, are best suited to internalize the externalities of growth (especially congestion) and realize economies of scale in service delivery (Rusk, 1993, 1996; Wingo, 1972). Centralized systems can draw upon a larger pool of human, material, and financial resources, and offer a wider variety of services to residents and businesses than can governance systems comprised of relatively small, resource-limited, sometimes part-time-staffed municipalities (Felbinger, 1984; Frisken, 1991).

Centrists are especially critical of interjurisdictional competition, which they contend promotes zero- or negative-sum games, leads to inefficiently and inequitably located facilities, encourages haphazard development and overzoning of commercial and industrial land uses, and induces local governments to relax environmental standards (Barlow, 1991; Hanson, 1974; Netzer, 1991; Oates and Schwab, 1988; Peirce, 1993). Centralized governments, in contrast, can better rationalize metropolitan wide development, narrow intraregional disparities, and spur investment in central city revitalization (Downs, 1994; Lewis, 1996; Mattoon, 1996; Orfield, 1997; Pastor, et al., 1997).

To investors, regulatory consistency, a professionalized bureaucracy, and the fewer interactions with large, central governments relative to multiple, smaller ones speeds projects, reduces frustration, and lowers development risks, all of which attract economic investment (Barlow, 1991; Cox and Nartowicz, 1980; Lind, 1997; Ward, 1987). Regional government attracts developers for whom the benefits of one-stop shopping outweigh the costs of uniform and monopolistic public service. The higher odds of dominating policy choices in a large heterogeneous jurisdiction rather than in a small homogenous, less fiercely participatory one may also draw developers to centralized governments (Lewis, 1996).

Polycentrist Perspectives

In contrast, polycentrists argue that politically fragmented governance systems are superior to centralized ones for attracting economic growth. Drawing upon the public choice and local political economy views of metropolitan political structure (Advisory Commission on Intergovernmental Relations (ACIR), 1987; Mueller, 1989), polycentrists argue that a system with many local governments offers firms and residents greater choice among service/tax bundles and therefore a greater probability of finding a close match for their service/tax preferences (Bish, 1971; Boyne, 1996; Ostrom, Tiebout, and Warren, 1961; Tiebout, 1956). The driving force is interjurisdictional competition, which polycentrists view as essential for

ensuring customers the quantity, quality, and cost of services they demand (Dye, 1990; Kenyon, 1997; Nunn, Klacik, and Schoedel, 1996; Schneider, 1989). Multiple, overlapping governments signal not chaos or inefficiency, polycentrists contend, but, rather, responsiveness to heterogeneous demands and recognition that different urban services achieve efficient production levels at different scales (ACIR, 1987; DeTorres, 1972; Honey, 1976; Parks and Oakerson, 1989).

To investors, polycentric systems may be attractive because they facilitate playing one community off against the other to obtain tax breaks, offer lenient environmental regulations, and provide other economic inducements unlikely in a less competitive setting (Breton, 1991; Kenyon and Kincaid, 1991; Oates, 1990; Van Dyne, 1997). The one-size-fits-all model of regional government yields a public service monopoly, which polycentrists fault for lacking competitive incentives to operate efficiently, strike a bargain favorable to potential investors, or satisfy the needs of a heterogeneous customer base for tailored service packages. Polycentric systems also attract investment because they offer development capitalists, economic elites, and large businesses shields against the redistributive policies typical of regionalized systems (Cox and Nartowicz, 1980; Danielson, 1976; Logan and Molotch, 1987; Orfield, 1997).

Regionalist Perspectives

Rising above the centrist-polycentrist fray is a third school of thought represented by regionalists who contend that the number, size, or arrangements of local governments are relatively incidental when dealing with regional issues. Of primary concern is the role of metropolitan governance structures in making decisions on issues of regional significance (Dodge, 1996; Orfield, 1997; Yaro and Hiss, 1996). Regional governance structures have authority over allocation of one or more resources everyone in the region needs to sustain economy activity. Water, wastewater treatment and disposal, port management, airport management, flood control, and air pollution control, among other functions, generally operate best at the regional scale (Adams, 1997; Bollens, 1997). To regionalists, even nominally regional governments, such as Unigov in Indianapolis (composed of Marion County and the city of Indianapolis) or New York City (composed of five burroughs), are part of a larger regional governance system that needs such overarching decisionmaking mechanisms to achieve regional effectiveness (Hollis, 1998).

The attractiveness of regional governance systems to households, firms, and developers rests primarily on the assurance that regional concerns such as water, economic development, airports, and transit, will receive regional consideration. Also attractive is that regional governance systems that downplay the underlying local government structure frees residents and businesses from divisive jurisdictional battles over service levels and the political turmoil of government reform proposals.

Regionalists further argue that because regional outcomes are politically difficult to achieve and require sustained collaborations, regional governance itself signals that the region is committed to making regionalism work despite the barriers (Nunn and Rosentraub, 1997). The commitment to metropolitan governance thus attracts particularly large corporate interests that have a long history of support for regionalized governance (Foster, 1997a; Teaford, 1979; Wallis, 1995).

There is finally the argument simply that regionalization of local public services can increase a metropolitan area's wealth. Using theoretical gaming, McAndrews and Voith (1993) observe that when individuals and firms act in their self interest, they do not bear directly the costs of congestion they impose on others. Local governments likewise acting in their own self interest will impose costs (externalities) on others. The region's wealth and by implication the incomes of individuals suffer. Either by itself or more likely through coordination among different providers, a regional authority can improve the distribution of economic activity when compared to a region without such an authority or a region composed of only local governments. This seems to be the heart of the regionalist view.

Past Empirical Evidence

Empirical evidence from case studies, business surveys, and aggregate analyses yields few conclusions

linking metropolitan governance structures and economic growth. For example, Feiock and Carr (1997) found no relationship between city-county consolidation effects of the 1973 Jacksonville/Duval County (Florida) consolidation and growth of manufacturing, retail, and services. Owen and Willbern (1985) found that Unigov, formed by the consolidation of the City of Indianapolis and Marion County (Indiana), was associated positively with economic growth (see also Blomquist and Parks, 1995). The extent to which the Unigov structure itself accounts for these changes is difficult to assess given implementation of a host of economic development tools, including tax abatements, enterprise zones, and tax-increment financing, since consolidation. Durning's (1995) analyses of the 1991 consolidation of the City of Athens and Clarke County (Georgia) indicate that high pre-consolidation expectations for economic growth disappeared thirty months later but it is much too early to assess effects on the local economy.

More consistent are survey findings, which reveal strong support among business and community elites for regional government (for example, Crosby and Bryson, 1995; Greer, 1963; Henderson and Rosenbaum, 1973; Lyons, 1977; Teaford, 1979). At least at the metropolitan scale, the potential for one-stop permitting is apparently more attractive to business interests than is the opportunity to play one community off against another. For many elites, support for regional government stems from their perception that centralized structures foster economic growth. Corroborating evidence is offered by Edwards and Bohland (1991), who found a strong link between support for economic growth and consolidation proposals in Virginia. Persons with favorable attitudes toward economic growth tended to support city-county consolidation; those who preferred slow economic growth tended to oppose consolidation. Regardless of whether government consolidation actually does promote growth, then, the popular perception is that it will.

In contrast, a study of likely voters in Santa Clara County, California, found that support for regional government is strong among persons concerned with the negative effects of growth such as traffic congestion and pollution (Gerston and Haas, 1993). To the extent that social, economic, and environmental problems have passed some threshold of dissatisfaction, residents indicate support for regional mechanisms to manage issues affecting the regional quality of life. A survey of citizens in consolidated Lexington-Fayette County and the politically decentralized Louisville metropolitan area in Kentucky found the same or higher levels of satisfaction with urban service delivery and government institutions among citizens in the regionalized metropolis relative to the decentralized one (Lyons, Lowery, and DeHoog, 1992). Whether such satisfaction would translate into higher income is not clear.

Evidence from aggregate studies is also ambiguous. Rusk (1993, 1996) finds that metropolitan regions with "elastic" central cities (those exhibiting increases in land area and population between 1950 and 1990) grew faster in population and manufacturing employment, and had higher bond ratings on average than did regions with "inelastic" central cities. Rusk reports that politically integrated metropolitan regions had consistently higher growth rates between 1950 and 1990. A more sophisticated treatment of Rusk's elasticity hypothesis found support for the link between metropolitan population growth and elasticity, but only weak evidence linking elasticity to metropolitan economic welfare (Blair, Staley, and Zhang, 1996).

New Empirical Evidence

Recent work by Nelson and Foster (1999) casts new empirical light on the relationship between metropolitan governance structures and growth in personal per capita income in U.S. metropolitan areas. Their analysis examines changes between 1976 and 1996 in personal per capita income among the 287 largest metropolitan statistical areas (MSAs) considering measures of governance representing each school of thought, after accounting for a variety of factors. The analysis suggests that the centrist and regionalist schools are mostly right but there is little empirical support for the polycentrist school. A review of their work can be instructive to the overall debate waging in metropolitan Atlanta. This is done first through a review of governance factors, then through a summary of their empirical findings, and finally through some generalizable conclusions.

Governance Factors

Broadly speaking, governance factors fall into two categories: local and regional.

Local governance factor. Within metropolitan areas, governance is provided by central cities, suburban cities, counties, townships, and special service districts. Consider central cities first. Given post second-world-war trends, metropolitan growth has occurred mostly at the cost of central cities' share of metropolitan population and central city per capital personal income has lagged. Central cities, though, have considerable resources that can be marshalled for a variety of purposes. Those resources are frustrated if central cities are unable to expand territory to keep pace with growth, which Rusk (1993, 1996) calls "central city elasticity."

Rusk (1993, 1996) and later Blair, Staley and Zhang (1996) show that metropolitan areas with elastic central cities enjoy higher per capita incomes than areas with inelastic central cities. We capture the essence of these phenomena with two variables. The first is central city dominance which is defined as the percent of the MSA population residing in the central city in a base year (see Foster, 1993). The second is a measure of central city elasticity which is defined as the ratio of central city population in 1980 to 1960 divided by the ratio of land area in 1980 to 1960. An inelastic city will have a low elasticity score, perhaps negative but in any event around 0.[1] A city that adds population but not land area during this period probably already had the land it needed in which to grow so its ratio will be above 0.[2] A city that added both population and land will also have a ratio higher than 0.[3] A negative association with per capita income growth is expected with respect to central city dominance because its income growth will lag behind the metropolitan area as a whole but a positive association is expected with respect to elasticity since it indicates the extent to which the central city is able to keep pace with metropolitan growth. These expectations are consistent with the centrist view.

Do higher percentages of people living outside central cities stimulate or dampen income growth? It depends on whether they live in unincorporated areas or suburban municipalities, and in municipalities it depends on how big they are. The polycentrist view is that metropolitan areas with relatively high proportions of unincorporated population (more political integration) will have lower income growth than areas that are more fully incorporated in a large number of competing municipalities (Foster, 1993). Consistent with the polycentrist view, a negative association is expected between unincorporated population percent and income growth.

In contrast, centrists would argue that few, larger suburban general purpose governments are preferable to many, smaller ones because larger cities are better able to provide services efficiently.

Consistent with their view, a positive association is expected between suburban municipality size and income growth. While consistent with the centrist view that larger is better, this association could also be consistent with the polycentrist view since it recognizes the benefits of multiple municipal general purpose governments within metropolitan areas.

The influence of special districts on income growth must also be considered. There are two kinds of special districts to consider. The first are those that have single service provision purposes such as water, wastewater, drainage, fire, and mosquito control services. The second is school districts because while not everyone living in metropolitan areas receives the same kind of special service district benefits, they all receive education services. Polycentrists would associate more single-purpose districts with income growth but centrists would not. After Foster (1993), we create a variable for special service district dominance which is defined as the ratio of special-purpose (excluding schools) to general-purpose governments (counties, municipalities, townships). Our variable for school districts is simply the number of districts per one million population. For reasons advanced by Foster (1993) and theorized by McAndrews and Voith (1993), we expect that income growth will be negatively associated with both forms of special districts; this is consistent with the centrist perspective.

Representative democracy is founded on the principle that it is the public that elects officials to manage the affairs of government. To polycentrists, the more elected officials the more responsive government is to public needs. This would be translated into delivering goods and services tailored to citizens' tastes, preferences, and willingness-to -pay. To centrists, few elected officials raises the level of public scrutiny and enhances accountability. There are two kinds of elected officials, however; those elected to manage general purpose governments such as cities, counties, and townships, and those elected to manage special service districts (including school districts). We create a variable for both kinds of elected officials that is defined as elected officials per one million population. Consistent with the centrist view, a negative association is expected between general purpose and special service elected official density and income growth for reasons implied by Foster (1993) and McAndrews and Voith (1993).

Regional governance factor. Forms of regional governance include: city-county consolidation; single-county, two-tiered federations of government; region-wide special purpose districts that influence growth substantially (which we limit to regional water and wastewater districts); and regional multipurpose districts (such as Minneapolis-St. Paul, Portland, and Seattle).

Although some cities extend across county boundaries and some special purpose districts extend across metropolitan areas (such as park, zoo, and port districts), truly regional forms of governance are by design intended to influence growth throughout the regions. City-county consolidations merge central cities with mostly unincorporated county populations. To centrists, the effect on income growth should be the same as for central cities' ability to annex territory commensurate with growth -- being positive.

More problematic are single-county, two-tiered federations of government wherein a countywide entity establishes the framework for decision-making that is implemented by subordinate local governments (such as Metropolitan Dade County, Florida [Miami]). These arrangements suffer from not being truly regional in scope and not really consolidations of services. Polycentrists would view them as inefficient because they add one level of decision-making without necessarily improving accountability while centrists would worry that more, not fewer, people are involved in making decisions affecting any given service. Based on our interpretations of both schools of thought, we expect a negative association between single-county, two-tiered governments and income growth.

To polycentrists, centrists, and regionalists alike, regional single-purpose districts based on the economies of scale associated with large-scale infrastructure provision should be associated positively with income growth. Water and wastewater systems are known well for their scale economies which lead to efficient delivery typically over large areas and to large numbers of customers. The presence of such districts should be associated positively with income growth.

More debatable is the role of regional multiple-purpose governments. Such arrangements would appear

to be anathema to polycentrists because they threaten to frustrate the efficiencies associated with competition among local governments, and because they reduce responsiveness to local needs. To centrists and regionalists, however, such forms of governance allow issues affecting the region to be raised and addressed at a regional level. Following McAndrews and Voith (1993) and consistent with the regionalist view, we expect a positive association between income growth and the presence of multi-jurisdictional, multi-purpose regional governments.

Empirical Results. The following relationships between metropolitan governance structures and change in personal per capita income were found:

- The ratio of central city dominance is associated negatively with income growth but central city elasticity is positively associated. It would seem that Rusk's elasticity argument is supported.
- As unincorporated population rises in share of metropolitan population income growth lags.
- As suburban municipality size increases, income growth increases.
- As the percent of special districts to all general purpose governments increase, and as the total number of elected officials per million population rises, income growth lags.
- City-county consolidation does not lead necessarily to improvement in income.
- Multi-jurisdictional, regional utility service and regional governments are positively associated with income change.

Further research is needed to refine the statistical relationships between metropolitan governance arrangements and metropolitan economic development. Nonetheless, these results should stimulate metropolitan area leaders to take stock of how current governance structures impede and stimulate economic development at the metropolitan scale.

ENDNOTES TO APPENDIX D

1. For example, San Francisco lost population even though it added housing units in part because it has been unable to expand its corporate boundaries more than a century. Similar fates have befallen many central cities in every corner of the continent.

2. Oklahoma City, with more than 1,500 square miles of land, annexed much of that land before 1980 and continues to have hundreds of square miles of undeveloped land. Other examples include Kansas City, Missouri, and Denver, Colorado. Most consolidated city-county governments also enjoy this advantage.

3. The central cities of Texas enjoy flexible annexation laws allowing them quite literally to capture each successive ring of development outward. Austin, Houston, and San Antonio have been especially aggressive.

ENDNOTES

1. Behind, in order, Los Angeles, New York, Chicago, San Francisco, Philadelphia, Washington, Dallas-Fort Worth, and Houston.

2. *Nationwide Personal Transportation Survey* 1995, Washington, DC: US Department of Transportation.

3. See *The Costs of Nonattainment: Atlanta's Ozone Imbroglio*, Atlanta, GA: Research Atlanta (1998).

4. Bureau of Transportation Statistics, *National Transportation Statistics*, Washington, DC: US Department of Transportation (1997): 57-58.

5. *Water Resources of the Region*, Atlanta, GA: Atlanta Regional Commission (1998).

6. Author's analysis of data contained in *Census of Agriculture* for 1978, 1982, 1987, and 1982.

7. Author's analysis of *National Land Inventory*, Ames, IA: University of Iowa.

8. Correspondence from US Department of Transportation, Federal Highway Administration, Georgia Division, to Wayne Hill, Chairman, Atlanta Regional Commission, September 10, 1998.

9. Author's notes of Commissioner Wayne Hill's speech before the Spring Issue Forum of Research Atlanta, Leadership Atlanta, and the Regional Leadership Foundation, Atlanta Botanical Gardens, May 21, 1998.

10. For a review of the region's orientation to growth, see Clarence Stone, *Regime Politics: Governing Atlanta, 1946-1988*, Lawrence, KS: University Press of Kansas (1989).

11. See Arthur C. Nelson with Michael E. Meyer and Catherine B. Ross, "Rail Transit in the Suburbs: Case Study of Transit Use in Atlanta's Affluent Northern Tier," *Transportation Research Record*, 1571: 142-150 (1997).

12. In 1990, Congress passed the latest in a series of *Clean Air Act Amendments* (CAAA). Unlike previous CAAAs, air pollution from transportation was singled out for special consideration. This is because Congress was prompted by increasing numbers of people in the United States living in "nonattainment" areas for one or more pollutants for which National Ambient Air Quality Standards (NAAQS) are established. Indeed, despite improving technology and locally-driven efforts to reduce air pollution, a combination of factors still prevents many areas in the U.S. from attaining the NAAQS. EPA estimates that up to about 100 million Americans live in ozone non-attainment areas. (Adapted from EPA National Air Quality and Emissions Trends Report). Six "criteria pollutants" are addressed in the CAAA of 1990 that relate to transportation:

- Ground level ozone (SMOG precursors such as volatile organic compounds (VOCs) and oxides of nitrogen (NOx);
- Carbon monoxide;
- Particulate matter less than 10 microns (PM-10);
- Nitrogen dioxide;
- Sulfur dioxide; and
- Lead.

The Atlanta region fails only in attaining ozone standards. The CAAA establishes five levels of nonattainment for ozone: extreme, severe, serious, moderate, and marginal. About 100 metropolitan areas were identified in 1990 as being in one of those nonattainment categories. As one would expect, the Los Angeles basin is the only area in the "extreme" category and it has until 2010 to comply with its air quality budget. Atlanta is placed in the middle or "serious" category and has until 1999 to be in compliance with the CAAA. Unfortunately, the Atlanta region is not likely to meet its budget.

13. The State Implementation Plan requires that ARC's transportation plans and programs will not (1) cause any new violations of National Ambient Air Quality Standards (NAAQS); (2) cause any worsening of existing violations; and (3) delay the region's effort to attain NAAQS in a timely manner.

14. The Tennessee River basin enters small sections of the North Georgia mountains.

15. See James E. Kundell, Georgia's Water Resources, in *Georgia Water Management Campaign*, undated (circa 1998), Atlanta.

16. *Atlanta Journal-Constitution* October 4, 1998, H-1, 5-7.

17. There is another regional water resource issue: the proliferation of septic systems. More than one million people in the Atlanta commuting shed live in homes served by onsite wastewater treatment systems, otherwise known as "septic systems" (based on the *American Housing Survey*, Washington, DC: US Department of Housing and Urban Development, 1996). Septic systems are a time bomb waiting to go off, not all at once but in small explosions everywhere in the region. What are the potential consequences?

- All septic systems fail, it is only a matter of time (see, for example, Arthur C. Nelson with Kenneth J. Dueker, "Exurban Living Through Improved Water and Wastewater Technology," *Journal of Urban Planning and Development* 115(3): 101-113, 1989). Many systems fail without owners knowing it, such as when untreated effluent enters the groundwater

table or leaches into nearby drainage ways that find their way to rivers and streams. The result is water pollution affected by cumulative failures that go undetected.

- Septic systems are typically located on parcels ranging from one-half to ten acres (see, for example, Arthur C. Nelson and Thomas W. Sanchez, "Exurban and Suburban Residents: A Departure from Traditional Location Theory?" *Journal of Housing Research*, 8(2): 249-276, 1997). The costs to extend urban facilities and services into areas served by septic systems is usually prohibitive. Home owners on septic systems often do want to connect to sanitary sewer and want someone else to pay connection fees if they do.

- Efficient suburban development in areas served by septic systems is hindered because developers need sites of ten or more acres to design developments that best meet market needs. Areas with half acre to ten acre homesites on septic systems make development costly and usually haphazard.

18. *Atlanta Journal-Constitution* July 14, 1997, p. E8.

19. Id. (*Atlanta Journal-Constitution* July 14, 1997, p. E8.)

20. Id. (*Atlanta Journal-Constitution* July 14, 1997, p. E8.)

21. *Nationwide Personal Transportation Survey* 1995, Washington, DC: US Department of Transportation.

22. Bureau of Transportation Statistics, *National Transportation Statistics*, Washington, DC: US Department of Transportation (1997): 57-58.

23. Keith R. Ihlanfeldt, *Breaking the Concentration of Poverty*, Atlanta, GA: Research Atlanta (1998).

24. Id. (Ihlanfeldt, *Breaking the Concentration of Poverty*.)

25. Keith R. Ihlanfeldt, "Information on the Spatial Distribution of Job Opportunities Within Metropolitan Areas," *Journal of Urban Economics* 41: 218-242 (1997).

26. Information provided by the Atlanta Regional Commission to the author, December 1998.

27. Information provided by the Department of Natural Resources, Division of Environmental Protection, to the author, October 1998.

28. Correspondence from US Department of Transportation, Federal Highway Administration, Georgia Division, to Wayne Hill, Chairman, Atlanta Regional Commission, September 10, 1998.

29. For an extensive review, see Kathryn A. Foster, *Governance in Erie County: A Foundation for Understanding*, Buffalo, NY: Institute for Local Governance and Regional Growth (1996).

30. Arthur C. Nelson and Katherine Foster, "Metropolitan Governance Structure and Income," *Journal of Urban Affairs*, 1999 (forthcoming).

31. *Census of Government*, Washington, DC: U.S. Department of Commerce (1994).

32. See *Final Report: Metropolitan Atlanta Transportation Initiative*, Atlanta, GA: Metropolitan Atlanta Chamber of Commerce (December 18, 1998).

33. The Official Code of the Georgia Assembly (O.C.G.A) provides in Chapter 50-8 that all counties and municipalities of the state of Georgia shall prepare comprehensive plans meeting certain *minimum standards and procedures*. The Georgia Department of Community Affairs (DCA) and the relevant Regional Development Center (RDC) reviews locally prepared plans for consistency with state requirements. A key provision of the rules implementing comprehensive planning legislation reads:

> *It is the responsibility of local governments in the State of Georgia hereunder to serve the essential public interests of the state by promoting the establishment, implementation, and performance of coordinated and comprehensive planning by municipal and county governments.* (110-3-2-.03(4), Rules of the Department of Community Affairs.)

Failure to comply with these provisions results in ineligibility for certain state funds.

34. The Georgia Planning Act as implemented through administrative rules attempts to assure consistency of land use regulations and decisions based on them with the comprehensive plan, a key provision of the rules implementing comprehensive planning legislation reads:

> *. . . the governing body of municipalities and counties shall have the authority and responsibility to:*
>
> . . . .
>
> *(d) Develop, establish, and implement land use regulations that are consistent with the comprehensive plan.*
> . . . (110-3-2-.03(4), Rules of the Department of Community Affairs.)

Failure to comply with these provisions may result in ineligibility for certain state funds.

35. The legislation, developed following several months of negotiation between the Association County Commissioners of Georgia and the Georgia Municipal Association, was the major recommendation of the Georgia Future Communities Commission appointed by former Governor Zell Miller.

36. Research Atlanta anticipates engaging in future studies on the role, composition, powers, and effect of the Georgia Regional Transportation Authority. Suffice it to say for the present that its primary sources of influence over local government action are with the money it can use to reward certain behavior and the potential ability to use tools also found within HB 489 to withhold state permits and other forms of incentives.

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