

An Economic Analysis of New Jersey's Realty Transfer Fee

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INTRODUCTION

Realty transfer fees are common among the states. Thirty-seven states as well as the District of Columbia impose a realty transfer or similar fee (NAR, 2003, 3). New Jersey's realty transfer fee (RTF) has been in effect since 1968 when the federal government discontinued the Federal Documentary Tax on real estate transfers and gave state and local governments the right to levy transfer fees. The state law enacted in July 1968 directed that a record must be made of the selling price of real property. That record may be used to in calculating the equalization rates used in establishing property tax rates. The tax was conceived as a registration fee to be paid to the county to reimburse the county for the cost of recording real property transactions and setting equalization rates. Thus the fee is collected by the county.

Before fiscal year (FY) 1986 the fee structure was extremely simple, as it is in most states that impose such a tax. Thereafter complications were added to the fee, making it a more progressive tax. Beginning in FY 2004 New Jersey's RTF was revised substantially. The new legislation made the state's fee by far the most complex among the states which imposed such a fee.

The purpose of this study is to examine the history of the RTF and to try to determine how the new rates imposed in July 2003 may have affected home purchases in New Jersey.

HISTORY OF THE REALTY TRANSFER FEE

The RTF has been in effect in New Jersey since 1968.¹ At that time it imposed a fee of \$.50 per \$500 of consideration², or a rate of 0.1 percent, on the **grantor** (seller) with several exceptions.³ The rate was raised to \$1.75 per \$500 of consideration, or 0.35 percent, in 1975 for transactions beginning on September 1, 1975. In 1985, for sales beginning January 1, 1986, a fee of \$2.50 per \$500 of consideration was imposed for prices above \$150,000. The \$2.50 includes the base fee of \$1.75 per \$500 of consideration plus \$.75 per \$500 of consideration dedicated to affordable housing. The fee on houses costing less than \$150,000 remained 0.35 percent while that on houses selling for more than \$150,000 rose as the price rose from 0.35 percent to 0.50 percent.

In 2003, and effective as of July 14, 2003, the rate for sales for considerations less than \$150,000 was raised to \$2.00 per \$500 of sales price, or a fee of 0.4 percent. The rate for sales prices from \$150,000 to \$200,000 was raised to \$3.35 per \$500 of sales price; and the rate was raised to \$3.90 per \$500 in consideration for prices over \$200,000. Thus the fee on houses selling for more than \$150,000 rose as the price increased: from 0.4 percent for homes at the lower end of the price range, to 0.72 percent for homes selling for more than \$1 million, and to 0.78 percent for homes selling for more than \$12 million.

The tax law of 2004--applicable as of August 1, 2004--introduced general fees over and above the RTF for residences selling for more than \$350,000. The fees are \$.90 per \$500 for the first \$550,000 in consideration; \$1.40 per \$500 for the next \$300,000 in consideration; \$1.90 per \$500 for the next \$150,000; and \$2.15 per \$500 for the portion of the consideration over \$1,000,000. Since August 1, 2004, an additional transfer fee of 1 percent of the entire sales price has been levied on the **purchaser** for residential sales of more than \$1,000,000 (CCH, Incorporated 2004, 260 to 262). This last increase in rates boosted the fee on homes selling for more than \$350,000 from 0.6 percent to 0.78 percent, on those costing \$1 million from 0.72 percent to 1.96 percent, and for those at the very top of the price range from 0.78 percent to 2.21 percent.

Table 1 shows a history of the rates of the RTF as well as the total fee that would have been payable on residences of various prices based on those rates and the average fee for those prices. For example, using the rates applicable in 1968, a house selling for \$1,300,000 would have resulted in a fee of \$1,300 or 0.1 percent. A house selling for the same price would have resulted in a fee of \$4,550 or 0.4 percent using the 1975 rates, \$6,275 or 0.5 percent using the 1985 rates, \$9,515 or 1 percent using the 2003 rates, and \$13,205 to the seller and \$13,000 to the buyer or 2 percent altogether using current rates.

¹The National Association of Realtors has taken an official policy position in opposition to Realty Transfer Fees (NAR 2003, 3). That position was not taken into account in writing this paper.

² Consideration refers to the sales price of residential real estate transactions.

³ Exemptions include (but are not limited to): consideration of less than \$100, property of the federal government, corrections, and inter-family transfers. There are also partial exemptions for sales of one and two-family residences owned and occupied by people who are over 62, blind, or disabled, and for some low and moderate income housing.

Note that the fee paid by the seller of a house selling for \$75,000 would have quadrupled using current rates compared to the 1968 rate, while the fee paid by the seller of a house selling for \$1,300,000 would have increased 10-fold, and the total amount of the fee on the high-end house would have increase 20-fold. As of the second quarter of 2005, the average price of an existing home in New Jersey is about \$375,000 (NAR, 2005, Table 5). Thus the latest change in the realty transfer fee would have raised the fee paid on a house of average price from \$2,300 under the tax law of 2003 to \$2,975 under the tax law of 2004, or about 29 percent, because of the imposition of the general fee on considerations over \$350,000.

TABLE 1
History of the Realty Transfer Fee

		Sales Price Range						
		Up to \$150,000	\$150,001 to \$200,000	\$200,001 to \$350,000	\$350,001 to \$550,000	\$550,001 to \$850,000	\$850,001 to \$1,000,000	Above \$1,000,000
		Sales Price Example--Mid-Range						
		\$75,000	175,000	275,000	450,000	\$650,000	\$925,000	\$1,300,000
<i>1968 RTF Rates (FY 1969)</i>	RTF ^a							
All Prices	\$0.50	\$75	\$175	\$275	\$450	\$650	\$925	\$1,300
Total		\$75	\$175	\$275	\$450	\$650	\$925	\$1,300
<i>1975 RTF Rates (FY 1976)</i>	RTF							
All Prices	\$1.75	\$263	\$613	\$963	\$1,575	\$2,275	\$3,238	\$4,550
Total		\$263	\$613	\$963	\$1,575	\$2,275	\$3,238	\$4,550
<i>1985 RTF Rates (FY 1986)</i>	RTF							
Up to \$150,000	\$1.75	\$263	\$525	\$525	\$525	\$525	\$525	\$525
Over \$150,000	\$1.75	\$0	\$88	\$438	\$1,050	\$1,750	\$2,713	\$4,025
Total		\$263	\$613	\$963	\$1,575	\$2,275	\$3,238	\$4,550
<i>2003 RTF Rates (FY 2004)</i>	RTF							
Up to \$150,000	\$2.00	\$300	\$600	\$600	\$600	\$600	\$600	\$600
\$150,000 to \$200,000	\$2.60		\$130	\$260	\$260	\$260	\$260	\$260
Over \$200,000	\$3.15			\$473	\$1,575	\$2,835	\$4,568	\$6,930
Total		\$300	\$730	\$1,333	\$2,435	\$3,695	\$5,428	\$7,790
<i>2004 RTF Rates (FY 2005)</i>								
Up to \$150,000	\$2.00	\$300	\$600	\$600	\$600	\$600	\$600	\$600
\$150,000 to \$200,000	\$3.35		\$168	\$335	\$335	\$335	\$335	\$335
Over \$200,000	\$3.90			\$585	\$1,950	\$3,510	\$5,655	\$8,580
General fee on \$0 to \$550,000	\$0.90				\$810	\$990	\$990	\$990
General Fee on \$550,001 to \$850,000	\$1.40					\$280	\$840	\$840
General Fee on \$850,001 to \$1,000,000	\$1.90						\$285	\$570
General Fee on \$1,000,001 and above	\$2.15							\$1,290
Total on Seller		\$300	\$768	\$1,520	\$3,695	\$5,715	\$8,705	\$13,205
"Mansion" fee on Buyer	1.0%							\$13,000
TOTAL		\$300	\$768	\$1,520	\$3,695	\$5,715	\$8,705	\$26,205
Average Rate		0.40%	0.44%	0.55%	0.82%	0.88%	0.94%	2.02%

Source: New Jersey Association of Realtors, April 2005.

^a. All RTF rates per \$500 of sales price.

DISTRIBUTION OF REVENUES OF THE REALTY TRANSFER FEE

According to the legislation effective in July 2004,

The revenues from the RTF for standard transactions are allocated as follows:

For consideration of \$150,000 or less: \$.75 goes to the county and \$1.25 to the state.

For consideration of \$150,000 to \$200,000: \$.75 goes to the county, \$1.85 to the state, and \$.75 to the Neighborhood Preservation Nonlapsing Revolving Fund (NPNR).

For consideration of more than \$200,000: \$.75 goes to the county, \$2.40 to the state, and \$.75 to the NPNR.

The revenues from the RTF for partially exempt transactions are allocated as follows:

For consideration of \$150,000 or less: \$.50 goes to the county and nothing to the state.

For consideration of more than \$150,000: \$.50 goes to the county, and \$.75 to the NPNR.

The revenues from the RTF for new construction are allocated as follows:

For consideration of \$150,000 or less: \$.75 goes to the county, \$1.00 to the state, and \$.25 to the NPNR.

For consideration of \$150,000 to \$200,000: \$.75 goes to the county, \$.60 to the state, and \$2.00 to the NPNR.

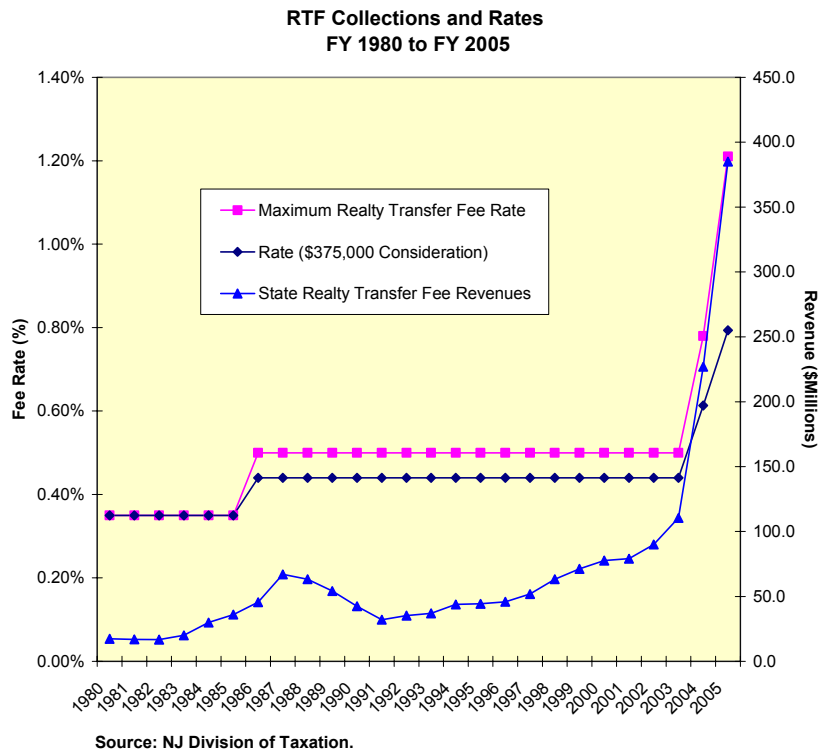
For consideration of more than \$200,000: \$.75 goes to the county, \$1.15 to the state, and \$2.00 to the NPNR.

Further, part of the revenue that goes to the counties is deposited into a special fund under the Public Health Priority Funding Act of 1977. Part of the revenue that goes to the state is deposited into the Extraordinary Aid Account, and up to \$25 million going to the state is allocated to the Shore Protection Fund. In other words, this fee has gone a long way from being revenue to pay for recording real estate transactions. The fee now also helps fund general state expenditures, neighborhood preservation, public health, and shore protection.

Figure 1 shows the growth in the state portion and total revenues of the RTF from FY 1999 to FY 2005. Clearly, the two recent changes in the rate structure have increased collections from the RTF substantially. Revenue going to the state from the RTF, excluding the portion of the fee dedicated to affordable housing, more than doubled when the maximum tax rate increased by 56 percent in FY 2004. When the maximum tax rate on properties selling for less than \$1 million increased by 55 percent in FY 2005 (and by more than that for properties selling for more than \$1 million), RTF revenue increased by

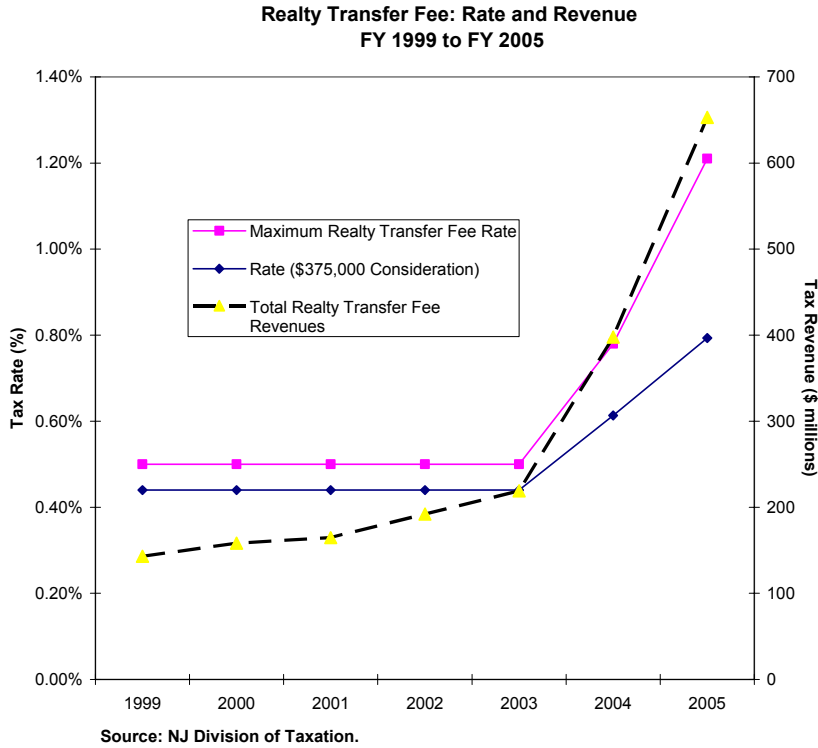
70 percent. Total revenue increased by 81 percent in FY 2004 and by 64 percent in FY 2005.

FIGURE 1



The total RTF includes the portion of the fee dedicated to affordable housing as well as the portion collected by the counties. Figure 2 shows the growth in total revenue from FY 1999 to FY 2005 as well the tax rate over that period.

FIGURE 2



The distribution of funds changed considerably between FY 2003, the last year before higher rates were imposed, and the present. In 2003, total realty transfer fees collected amounted to \$219.9 million, of which 48 percent went to general state funds, 26 percent went to the Neighborhood PNRF, and the rest, or 25 percent went to the counties.⁴ The imposition of higher rates in FY 2004 for all levels of consideration led to a jump in collections to \$397.7 million, an increase of 81 percent. In that year the state general fund received 57 percent of total realty transfer fees, 19 percent went to the state for the Extraordinary Aid Account (EEA), 18 percent went to the Neighborhood PNRF, 18 percent went to the counties for general use, and 7 percent went to the counties for the Public Health Priority Fund. (See Table 2.)

⁴ Data made available by the NJ Division of Taxation, November, 2005.

TABLE 2
Realty Transfer Fee Revenue and Distribution
Fiscal Years 2003 to 2005

Realty Transfer Fee Collections and Distribution, FY 2003 to FY 2005								
	Total (Millions)	State Funds				County Funds		
		Treasurer	General Purpose	Millionaires	E.E.A.	P.N.R.F.	General Purpose	P.H.P..F.
FY 2003	\$219.8	48%				26%	25%	
FY 2004	\$397.7	38%			19%	18%	18%	7%
FY 2005	\$653.1	26%	17%	8%	16%	14%	13%	6%

PNRF is Neighborhood Preservation Nonlapsing Fund
Supplemental fee allocated between the county Public Health Priority Fund (PHPF) and the State Extraordinary Aid Account (EEA)

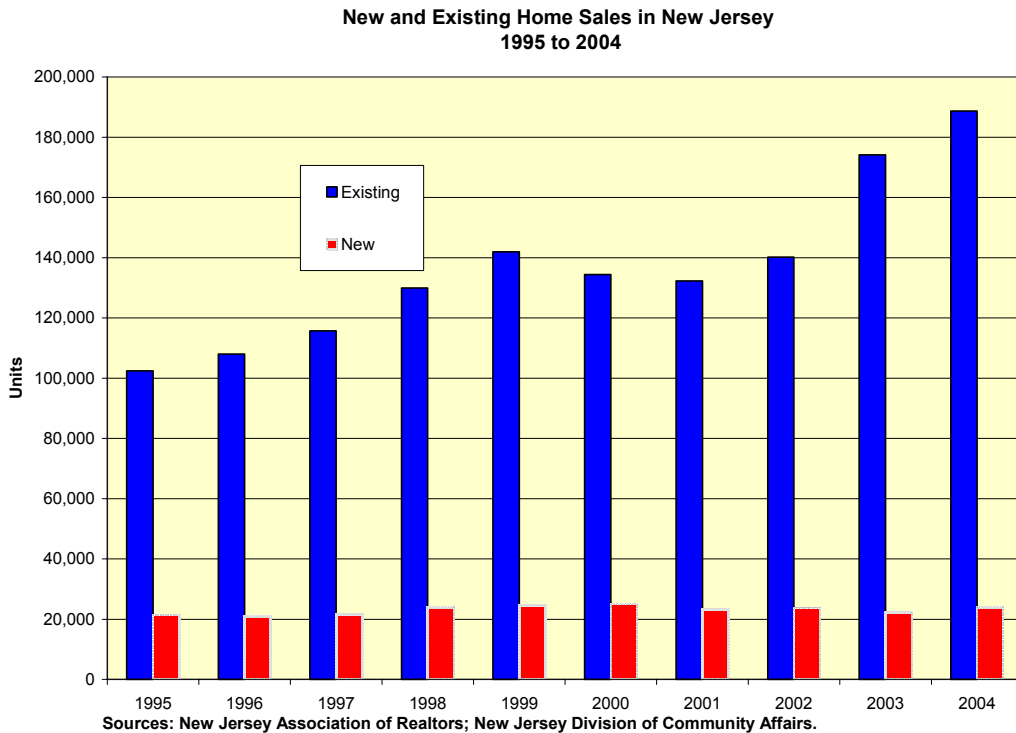
Source: NJ Division of Taxation.

There was another major increase in revenue in FY 2005 when general fees were imposed on considerations greater than \$350,000 and a separate fee for buyers was imposed for considerations of over \$1 million. Revenues increased in FY 2005 by 64 percent to \$653.1 million. In FY 2005 the state general fund received 51 percent of total realty transfer fees, including \$54.2 million from the “mansion” fee; 16 percent went to the state for the Extraordinary Aid Account; 14 percent went to the Neighborhood PNRF; 13 percent went to the counties for general use; and 6 percent went to the counties for the Public Health Priority Funding.

SALES OF NEW AND EXISTING HOUSES

The number of new and existing home sales has been on the upswing since 2001. (See Figure 3.) Most home sales are of existing homes and that proportion grew from 83 percent in 1995 to 89 percent in 2003 and 2004. The number of new homes sold peaked in 2000 at 25,000 and averaged 23,000 during the period. The number of existing homes sold peaked in 1999 at 141,900, fell to 132,300 in 2001, and climbed to 189,000 in 2004. Between 1995 and 2004 the average number of new homes sold was 23,000 and the average number of existing homes sold was 137,000.

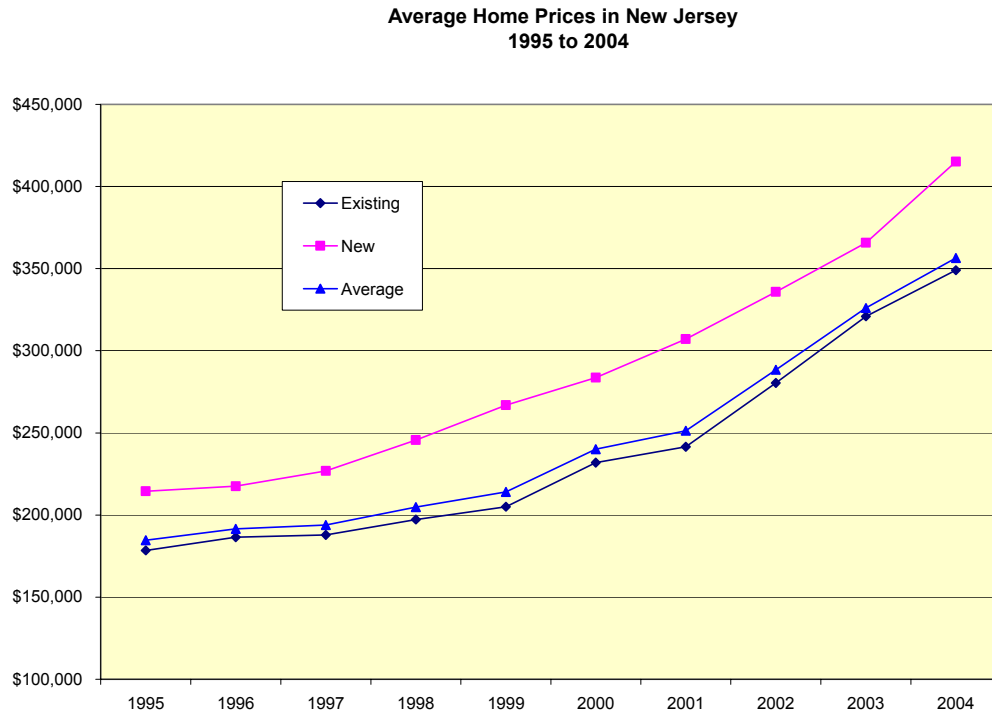
FIGURE 3



AVERAGE HOUSE PRICES

The price of housing, both new and existing, in New Jersey has risen steadily over time, in both nominal and real terms, making it increasingly expensive to buy a home in the state. (See Figure 4.)

FIGURE 4

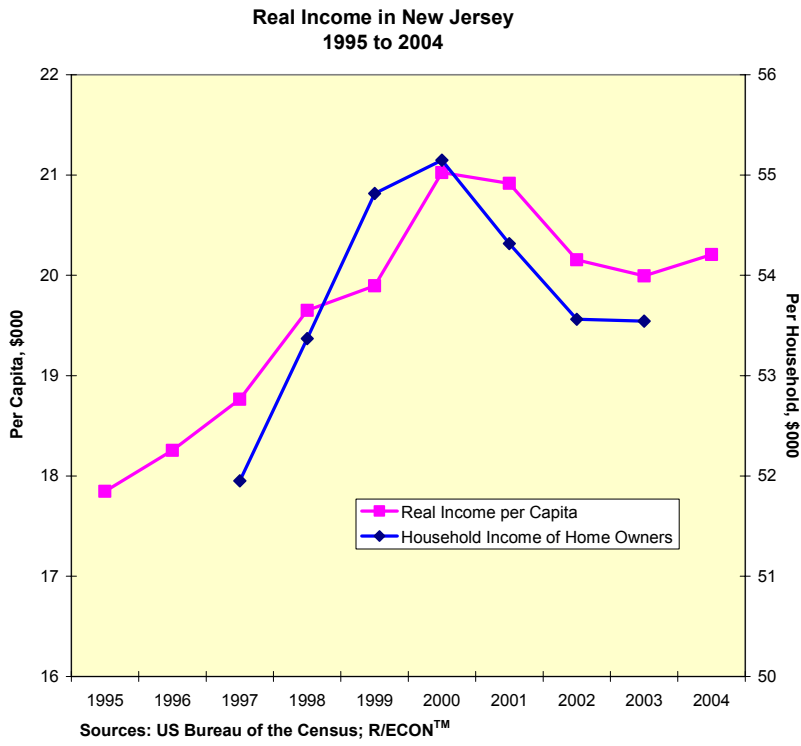


Sources: New Jersey Association of Realtors; The New Jersey Division of Community Affairs.

As we saw above, that increase in home prices has not slowed sales. Over the period from 1995 to 2004, the average price of a home in the state has nearly doubled, going from \$185,000 in 1995 to \$356,000 in 2004, while home sales increased by 71 percent. The real price of a home has increased 53 percent, going from \$185,000 in 1995 to \$282,000 (in 1995 dollars) in 2004.

However, the real income of home owners in New Jersey has barely increased. (See Figure 5.) It rose by only 3 percent between 1997 and 2003 (US Bureau of the Census). The real income of homeowners actually increased 6 percent between 1997 and 2001 and then declined by 3 percent with the recession and after shock from September 11, 2001. Real per capita income in New Jersey showed a similar pattern, increasing 12 percent between 1997 and 2001, and then declining 5 percent from 2001 to 2003. It began to rise again in 2004, as, presumably, did home owner income. In any case, the implication is neither slow income growth nor the enormous run up in home prices had much influence on home sales in New Jersey during the last decade.

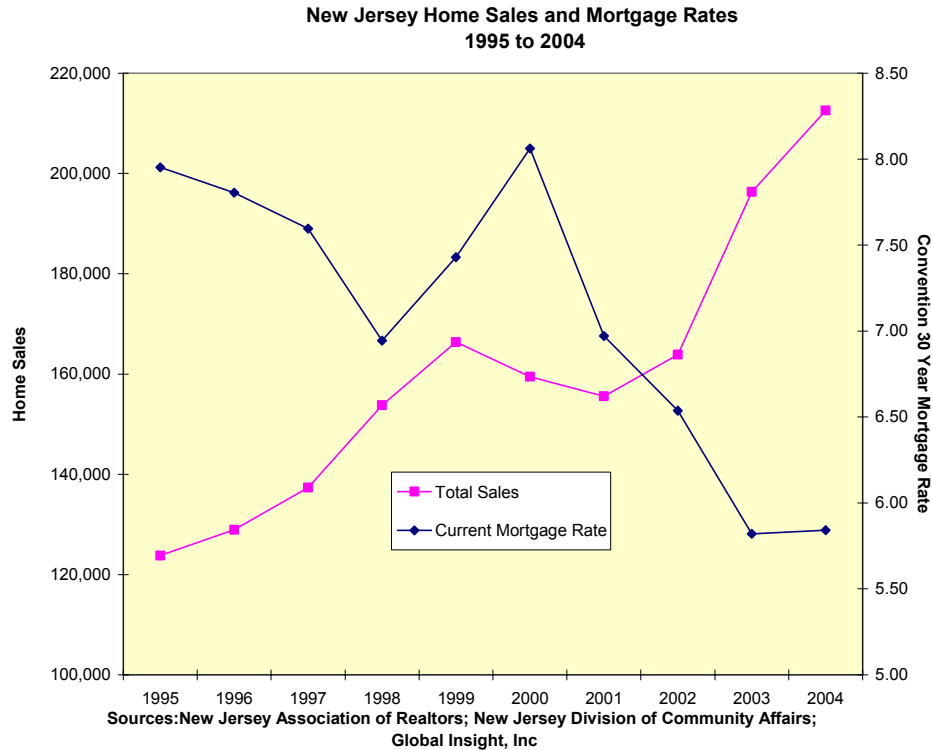
FIGURE 5



MORTGAGE RATES AND HOME SALES

Mortgage rates have been declining since 2000, and have been at historically low levels for the past 3 years. (See Figure 5.) They have varied between 5.5 percent and 6 percent since 2003, rates not seen since John F. Kennedy was in the White House. The recent low mortgage rates have been in effect at the same time that New Jersey's housing market has shown great strength.

FIGURE 5



HOME PRICES AND THE REALTY TRANSFER FEE

As we have seen, over time the average and median price of homes in New Jersey has risen. In Table 3, we use the information in Table 1 to see how much the RTF on the average house would be. We have data on the average price of a home in New Jersey beginning in 1995. The table below indicates that the RTF rate on average price homes would have increased by 93 percent between 1995 and 2004. Under the tax law applicable until FY 2003, the RTF would have also increased by 93 percent and the RTF would have cost the seller 0.38 percent of the consideration. Under the tax law of FY 2003 the RTF payable on the average priced house in 2003 increased by 37 percent to 0.59 percent of the consideration. Under the tax law of FY 2004, that currently in effect, the RTF payable on the average priced house in 2004 increased by 30 percent over what would have been due under the tax law of FY 2003, to 0.78 percent of the consideration.

TABLE 3
Average Home Prices and the Realty
Transfer Fee 1995 to 2004

	Average Home Price	Realty Transfer Fee Rate		
		Law: 1985	Law: 2003	Law: 2004
1995	\$184,636	0.35%		
1996	\$191,545	0.35%		
1997	\$193,954	0.35%		
1998	\$204,807	0.35%		
1999	\$214,112	0.35%		
2000	\$240,025	0.35%		
2001	\$251,323	0.35%		
2002	\$288,404	0.35%		
2003	\$326,060	0.35%	0.51%	
2004	\$356,414	0.35%	0.52%	0.72%

Source: R/ECON

INCLUDING THE REALTY TRANSFER FEE IN MORTGAGE COSTS

Although the burden of paying the RTF, except for homes over \$1,000,000, is on the sellers, we assume that the sellers essentially require the buyer to pay enough for a home to cover the RTF. Thus when the buyer gets a mortgage, he may add the amount of the RTF to the basic amount of the loan. Table 4 shows the cost of a mortgage for various prices of homes. The exercise assumes that buyers will finance their purchases with 30 year fixed rate mortgages with a 6 percent interest rate and a 20 percent down payment. The percentage increase in payment over the 30 year period relative to the sales price is positively related to the mortgage rate. That is, as the mortgage rate goes up the increase in payment relative to the sales price will rise, and it will decline as the mortgage rate decreases. Thus if mortgage rates increase in the next few years, as is expected, the burden of the RTF will increase, assuming that buyers borrow to pay it. The illustrative prices shown are the top of the brackets used in the RTF law.^{5,6}

TABLE 4
Financing the Realty Transfer Fee

⁵ For any home costing less than \$150,000, the increase in payment over 30 years from financing the RTF would be 0.86 percent.

⁶ The top bracket begins at \$1,000,000. The increase in payment relative to sales price appears to approach 4.5 percent as the price goes above \$10,000,000.

Sales Price	RTF to be Financed	Monthly Payment	Monthly Payment with RTF	Increase in Monthly Payment	Increase in Payment over 30 Years Relative to Sales Price
\$150,000.00	\$600.00	\$719.46	\$723.06	\$3.60	0.86%
\$200,000.00	\$935.00	\$959.28	\$964.89	\$5.61	1.01%
\$350,000.00	\$2,030.00	\$1,678.74	\$1,691.36	\$12.62	1.30%
\$360,000.00	\$2,591.00	\$1,726.71	\$1,743.68	\$16.97	1.70%
\$550,000.00	\$4,130.00	\$2,638.02	\$2,665.93	\$27.91	1.83%
\$850,000.00	\$6,860.00	\$4,076.94	\$4,123.92	\$46.98	1.99%
\$1,000,000.00	\$8,375.00	\$4,796.40	\$4,853.81	\$57.41	2.07%
\$1,500,000.00	\$28,675.00	\$7,194.61	\$7,378.22	\$183.61	4.41%
\$3,000,000.00	\$59,575.00	\$14,389.21	\$14,771.58	\$382.37	4.59%
\$10,000,000.00	\$203,775.00	\$47,964.04	\$49,273.91	\$1,309.87	4.72%

Source: R/ECON™

We have used regression analysis to try to determine the impact of the RTF on the demand for homes in New Jersey. We look at the sales of existing and new homes separately--for the period from 1993 to the second quarter of 2005 for existing homes⁷ and for the period from 1996 to second quarter of 2005 for new homes.⁸

The appendix shows the regressions for existing and new homes. Both are a function of New Jersey personal income (YRPICNJ) and the adjusted conventional 30-year mortgage (MORTRATEADJ), where MORTRATEADJ is the sum of the mortgage rate and the RTF rate. Other variables in the equation for existing homes are seasonal variables (S1, S2, and S3), to account for seasonal variations in sales, and a dummy variable (DUMHOUSING), to account for a change in the basis of home sales data collected beginning in the first quarter of 2004. Other variables in the equation for new homes are a seasonal variable (S1), to account for seasonal variations in sales, and dummy variables (DUM01Q4 and DUM03Q2), to account for a drop in sales after September 11, 2001 and lower than expected sales in the second quarter of 2003.

As seen in Table 4, the amount of the monthly mortgage payment increases when the RTF is financed as part of the loan taken out to pay for a home. We have used this information to adjust the 30-year conventional mortgage rate by adding to it the increment in the mortgage rate attributable to the need to pay the RTF. Two regressions were run for existing and new home sales. In the first the maximum RTF rate was added to the mortgage rate; in the second the RTF rate for the mortgage needed for the average price house in each year was added to the mortgage rate. The regression results were almost identical for the two regression specifications. We have used the specification

⁷ Data for existing homes comes from the NJAR.

⁸ Data for new homes comes from the New Jersey Construction Reporter.

with the average RTF rate to produce the work described below. Because the regressions are in logarithmic form, the coefficients are equivalent to elasticities. For existing homes the coefficient is $-.77$; the portion attributable to the RTF is $-.04$. For new homes the exponent is $-.28$; the portion attributable to the RTF is $-.02$. Thus we would expect that if the RTF increases by 1 percent, the sales of existing homes would decrease by .04 percent and the sales of new homes would decrease by .02.

We then ask the question: what happens to home sales if there is a change in the RTF rate? Table 5 shows the actual number of sales of both existing and new homes, the fitted values from the regressions, and the simulated values when there is a 10 percent increase in the RTF rate. The data is shown for 1997 to the second quarter of 2005 for existing, new, and total homes. The inference from the table is that, over the historical period, a 10 percent increase in the RTF rate would have reduced total sales of existing homes by 0.46 percent, or 5,664 transactions. A 10 percent increase in the RTF rate would have reduced total sales of new homes by 0.17 percent, or 341 transactions, over the course of the eight and a half years. It would have reduced total transactions by 6,005 or 0.42 percent.

Larger increases in the RTF would, of course, exert more downward pressure on sales, although not quite linearly. For instance, a 75 percent increase in the average RTF would have decreased new home sales between 1997 and mid-2005 by 2,486 transactions or 1.25 percent. A 75 percent increase in the average RTF would have decreased existing home sales between 1997 and mid-2005 by 35,424 or 2.9 percent. The overall decrease for a 75 percent increase in the RTF would have been 37,910 transactions or 2.7 percent of the total transactions from 1997 to mid-2005.

CONCLUSION

Since its inception as a fee paid to the counties for recording mortgages, the realty transfer fee has been increased four times. In the course of raising the rate the fee has been made more progressive, in that rates increase substantially as the price of the house increases.

Until the latest change in the fee structure, the seller of the house was responsible for payment of the Realty Transfer Fee. Now, for homes whose price is \$1 million or more, the buyer is also responsible for part of the fee, the so-called “mansion” fee which is 1 percent of the entire consideration on the house.

The uses of the revenues have also changed. In FY 2005, 19 percent of the revenues went to the counties for their general use and for financing public health, 14 percent went towards neighborhood preservation, 16 percent went to the state to the extraordinary aid fund, and 51 percent went to the state’s general fund.

Over the past decade sales of new and existing houses in New Jersey have risen by 72 percent, from 124,000 in 1995 to 213,000 in 2004. At the same time the average price of homes has risen by 93 percent, from \$184,000 to \$356,000. Also, during this period the mortgage rate has fallen from near 8 percent to under 6 percent. Statistical analysis has show a strong inverse relationship between home sales and the mortgage rate.

Although the Realty Transfer Fee is paid by the seller, we assumed in the statistical work performed in this study that the seller transfers the funding of the fee to the buyer. We also assumed that the buyer funds the fee by increasing the amount of the mortgage he takes on. We show that at the current RTF rates, over the course of 30 years the fee would add less than 1 percent in mortgage payments relative to the price of a house for homes costing less than \$200,000. The fee would add less than 2 percent to mortgage payments relative to the price of a house for homes costing \$850,000 or less. For homes costing more than \$1 million the RTF would the increase in mortgage payments relative to housing price by more than 2 percent, and by more than 4 percent for extremely expensive homes.

Finally, using regression analysis, we show that the imposition of the Realty Transfer Fee, and increases in the fee, will reduce total home sales in New Jersey. A simulation that increased the tax rate by 10 percent led to a decrease in home sales of 0.42 percent or 6,005 home sales over an eight and a half year period. A second simulation showed that a 75 percent increase in the tax rate would lower total sales by 2.7 percent or 37,910 home sales over the same period.

REFERENCES

CCH, Incorporated 2004. *2005 State Tax Handbook*. Chicago: CCH, Incorporated.

Global Insight, Inc. 2005. www.globalinsight.com.

National Association of Realtors 2003. *Potential Impacts of Increases in Real Estate Transfer Taxes*.

National Association of Realtors. *New Jersey Home Sales Report, 2004 and 2005*. www.njar.com.

New Jersey Association of Realtors 2005. Excel file: *budget06.xls*. April 2005.

New Jersey Division of Community Affairs. *New Jersey Construction Reporter, Annual Report: 1995 to 2004*.

New Jersey Division of Taxation 2002, 2003, 2004, 2005. *State of New Jersey Month and Year-to-Date Cash Collections*.

New Jersey Division of Taxation. Excel file: *RTFmonthlyFY00-05II.xls*. November 2005.

New Jersey Office of Legislative Services 2002. *Quarterly State Revenue Report*. November, 2002.

US Bureau of the Census, *Current Population Survey, March 1997 through 2004*. www.wnjp.in.state.nj.us.

APPENDIX: EQUATIONS

Regression for Existing Home Sales

ORDINARY LEAST SQUARES

QUARTERLY(1993:1 TO 2005:2) 50 OBSERVATIONS
DEPENDENT VARIABLE: ln(EXISTING HOME SALES)

	COEFFICIENT	STD. ERROR	T-STAT	INDEPENDENT VARIABLE
1)	1.37630	0.01814	75.87	ln(YRPICNJ)
2)	-0.771477	0.1120	-6.891	ln(MORTRATEADJ)
3)	-0.279000	0.03637	-7.670	S1
4)	0.134519	0.03653	3.682	S2
5)	0.158891	0.03703	4.291	S3
6)	0.375311	0.04798	7.823	DUMHOUSING

R-BAR SQUARED: 0.9595 (RELATIVE TO Y=0, RBSQ: 1.0000)
DURBIN-WATSON STATISTIC: 0.9573
STANDARD ERROR OF THE REGRESSION: 0.09046 NORMALIZED: 0.005731

Regression for New Home Sales

ORDINARY LEAST SQUARES

QUARTERLY(1997:1 TO 2005:2) 34 OBSERVATIONS
DEPENDENT VARIABLE: ln(NEW HOME SALES)

	COEFFICIENT	STD. ERROR	T-STAT	INDEPENDENT VARIABLE
	-7.29852	1.683	-4.336	CONSTANT
1)	1.76144	0.1186	14.85	ln(YRPCINJ)
2)	-0.283437	0.1287	-2.202	ln(MORTRATEADJ\1)
3)	-0.237392	0.02211	-10.74	S1
4)	-0.173199	0.05753	-3.010	DUM01Q4
5)	-0.117657	0.05894	-1.996	DUM03Q2

R-BAR SQUARED: 0.9472
DURBIN-WATSON STATISTIC: 1.0959
STANDARD ERROR OF THE REGRESSION: 0.05599 NORMALIZED: 0.003891

APPENDIX: SIMULATIONS

Simulations for RTF 10% higher and 75% higher compared to Fitted Values from Equations

Existing Home Sales

	Actual	Fitted	Simulations					
			RTF rate 10% Higher	Fitted - RTF+10%	%Difference of Fitted - RTF+10%	RTF rate 75% Higher	Fitted - RTF+75%	%Difference of Fitted - RTF+75%
	(1)	(2)	(3)	(4) (2) - (3)	(5) (3) / (2)	(6)	(7) (2) - (6)	(8) (6) / (2)
1997	115,700	126,963	126,532	(431)	-0.34%	123,980	(2,983)	-2.35%
1998	129,800	143,589	143,075	(514)	-0.36%	139,809	(3,780)	-2.63%
1999	141,900	135,121	134,467	(654)	-0.48%	131,809	(3,312)	-2.45%
2000	134,600	129,349	128,833	(516)	-0.40%	128,491	(858)	-0.66%
2001	133,000	138,442	137,852	(590)	-0.43%	135,961	(2,481)	-1.79%
2002	140,200	134,055	133,501	(554)	-0.41%	131,111	(2,943)	-2.20%
2003	146,200	135,078	134,441	(637)	-0.47%	130,583	(4,495)	-3.33%
2004	188,600	189,849	188,726	(1,123)	-0.59%	180,196	(9,654)	-5.09%
2005 ¹	89,300	87,274	86,629	(645)	-0.74%	82,355	(4,919)	-5.64%
TOTAL	1,219,300	1,219,720	1,214,056	(5,664)	-0.46%	1,184,296	(35,424)	-2.90%

New Home Sales

	Actual	Fitted	Simulations					
			RTF rate 10% Higher	Fitted - RTF+10%	%Difference of Fitted - RTF+10%	RTF rate 75% Higher	Fitted - RTF+75%	%Difference of Fitted - RTF+75%
	(1)	(2)	(3)	(4) (2) - (3)	(5) (3) / (2)	(6)	(7) (2) - (6)	(8) (6) / (2)
1997	21,640	22,106	22,071	(35)	-0.16%	21,852	(254)	-1.15%
1998	23,884	23,680	23,642	(38)	-0.16%	23,402	(279)	-1.18%
1999	24,480	23,268	23,233	(34)	-0.15%	23,015	(253)	-1.09%
2000	25,058	25,059	25,029	(31)	-0.12%	24,834	(226)	-0.90%
2001	23,272	24,121	24,090	(31)	-0.13%	23,891	(230)	-0.96%
2002	23,647	24,010	23,980	(31)	-0.13%	23,785	(225)	-0.94%
2003	22,226	22,777	22,727	(50)	-0.22%	22,415	(362)	-1.59%
2004	23,844	22,461	22,400	(60)	-0.27%	22,026	(434)	-1.93%
2005 ¹	10,303	10,810	10,779	(31)	-0.29%	10,588	(222)	-2.05%
Sum	198,354	198,292	197,951	(341)	-0.17%	195,806	(2,486)	-1.25%

Total Home Sales

	Actual	Fitted	Simulations					
			RTF rate 10% Higher	Fitted - RTF+10%	%Difference of Fitted - RTF+10%	RTF rate 75% Higher	Fitted - RTF+75%	%Difference of Fitted - RTF+75%
	(1)	(2)	(3)	(4) (2) - (3)	(5) (3) / (2)	(6)	(7) (2) - (6)	(8) (6) / (2)
1997	137,340	149,069	148,604	(466)	-0.31%	145,832	(3,237)	-2.17%
1998	153,684	167,269	166,717	(552)	-0.33%	163,210	(4,059)	-2.43%
1999	166,380	158,389	157,701	(688)	-0.43%	154,824	(3,564)	-2.25%
2000	159,658	154,409	153,861	(547)	-0.35%	153,324	(1,084)	-0.70%
2001	156,272	162,563	161,942	(621)	-0.38%	159,852	(2,711)	-1.67%
2002	163,847	158,065	157,480	(585)	-0.37%	154,897	(3,168)	-2.00%
2003	168,426	157,855	157,168	(687)	-0.44%	152,998	(4,857)	-3.08%
2004	212,444	212,310	211,126	(1,184)	-0.56%	202,222	(10,088)	-4.75%
2005 ¹	99,603	98,084	97,408	(676)	-0.69%	92,943	(5,141)	-5.24%
Sum	1,417,654	1,418,012	1,412,007	(6,005)	-0.42%	1,380,102	(37,910)	-2.67%

¹First two quarters of 2005.