

**AIR QUALITY STANDARDS AND
THE ATLANTA METRO AREA:
LOCAL AND STATE-WIDE COSTS
OF NON-ATTAINMENT**

A Policy White Paper Prepared By:

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AIR QUALITY IN THE ATLANTA METRO AREA: LOCAL AND STATE-WIDE COSTS OF NON-ATTAINMENT

The purpose of this Policy White Paper is to briefly address selected issues that are relevant for assessing the potential implications for the State of Georgia that could attend failure by the Atlanta metropolitan area to come into compliance with National Air Quality Standards. Overall, the intent here is to make manifest what the State of Georgia may potentially have at stake in terms of Atlanta resolving its air quality problems (with attendant problems of congestion and urban sprawl). To this end we compare incomes and jobs that might be expected under two alternative scenarios: a “growth” scenario and a “no-growth” scenario. The growth scenario relies on 2050 projections for incomes and employment in the Atlanta metro area and in the State of Georgia prepared by DRI-McGraw Hill. The no-growth scenario reflects current levels of incomes and employment. Differences between the number of jobs and the levels of incomes between these two scenarios are then used as a benchmark to indicate the potential *future* costs over the next 50 years, *in terms of foregone economic growth*, that could attend conditions in which Atlanta becomes perceived as a “dirty city” -- Atlanta is perceived as an urban area in which traffic congestion, poor air quality, and quality of life in general is generally poor. Under such conditions it is reasonable to presume that Atlanta would surely lose its appeal for new businesses who would look to other, more attractive urban areas in which to locate. Therefore, “costs” as given in this report reflect the difference between employment and incomes as they *could be* in the case where Atlanta continues past trends in growth and employment and incomes and as they *would be* if Atlanta’s air quality problems chokes off such growth, and Atlanta’s economy stagnates at or near current levels.

Within this context, this study addresses the following two issues.

Issue #1: What could be the costs to the Atlanta Metro area in terms of foregone economic development and growth if Atlanta fails to come into compliance with National Air Quality Standards, thereby becoming perceived as a “dirty” city?

Issue #2: What is the relationship between economic growth (or decline) in the Atlanta metro area and the rest of the State -- how would costs incurred in the Atlanta area “spill over” to the rest of Georgia?

There are two caveats that should be kept in mind in interpreting our analyses of costs related to these issues. First, *total* costs over time that would attend Atlanta’s shift to a no-growth, stagnant economy would be much, *much* larger than those given in the report for the following reason (ignoring the fact that losses would continue beyond 50 years). Costs reported here are limited to foregone growth-related *increases* in employment and incomes; *i.e.*, we implicitly assume that under the no-growth scenario the Atlanta economy continues to operate at present levels. This is highly unlikely. We know that it is seldom the case that a *status quo* can

be maintained indefinitely. An economy tends to get “better and better” or ultimately it gets worse and worse -- few economies simply stand still forever (i.e., absent growth in an area, existing businesses will likely re-locate to high growth areas). All else equal, the fact that Atlanta’s image as a “dirty city” would result in our *foregoing* the benefits of growth identified above ignores absolute *losses* in incomes and jobs that would surely attend Atlanta becoming a “stagnant” economy.

The second caveat that warrants mention relates to the scope of costs reported in this study. As noted above, “costs” reported in this study include only foregone jobs and incomes, and to a very limited extent foregone taxes. We then ignore the many other potential costs associated with Atlanta’s failure to attain National Air Quality Standards. These “other” costs include those associated with such things as health costs, adverse effects on agriculture, recreation, housing, and aesthetics, costs which could total as much as **\$1.4 billion per year**.¹

With these caveats in mind, attention is now turned to a response to issues #1 and #2 given above.

Issue #1: What could be the costs to the Atlanta Metro area in terms of foregone economic development and growth if Atlanta fails to come into compliance with National Air Quality Standards, thereby becoming perceived as a “dirty” city?”

In virtually any part of the country the engine that drives economic growth in any urban area is fueled in large part by the public’s perceptions of “quality of life” in that area. Among the many attributes of an urban area that are generally viewed as contributing to the quality of life are such things as crime rates, the quality of the area’s educational systems, traffic congestion and air quality.

Atlanta’s “smog” problems are now well known. The metro area is in the “serious” category of non-compliance with National Air Quality Standards. If, as may be quite likely, Atlanta continues to be non-compliant with National Air Quality Standards -- if deteriorations in traffic congestion and air quality continue unabated -- one might well ask: what will happen in the Atlanta metro area; what costs would be imposed on the area? A general response to these questions would take the following form. First, one thing that we know will happen is that the use of federal highway funds in Northern Georgia will be substantially reduced and severely limited. A second thing that we know can and likely will happen is that the EPA will impose sanctions that will have the effect of increasing the costs of doing business in Atlanta for many different kinds of businesses -- other cities in the Southeast region will begin enjoying increasingly important locational costs advantages relative to Atlanta.

These may not be the most important source for costs, however: growing perceptions of Atlanta as a “dirty city” could be much more costly. Until fairly recently, the Atlanta metropolitan area has invoked positive images in terms of quality of life. The area has enjoyed

good, positive quality of life news over the last two years in the form of falling trends in crime rates and the rising trends in indices related to quality of education. To an extent that we cannot yet assess, however, such positive news may become increasingly offset by the metro areas failure to come to grips with continued urban sprawl with its attendant impacts on ever-worsening traffic congestion and deteriorating air quality. Thus, forceful images of Atlanta that have been created over the last few years include: host of the '96 Olympic Games; home of the national champion Atlanta Braves (and Atlanta Falcons?); **and the smoggy U.S. city with the highest miles driven-per capita-per day** (which gives rise to speculation as to: will Atlanta surpass Los Angeles as the smog capital of the U.S.?).

We know that perceptions of a city's quality of life -- whether the perceptions are or are not accurate -- can have adverse effects on decisions by businesses to locate (or to remain) in any area. Little is know about the weight of congestion and/or air quality relative to other indices of quality of life in terms of location decisions by firms, or about just how "dirty" air quality in a city must be perceive to be before adverse effects. However, insights that are relevant for these issues can be gained by looking at other cities who, like Atlanta, experienced periods of exceptional growth which continued until air quality (as well as other things) caught up with them; many of these cities began their growth well before Atlanta began its period of rapid growth. Consider the following metro areas that are about the same size as the Atlanta metro area and that have had serious smog problems.

<u>Metropolitan Area</u>	<u>Average Annual Rates Of Change In Population:</u>					
	<u>1940-50</u>	<u>1950-60</u>	<u>1960-70</u>	<u>1970-80</u>	<u>1980-90</u>	<u>1990-1995</u>
ATLANTA	2.0%	2.8%	3.0%	2.4%	2.9%	3.0%
LA-Riverside-Orange	4.0	4.0	2.0	0.6	1.7	0.6
Philadelphia-Wilming.- Atlantic City	1.4	1.8	1.1	-0.01	0.4	0.2
Baltimore	1.5	1.0	1.0	0.5	0.8	0.7

Of course, smog was the bane of the Los Angeles area as far back as in the 1940s and 1950s. The incredible rates of growth experienced in the LA area during the 40s, 50s, and 60s began tapering off in the 70s. Over the last 20-odd years, growth has proceeded at an average annual rate averaging less than 1%.

Growth in the Philadelphia area peaked in the pre-war era, but continued at rates well in excess of national growth rates until the late 70s. Population declined during the 70s, and has increased at an anaemic rate of less than .5% every since.

The same pattern is seen in Baltimore which began having serious image problems related to air quality and other things (crime) by the early '70s. Population in the primary county -- Baltimore County -- has been steadily decreasing over the last 25 years (from a peak of 906,000 in 1970 to about 690,000 in 1995).

We may then ask:

**WHAT WOULD BE THE IMPLICATIONS OF ATLANTA
FOLLOWING THE PATTERNS SEEN IN OTHER “DIRTY CITIES?”**

Using “moderate” growth patterns estimated for the Atlanta metro area² to the year 2050, estimates³ for the costs to the Atlanta metro area of moving to the low, virtually non-growth conditions seen in the Los Angeles, Philadelphia, and Baltimore areas are given in Table 1, and are summarized as follows.

*** income losses could rise from just under \$1 billion per
year to as much as some \$63 billion per year after 50 years.
Over 50 years, the present value of incomes losses could total
as much as \$327 billion!**

*** losses in employment could rise to 237,000 in 10 years,
645,000 in 25 years, and 1.5 million in 50 years.**

These impacts tell only part of the story, however. The full impact of a non-growth Atlanta would include impacts *on the rest of the State*, a topic to which attention is now turned.

Issue #2: What is the relationship between economic growth (or decline) in the Atlanta metro area and the rest of the State -- how would costs incurred in the Atlanta area “spill over” to the rest of Georgia?

It is surely not surprising that jobs, incomes, and quality of life in counties outside of the Atlanta metro area are directly linked to economic activity in the Atlanta area. In terms of jobs and incomes, the link is the results of sales and purchases between entities in Atlanta and in other counties.

One dimension of the quality of life link results from the fact that local expenditures for schools, roads, and other local services in counties located outside of the Atlanta metro area are effectively subsidized by the Atlanta metro area. Thus, while Atlanta’s metro area accounts for 43% of the state’s total population, it is the source for between 55% and 60% of total state revenues in Georgia. Moreover, in any Georgia county, total revenues available to finance schools, road improvements, and other quality of life elements consist of funds made available from local tax collections plus “inter-governmental transfers” -- funds given to local governments by the state government. In 1992, while the source of more than 55% of state tax collections, the Atlanta metro area received only 36% of inter-governmental transfers. Counties outside of the Atlanta metro area accounted for less than 45% of state tax collections, *but received 64% of inter-governmental transfers.*

To summarize the above:

	Percent of State <u>Population</u>	Percent of All State <u>Tax Revenue</u>	Percent of all Monies given To local governments <u>By The State</u>
Atlanta metro area:	43%	55-60%	36%
Rest of the State:	57%	40-45%	54%

If the ultimate future impacts on the Atlanta metro area associated with Atlanta being perceived as a “dirty city” were to take the form described above, our interest is in deriving some idea as to the potential impacts on other Georgia counties. Our best estimate of these impacts are as follows.

**REST-OF-STATE IMPACTS OF ATLANTA
BECOMING PERCEIVED AS A “DIRTY CITY”:**

IMPACTS IN *THE REST OF THE STATE*:

- * income losses rising to as much as \$18 billion per year.
- * losses in employment rising to as many as 530,000 jobs.
- * losses in state funds made available for local expenditures increasing to as much as \$1.7 *billion* per year.⁴

ENDNOTES

1. Order-of-magnitude estimates for these costs are given in Brown, Kelly and Carol Robinson, "Economic Benefits of Reducing Ozone Exposure in the 13-County Non-Attainment Region in Atlanta, Georgia, Department of Economics, Georgia State University (Atlanta: February 24, 1998).
2. As used in this report, "metro Atlanta" consists of the 13-county non-attainment area which includes the following counties: Cherokee; Forsyth; Fulton; Clayton; Cobb; Gwinnett; Dekalb; Douglas; Henry; Fayette; Coweta; Rockdale, and Paulding.
3. Impacts given below are derived with the IMPLAN model using DRI-McGraw Hill 2050 population forecasts for the Atlanta metro area ("high" scenario), the U.S. Census 2025 population forecasts for the State of Georgia (extrapolated to 2050 using their "medium" scenario which most closely corresponds with DRI-McGraw Hill's high scenario), and assuming a 25% linkage between the Atlanta metro area and other counties.
4. With growth, IGT-levels are estimated to be: 1992 IGT (\$4.3 billion) times 2000-2050 growth in employment (62%) = \$6.96 billion (in 1992 dollars). This is an increase of \$2.6 billion of which out-of-Atlanta counties would receive 66%, or \$1.72 billion/year (in 2050).