

JUNE 2012

ANALYSIS OF THE FISCAL AND ECONOMIC IMPACT OF AMENDMENT 4

A RESEARCH REPORT BY



Analysis of Fiscal and Economic Impact of 2012 Amendment 4

A Florida TaxWatch Research Report, June 2012

ABSTRACT

Amendment 4 is a legislatively proposed amendment to the Florida Constitution that will be voted on by Floridians in November 2012. This Florida TaxWatch Report presents an independent fiscal and economic analysis of the amendment. The results demonstrate that passage of the amendment will create Florida jobs, grow Florida's Gross Domestic Product, and increase the personal income of Floridians.

Amendment 4 would take effect on January 1, 2013, and proposes:

- an additional homestead exemption for first-time Florida homebuyers, equal to 50 percent of the Just Value of a property up to the median Just Value of a homestead property in that county, which phases out over 5 years by reducing by 20 percent each year;
- a reduction in the nonhomestead maximum annual Assessed Value increase cap from the current 10 percent (on non-school levies) to a new level of 5 percent and an extension of nonhomestead Assessed Value caps through the 2022 tax year (which also does not apply to school levies) and;
- providing legislative authority to eliminate the Save Our Homes "Recapture Rule."

Using the best available data to generate estimates as a basis for the econometric analysis of the effects, Florida TaxWatch estimates that the passage of Amendment 4 would result in the creation of 19,483 private, non-farm jobs over the 10-year period of the analysis (2013-2022). Florida TaxWatch further estimates that Florida GDP would increase by approximately \$1.1 billion during the same time period, and personal income would increase by more than \$5.3 billion. The increased economic activity estimated by the econometric analysis is the result of the savings from Amendment 4 being distributed throughout the economy.

Additionally, Florida TaxWatch estimates between 319,861 and 383,810 additional home sales due to the effects of Amendment 4 during the 10-year period following its passage and implementation. The additional home sales attributable to Amendment 4, over and above those estimated to have occurred in the absence of Amendment 4, are due to the effect of the additional homestead exemption, the additional income for Floridians, and the population growth predicted by this analysis. Additionally, there are effects from both the nonhomestead exemption on additional residential sales and the number of homes that are purchased by persons who have sold their homes and moved up in size or downsized.

One important effect of Amendment 4 that does not directly affect the estimates in the economic analysis but is worth noting is the effect of the nonhomestead property tax cap reduction (from 10 percent to 5 percent) in reducing investment uncertainty. Property tax caps have two main economic effects. First, they reduce uncertainty for personal and business investment, and when businesses can better estimate their costs, including property taxes, they are more likely to invest; therefore, reducing the uncertainty of potentially large property tax increases will increase investment in both nonhomestead residential and commercial property in Florida. Secondly, property tax caps can also reward early investors and provide an advantage over later investors, which could affect investment timing decisions, by potentially moving them to earlier periods, at the expense of future investments.

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Introduction

This Florida TaxWatch *Research Report* presents the results of an independent economic analysis of the effects of a proposed constitutional amendment that will appear on the November 2012 ballot. The proposed amendment, "Amendment 4," would directly make changes to the property tax system.

This *Research Report* begins with an explanation of the proposed changes contained in Amendment 4 and general background information about Florida's property tax system. Section 2 provides the results of the econometric analysis along with the methodology employed by Florida TaxWatch to generate the estimates used in the econometric model. The estimates are based on the best available data and the econometric model employed is REMI. Section 3 presents the estimate of the number of additional home sales that would result from the passage of Amendment 4. The conclusion summarizes the findings of the economic analysis.

Overall, the results of this analysis show that passage of the amendment will increase Florida jobs, improve Florida's Gross Domestic Product and increase the personal income of Floridians. Econometric analysis of the effects of the passage of Amendment 4 estimate that 20,524 total jobs would be created over the 10-year period of the analysis. Of that total, 19,483 are private, non-farm jobs. Florida GDP is estimated to increase by \$928.65 million over the same time period. Personal income is estimated to increase by more than \$5.3 billion. Furthermore, the number of additional home sales due to the effects of Amendment 4 is estimated to range between 319,861 and 383,810 over a 10-year period.

Background

Section 1A: The Proposed Amendment 4

Amendment 4 was passed by the 2011 Florida Legislature as HJR 381. It will appear before voters on the November 2012 ballot. The official title is: Property Tax Limitations; Property Value Decline; Reduction for Nonhomestead Assessment Increases; Delay of Scheduled Repeal.

Amendment 4's Official Ballot Summary provides:

(1) This would amend Florida Constitution Article VII, Section 4 (Taxation; assessments) and Section 6 (Homestead exemptions). It also would amend Article XII, Section 27, and add Sections 32 and 33, relating to the Schedule for the amendments.

(2) In certain circumstances, the law requires the Assessed Value of homestead and specified nonhomestead property to increase when the Just Value of the property decreases. Therefore, this amendment provides that the Legislature may, by general law, provide that the assessment of homestead and specified nonhomestead property may not increase if the Just Value of that property is less than the Just Value of the property on the preceding January 1, subject to any adjustment in the Assessed Value due to changes, additions, reductions, or improvements to such property which are assessed as provided for by general law. This amendment takes effect upon approval by the voters. If approved at a special election held on the date of the 2012 presidential preference primary, it shall operate retroactively to January 1, 2012, or, if approved at the 2012 general election, shall take effect January 1, 2013.

(3) This amendment reduces from 10 percent to 5 percent the limitation on annual changes in assessments of nonhomestead real property. This amendment takes effect upon approval of the voters. If approved at a special election held on the date of the 2012 presidential preference primary, it shall operate retroactively to January 1, 2012, or, if approved at the 2012 general election, takes effect January 1, 2013.

(4) This amendment also authorizes general law to provide, subject to conditions specified in such law, an additional homestead exemption to every person who establishes the right to receive the homestead exemption provided in the Florida Constitution within 1 year after purchasing the homestead property and who has not owned property in the previous 3 calendar years to which the Florida homestead exemption applied. The additional homestead exemption shall apply to all levies except school district levies. The additional exemption is an amount equal to 50 percent of the homestead property's Just Value on January 1 of the year the homestead is established. The additional homestead exemption may not exceed an amount equal to the median Just Value of all homestead property within the county where the property at issue is located for the calendar year immediately preceding January 1 of the year the homestead is established. The additional exemption shall apply for the shorter of 5 years or the year of sale of the property. The amount of the additional exemption shall be reduced in each subsequent year by an amount equal to 20 percent of the amount of the additional exemption received in the year the homestead was established or by an amount equal to the difference between the Just Value of the property and the Assessed Value of the property determined under Article VII, Section 4(d), whichever is greater. Not more than one such exemption shall be allowed per homestead property at one time. The additional exemption applies to property purchased on or

after January 1, 2011, if approved by the voters at a special election held on the date of the 2012 presidential preference primary, or to property purchased on or after January 1, 2012, if approved by the voters at the 2012 general election. The additional exemption is not available in the sixth and subsequent years after it is first received. The amendment shall take effect upon approval by the voters. If approved at a special election held on the date of the 2012 presidential preference primary, it shall operate retroactively to January 1, 2012, or, if approved at the 2012 general election, takes effect January 1, 2013.

(5) This amendment also delays until 2023, the repeal, currently scheduled to take effect in 2019, of constitutional amendments adopted in 2008 which limit annual assessment increases for specified nonhomestead real property. This amendment delays until 2022 the submission of an amendment proposing the abrogation of such repeal to the voters.

Basically, Amendment 4 has three main components:

- an additional homestead exemption for first-time Florida homebuyers, equal to 50 percent of the Just Value of a property, up to the median Just Value of a homestead property in that county, which phases out over 5 years by reducing by 20 percent each year;
- a reduction in the nonhomestead maximum annual Assessed Value increase cap from the current 10 percent on non-school levies to a new level of 5 percent and an extension of nonhomestead Assessed Value caps through the 2022 tax year (which also does not apply to school levies) and;
- providing legislative authority to eliminate the Save Our Homes “Recapture Rule.”

The above items would take effect on January 1, 2013

Section 1A1: Additional Homestead Exemption

The Florida Constitution currently provides two homestead exemptions. One exempts the first \$25,000 of Assessed Value and applies to all property tax levies. The second exemption is only for non-school tax levies and exempts the homesteaded property between the values of \$50,000 and \$75,000. Amendment 4 creates an additional homestead exemption from non-school levies only for new home-buyers, defined as first-time buyers and those who have not had a homestead in Florida in the past 3 years.

The homestead exemption under Amendment 4 is equal to 50 percent of the Just Value of the property up to a limit of the median Just Value of homestead property in the county. This additional homestead exemption is applied at full value for the first year the homestead is established, and then declines by 20 percent each of the next four years, phasing out entirely after the fifth year.

Section 1A2: Nonhomestead Assessment Cap

The Florida Constitution currently provides a cap on the annual increase in the assessment value of nonhomestead properties of 10 percent per year. The nonhomestead cap has existed since the passage of Amendment 1 in 2008, although the first year it applied to limiting the increase in nonhomestead Assessed Values was 2009. If Amendment 4 passes, increases in Assessed Values will be limited to 5 percent each year for nonhomestead properties. The current 10 percent assessment cap on nonhomestead properties is scheduled to expire on January 1, 2019. Amendment 4, if passed, would extend the date of nonhomestead Assessed Value caps to January 1, 2023.

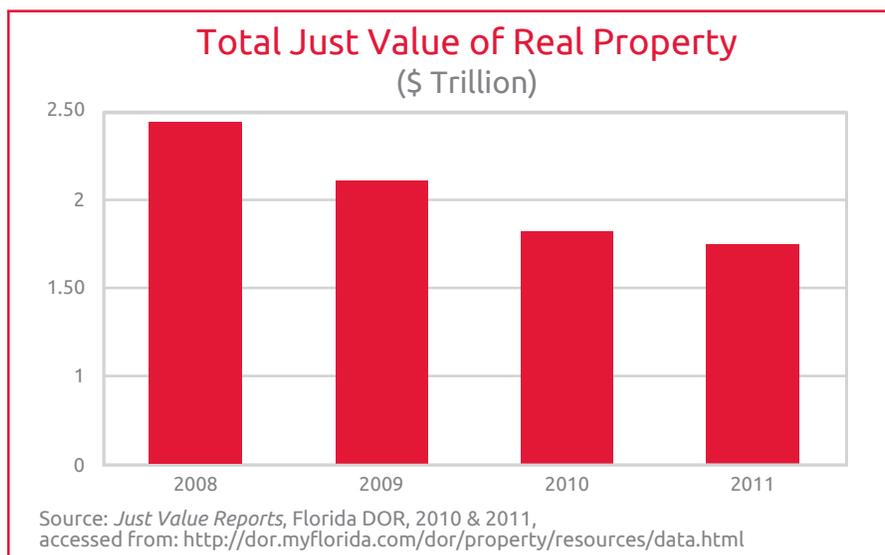
Section 1A3: Eliminating the Recapture Rule

The Recapture Rule causes Assessed Values to increase even when the Just Value (market value) of the property either decreases or increases less than the amount of the cap. Due to the Recapture Rule, owners of homestead properties in Florida have faced higher property tax bills even as Just Values have fallen.

Amendment 4 authorizes the Legislature to change the Recapture Rule by general law; however, that change would need to go through the legislative process after the passage of Amendment 4 by voters. At this time, there is no enabling legislation for this type of Assessed Value limitation; therefore any effects of that potential future law will not be included in the Florida TaxWatch fiscal and economic impact analysis. Such legislation could be enacted for either homestead or nonhomestead properties, or both.

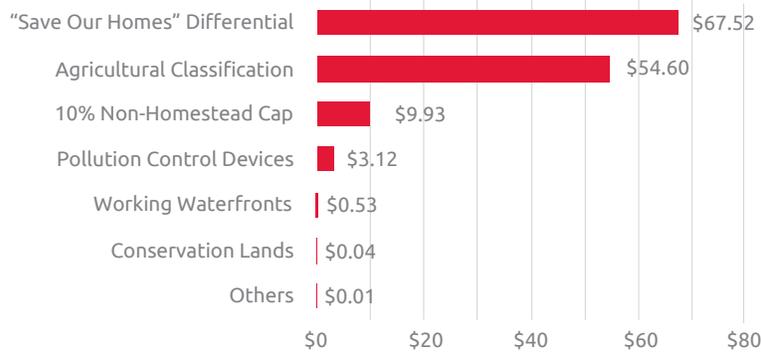
Section 1B: Just Value, Assessed Value, and Taxable Value in Florida's Property Tax System

Just Value is the market value of a property. The chart below shows the total Just Value of both homestead and nonhomestead real property from 2008 through 2011.



Assessment Differentials are deducted from Just Value to generate the Assessed Value. The chart on the following page shows that the majority of the Assessment Differential in 2011 comes from “Save our Homes,” followed by Agricultural Classification.

Statewide Total of Assessment Differentials - 2011 (\$ Billion)



Source: *Just, Assessed & Taxable Value Summary (2011)*, Florida DOR, accessed from: <http://dor.myflorida.com/dor/property/resources/pdf/jat2011a.pdf>

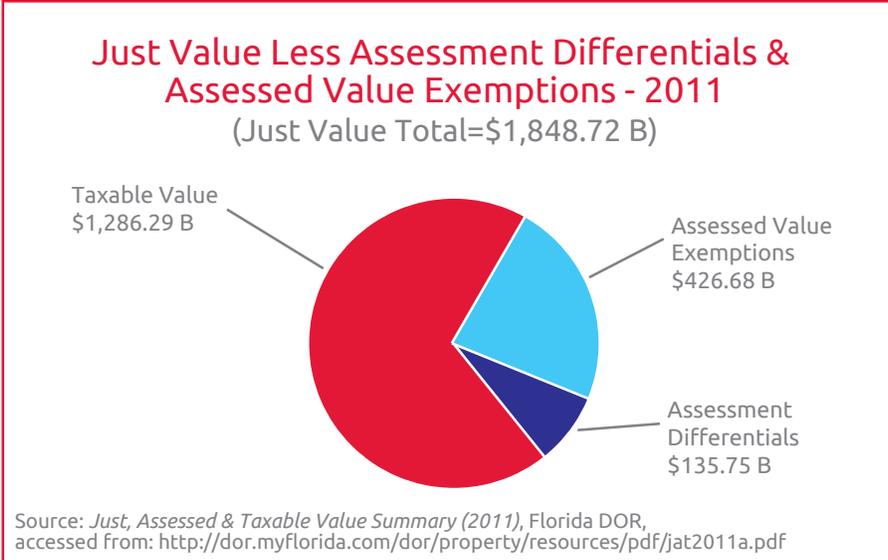
Once Assessed Values are determined, further Assessed Value Exemptions are deducted to calculate Taxable Value. These exemptions include the homestead exemptions, exemption of the first \$25,000 in tangible personal property, and institutional and governmental property (which are tax-exempt). The chart below shows that in 2011, “Governmental Property” is responsible for the largest amount of the total value of Assessed Value Exemptions statewide, followed by the two homestead exemptions: the “\$25,000 homestead” that applies to all taxes; and the “Additional \$25,000” that applies to non-school taxes.

Statewide Total of Assessed Value Exemptions - 2011 (\$ Billion)



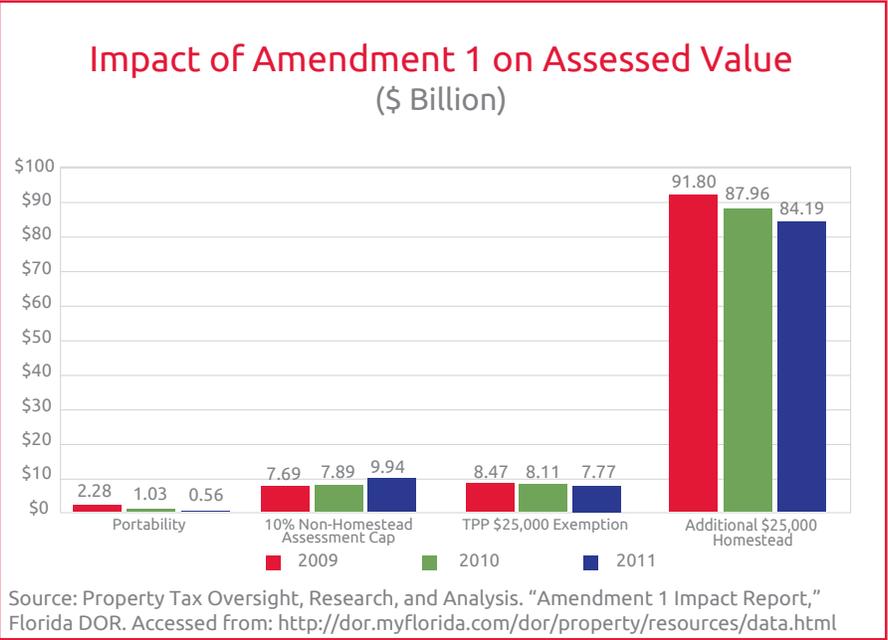
Source: *Just, Assessed & Taxable Value Summary (2011)*, Florida DOR, accessed from: <http://dor.myflorida.com/dor/property/resources/pdf/jat2011a.pdf>

Once both Assessment Differentials and Assessed Value Exemptions are removed, the remaining amount is the Taxable Value. The chart on the next page shows 2011 Just Value when both Assessment Differentials and Assessed Value Exemptions are deducted; once those two categories of reductions are accounted for, the amount of Taxable Value remaining was \$1.28629 trillion statewide.



Section 1C: Effect of Amendment 1 (2008) Changes

The last major property tax change was Amendment 1 in 2008, which also created a 10 percent nonhomestead cap until 2019. The chart below shows that the current 10 percent nonhomestead assessment cap has a much smaller effect on tax revenues than the “Additional \$25,000 Homestead Exemption” that was also a part of Amendment 1. Examining the effects of Amendment 1 (2008) provides a sense of scale of Amendment 4.



The chart shows that the “10 percent Nonhomestead Assessment Cap” has had a significantly smaller effect than the “Additional \$25,000 Homestead Exemption.” The reduction of the nonhomestead assessment cap under Amendment 4 will have an effect on Assessed Value, but the information from Amendment 1 shows that it will likely not be as dramatic as other potential changes to the property tax system.

Estimating the Fiscal and Economic Impacts of Amendment 4

Section 2A: Methodology

Real property data from the Florida Department of Revenue (DOR) was used to calculate the following estimates, including both the 2010 and 2011 Post-VAB (Value Adjustment Board) Final data for NAL (name, address, legal) files, which contain data that is extracted from the county assessment rolls that are submitted to DOR. The 2011 data was downloaded from the DOR's Tax Data Portal. The NAL files for 2010 were obtained from the Department's Property Tax Oversight group.

The NAL data files for each of Florida's 67 counties for 2010 and 2011 were input into statistical analysis software (STATA). Duplicates were deleted after matching unique identifiers to each individual property using the following variables:

- County Number (co_no) – assigned number 11 – 77 for each county in Florida.
- Short Legal Description (s_legal) – indication of a short legal description of the parcel which could indicate information such as township, range, section number or grant number, subdivision name, municipality code, or metes and bounds description.
- Physical Address (phy_addr1) – identification of the physical street address of the parcel.
- Physical Location ZIP Code (phy_zipcd) – identification of the zip code for the parcel as designated by the United States Postal Service.
- Master Parcel Identification Code (mp_id) – a unique code generated by DOR for use in its database management. The code is assigned to each parcel submitted by the property appraiser.

Appendix 1 provides a chart listing the total number of unique observations in the preliminary data sets, as well as the number of duplicate observations that were dropped. Also dropped were: governmental properties; miscellaneous properties; centrally assessed property; and non-agricultural acreage property.

After the data was matched, there were 8,394,327 unique residential property observations and 58,440 unique commercial property observations from Florida's 67 counties. A table summarizing the number of commercial and residential properties for each county in the final matched data set can also be found in Appendix 1.

Section 2B: Estimating the Fiscal Impact of Amendment 4

Section 2B1: Estimating the Additional Homestead Exemption

In order to estimate the amount of additional homestead exemption that would be granted to qualified home purchasers, Florida TaxWatch estimated the percentage of qualified purchasers, the total number of sales, and the amount of the additional homestead exemption.

Estimating the Percentage of Qualified Purchasers. For this study, Florida TaxWatch estimated that first-time purchasers account for 40 percent of homestead property sales annually. This percentage is based on the average of first-time Florida home purchasers in recent years. The estimate of the number of purchasers

who had a previous homestead in Florida more than three years ago who purchase a home intended as their primary residence is 4 percent.

Estimating the Total Number of Sales. Florida TaxWatch calculated the average of 2008-2010 arms-length residential sales per year, along with the preliminary 2011 figures from the Florida Department of Revenue’s Property Tax Oversight, Research and Analysis group. This average of 416,775 was used as the basis for the total number of residential housing sales estimate.

Estimating the Amount of the Additional Homestead Exemption. For any specific home sale, a purchaser who qualifies for the additional homestead exemption will receive an adjustment to the Assessed Value of the property. Each exemption depends upon a number of items, including the purchase price of the home, the median value of a homestead property in the county,ⁱ and the non-school millage rate of that county. An important item to note is that the dollar amount of the exemption will be at a maximum when the property purchased is valued at twice the median value of that county’s homestead property. This is because the 50 percent of just value adjustment is capped at the median value for that county. The table below shows the cumulative exemptions that would be received by qualified homestead purchasers at median value, and twice the median value. The chart includes the minimum and maximum exemptions available at current millage rates, as well as the mean and median of those exemptions for all counties.

Weighted Cumulative Benefit for Homestead Exemption at Median and 2x Medianⁱⁱ

	At Median Just Value	At 2x Median Just Value
Average	\$ 1,321.24	\$ 2,772.28
Median	\$ 1,121.38	\$ 2,366.61
Minimum	\$ 649.47	\$ 1,391.68
Maximum	\$ 2,719.51	\$ 5,439.01

The average exemption for the state is \$1,321.24 for a person purchasing at the median for his or her county. The average exemption for a person purchasing at twice the median is \$2,772.28.ⁱⁱⁱ The chart below shows the Florida TaxWatch estimated fiscal impact by year of the additional homestead exemption.

Estimated Fiscal Impact of the Additional Homestead Exemption
(Statewide Total, \$ Millions)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
\$156.80	\$267.51	\$356.68	\$416.13	\$445.85	\$445.85	\$445.85	\$445.85	\$445.85	\$445.85

Section 2B2: Estimating the Change in Nonhomestead Assessment Cap

To estimate the fiscal impact of a change in the nonhomestead assessment cap, Florida TaxWatch estimated the number of nonhomestead properties that would be affected by the 5 percent cap (i.e., those nonhomestead properties that will experience an increase in Just Value of more than 5 percent per year during the next ten years) and applied it to the most recent available data on property values.

i. There is a wide range of county median Just Values for homestead property in 2011 – from a low of \$43,100 in Dixie County, to a high of \$276,558 in Monroe County. Two-thirds of the county median values for 2011 fall between \$54,000 and \$115,000.
 ii. The statewide value of the new exemption is calculated at the weighted non-school rate of 10.9 mills.
 iii. County-specific data for these variables can be found in Appendices 2-5.

First, property tax information on Just Values from 2010 and 2011 was matched so that the percentage increase or decrease could be calculated. Those numbers are presented in the table below.

Number of Properties by Type and Percent Increase from 2010 to 2011

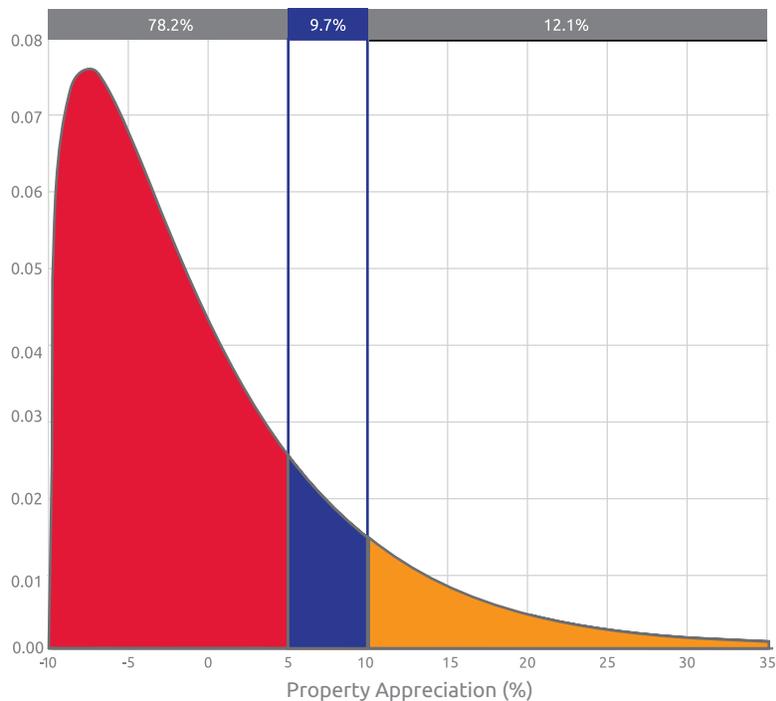
Property Type	Between 5% and 10% Increase	More than 10% Increase
Residential Homestead	162,335	178,771
Residential Nonhomestead	109,624	151,815
Commercial	668	1,783

Interestingly, the amount of properties with Just Value increases of between 5 percent and 10 percent is smaller than the group with a 10 percent or more increase. See Appendix 6 for county-specific Just Value data.

Then, to estimate the value of the properties that will fall into the 5 percent to 10 percent area in future years, a weighted Probability Distribution Function (PDF) of the state's property value changes was constructed.^{iv} This PDF includes nonhomestead residential and commercial property (all of which will be covered by the reduction in the assessment cap). The distribution indicated by the actual property value changes between 2010 and 2011 was tested. Using chi-squared statistical tests for best fit, the most appropriate estimate for this statewide PDF was a normal distribution.

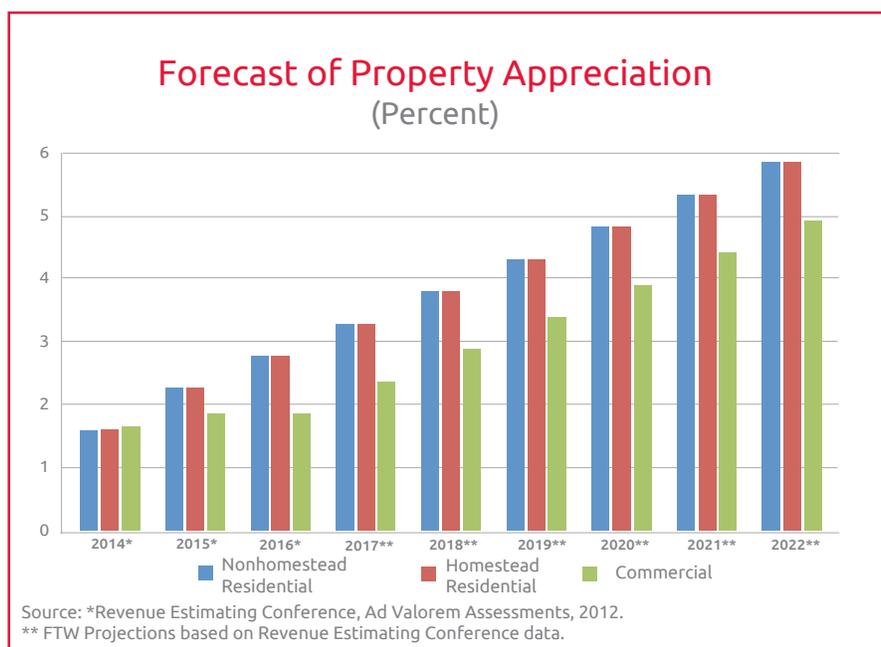
Example: PDF of Property Just Value Changes in One Year

This sample distribution is based on a subsample of 100,000 properties from one Florida county. The example PDF graph shows that, with this distribution, 9.7 percent of properties in the example experienced an increase in Just Value of between 5 percent and 10 percent from 2010 to 2011, while 12.1 percent of properties experienced an increase of more than 10 percent. It is interesting to note that the average property in this example experienced a decrease in Just Value between 2010 and 2011.



iv. This analysis uses equal weights for homestead and nonhomestead probability distribution functions in calculation of the estimates because the number of homestead and nonhomestead properties are approximately equal. Residential property makes up 80 percent of the total weight, and commercial property will be weighted at 20 percent, given its 2011 Just Value percentage of 19.45 percent of the total amount (this excludes agricultural, industrial, government and other miscellaneous categories).

The statewide PDF was used with an estimate of future property values to determine the fiscal impact of the nonhomestead cap through 2022. The estimate of future property values was based on the most recent Revenue Estimating Conference forecast rates for property appreciation from 2013 to 2016 for the different property types. Those forecast rates were linearly extended by Florida TaxWatch for the years 2017 through 2022, as shown in the chart below.



It is important to note that forecasts of average property appreciation values, like all forecasts, are subject to uncertainty. More importantly, all forecasts for years further into the future are more uncertain than those nearest the current year.

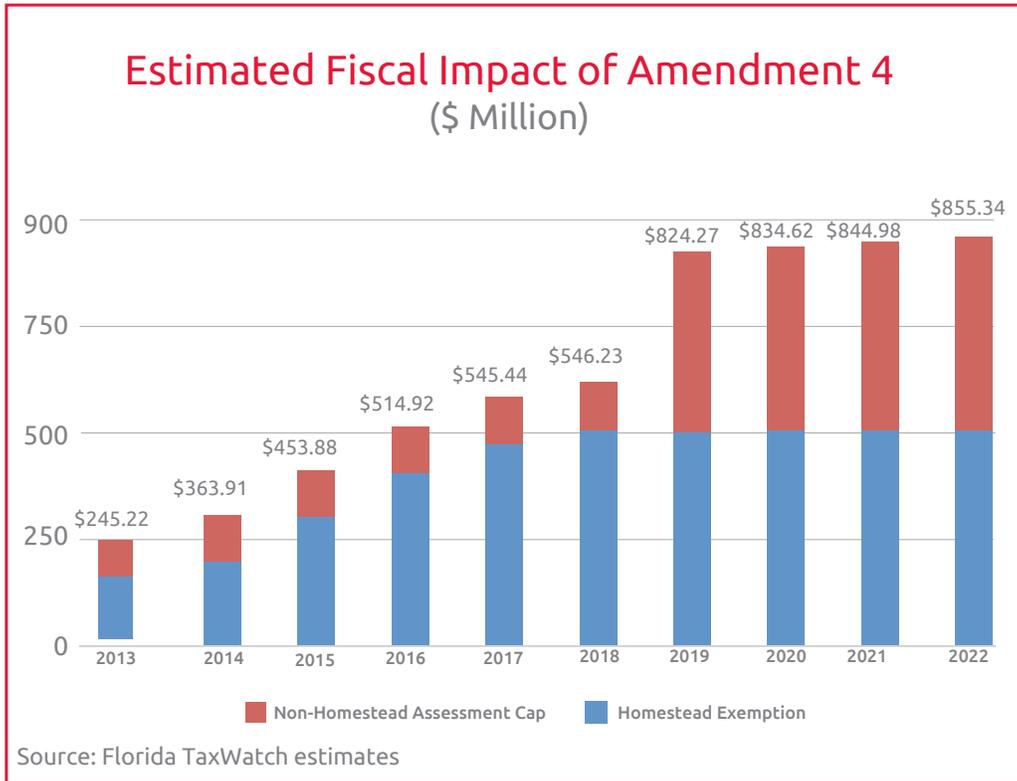
The estimated fiscal impact of Amendment 4’s nonhomestead assessment cap from 2013 to 2018 was calculated from the number of nonhomestead properties estimated to experience an increase in Just Value of between 5 percent and 10 percent. For the period from 2019 to 2022, the estimate was calculated from the number of nonhomestead properties estimated to experience an increase in Just Value of more than 5 percent. This is because the current 10 percent nonhomestead assessment cap is scheduled to expire on January 1, 2019, but the passage of Amendment 4 would extend the assessment cap at 5 percent until January 1, 2023. During the years 2019 to 2023, this analysis accounts for a 5 percent cap as opposed to no cap at all, resulting in the jump in estimated values starting in 2019. The estimated fiscal impacts of the change in the nonhomestead assessment cap are below:

Estimated Fiscal Impact of the Change in Nonhomestead Assessment Cap

Nonhomestead Estimate	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	\$88.43	\$96.40	\$97.19	\$98.79	\$99.58	\$100.38	\$378.41	\$388.77	\$399.13	\$409.48

Section 2B3: Total Estimated Fiscal Impact of Amendment 4

Combining the fiscal impact of the additional homestead exemptions (Section 2B1) and the five percent nonhomestead assessment cap (Section 2B2), the estimated total fiscal impact of the passage of Amendment 4 is shown in the chart on the following page.



The combined fiscal impact of Amendment 4 is not significant compared to total property taxes levied. Total statewide property tax levies were \$24.45 billion for 2011^v compared to an estimated fiscal impact of \$245 million in 2013, which is approximately 1 percent of total collections. The table below shows the fiscal impact of Amendment 4 in percentage of 2009-11 average total taxes levied.

Fiscal Impact as Percentage of Total Taxes Levied (2009-11 average)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
0.94%	1.39%	1.74%	1.97%	2.09%	2.09%	3.15%	3.19%	3.23%	3.27%

Section 2C: Results of Economic Impact Analysis

The estimates of fiscal effects were input into a statewide, 70-sector, dynamic econometric model from Regional Economic Models, Inc. (REMI) to estimate the economic effects of the passage of Amendment 4 on Florida. The model was run for a period of 10 years, from 2013 through 2022. For the economic impact analysis, it is assumed that local government revenues will remain unaffected. Essentially, this analysis assumes a net-zero fiscal impact for local government revenues. The results in the table on the following page represent the increases of these variables due to the passage of Amendment 4 (over and above expected increases that are currently forecast without the passage of Amendment 4).

^v. See Appendix 7 for taxes levied for each county in 2011.

Estimated Economic Impact of Amendment 4

Category	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Total Employment (jobs)	1,210	1,755	2,082	2,190	2,112	1,863	2,640	2,450	2,228	1,994	20,524
Private Non-Farm Employment (jobs)	1,136	1,650	1,962	2,069	1,998	1,772	2,503	2,336	2,133	1,924	19,483
Population	314	682	1057	1,398	1,662	1,838	2,176	2,406	2,559	2,639	16,730
Gross Domestic Product (\$M 2005)	\$73.55	\$102.05	\$115.97	\$114.93	\$101.50	\$78.98	\$120.48	\$97.90	\$73.49	\$49.81	\$928.65
Personal Income (\$M 2012)	\$210.82	\$321.41	\$407.29	\$466.19	\$495.36	\$495.12	\$725.71	\$734.99	\$738.77	\$739.62	\$5,335.27

The table above shows the results of the dynamic econometric model simulation. Over the 10-year period of the study, total employment is estimated to increase by 20,524. Private non-farm jobs are expected to increase by 19,483.

Florida’s GDP is expected to increase by more than \$928.65 million (2005 dollars), which would be approximately \$1.096 Billion in 2012 dollars,^{vi} and personal income is expected to rise by more than \$5.335 billion. In addition, there will be an estimated population increase, due to this policy, of 16,730 people.

SECTION 3

Estimate of Additional Home Purchases Due to Amendment 4

Passage of Amendment 4 would have the following five primary effects on home sales in Florida

1. The additional homestead exemption will reduce property tax outlays for purchasers who qualify for a homestead exemption, decreasing ownership costs.
2. The nonhomestead assessment limit will cap assessment increases for those who do not qualify for a homestead exemption, reducing uncertainty and decreasing ownership costs.
3. The additional income to Floridians generated by increased business investment and jobs will increase home sales by increasing demand.
4. The population increase estimated in the dynamic model will increase demand for housing.
5. The additional demand will allow some homeowners to sell homes and purchase other homes in Florida.

Section 3A: Methodology

Estimating Price and Income Elasticity in the Housing Market. There is a significant amount of academic literature on housing markets; however, few studies specifically analyze Florida’s housing market. To estimate potential effects of the passage of Amendment 4 on home sales in Florida, a review of the current literature was completed on estimates of price and income elasticity of demand and other items that influence the demand for housing. Literature and evidence regarding the effectiveness of the recent federal tax credit for

vi. Inflating 2005 dollars to 2012 using U.S. Department of Labor Bureau of Labor Statistics’ Consumer Price Index

first-time homebuyers was also reviewed.

Goodman and Thibodeau (2008) used housing market data from 133 metropolitan areas to conduct their empirical analysis. Their findings indicated a demand price elasticity of -0.44 within metropolitan areas and a demand price elasticity of -0.22 among metropolitan areas.

Results from the other reviewed academic literature show that estimates of demand elasticities can be sensitive to model specification, and results can vary widely. Estimates from various academic papers, including a total of 12 housing demand models, were analyzed. Although these models had differing model specifications and differing time periods of study, the mean and median of the studies were most comparable to the Goodman and Thibodeau (2008) results. For consistency, the estimates of both income and price elasticities used in estimating additional housing sales were from Goodman and Thibodeau (2008).

Estimating Percentage of In-migrants who Purchase. To estimate the number of first-time buyers, the percentage of in-migrants that move into Florida and purchase a home rather than renting after relocating were tabulated. Data from the U.S. Census Bureau’s 2010 American Community Survey^{vii} was used to compile tables on the geographic mobility within the past year by tenure (decision to own or rent) for current residents in the United States. This data yields estimates for the number of households that lived in an owner-occupied home versus the number of households that lived in a renter-occupied home for households that moved one year prior to the survey. The chart below shows the percentage of those who rented or owned a property in Florida from the total number of households that moved from another state, from abroad, and from the total number that moved to Florida one year prior to being surveyed in 2010.

Moved within 1 Year Prior to Survey	Currently Own in FL	Currently Rent in FL
Moved from Within the U.S.	42%	58%
Moved from Abroad	43%	57%
Total	42%	58%

Data from the 2010 American Community Survey Public Use Microdata Sample for Florida Population Records and Florida Housing Unit Records were merged and analyzed to produce a final data set with 199,671 observations. Data was also tabulated for: the number of owners and renters who resided in another country one year prior to the 2010 survey; those who resided in another part of Florida one year prior to the 2010 survey; those who resided in a U.S. state one year prior to the 2010 survey; and those who resided in the same home one year prior to the 2010 survey. The chart below shows the percent of owners and renters from these four populations of Floridians.

Residence as of 1 Year Ago	Currently Own in FL	Currently Rent in FL
Same Home	80%	20%
Other Home in FL	33%	67%
Total Non-FL Residence	49%	51%
Other State	48%	52%
Foreign Country	52%	48%

vii These data are based on sample and are subject to sample variability.

Finally, to include the number of people who buy homes after the first year, the data was analyzed to calculate: the number of owners and renters who were born in another state and now live in Florida; those who were born in another country and now live in Florida; and those who were born in Florida. The chart below show the percentage of owners and renters based on place of birth.

Place of Birth	Currently Own in FL	Currently Rent in FL
Florida	70%	30%
Other State	79%	21%
Other Country	68%	32%

Based on these findings, the estimated percentage of in-migrants to Florida that will purchase property ranges from a low of 42 percent to a high of 80 percent.

Nonhomestead Residential Purchase Elasticity. The Florida TaxWatch estimate of the combined elasticity for nonhomestead residential property reflects the interactive effects of decreased cost of ownership and increased certainty due to the cap on assessed values of property. It is estimated at 0.65 to 0.75.

Percentage of Persons Who Purchase Another Florida Home After Selling A Florida Home. Another estimate used in the Florida TaxWatch simulation is the percentage of persons who sell their home due to the passage of Amendment 4 and purchase another Florida home. A December 2010 report done by the Research Division of the National Association of Realtors, *2010 Profile of Home Buyers and Sellers, Florida Realtors Report*, found that 42 percent of Florida home purchases were made by people who sold another house in Florida during the period of the survey.

Section 3B: Estimated Additional Home Sales Due to the Passage of Amendment 4

Florida TaxWatch created a simulation model to estimate the additional 10-year residential home sales due to the passage of Amendment 4 using the following coefficients (as described in the previous section).

Coefficients Used in Simulation Model Estimating Additional Home Sales

	Low	Middle	High
Price Elasticity	-.2193	-0.33115	-.443
Income Elasticity	.3559	0.39045	.4250
In-migrants who purchase	0.42	0.61	0.8
Nonhomestead Residential Purchase Elasticity	0.65	0.70	0.75
Percentage of Persons Who Purchase Another Florida Home After Selling A Florida Home	42%	42%	42%

Results of the simulation model for cumulative additional home sales over the 10-year period are shown in the table below.

Estimated Range of Additional Home Sales Due to the passage of Amendment 4

Low Estimate of Additional Home Sales	319,861
Middle Estimate of Additional Home Sales	351,830
High Estimate of Additional Home Sales	383,810

Conclusion

Using the best available data to generate estimates as a basis for the econometric analysis of the effects, Florida TaxWatch estimates that the passage of Amendment 4 would result in the creation of 20,524 total jobs over the 10-year period. Of these jobs, approximately 19,483 would be private, non-farm jobs. The econometric model further estimates that Florida GDP would increase by approximately \$928.65 million (2005 dollars) during the same time period, and personal income would increase by more than \$5.3 billion. The increased economic activity estimated by the econometric analysis is the result of the savings from Amendment 4 being distributed throughout the economy.

Additionally, Florida TaxWatch estimates between 319,861 and 383,810 additional home sales due to the effects of Amendment 4 during the 10-year period. The additional home sales attributable to Amendment 4, over and above those estimated to have occurred in the absence of Amendment 4, are due to the effect of the additional homestead exemption, the additional income for Floridians, and the population growth predicted by this analysis. Additionally, there are effects from both the nonhomestead exemption on additional residential sales and the number of homes that are purchased by persons who have sold their homes and moved up in size or downsized.

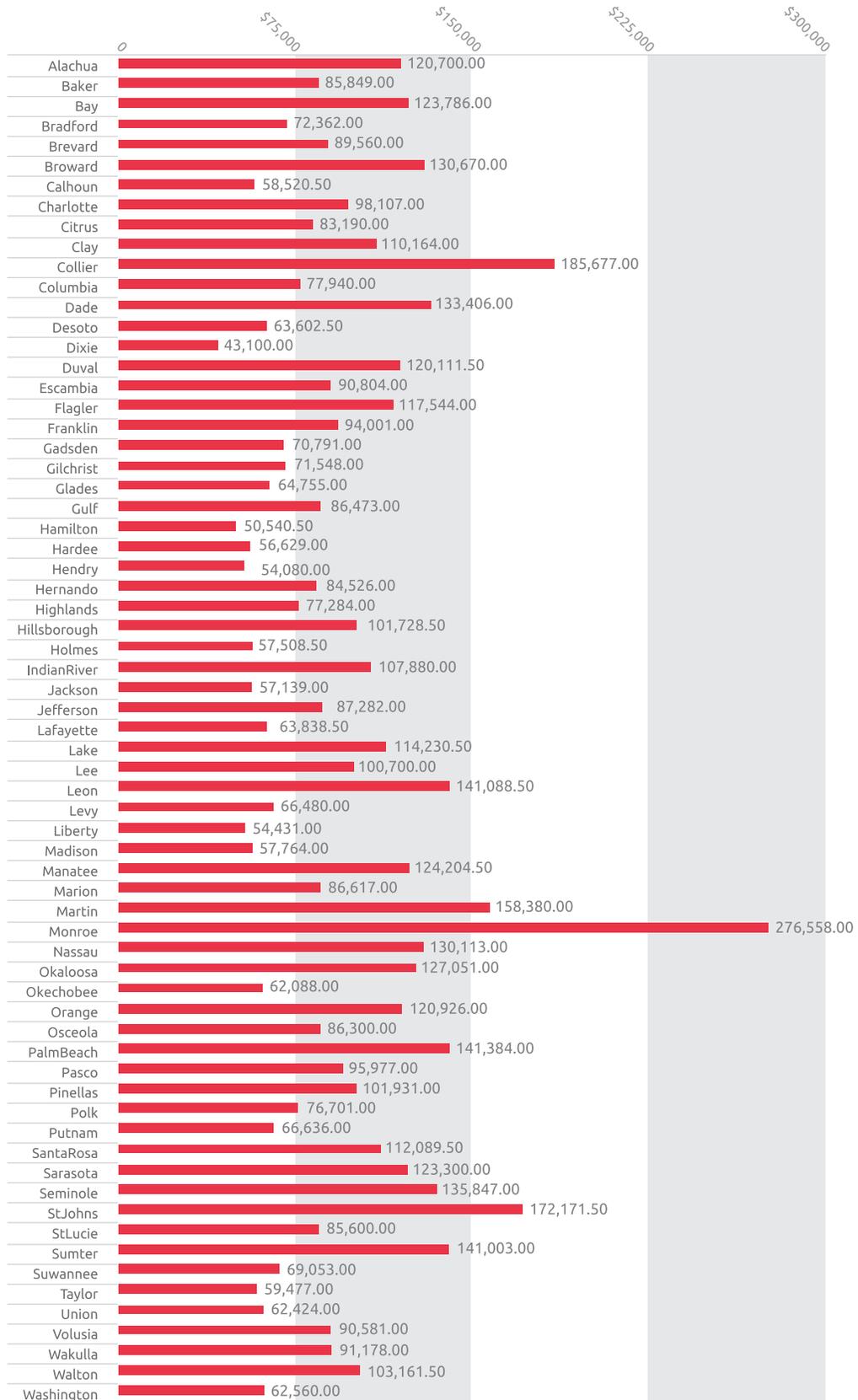
One important effect of Amendment 4 that does not directly affect the estimates in the economic analysis, but is worth noting, is the effect of the nonhomestead property tax cap reduction (from 10 percent to 5 percent) in reducing uncertainty. Property tax caps have two main economic effects. First, they reduce uncertainty for personal and business investment, and when businesses can better estimate their costs, including property taxes, they are more likely to invest, so reducing the uncertainty of potentially large property tax increases will increase investment in both nonhomestead residential and commercial property in Florida. Secondly, property tax caps can also reward early investors and provide an advantage over later investors, which could affect investment timing decisions, by potentially moving them to earlier periods, at the expense of future investments.

Appendix 1: Commercial and Residential by County

Data File	Unique Observations	Observations Dropped (Duplicates)	Other Observations Dropped Due to Government Etc.
2010 NAL Files All Counties	9,911,485	0	1,222,774
2011 NAL Files All Counties	9,934,138	611	451,979

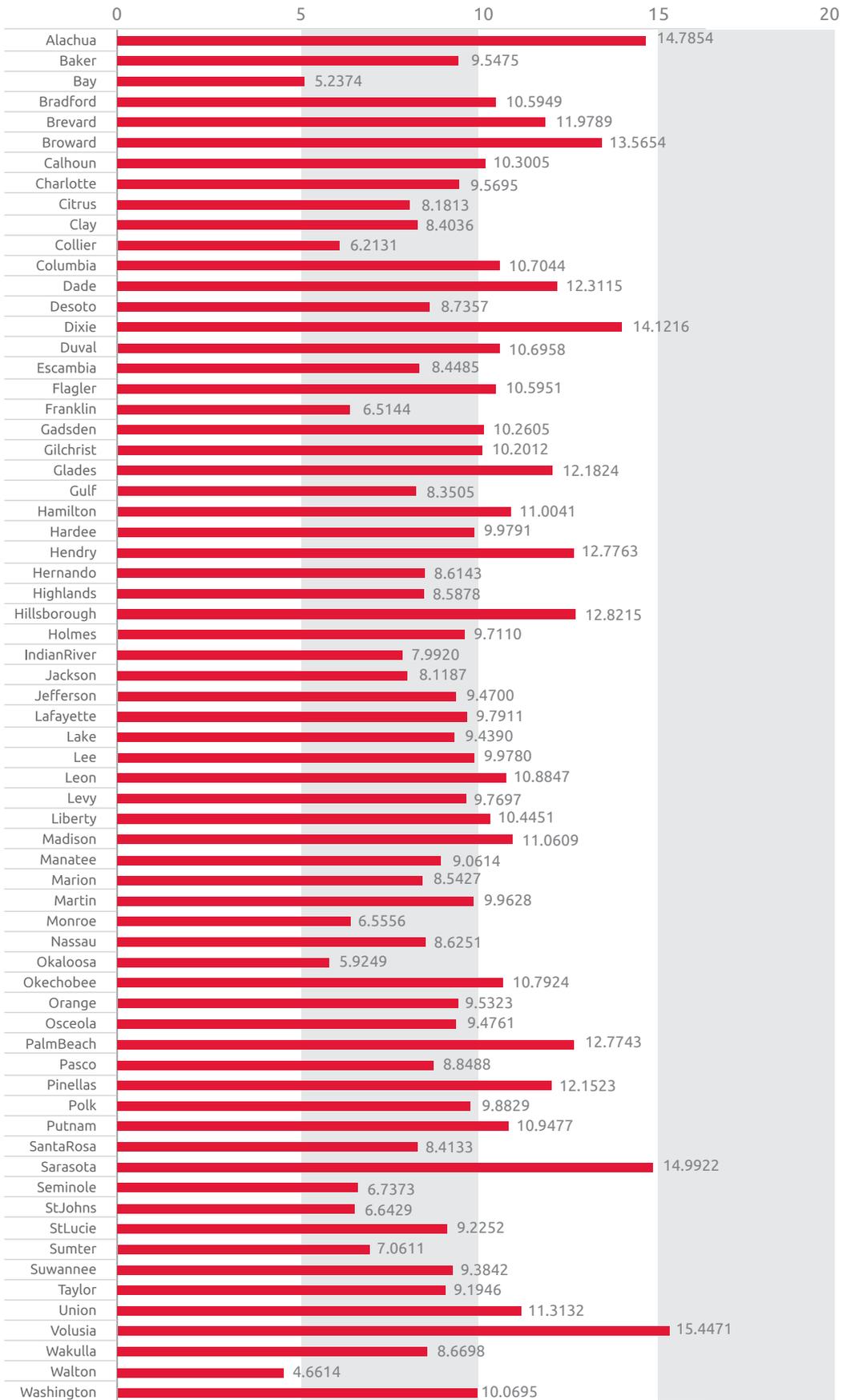
County	Residential	Commercial	Total	County	Residential	Commercial	Total
Alachua	61,214	3,341	64,555	Lake	113,695	46	113,741
Baker	4,728	162	4,890	Lee	418,621	100	418,721
Bay	82,971	4,333	87,304	Leon	89,684	26	89,710
Bradford	7,720	333	8,053	Levy	35,963	8	35,971
Brevard	283,751	9,927	293,678	Liberty	2,581	0	2,581
Broward	641,411	22,862	664,273	Madison	4,499	2	4,501
Calhoun	4,974	232	5,206	Manatee	112,506	8	112,514
Charlotte	156,353	6,176	162,529	Marion	183,861	16	183,877
Citrus	107,306	3,701	111,007	Martin	36,682	3	36,685
Clay	62,112	1,721	63,833	Monroe	35,658	69	35,727
Collier	280,262	2	280,264	Nassau	27,017	7	27,024
Columbia	50,930	4	50,934	Okaloosa	87,590	27	87,617
Dade	1,258,098	3,952	1,262,050	Okeechobee	25,929	2	25,931
Desoto	21,042	4	21,046	Orange	350,613	136	350,749
Dixie	220	0	220	Osceola	101,208	13	101,221
Duval	549,008	124	549,132	Palm Beach	479,440	74	479,514
Escambia	199,256	544	199,800	Pasco	196,218	18	196,236
Flagler	113,462	6	113,468	Pinellas	306,130	125	306,255
Franklin	27,920	2	27,922	Polk	201,639	29	201,668
Gadsden	25,490	2	25,492	Putnam	83,477	18	83,495
Gilchrist	5,884	0	5,884	Santa Rosa	62,248	13	62,261
Glades	6,938	0	6,938	Sarasota	152,961	5	152,966
Gulf	11,042	4	11,046	Seminole	101,946	7	101,953
Hamilton	5,553	0	5,553	St. Johns	79,380	5	79,385
Hardee	5,501	16	5,517	St. Lucie	121,053	15	121,068
Hendry	23,824	5	23,829	Sumter	46,495	3	46,498
Hernando	77,925	5	77,930	Suwannee	13,837	4	13,841
Highlands	84,654	4	84,658	Taylor	3,538	8	3,546
Hillsborough	362,529	79	362,608	Union	2,616	1	2,617
Holmes	5,072	1	5,073	Volusia	225,996	42	226,038
Indian River	64,477	4	64,481	Wakulla	18,408	34	18,442
Jackson	22,675	1	22,676	Walton	47,909	23	47,932
Jefferson	4,033	3	4,036	Washington	6,201	3	6,204
Lafayette	393	0	393	Total	8,394,327	58,440	8,452,767

Appendix 2. Median Just Value of Homestead Property by County



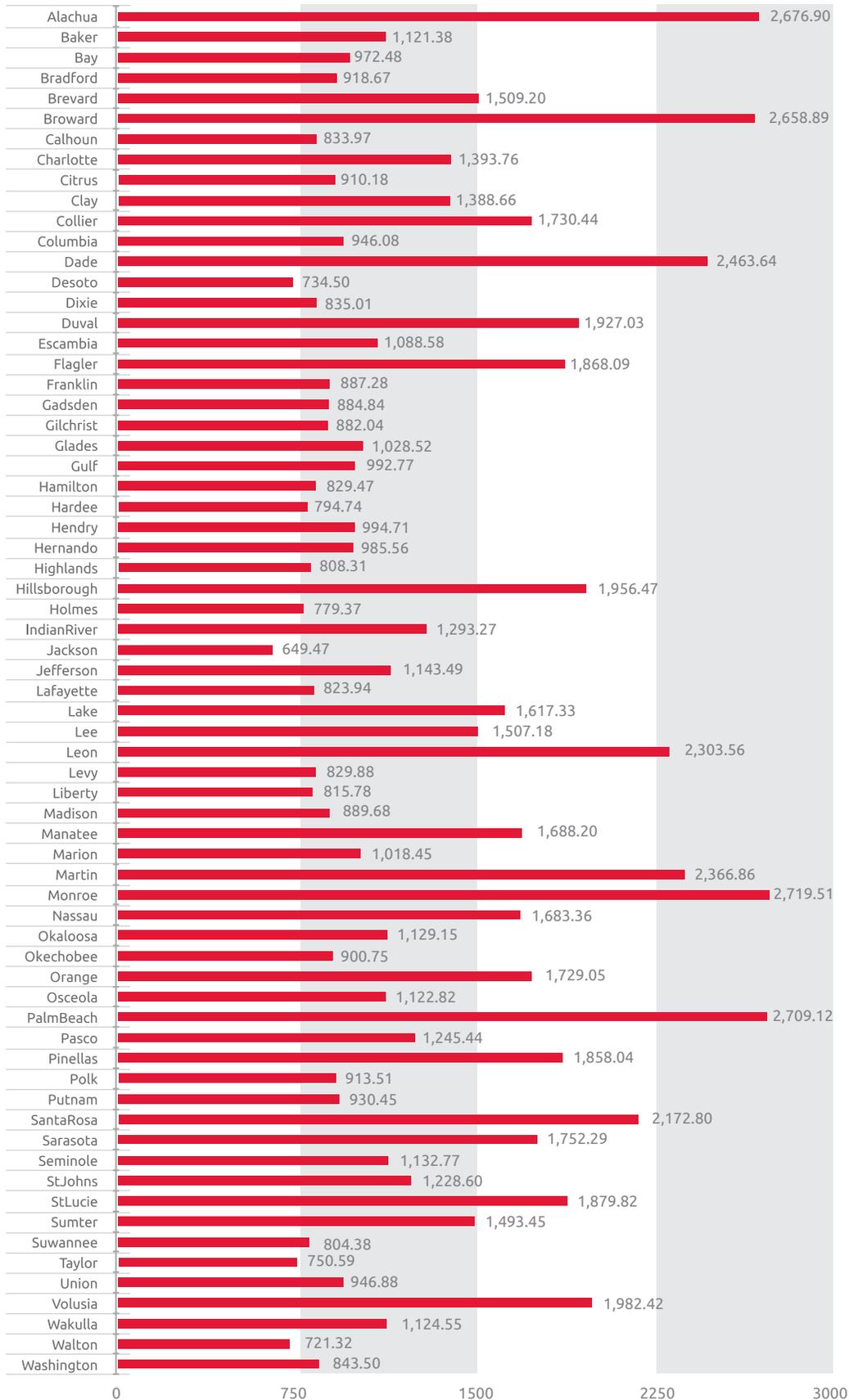
Source: Florida TaxWatch calculations from Florida DOR Tax Data Portal files.

Appendix 3: Average Non-School Millage Rates



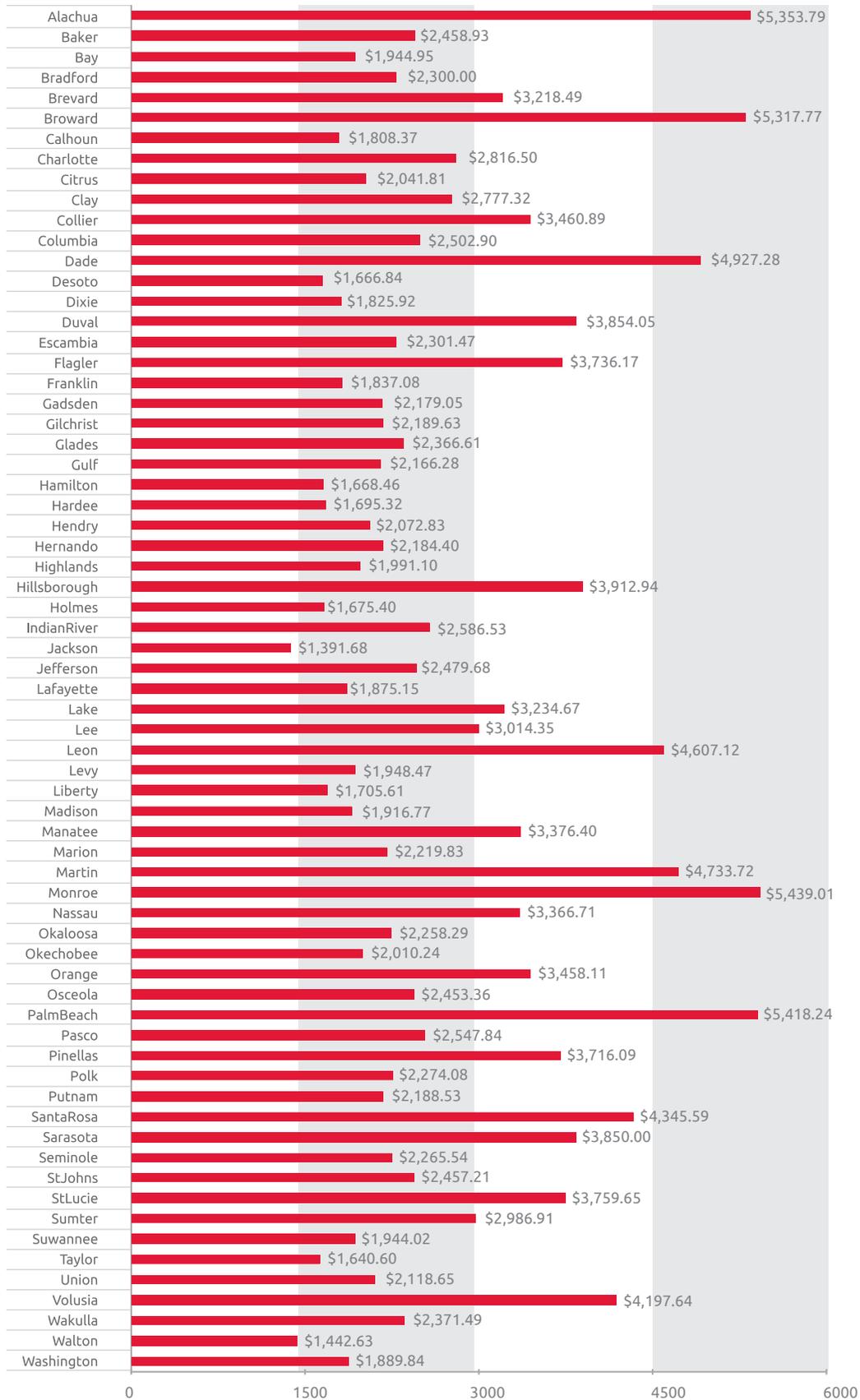
Source: Florida Property Tax Data Portal, "Millage and Taxes Levied Report" 2011. Property Tax Oversight, Research, and Analysis, Florida DOR.

Appendix 4. Cumulative 5-Year Weighted Exemption at Median Just Value



Source: Florida TaxWatch calculations from Florida DOR Tax Data Portal files.

Appendix 5. Cumulative 5-Year Weighted Maximum Homestead Exemption



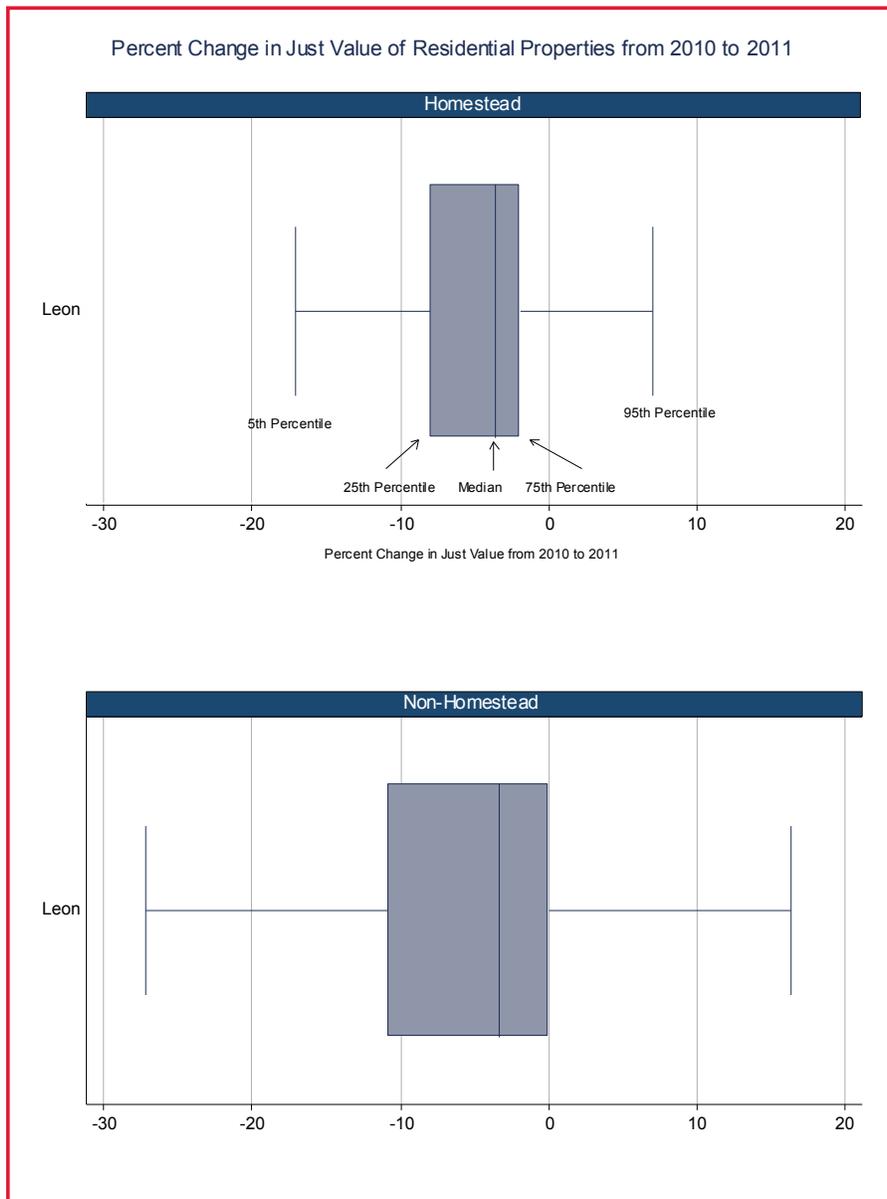
Source: Florida TaxWatch calculations from Florida DOR Tax Data Portal files.

Appendix 6a: Reading the Change in Just Value Charts

The diagram below shows how to read the distributions of the percentage changes in Just Value of homestead versus nonhomestead properties from 2010 to 2011. Note that the length of the diagram is correlated with the standard deviation of the observations. In other words, the wider the distance between the 25th and 75th percentile, the higher is the standard deviation.

The box plot shows above shows the distribution of the percentage change in Just Value from 2010 to 2011 for all residential properties in Leon County, both homestead and nonhomestead. For example, the lowest 5th percentile of homesteaded residential properties in Leon County decreased by approximately 18 percent in value from 2010 to 2011. The median percentage change of residential homesteaded properties in Leon County from 2010 to 2011 is approximately negative 4 percent. These charts indicate that for residential property in Leon county, significantly more properties lost Just Value from 2010 to 2011 compared to a much smaller percentage that gained in Just Value.

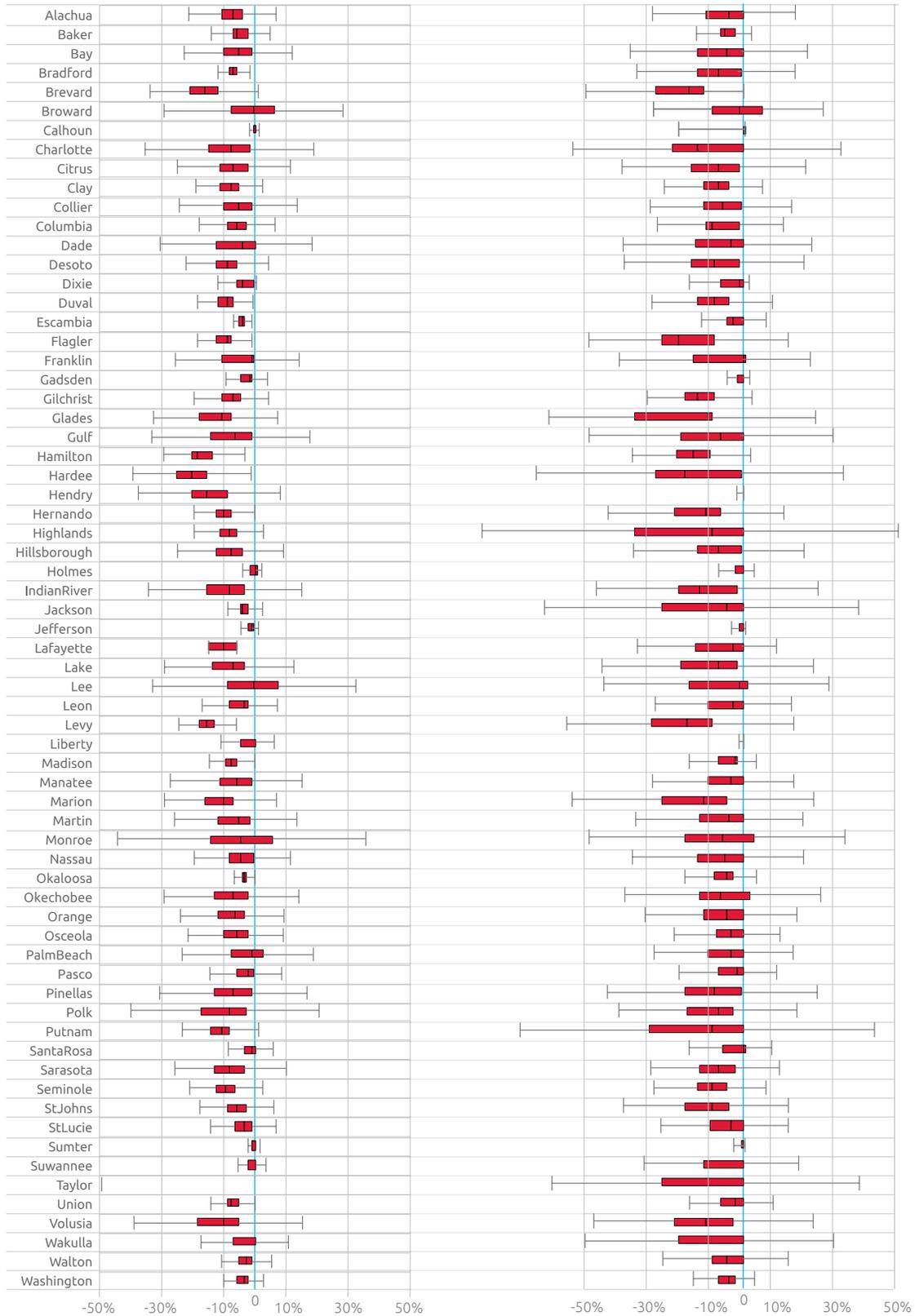
Appendix X and Appendix X show the percentage changes in Just Value by county, both for residential properties and for commercial properties.



Appendix 6b: Percentage Change of Just Value by County

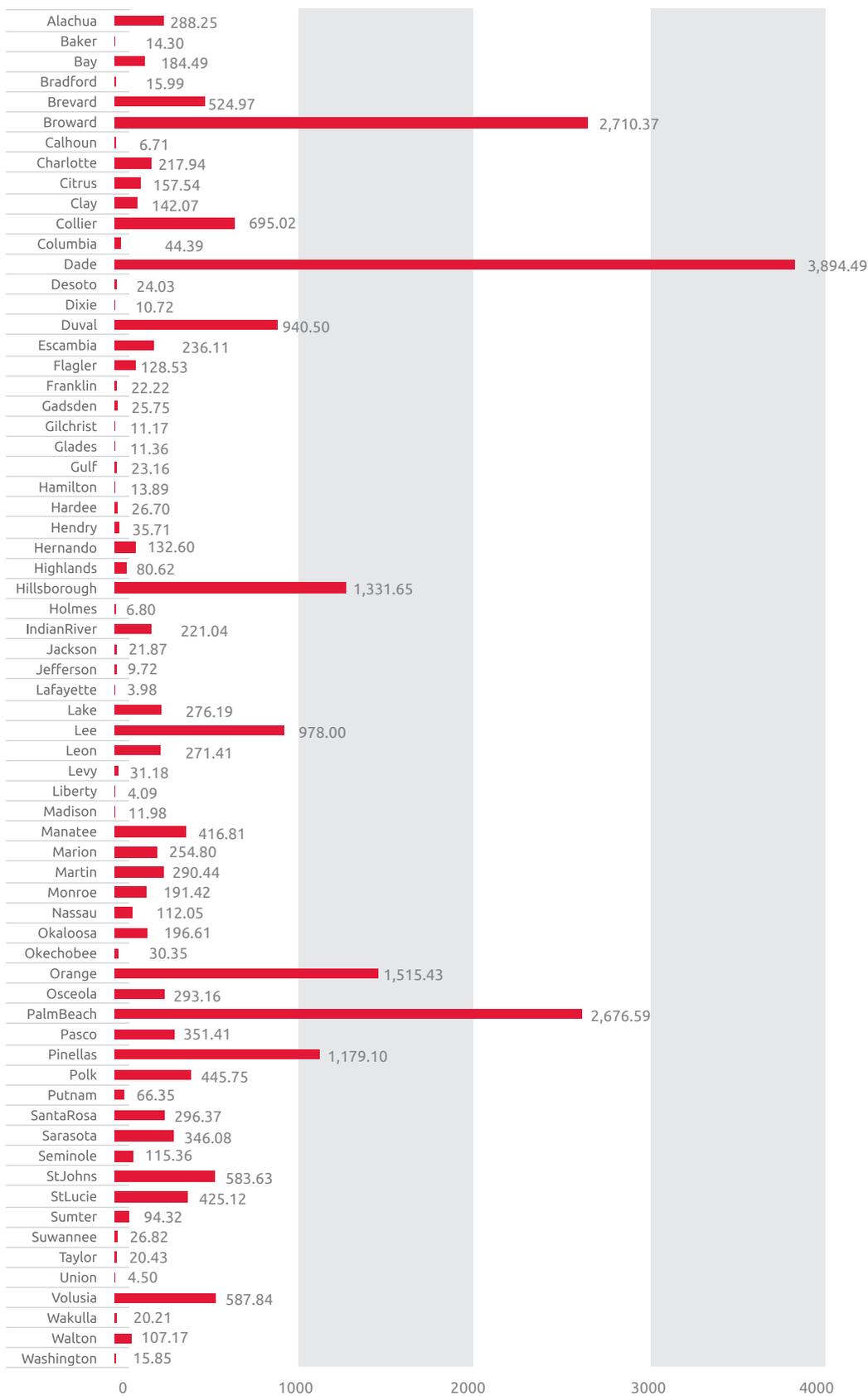
Homestead Properties
(2010-2011)

Non-Homestead Properties
(2010-2011)



Source: Florida TaxWatch calculations from Florida DOR Tax Data Portal files.

Appendix 7: Taxes Levied, by county, 2011.



Source: Florida Property Tax Data Portal, "Millage and Taxes Levied Report" 2011.
 Property Tax Oversight, Research, and Analysis, Florida DOR.

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Florida TaxWatch's research recommends productivity enhancements and explains the statewide impact of economic and tax and spend policies and practices on citizens and businesses. Florida TaxWatch has worked diligently and effectively to help state government shape responsible fiscal and public policy that adds value and benefit to taxpayers.

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