ESRI Trend Analysis: 2009/2014

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An ESRI White Paper

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Current Trends

In the past year, changes in the nation's economy have become extremely personal. The failure of the subprime mortgage market in 2007 extended its impact in 2008, shaking the foundations of the U.S. economy and touching every household in the country. In the past year, 1 in 25 jobs was lost to the economic crisis, and 1 in 42 homes was threatened with foreclosure. Households not touched directly by the loss of home or employment are experiencing low or no income growth, lower home values, loss in savings or retirement funds, higher credit costs, cutbacks in services from struggling state and local governments, or the closing of a favorite local business.

How did we get here? The warning signs appeared in 2005. ESRI's trend analysis emphasized the widening gap between home value and household income. Appreciation in home value had outpaced income growth. Affordable housing was becoming an issue, and not only among lower-income households. Homeownership rates were increasing, but the strength of the real estate market included the purchase of second homes and investment property. Favorable interest rates also facilitated an increase in home equity loans and refinancing activity, which boosted the cash available for spending. However, interest rates were also increasing.[1]

By 2006, the construction industry added more than 10 million new housing units to the national inventory and provided one of the few growth sectors in the economy. However, rising interest rates and higher inventories began to slow both demand and home value appreciation. New home sales declined, and the potential for loan defaults in the subprime mortgage market grew.[2]

The downward spiral continued in 2007. Mortgage rates increased, and mortgage defaults and foreclosures spread from the subprime market to Alt-A and prime mortgages. Higher inventories depressed the sales of new and existing homes, prompting builders to offer incentives and lawyers to offer speculating buyers a way out of their contracts. Home value continued to decline, which effectively removed inflated equity as a source of household wealth. In 2007, the decline of the housing market also depressed growth in gross domestic product (GDP).[3]

In the spring of 2008, the predominant trend was not growth, but decline—the fallout from the collapse of the housing market and the ensuing credit crunch. The annual change in home value became negative, and population growth slowed appreciably. Householders needed no announcement to understand the economic downturn, and their decisions were evident in the slowing of migration flows (both out- and inmigration). The decline hit the "hottest" housing markets first and hardest. Home value dropped by an average of 23 percent in one year, and the annual rate of population growth decreased by half. The deceleration was not confined to the most popular markets. The slowdown seeped through the 940 U.S. metropolitan and micropolitan areas, shifting home value from appreciation to depreciation in 73 percent of the markets and decreasing population

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[1] *ESRI Demographic Update Methodology: 2005/2010,* ESRI white paper J-9498, May 2005, page 6.

[2] *ESRI Demographic Update Methodology: 2006/2011,* ESRI white paper J-9565, June 2006, pages 4–5.

[3] *ESRI Demographic Update Methodology: 2007/2012,* ESRI white paper J-9663, June 2007, pages 6–7.

growth in 62 percent. Even nonmetropolitan counties showed the effects of the decline in the housing market.[4] By fall 2008, the economy had fallen from flat, 0.6 percent growth in GDP in the first quarter of 2008 to -6.2 percent in the fourth quarter. Economists announced that we had been in a recession since December 2007.[5]

In the second quarter of 2009, the U.S. economy remains in recession and in debt. ESRI estimates the number of jobs lost at 5.6 million by midyear, with an unemployment rate of 10.6 percent.[6] This loss negates more than 80 percent of the job growth since 2000. Nationally, the loss represents 1 in 25 jobs, but the 4 percent decline is not consistent throughout the country. The hardest-hit states, such as Michigan, North Carolina, and Oregon, show a loss of 1 in 15 jobs. By county, the steepest employment declines represent 1 in 8 jobs; by ZIP Code™, 1 in 3 jobs.

Unemployment is a lagging economic indicator. It is not the first sign of recession, but it does have a dampening effect on recovery, especially in an economy that depends on consumer spending for two-thirds of the gross domestic product. With this recession, unemployment has not only increased but also exacerbated the problem that provoked the economic crisis—mortgage defaults. Measured by foreclosure notices, mortgage defaults continued to increase through the first quarter of 2009 to more than 803,000. Foreclosure moratoria slowed the filings in late 2008 and early 2009; however, employment losses have effectively kept the trend moving. From 2008 through the first quarter of 2009, foreclosure notices affected 3.1 million properties, or 1 in 42 homes nationwide. The national average represents only 2.4 percent of the housing inventory; the effect is more concentrated locally. The most vulnerable counties, in Nevada, California, and Florida, experience rates of foreclosure filings of 1 to 2 percent *monthly*. In Nevada, foreclosure filings affected 1 in 10 homes through 2008 and the first quarter of 2009; in California and Florida, 1 in 18 homes received a foreclosure notice in 2008–2009. At the ZIP Code level, these rates can equal 10 percent *monthly*.[7]

Three years of significant growth in foreclosure filings have left quite a wake in the housing market:

- The 2009 median home value, at $162,000, is down 11.3 percent from 2008.
- Median home value declined in 2008–2009 in more than two-thirds of U.S. counties.
- Vacant units have increased by more than 8 percent; the vacancy rate is now 11.2 percent.
- The 2009 rate of homeownership (66.2%) is now slightly less than in 2000.

Vacancy rates are still increasing. Homeownership has dropped below the 2000 levels, and home value remains in decline for most areas. States with the highest rates of foreclosure filings, such as Nevada, Arizona, Florida, and California, also have the largest declines in home value and population growth. These states were also home to the most popular housing markets in the country. However, the reversal of fortune is no longer limited to the hottest markets.

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[4] *ESRI Trend Analysis: 2008/2013,* ESRI white paper J-9732, June 2008, pages 5–6.

[5] National Bureau of Economic Research: http://www.nber.org/cycles/dec2008.html.

[6] ESRI's employment data is not seasonally adjusted. Please refer to the 2009/2014 Update Methodology for labor force definitions.

[7] From http://www.realtytrac.com/TrendCenter/default.aspx.

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The depreciation of home value and the collapse of the housing market slowed growth for two-thirds of U.S. counties last year. In 2009, rising unemployment has augmented the deceleration and spread the trend to 80 percent of counties and 82 percent of metropolitan markets. The comparative rate change is less dramatic in 2009; however, after 16 months of recession, the rates hardly require more drama.

Table 1
Change in Population and Median Home Value by Metropolitan Status

Counties by Metropolitan Status	N	Annual Population Change		Average Annual Change: Median Home Value	
		2000–2008 %	2008–2009 %	2000–2008 %	2008–2009 %
Metropolitan	1,089	1.3	0.2	6.3	-12.8
Micropolitan	697	0.7	-0.1	5.2	-2.0
Nonmetropolitan	1,355	0.4	-0.6	4.9	-1.1
Total Counties	**3,141**	**1.15**	**0.14**	**6.15**	**-11.3**

Fueled by housing depreciation, tightened credit, and unemployment, the current decline is more insidious than it was a year ago. Estimates of "underwater" homeowners (those who face a mortgage that exceeds the current market value of the home) run as high as one in five or one in six.[8] Negative equity precludes sale of the home unless the homeowner is prepared to cash out the difference. Any financial trouble, such as unemployment or divorce, makes foreclosure likely because the homeowner lacks the equity necessary to refinance or get a second loan.

Similarly, unemployment is only one aspect of the economic distress that consumers are feeling. "The Great Recession" has eroded savings and retirement plans and prompted 86 percent of U.S. industries to cut production since November 2008.[9] Private and public retirement accounts alone lost an astounding $3.8 trillion in stock holdings between the financial market's peak in October 2007 and its meltdown a year later, according to the Boston College Retirement Research Center.[10] Diversification, the universally accepted portfolio strategy to reduce downside risk, provided no safety net when the stock market began to crumble. Workers that were approaching retirement have suffered losses that they may never recoup in time to retire. Surviving businesses that have not resorted to layoffs are cutting hours, wages, raises, and bonuses—all of which discourage consumer spending in an economy that depends on consumer spending.

The Personal Effect of Current Trends

A household's income is the most basic measure of its economic well-being. With the country now more than 16 months into a recession, the impact of this downturn is taking a toll on the earnings of every U.S. householder. ESRI's 2009 income estimates capture income for the 2008 calendar year, the first calendar year after the start of this recession. Median household income for the 2008 calendar year stood at $54,700, an increase of 2.9 percent annually since 2000, but a slight decrease of 0.1 percent from 2007.

[8] Estimates of underwater homes were made by Zillow.com (1 in 5) and Moody's Economy.com (1 in 6).

[9] Isidore, Chris, "The Great Recession," http://money.cnn.com/2009/03/25/news/economy/depression_comparisons/index.htm.

[10] From http://crr.bc.edu/images/stories/Briefs/ib_8-18.pdf.

Average and per capita incomes show even less stability from 2008 to 2009. Average household income declined from $73,800 to $71,400, and per capita income declined over 3 percent to $27,300. The downturn has even affected traditional variants in income. Between 2000 and 2008, the growth of metropolitan areas and the addition of new micropolitan areas spurred income growth in metropolitan areas over nonmetropolitan areas. Today, median household income in metropolitan and micropolitan areas is more than $17,000 higher than the median income of $38,700 in nonmetropolitan areas. However, the impact of this recession has been more pronounced in metropolitan areas, reversing this trend. This is reflected in ESRI's income change between 2008 and 2009. Median household income has shown a decline of 0.2 percent in metropolitan areas, while nonmetropolitan areas maintained a growth in median household income of 0.7 percent.

Douglas County, Colorado, continues to rank first in median household income in the country, but the rate of appreciation has slowed. Between 2008 and 2009, median household income only grew by 0.9 percent, or $1,000. Loudoun County, Fairfax County, and Falls Church City in Virginia; Hunterdon, Somerset, and Morris counties in New Jersey; Los Alamos County in New Mexico; Nassau and Putnam counties in New York; Howard County in Maryland; and Santa Clara County, California, have maintained median household incomes above $100,000.

Current income is only one component of a household's financial security. The savings rate determines how much accumulated wealth is available for rough times such as these or for future retirement. Between 2008 and 2009, the U.S. median net worth fell by 7.6 percent to $97,700. Average net worth dropped by 11.7 percent to almost $449,000 at the same time. Two major economic factors have impacted household net worth: (1) the record depreciation in home value since 2007 and (2) the dramatic decline in the value of stocks, bonds, and retirement accounts since fall 2008. The two largest components of household net worth, equity in real estate and stock holdings, have been subjected to brutal cuts that will take many years to recover.

Just how much do these macro-level forces affect the individual household? The 2007 Survey of Consumer Finance (SCF) estimates that 50 percent of households had direct or indirect stock holdings, and 60 percent of households were invested in primary or secondary real estate. The average household had more than 60 percent of its assets tied up in real estate or stocks.[11] Almost every household has experienced major asset losses. Given the average household debt of $126,000, the road to recovery is expected to be slow and prolonged.

The cumulative effect of the Great Recession is a cutback in discretionary spending and an increase in saving. This is reflected in the personal consumption expenditures information from the Bureau of Economic Analysis, which began to show a year-by-year decline by the third quarter of 2008. By the fourth quarter of 2008, the year-by-year decline was 1.5 percent.

For most households, disposable income is the bottom line to making ends meet; for others, it determines how much money can be saved. Median disposable income is $43,400 in 2009; the average disposable income declined 1.4 percent to $57,400. Changes vary by age. The average household's disposable income is 80 percent of 45- to 54-year-olds' pretax income. The youngest (less than 25 years) and oldest (65 years or older) householders have median disposable incomes that are more than 85 percent of

[11] Bulletin.tables.pub.nominal.xls from http://www.federalreserve.gov/Pubs/OSS/oss2/2007/scf2007home.html.

their pretax incomes. The 45- to 54-year-olds, the tail end of the baby boom, earn the highest average disposable income—more than $10,000 higher than all U.S. householders—but they have also experienced a larger drop in average disposable income in the last year (-2 percent). Combined with its net worth loss of more than 21 percent, this affluent age cohort has also been forced to rethink its spending habits.

The Economic Outlook

The economic change and the reaction of the American consumer are evident in macroeconomic indicators. Real gross domestic product, which measures the final inflation-adjusted value of all goods and services produced in the economy, shrank for three consecutive quarters. In the third quarter of 2008, the GDP declined 0.5 percent. Then the GDP plummeted 6.3 percent in the fourth quarter of 2008 and 6.1 percent in the first quarter of 2009. The last reading this low was -6.4 percent in the second quarter of 1982, and that recession lasted for 16 months. Decreases in the GDP for three consecutive quarters have not occurred since the mid-1970s.

Consumer spending is driving some of the decline in GDP. Spending dropped by 3.8 percent and 4.3 percent in the final two quarters of 2008, respectively. Facing an uncertain future, many households have switched from spending to saving, which is evidenced by an 8 percent drop in retail sales according to the Census Bureau's Monthly Retail Trade Survey. The current climate has taken a toll on many iconic retailers. Circuit City, Linens 'n Things, and Steve & Barry's are among the notables forced to close their doors for good. Other well-known retailers, such as Macy's, Gap Inc., and Home Depot, are restructuring themselves to better weather the downturn by closing underperforming locations and curtailing expansion plans.

The outlook remains bleak for businesses across all industries. The change in consumer spending preferences and the lack of available credit have also impacted the business investment component of the GDP. Domestic investment plunged 10.4 percent by the fourth quarter of 2008 and fell another 24.2 percent in the first quarter of 2009.

In response to the meltdown in the financial markets in September 2008, the federal government took a number of historic steps to slow or stop the downward spiral in economic activity. Several financial institutions were on the brink of collapse when the U.S. Treasury Department and the Federal Reserve stepped in to perform triage. Troubled financial institutions were separated into too-big-to-fail versus unsalvageable categories. Lehman Brothers fell in the latter category due to its large volume of toxic assets. The government also orchestrated key mergers, such as Bank of America's purchase of Merrill Lynch, and established credit facilities to rescue companies such as AIG (formerly American International Group). The two remaining Wall Street investment firms, Morgan Stanley and Goldman Sachs, agreed to increased government oversight by switching their status to bank holding companies, which now requires them to register with the Federal Reserve.

As part of the Emergency Economic Stabilization Act of 2008, the federal government created the Troubled Asset Relief Program, or TARP. This program gives the U.S. Treasury $700 billion to inject into the financial system, including the purchase of distressed mortgage assets that are overwhelming many banks and financial institutions.[12] The program's scope has extended beyond the financial industry to domestic automakers and life insurers. The magnitude of the federal response to stimulate the economy has not been seen since the Great Depression.

[12] From http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h1424enr.txt.pdf.

The Federal Reserve has also coordinated an aggressive multipronged approach to thaw credit markets. First, short-term interest rates were lowered to a range of 0 to 0.25 percent. Then the Reserve began to inject billions of dollars into the financial system via its Term Asset-Backed Securities Loan Facility (TALF) program to purchase more debt from Fannie Mae and Freddie Mac. The Reserve also plans to purchase up to $300 billion in long-term Treasury securities, including billions more in mortgage-backed securities, to reduce interest rates on consumer loans and corporate bonds.

In addition to the Emergency Economic Stabilization Act of 2008, the executive and legislative branches of government passed the American Recovery and Reinvestment Act of 2009. The bill includes an unprecedented $787 billion in new spending that provides tax relief, infrastructure spending, aid to state governments, and additional spending for education and health care.[13] Can the government's fiscal policy pick up the slack in the private sector and inspire consumer confidence to move the economy toward recovery?

What is the economic outlook for the country? There are positive signs among the daily gloom reports. The financial markets have posted gains. Housing has become more affordable. Inflation is not an issue yet; in fact, consumer prices posted the first year-by-year decline in more than 50 years in March 2009. Consumer spending showed some improvement in the first quarter of 2009, up 2.2 percent. Interest rates are near rock bottom, at levels that will eventually spur more growth via consumer spending. More importantly, the fear factor induced by the Great Recession has been allayed by the government's actions.

However, progress is slow. Until banks begin to lend again on a larger scale, only households and individuals with stellar credit histories can benefit from current interest rates. The economy is still bleeding jobs, and the precipitous decline of the housing market has not abated. Home value is still declining; foreclosures are not. The last time the United States faced a widespread decline in home prices was in the early 1990s. That recovery started in the mid-1990s, with homeownership surging at the same time. The current housing recession is unmatched in history. Given the rise in unemployment, the subsequent loss of income, and the scheduled reset of adjustable-rate mortgages in the near future, it is clear that foreclosures have not yet hit their peak. ESRI's five-year forecasts are conservative.

ESRI expects the recession to bottom out by the end of 2009. Labor market indicators such as unemployment insurance claims are already beginning to slow. Developing 2014 civilian labor force characteristics requires not only an assumed end to the Great Recession but also an assumption about the pace of recovery. ESRI analyzed historical labor force trends during business cycle expansions and contractions from the Current Population Survey back to the late 1940s. Taking historical behavior into account, ESRI's employment forecast shows growth by 2014. The five-year outlook for jobs shows improvement of 1.7 percent annually, to reach 149 million workers by 2014. Similarly, the rate of unemployment is expected to improve steadily, to decline by 3.5 percentage points to 7.1 percent in 2014.

Analysis of historical income data dating back to 1969 suggests that incomes do decline during a recession; however, the full impact is not always evident in the first year after the recession begins. Income declines in subsequent years are often greater than in the first year of a recession. Since the downward pressure on income lags behind unemployment growth, it is clear that the brunt of the downturn in personal income is yet

[13] From http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_bills&docid=f:h1enr.pdf.

to come. ESRI estimates that the recovery of median household income in the 2009–2014 period will occur at a rate of only 0.8 percent annually.

The five-year forecast of home value is predicated on both short- and long-term trends in House Price Index (HPI) from the Office of Federal Housing Enterprise Oversight (OFHEO). ESRI estimates that home prices will grow at a rate of 2.7 percent per year between 2009 and 2014.

The confluence of events that provoked this recession took years to develop. The demand was fueled by demographic change; the means were provided by government actions (banking deregulation, lower interest rates, etc.) and inactions (lack of oversight), in addition to the grand goals of Fannie Mae and Freddie Mac to promote homeownership. The enticement of fast profits is endemic. Analysis of the long-term consequences of short-term actions is generally eschewed. Even now, most data users stick to the current estimates and leave the long-range forecasts to footnotes and appendixes. However, if the Great Recession leaves only one lesson in its wake, it should be the folly of taking shortcuts. There are no quick fixes for this recession; recovery will happen in the long run.

Geography Changes in 2009

Change is inevitable with any geographic area—political or statistical. Identifying the changes in the areas for which data is tabulated and reported is critical to the analysis of trends. In the past year, there have been minor changes to metropolitan areas by the Office of Management and Budget, boundary revisions for designated market areas (DMAs) by Nielsen Media Research, and the usual adjustment of ZIP Codes by the U.S. Postal Service.

Metropolitan changes include the latest revisions to core-based statistical areas (CBSAs), released in November 2008. Changes include three micropolitan areas that have been redefined as metropolitan areas: Cape Girardeau-Jackson, Missouri-Illinois (CBSA Code 16020); Manhattan, Kansas (CBSA Code 31740); and Mankato-North Mankato, Minnesota (CBSA Code 31860). There is also one name change that includes a code revision, The Dalles, Oregon, micropolitan statistical area (CBSA Code 45520, formerly 17180), as well as five other name changes. There are still 940 CBSAs, 366 metropolitan areas, and 574 micropolitan areas.

DMAs represent the 2008–2009 markets as defined by Nielsen Media Research. Most DMAs correspond to whole counties, but there are a few exceptions where counties are split into different DMAs. Finally, ZIP Codes, which are defined solely to expedite mail delivery, are updated to reflect the November 2008 inventory of the U.S. Postal Service.

ESRI presents the 2009/2014 demographic forecasts, including population; age by sex; race by Hispanic origin; age by sex by race and by Hispanic origin; households and families; housing by occupancy; tenure and home value; labor force and employment by industry and occupation; marital status; educational attainment; and income, including household and family income distributions, household income by age of householder, and per capita income.[14] Updates of household income are also extended to provide after-tax (disposable) income and a measure of household wealth—net worth. Changes in the update base from the Census Bureau's Count Question Resolution (CQR) revisions, updated boundaries, and improvements to forecasting techniques may obfuscate comparison with 2008 or earlier updates.

[14] Forecasts represent the midyear population as of July 1, unless otherwise specified.

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