

# **The Impact of Hurricanes on Housing and Economic Activity**

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# Purpose of the Study

- **Hurricanes: Rising Intensity and Frequency**
- **Florida accounted for 4% to 6% of U.S. population over the past 30 years but 38% of total U.S. insurable losses**
  - (Second place was Texas with 11% of insurable losses)
- **Fast Cooling of the Red Hot Florida Housing Market in 2006**
  - Due partly (maybe largely) to the lack of affordable insurance
- **A need for Federal Disaster Insurance?**

# Hurricane Coverage

- **Information Age and Wide Media Coverage of Developing Tropical Storms**
  - **Evacuations**
  - **Greater interest in light of global warming theories**
  - **Give impression of frequent hurricanes**
- **How many destructive hurricanes actually make landfall in Florida?**

**Answer**

**One Hurricane per Decade !**

# Hurricane Frequency

- 6 Atlantic hurricanes develop per year
- 1.6 make U.S. landfall per year
- Category 3 and higher hurricanes make U.S. landfall once every two years
- Florida from 1950 to 2000, only six hurricanes of at least Category 3 hit Florida – about one per decade!
- Category 5: Only three U.S. hits in the 20<sup>th</sup> Century

# **Unprecedented Florida Hurricanes in 2004 and 2005**

- **Category 3+ Hurricanes in 2004: four**
- **Category 3+ Hurricanes in 2005: four**
- **8 ... Category 3+ ... in 2004 and 2005**
- **3 ... Category 3+ ... 1950 to 2003**
- **15 hurricanes in 2005 – record high**
  - **Katrina – topples a major U.S. city**
  - **Wilma – strongest ever measured**

# Hurricanes Under Study

Hurricane	Time Period	Category	Landfall in Florida	Damage
Andrew	August 24, 1992	4	Miami region	\$27 billion
Opal	October 4, 1995	3	Panhandle region	\$3 billion
Charley	August 13, 2004	4	Punta Gorda region	\$15 billion
Frances	September 4, 2004	4	Port St. Lucie region	\$9 billion
Ivan	September 16, 2004	5	Pensacola region	\$14 billion
Jeanne	September 25, 2004	3	Port St. Lucie region	\$7 billion
Dennis	July 10, 2005	3	Pensacola	\$1.2 billion
Katrina	August 25, 2005	5	South Florida as Category 1 (then later to Louisiana and Mississippi as Category 5)	\$75 billion (mostly from levy breach in New Orleans)
Rita	September 20, 2005	5	South Florida region as Category 2 (then later to Texas and Louisiana as Category 5)	\$4 to \$7 billion
Wilma	October, 24, 2005	5	Key West and Miami region	\$12 billion

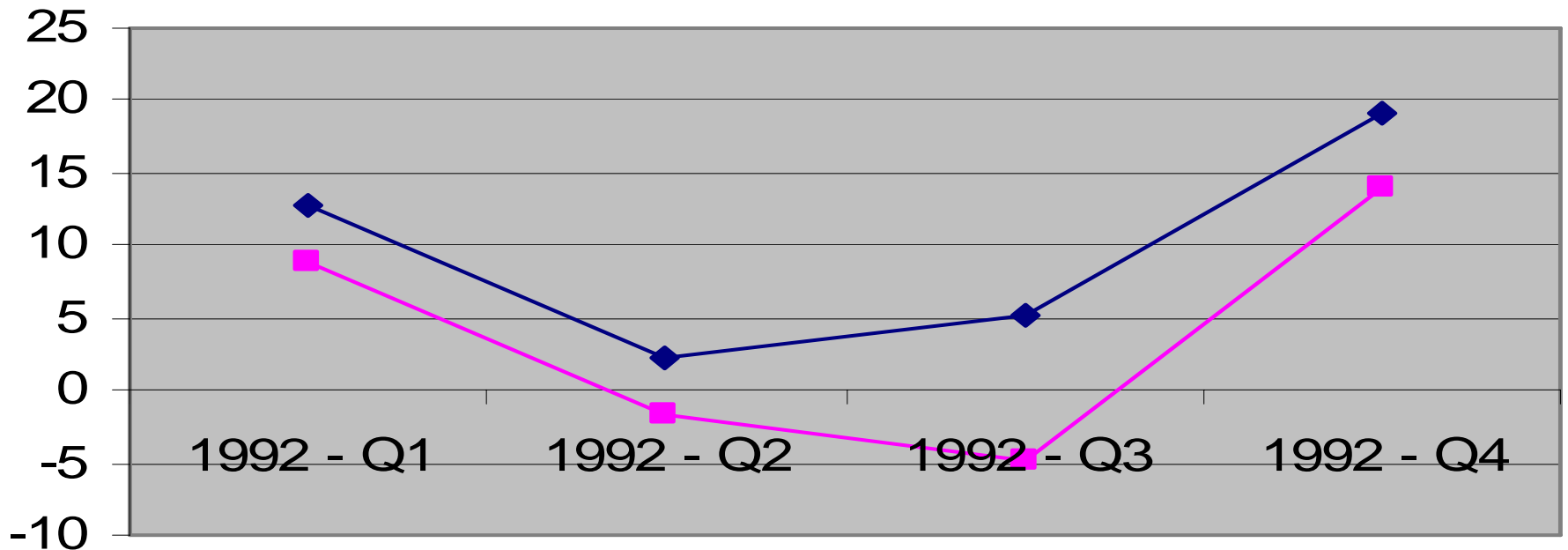
Source: National Hurricane Center, Risk Management Solutions

# Summary of Impacts

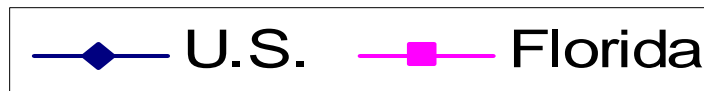
- **Prior to 2004**
  - Hurricanes led to home sales decline and lower price growth, but only over very short-term (usually 2 to 3 months)
  - Insurance money evidently provided boost in getting the economy and housing market back on their feet
  - Sales and price growth often well exceeded pre-hurricane level after one year
- **2004**
  - Hurricanes, though unprecedented, did not make a lasting impact (just as in prior hurricanes)
  - Insurance money evidently provided boost
  - But, large payouts left insurance companies shaken
- **2005**
  - Another unprecedented hurricanes further burdened insurance companies
  - Insurance premiums skyrocketed or no coverage
  - Housing market have not returned to its norm even after more than 8 months after the last hit (very unlike the past)

# Hurricane Andrew Impact on Home Sales

## Home Sales Increase

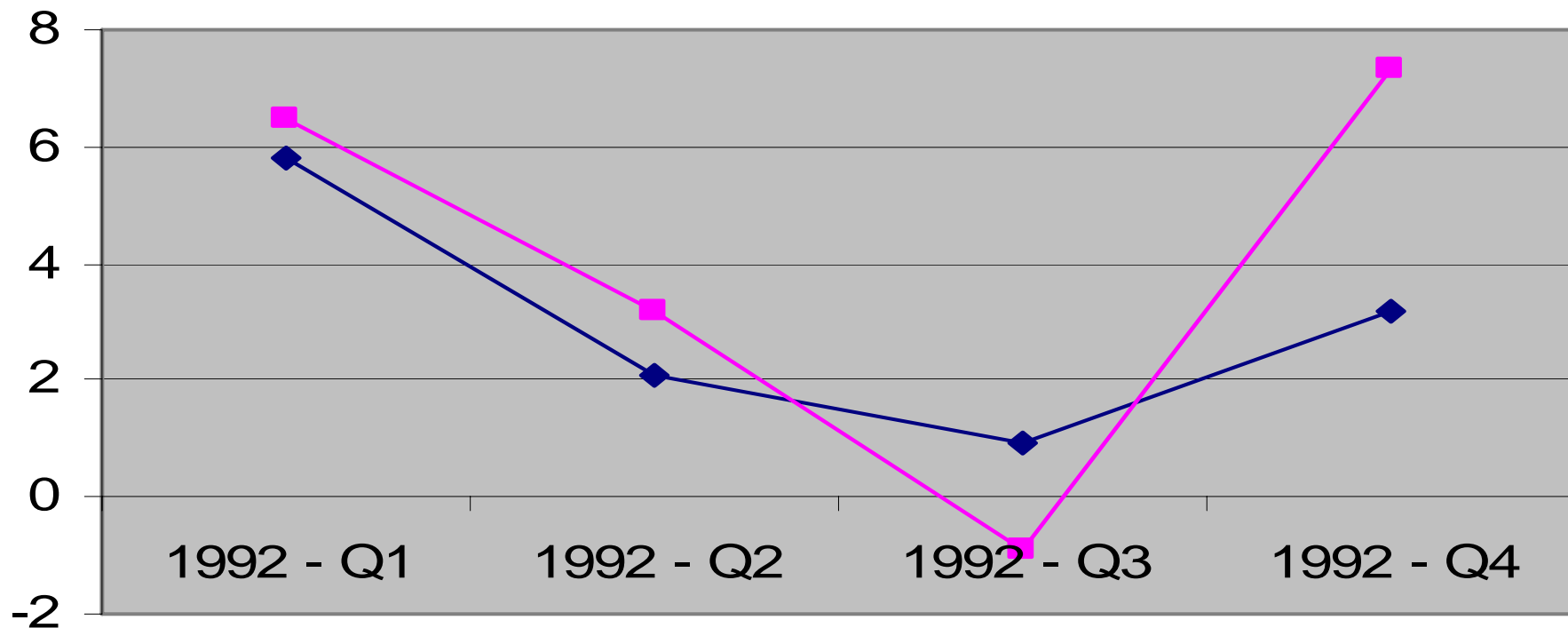


Source: NAR



# Hurricane Andrew Impact on Home Price

## Home Price Appreciation



Source: NAR



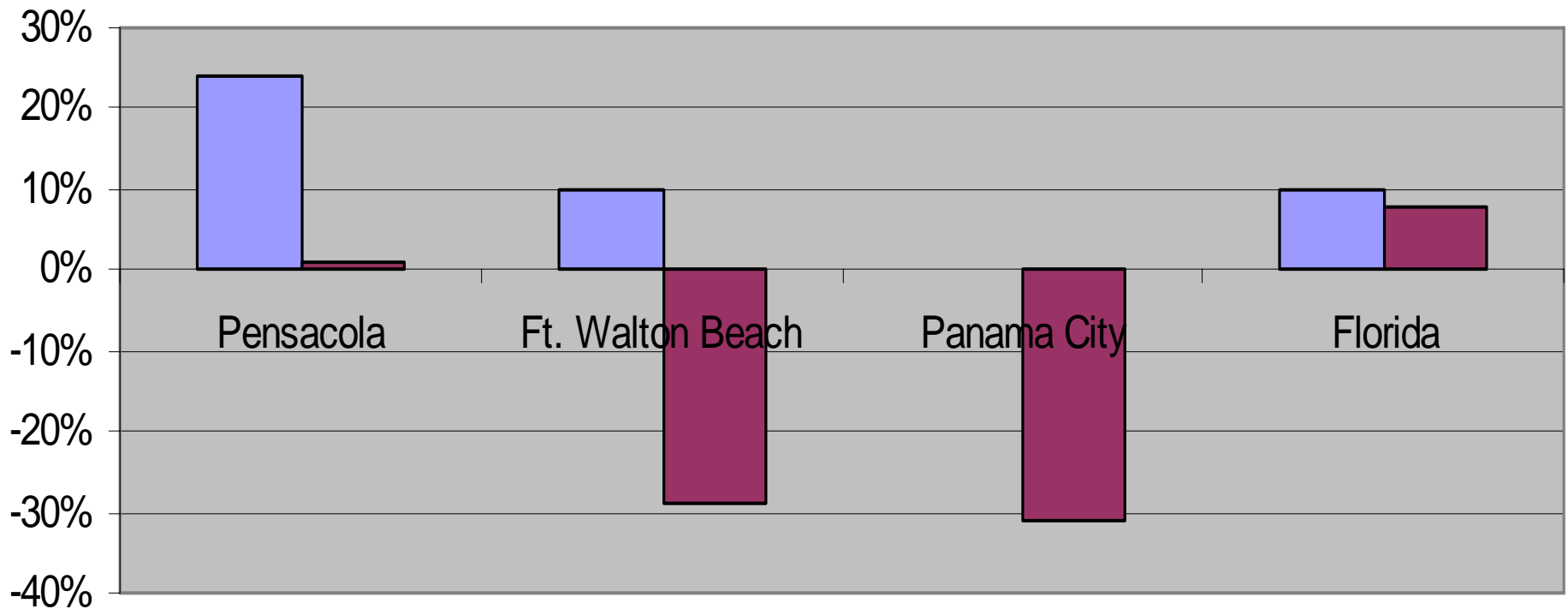
# Hurricane Andrew Impact on Migration

<b>Dade County</b>	<b>Number of Households Moving Into Dade County</b>	<b>Number of Households Moving Out of Dade County</b>
1991	26,664	30,468
1992 (Hurricane Andrew)	25,258	40,973
1993	26,149	32,726
<b>Florida (excluding Dade County)</b>	<b>Number of Households Moving Into Rest of Florida</b>	<b>Number of Households Moving Out of Rest of Florida</b>
1991	389,955	329,469
1992 (Hurricane Andrew)	393,380	324,081
1993	390,354	323,991

Source: IRS

# Hurricane Opal Impact on Home Sales

## Home Sales Change from a Year Ago

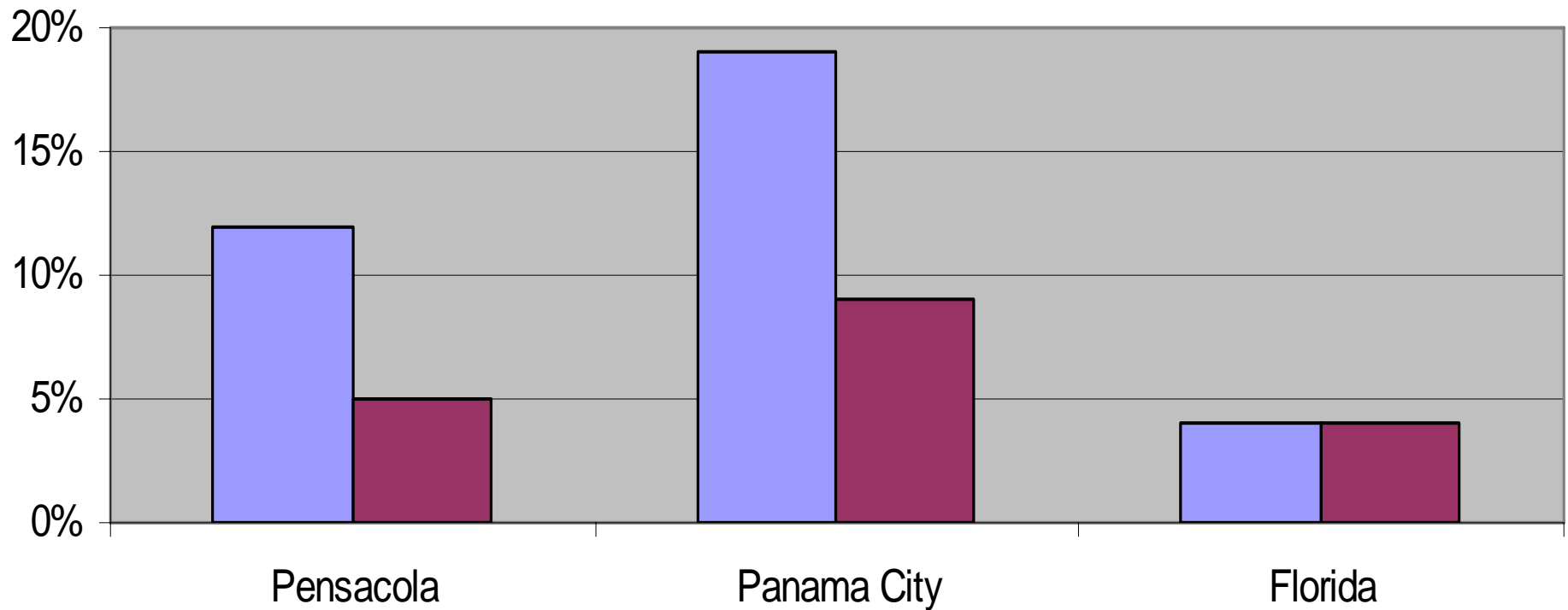


Source: NAR

■ September ■ October

# Hurricane Opal Impact on Home Price

## Home Price Change from a Year Ago

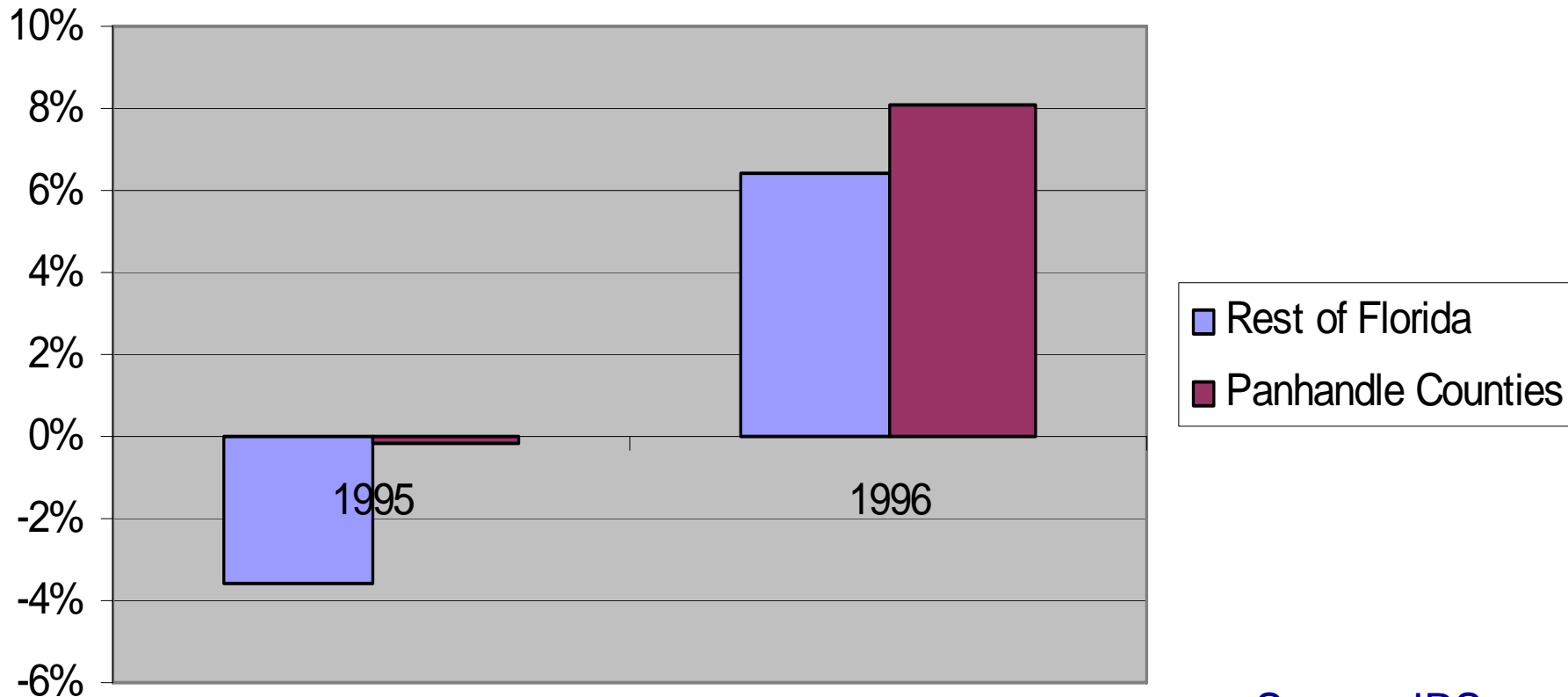


Source: NAR

■ September ■ October

# Hurricane Opal Impact on In-migration

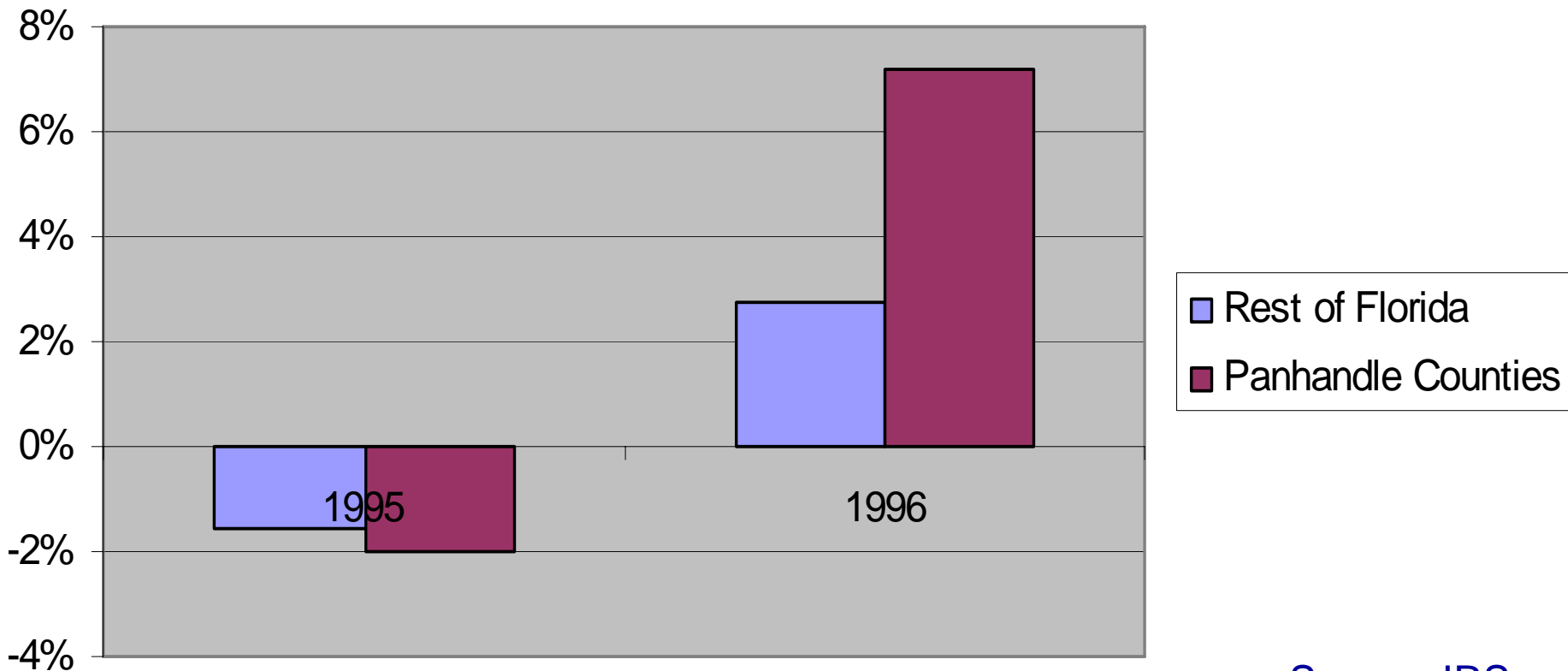
## Number of Households Moving Into the Region



Source: IRS

# Hurricane Opal Impact on Out-migration

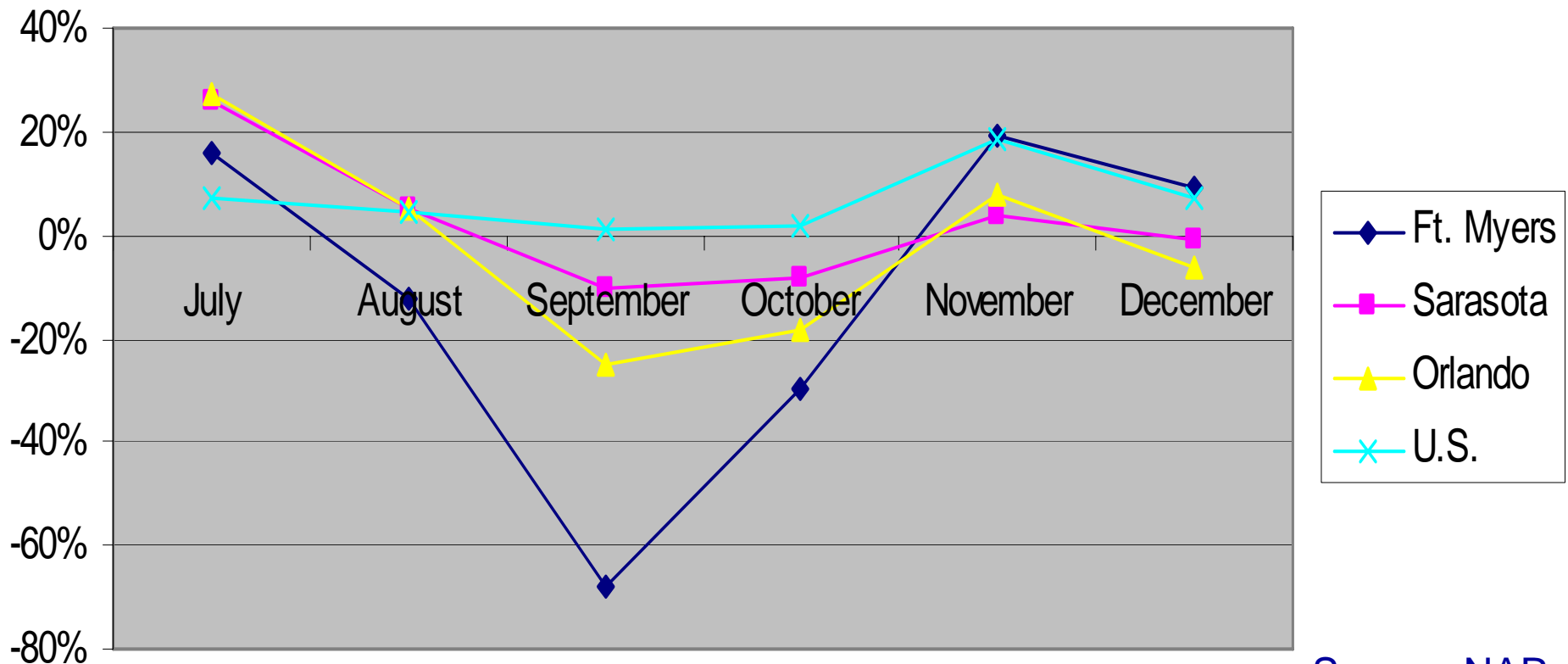
## Number of Households Moving Out of the Region



Source: IRS

# 2004 Hurricane Impacts on Home Sales (1)

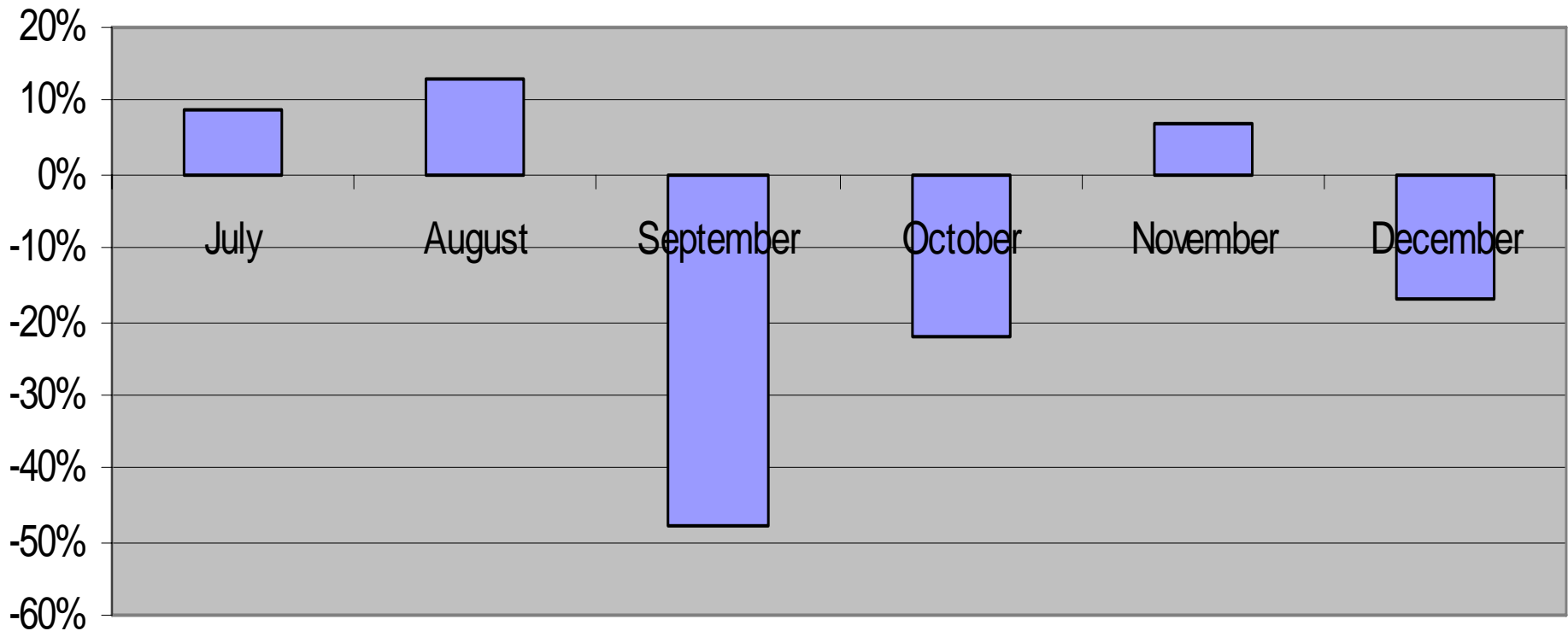
## Home Sales Change (from a year ago)



Source: NAR

# 2004 Hurricanes Impact on Home Sales (2)

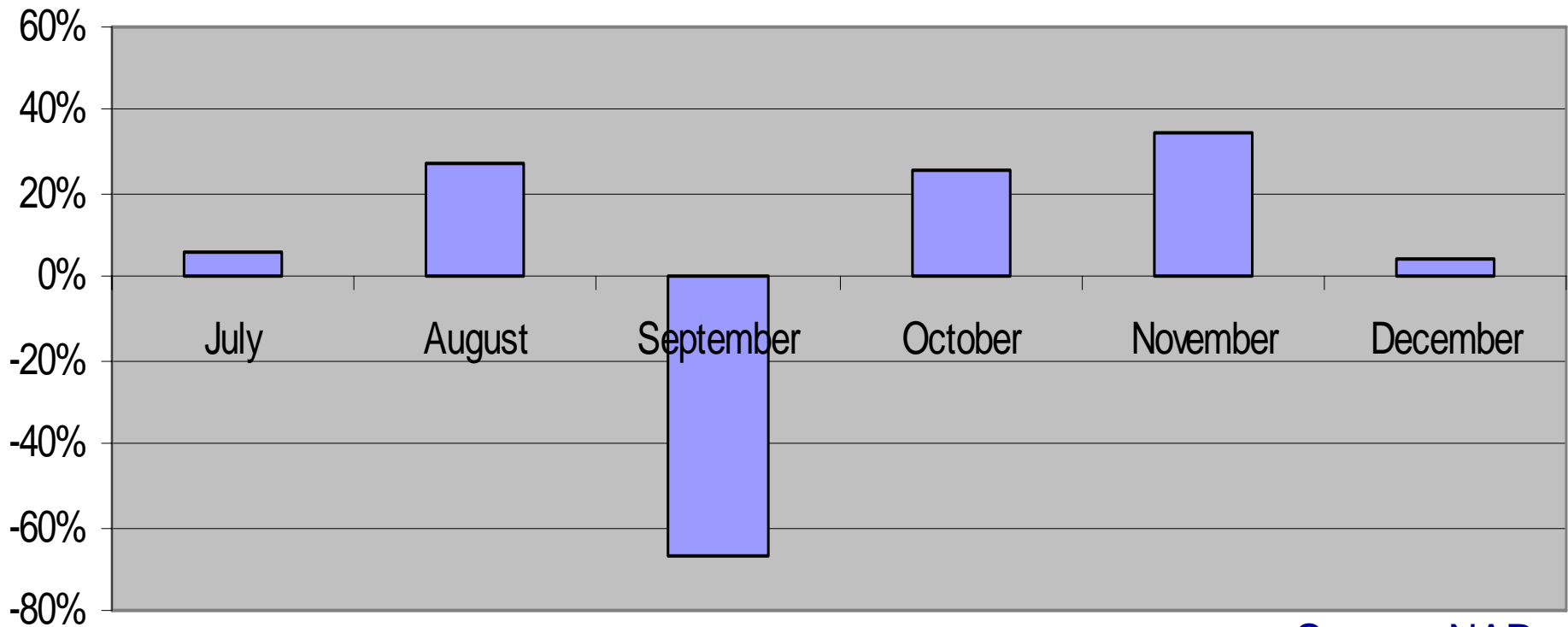
Home Sales Change (from a year ago)  
in Ft. Pierce and Port St. Lucie



Source: NAR

# 2004 Hurricanes Impact on Home Sales (3)

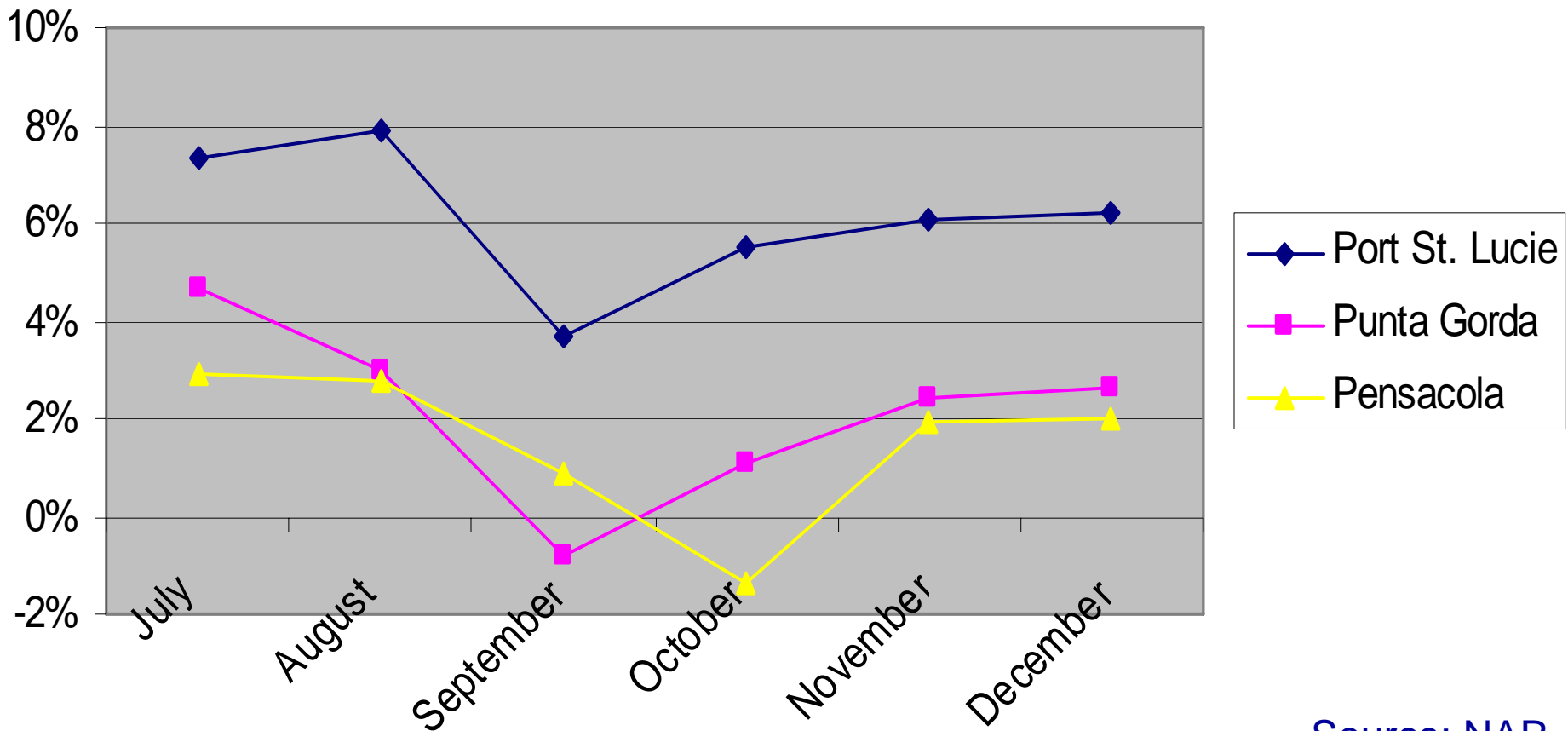
Home Sales Change (from a year ago)  
in Pensacola



Source: NAR

# 2004 Hurricanes Impact on Job Growth

## Job Growth in the Directly Hit Region (from a year ago)



Source: NAR

# 2005 Hurricanes Impact on Home Sales

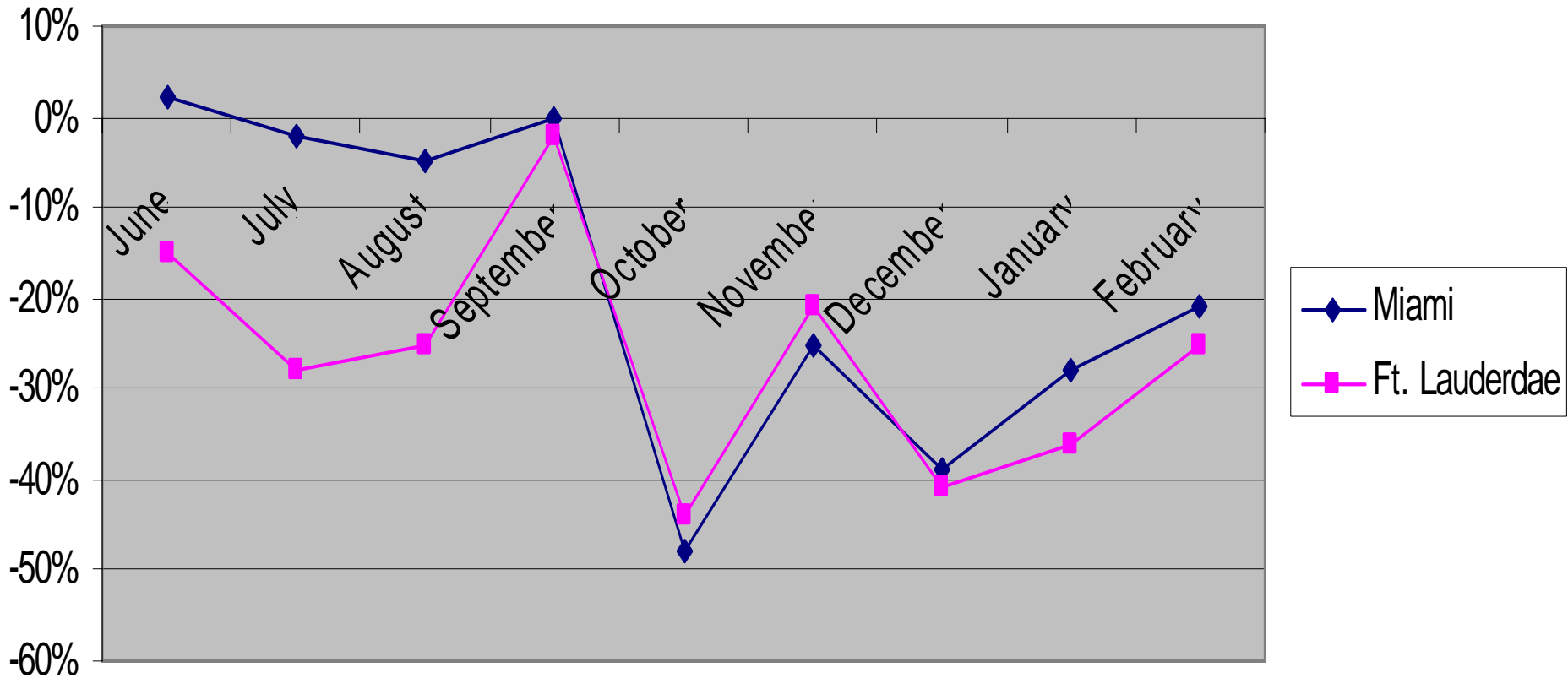
◆ FL Home Sales (% change from a year ago)



Source: Freddie Mac

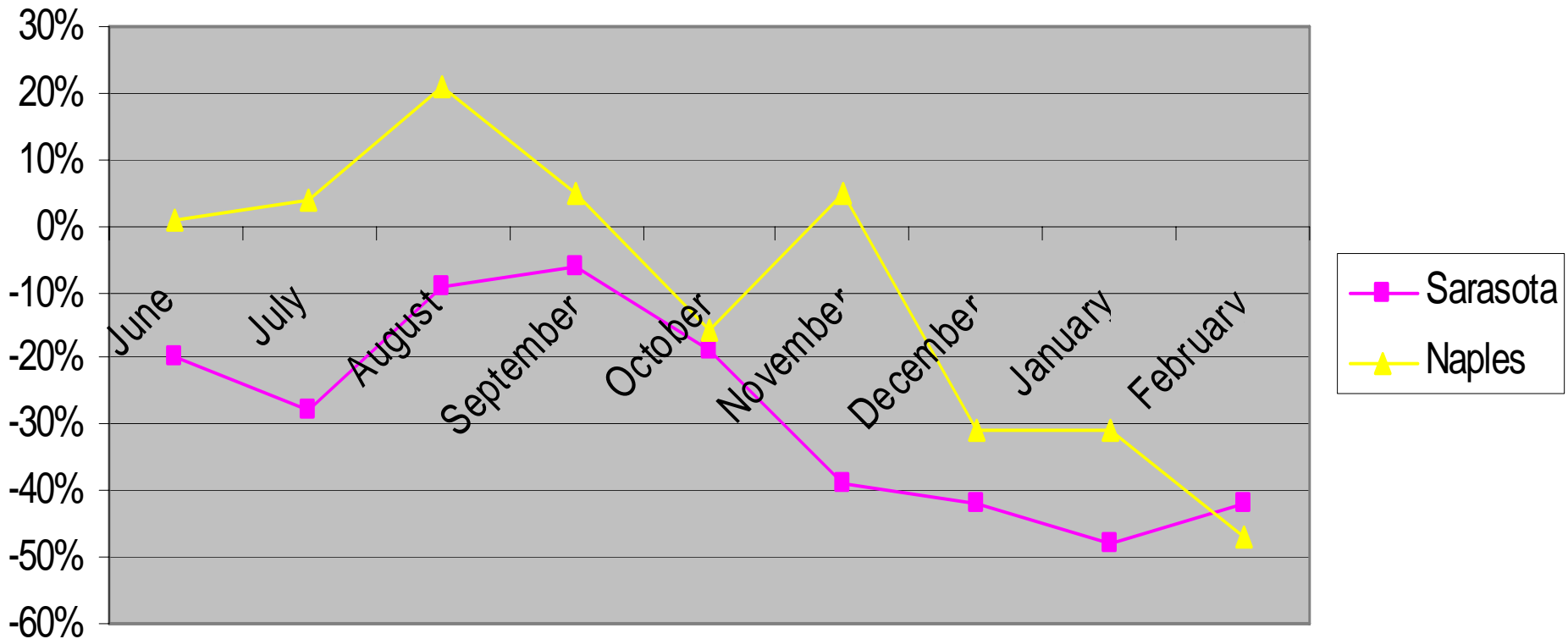
# 2005 Hurricanes Impact on Home Sales (1)

## Home Sales Change in Southeast Florida



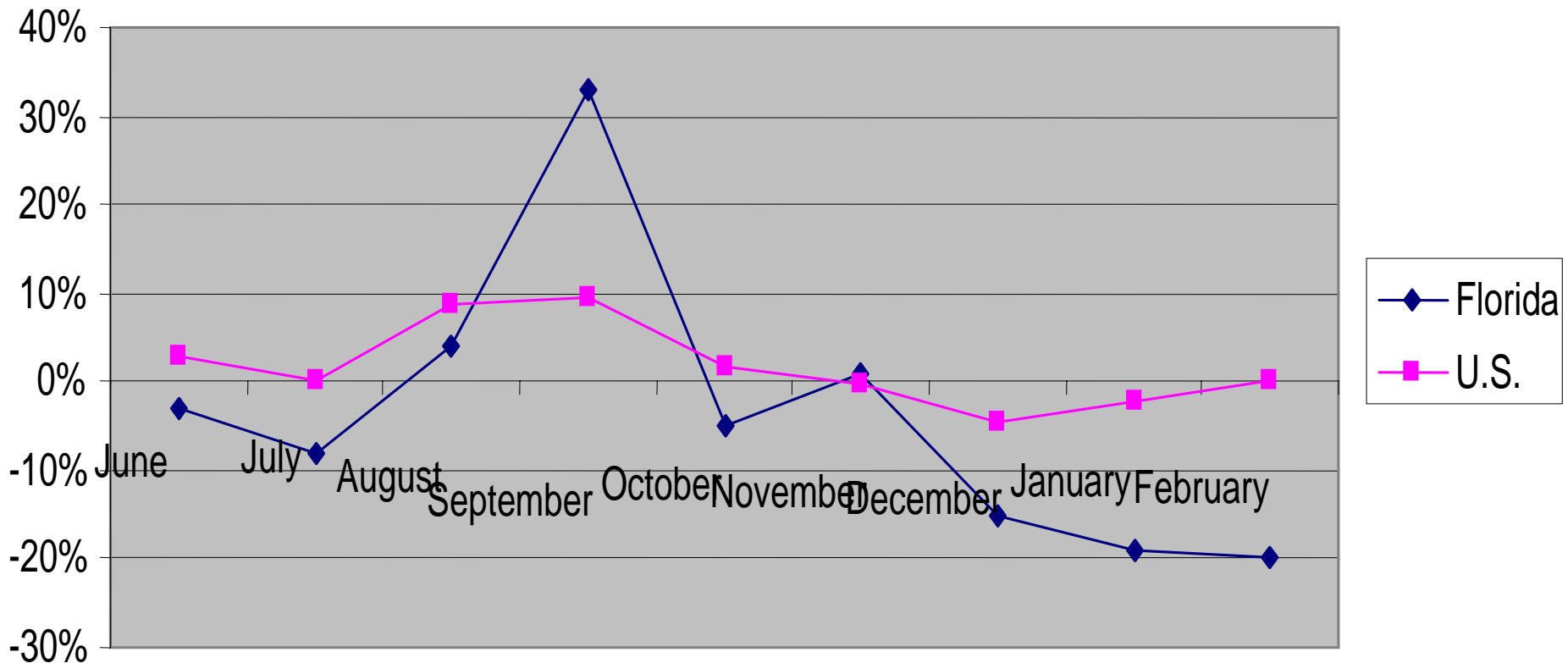
# 2005 Hurricanes Impact on Home Sales (2)

## Home Sales Change in Southwest Florida

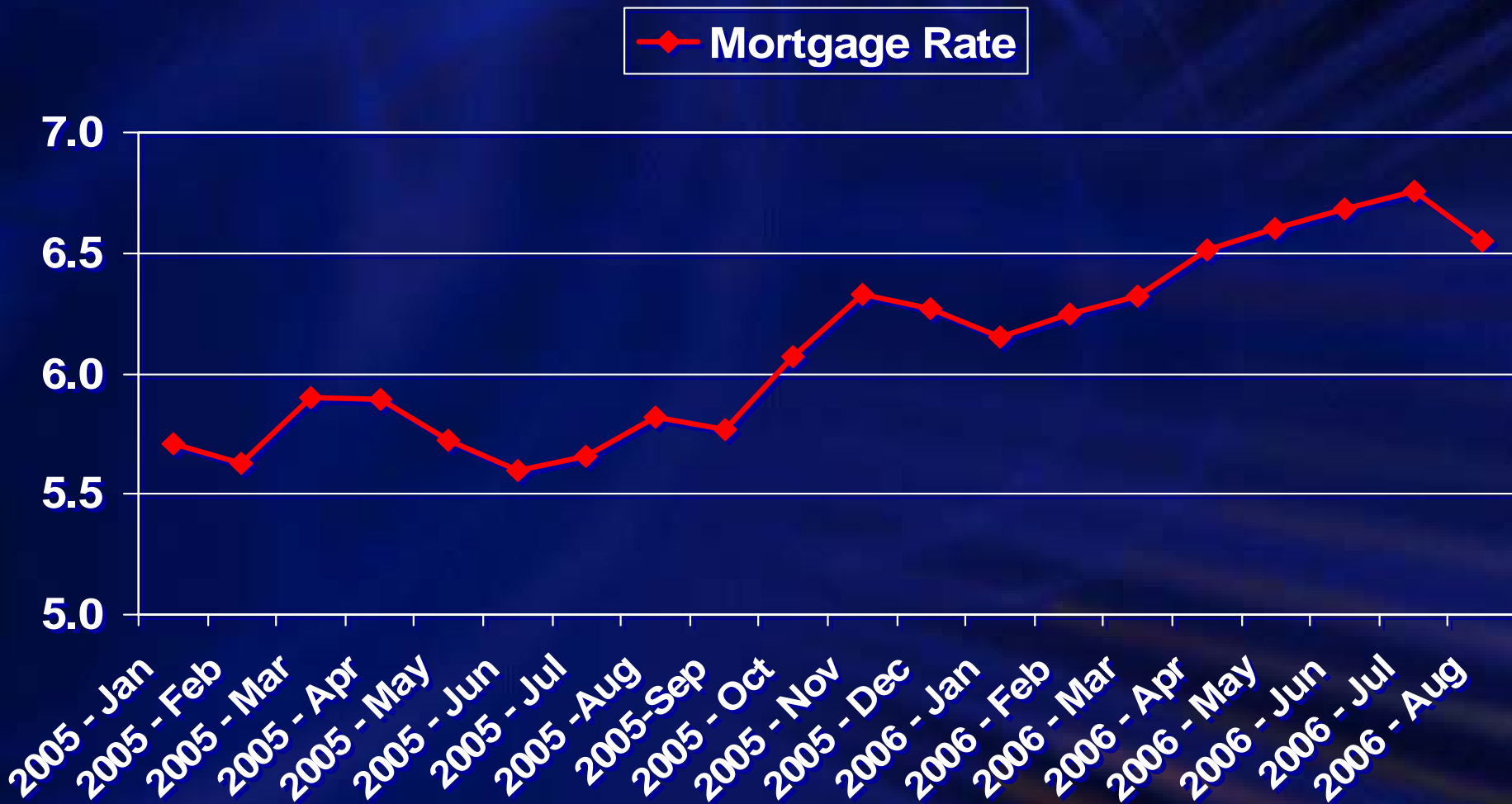


# 2005 Hurricanes Impact on Home Sales (3)

## Home Sales Change in Florida and U.S.



# Rising Mortgage Rates (other reason for declining sales)



Source: Freddie Mac

# Price Decelerations and Declines

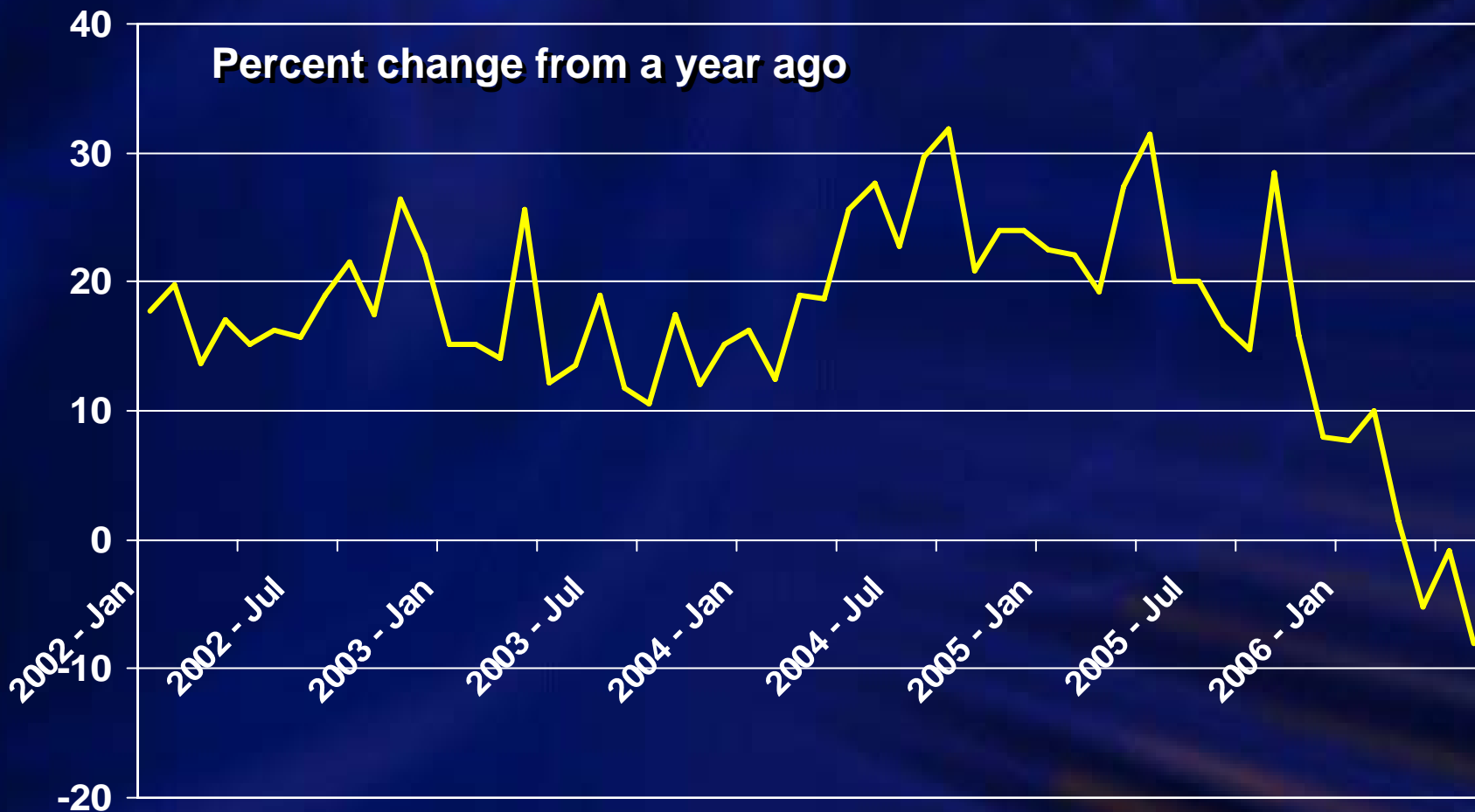
(Existing Home Sales: 2006 Q2 vs 2005 Q2)

MSA	2005 Q2	2006 Q2
Cape Coral – Ft. Myers	45%	2%
Jacksonville	8%	19%
Miami	32%	2%
Orlando	37%	17%
Palm Bay	40%	6%
Pensacola	20%	6%
Sarasota	28%	0%
Tallahassee	10%	7%
Tampa	23%	19%

Source: NAR

# Condo – Significant Price Depreciation in South

— South



Source: NAR

# U.S. Migration Trend

(Top 5 vs. Bottom 5)

State	Net Migration from 2000 to 2005
Florida	+1,057,000
Arizona	+408,000
Nevada	+270,000
Georgia	+233,000
North Carolina	+232,000
New Jersey	-194,000
Massachusetts	-236,000
Illinois	-391,000
California	-664,000
New York	-1,001,000

Source: Census

# Higher Losses

- Unprecedented losses from 2004 and 2005 hurricanes
- Higher Premium should be for higher risk – but paid based on actuarial analysis
- Were '04 and '05 seasons “predictable” normal hurricane events? (\$70 billion in Florida)
- Was Sept 11<sup>th</sup> terrorist attacks predictable? (\$44 billion)

# Insurance Industry Response

- Higher Premiums
- Limited Coverage
  - Allstate Corp. pulling out of Florida coast
  - Poe Financial pulling out (316,000 policy holders)
- CITIZEN (state-run insurance of last resort)
  - Huge growth and financial drain
  - 1.24 million (as of end of August)
  - \$1.7 billion deficit
  - Raised rates to \$21 per \$1000

# National Catastrophic Insurance

- Places cap on insurable losses (i.e., if losses exceed \$20 billion for state, then Federal Government picks up the remaining tab)
  - Similar to terrorism insurance
  - Similar to medical tort reform (e.g., Texas medical insurers provided wide affordable coverage after the tort reform)
- With federal catastrophic backstop, private insurers can better manage risk in the event of “unpredictable” catastrophic losses
- Ensures private market participation even in cases of catastrophes

# **No Insurance Still Costs Society**

**Current lack of federal backstop does not mean no federal financial obligation.**

- Many Midwesterners may ask why care about hurricanes? Why should my tax dollars be used to help only the few states?**
- But, federal outlays are common after disasters, including from earthquakes, wild fires and tornadoes**
- E.g., near \$100 billion federal tax dollar infusion after Hurricane Katrina**
- Midwesterner still pays either with or without catastrophic insurance, yet they would now get covered for tornadoes and floods with catastrophic insurance**
- Why not make the market transparent on the dollar contribution by federal government before the events (with catastrophic insurance) rather than ad-hoc disaster relief spending after the events?**

# Private Insurers in the Meantime

- **Why are private insurers pulling out of Florida?**
  - 2004 and 2005 hurricanes were aberrations
  - Money to be made in upcoming years?
  - Irrational pull-back?
- **Warren Buffet is said to be interested in insurers of Florida market (and watching the Weather Channel)**