

APPENDIX

DATA ANALYSIS REPORT

FOR NON-EXPEDITED REVIEWS

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**APPENDIX
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OVERVIEW

The variables needed to determine compliance with non-expedited review criteria are most conveniently and succinctly summarized in Table 1.

**Table 1
Essential Data Requirements for
Non-Expedited Review Criteria 3-103.A.7**

Non-Expedited Criterion 3-103.A.7	Proposed DRI		AOI	
	Detailed Data for Employment	Detailed Data for Housing	Detailed Data for Employment	Detailed Data for Housing
Proposed DRIs That Are Predominantly Employment: (a. and b. shall be applied)				
a. Mix of uses (employment and housing)	Assess characteristics of workers	Assess housing opportunities in the DRI for workers working in the DRI		
b. Employees in the DRI	Assess characteristics of workers			Data on opportunity to live in AOI
Proposed DRIs That Are Predominantly Residential (a. and c. must be applied)				
a. Mix of uses (employment and housing)	Assess characteristics of workers	Assess housing opportunities in the DRI for workers working in the DRI		
c. Resident workers (employees who are residents) of the DRI	Assess characteristics of workers		Detailed Data for Employment	
Proposed DRIs That Are Exclusively Employment (b. must be applied)				
b. Employees in the DRI	Assess characteristics of Workers			Data on opportunity to live in AOI
Proposed DRIs That are Exclusively Residential (c. shall be applied)				
c. Resident workers (employees who are residents) of the DRI	Assess characteristics of workers		Detailed Data for Employment	

NUMBER OF WORKERS (JOBS) IN THE PROPOSED DRI

No published data are available since the proposed DRI is a hypothetical at the application stage.

Primary Data Source: Developer of the DRI.

Operational Variable: Employees per Square Foot by Type of Land Use

Data must be created by inferring from data on the types of development proposed. The developer's site plan and development pro forma provide the principal sources of data. These sources will reveal the square footages of buildings and the uses devoted to them, which are then used to derive estimates of employment, based on rules of thumb for the number of employees per square foot of building space. Data from the Institute of Transportation Engineers' Trip Generation provides employment and square footage data from which employment per square footage estimates can be derived for certain land uses (see Data Table A in the Guidebook for Non-Expedited Reviews).

Primary Data Sources:

1. Institute of Transportation Engineers' Trip Generation.
2. U.S. Bureau of Census, 1997 Economic Census, Summary Statistics.

Other Data Sources:

1. Metropolitan Atlanta Chamber of Commerce.
2. Atlanta Regional Commission.

Operational Variable: Incomes of Workers (Jobs) in the Proposed DRI

Data must be created by inferring from data on the salaries and wages of workers in a larger unit of geography such as the region or county. Income varies according to occupation, and hence incomes must be estimated based on data on wages by occupation. Wage data

published by the U.S. Department of Labor, Bureau of Labor Statistics are useful in estimating the incomes of workers in the DRI. They are available for the Atlanta, Georgia, Metropolitan Statistical Area (MSA) and other metropolitan areas (see Data Table B in the Guidebook for Non-expedited Reviews). Recent wage data for workers in Georgia's metropolitan areas and individual counties are provided by the Georgia Department of Labor (see Data Table C in the Guidebook for Non-expedited Reviews). If the DRI falls largely within one county, the analyst may wish to use the Georgia Area Labor Profiles as they are more geographically specific than the other estimates. Private data providers and market analysts may also be able to provide such information. See Data Table D in the Guidebook for Non-expedited Reviews.

Primary Data Source: U.S. Department of Labor, Bureau of Labor Statistics. 2000 Metropolitan Area Occupational Employment and Wage Estimates, Atlanta, GA MSA.
http://www.bls.gov/oes/2000/oes_0520.htm

Other Data Sources:

1. Georgia Department of Labor, Wages by Industry, 3rd Quarter 2000. In University of Georgia, Housing and Demographics Research Center, Department of Housing and Consumer Economics, College of Family and Consumer Sciences. September 2001. Workforce Housing in Georgia. Atlanta: Georgia Department of Community Affairs.
2. Georgia Department of Labor. Georgia Wage Survey; Area Labor Profiles.
<http://www.dol.state.ga.us/lmi/publications.htm>.
3. Private Data Providers and Market Analysis Firms.

HOUSING OPPORTUNITIES IN THE PROPOSED DRI

The developer's site plan and development pro forma provide the principal source of data for the total number and types of housing units to be provided, if any.

Primary Data Source: Developer of the DRI.

Operational Variable: Costs of Housing in the Proposed DRI

The most important variables to determine housing opportunities relate to housing costs, such as the estimated purchase price or likely rents of the housing units in the proposed DRI (information that should be readily estimated based on the developer's DRI application).

Primary Data Source: Developer of the DRI.

HOUSING OPPORTUNITIES IN THE AOI

Published data are available for the year 2000 from the U.S. Census Bureau and other sources to determine the total number of housing units in the AOI as of 2000. Census data are highly accurate and reliable, though they become quickly outdated in rapidly developing areas. DRI analysts must compile the data at a census tract or census block group unit of geography and then aggregate these data for the AOI. The 2000 census data will also generally have to be updated to approximate current conditions. DRI analysts can consult available development inventories and conduct land use surveys and inventories to determine developments constructed since the 2000 census.

Primary Data Source: U.S. Census 2000 SF 3, Various Tables.
<http://factfinder.census.gov>.

Other Data Sources:

1. Local Government Planning Departments.
2. Area Chambers of Commerce.
3. Area-Specific Inventories by DRI Analyst.
4. Atlanta Journal-Constitution Housing Sales by Zip Code and City
<http://homesales.ajcclassifieds.com>.
5. On-line calculators such as the Ginnie Mae or Mortgage101.com.
6. U.S. Census Bureau, American Housing Survey data for the Atlanta MSA. The data are from 1996, and a new one won't be completed until 2004.
<http://www.census.gov/prod/3/97pubs/h1709621.pdf>.
7. Private data company (e.g., Claritas).

8. Multiple Listing Services (MLS).

Operational Variable: Costs of Housing in the AOI

The most important variables to determine housing opportunities relate to housing costs. Primary and other data sources are the same as for total housing units in the AOI.

EMPLOYMENT OPPORTUNITIES IN THE AOI

DRI analysts need to be aware of the differences in reporting employment by various data sources. The decennial census reports data on the employment of residents (status of the labor force) according to where they live (i.e., it shows how many people who live in the given area are employed, or “employment by residence”), but it does not indicate where those persons are employed (i.e., employment by “place of work”). Census data on labor force participation cannot be used to determine the number of jobs in an AOI.

The Georgia Department of Labor, Workforce Information Analysis, publishes annual data on employment by place of residence for counties and larger cities in Georgia Employment and Wages Averages (<http://www.dol.state.ga.us/lmi/laborforce.htm>). The Census Transportation Planning Package (CTPP) contains data on employment by place of work for counties in the U.S. The Bureau of Economic Analysis and the Georgia Department of Labor also report employment on the basis of place of work for counties and metropolitan areas.

Total employment data and employment by industry are readily available for metropolitan areas and individual counties, and some data (economic census) are available for cities over 2,500 in population. However, no published data are available for determining jobs in subareas smaller than the county or municipality.

Sources of data for employment by small area (i.e., traffic analysis zone or TAZ) are available from the Atlanta Regional Commission and may be used. In using ARC’s TAZ data, analysts should be careful to determine whether the allocations of data from census tract to TAZs appear reasonable in light of on-the-ground conditions. ARC has in the past allocated census tract data evenly among the various TAZs within the census tract, as if there were an even distribution of population, housing, and employment across all TAZs in a given census tract. Reliability may be

questioned if the data are not cross-checked against land uses in the given area. The DRI analyst will be required to collect the best available data from a variety of sources to analyze employment opportunities in the AOI.

Primary Data Source: Atlanta Regional Commission, TAZ data

Other Data Sources:

1. Census Transportation Planning Package.
2. Local Government Planning Departments.
3. Area Chambers of Commerce.
4. Area-Specific Inventories by DRI Analyst.

Operational Variable: Employment by Occupation in the AOI

Occupation might be considered an appropriate proxy for persons' qualifications and experience. If so, then data on occupations of jobs available in the AOI are needed to comply with Criterion 3-103.A.7.c. What occupations of jobs are available via employers in the AOI? This question must be answered to determine if residents of the DRI will have reasonable opportunity to work in the AOI, in jobs that match their qualifications and experience. ARC's TAZ data are the primary data source available, and they are classified by industry rather than occupation.

Primary Data Source: Atlanta Regional Commission TAZ employment data.

Other Data Sources:

1. Census Transportation Planning Package (CTPP).
2. Local Government Planning Departments.
3. Area Chambers of Commerce.
4. Area-Specific Inventories by DRI Analyst.

Operational Variable: Wages by Occupation in the AOI

The opportunity to find employment is contingent to some extent on the salary (wages) of the job. That is, if the wages are not appropriate to a given worker, that worker is not interested in that employment. Wage data are therefore needed to comply with criterion 3-103.A.7.c. Data are needed on the average wages (yearly, monthly, or weekly, but with conversion to monthly preferred) paid to employees who work in the AOI. The wage data for occupations in the AOI can then be compared to income/earning potential of residents of the proposed DRI who work, to determine the opportunity to find employment. In order to obtain data for this variable, the DRI analyst may need to use metropolitan wage by occupation data as a proxy for the AOI.

Primary Data Source: Georgia Department of Labor, Georgia Wage Survey
ftp://quicksourc.dol.state.ga.us/

U.S. CENSUS DATA

The 2000 Decennial Census provides substantial data that can be used in DRI reviews for compliance with AOI non-expedited criteria. Data are available for census tracts and census block groups, allowing them to provide highly accurate data for AOI analyses. Table 2 provides a summary of several variables for which data are available from the census. Table 2 is intended to show the range of relevant variables, rather than to imply that each of these variables must be used in AOI analyses.

Table 2
Census Data 2000 for AOI Analyses
Compiled at the Census Block Group Level

Data	Variable (s)	Census File Type	Table # and Title of Table
Population	Total population	SF 1	P1. Total population
Population	Total population	SF 3 sample	P1. Total population
Population	Population in households	SF 1	P16. Population in households
Population	Total population in occupied housing units (same as population in households)	SF 1	H10. Total population in occupied housing units
Population	Population in families	SF 1	P32. Population in families
Population	Group quarters population by group quarters type	SF 1	PCT16. Group quarters population by group quarters type
Population	Educational attainment, population 25 years and over	SF 3 sample	P37. Sex by educational attainment for the population 25 years and over
Population	Per capita income in 1999	SF 3 sample	P82. Per capita income in 1999
Households	Total households	SF 1	P15. Households
Households	Average household size	SF 1	P17. Average household size

Data	Variable (s)	Census File Type	Table # and Title of Table
Households	Families	SF 1	P31. Families
Households	Average family size	SF 1	P33. Average family size
Households	Family vs. nonfamily households	SF 1	P21. Household type by age of householder
Households	Family vs. nonfamily households	SF 3 sample	P13. Household type by age of householder
Households	Household income in 1999 (by income categories)	SF 3 sample	P52. Household income in 1999
Households	Median household income 1999	SF 3 sample	P53. Median household income in 1999
Households	Family income in 1999 (by income categories)	SF 3 sample	P76. Family income in 1999
Households	Median family income in 1999	SF 3 sample	P77. Median family income in 1999
Households	Nonfamily household income in 1999 (by income categories)	SF 3 sample	P79. Nonfamily household income in 1999
Households	Median nonfamily household income in 1999	SF 3 sample	P80. Median nonfamily household income in 1999
Housing	Total housing units, occupied housing units, vacant housing units	SF 1	H3. Occupancy status of housing units
Housing	Owner-occupied vs renter-occupied housing units	SF 1	H4. Tenure of housing units
Housing	Vacancy status (for rent, for sale, etc.) of housing units	SF 1	H5. Vacancy status of housing units
Workers (resident labor force)	Total number of workers 16 years and over	SF 3 sample	P26. Place of work for workers 16 years and over- state and county level
Workers (resident labor force)	Place of work of workers 16 years and over	SF 3 sample	P26. Place of work for workers 16 years and over- state and county level; P27. ..place level; P28...MSA/PMSA level
Workers (resident labor force)	Population 16 years and over in labor force and not in labor force	SF 3 sample	P43. Sex by employment status for the population 16 years and over
Workers (resident labor force)	Population 16 years and over employed and unemployed	SF 3 sample	P43. Sex by employment status for the population 16 years and over
Workers (resident labor force)	Families by number of workers per family (1 worker, 2 workers, 3 or more workers)	SF 3 sample	P48. Family type by number of workers in family in 1999
Workers (resident civilian labor force)	Employment by industry, employed population 16 years and over (e.g., construction, manufacturing, retail trade, etc.)	SF 3 sample	P49. Sex by industry for the employed civilian population 16 years and over
Workers (resident civilian labor force)	Employment by occupation, employed population 16 years and over	SF 3 sample	P50. Sex by occupation for the employed civilian population 16 years and over
Commuting/ vehicle use	Total workers 16 years and over using car, truck, or van as means of transportation to work	SF 3 sample	P30. Means of transportation to work for workers 16 years and over
Commuting/ vehicle use	Total workers 16 years and over using car, truck, drove alone (i.e., single-occupancy vehicle)	SF 3 sample	P30. Means of transportation to work for workers 16 years and over; P35. Private vehicle occupancy for workers 16 years and over
Commuting/ vehicle use	Travel time to work for workers 16 years and over (possible proxy for trip lengths)	SF 3 sample	P31. Travel time to work for workers 16 years and over

Source: Compiled by Jerry Weitz & Associates, Inc., 2002 from the Census Bureau's web page.

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This source utilizes some year 1990 and year 2000 U.S. census data. The data can be accessed via the World Wide Web at <http://ga2000.itos.uga.edu/>.

PRIVATE DATA COMPANIES

There are private demographics companies that can produce data for DRI applications. Generally, they use U.S. Census Data as described above. Such companies are adept at defining specific geographic subareas for detailed analysis. Accuracy and validity is very good because the data are typically based on census data. Such data are available for a fee only.

ATLANTA JOURNAL-CONSTITUTION

Atlanta's daily newspaper maintains a database of home sales which is accessible via the World Wide Web at <http://homesales.ajcclassifieds.com>. This site allows searches by zip codes and city. In many cases these data sources will not match the AOI, and the analyst will need to select and remove addresses not within the AOI.

MULTIPLE LISTING SERVICE

The Multiple Listing Service is a data base providing data on home sales and asking prices. It is generally not available except to real estate agents and selected others. Such data may be useful in determining housing availability and cost in a given AOI, but data are generally restricted to use by real estate professionals.

PROJECT SPECIFIC SURVEYS

Past practices reveal that some DRI analysts have conducted their own inventories of housing availability (especially multi-family complexes) in a given AOI. Such efforts, while time consuming to complete, can reveal the most accurate data. Success of such efforts depends on the willingness of residential property managers to reveal information in a timely fashion.

LOCAL GOVERNMENT PLANNING DEPARTMENTS

Georgia local governments have comprehensive plans which contain housing and economic development elements that may provide useful information, including housing and employment projections. It is unlikely, however, that the data in comprehensive plans will provide estimates and projections for small geographic subareas of the local jurisdiction. If the cities or counties with jurisdiction over the AOI have prepared their own transportation plans based on modeling data, then local TAZ data may be available. Such data cannot be assessed for validity and reliability here, as transportation plans can vary considerably in terms of depth of analysis and quality of data.

U.S. BUREAU OF LABOR STATISTICS

The year 2000 Metropolitan Area Occupational Employment and Wage Estimates are available via the World Wide Web for the Atlanta Metropolitan Statistical Area (MSA) and other MSAs: <http://www.bls.gov/oes/2000/> . Data are current and updated annually. However, the data are for metropolitan regions and therefore cannot be disaggregated into smaller geographic units of analysis. Therefore, these data are limited in terms of their use in analyzing compliance with AOI non-expedited review criteria.

GEORGIA DEPARTMENT OF LABOR

The Georgia Department of Labor publishes two useful sources of information for AOI analyses. First, Area Labor Profiles are published and are accessible via the World Wide Web at <http://www.dol.state.ga.us/lmi/publications.htm>. The unit of analysis is the county, which may make such estimates useful in AOI analyses, although they remain limited because they cannot be disaggregated into smaller geographic units of analysis. The Area Labor Profiles are developed annually based on information from the U.S. Department of Labor, Bureau of Economic Analysis.

Another source of income and earnings data is the Georgia Wage Survey. The survey is published annually and is available on the World Wide Web at <http://www.dol.state.ga.us/lmi/publications.htm>. Data definitions are documented and available at <ftp://quicksourc.dol>.

state.ga.us/Current/wagesurveycurrent.pdf. Data are published for metropolitan regions, which limits their use in AOI analyses. Occupational codes are slightly different than those of the census, but comparisons are possible.

METROPOLITAN ATLANTA CHAMBER OF COMMERCE

The Metro Chamber publishes employment data by occupation for metropolitan Atlanta. Availability of data is generally unknown and probably must be requested directly from the data provider. Since the data are for the metropolitan region, they have limited applicability in AOI analyses.

ATLANTA REGIONAL COMMISSION

ARC produces regional employment data and other selected data by census tract and traffic analysis zone (TAZ). Regional employment estimates are available for “superdistricts” (a compilation of several census tracts) via the World Wide Web at <http://www.atlantaregional.com/resourcecenter/arcdata/superdistricts.html#>. A data dictionary is also available via the web at: <http://www.atlanta-data.com/metadata.pdf>.

Census tract and TAZ data are not immediately available from ARC but can be obtained upon request. As of November 2002, these data were prepared prior to the release of the 2000 decennial census. Historic data as well as projections are available. The small units of geography (census tracts and TAZs) make the employment estimates and projections published by ARC a likely candidate for AOI analyses. However, in the consultant’s opinion, estimates of employment may be reliable (when updated) at the census tract level but become increasingly unreliable at the TAZ level of geography, because the allocation of tract data to TAZs is generally based on a uniform formula that distributes the employment evenly across the census tract to TAZs. Caution should be exercised in using ARC TAZ data.

CENSUS TRANSPORTATION PLANNING PACKAGE (CTPP)

The Census Transportation Planning Package (CTPP) is a set of special tabulations from the decennial census designed for transportation planners. CTPP contains tabulations by place of residence, place of work, and for flows between home and work. The data are tabulated from

answers to the Census 2000 long form questionnaire, mailed to one in six U.S. households. Because of the large sample size, the data are reliable and accurate. CTPP provides comprehensive and cost-effective data, in a standard format, across the United States (<http://www.fhwa.dot.gov/ctpp/>).

CTPP Profiles

CTPP Profiles are the first products to be released from CTPP 2000, and they contain selected transportation-related data items from Census 2000 and the 1990 Census. The sheets are published for all states and counties (<http://transportation.org/ctpp/home/default.htm>).

County-To County Worker Flow Files

These files were compiled from Census 2000 responses to the long-form (sample) questions on where people worked. The files present data at the county level for residents of the 50 states. The data are sorted by county of residence and county of work. The county of work data may provide some insights about work locations, but they do not provide subcounty data. The data files can be downloaded as excel spreadsheets from the following site:
<http://www.census.gov/population/www/cen2000/commuting.html>.