



# ***A Grind of a Recovery***

**Maricopa County Board of Supervisors**

**November 14, 2011**

**By:**

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# U.S. Economy

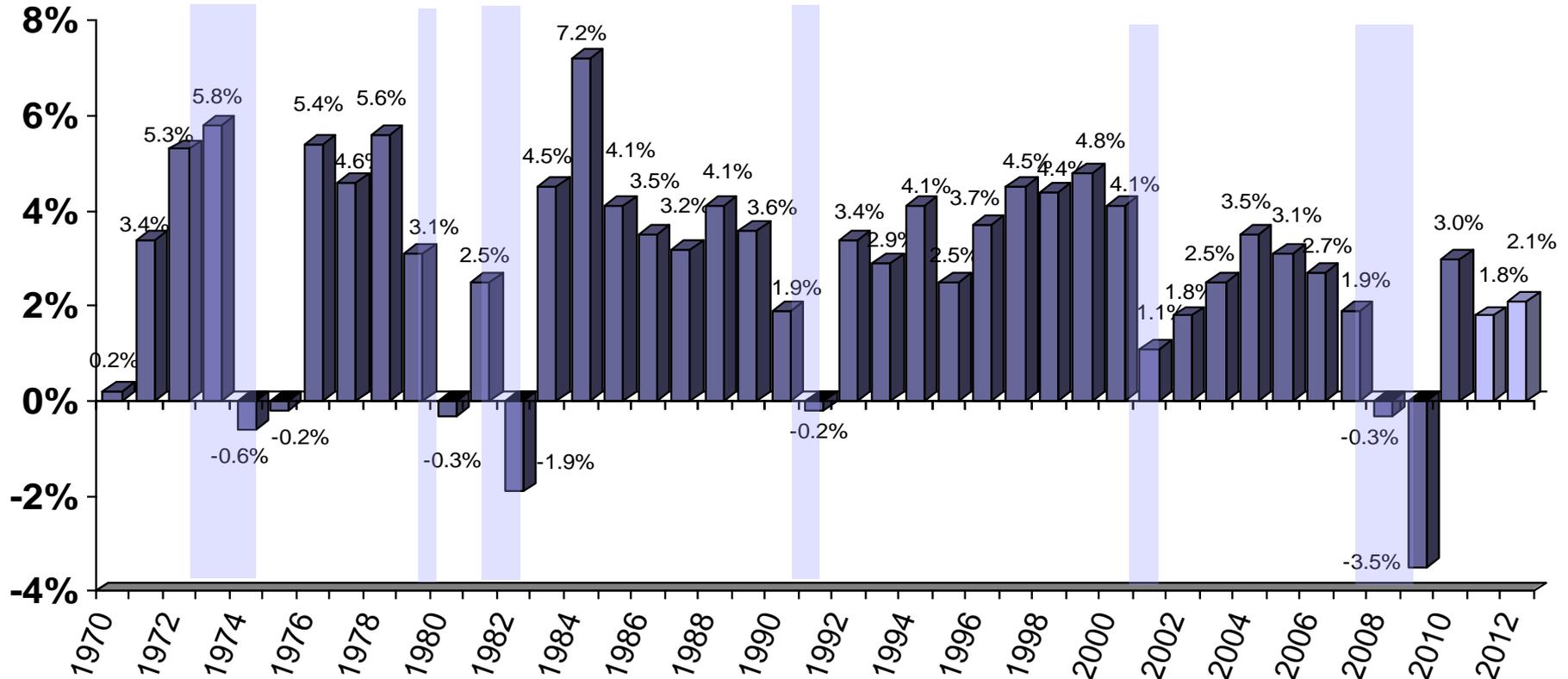


garyvarvel.com



# United States Real Gross Domestic Product\* Annual Growth 1970 - 2012\*\*

Source: U.S. Bureau of Economic Analysis & *Blue Chip Economic Indicators*



\* Based on chained 2005 dollars.

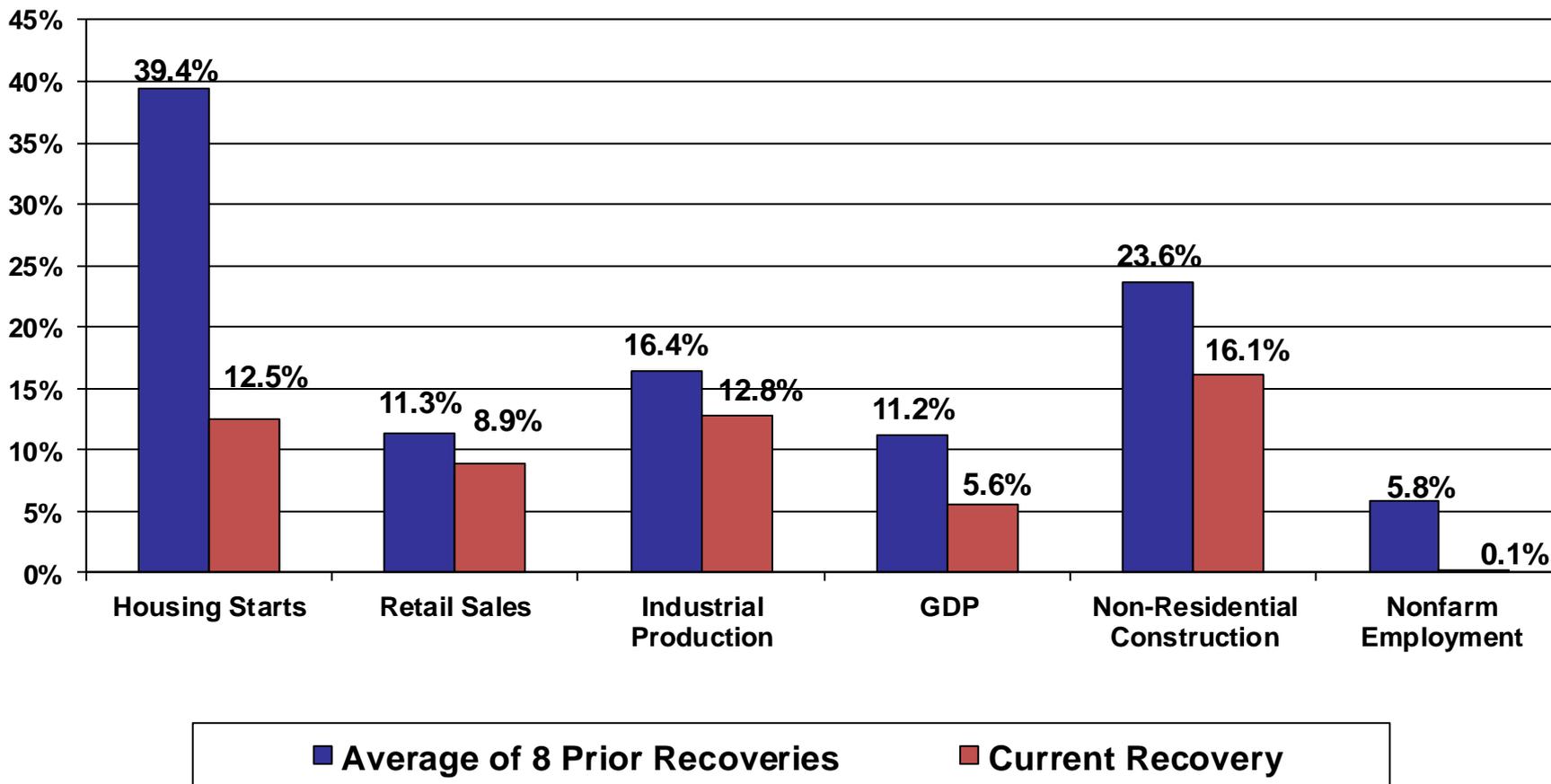
\*\* 2011 - 2012 are forecasts from the Blue Chip Economic Indicators, November 2011

 **Recession Periods**



# Recession End v. 9 Quarters Later

Sources: NAHB; Census, BEA, BLS



# **Economy is likely to continue to grow, but growth will remain weak because of the following:**

- Consumer spending weak.
- Excess industrial capacity.
- No strong housing recovery.
- Limited commercial construction.
- Continued pressure on state and local government.
- Limited policy options on part of Federal government.



# Back to School...



## re-ces-sion

Noun

Economic contraction typically due to a contraction in private sector capital (i.e. debt & equity) arising from a tight Central Bank policy (usually to fight inflation).

In other words, credit & equity gets tougher to get and costs more.

It ends when the Central Bank eases.



## re-cov-er-y

Noun

A return to normal state of strength.

Starts when the Fed makes credit & equity easier and cheaper to get (lowering debt service ratios) and financial asset values increase (i.e. Wealth Effect).



## But, in this cycle...

- Monetary policy cannot sufficiently reduce debt service costs and stimulate credit growth.
- Debtors from consumers to countries can't meet obligations.
- You can't push rates below zero.



# De-lev-er-ag-ing

Verb

Economic contraction due to a contraction in credit & equity due to a shortage of capable and credit worthy lenders and borrowers that cannot be rectified by the Central Bank charging the cost of money.



## De-lev-er-ag-ing

In other words, banks are scared to lend, borrowers are not qualified to borrow and reducing rates to zero and pumping up the monetary base isn't enough.



# Deleveraging

- Cannot be rectified by Central Bank actions alone.
- Structural changes are required.



# For consumers, debt service obligations are rectified by:

1. Lower interest rates.
2. Using more of current income to pay for previously accumulated debt – so less current spending.
3. Repudiation of debt – foreclosures, mailing in keys, bankruptcy.



# Deleveraging

Ends when:

1. Debt service obligations are reduced to the point where consumers are comfortable.
2. Increase in money supply make it easier for debtors to meet their debt service obligations.



No one knows exactly what level of financial obligation ratio consumers will be comfortable with.



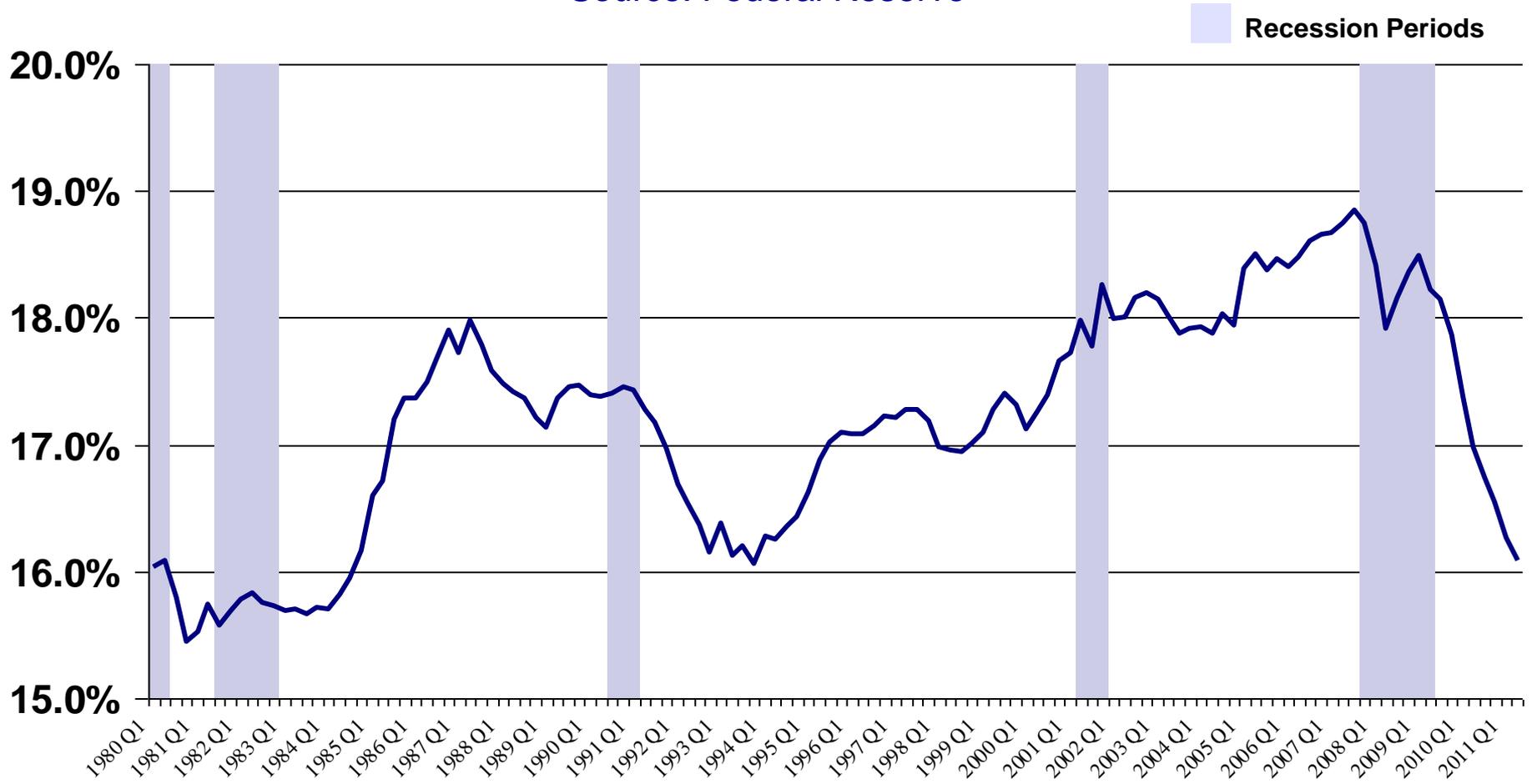
# Consumers



# Financial Obligation Ratio\*\*

## 1980 – 2011\*

Source: Federal Reserve



\*Data through second quarter 2011

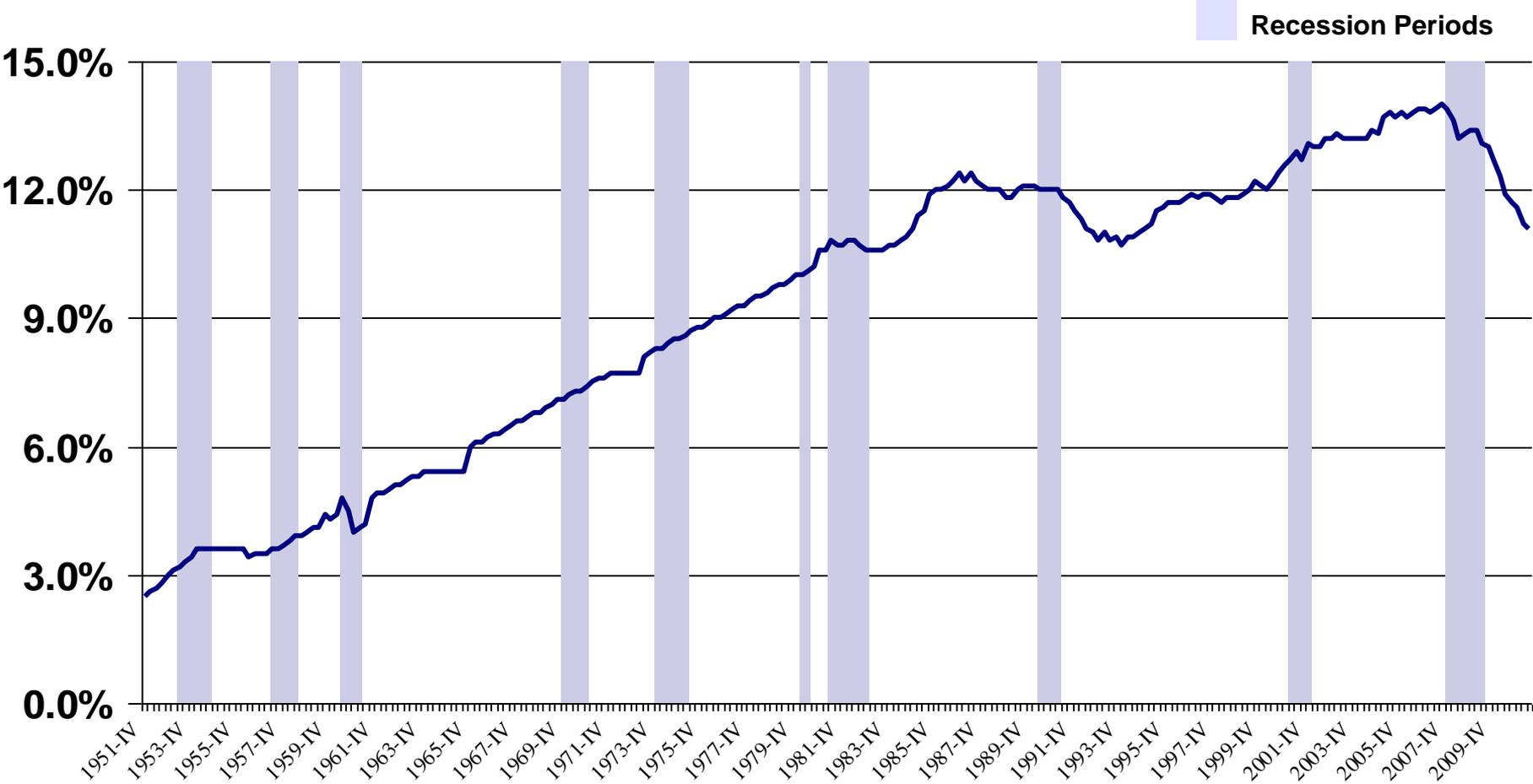
\*\*Ratio of mortgage and consumer debt (including auto, rent and tax payments) to disposable income.



# Household Debt Service Ratio\*\*

## 1951 – 2011\*

Source: Federal Reserve



\*Data through Second quarter 2011

NOTE: 1951 – 1980 data estimated based on data released by Bridgewater Associates

\*\*Ratio of mortgage and consumer debt (excluding auto, rent and tax payments) to disposable income.



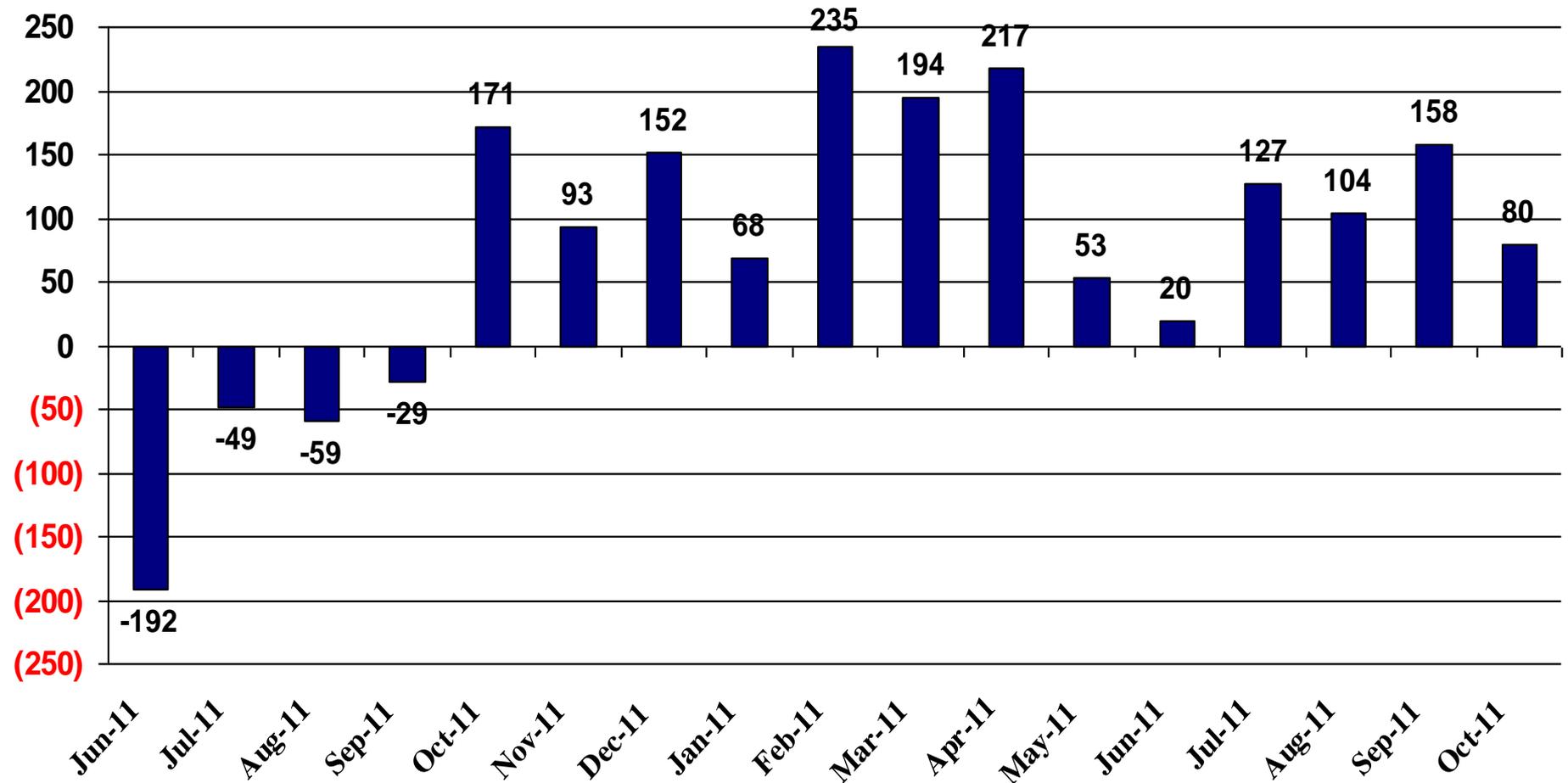
# US New Job Data

## Change from Prior Month (S/A)

### June 2010 – October 2011

Source: Bureau Labor of Statistics

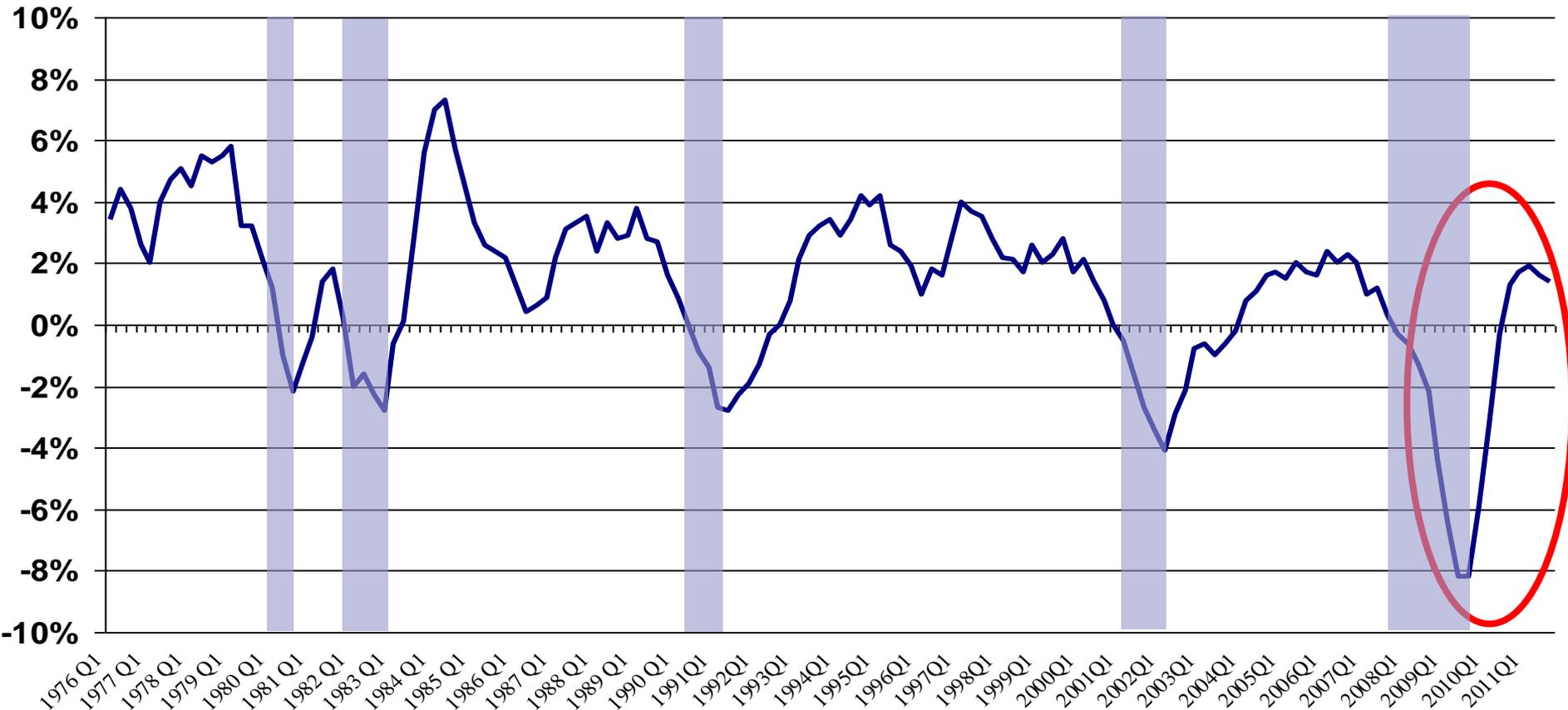
(000's)



# Hours Worked Percent Change from Year Ago 1976 – 2011\*

Source: Bureau of Labor Statistics

Recession Periods



\*Data through third quarter 2011

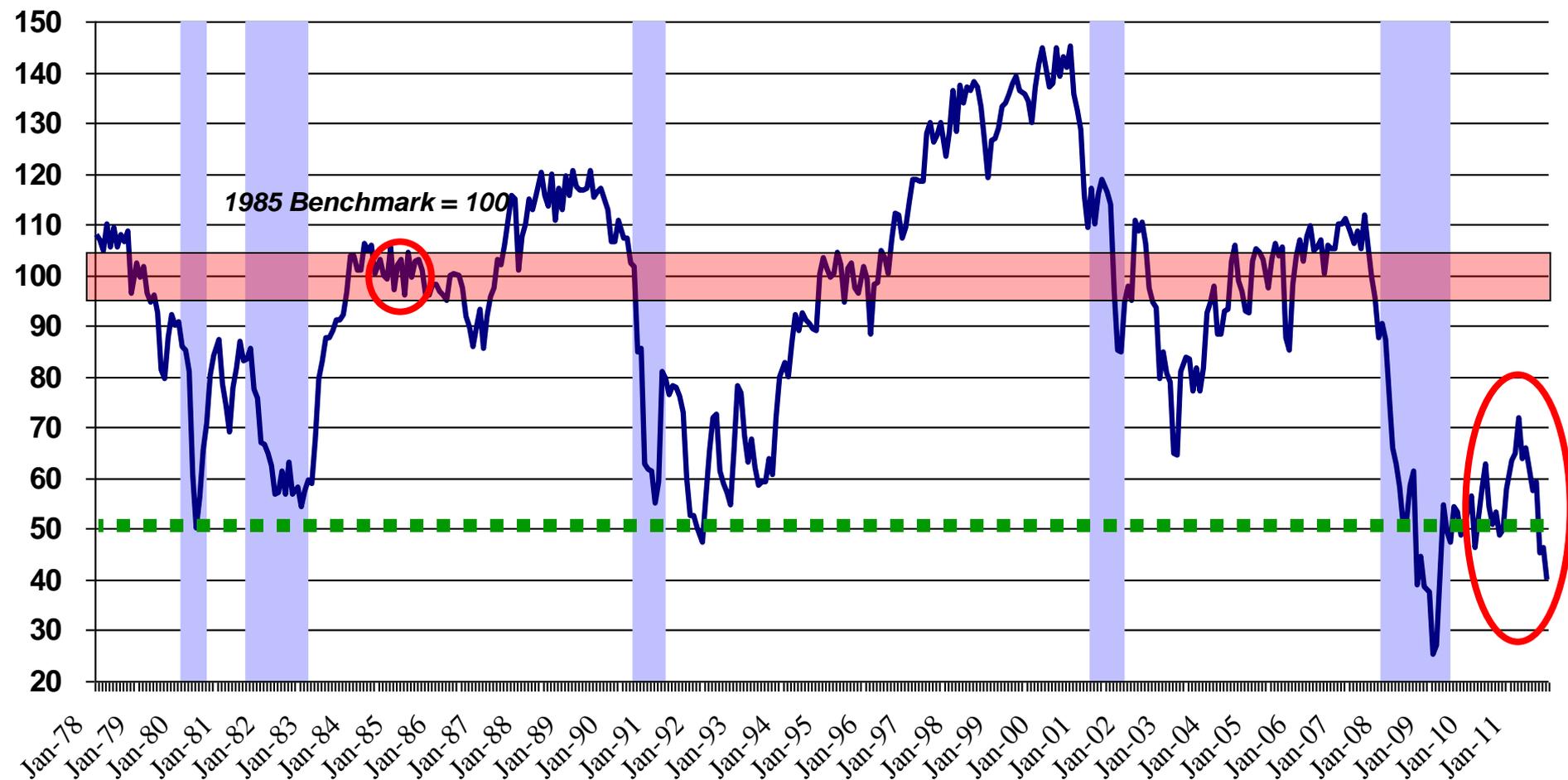


# Consumer Confidence

## 1978 – 2011\*

Source: The Dismal Scientist

Recession Periods



\*Data through October 2011



# Consumer Summary:

- **Jobs are being created but not quickly enough.**
- **Those that have jobs are spending a little more but will remain cautious.**
- **Unemployment to remain high.**
- **Wealth levels are improving but people still feel poor.**
- **Will the additional uncertainty translate into reduced consumer spending?**



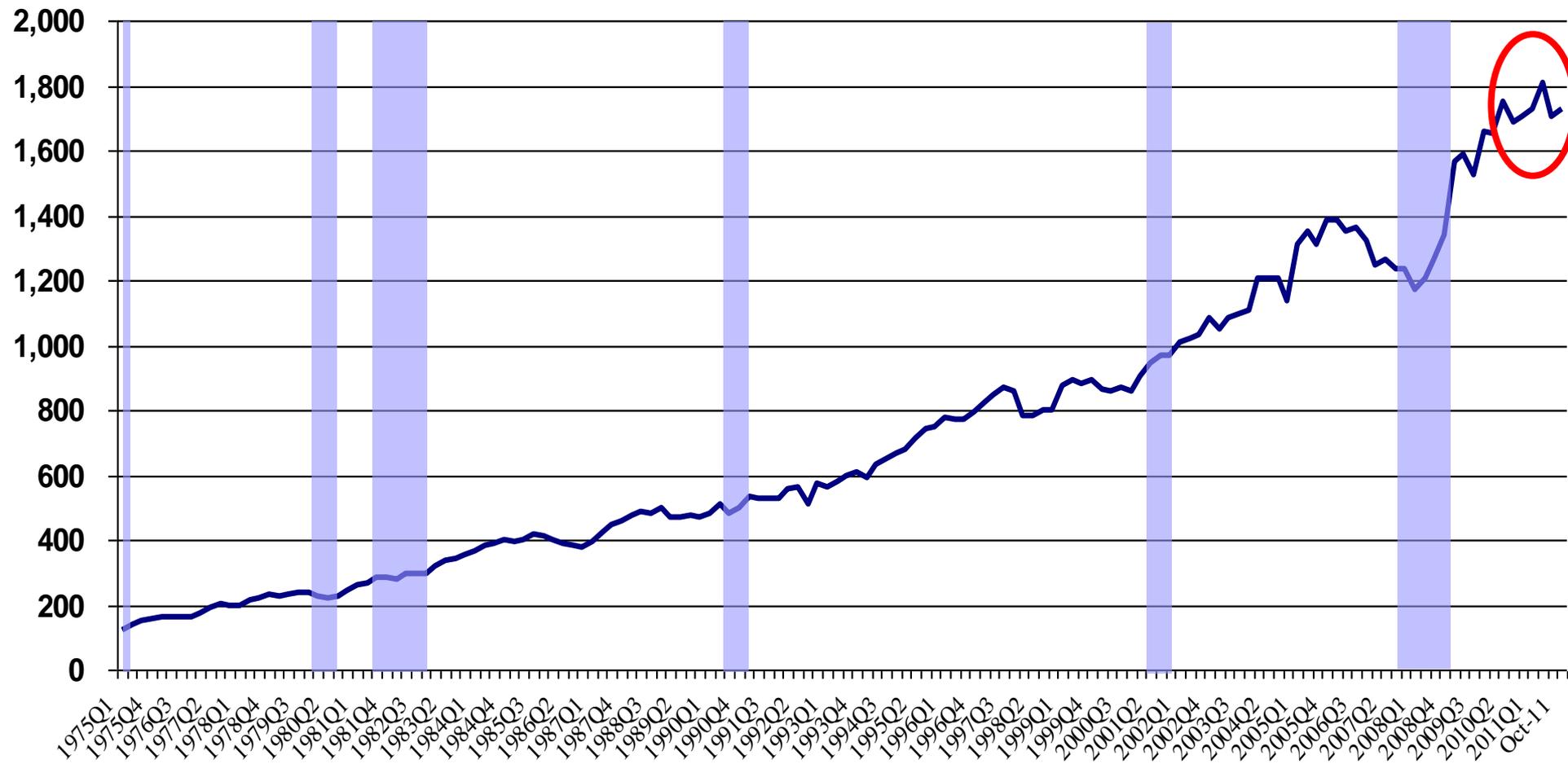
# Business



# Corporate Profit (Billions of Dollars, SA) 1975-2011\*

Source: BEA

Recession Periods



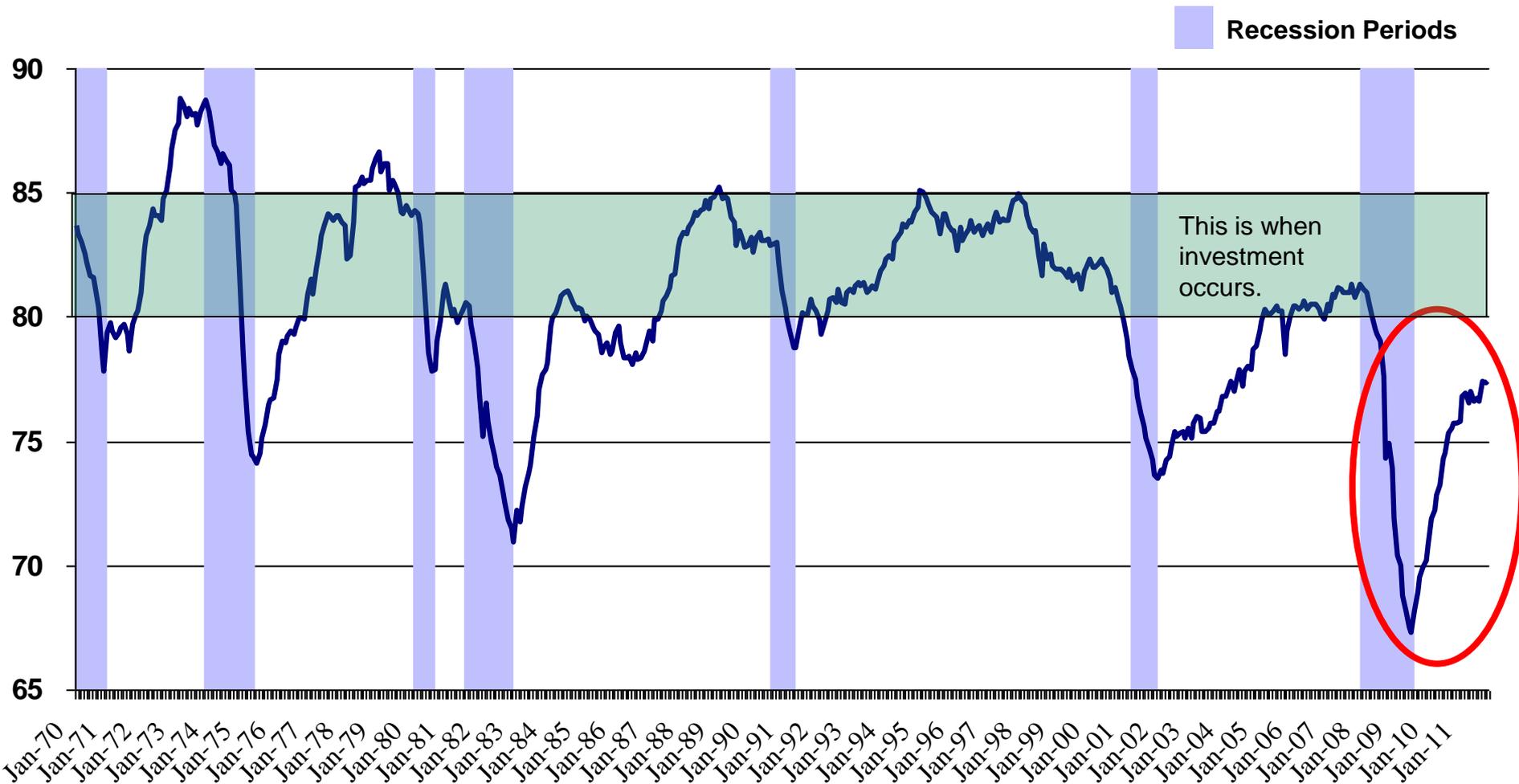
\*Data through second quarter 2011



# Capacity Utilization Rate

## 1970 – 2011\*

Source: The Conference Board



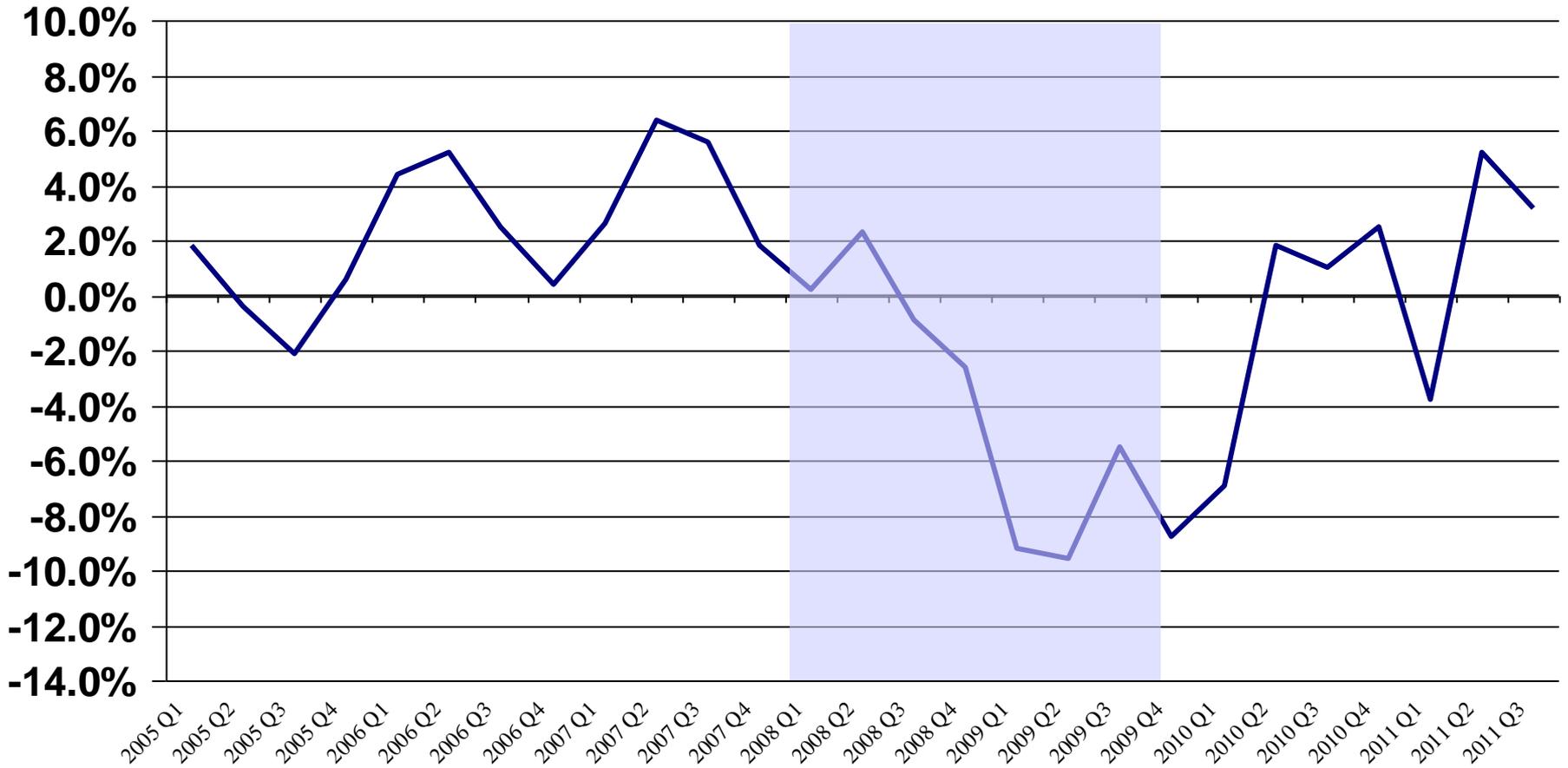
\*Data through September 2011



# Business Spending on Plant Percent Change from Prior Quarter 2005 – 2011\*

Source: Bureau of Economic Analysis

Recession Periods

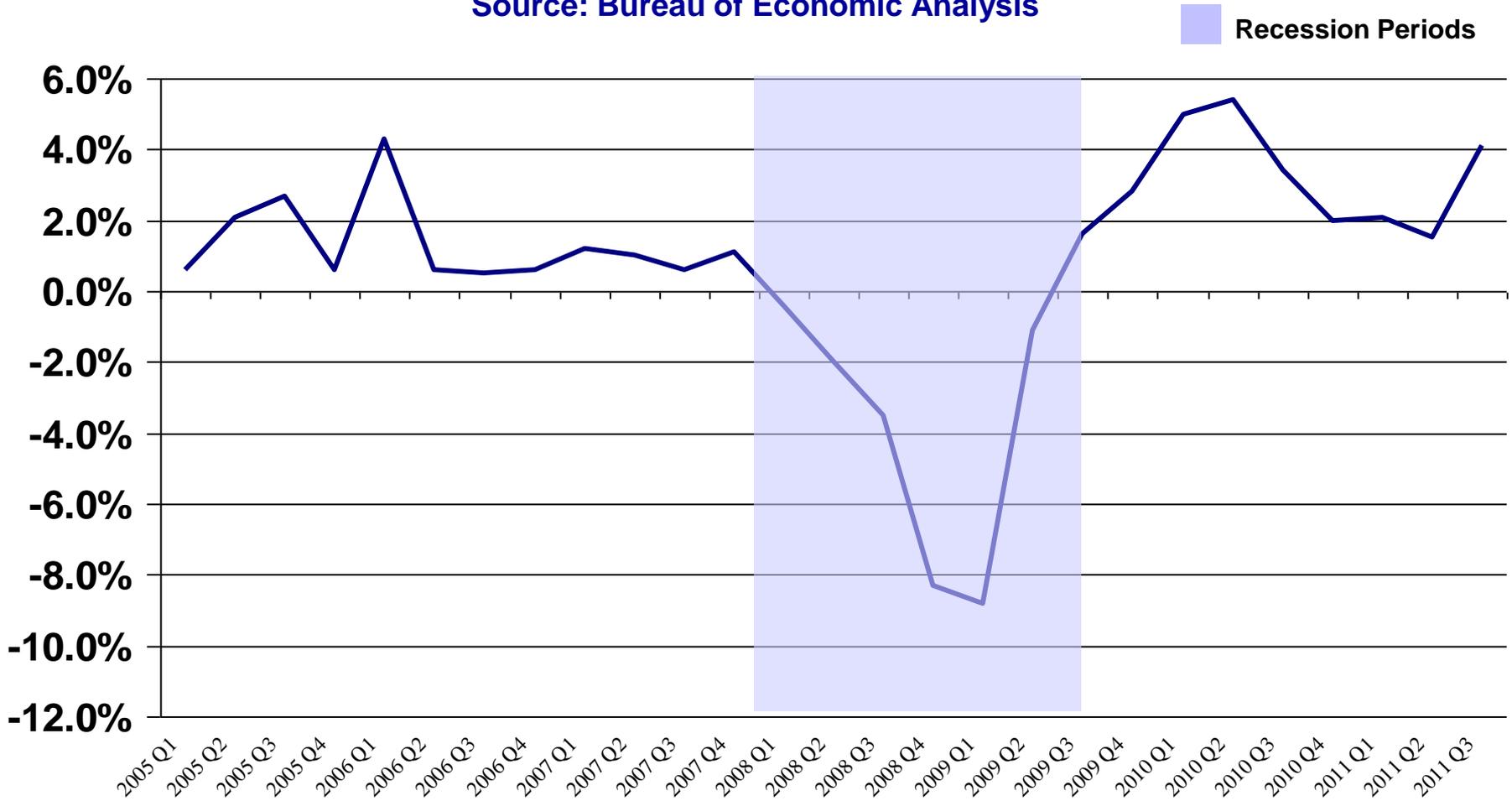


\*Data through third quarter 2011



# Business Spending on Equipment Percent Change from Prior Quarter 2005 – 2011\*

Source: Bureau of Economic Analysis



\*Data through third quarter 2011



# Government



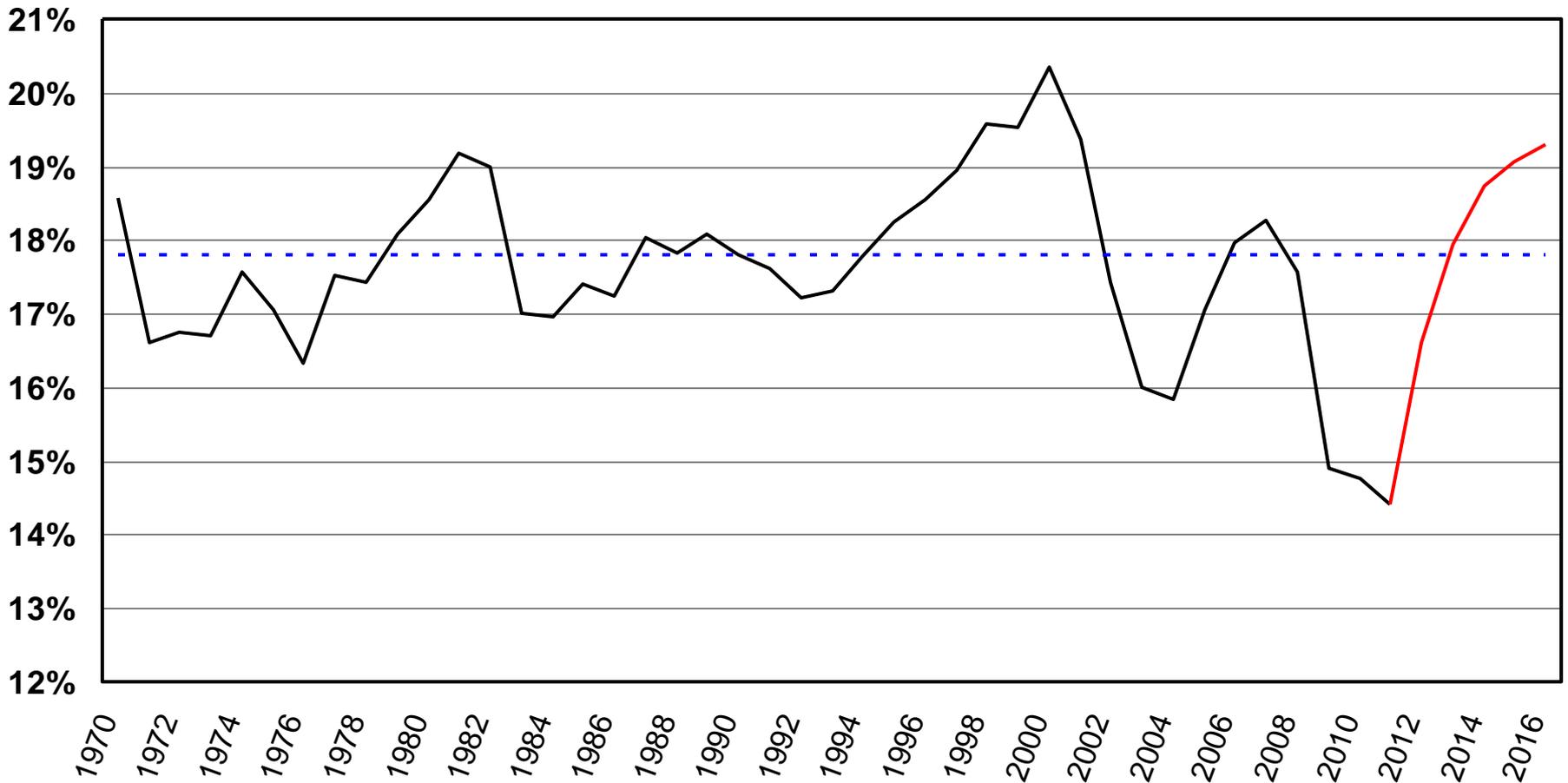
# Federal Government:

\$0.41 out of every \$1  
spent is borrowed.



# Federal Receipts as a Percent of GDP

Source: FY 2012 Budget of the United States Government



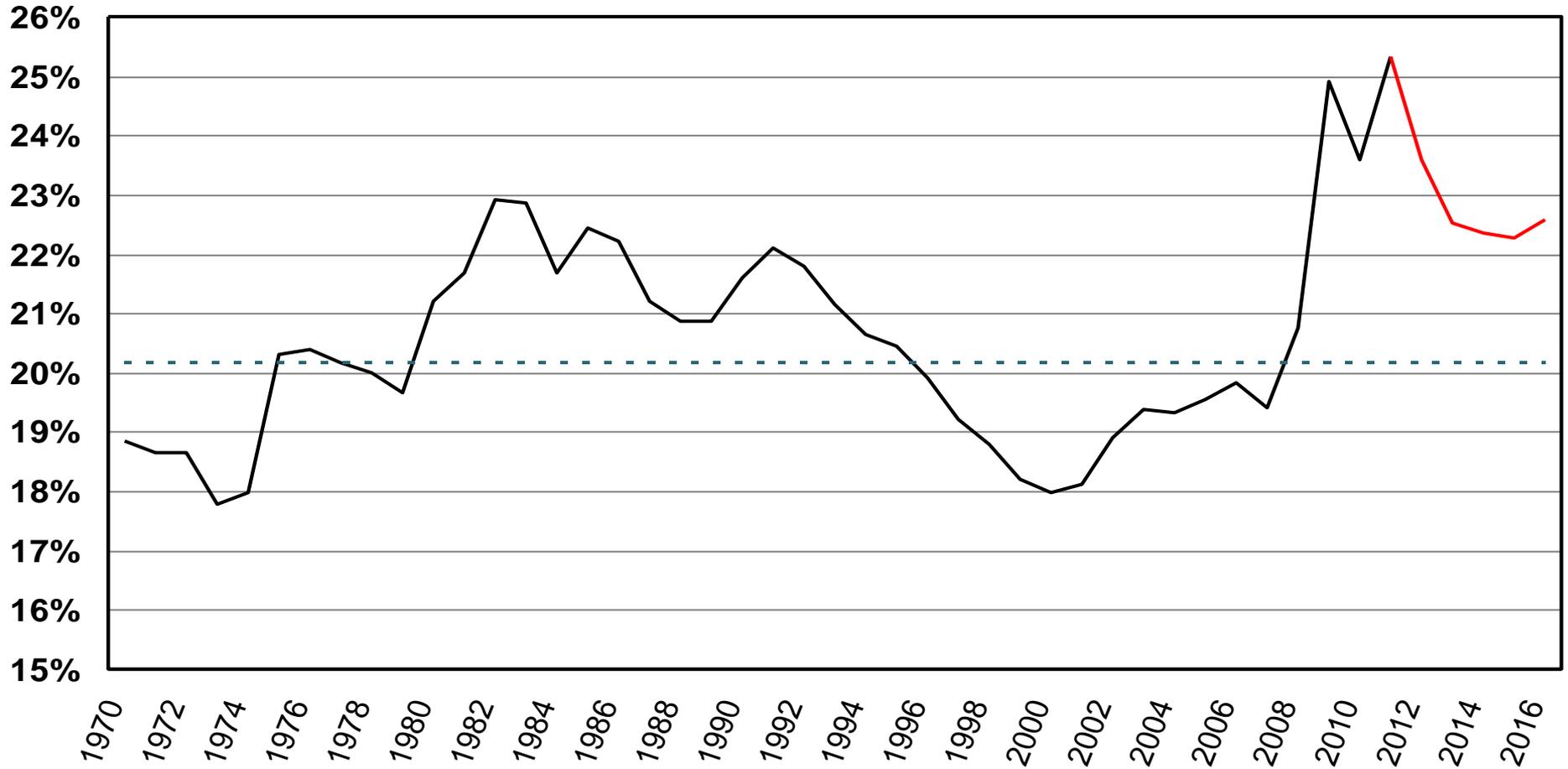
--- 1970 – 2007 average

--- Obama Administration proposed budget, Feb. 2011



# Federal Outlays as a Percent of GDP

Source: FY 2012 Budget of the United States Government



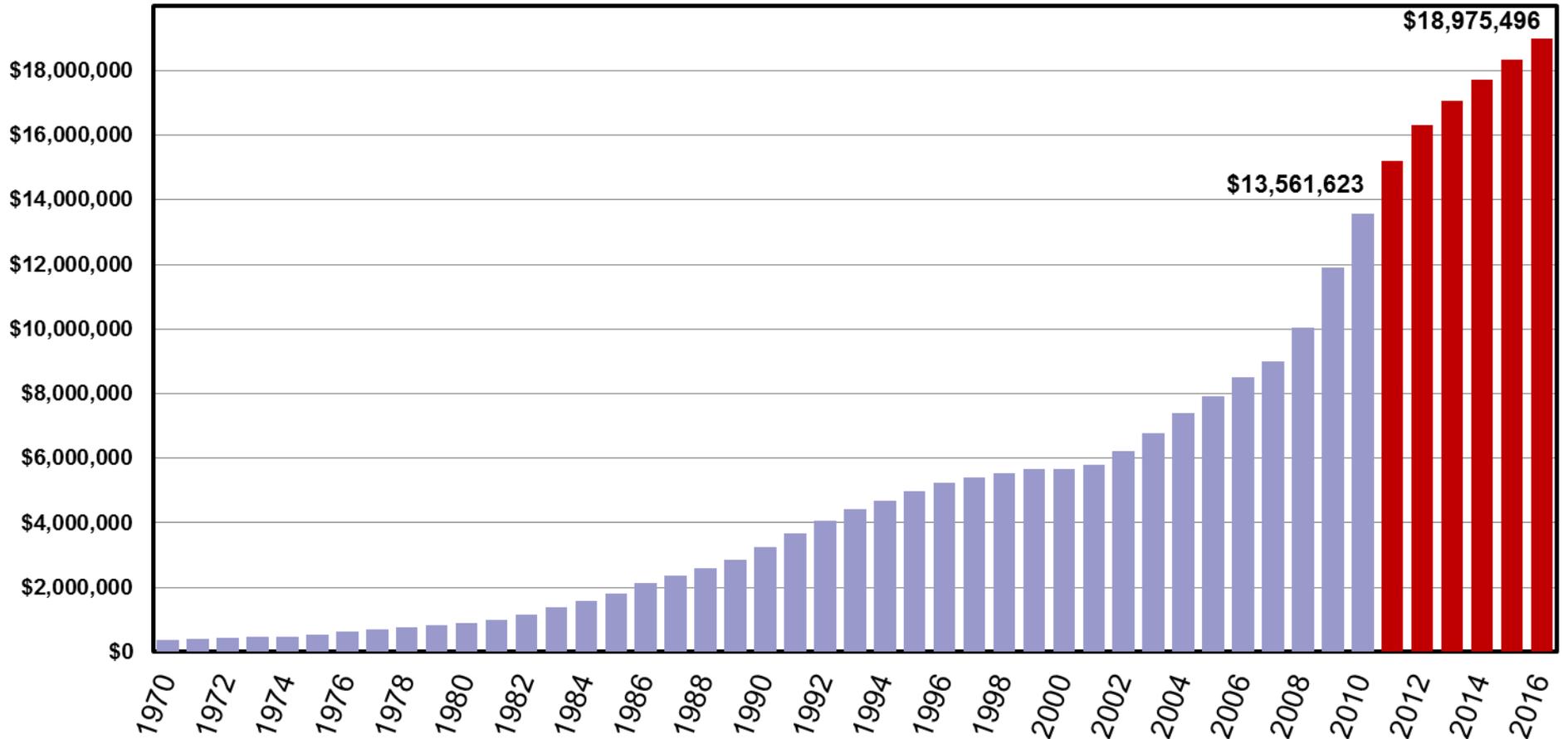
--- 1970 – 2007 average

--- Obama Administration proposed budget, Feb. 2011



# U.S. National Debt (\$mil)

Source: U.S. Treasury; FY 2012 U.S. Budget



--- 1970 – 2007 average

--- Obama Administration proposed budget, Feb. 2011



# The Real Numbers

- Federal spending over the next 10 years is estimated at \$46 trillion.
- That is an increase of about \$9.1 trillion (before the cuts).
- After cuts, the increase is expected to be \$7.4 trillion.

**\*\*In other words, there are no cuts planned, just a reduction in the rate of increase.**



# For Perspective

- Ma & Pa Kettle spend \$38,200 per year
- But their income is \$21,700.
- They have to put \$16,500 on credit card each year.

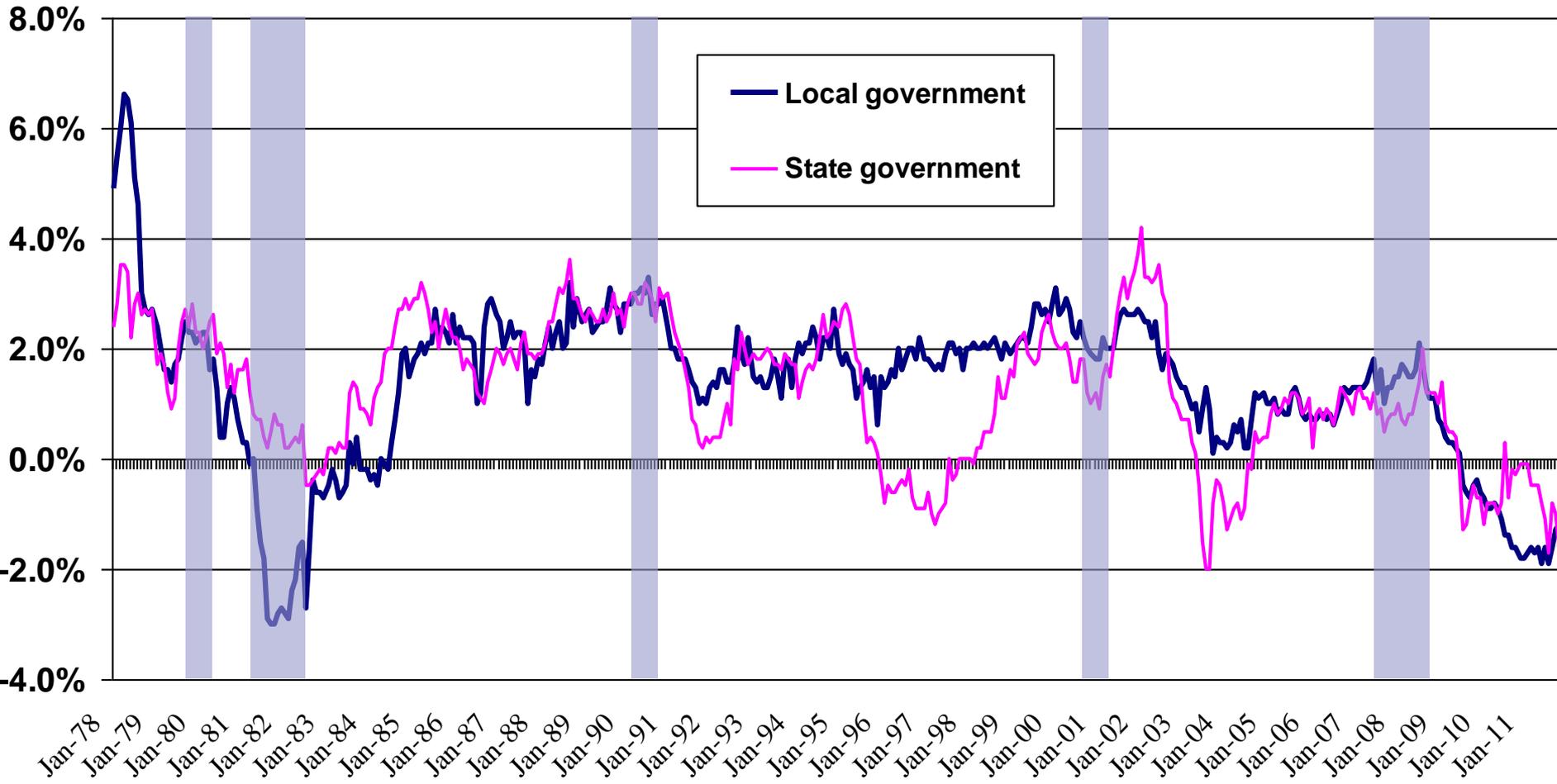
**After the long, hard talk... they cut \$190 in year one and \$385 in year two.**



# State & Local Government Employment Percent Change Year Ago

Source: BLS

Recession Periods



\*Data through October 2011

# National Outlook



# Slow Growth

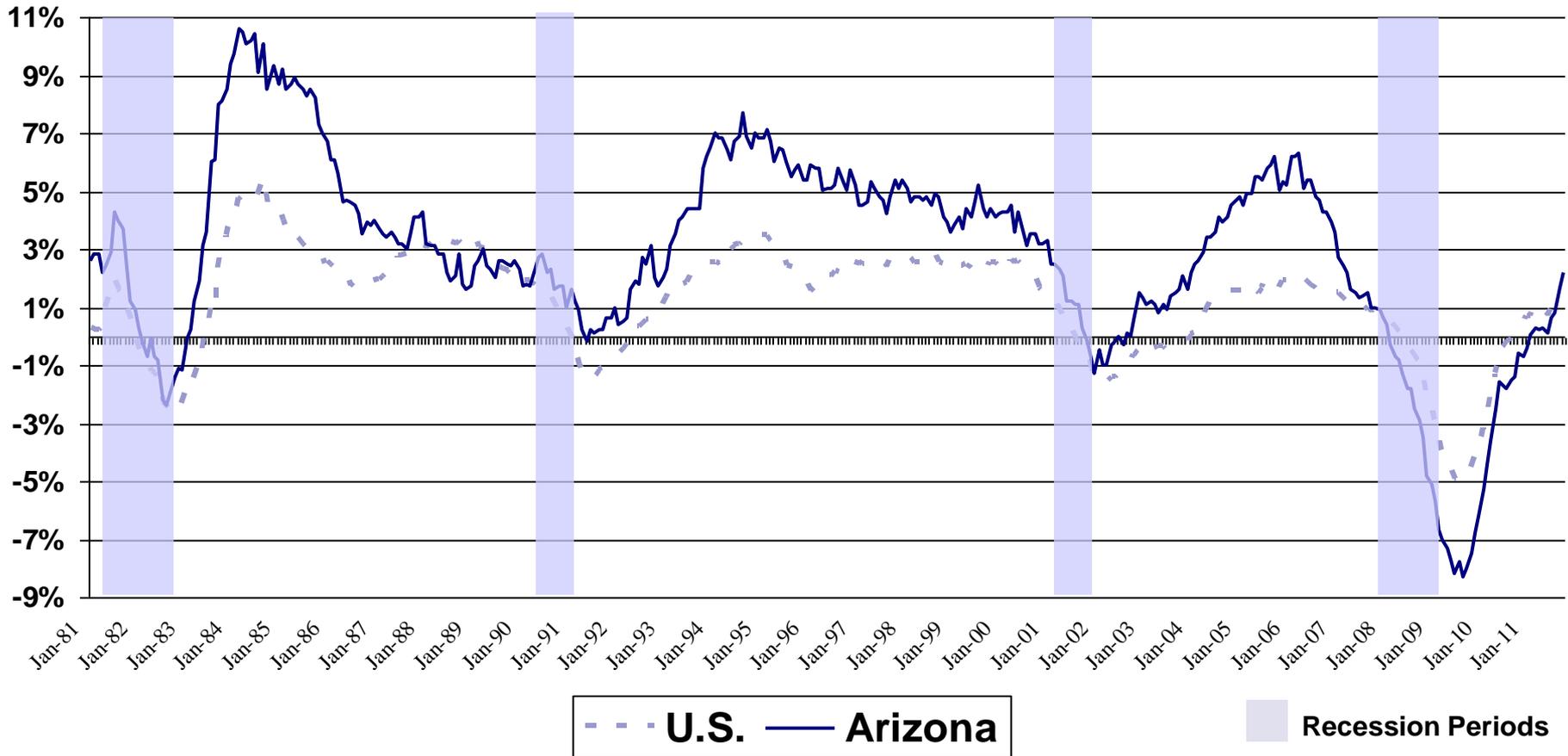


# ARIZONA

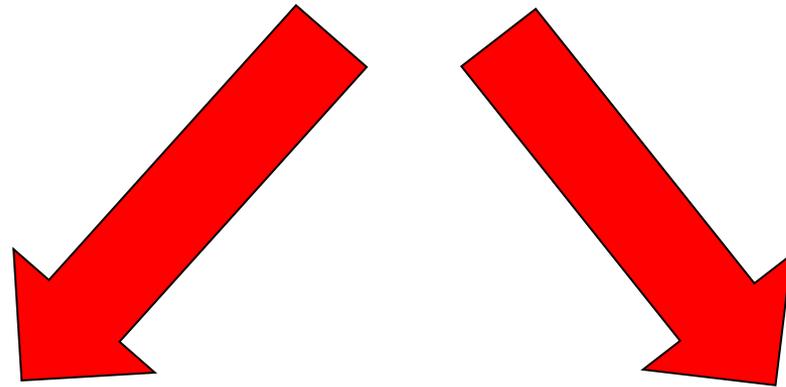


# Arizona & US Move Together

(Nonfarm Employment Percent Change 1980 – Sep 2011)



# Think of Arizona in 2 parts:



**Export**

**Domestic**

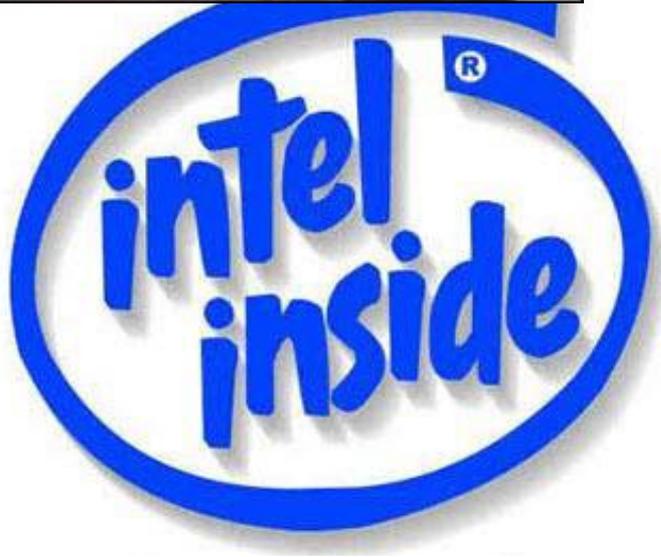
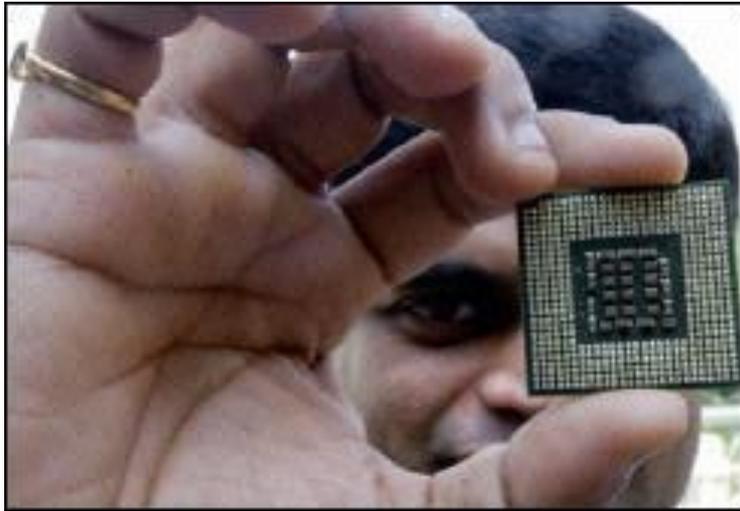


# **Export** – function of the **U.S. economy**



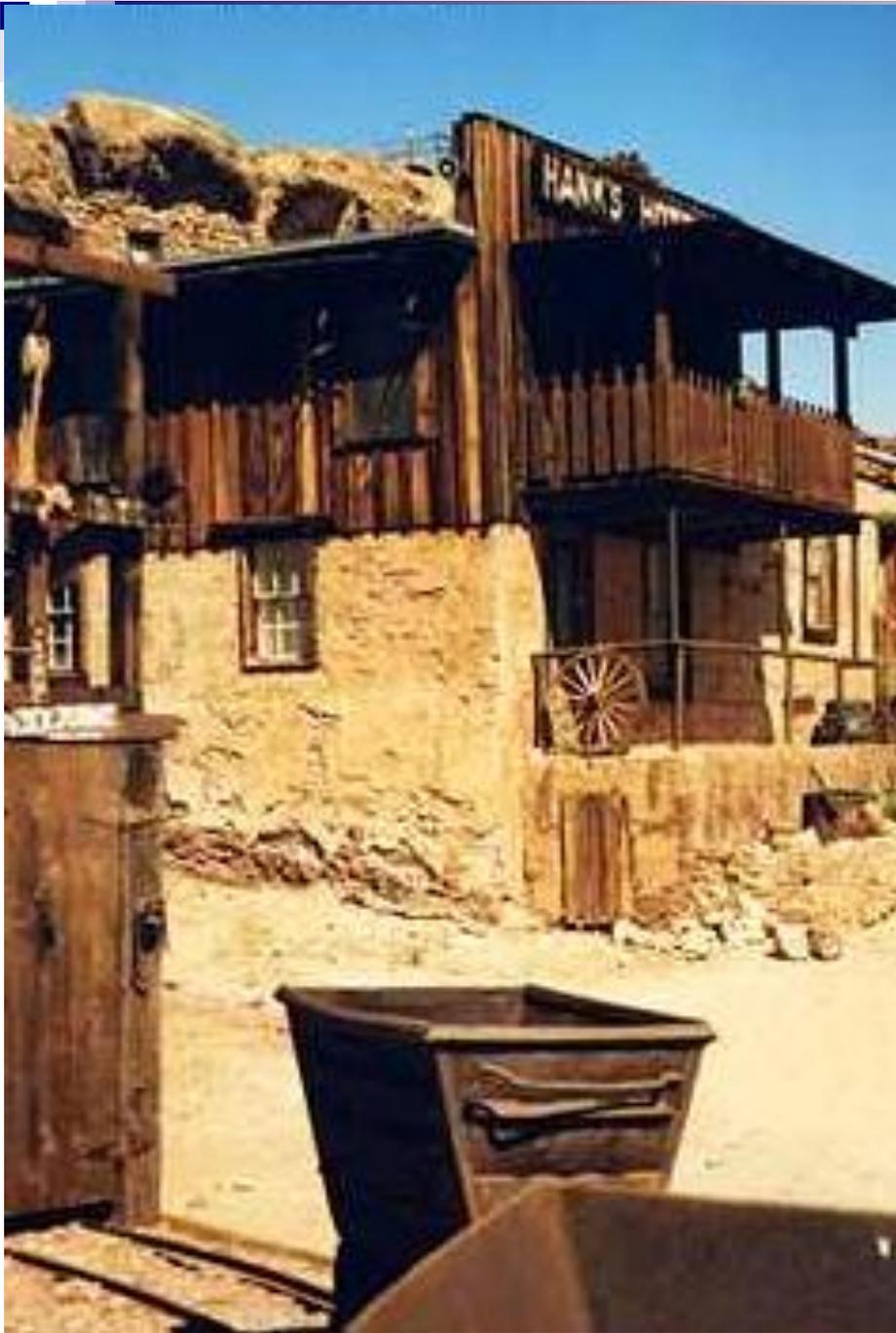
**And,  
the U.S.  
economy  
is weak**





**The health of an economy is a function of its export, or “base” industries.**





**Why do  
ghost  
towns  
exist?**

# Greater Phoenix Economic Drivers (Base Industries):

Base Industry	Current Health
Manufacturing	+
Tourism	+
Advanced Business Services	+
Federal government	-
Retirement and second homes	-
Others	?



# Flow of a Region's Economy

## Base Industries

Manufacturing, Tourism, Export-Related Business Services,  
Retirement, Etc.

Spending  
by  
Base  
Industries

## Local Market Industries

Retail, Construction, Local Business Services, Banks,  
Local Government



# Greater Phoenix

## Domestic Industry Examples

General merchandise stores

Home Improvement Stores

Restaurants & bars

Gas Stations

Realtors

Mortgage brokers

Title companies

Lawyers

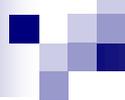
Banks

Education

Construction

Landscapers





# **Domestic – *ripple effects* of the export sector**

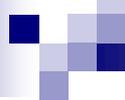
**(Direct → indirect → induced)**



# Direct & Indirect employees spend their wages on....

- ✓ A new suit at Dillard's
- ✓ A Slurpee at 7-11
- ✓ Gas for their car
- ✓ Dinner at a nice restaurant.





Right now the *ripple effects* won't be as strong as normal because...

- 1) Consumers are still paying down debt.
- 2) Demand for new construction is currently being met by existing inventory (so no need for new construction).
- 3) It is difficult for people to sell their homes in other states and move to Arizona.



**The export sector is weak -  
meaning that less money will  
flow into the local economy.**



**And, the domestic sector is weaker than normal because multiplier won't be as high.**



**These problems  
appear to be  
cyclical and/or transitory.**



# When will things accelerate?

- **As consumers finish restructuring their balance sheets.**
- **As home prices and wealth levels stabilize across the U.S.**
- **As those that postponed retirement, retire and absorb Arizona housing.**
- **As local job creation accelerates and people move here for a new job.**
- **As people reverse the doubling up process.**



# When will things accelerate?

**Now through about 2015  
will still be slower than normal;  
but 2015 through 2020  
should be strong.**

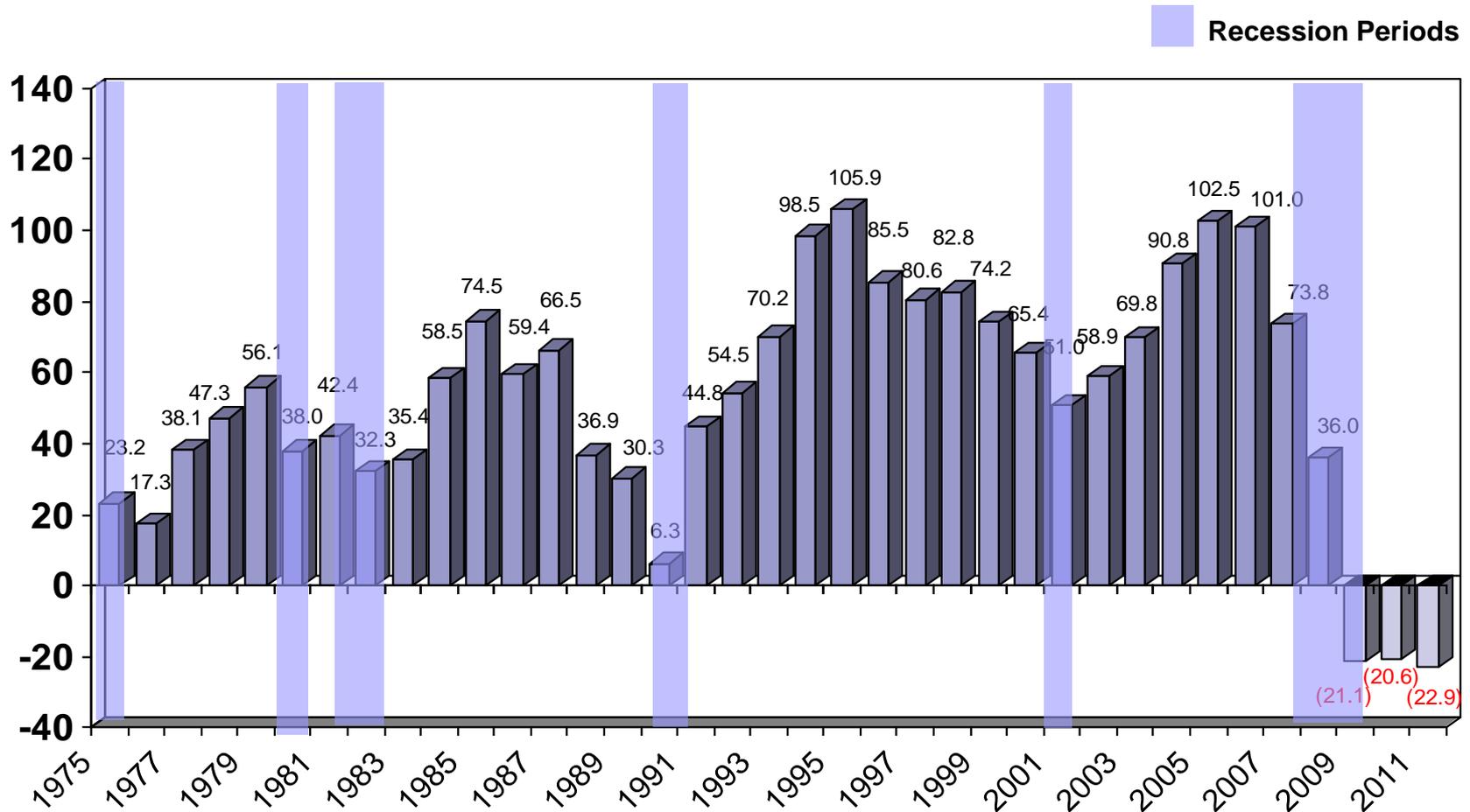


**One of the differences this  
time is the  
population slowdown.**



# Greater Phoenix Net Migration 1975–2011

Source: University of Arizona



# SRP Residential Utility Hookup Percentage Growth Greater Phoenix 2003 – 2011\*

Source: SRP

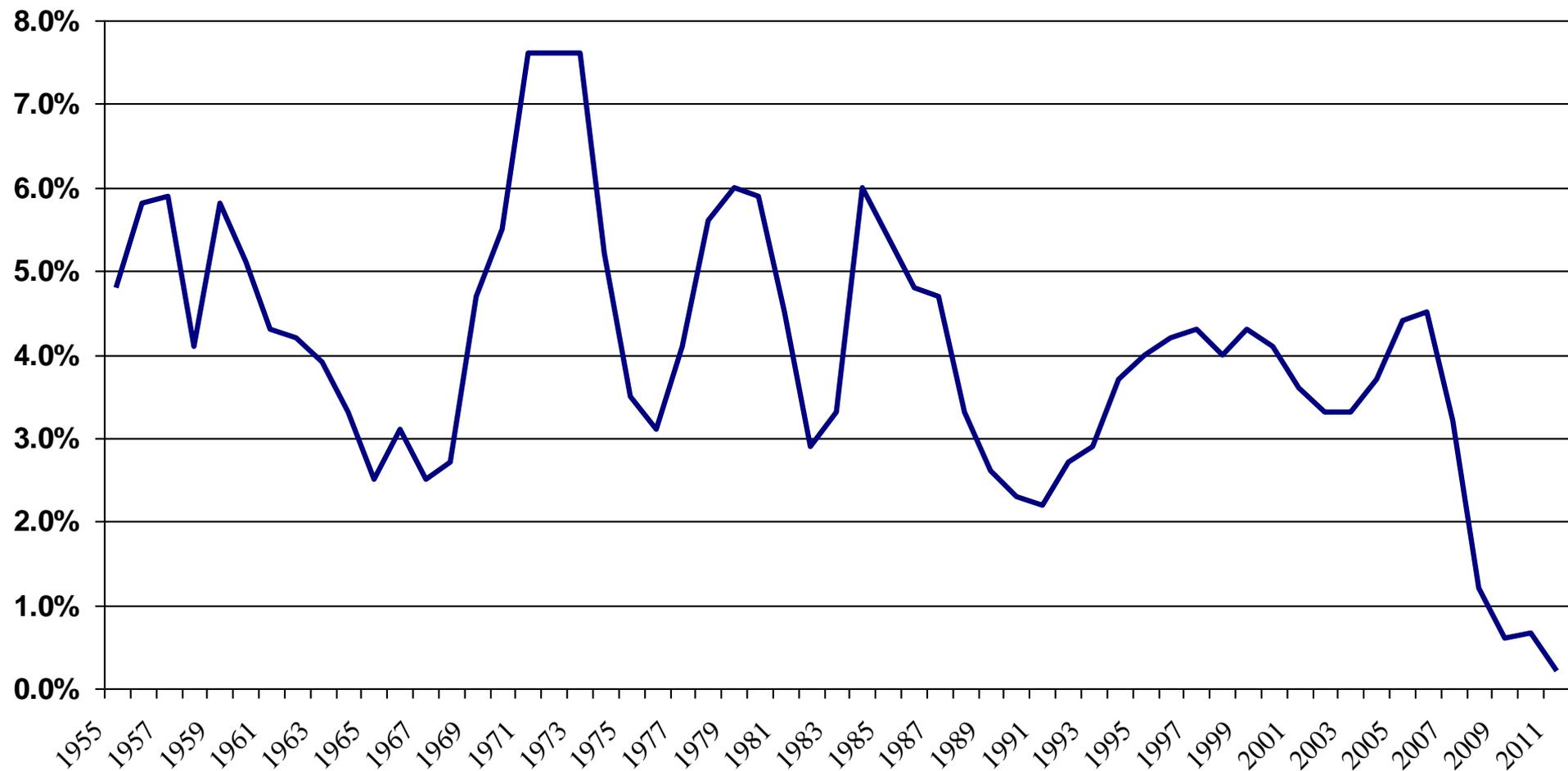


\*Data through June 2011.



# APS Residential Utility Hookup Percentage Growth Greater Phoenix 1955 – 2011\*

Source: APS

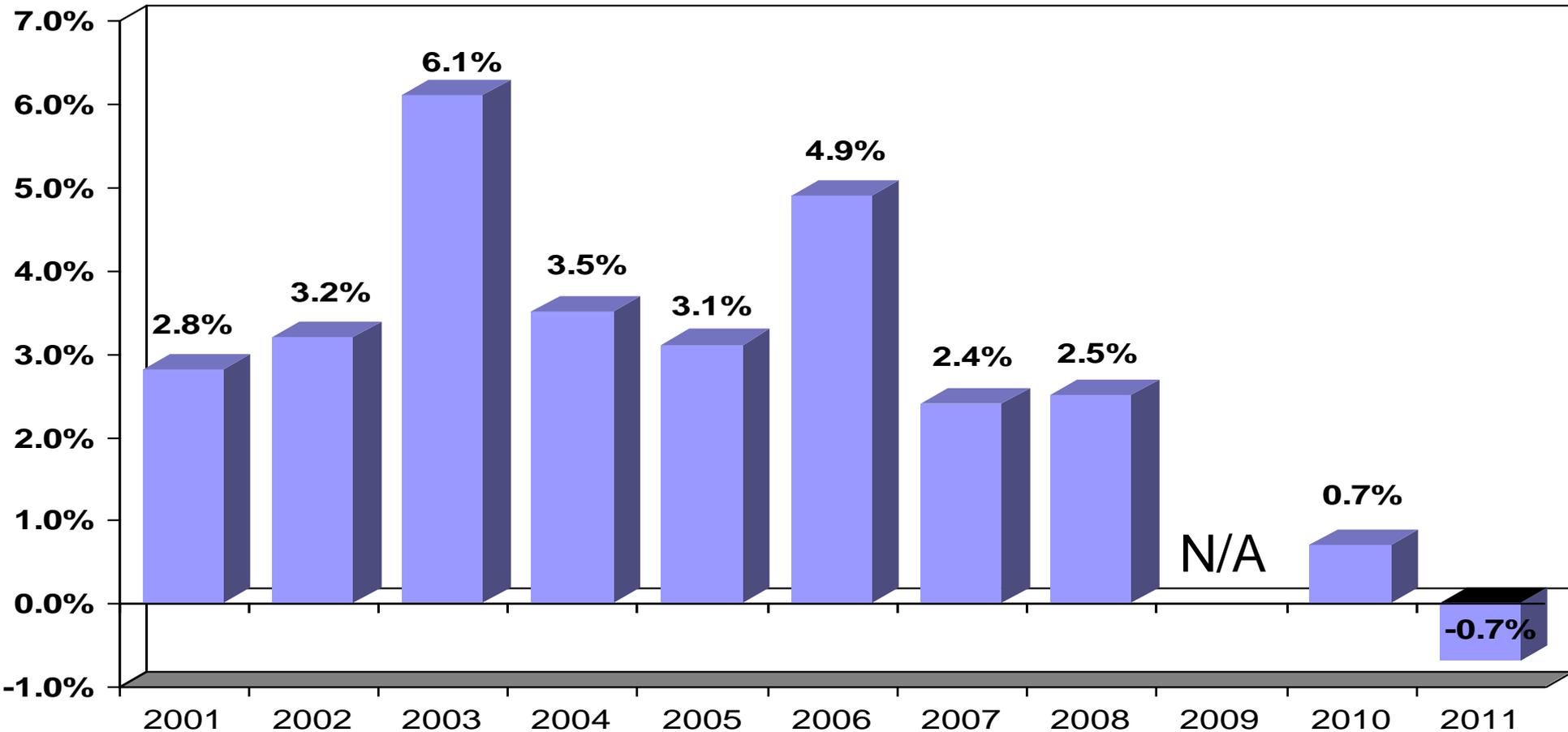


\*Data through Quarter 2 2011.



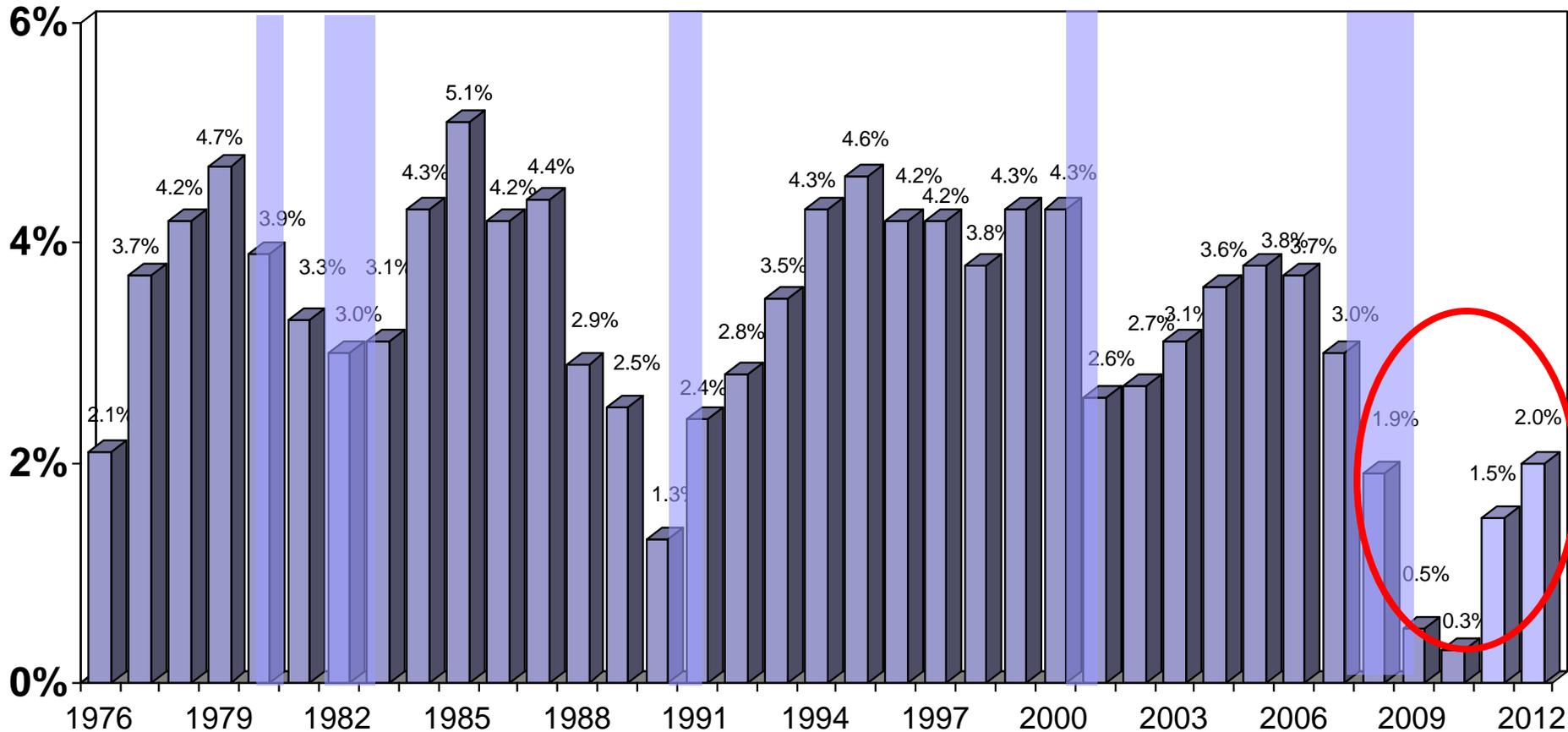
# Arizona School Enrollment Growth 2001-2011

Source: Arizona Department of Education



# Greater Phoenix Population Annual Percent Change 1976–2012\*

Source: Arizona State University & Department of Commerce, Research Administration



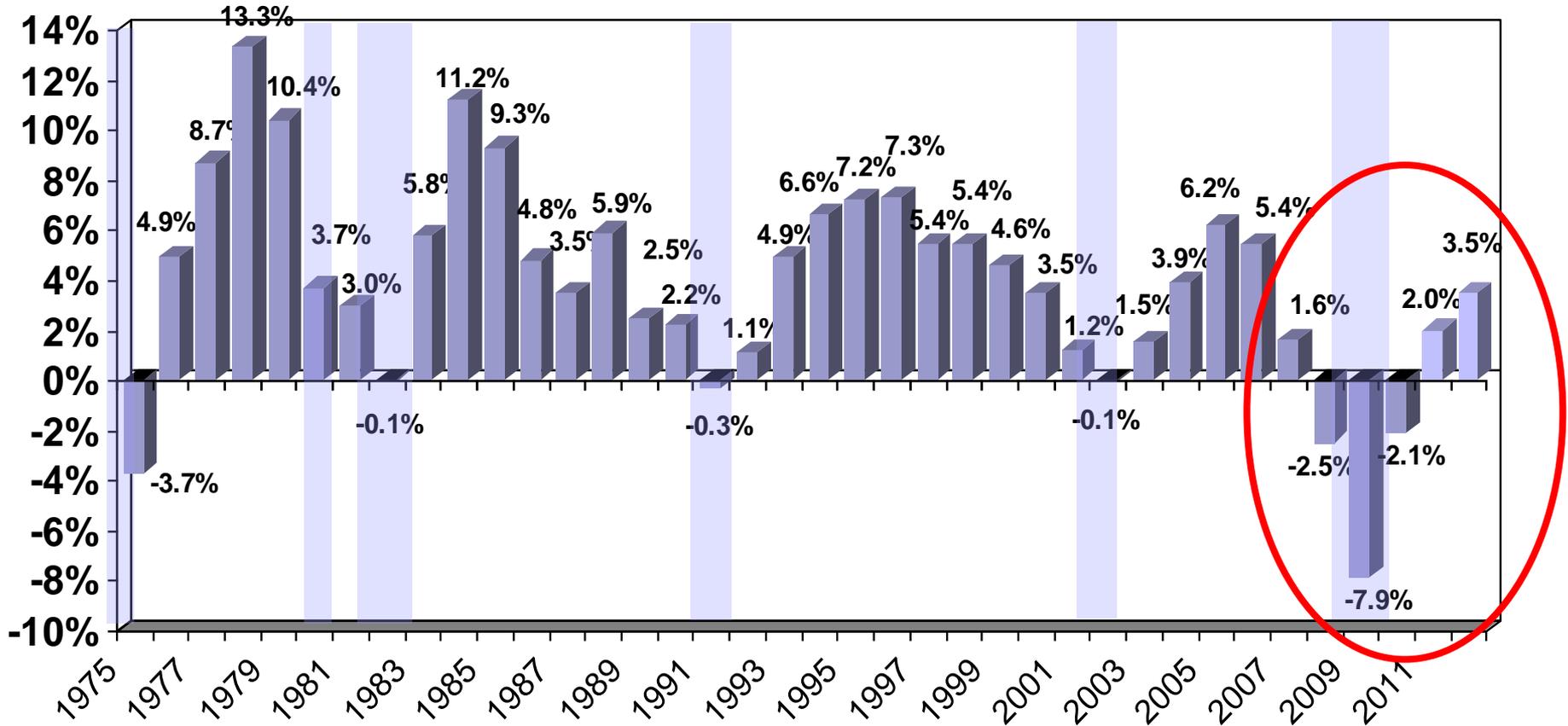
 **Recession Periods**

2008 and 2009 are estimates put out by ADES and may be subject to substantial revision.

\* 2011 & 2012 forecast is from *Elliott D. Pollack & Co.*

# Greater Phoenix Employment\* Annual Percent Change 1975–2012\*\*

Source: Department of Commerce, Research Administration



Recession Periods

\*Non-agricultural wage & salary employment. Changed from SIC to NAICS reporting in 1990.

\*\* 2011 & 2012 forecast is from *Elliott D. Pollack & Co.*





**The  
recovery  
has already  
started.**



# Signs of Recovery

- Jobs
- Retail Sales
- Jobs rebound relative to other cities
- Fewer excess homes



# Greater Phoenix- Jobs Finally in the Black

Over last 12 months:	38,700
12 months before that:	(17,400)
12 months before that:	(162,600)
12 months before that:	(68,400)
12 months before that:	22,100

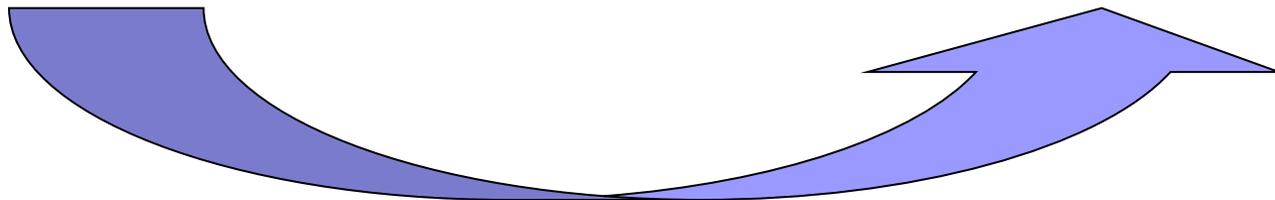
\* As of September 2011



# Greater Phoenix Employment\*

Source: Bureau of Labor Statistics

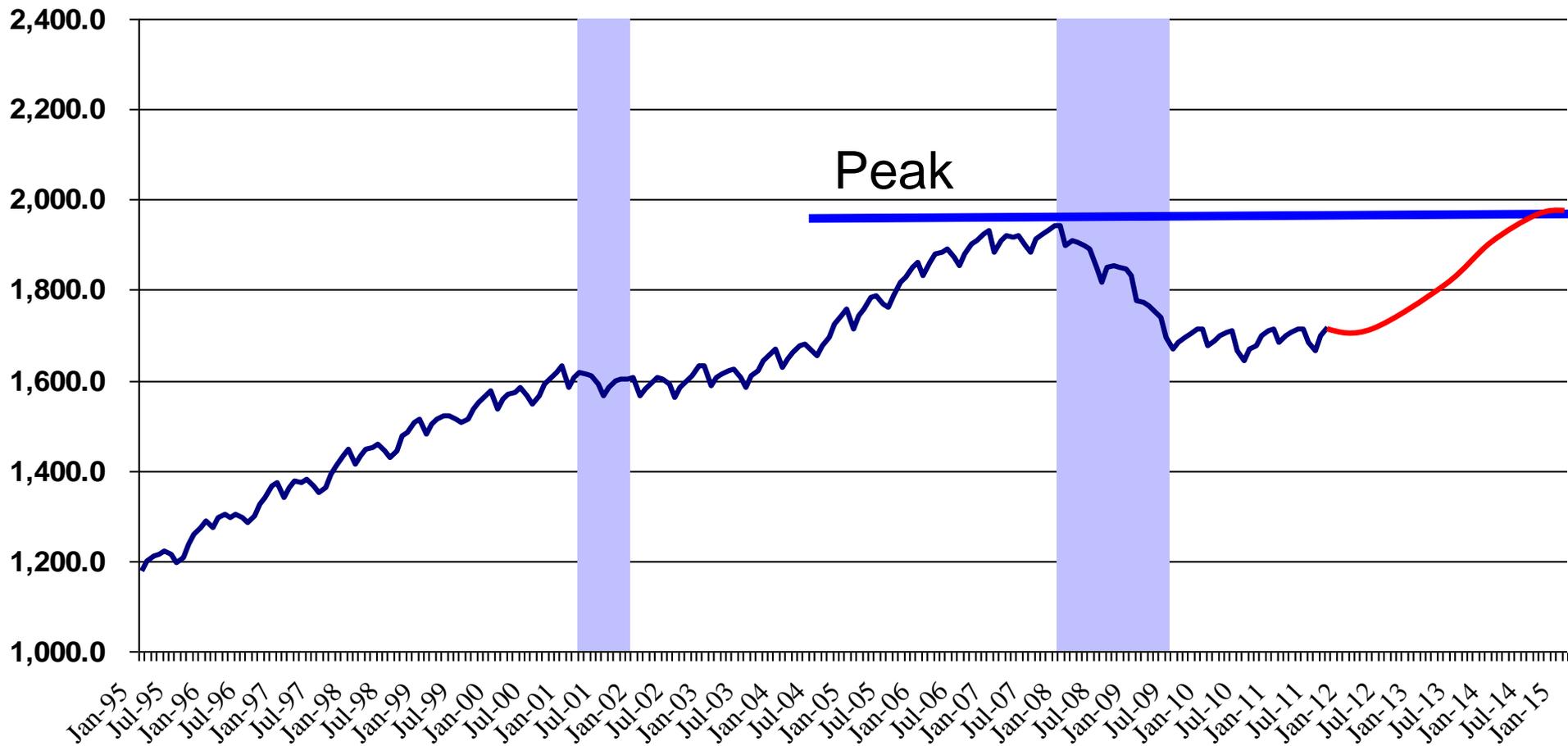
<u>Sectors in Decline</u>	<u>Net Change</u>	<u>Sectors Improving</u>	<u>Net Change</u>
Other Services	-300	Education & Health Services	16,400
Federal Government	-400	Transp, Trade, & Utilities	7,700
Prof. & Bus. Services	-4,100	Leisure & Hospitality	6,700
		Construction	4,900
		Local Government	2,700
		Financial Activities	2,600
		Manufacturing	1,900
		State Government	600
		Mining	0
		Information	0



# Employment Levels: Greater Phoenix\* Back to Peak by 2015? 2016?

Source: ADOA

Recession Periods



\*As of September 2011



# Phoenix-Mesa Employment Growth

(Ranking among all metro areas greater than 1,000,000)

Source: Arizona State University, U.S. Bureau of Labor Statistics

Year	Rank	# MSA's
1991	4	20
1992	5	20
1993	2	20
1994	1	20
1995	1	21
1996	1	23
1997	2	23
1998	1	24
1999	3	26

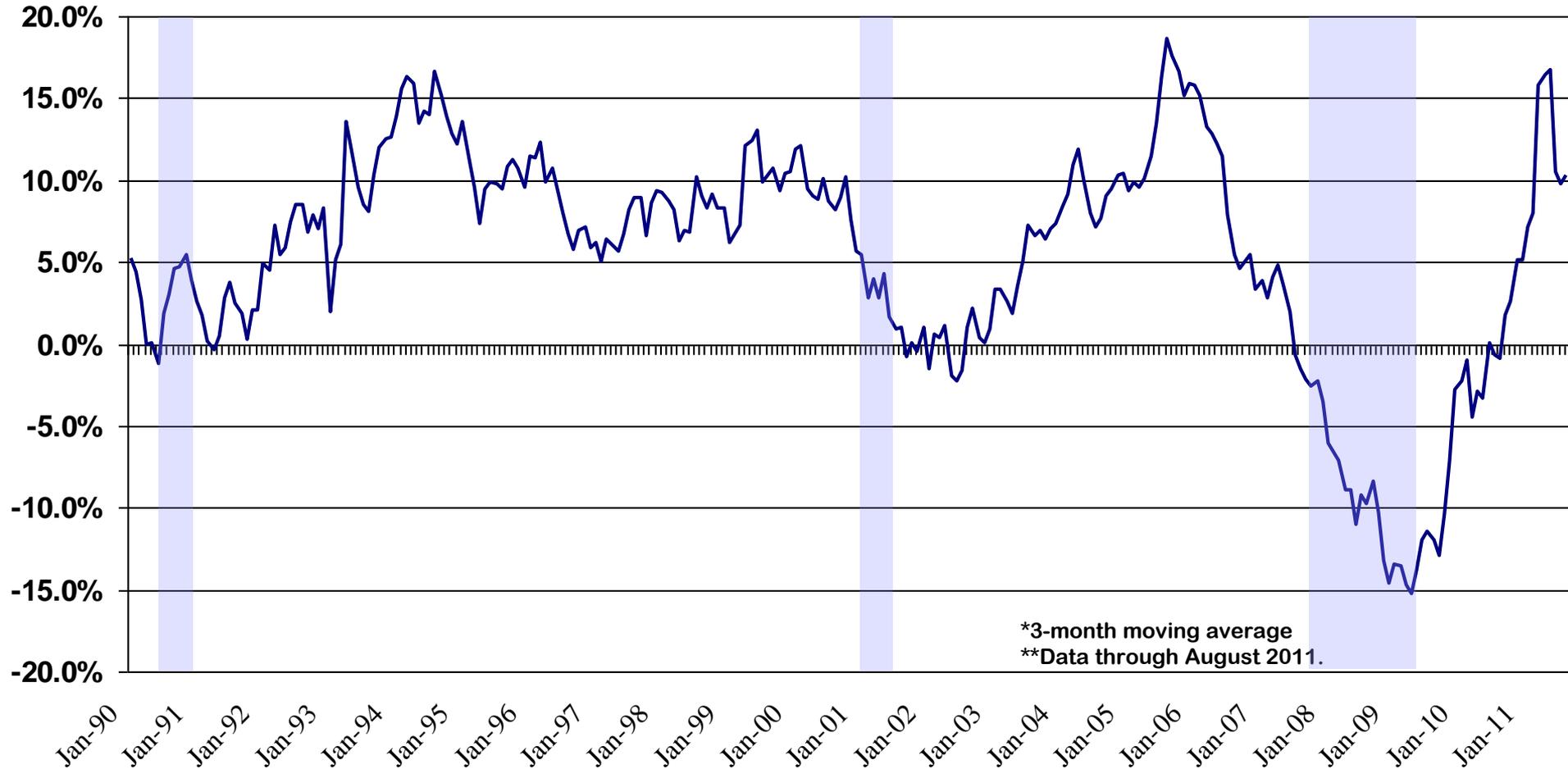
Year	Rank	# MSA's
2000	8	26
2001	6	28
2002	5	28
2003	3	29
2004	4	29
2005	1	30
2006	1	31
2007	10	32
2008	29	32
2009	31	32
2010	31	32
2011ytd	12	32



# Maricopa County Retail Sales\* Percent Change Year Ago 1990 to 2011\*\*

Source: Arizona Department of Revenue

Recession Periods



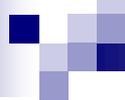
“No strong recovery without a recovery in construction.”



**For Phoenix,  
Spec commercial  
construction  
approaching 0.**

**New single family  
residential  
construction  
89% off peak.**





**For Housing -**

**This is NOT a multi decade  
recovery...**

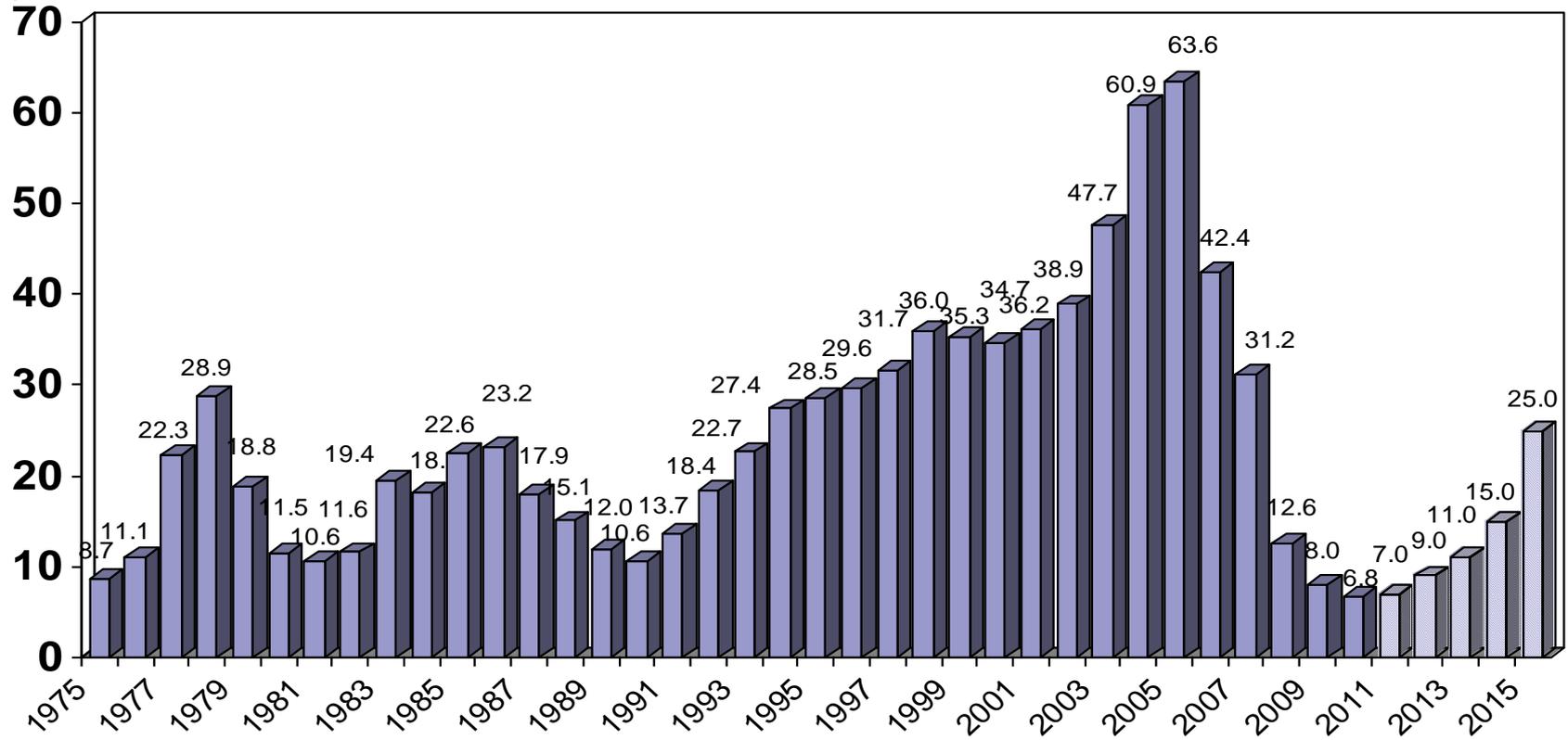
**Think 2015 or so for a full  
recovery, but growth  
before then.**



# Single Family Permits (Forecast) Greater Phoenix 1975–2015\*

Source: RL BROWN

# Permits  
(000)



\*2011 – 2015 forecast is from *Elliott D. Pollack & Company*

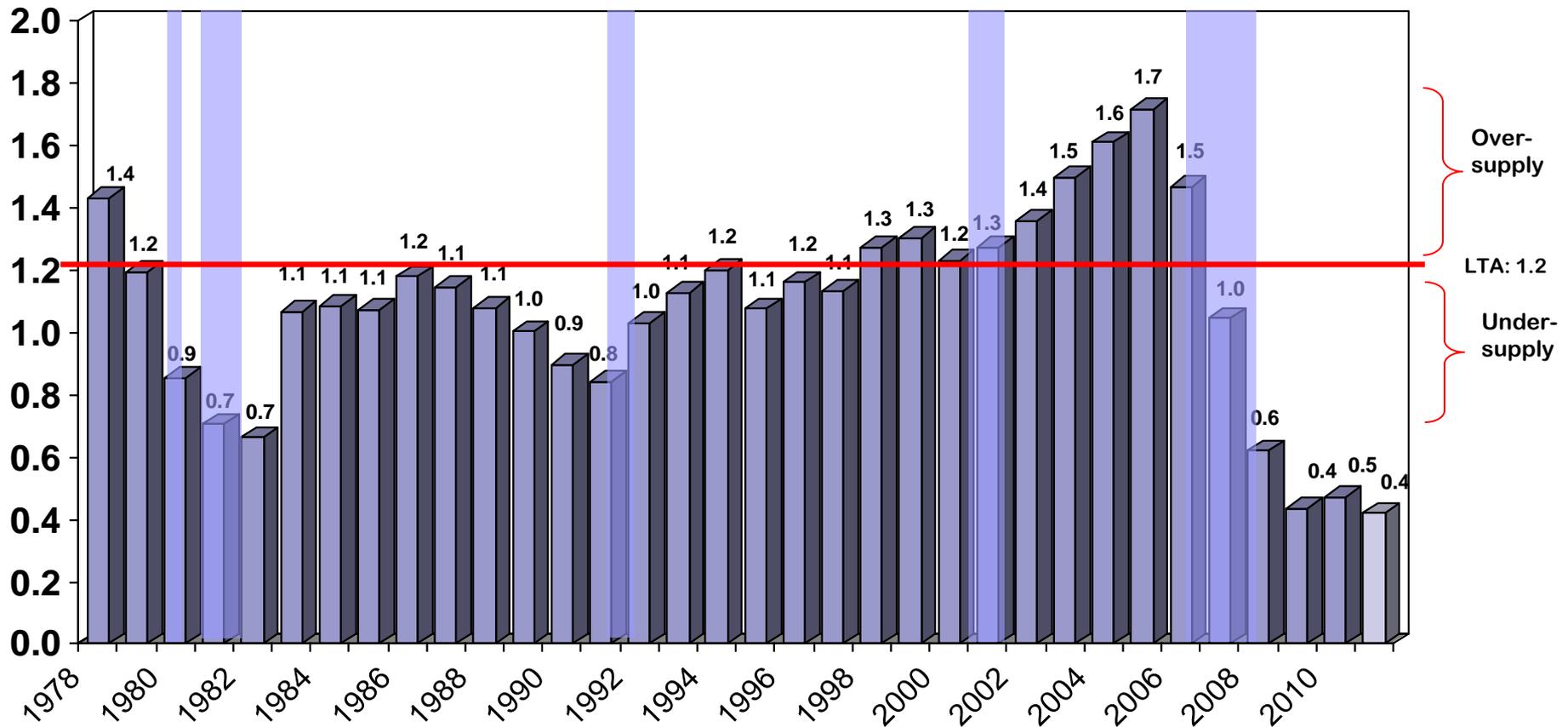


# U.S. Single-Family Starts 1978–2011\*

(Millions)

Source: Census Bureau

Recession Periods





**Excess supply  
in Greater  
Phoenix is  
about  
50-55k units as  
of today,  
down from  
about  
80k units.**



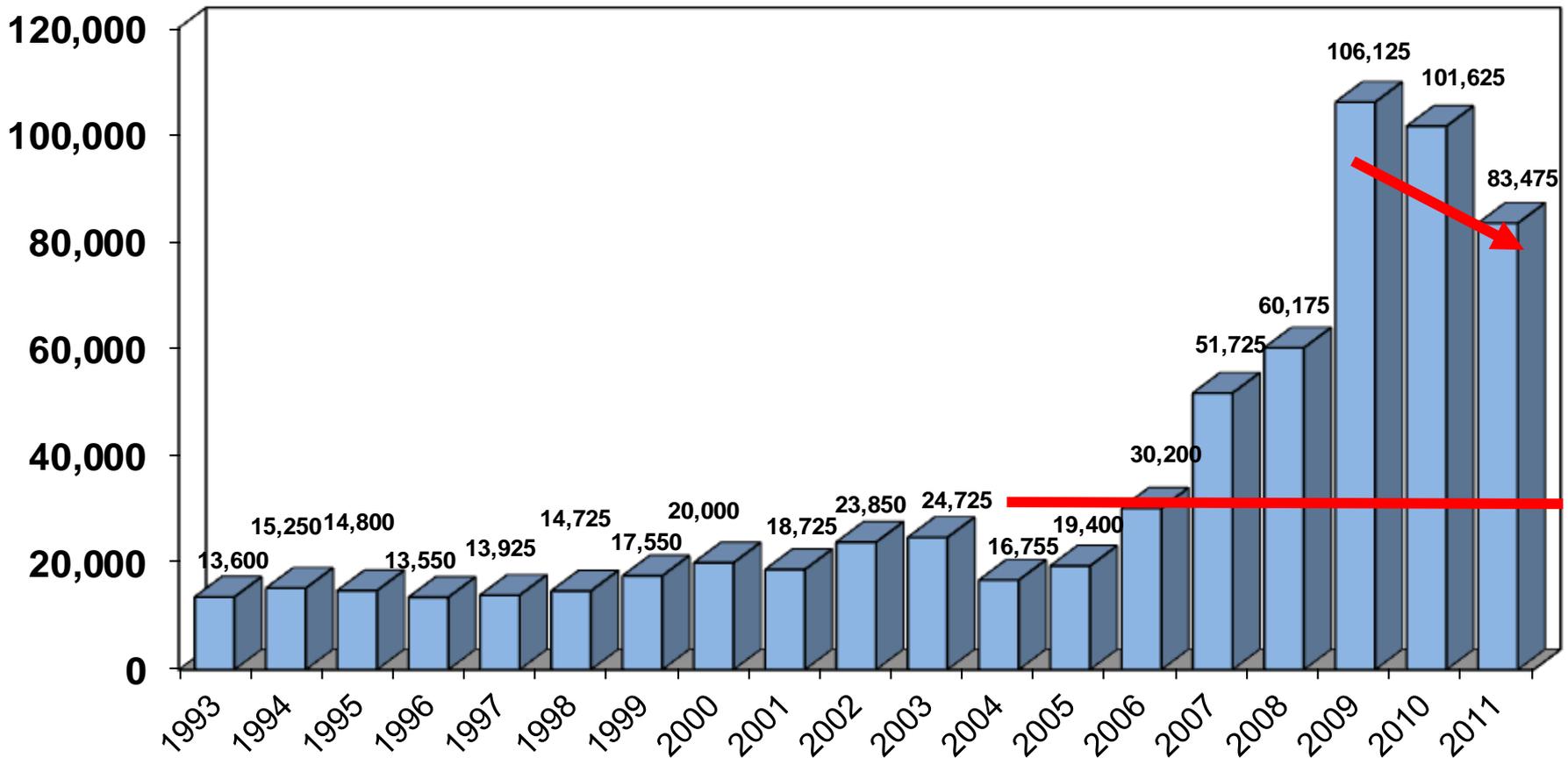
- Think of what the housing market is going through as the same as any manufacturer that finds themselves with excess inventory...

- Prices are cut until the excess is sold.
- Then prices rise.



# Single-Family Vacant Units Maricopa County 1993–2011

Source: Phoenix Metro Housing Study



# Household Formations

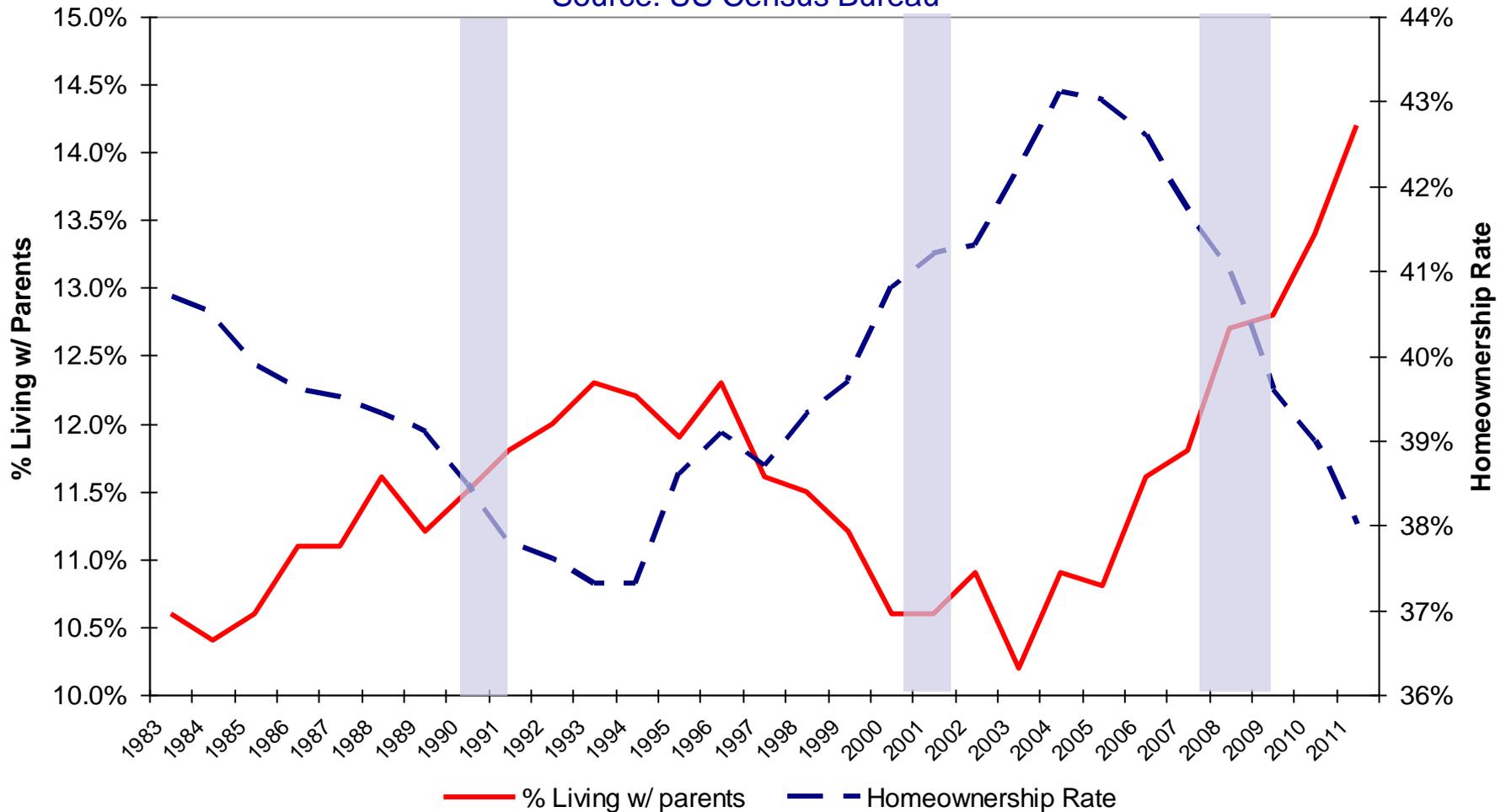
Lower during recessions (doubling up, living at home with mom & dad, etc)



# Percent of 25-34 Year Olds Living With Parents vs. Homeownership Rate, Under 35 Years Old

## U.S.: 1983 – 2011

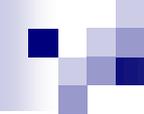
Source: US Census Bureau



# Why are households not forming?

1. Lack of jobs,
2. Lack of jobs,
3. Lack of jobs,
4. Lack of jobs
5. Inability to sell home elsewhere and move to Arizona.





**Historically, there is a one-to-one relationship between population growth and household growth**

**(meaning a 1% increase in population growth leads to a 1% increase in household growth).**

Source: Linneman Letter



When unemployment **exceeds** 7%, a 1% increase in population leads to a 0.3% increase in households.

When unemployment **falls below** 7%, each 1% increase in population leads to a 1.9% increase in households.

Source: Linneman Letter



**Thus, in a weak economy, population growth fails to translate into household growth, but when the economy begins to strengthen, there is pent-up demand for housing.**

Source: Linneman Letter



# In Greater Phoenix, the same basic trend has occurred.

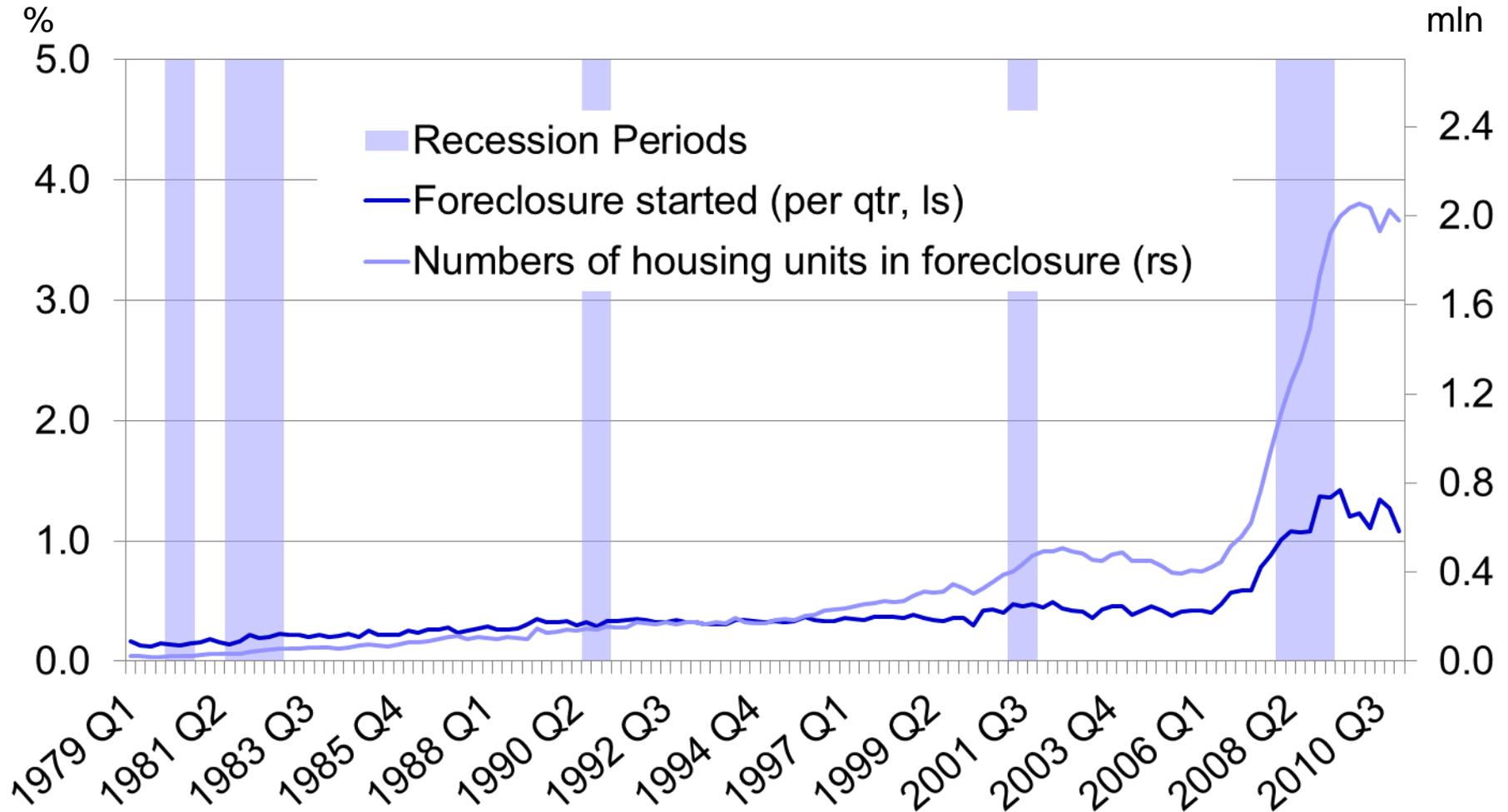


PHOTO: BRIAN FINKE



# Foreclosures at an all time high 1979-2011\*

Source: MBA



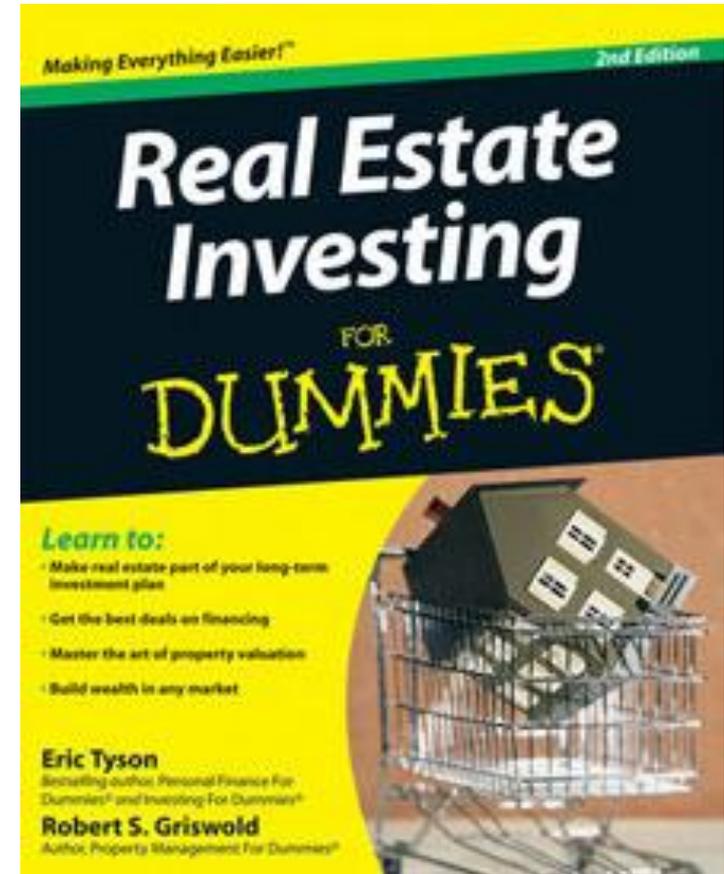
\*Data through 2011 Q1



# How Investors Impact the Market:

Investors temporarily create demand.

They are creating rental units for people who are losing their homes and do not want to live in apartments.

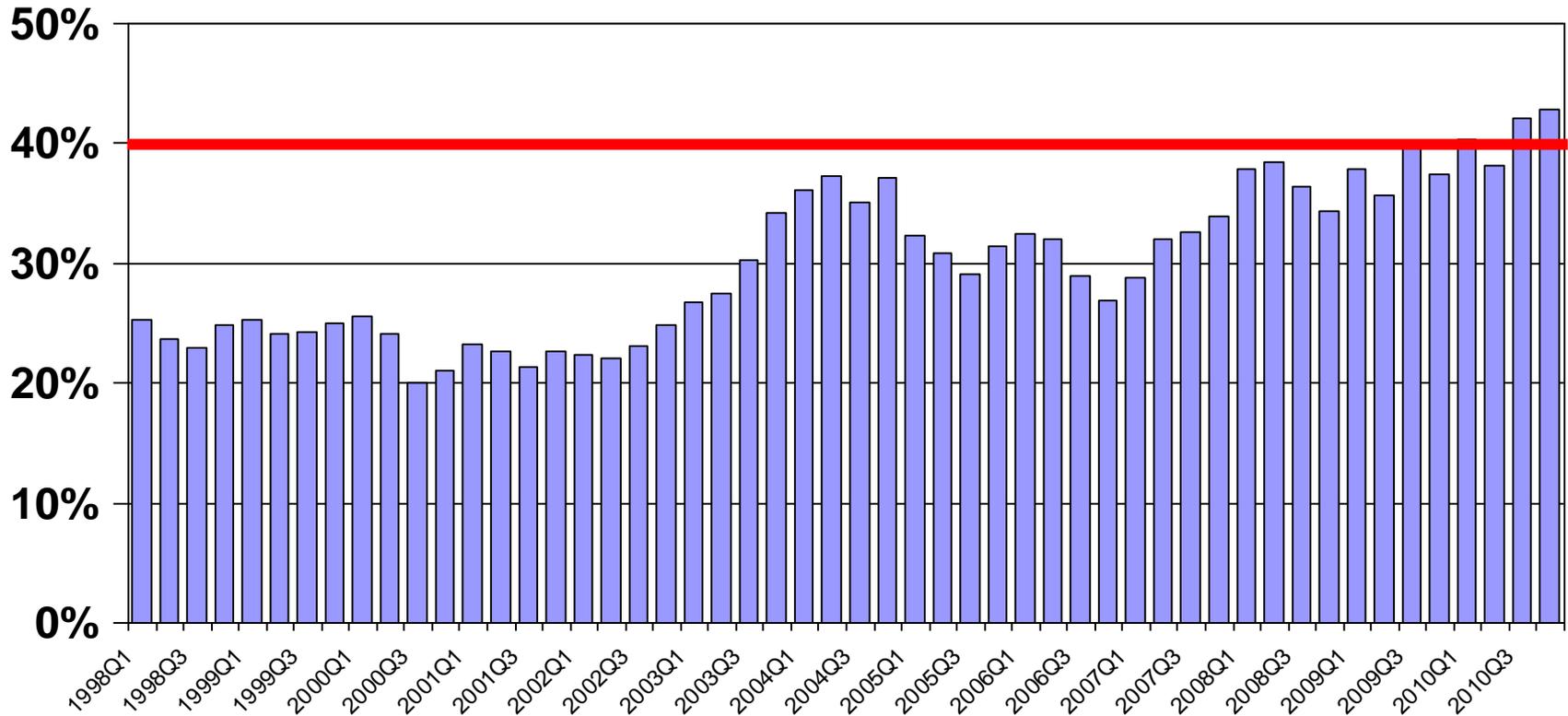


# Investors: 40% Market?

Percent of Non-Owner Occupied Sales of Total Sales

Greater Phoenix

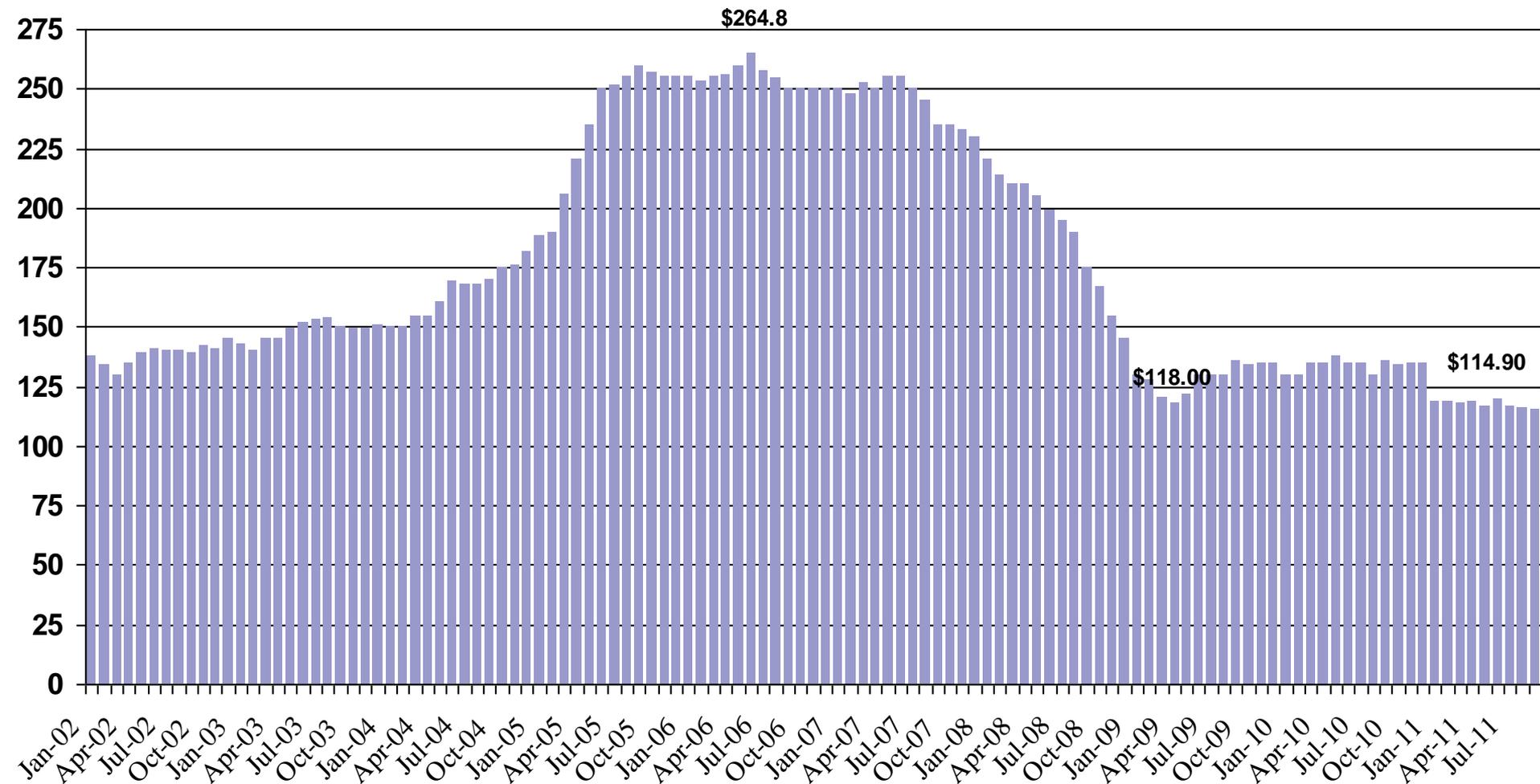
Source: DataQuick



# Greater Phoenix Median Price of Single Family Homes - Resale

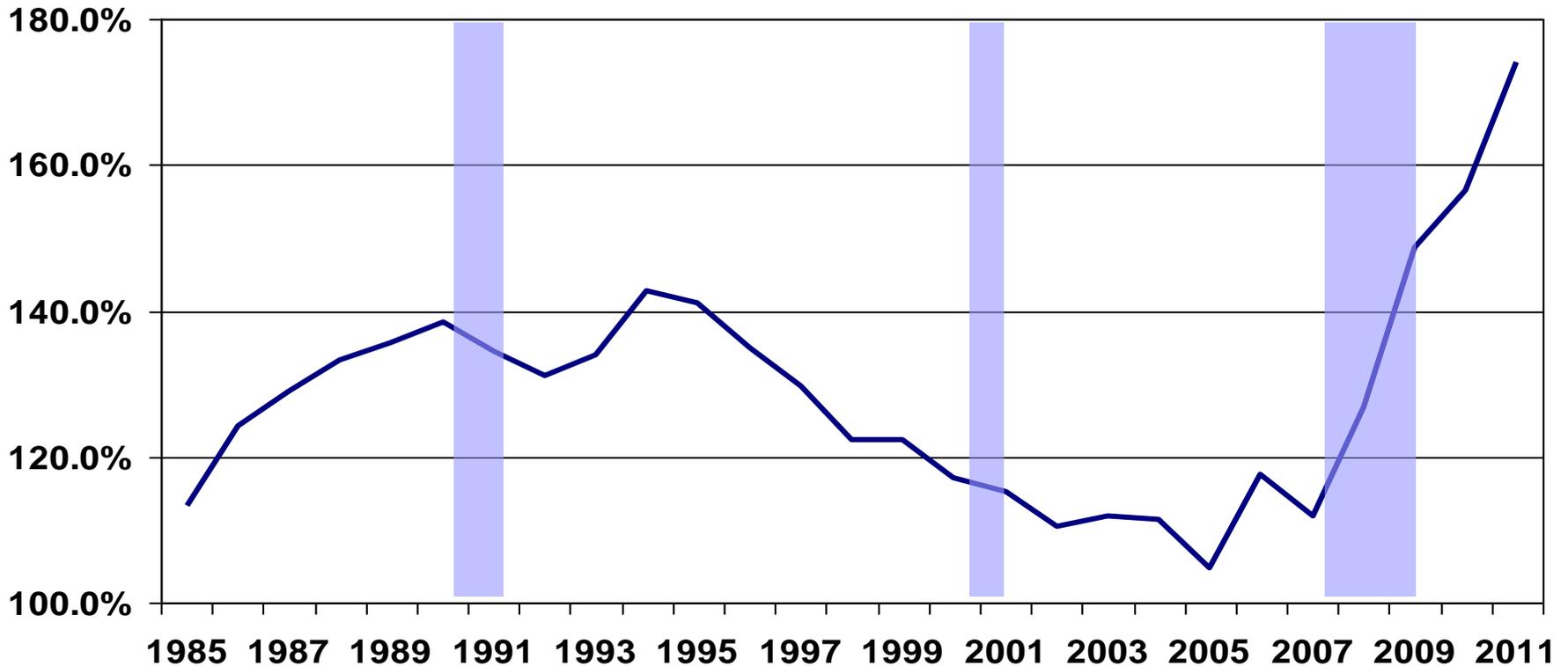
## 2002 – 2011\*

Source: MLS



# Median Price of New Homes as a Percent of the Median Price of Resale Homes Maricopa County 1985–2011\*

Source: ASU Realty Studies



**Balance between supply and demand  
will not be fully achieved until about  
2015.**

**But building will get  
progressively better  
between now and then.**

**Balance = when you have to build for net in-migration**



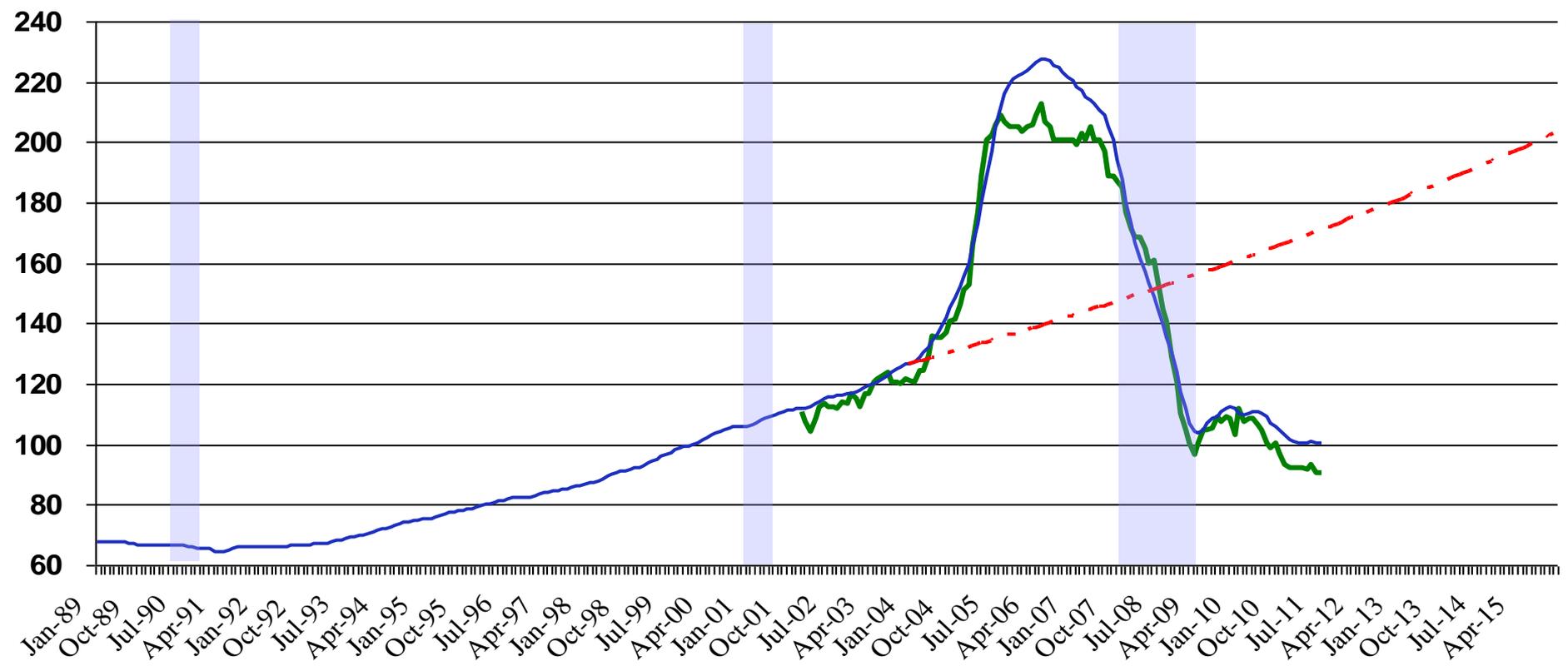
# Home Prices Indices

## Greater Phoenix

1989 – 2011

Source: Macro Markets, LLC; AMLS

Recession Periods



— MLS Index — Case-Shiller Index - - - Trendline (4.0%)

# The Real Problem:

- **Too many vacant homes**  
(but amount of excess is declining).
- **Not enough new households**  
(but this will change as jobs increase).



# What about the future?



# Various Population Forecasts Greater Phoenix

Source	2010	2020	2030
ADOC	4,192,887	5,385,944	6,460,836
Annual Growth	2.6%	2.5%	1.8%
U of A	4,192,887	5,044,130	6,088,575
Annual Growth	2.6%	1.9%	1.9%
Global Insights	4,192,887	5,111,106	6,291,762
Annual Growth	2.6%	2.0%	2.1%



# Single Family Forecasts Greater Phoenix

Source	2000-2010	2010-2020	2020-2030
Person / HH	2.5	2.6	2.6
% Single family	85%	75%	75%
	Projected Permits per Year		
ADOC	31,900	34,400	31,000
U of A	31,900	24,500	34,000
Global Insights	31,900	26,500	44,000



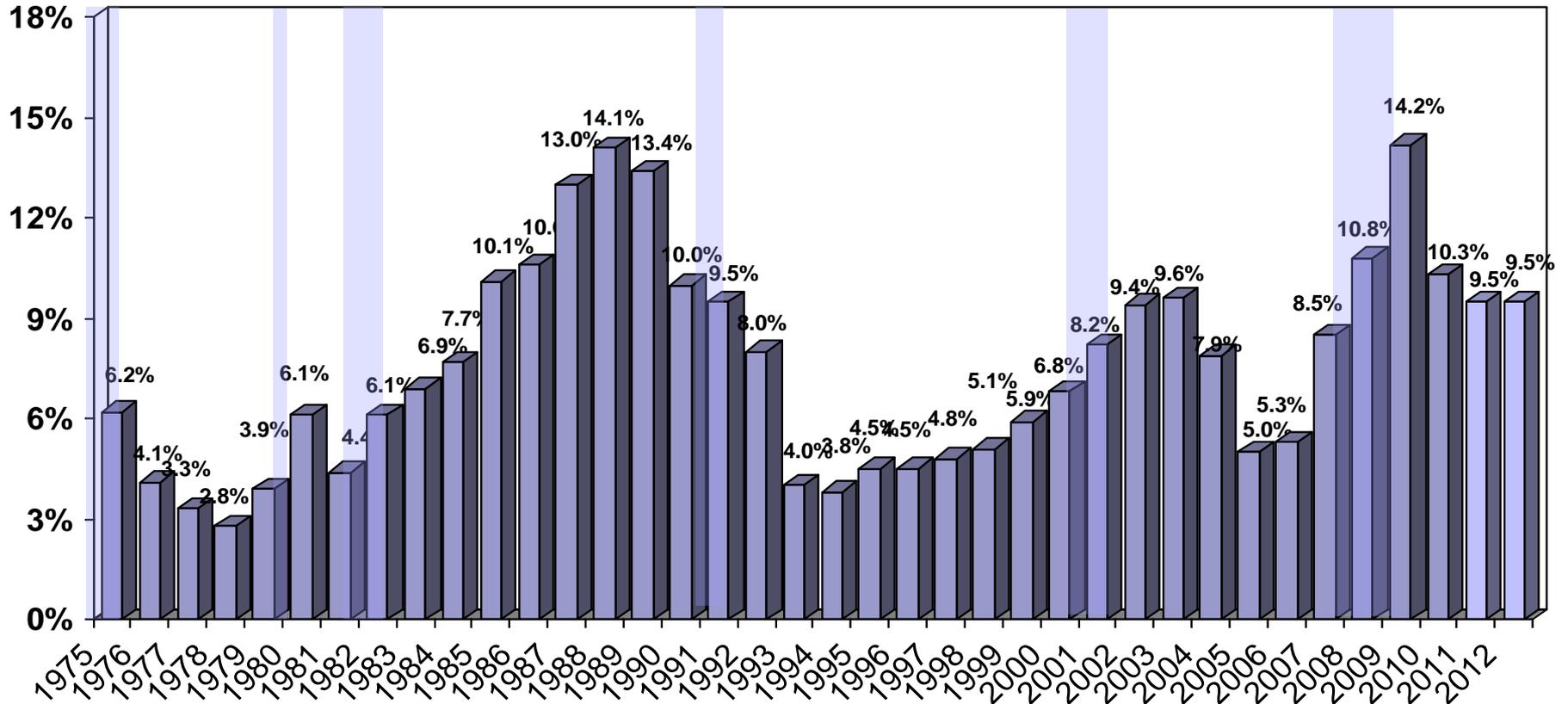
# APARTMENTS



# Multi-Family Year-End Vacancy Rates Maricopa County 1986–2012\*

Source: ASU Realty Studies

Recession Periods



\*2011 -2012 are forecasts from the Greater Phoenix Blue Chip



# Multi-Family Construction Activity

Source: PMHS

	<u>Absorption</u>	<u>Chg in Inventory*</u>
<b>2006</b>	<b>(4,653)</b>	<b>(3,828)</b>
<b>2007</b>	<b>(5,846)</b>	<b>4,979</b>
<b>2008</b>	<b>(4,466)</b>	<b>3,234</b>
<b>2009</b>	<b>(5,319)</b>	<b>6,831</b>
<b>2010</b>	<b>20,743</b>	<b>8,493</b>
<b>2011q3</b>	<b>1,742</b>	<b>467</b>

\*There were 19,949 condo conversion in the Greater Phoenix area from q1 2005 through q4 2009.



**There are currently  
1,177 multi-family units under  
construction (Q3 11).**





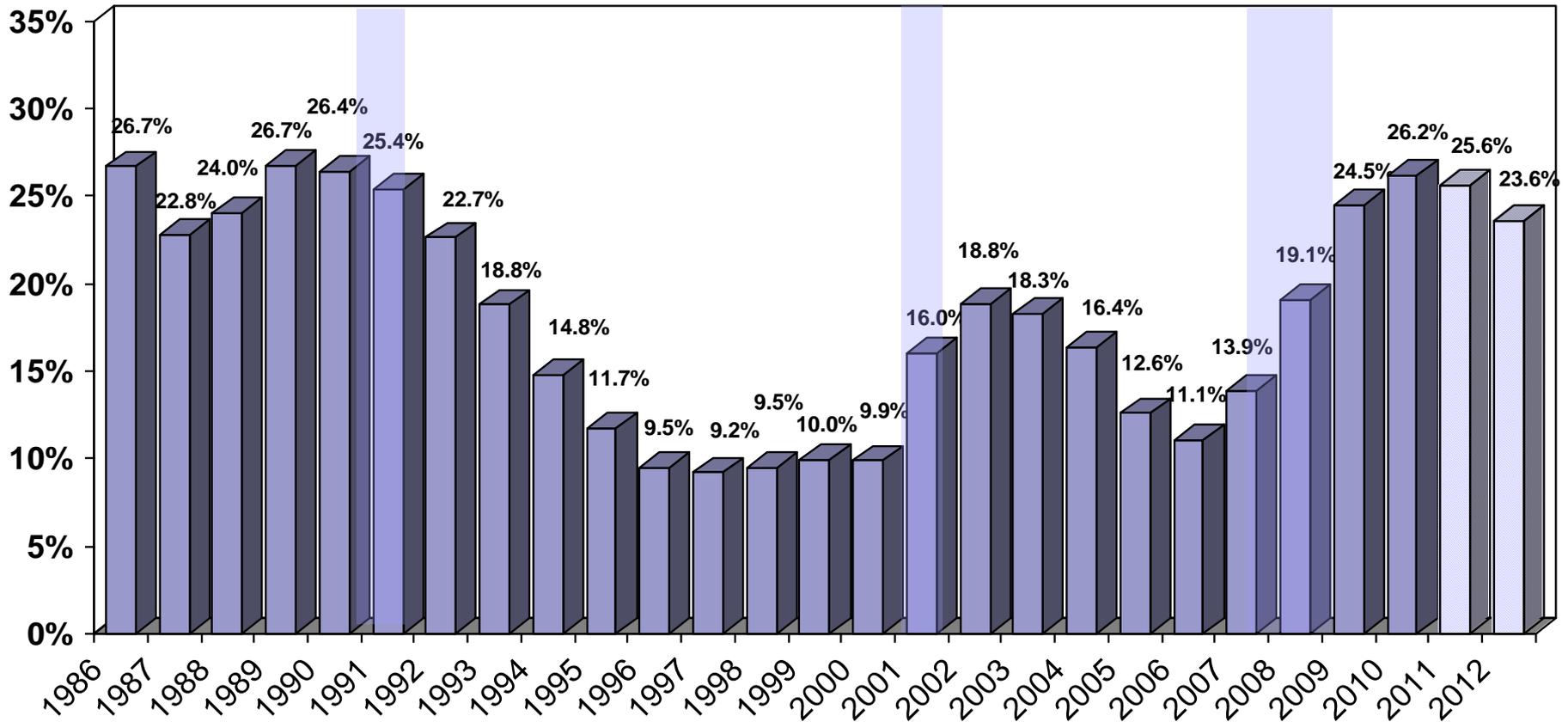
# OFFICE



# Office Space Year-End Vacancy Rates Maricopa County 1986–2012\*

Source: CB Richard Ellis

Recession Periods



There is currently  
**NO** spec multi-tenant office space  
under construction (q3 11).



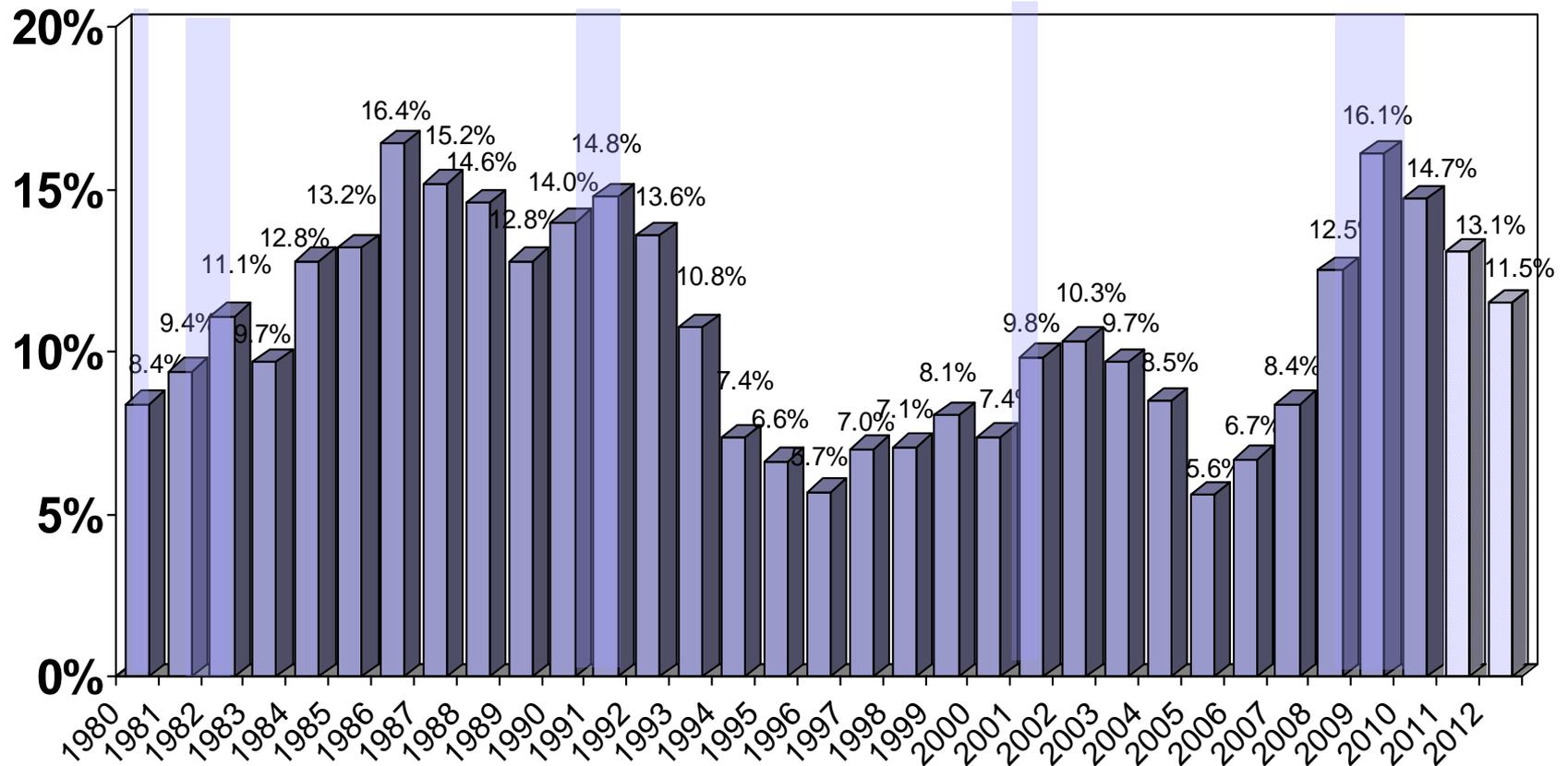
# INDUSTRIAL



# Industrial Space Vacancy Rates Maricopa County 1980 – 2012\*

Source: CB Richard Ellis

Recession Periods



\* 2011 - 2012 are forecasts from CB Richard Ellis



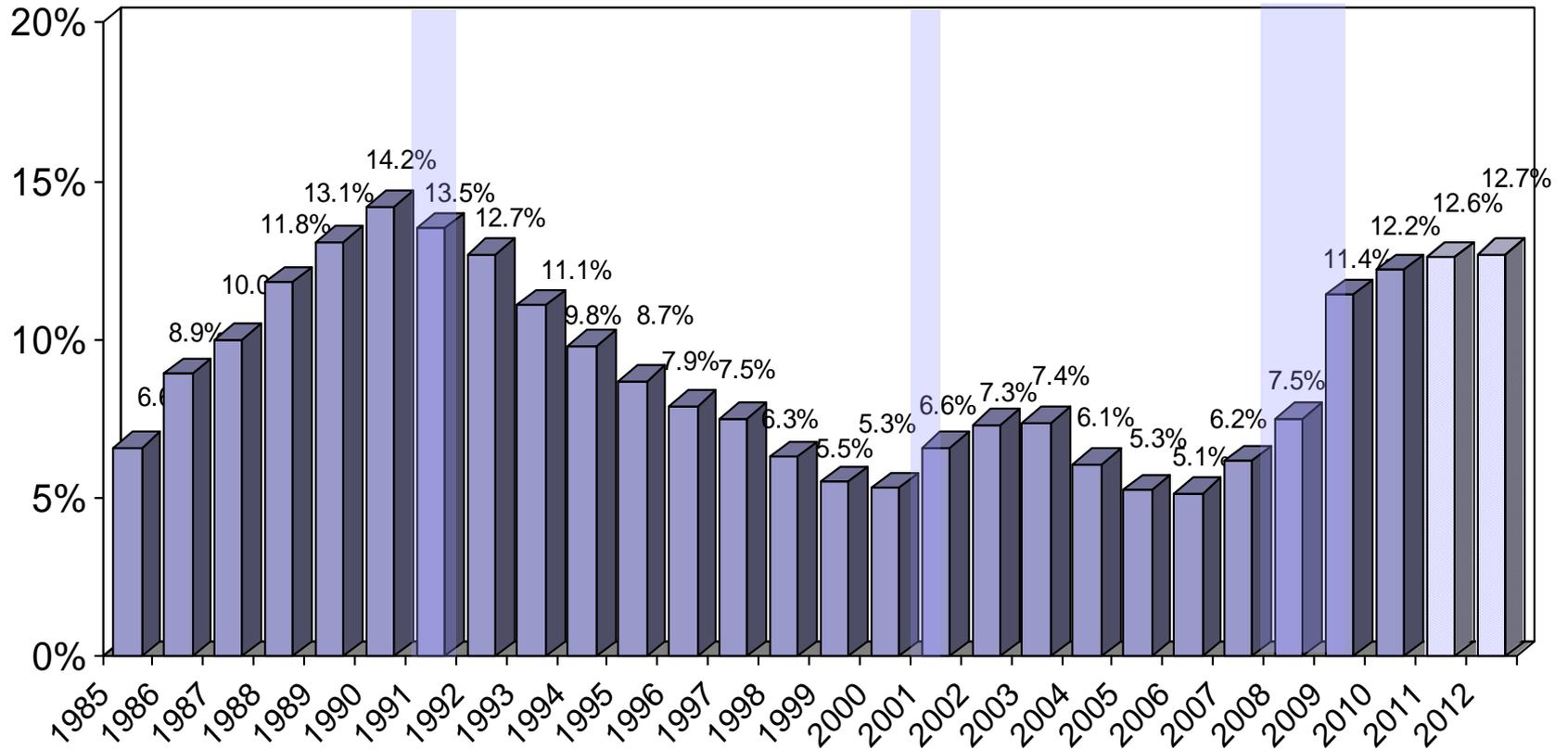
# RETAIL



# Retail Space Vacancy Rates Maricopa County 1985–2012\*

Source: CB Richard Ellis\*\*

Recession Periods



\* 2011-2012 are forecasts from CB Richard Ellis

\*\* Data prior to 1992 is from Grubb & Ellis



# Back to Normal Vacancy?

- **Office = 2015 – 2016**
- **Industrial = 2014 – 2016**
- **Retail = 2015 – 2016**



**How  
will it all  
turn out?**



Worth1000.com

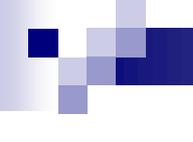


**There is a BOOM for Arizona  
out there somewhere.**



**But not in  
2011, 2012 or 2013.**



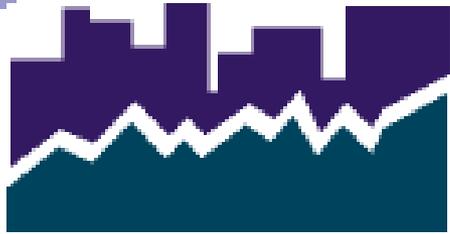


**The long term economic outlook  
remains favorable.**

**The near term outlook calls for  
modest growth.**

**Greater Phoenix will once again be a  
national growth leader by  
mid-decade.**





# ***ELLIOTT D. POLLACK*** ***& Company***

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- **Economic and Fiscal Impact Analysis/Modeling**
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