



A Model for Quantitatively Defining Urban Blight by Using Assessment Data

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Driving through a run-down, dilapidated area with the look of a high crime rate prompts the thought, “wow, don’t think I’d like to have a flat tire here after 9 p.m.” A local government term for such a place is *blighted area*. There are many different levels and definitions of blight. This article presents the basis for a decision model, using assessment data as core information, to assist in the recognition, quantification, and documentation of urban blight conditions. The model can help local government decision makers review quantifiable data and develop qualitative standards for identifying and curing blight conditions.

Efforts to revive such areas were once called Urban Renewal Projects. These projects usually included some level of government assistance (often state and federal) offering economic incentives for new businesses or owners to revive the subject market. In cities across the country, areas formally designated blighted areas often became the home of high-rise offices, businesses, and condominiums. Bonding together to provide community assistance to restore that which has fallen behind has always been viewed as a noble endeavor. In Florida these efforts are now called Community Redevelopment Areas (CRAs).

Florida created CRAs to channel additional funding into designated blighted areas to spur economic growth, resulting in elimination of blight and restoring the area **to be comparable** to other property in the city. Base value levels are established at a point in time, and taxes from all

future increases in the designated area, from existing and other specified taxing authorities, are channeled into the CRA, providing financial assistance for specified periods (up to 30 years). Although *urban blight* is relatively easy to conceptualize and generally define, efforts to quantitatively recognize the disease (blight) or the success of a cure have been limited to consultants’ reports. The model described here can be developed with local data, much from property tax assessment/appraisal detailed databases, for comparatively low costs. This paper does not purport to provide an exhaustive list of all analyses that should be included, just those which coincide with my own limited experience.

Volusia County, Florida, for example, created its first CRA in 1983. There are now 16 CRAs in 8 of the county’s cities. In 2013, \$10.36 million of Volusia property tax money that came from increases in values in CRAs will be diverted into those 16 CRAs to provide economic stimulus for recovery (see table 1). In Volusia County, that’s not considered small change. In 2013, five additional CRAs were proposed by Volusia cities. The amount of existing funding redirected to CRAs, along with speculation about additional areas being proposed, has created a demand for clarity of purpose for these newly proposed CRAs from both political and citizen sources.

Assessment databases are the richest sources of verified official real estate information (Gilreath 1998). In Florida a standardized data format is required for all 67 counties,

Table 1: Property Taxes Paid Into Volusia CRAs

Taxing Authority	Final Millage Rate	2012 Total Taxes	2013 Total Taxes	Increase or (Decrease)	% of Overall Taxes
Total County ----->		4,934,262	5,085,646	151,384	
Total Hospital ----->		768,558	787,108	18,550	
Total Noncity Tax Transferral ----->		5,702,820	5,872,754	169,934	
City of Daytona Beach—Operating	6.5734	2,107,893	2,142,609	34,716	10.16%
D.B. Downtown Development Auth	1.0000	28,866	29,397	531	29.47%
City of Daytona Beach Shores—Operating	5.8819	0	0	0	0.00%
City of Deland—Operating	7.0168	83,688	80,597	(3,091)	1.02%
City of Holly Hill—Operating	7.3500	777,650	846,551	68,901	25.57%
City of New Smyrna Beach—Operating	3.4445	566,862	595,275	28,413	7.05%
City of New Ormond Beach—Operating	4.0132	329,531	341,416	11,885	3.46%
City of Port Orange—Operating	4.8051	104,149	98,265	(5,884)	0.91%
City of South Daytona—Operating	5.9000	360,203	356,184	(4,109)	14.09%
Total Municipal ----->		4,358,842	4,490,294	131,452	
Overall C.R.A. Taxes ----->		10,061,662	10,363,048	301,386	

so analysis that works in one place can work elsewhere as well. In determining how assessors might assist policy makers, the Volusia County Property Appraiser’s office began looking, for the first time, at how assessment data might provide unbiased, factual information to assist in the recognition and analysis of blight conditions. Blight is the cumulative effect on buildings of time without care or, perhaps better put, time without TLC (tender loving care). Definitions in the Florida statutes have been amended and amended to include land and neighborhood conditions to the point of possibly allowing a tile floor to be defined as a blighted area.

Some of Florida’s statutory blight concerns include

predominance of defective or inadequate street layout, assessed value failed to show appreciable increase, faulty lot layout, unsanitary or unsafe conditions, deterioration of site or other improvements, tax delinquency exceeding..., vacancy rates higher..., crime in the area higher..., fire and emergency medical calls..., violations of the Florida Building Code..., diversity of ownership..., governmentally owned property with adverse..., [Source: Florida Statute 163.340 (8).]

and on and on. Volusia assessment data did not have sufficient characteristics to document blight without buildings (crime, medical calls, building code violations, diversity of ownership). This paper describes quantitative and qualitative assessment data and methodology that can assist in analyzing blight for past, present, and future CRAs.

The following sections describe general analyses that can assist in quantifying blight data in areas where property tax CAMA systems are available. This becomes, in effect, a model for defining urban blight, using assessment data.

Actually the same information exists and can be used in jurisdictions with manual systems; it simply takes more time and effort.

Analysis of Land Use

In a free economy, as urban areas develop and grow, a variety of land uses come into being (residential, service industries, schools, and local government). With assessment data history records, these uses can be viewed and trends in *expected levels* of different land uses can be detected (Gilreath 2011). Depending on the size and scope of the effort to identify blight, this analysis could be complex or relatively simple. Nevertheless, the result will be a quantifiable view of the land use mix.

Florida law requires each property to be classified into one of 99 classes of property (residential, vacant, apartments, shopping centers, condominiums, office buildings, and so on). However, as illustrated in figure 1, consolidating stratified properties into residential, commercial, or vacant categories seemed to provide adequate results. The statistics were developed for residential versus commercial use county-wide; then in the unincorporated areas; then within each city; and last, for the 16 existing and 5 proposed CRAs. This analysis provided a comprehensive, quantitative comparison for each existing and proposed CRA. For example, Orange City is 61 percent commercial, while the City of Pierson is 37 percent vacant, mostly agricultural. Volusia County covers more than 1,200 square miles.

The comparative view of the 16 CRAs show 6 with roughly equal to or less building depreciation than the county-wide and city data averages. The age of the CRAs (some created 20 years ago) would have offered enough



Figure 1. Mix of commercial, residential, and vacant property county-wide and in the cities of Volusia County, Florida



time and funding to have “cured the blight,” with this view simply presenting a quantitative means of recognizing and measuring the success only as relevant as the relative variation in the data around them. There are certainly *outliers* to the averages shown in figure 1, but the comparative analysis allows that to be taken into consideration literally visually (as illustrated later in this article). Volusia County is residential, but there are varying amounts of commercial property in certain cities.

Figure 2 shows the land use mix within the CRAs is only 38 percent residential, 54 percent commercial, and 8

percent vacant. While it is obvious that the CRAs contain primarily commercial property, viewing individual ones shows that six are more than 60 percent residential.

The mix of residential versus commercial property within the 16 existing CRAs is decidedly different from the county-wide or city-by-city mix. Figure 2 shows that CRAs were chosen in areas predominantly more commercial than residential. That trend continues for the five areas currently being proposed for CRA designation; these are in various stages of the process. This article considers blight data only from the property appraiser’s database. There

Figure 2. Mix of commercial, residential, and vacant property in 16 CRAs in Volusia County, Florida



are certainly other economic and demographic data that bear on blight determinations as well. The purpose here is to provide information and views not seen in previous blight submission documentation.

Because the county's assessment data contain detailed building data and most instances of blight occur in areas with buildings, the percentage of residential and commercial land use in properties *with buildings* was reviewed. This review confirmed the residential nature of Volusia County and its cities and also illustrated that the land use mix of CRAs (blighted areas) was significantly different. Figures 3 and 4 illustrate that on a county-wide basis and in the cities, properties with buildings are 91 percent residential and 9 percent commercial; for CRAs, however, properties with buildings are 47 percent residential and 53 percent commercial. This finding reinforced the decision to separate the analysis into residential and commercial components.

Analysis of Residential and Commercial Property

Because of the variations in residential and commercial property, I believe that it is important, once an area has been designated as a CRA, to continue to use residential and commercial analysis in the funding of projects as well as the financial tracking of success levels. CRA success criteria based on CRA funding projects can specify allocations to either a specific level or a range of levels of blight indicated in residential or commercial areas. Otherwise, it would be possible—and this has occurred over the years—to fund projects in a commercial area while the blight conditions and blight statistics on residential areas create a false impression of the condition of the entire CRA. Because CRAs involve providing an influx of funding into an area, there is the potential for efforts to create these districts solely for the purpose of shifting tax money into a city without there being any real blight there

Figure 3. Mix of commercial, residential, and vacant property with buildings county-wide and in the cities of Volusia County, Florida

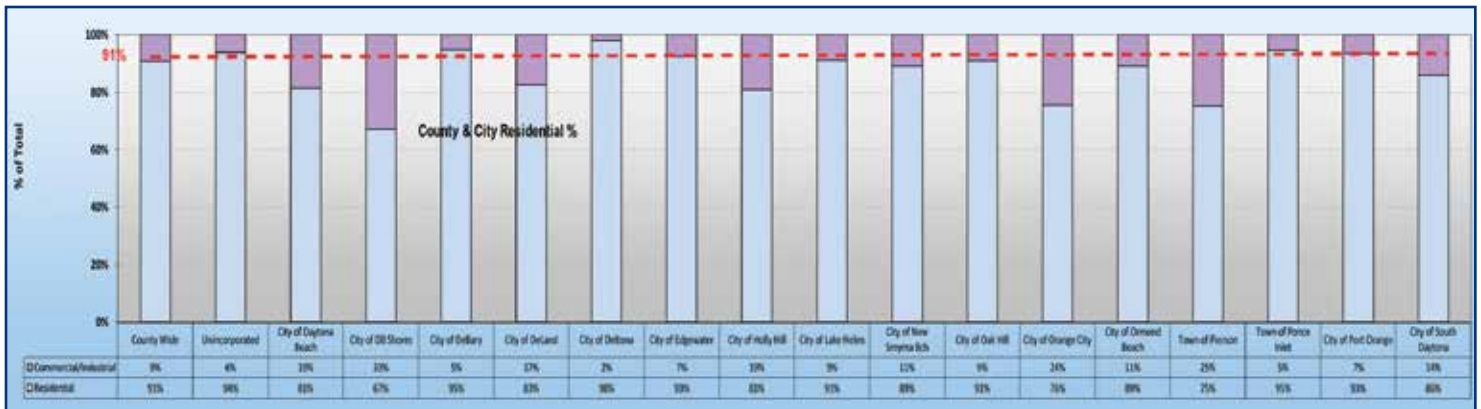
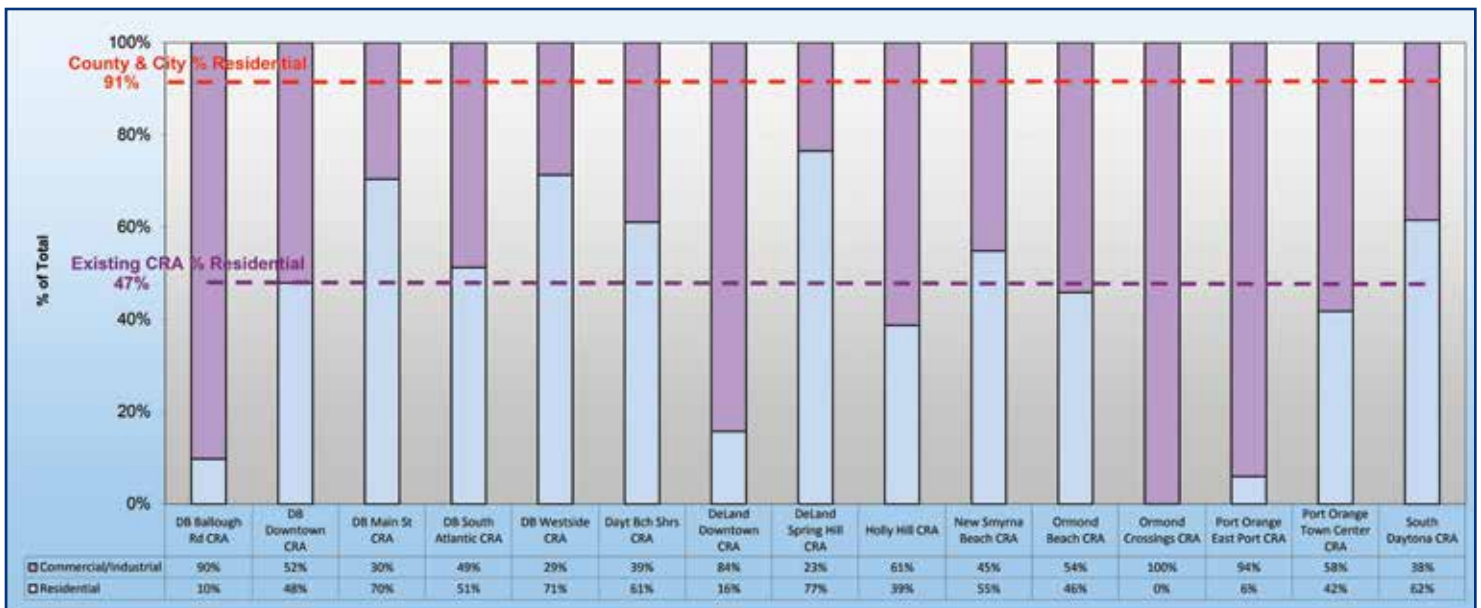


Figure 4. Mix of commercial, residential, and vacant property with buildings in 16 CRAs in Volusia County, Florida





at all. It has been said that CRAs are a valuable economic development tool. That's very true, *in a legitimately blighted area*. Otherwise, money could be siphoned from one taxing authority into another outside of the purposes stated in the Florida statutes for CRAs.

Blight-Related Characteristics

Blight, as related to deteriorating building conditions, can be detected at various stages by identifying the physical reasons for buildings declining in value. Two of these were identified in the property appraiser's database and were termed *blight-related building characteristics*.

One reason is building quality, which is a coding denoting the overall quality of construction. Quality of construction is a subjective decision of an appraiser based on a

number of factors—the general quality of design, materials used, complexity of design (angles, roof slope, fenestration [numbers, placement, and quality of windows], type of brick, wood, and the like). Fair to low quality-of-construction properties are prevalent in a blighted area, and studies seemed to confirm that finding.

The other blight-related building characteristic is physical depreciation. In a blighted area, the average building physical depreciation is more than 60 percent, and studies seemed to confirm that as well.

Residential Quality of Construction

Figure 5 illustrates the average percentage of properties, county-wide and in the county's cities, with low levels of quality-of-construction codes. Figure 6 shows the same data for the county's 16 CRAs.

Figure 5. Quality of construction of residential property county-wide and in the cities of Volusia County, Florida

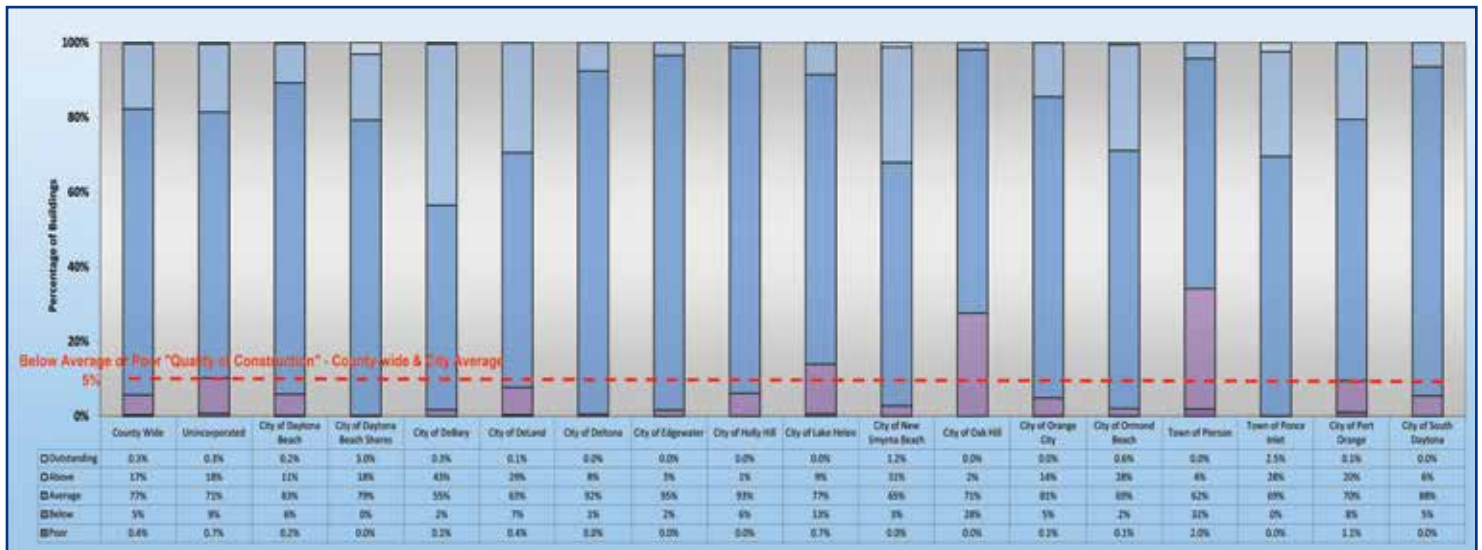
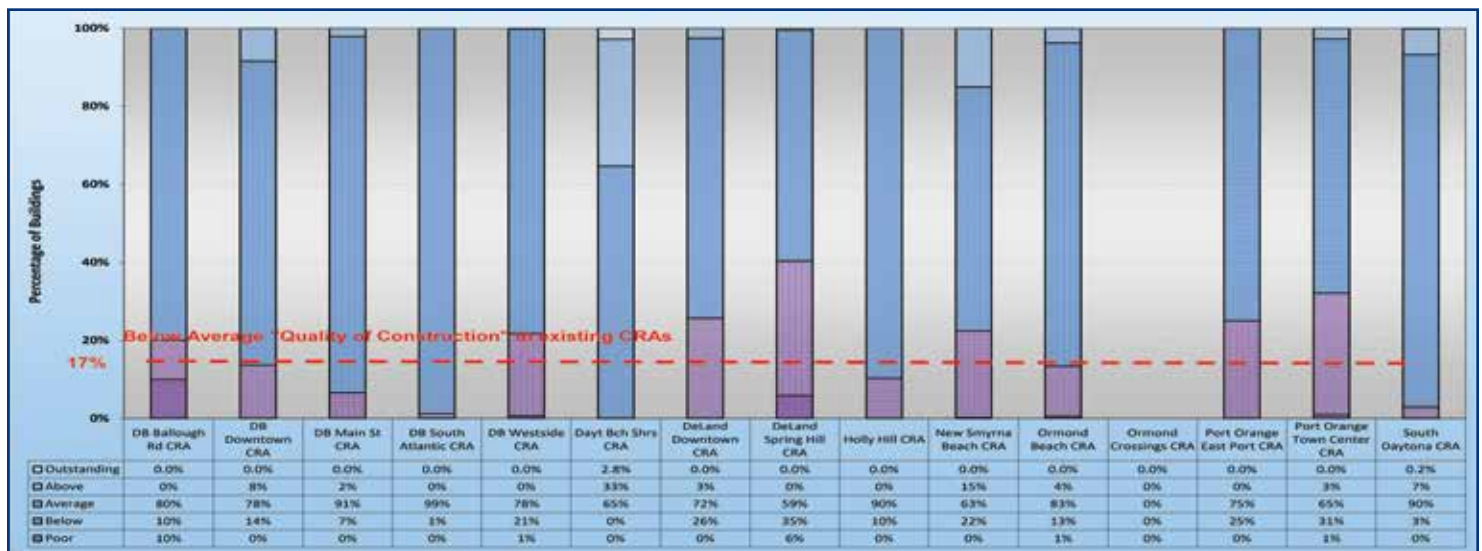


Figure 6. 16 Quality of construction of residential property in 16 CRAs in Volusia County, Florida



Blight-level residential quality of construction only exists, on average, in about 5 percent of properties county-wide and throughout the cities. However, that percentage is 17 percent within the 16 existing CRAs. There are noticeable existing CRAs in which that percentage is either non-existent or at the average low levels. There are also seven CRAs in which the number of properties with a low quality of construction is quite high, possibly indicating strong levels of blight or perhaps just few residential properties in an already commercial neighborhood. In either case, viewing *the data* brings the blight condition into focus.

Residential Physical Depreciation

Figure 7 shows the percentage of residential buildings with levels of physical depreciation greater than 60 percent

county-wide and in the cities. Figure 8 shows the same data for the county's 16 CRAs.

Three percent of residential properties county-wide and in the cities have an estimated physical depreciation of 60 percent or higher. If blight conditions existed, there would be a significant difference between building physical depreciation conditions county-wide and in the cities and those within CRAs. Figure 8 confirms that residential blight is strongly evident in a number of the CRAs. In existing CRAs, 17 percent of properties have a physical depreciation rating of 60% or higher versus 3 percent in the general building population. This appears, certainly in the aggregate, to be a valid blight indicator. However, for three of the individual CRAs, the percentage appears

Figure 7. Building physical depreciation of residential property county-wide and in the cities of Volusia County, Florida

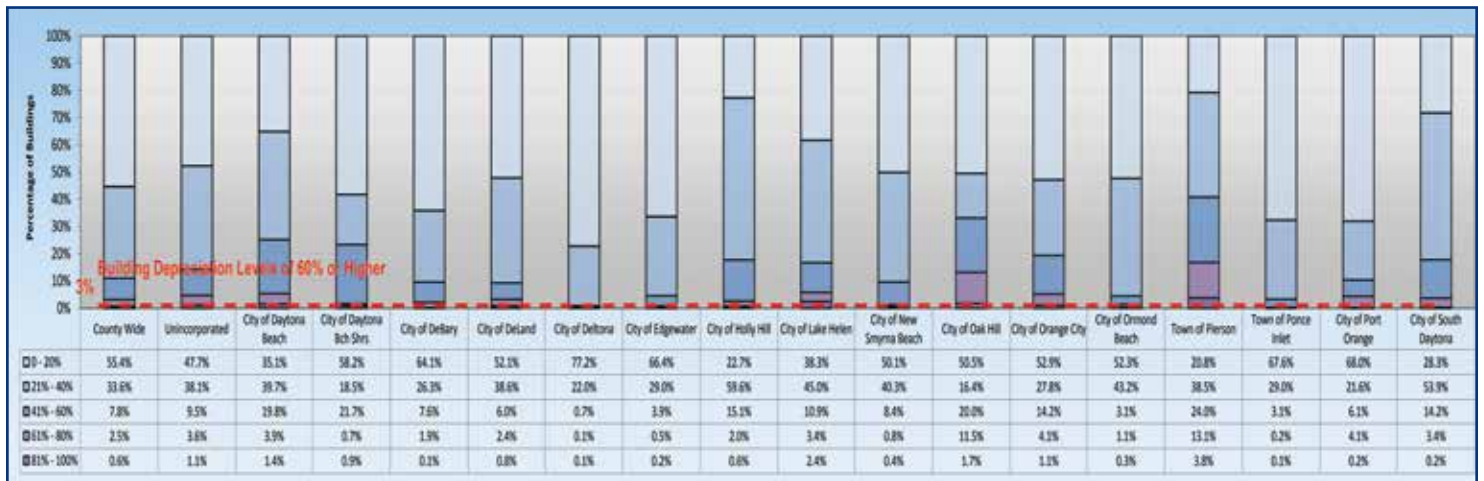
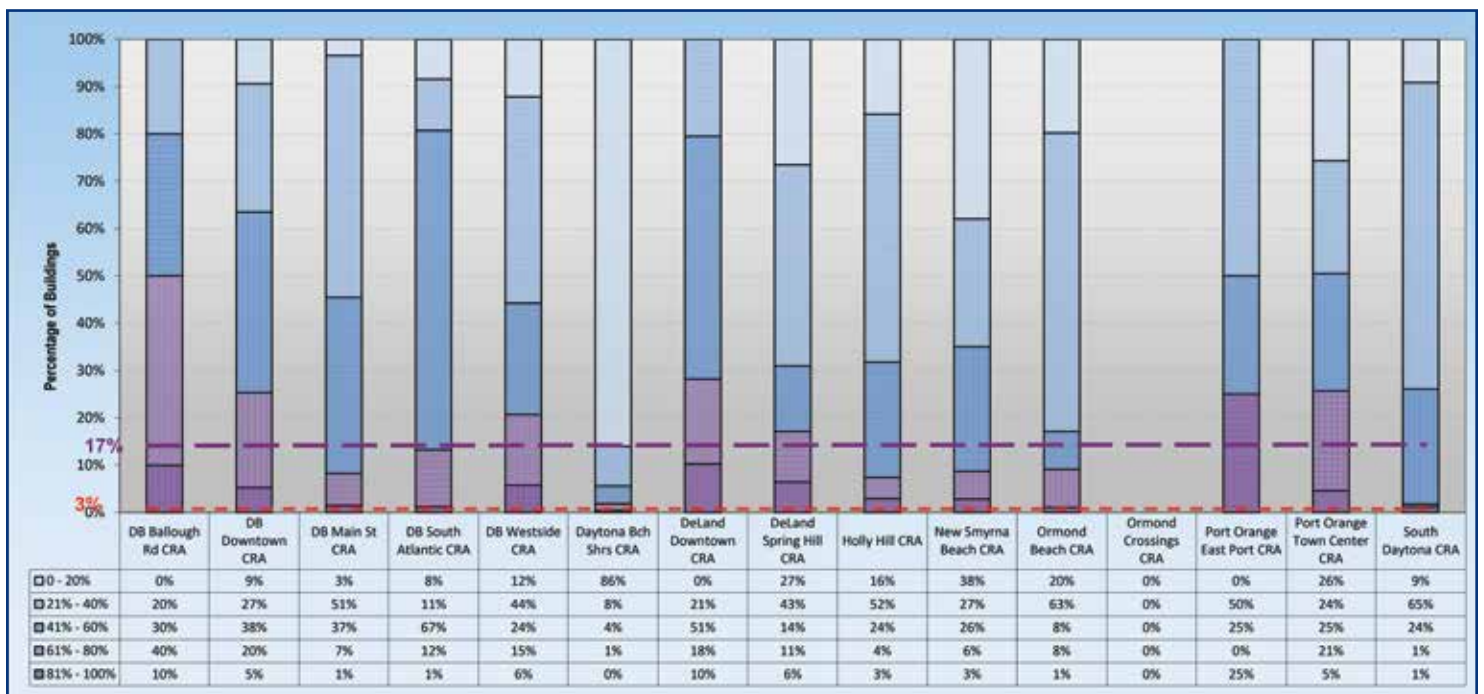


Figure 8. Building physical depreciation of residential property in 16 CRAs in Volusia County, Florida





to be equal or below the general data. That finding could lead to the conclusion that application of this model might have been useful at the time of initial analysis and review for approval of these CRAS.

Commercial Quality of Construction

The same analysis was performed on commercial property (see figures 9 and 10). The results were surprising, which makes the analysis even more relevant.

Figure 9 shows that only 9 percent of commercial properties are in the two lowest quality-of-construction categories. Note that two cities, Oak Hill and Pierson, show significantly higher percentages of low-quality commercial properties. Oak Hill could be called a rural fishing village, along the northern end of Mosquito Lagoon, just north of Cape Canaveral, with virtually no commercial properties outside of few very old service stations and fish camp buildings. Pierson is also an old area that is predominantly agricultural with a number of old farm supply buildings.

Pierson has been called the Fern Capital of the World (ornamental ferns of a number of varieties).

Comparison of figure 9, showing the quality of construction for commercial property county-wide and in the cities of the county, with figure 10, for the 16 CRAs, shows no evidence of blight conditions in quality of construction, except in the DeLand/Spring Hill CRA. This finding is surprising because commercial property, and therefore *commercial blight*, seems to be the focus of most of the existing CRAS.

Commercial Physical Depreciation

Figure 11 illustrates that an average of 23 percent of the commercial properties (county-wide and in the cities) show building physical depreciation levels of 60 percent or higher.

Figure 12 shows that within the existing CRAs, the percentage is 35 percent, definitely an indication of blight conditions.

Figure 9. Quality of construction of commercial property county-wide and in the cities of Volusia County, Florida

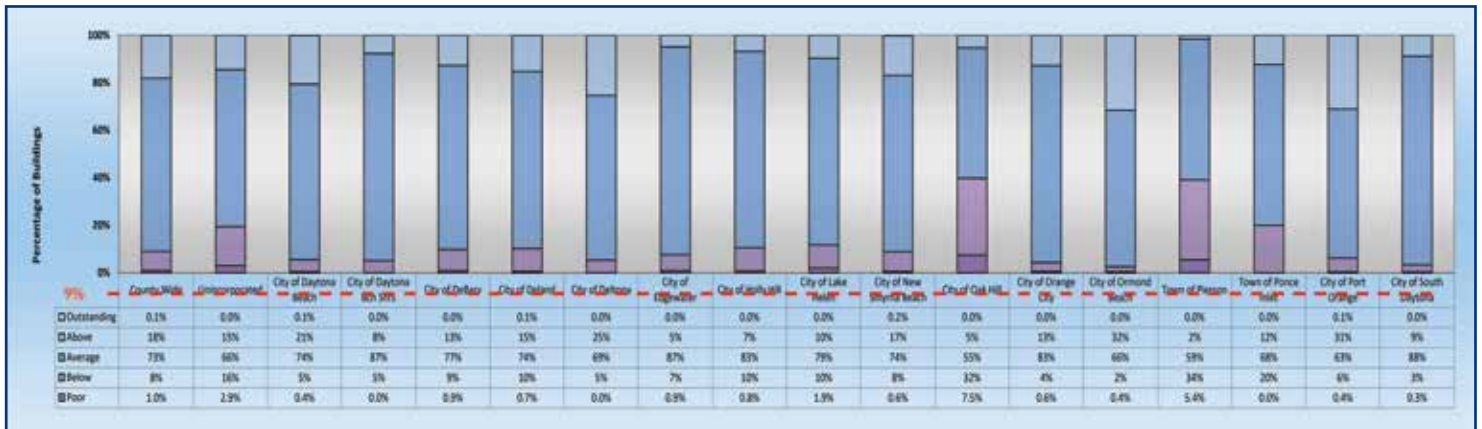


Figure 10. Quality of construction of commercial property in 16 CRAs in Volusia County, Florida

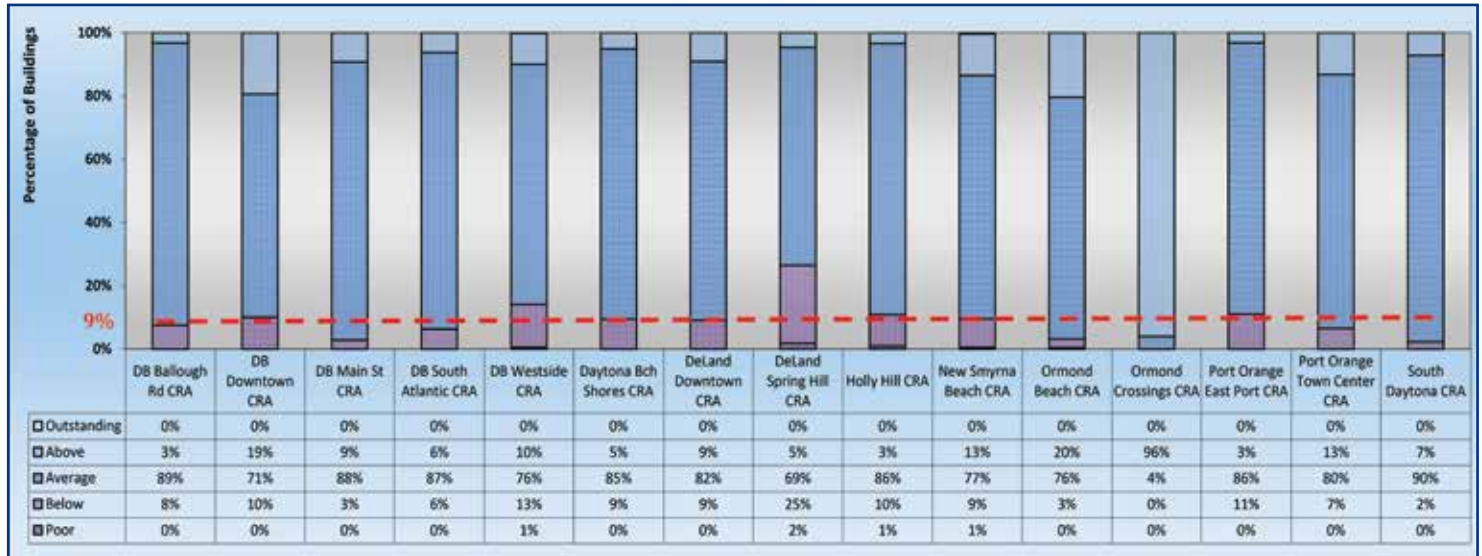


Figure 11. Building physical depreciation in commercial property county-wide and in the cities of Volusia County, Florida

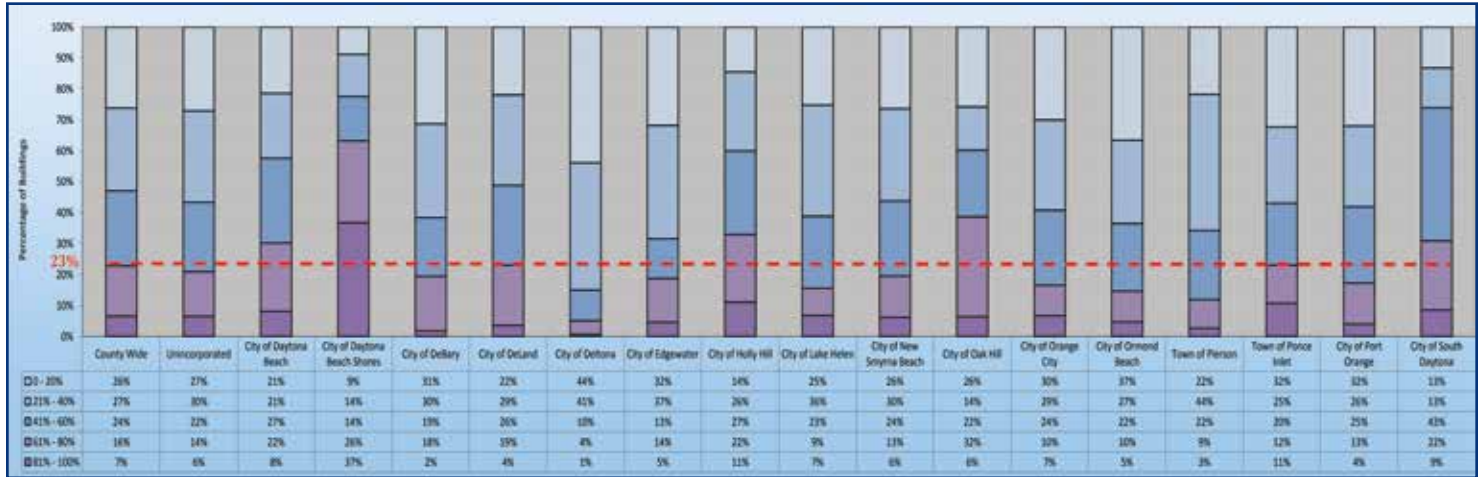


Figure 12. Building physical depreciation in commercial property in 16 CRAs in Volusia County, Florida

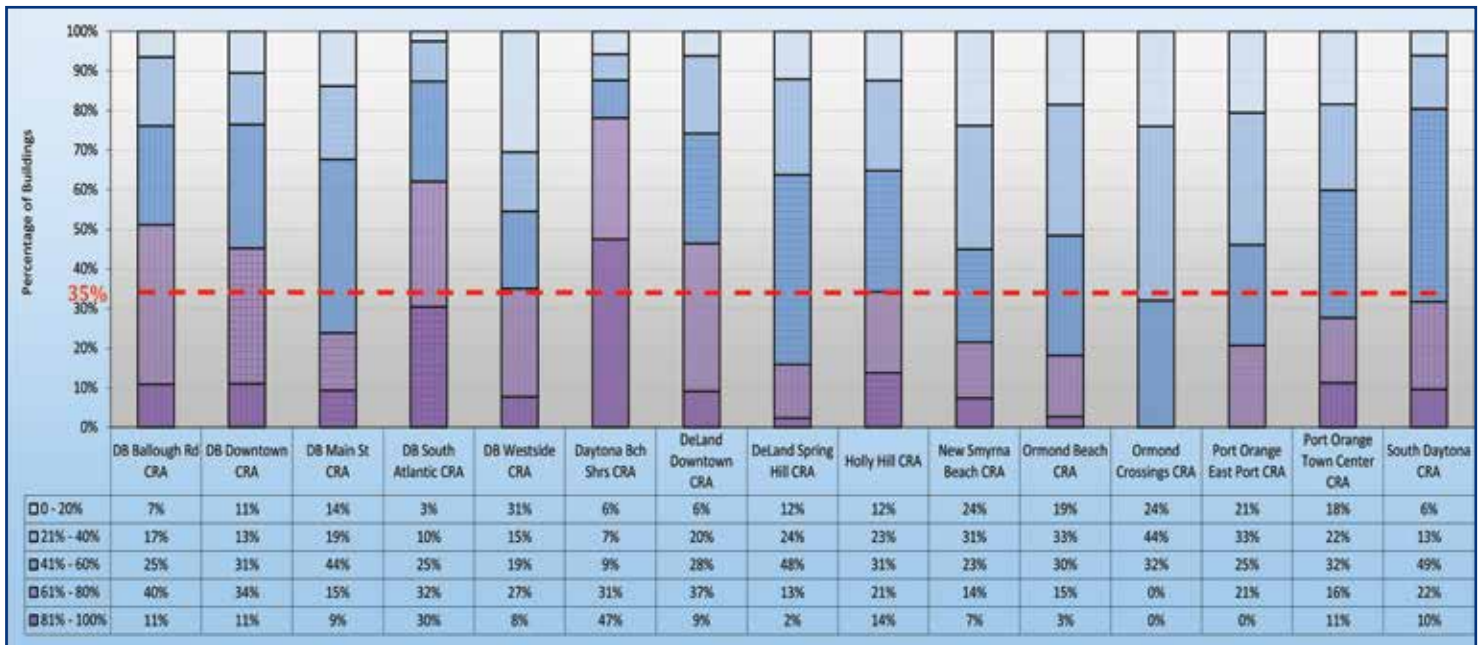


Table 2. Summary of real estate statistics

	County-Wide and in Cities	In Existing CRAs
Land Use Mix (per taxable value)		
Residential	76%	38%
Commercial	18%	54%
Vacant land	7%	8%
Average Percentage of Residential Buildings	91%	47%
Residential Blight-Related Buildings		
Below-average quality of construction	5%	17%
Building depreciation 60% or higher	3%	17%
Commercial Blight-Related Buildings		
Below-average quality of construction	9%	9%
Building depreciation 60% or higher	23%	35%

While the average commercial building physical depreciation for CRAs is 35 percent, there are five CRAs in which the average percentages are equal to or less than those county-wide and in the cities. Again, the age of some of these CRAs could mean that this is a quantitative means of measuring the success of the influx of monies into the district. It certainly, once again, shows that this model provides a view of existing conditions that, while not exhaustive, nevertheless is a substantive measure of blight.

The statistics are summarized in table 2 and provide quantitative and qualitative evidence of residential blight, although on a CRA-by-CRA basis, the data becomes more interesting. The evidence of commercial blight could be

more fully documented with the use of detailed assessment and real estate data (historical views of median sale prices and tax roll data), as well as real estate rental and other market data, as discussed in the following sections.

Historical Changes in Residential Median Sale Prices

Over time, median sale prices would be expected to have increased at a slower rate and at lower levels in blighted areas than in nonblighted areas. Median sale prices for commercial property are very specific to the type of use (shopping centers, apartments, service shops, office buildings), but the property appraiser's office does not have enough data for qualitative analysis of commercial property. However, since the county is primarily a residential area and the assessment database contains sale prices back to 1983; sufficient data on residential sales are available. Median sale prices over the past 20 years, in 5-year increments, were analyzed to determine whether the CRAs proposed in two Volusia County cities, Deltona and Orange City, show blight characteristics.

Deltona

Deltona is the largest city in Volusia County and the second-largest city in the greater Orlando, Florida area. The 2010 Census shows a population of 85,219, and the 2013 tax roll shows the city has 40,671 properties valued at \$2.8 billion. Deltona's land use mix is 85 percent residential property, with a 2013 post-real-estate recession average residence value of \$71,300. The city was originally developed in the 1960s as a massive residential subdivision and never really has had a commercial core. Figure 13 is a map of Deltona, showing the areas proposed for a new CRA. Sixty-nine percent of the proposed area, shown in green, is commercial property, much of which was previously residential property.

Figure 14, a comparison of median sale prices from 1987 to 2012 in Deltona, shows that since 1997 median sale prices in the proposed CRA have not kept pace with those throughout Volusia County or in the city of Deltona. At first glance this would appear to be a significant blight indicator—that may well be the case. However, all residential property in this proposed CRA is primarily along Deltona Boulevard, for a long time the most commercial corridor in the city. If this is determined to be a blighted area (no official determination has yet been made), a valid question would be, can this condition be cured with monies to fix buildings or to demolish them and make commercial transition less costly for new investors, or would funding for some type of streetscape-work magically solve the perceived problem? This example is a literal real-time

Figure 13. Areas proposed for CRA in Deltona, Florida



Figure 14. Residential median sale prices in the proposed CRA in Deltona, Florida, 1987–2012



situation, as the discussion is continuing about using CRA money for infrastructure expenditures.

Orange City

According to the 2010 Census, Orange City has a population of 10,599, and the 2013 tax roll shows the city has 6,359 parcels of property valued at \$703.3 million. Orange City is the home of Blue Springs, famous for deep clear springs with 72 degree water year around and a population of manatees that can easily top 100 in the winter months.

Figure 15 is a map of Orange City, showing the area proposed for a CRA. Orange City is 61 percent commercial property, and the proposed CRA is 72 percent commercial. Orange City is proposing to designate a large portion of the commercial corridor a blighted area.

Figure 16 is a comparison of median sale prices from 1987 to 2012 in Orange City. Unlike Deltona's historical

median sale price trends, for the past 10 years those in Orange City's proposed CRA have *exceeded* those in the rest of the city. There may be commercial blight along this commercial corridor, but none is evident in a historical view of residential sales.

Historical Changes in Tax Roll Valuations

A solution to the analytic problem of a lack of sales data from which to view historical median sale prices is to examine tax roll values in the same manner. This analysis could also be done separately for residential and commercial property. I believe assessment valuations provide a unique way of viewing the area as a whole. Aggregating the values into 5-year increments over 20 years presents an unbiased view of the overall real estate market and should be a reliable means of viewing blight conditions if they are present. Figure 17 provides this additional way to use assessment data to view possible blight conditions.

Figure 17 provides what figure 16 does not, that is, trends in commercial property values over time. Including (and preceding) the *real estate boom* years of 2002–2007, the proposed Orange City CRA did not increase in value as much as Volusia county-wide or as the rest of Orange City. And in five years subsequent to the *real estate recession* (2007–2012), the values in the area dropped more. While historical residential median sale prices did not appear to support a blight study, this trend in commercial property values has more of the look of blight characteristics. However, the use of assessment data, and my purpose here, is not to make decisions about blight, but to provide decision makers with good analytic data on which to base decisions.

Additional Assessment Data

Several other types of data, depending on the size of the assessment jurisdictions, might or might not be available. There are also some other local government sources that could be mined for data without costly outside assistance. The following are analyses, in addition to those presented above, that could be required for a consultants report.

- *Rental Property Rate Differentials.* Rental rates should react to blight in the same manner as sale prices and tax roll valuations. For each applicant, data and charts reflecting history (i.e., last five years) of rental rates per square foot should be required for the types of properties that exist in a proposed CRA and then compared with those in the city and in a larger geographic market (e.g., the county). Rental rates are usually lower in blighted areas.

Figure 15. Proposed CRA in Orange City, Florida

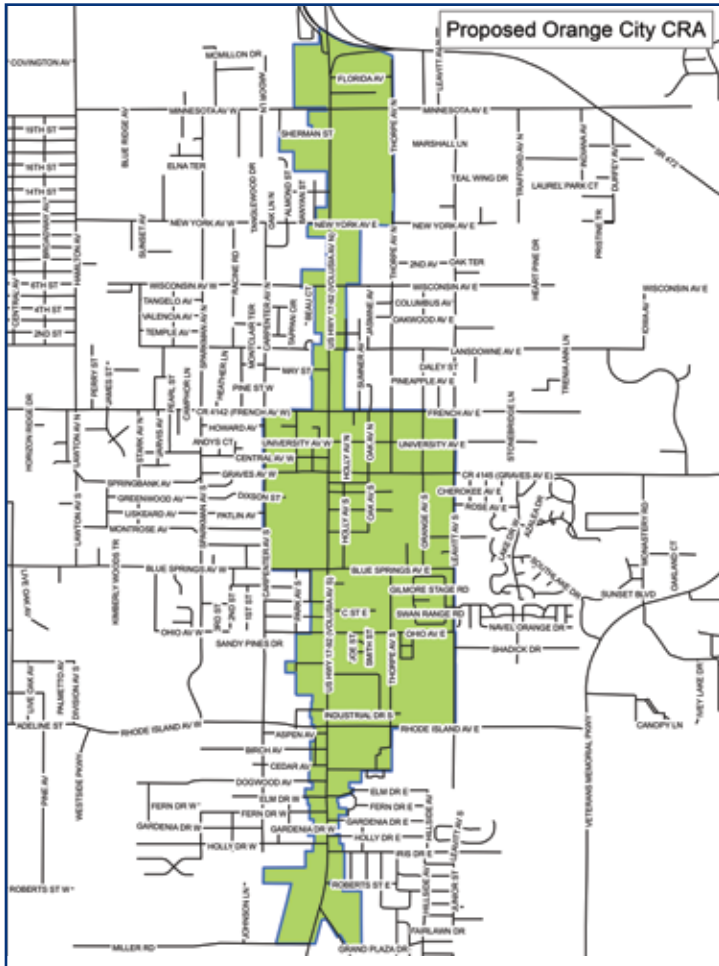


Figure 16. Residential median sale prices in the proposed CRA in Orange City, Florida, 1987–2012

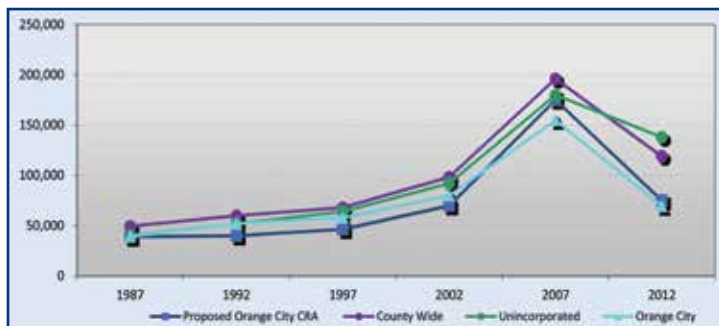
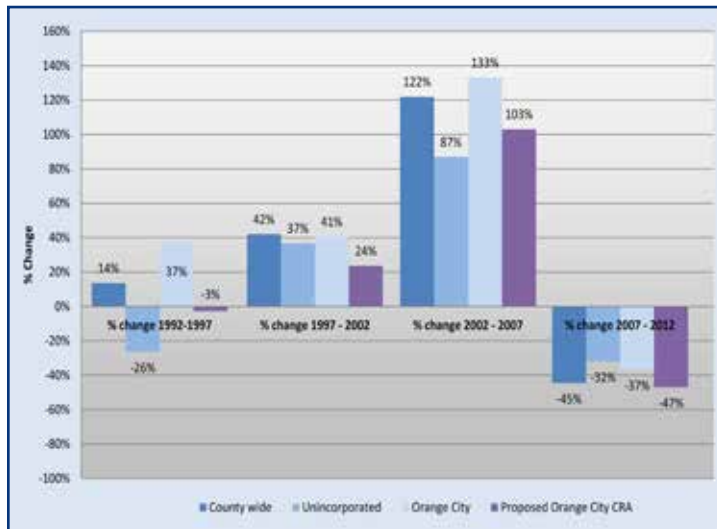


Figure 17. Changes in tax roll valuations in the proposed CRA in Orange City, Florida, 1992–2012



- *County-wide and/or City-wide Police and Fire Call Statistics.* The number of these calls will certainly be higher. For fire calls, the data should reference only actual fires, not non-emergency medical calls, as the latter have no relation to a blighted area.
- *County-wide and City-wide Code Violations.* These data would be required for the same reasons as stated for police calls. Code violations would be expected to be higher in a blighted area. Other data for inclusion would be the number of buildings with “non-conforming code conditions,” if that specific type of data is available from local building departments.

Conclusion: National Data Formats Standards Needed

Property tax databases can be a *vein of solid gold* to those seeking qualitative and quantitative data for decision making at all levels of government. The Property Appraiser’s office has assisted in Volusia County with data for decisions at all levels and has taken the lead in many, including damage assessment following natural disasters and planning and preparation exercises for disaster training. Like most assessment agencies, the office continues to provide, interactively, Web sites allowing the public to use *their data* to analyze real estate markets for individual or corporate investment purposes.

As mentioned earlier, Florida has mandatory data formats for county property tax assessment and appraisal databases, for both administrative and detailed appraisal data. Many other states have similar requirements, but I

believe national data format standards are needed for assessment administrative and appraisal land and building characteristic information. A bolder step would be to move directly to uniform database format requirements. The need for uniformity in assessment data standards ranges from uses by cities, counties, and the Federal Emergency Management Agency during natural disasters to use of both assessment data and real estate data by businesses across city, county, and state lines. Individuals moving from one state to another or into the United States from abroad can often do this online, but are limited to those companies or Web operations offering the service.

No business knows assessment data better than the assessment/appraisal industry itself. Assessors are the stewards of the data from initial data entry to maintenance and quality control. The local assessor’s office used to be thought of as “the tax office.” Today it is the repository of the richest data warehouse around. By leading the effort to make the data more readily available to the *true owners* (the taxpayers), assessors are demonstrating proactive management of a much used and needed public asset.

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