



Atlanta Neighborhood Development Partnership, Inc.

# Responding to the Foreclosure Crisis

Analysis of Home Sale Prices and Appraised Home Values in High Foreclosure Rate Neighborhoods

Report Prepared by



## Analysis of Home Sale Prices and Appraised Home Values in High Foreclosure Rate Neighborhoods

Commissioned by Atlanta Neighborhood Development Partnership, Inc.

Prepared by RCLCO (Robert Charles Lesser & Co.)



Atlanta Neighborhood Development Partnership, Inc. (ANDP) is recognized as metropolitan Atlanta's leading advocate for mixed income communities as a means of addressing regional shortage of affordable housing. The organization's mission is to promote and create mixed income communities through direct development, lending, policy research and advocacy that result in the equitable distribution of affordable housing throughout the metropolitan Atlanta region.

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### Analysis of Home Sale Prices and Appraised Home Values in High Foreclosure Rate Neighborhoods

The crisis in the American housing market has led to a dramatic increase in foreclosure rates across the country, and metro Atlanta has been no exception. As one of the leading housing advocacy groups in metro Atlanta, the Atlanta Neighborhood Development Partnership (ANDP) is interested in determining the relationship between home sale prices and home appraisal values in some of the metro area's most foreclosure-ridden neighborhoods. ANDP wishes to ensure that given the dramatic changes in the housing market, homeowners will be taxed on a fair appraised value of their home that accurately reflects true market conditions. It is ANDP's hypothesis that there will be a significant overpayment of taxes in neighborhoods with the highest rates of foreclosure. ANDP hired RCLCO to perform an analysis of home sale prices and appraised values in the five-county core of metro Atlanta in order to determine if a projected overpayment of residential property taxes does in fact exist in high-foreclosure neighborhoods.

#### **Summary of Findings**

RCLCO studied 15 zip codes with some of the highest rates of foreclosure in metro Atlanta and found that those 15 zip codes would account for an estimated \$71.5 million in property tax overpayment, provided dramatic reassessments are not made in 2009. However, the remaining areas of the core metro outside those zip codes are forecast to see an overpayment of only \$15.3 million. While those 15 high-foreclosure zip codes account for over 82% of the total metro overpayment of \$86.6 million, they represent only 20% of metro homeowners. Homeowners in these zip codes are projected to see average tax overpayments of an estimated \$427 per homeowner, which is four times the projected metro average overpayment of \$103 per homeowner. This metro-wide overpayment is due mostly to the fact that home sale prices have declined an average of 8.3% since their peak in metro Atlanta, according to the Case-Shiller Index.

In many cases, the effect of foreclosures can be localized further to a neighborhood level (see Figures 1 through 5 for maps of the neighborhoods RCLCO studied). In Fulton County for example, Atlanta's Pittsburgh neighborhood has so far seen the average home sell for roughly 38 cents on the dollar, when comparing the median sales price of the neighborhood to median appraised value for those same homes from the Fulton County Tax Assessor's Office. As a result, homeowners in this neighborhood are projected to overpay their property taxes by an estimated average of \$1,571, over 15 times the metro average.

Interestingly, the effects of foreclosures are not equal across metro Atlanta. The analysis has revealed varying stories in the five core counties based on the extent of the foreclosure crisis in that county, as well as other mitigating circumstances. The findings relative to each county are presented on the following pages, as well as in Table 1.

#### **Fulton County**

Fulton County provides a clear example of the localized effect of foreclosure clusters. The county control group had an average overpayment of \$101 per homeowner, which is just shy of the metro average of \$103. However, the three zip codes with the highest foreclosure rates experienced median home sale prices that only achieved 63% of median appraised value. This translates into a projected residential property tax overpayment of \$27 million in the three zip codes alone. The overpayment in those three zip codes alone (which only account for roughly 12% of homeowners) represents roughly 120% of the projected overpayment in Fulton County. This means that the remainder of Fulton County is projected to post a net underpayment of \$4.5 million.

At the neighborhood level the situation is even more striking, as median home sale price is only achieving 38% of median appraised value. This stark difference in sales price to appraised value is projected to lead to an estimated overpayment of \$1,571 per homeowner, which is the highest overpayment found in the study.

#### **Clayton County**

So far in 2008, Clayton County as a whole has seen homes sell for 75% of appraised value, when comparing median sales price to median appraised value for the county average (county average determined from county control group; see methodology section for an explanation of county control groups). This represents a striking drop in home prices that has affected most neighborhoods in the county. Due to the widespread nature of depressed home prices, there does not appear to be much difference in the amount of tax overpayment in high foreclosure zip codes or the selected neighborhood when compared to the county control group. Simply put, the housing market is poor throughout Clayton County and the above discrepancy is not isolated to particular neighborhoods with high rates of foreclosures. Overall, Clayton County is estimated to account for nearly one-third of the projected property tax overpayment in the core metro, whereas it only represents 7.5% of metro homeowners.

#### **DeKalb County**

DeKalb County provides a striking example of how foreclosures can evolve from a localized problem to a more widespread issue. The county control group yielded a median sales price that was 88% of median appraised value. This figure is not quite as low as found in Clayton County, but is nonetheless much lower than would be considered healthy. When isolating and analyzing high foreclosure areas within the county, performance of home sale prices compared to appraised value worsens. The three zip codes with the highest rates of foreclosure in the county had a ratio of median sales price to median appraised value of 69%. The study neighborhood fared even worse, with median home sale prices achieving only 57% of median appraised value. While foreclosures can start off as a localized problem, if large clusters of foreclosures form and foreclosure rates continue to increase, the effect can be more expansive.

#### **Cobb County**

Cobb was the only county control group studied that recorded a median sales price that exceeded median appraised value in addition to posting a net underpayment of projected property taxes. It is interesting to note that the three zip codes studied for Cobb had the lowest average foreclosure rate of the five counties. Cobb County appears to be an example of a place where foreclosures have not yet had a significant negative impact on the county as a whole. However, the high foreclosure areas studied did experience drops in pricing that were large enough to be statistically significant when compared to the control group. This means that although the foreclosure crisis is not widespread in Cobb, foreclosures may be beginning to have an impact in localized areas. Should foreclosure rates increase in Cobb, the county could very well see its projected net underpayment of property taxes reduced or even reversed.

#### **Gwinnett County**

Gwinnett is experiencing a somewhat similar situation to Cobb County. Despite the fact that the county control group is experiencing a median home sale price that is less than median appraised

#### **Gwinnett County (continued)**

value, the average overpayment of property taxes is still markedly less than the metro average. Furthermore, three of the four high foreclosure areas in Gwinnett show no statistically significant difference in the ratio of sales price to appraised value when compared to the control group. Nevertheless, the zip code with the highest foreclosure rate did show a statistically significant difference from the control group and posted an average projected overpayment 266% higher than the metro average. In fact, all four high foreclosure areas studied posted average overpayments that were higher than the metro average. Gwinnett County may not yet be seeing foreclosure rates that are high enough to cause widespread downward pressure on home prices, but there is evidence that the neighborhoods with the highest foreclosure rates in the county are beginning to see foreclosures have a negative effect on sales prices.

#### IMPACT ON HOMEOWNERS AND LOCAL GOVERNMENT

The RCLCO study provides insight into the effect foreclosures have on home prices and the corresponding impact on property taxes. There are certainly other factors in addition to foreclosures that are driving home prices down, such as the national downturn in the housing market and high levels of oversupply in the metro Atlanta housing market. Overall, home prices have fallen 8.3% metro-wide since their peak in July 2007 according to the Case-Shiller Index. However, this study has shown that in most cases areas with the highest levels of foreclosures had a greater disparity in the ratio of home sale prices to appraised values when compared to their respective county overall. Foreclosures may not be the only factor driving down prices, but in places where foreclosures are clustered, home prices usually perform significantly worse than the metro average.

Unfortunately, the foreclosure crisis appears to be having a larger impact on home sale prices in lower income neighborhoods, as shown in Table 2. In nearly all areas studied, those with a median appraised value of less than \$150,000 had a greater disparity between home sale prices and appraised values than those with median appraised values above \$150,000. Furthermore, it appears the projected overpayment is greater in areas with a higher concentration of minorities, lower incomes, and higher unemployment. By most metrics, it seems as if the foreclosure crisis is having a greater negative impact on some of the metro area's more disadvantaged neighborhoods. Coupled with the fact that prices are dropping rapidly in these lower income areas, the overpayment of property taxes is likely putting extra burden on homeowners, especially in a challenging economic environment.

The foreclosure crisis and national economic downturn have undoubtedly had a negative effect on local government as well, as disinvestment does little good for the tax digest. Ultimately it is up to the tax assessor's office in each county to accurately appraise the properties on its digest. From RCLCO's real estate market perspective, it is in the best interest of the tax digest for these hardest hit areas to recover as quickly as possible. Reinvestment, repopulation, and stabilization of these neighborhoods would likely lead to a healthier tax digest. Currently many of these neighborhoods are suffering from high rates of vacancy, increased crime, and general deterioration which represent a significant, albeit hard-to-quantify, cost to the county. A higher-than-deserved tax bill would only add to the reinvestment challenges these areas already face.

This analysis has shown that by identifying areas with the highest rates of foreclosures, a significant portion of a county's potential property tax overpayment is also identified. If the tax assessor's offices are interested in quickly identifying neighborhoods where appraised values may be grossly misaligned with demonstrated home sale prices, monitoring clusters of foreclosures would be a quick and efficient way to do just that.

Jurisdiction	Foreclosure Filing Rate <sup>1</sup>	Median Sales Price	Median Appraised Value	Ratio of Median Sales Price to Median Appraised Value	Projected Average Under/Over Payment <sup>2</sup>	Projected Total Under/Over Payment <sup>2</sup>
Clayton						
30238	5.54	\$81,625	\$120,547 .	68% †	\$513	\$5,435,280
30274	5.07	\$55,500	\$114,571 .		\$696	\$5,180,134
30296		\$85,000	\$124,607 .	68% †	\$479	\$3,305,506
3 Zip Total	4.95	\$74,762	\$119,887 .	62%	\$558	\$13,920,919
Neighborhood	IN/A	\$100,000	\$135,929 .	74% †	\$555	\$1,689,192
Control	N/A	\$89,416	\$119,559 .	75% †	\$453	\$28,471,390
Cobb						
		\$124.000	\$129,980	95% †‡	\$302	\$1,453,475
Control	N/A	\$207,325	\$195,625 .		(-\$119)(	(-\$21,921,531)
<b>DeKalb</b> <sup>3</sup>						
	5 32	\$105 527	\$130,200	81% †‡	\$461	\$4 856 538
Fulton						
	8 / 8	\$38 500	\$120,600		\$1.464	\$10 363 308
•						
Gwinnett		. ,	. ,			
	/ 10	\$1/5 077	\$163,600	89% †‡	\$274	\$3 360 894
Metro Totals/			, .,		,	
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J Counties .		ψι <i>ι</i> <del>η</del> ,200			φισο	000,700,044

#### TABLE 1: Under / Overpayment Analysis

† Indicates a statistically significant ratio of price to value exists (see methodology section for details)

‡ Indicates a statistically significant difference compared to control group (see methodology section for details)

1 Foreclosure filing rate calculated by Equity Depot

2 Overpayment values are positive, underpayment are negative

3 DeKalb County provides rebates of county taxes to homeowners, funded by the Homestead Option Sales Tax or HOST. The rebate varies based on sales tax collections and the extent to which the county relies on HOST for capital improvements. This data does not reflect potential HOST funded rebates.

4 While ratio shows potential for an underpayment, the methodology used to calculate payment yielded an overpayment. This methodology is more accurate for determining tax impacts on average residential homeowners, as described in methodology section.

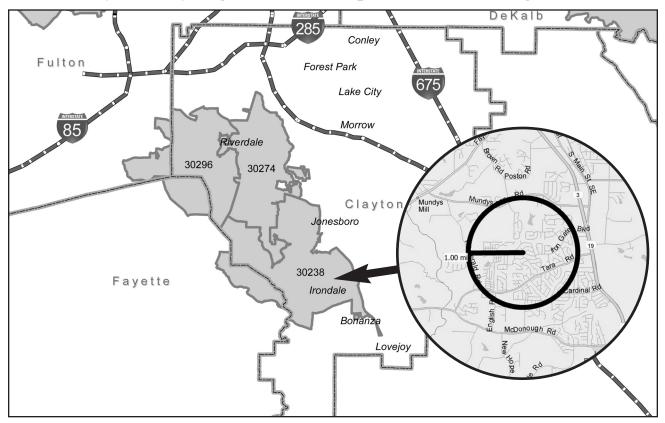
5 Tests of significance do not apply to metro averages. Price and value figures are weighted averages of median figures for each geography.

Jurisdiction	Average Under/Over Payment <sup>1</sup>	Median Appraised Value	Race (% White)	Median Household Income	Unemployment Rate	% With College Degree	Median Age
Clayton							
30274	\$696	\$114,571	18%	\$42,294 .		22%	31.23
Neighborhood	1\$555	\$135,929	34%	\$55,103 .		26%	31.79
County	\$453	\$119,559	29%	\$46,237 .	3.85%	23%	32.04
Cobb							
30127	\$176	\$185,180	64%	\$72,351 .		35%	34.67
Neighborhood	1\$214	\$145,860	44%	\$62,264 .		38%	35.54
County	\$119	\$195,625		\$65,836 .		45%	35.37
DeKalb							
30058	\$562	\$130,250	9%	\$53,101 .		37%	32.16
Neighborhood	1\$594	\$122,100		\$49,933 .	3.73%	36%	32.22
County	\$252	\$165,250		\$56,138 .		42%	34.85
Fulton							
30315	\$1,486	\$140,900	15%	\$23,325 .		10%	30.62
Neighborhood	1\$1,571	\$143,550	3%	\$20,245 .	9.18%	7%	33.12
County	\$101	\$188,900		\$55,722 .		46%	34.99
Gwinnett							
30045	\$107	\$174,000	64%	\$59,301 .		30%	33.34
Neighborhood	1 \$144	\$153,400	63%	\$58,714 .		25%	32.74
County	\$75	\$187,200	61%	\$66,400 .	2.33%	41%	33.53

#### TABLE 2: Comparison of Demographic Indicators for Various Geographies

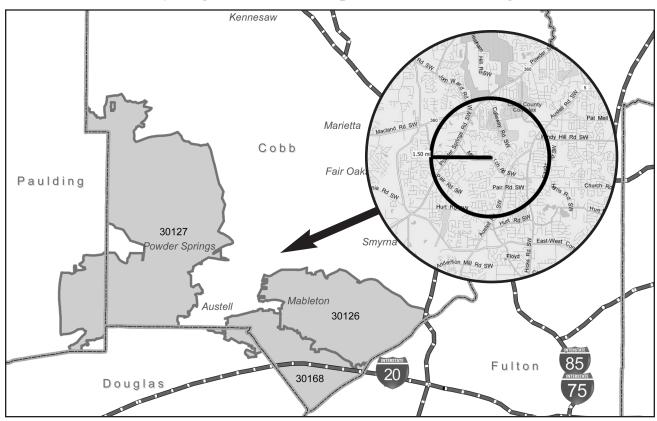
1 Overpayment values are positive, underpayment are negative

SOURCE: Neilson Claritas, 2007



#### FIGURE 1: Clayton County's Highest Foreclosure Zip Codes and Studied Neighborhood

FIGURE 2: Cobb County's Highest Foreclosure Zip Codes and Studied Neighborhood



See Methodology section to learn how these zip codes and neighborhoods were identified.

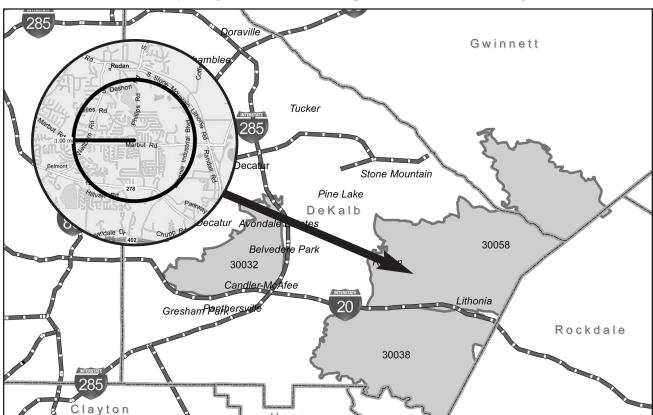
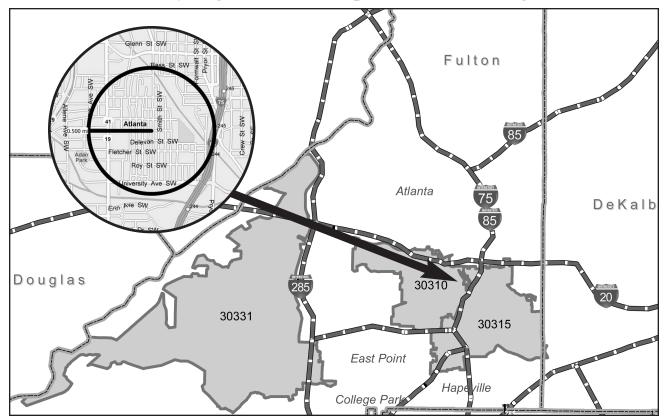
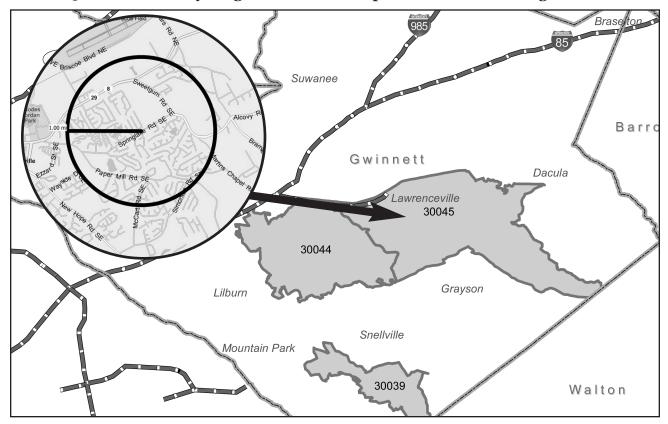


FIGURE 3: DeKalb County's Highest Foreclosure Zip Codes and Studied Neighborhood

FIGURE 4: Fulton County's Highest Foreclosure Zip Codes and Studied Neighborhood



See Methodology section to learn how these zip codes and neighborhoods were identified.



#### FIGURE 5: Gwinnett County's Highest Foreclosure Zip Codes and Studied Neighborhood

See Methodology section to learn how these zip codes and neighborhoods were identified.

### Scope of Work

With dramatic increases in home foreclosure rates across the country, communities are struggling with a host of new problems, ranging from declining tax bases to increased crime. While much of the focus in the foreclosure crisis has centered on the impact on foreclosed homeowners, there are additional impacts felt by local government and those homeowners who remain in neighborhoods with high rates of foreclosures. Increased levels of crime and dilapidation of foreclosed properties appear to exert downward pressure on home sale prices in many neighborhoods, especially those with the highest rates of foreclosures. Although home sale prices are declining in many communities, home value appraisals, as conducted by county tax assessors' offices, may not be reflecting this decrease in value. In theory, if homeowners are being taxed on an appraised value that is greater than the home is actually worth, they are being levied a tax burden that does not reflect current market realities.

Atlanta has not been immune to the foreclosure crisis, and many neighborhoods in the metro area experiencing unprecedented levels are of foreclosures. As one of the leading housing advocacy groups in metro Atlanta, ANDP is interested in determining the relationship between home sale prices and home appraisal values in some of the metro area's most foreclosure-ridden neighborhoods. ANDP wishes to ensure that given the dramatic changes in the housing market, homeowners are being taxed on a fair appraised value that accurately reflects true market conditions. It is ANDP's hypothesis that there is a significant overpayment of taxes in neighborhoods with the highest rates of foreclosure.

ANDP hired RCLCO to perform an analysis of home sale prices and appraised values to determine if an overpayment of residential property taxes does in fact exist in high-foreclosure neighborhoods. RCLCO's analysis can be broken down into three main questions:

1. Where are the areas/neighborhoods with high rates of foreclosures in the core of metro Atlanta

(Clayton, Cobb, DeKalb, Fulton, and Gwinnett Counties)?

2. Is there a difference between demonstrated home sale prices and appraised values in those neighborhoods and how does it compare to county averages?

3. If a difference exists, how does it affect the amount of taxes a property is paying and to what degree are neighborhoods with high rates of foreclosure under- or overpaying property taxes?

Tables 1 and 2 summarize the results of the analysis. Table 1 determines the relationship between home sale prices and appraised values and displays the analysis related to the under/overpayment of residential property taxes.

Table 2 compares the geographies utilized in the study across a series of demographic indicators. A detailed explanation of RCLCO's methodology is also included at the end of this report, along with maps of the neighborhoods that were studied.

#### METHODOLOGY

The following section describes RCLCO's methodology for performing this engagement in detail.

#### **PHASE 1** IDENTIFIED HIGH FORECLOSURE NEIGHBORHOODS

The first step in this analysis was to identify the geographies that are considered to have high rates of foreclosures in the five-county study area (Clayton, Cobb, DeKalb, Fulton, and Gwinnett Counties). ANDP obtained information from Equity Depot on the five zip codes and 20 US Census Blocks with the highest rates of foreclosures for each county. The top three zip codes were then selected to study further. One smaller neighborhood in each county was also selected to be analyzed in depth. The neighborhoods were selected by mapping the high-foreclosure Census

Blocks to determine where the concentrations of foreclosures were located in each county.

Next, ANDP obtained home sales data (closings) from the FMLS service for all residential for-sale product in the first half of 2008 for the five-county study area. Home sales in each of the fifteen zip codes (five counties with three zip codes each) were then isolated. Additionally, similar home sales data was gathered for the five neighborhoods by selecting a radius of sales that encompassed the desired neighborhoods (see Figures 1 through 5 for neighborhood maps). In cases where the number of sales in a zip code or neighborhood exceeded 100, a random sample of 100 sales was taken. Additionally, a control group was established in each county by randomly selecting 100 sales from the entire set of sales data for each county. The control group is necessary in order to place the analysis of high foreclosure areas in the context of the county overall.

It is important to note that FMLS data was utilized because it represents arms-length transactions. Auction sales of foreclosed properties on courthouse steps are therefore not included. Use of FMLS data somewhat mitigates the extreme effect auctioned properties could have on median home sales values in these geographies.

#### **PHASE 2** COMPARED HOME SALE PRICES TO HOME APPRAISAL VALUES

To match home sale prices with appraised values, we utilized the county tax assessor's offices online databases to look-up appraisal information for the specific addresses provided in the home sales data gathered in phase one. We conducted this analysis across the desired geographies (zip codes, neighborhoods, and control groups). Once all the appraisal information was entered, the difference between sales price and assessed value was calculated. This was accomplished by dividing the median home sale price by the median appraised value for each geography. A ratio of less than 100% means that the median home sale price is less than median home appraisal value. A value of greater than 100% means that median home sale price is higher than the median home appraisal value.

A test of statistical significance was then performed for each geography to determine if any difference in sales price to appraised value is due to actual differences in the two, rather than random chance. To test the statistical significance of this ratio, a Wilcoxon matched-pairs test with a confidence level of 95% was performed on the sales prices and appraised values for each geography. Please note that this test of statistical significance is not performed on the median values used to calculate the ratio described in the previous paragraph. Rather, this test matches the sales price to the appraised value for each individual sales record. The difference between those two values is then compared across all the home sales records to determine the probability that the actual difference between the sales price and appraised values is not zero. For any geography where the test was positive, it can be interpreted that RCLCO is 95% confident that there is in fact a difference between sales prices and appraised values in that geography.

A second test of statistical significance was performed for each geography to determine if the ratio of sales price to appraised value was different from the county-wide control group. A Mann-Whitney test with a confidence level of 95% was performed on the ratio of sales prices to appraised values as compared to the same ratio for the control group. This test analyzes the ratio of sales price to appraised value for the individual records in a given geography, and compares the ratio to the same metric for the respective county control group. The test then calculates the probability that there is in fact a difference between the geography and the county control group. For any geography where the test was positive, it can be interpreted that RCLCO is 95% confident that the ratio of sales price to appraised value is different than the ratio for the county control group.

#### PHASE THREE CALCULATED TAX UNDER/OVERPAYMENT

The final step of the analysis was to determine the amount of tax under/overpayment in the geographies based on the established differences in demonstrated home sale prices and county tax assessor appraised values.

First, the millage rate for each geography was determined in order to calculate the amount of taxes a property would pay. In geographies that contained multiple jurisdictions, the millage rate for the jurisdiction that encompassed the most area in the geography was used. Table 3 displays the millage rates used.

## TABLE 3SUMMARY OF MILLAGE RATES

JURISDICTION	MILLAGE RATE	
Clayton – Unincorporated	32.52	
Cobb – Unincorporated	28.75	
DeKalb – Unincorporated	33.30	
Fulton – Atlanta	42.42	
Fulton – Unincorporated South	Fulton 34.28	
Fulton – Unincorporated <sup>1</sup>	36.44	
Gwinnett – Unincorporated	30.11	

<sup>1</sup>Average of City of Atlanta, Unincorporated North Fulton, and Unincorporated South Fulton

SOURCE: Georgia Department of Revenue, 2007 Millage Rate Table

Next, utilizing the same FMLS home sales data for each geography from phases one and two, an estimated property tax was calculated for each home sale based on two values of the home: home sale price (sales price property tax) and appraised value (appraised value property tax). Sales price property tax was then subtracted from appraised value property tax for each record, yielding the under/overpayment for that property. The average (mean) under/overpayment was then calculated. A positive value indicates overpayment, whereas a negative value indicates underpayment.

To estimate the total under/overpayment in a given geography, it was necessary to estimate the number of residential properties that are in an ownership situation. Due to the rapidly changing nature of the housing market, this is an extremely difficult number to estimate. RCLCO arrived at an estimate for ownership housing units by using a combination of data from the US Census Bureau and Nielson Claritas. There were two components of the analysis: occupied ownership units and vacant ownership units. For occupied units, RCLCO obtained a 2007 estimate of occupied ownership units from Nielson Claritas. For vacant units, Neilson Claritas reports vacant properties in a manner that includes both ownership units and rental units. To determine the number of vacant units that were in an ownership-only situation, the US Census 2000 rate of vacant units that were in an ownership situation was utilized. Estimated occupied ownership units were then added to estimated vacant ownership units to vield estimated total ownership units.

Lastly, RCLCO calculated the total under/overpayment by multiplying the average (mean) under/overpayment by the estimated total number ownership units.



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