BRIEFING PAPER

A Building Storm: The Housing Market and the Pennsylvania Economy

Mark Price
Stephen Herzenberg

The Keystone Research Center
Harrisburg, Pennsylvania
January 2008

KRC BRIEFING PAPER

A Building Storm: The Housing Market and the Pennsylvania Economy

Mark Price and Stephen Herzenberg

OVERVIEW

In the nation and in Pennsylvania, a building storm of home foreclosures, falling home prices, and tightening credit markets has put the brakes on economic growth, and led to mounting concern that the country may face a deep recession. To date, however, no one has examined in detail the housing market in Pennsylvania or the impact of housing market developments on the Pennsylvania economy.

This briefing paper fills that gap. It examines housing market trends, in Pennsylvania and in each of the commonwealth's major economic regions. It also considers recent trends in job growth and unemployment in the Pennsylvania construction industry and in the overall Pennsylvania economy. Our analysis sets the stage for a discussion of what policymakers can and should do—in Pennsylvania as well as the nation—in response to the housing crisis and a slowing economy.

We find that:

- Contrary to many perceptions, Pennsylvania, particularly in certain regions, did experience a housing bubble. To be sure, the recent run-up in housing prices began two years later in Pennsylvania than in the nation as a whole, in 2001 rather than 1999. Nonetheless:

    - Housing prices in Pennsylvania from 2001 to 2006 mirrored the national trend, rising by 54% compared to an overall inflation rate of only 13%.

    - Pennsylvania housing prices between 2001 and 2006 grew much faster than rental prices and the cost of construction, strong evidence that the uptick in housing prices stemmed from a speculative bubble.

    - Just as Pennsylvania housing prices followed the national trend on the way up, in the first three quarters of 2007 they began to follow the national trend down. If Pennsylvania housing prices continue to follow the national trend, they can be expected to fall over the rest of this year. (National housing prices are projected to fall 6% to 13% from August 2007 to August 2008.)

- Rising mortgage foreclosures are also hitting Pennsylvania as well as the nation.

    - The Center for Responsible Lending projects that the foreclosure rate on Pennsylvania subprime loans issued in 2006 will exceed by 53% the foreclosure rate on loans issued from 1998 to 2001.

    - The Joint Economic Committee of the U.S. Congress projects that, from the third quarter of 2007 to the end of 2009, there will be an estimated 45,470 subprime mortgage foreclosures in Pennsylvania, representing a loss of $2.4 billion in property values.

- Recent developments in the housing market have already contributed to a decline in employment in the Pennsylvania construction industry.
    - Seasonally adjusted employment in the Pennsylvania construction industry declined by 6,000 jobs between March and November of 2007.
    - Unemployment of construction workers in the summer months of July to September (months in which construction employment usually peaks) rose from 4% in 2006 to 7.5% in 2007.

The vulnerability of different parts of Pennsylvania to rising foreclosure rates depends on three main factors: (1) the extent to which families rely on subprime mortgages; (2) the extent to which the area experienced a housing bubble, a rough predictor of how much property values may now fall; and (3) the state of the regional economy—when unemployment rises, so do foreclosure rates.

- Families in low-income communities rely most heavily on subprime mortgages. In nine counties—eight rural ones (Cameron, Clearfield, Fayette, Forest, Jefferson, Monroe, Venango, and Warren Counties) and Philadelphia—subprime mortgages make up more than 35% of all mortgages.[1] In some neighborhoods, subprime mortgages make up 60% to 80%, or more than 80%, of the total.
- From 2001 to 2006, housing prices escalated the most within the Philadelphia metropolitan area.[2] To a lesser extent, prices also rose in the Lehigh Valley and South Central Pennsylvania.
- Currently, unemployment rates are somewhat higher in some rural parts of Pennsylvania, but no area of the state has very high unemployment rates. This is, of course, subject to change based on the national economy.

To see maps showing the share of subprime mortgages within each census tract of each county in Pennsylvania, visit http://www.keystoneresearch.org/housingmarket.

Based on the most recent economic statistics, the housing crisis so far appears to have had limited impact on overall Pennsylvania job and output growth. Relative to Michigan and Ohio to our west (where reliance on subprime mortgages interacts with the recent loss of auto industry jobs) and New Jersey and New York to our east and north (which experienced more severe housing spikes), Pennsylvania has dodged a bullet. Yet there is ample reason to think that more bullets will be coming that Pennsylvania may not be able to dodge.

- From 2001-06, Pennsylvania depended on the booming construction sector for nearly a third of total job growth. That source of economic stimulus is now evaporating.

[1] The universe of mortgages here is limited to owner-occupied, first lien home mortgages. Subprime is defined as loans with a rate spread in Federal Financial Institutions Examination Council (FFIEC) data. The FFIEC defines a first-lien home mortgage as having a rate spread if the difference between the annual percentage rate on the loan exceeds by three percentage points the interest rate on Treasury securities with comparable maturity periods.

[2] The Philadelphia metropolitan area is defined here to include the Philadelphia-Camden-Wilmington region spanning parts of PA-NJ-DE-MD.

- Nationally and in some Pennsylvania regions, falling house prices mean that families can no longer use their homes as ATM machines, thereby sharply curtailing household consumption.

- Investors have grown extremely nervous about investments in financial institutions that hold—or are feared to hold—significant numbers of subprime loans (in the form of mortgage-backed securities). Lending standards have already tightened in many markets, and a more severe credit crunch could lead to a situation in which business investors and households who are normally good credit risks suddenly find themselves unable to borrow.

Home mortgage foreclosures, the bursting of the housing bubble, and the slowdown in the economy are national problems that demand national solutions. The thrust of the last section of this report, however, is that Pennsylvania's governor and legislature need not and should not simply pass the buck to Washington. Prompt and creative action by Pennsylvania policymakers could also help Pennsylvania families and the state's economy weather the next few years—as well as inject into Washington debates a badly needed dose of outside-the-box thinking.

Turning to specifics, to limit the impact of the housing market crisis, Pennsylvania policymakers need to respond at four levels.

- *To reduce the number of future mortgages that end in foreclosure*, Pennsylvania lawmakers should (a) enact a package of six proposed reforms that protect against predatory lending in the mortgage market and (b) establish regulations that require lenders to take into account the affordability of a mortgage interest rate after the rate on an adjustable rate mortgage (ARM) rises above an initial low rate. Since these regulations would reduce the access of families to mortgages that they cannot afford, legislators should couple them with the creation of a Housing Trust Fund that helps more low-income families to buy homes that they can afford.

- *To protect families currently at risk of losing their homes*, Pennsylvania should enact policies equal to the scale of the current foreclosure problem. To do this, Pennsylvania will need additional funds from the federal government to expand two new programs that offer refinancing assistance, or loans, to homeowners who cannot afford their current payments. (These programs are the REAL (Refinance to an Affordable Loan) and HERO (Homeowner Equity Recovery Opportunity) programs.) Pennsylvania should also explore the subprime borrower protection plan proposed by Dean Baker of the Center for Economic and Policy Research. Baker suggests that giving homeowners who face foreclosure the option to rent the home indefinitely at the fair market rent would lead lenders to renegotiate some mortgages, but at lower cost to the government than subsidized refinancing.

- *To provide near-term, state-level economic stimulus*, state and local governments and school districts should accelerate the schedules for public and publicly subsidized construction projects already underway or about to launch.

- *To prepare for the possibility of a deeper national recession, the Rendell Administration, with input from the private sector and the legislature, should develop contingency plans for larger-scale investment in the future*—in our neglected infrastructure (sewer, water, roads, bridges, public transit and high-speed rail, etc.), in energy efficiency, and in education and training (the human capital or skills infrastructure of the future). Through a Commission on Investment in the Future, required to report to the governor and the legislature by the end of April, Pennsylvania should consider (a) how state government and the private sector can maximize investments that will deliver a double benefit of short-run economic stimulus and long-run improvements in productivity; (b) how to enable unemployed workers to access skills training *and* income support, avoiding the waste and psychological costs that result from traditional unemployment, and positioning Pennsylvania's workforce to compete for the long term; and (c) what the federal government needs to provide, through revenue sharing and innovative skills, energy, and infrastructure policies, to complement creative state action. The work of a Pennsylvania commission should be informed by and complement that activity of a new bipartisan "Building America's Future" coalition of state and local officials unveiled on January 19. (Governor Ed Rendell serves as a co-chair of the group along with California Governor Arnold Schwarzenegger and New York Mayor Michael Bloomberg.) This Coalition will make the case for increased federal investment in infrastructure.

Today's economic troubles stem from an over-reliance on the deregulated market and an under-reliance on government and creative public policy. By responding effectively and creatively to these troubles Pennsylvania policymakers can restore growth more quickly. They can also think in an open-minded and pragmatic way about how new state and federal policies could make Pennsylvania's economy more robust, competitive, environmentally sustainable, and equitable for the long term.

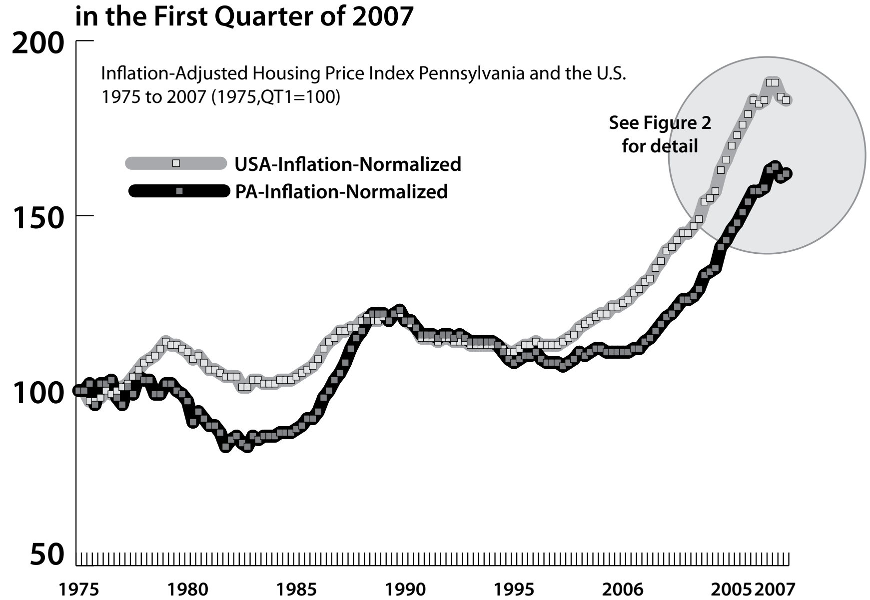
THE HOUSING BUBBLE IN PENNSYLVANIA

Figure 1 displays inflation-adjusted housing prices in the United States and Pennsylvania between 1975 and 2007. Figure 2 magnifies the last 15 quarters of data so that the turnaround in price trends can be seen more easily.

The figures show that inflation-adjusted[3] housing prices increased 52% in Pennsylvania from 1996 to a peak reached in the first quarter of 2007 (Figures 1 and 2).[4]

To be sure, housing prices grew more sharply, and have already declined more, in states like California, Florida and Arizona. Nonetheless, Figures 1 and 2 make clear that Pennsylvania's housing market pattern is

Figure 1. Pennsylvania Housing Prices Peaked in the First Quarter of 2007



Note. Data are for sales and refinance transactions. Inflation-Adjustment based on the CPI-U-All items less shelter. Data for 2007 is through the third quarter.

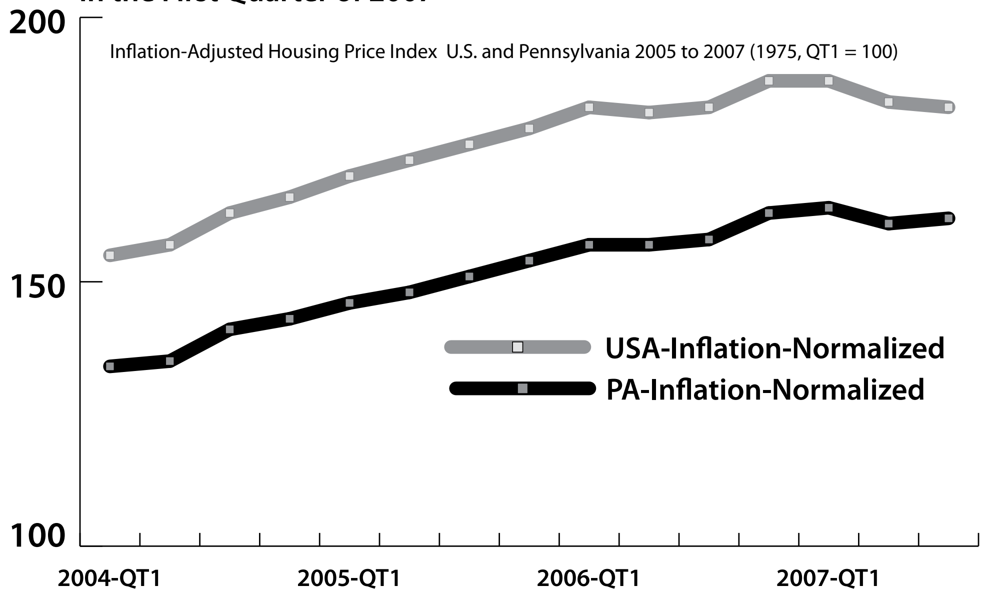
Source. KRC estimates based data from the Office of Federal Housing Enterprise Oversight (OFHEO)

[3] Authors' estimates based on housing price data from the Office of Federal Housing Enterprise Oversight (OFHEO), adjusted for inflation based on the consumer price index for all urban consumers, all items less housing.

[4] From their low point to high point over the same decade (1996 to the end 2006), U.S. housing prices increased by 67%.

indeed a variation on the national trend.[5]

Figure 2. Pennsylvania Housing Prices Peaked in the First Quarter of 2007



Note. Data are for sales and refinance transactions. Inflation-Adjustment based on the CPI-U-All items less shelter. Data for 2007 is through the third quarter.

Source. KRC estimates based data from the Office of Federal Housing Enterprise Oversight (OFHEO)

If Pennsylvania continues to follow the national trend, prices will fall a good deal further. U.S. housing prices, on which we have more recent information than Pennsylvania housing prices, fell 10% between October 2006 and October 2007. [6] In testimony before Congress, Harvard University economist Robert Shiller projected another 7% to 13% decline in housing prices between August 2007 and August 2008.[7]

Shiller's testimony also contains compelling evidence that recent housing price trends reflect a speculative bubble, not a real trend in the underlying costs of construction. He points out that, for the last century in the United States until the mid-1990s, housing prices roughly followed the overall rate of inflation. Since the late 1990s, housing prices have diverged by over 50% from the overall inflation rate. If housing prices were rising because of higher costs, Shiller adds, rents and construction costs since 2001 would also have gone through the roof. They have not. Rents in the Philadelphia metropolitan area, for example, have increased by just 20% since 2001, while housing prices in the region, not adjusting for inflation, grew by 73%.[8] Likewise, between 2001 and 2006, building costs increased by only 22% in the nation and 20% in Philadelphia.[9]

Just as housing price escalation varies among states, it also varies within Pennsylvania. Housing prices since 2001 rose the most, by 52% (this time adjusting for inflation) in the Philadelphia metropolitan area.

---

[5] Pennsylvania housing prices since the first quarter of this year have been growing more slowly than prices for all other goods, up just 1.4% between the 1st and 3rd quarter of this year. After adjusting for inflation housing prices between the first and third quarter of 2007 fell by 1%.

[6] Author's estimates based on the S&P/Case-Shiller Home Price Indices adjusted for inflation using the consumer price index for all urban consumers, all items less housing.

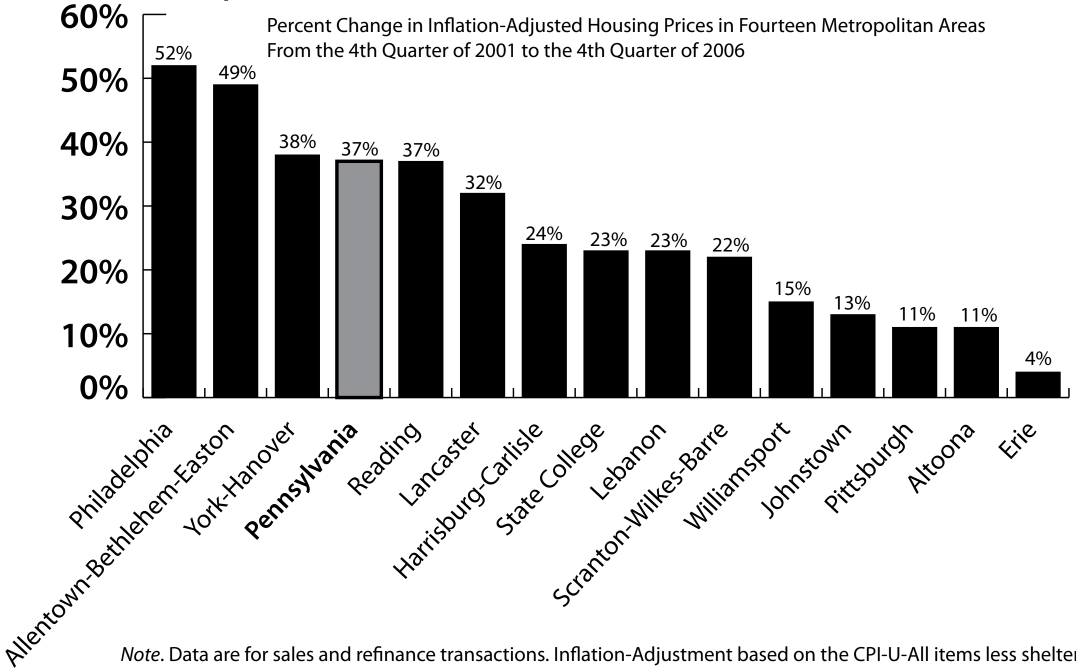
[7] Robert J. Shiller, Testimony before the Joint Economic Committee, September 19, 2007.

[8] The ratio of housing prices to rents in the Philadelphia area is the largest since we have data—1.6 in 2006 compared to an average since 1983 of 1.17. Housing prices and rents have also diverged in Pennsylvania as a whole since 2001. For more on the price-to-rent ratio see John Krainer and Chishen Wei, "House Prices and Fundamental Value," Federal Reserve Bank of San Francisco *Economic Letter*, Number 2004-27, October 1, 2004.

[9] McGraw-Hill Construction/Engineering News Record Building Cost Index. The index does not distinguish between residential and non-residential building costs. Data from the index for only captures trends in building costs in the City of Philadelphia not the metropolitan area.

(Figure 3). Housing prices in the Lehigh Valley increased by 49% adjusting for inflation. Housing prices in the western and central parts of the state grew much more slowly.

Figure 3. Percent Change in Housing Prices in Fourteen Metropolitan Areas, 2001 to 2006



Note. Data are for sales and refinance transactions. Inflation-Adjustment based on the CPI-U-All items less shelter
Source. KRC estimates based data from the Office of Federal Housing Enterprise Oversight (OFHEO)

THE HOUSING MARKET IN PENNSYLVANIA

The Housing Bubble

The U.S. housing bubble was fueled in part by the creation of exotic mortgages that made consumers without sufficient savings for a conventional down payment eligible for a home loan, and by the bundling of these mortgages into securities, or bonds, that promised high rates of return.[10] Money from investors who bought mortgage-backed securities went back to mortgage lenders to finance more home purchases. Like any bubble, rapid housing price increases at a certain point fed on themselves, with increased demand from speculative home purchases sustaining high price increases. The bubble went along with robust growth in new home construction, originally to satisfy demand from an expanded mortgage market, and then financed by developers speculating that demand would continue to expand.[11]

Mortgage Foreclosures

The mortgage foreclosures that first grabbed the media headlines were the growing number of foreclosures in the "subprime" lending market. Subprime loans are high interest mortgages, the rates of which are

---

[10] Exotic mortgages include those with low introductory or teaser rates, loans requiring no down payment, and loans requiring no proof of income.

[11] Dean Baker, *Midsummer Meltdown: Prospects for the Stock and Housing Markets*, Center for Economic and Policy Research, August 2007, online at www.cepr.org.

justified by lenders based on the "high risk" of the borrowers.[12] In practice, however, as many as half of subprime borrowers could afford more conventional fixed-rate mortgages.[13] They may have purchased subprime mortgages despite this because they did not fully understand that a subprime mortgage becomes less affordable once an initial low (or "teaser") rate resets at a higher level.

Subprime borrowers go into foreclosure more than other borrowers because their mortgage obligations represent a high portion of their incomes and because they are less likely to have savings. Any change in circumstances, such as a jump in the rate of an adjustable rate mortgage (ARM), or an illness or job loss, creates the risk of foreclosure. When housing prices are rising rapidly, homeowners unable to pay their mortgage can escape foreclosure by refinancing their mortgage, taking out a home equity loan to cover their mortgage payments, or selling their home. But when housing prices are flat or falling, as they often are now following the bursting of the housing bubble in many markets, borrowers unable to afford their mortgage payments are much less likely to be able to avoid foreclosure.[14]

Reflecting, in part, the impact of the down shift in housing prices, the Center for Responsible Lending estimates that the foreclosure rate on subprime loans issued in 2006 in Pennsylvania will increase by 53% over the rate for subprime loans issued from 1998 to 2001.[15] The Joint Economic Committee of the U.S. Congress estimates that there will be 45,470 subprime foreclosures in Pennsylvania from the third quarter of 2007 to the end of 2009. That number represents a loss of $2.4 billion in property value.[16] The subprime foreclosure wave could continue all the way to 2010. In 2010, the rate on subprime mortgages issued in the first part of 2007, with a low initial rate for three years, will adjust upwards. (Since the first part of 2007, the subprime market has dried up.)

In some cases, families lose significant accumulated wealth in a house on which a mortgage is foreclosed. Auctions of foreclosed homes often fetch lower prices than equivalent homes sold by owners themselves or by their real-estate brokers. In addition, prices can spiral downwards quickly in neighborhoods where many foreclosures have occurred. As a result, homes that would ordinarily sell at a price greater than the value of the mortgage plus transition costs—and allow the homeowner to extract accumulated wealth—sell for less than this amount.

---

[12] In the 2nd quarter of 2007 over two-thirds of all loans in foreclosure were subprime loans. Julia Reade, "Foreclosures in Vermont and New England," Federal Reserve Bank of Boston, September 2007, online at http://www.bos.frb.org/commdev/foreclosures/state%20packets%20VT%2012_31_07.pdf.

[13] In analysis of subprime mortgages originated in 2005 and in 2006, and bundled into securities for sale to investors, the *Wall Street Journal* found that more than half of these loans were made to borrowers with credit scores which would have qualified them for lower cost conventional mortgages. Rick Brooks and Ruth Simon "Subprime Debacle Traps Even Very Credit-Worthy," *Wall Street Journal*, December 3rd, 2007, p. A1.

[14] In analysis of the relationship between home prices and foreclosure activity from the third quarter of 2006 to 2007, states with declining housing prices also tended to have the most foreclosure filings. Office of Federal Housing Enterprise Oversight, "House Prices Weaken Further In Most Recent Quarter," November 29, 2007, pages 11-17, online at http://www.ofheo.gov/media/pdf/3q07hpi.pdf. With respect to subprime loans, the Center for Responsible Lending, ("Losing Ground: Foreclosures in the Subprime Market and Their Cost to Homeowners" December 2006) found that even when housing prices were rising there were large numbers of subprime borrowers who were paying off their mortgages while being delinquent on their payments, indicating they were avoiding foreclosure by using rising home prices to refinance their mortgages or by selling their homes outright. With housing prices falling, these options are no longer available.

[15] Ellen Schloemer, Wei Li, Keith Ernst, and Kathleen Keest*, Losing Ground: Foreclosure in the Subprime Market and Their Cost to Homeowners*, Center for Responsible Lending, December 2006, online at http://www.responsiblelending.org/pdfs/CRL-foreclosure-rprt-1-8.pdf.

[16] Joint Economic Committee of the United States Congress, *The Subprime Lending Crisis: The Economic Impact on Wealth, Property Values and Tax Revenues, and How We Got Here*, October 2007, online at http://jec.senate.gov/Documents/Reports/10.25.07OctoberSubprimeReport.pdf.

Subprime mortgage holders are not the only families suffering in the current housing market. In some markets, with home prices declining and access to credit contracting, foreclosures that started with subprime borrowers have spread to the rest of the mortgage market. In addition, foreclosures of mortgages on properties occupied by renters—who are disproportionately low-income—often require families to move and leave them searching for alternative affordable housing.

THE IMPACT OF THE HOUSING MARKET ON THE PENNSYLVANIA ECONOMY

The housing market will affect Pennsylvanians and the Pennsylvania economy through several channels:

- by decreasing consumption spending
- by reducing housing-related employment
- by restricting access to credit.

Falling Housing Prices Constrain Consumer Spending

During the housing bubble, "equity withdrawals"—cash generated when people sell their homes or open home equity lines of credit or refinance their mortgages—became an increasingly important source of consumer spending. Equity withdrawals represented 9% of disposable income in 2006.[17] As of November of last year the national decline in housing prices had already reduced the amount of consumption financed by these sources by nearly one-fourth.[18] An erosion of housing prices in Pennsylvania and the nation will further lower consumer spending.

More Mortgage Foreclosures Could Depress Housing Prices—and Consumption—Further

A rapid increase in foreclosures would further contribute to falling housing prices by depressing the values of nearby homes. In analysis of data on home sales in the city of Philadelphia, researchers from Temple University found that the presence of an abandoned property on a block lowered sales prices on that block by 9.1% on average, with sales prices declining by 15% when there were five abandoned properties on the same block.[19]

The larger the number of subprime loan holders in a neighborhood, the greater the risk that an initial round of foreclosures will put further downward pressure on housing prices, potentially setting off a new round of foreclosures.

One way of gauging vulnerability to foreclosure is by examining the number of subprime mortgages as a share of all mortgages.[20] At the county level, data on new home mortgages originated in 2006 show that

---

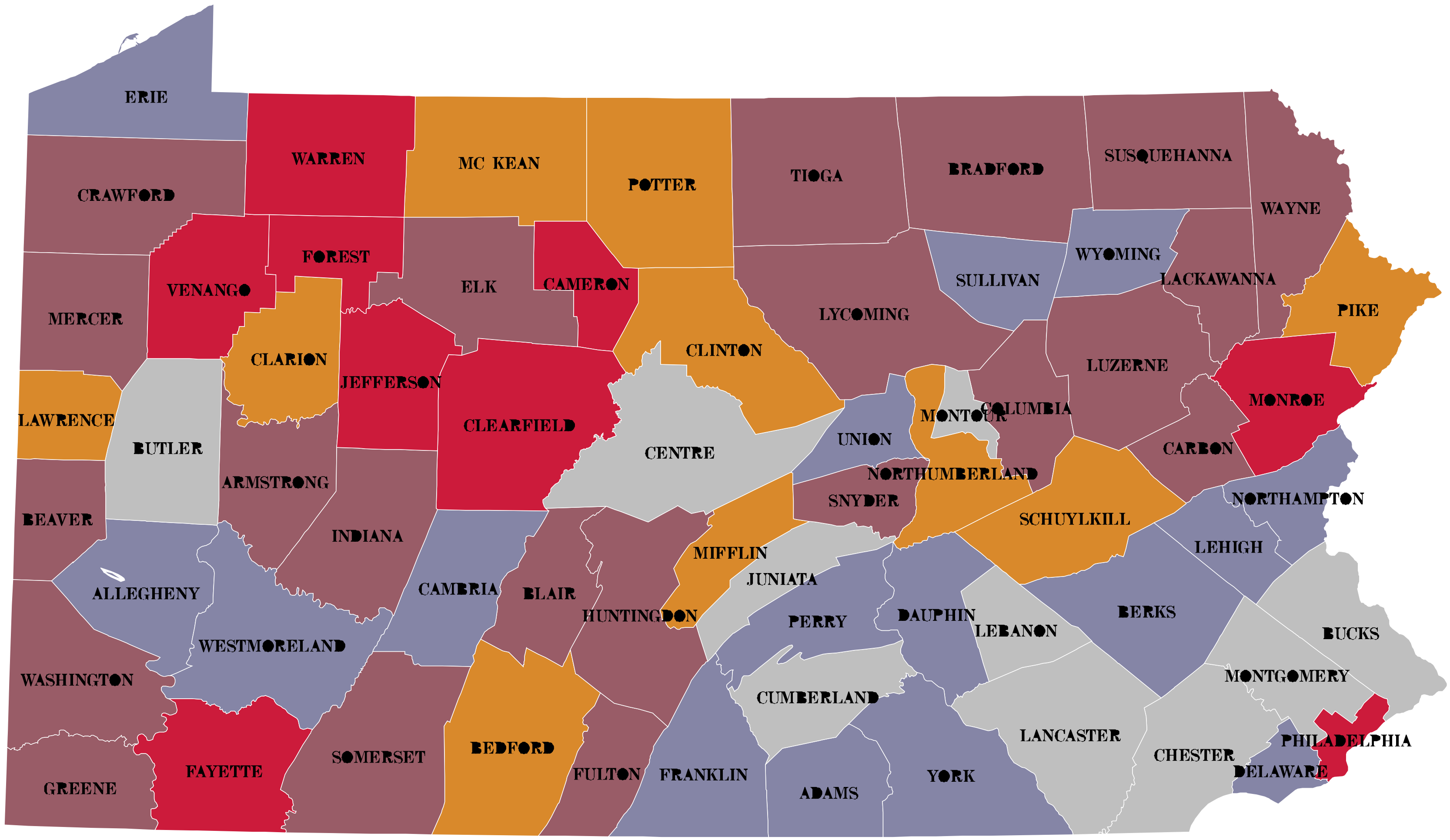
[17] Peter S. Goodman "Homeowners Feel the Pinch of Lost Equity," *The New York Times*, November 8, 2007.

[18] Ibid.

[19] A. Shlay and G. Whitman "Research for Democracy: Linking Community Organizing and Research to Leverage Blight Policy," *City & Community*, Vol. 5, No. 2, June 2006.

[20] The universe of mortgages here is limited to owner-occupied, first lien home mortgages. Subprime is defined as loans with a rate spread in Federal Financial Institutions Examination Council (FFIEC) data. Where the FFIEC defines a first-lien home mortgage as having a rate spread if the difference between the annual percentage rate on the loan exceeds by three percentage

Figure 4. Subprime Mortgages as a Share of All Mortgages, 2006



Less than 20% | 20% to 25% | 25% to 30% | 30% to 35% | over 35%

Note. Data limited to first lien, owner-occupied mortgages
Source. KRC Estimates based on Federal Finanical Institutions Examination Council data

the counties with the greatest share of subprime mortgages were Forest (46%), Cameron (40%), Venango (39%) and Fayette (38%) (Figure 6). To see maps showing the share of subprime mortgages in 2006 in each census tract within each Pennsylvania county, visit www.keystoneresearch/pahousingcrisis.com.[21]

Vulnerability to foreclosure is also related to how much property values over-inflated and how much the construction market over-heated during the housing bubble. Lastly, vulnerability is critically influenced by unemployment: areas that did not have a large housing price increase may nonetheless face high rates of foreclosure because families lose jobs and income. (See Box 1).

Box 1.
Housing Crisis and a Stagnant Economy:
A One-Two Punch *The Case of Ohio and Michigan*

Housing prices increased more in the nation, and in Pennsylvania, than they did in either Ohio or Michigan. Despite that, in the third quarter of 2007, Fannie Mae, which finances or guarantees one of every five home loans in the United States, wrote off five times as much (because of loans with no chance of being recovered) on home loans in Ohio and Michigan than in the states most closely associated with the housing boom, California and Florida.[1]

The key difference for Ohio and Michigan is the deadly cocktail of job losses combined with growth in subprime mortgage lending. (Michigan also had a run up in housing prices from 1995 to 2005, followed by a decline in housing prices in the last six quarters.) For policymakers and for Pennsylvanians, the lesson should be clear: **A recession that generates job losses similar to those in Ohio and Michigan could lead to a further spike in home foreclosures.**

1 Associated Press, "Ohio, Michigan face different foreclosure crisis: Economy, not speculators and adjustable mortgages, is depressing market," December 17, 2007. The exact figures for Fannie Mae losses were 185 million in Michigan, $101 million in Ohio, $30 million in California, and $21 million in Florida.

Declines in Housing-Related Jobs

The 2001 recession precipitated a period of unusually low job growth in Pennsylvania and the nation. In part because overall growth was slow during the 2001-06 period, a robust residential construction industry contributed substantially to job growth. Between 2001 and 2006, a full 29% of job growth in Pennsylvania occurred in three housing-related industries, even though, in 2001, only 2.5% of the state's employment was in these industries.[22, 23] (In the stronger economy of 1996-2001, housing-related

points the interest rate on Treasury securities with comparable maturity periods.

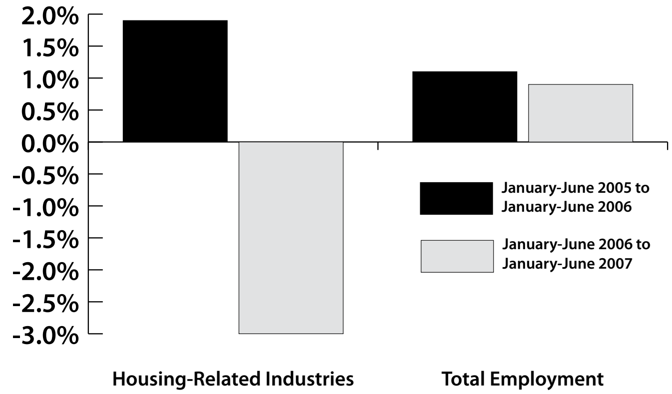
21 Ira Goldstein of The Reinvestment Fund has produced estimates of the number of prime and subprime loans in delinquency and presale foreclosure by zipcode in Pennsylvania as of July 2007. See Ira Goldstein, "Update On Mortgage Delinquencies and Foreclosures in Pennsylvania," September 25, 2007; online at www.trfund.com/resource/downloads/staffwritings/PAR_Presentation.pdf.

22 Housing-related industries include *real estate* (NAICS 531), *residential building construction* (NAICS 2361), and *residential specialty trade contractors* (NAICS 238XX1). This definition does not include the mortgage banking sector, which was likely a big factor in job growth since 2000 but is not identifiable in current employment data sources. Our estimates thus understate the contribution of housing-related jobs to total job growth.

23 Some economists use the term "net job growth" to describe the increase in the total number of jobs in the economy or in a

industries accounted for 5% of Pennsylvania job growth.)

Figure 5. Housing-Related Job Growth Has Slowed in Pennsylvania



Note. Housing-Related industries include real estate (NAICS 531), residential building construction (NAICS 2361) and residential specialty trade contractors (NAICS 238XX1).

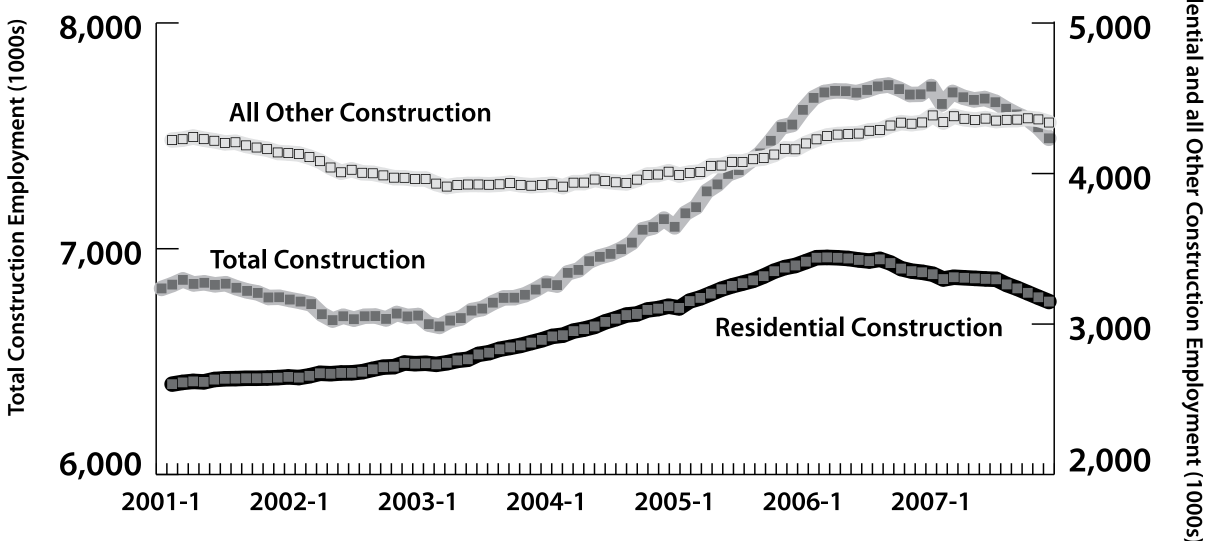
Source. KRC analysis of QCEW data

In the first half of 2007, however, trends in housing-related employment abruptly reversed. Between January and June 2007, the number of housing-related jobs declined by 3% (Figure 5). In the previous year, housing-related employment increased by 1.9%.[24]

Nationally, between March and December of 2007, the economy shed 203,000 construction jobs. (Employment figures are seasonally adjusted unless otherwise stated.) Most of the jobs lost—161,000—were in residential construction. In a worrisome development, however, employment in non-residential construction was down by 41,800 from March to December (Figure 6).

In Pennsylvania, data on total construction employment are available for more recent months than is "housing-related" employment. (However, we cannot separate residential and non-residential construction

Figure 6. The Sharp Downturn in U.S. Residential Construction Employment Is Driving Down Total U.S. Construction Employment



Source. KRC estimates based on Current Employment Statistics (CES)

sector. They do this to distinguish net job growth from "gross job growth"—i.e., the total increase in employment at expanding companies. Net job growth is gross job growth minus the total of job losses at shrinking or closing companies. We use job growth rather than net job growth because job growth is commonly used in the media and policy discusses of job trends and also because the term "net" may confuse some readers.

[24] One in four housing related jobs is in residential building construction. Employment in this sector declined by 2,527 jobs or 6.9% between March 2006 and March 2007. Residential specialty trade contracting, which accounts for 46% of all housing related employment, declined by 1,766 jobs, or 2.7% between March 2006 and March 2007. Real estate, which accounts for 29% of housing-related employment, shed 100 jobs between March 2006 and March 2007.

in the most recent Pennsylvania data.) Total construction employment in Pennsylvania declined by 6,000 jobs between March and December 2007, roughly following the national trend.[25]

Overall Job Growth Slows

Because construction related employment was such an important portion of overall job growth in Pennsylvania, as employment growth in the state's housing sector has slowed, it has lead to slower overall employment growth. According to the most current data available, total employment increased by 0.9% between first half of 2006 and the first half 2007, down from a 1.1% increase between the first half of 2005 and the first half of 2006 (Figure 5).

Construction Unemployment Turns Back Up

The unemployment rate in the Pennsylvania construction industry fell to 6.5% in 2006, a low average annual rate in an industry with high unemployment in the coldest months. The unemployment rate jumped back up to 9% during the first three quarters of 2007.[26] Examining just

Box 2.
How the Mortgage Crisis Can Trigger a Credit Crunch

When institutions, investors, and individuals withdraw their assets from lending institutions that hold mortgage-backed securities, those lending institutions can no longer provide credit, and a credit crunch can result. Here in more detail is how a credit crunch happens.

Mortgage-backed securities are like a massive carton that holds thousands of eggs, where each egg represents a home mortgage. Bundling mortgages together was thought to lower the risk to investors who bought the securities, based on the assumption that no more than a few mortgages would go bad. While housing prices were rising, these securities did provide high returns at what appeared to be low risk. But as more and more mortgages have gone into foreclosure, it has become apparent that these securities are much higher risk than first thought. Furthermore, as housing prices continue to decline, and as increasing numbers of the low introductory rates on subprime loans expire, fear has grown than some mortgage-backed securities will plunge in value.

This fear, in turn, can lead lenders to withdraw funds or restrict lending to institutions holding significant numbers of mortgage-backed securities, or even to institutions feared to hold substantial mortgage-backed securities. For example, an investment pool operated by the State of Florida on behalf of local governments and school districts invested a relatively small portion of its assets in the mortgage market. When local officials from all over Florida learned this, they scrambled to withdraw from the fund. Like a bank run of the 1930s, the rush of investors to withdraw money nearly caused the fund to collapse.[1] On a global scale, the reluctance of investors to loan money to financial institutions out of concern about those institutions' exposure to housing related losses can lead to a credit crunch. This threatens the broader economy to the extent that it translates into less investment capital available—for example, from the State of Florida investment pool—to finance business investment.

1 Michael M. Grynbaum, "Fund Crisis in Florida Worrisome to States," *New York Times*, December 5th, 2007.

25 Total construction employment from March to November 2007 was down 2.2% in Pennsylvania and 2.6% nationally. It is likely that national estimates of construction employment—and national estimates of recent construction employment declines—are understated due to the prevalence of undocumented immigrants in the construction labor force.

26 Unemployment estimates are not seasonally adjusted. Unemployment in the Pennsylvania construction labor market is highly seasonal, with rates typically peaking in the first quarter, declining through the end of the third quarter, and trending up through the end of the year. The biggest increase in unemployment rates in 2007 compared to the same period in 2006 occurred in the third quarter at the height of construction demand. In the third quarter of 2006 the construction unemployment rate was 4%; in the same period in 2007 the unemployment rate was 7.5%.

the most recent quarter of data—the normal seasonal peak of construction demand in Pennsylvania from July to September—the unemployment rate among construction workers was 7.5%, nearly twice the 4% rate that prevailed in same period in 2006.

A Credit Crunch Threatens All Sectors of Pennsylvania's Economy

Another critical danger to the broader economy from the housing crisis is that it will lead to a shortage of credit (Box 2 explains how). If it does, some manufacturers with increased export opportunities because of the falling dollar may be unable to finance expansion to meet this increased demand. Other credit-worthy businesses and individuals will also find it harder in some cases to borrow for investment or consumption.

Central banks around the world, including the U.S. Federal Reserve, have moved aggressively on several occasions to increase the availability of credit to financial institutions. A credit shortage is the most uncertain and the largest of all the threats facing the economy because it affects every sector of the economy.

POLICY RECOMMENDATIONS

The subprime mortgage crisis, the bursting of the housing bubble, and the slowdown in the economy are problems that affect the entire nation, not just the state of Pennsylvania. Moreover, when it comes to crafting solutions, the federal government has more power than state officials; it can, for example, deficit spend and set interest rates through the Federal Reserve Bank. In the weeks just prior to the publication of this report, the Federal Reserve Bank, U.S. Congress, and Bush Administration recognized these realities and awakened to the need for action to stimulate the national economy.

We can expect an extended debate about the scale of stimulus needed to boost the national economy and the specifics of that stimulus.[27] Basic economics suggests a number of guidelines:

- First, direct government spending stimulates the economy more than tax cuts. The basic reason: government injects every dollar of an increase in its spending into the economy, whereas consumers typically inject only a portion of what they receive in tax cuts.

- Second, tax cuts—or other approaches to putting money in the pockets of consumers—stimulate the economy more if they target low- and moderate-income families. Why? Because these families spend more of any increase in income than higher-income groups.[28] Two ways to target low-income families would be through increased or extended unemployment benefits or more generous food stamps.

- Third, increases in government spending should include revenue sharing for states and localities so states and localities do not have to slash services sorely needed in an economic downturn.

[27] Good sources for the most up-to-date information on the national stimulus debate are the web pages of the Center for Economic Policy and Research (www.cepr.org), the Economic Policy Institute (www.epinet.org), the Center on Budget and Policy Priorities (www.cbpp.org), and the Center for American Progress (www.americanprogress.org).

[28] For evidence from the 2001 tax cuts, see D.J. Johnson and N. Souleles, "Household Expenditure and the Income Tax Rebates of 2001," *American Economic Review 96*, December 2006, pp. 1589-1610.

- Fourth, increases in government spending should also focus on public goods that make sense independent of the short-run need for stimulus—investments that pay off in the form of higher productivity and living standards, a cleaner environment, a better quality of life. Examples include many infrastructure investments, investments (or tax credits) that pay for energy conservation, and investments in human capital—improving the skills of the workforce.

The importance of the national stage does not preclude action at the state level. State government also has powers and creativity that can help keep Pennsylvania's homeowners and economy above water. In light of this, the rest of this section focuses primarily on the state level. In addition to acting directly on the state stage, Pennsylvania policymakers have the ability to shape national debates—as already recognized by the new "Building America's Future" coalition that brings together state and local officials to make the case for federal investments in infrastructure.

Turning to specifics, the discussion below outlines four areas in which Pennsylvania policymakers should take action.

Reducing the Number of Future Mortgages at Risk of Foreclosure

Even before housing prices began to stagnate and fall, the Department of Banking and state legislators developed regulatory and state legislative proposals to reduce "predatory" (unethical) lending and the growing number of Pennsylvania families with exotic mortgages that they could not afford.

- In 2005, a study commissioned by the State Department of Banking estimated that the foreclosure rate on prime loans in Pennsylvania was the ninth highest in the nation, and the foreclosure rate on subprime loans the fourth highest.[29] To lower foreclosure rates, the Department of Banking proposed new regulations that would create new requirements for lenders to disclose terms to mortgage borrowers and consider borrowers' ability to pay.

- In addition, the Pennsylvania General Assembly introduced a reform package of six bills.[30] This package would require licensing of mortgage brokers and prohibit penalties for paying off loans early (which can lock homeowners into adjustable rate mortgages with high rates). It would tighten the regulation of appraisers to reduce the chance of appraisers colluding with brokers and valuing homes at more than their market value. The reform package would, further, require mortgage holders to notify the borrower and the state about impending foreclosures.

The worsening subprime mortgage situation underscores the importance of enacting these regulatory and legislative reforms immediately.

It should also be recognized that the subprime lending explosion in the state and the nation was, in part, a symptom of the lack of affordable housing. Many homeowners relied on exotic mortgages because homes available in their area were too expensive to be affordable with more conventional mortgage products. By design, regulatory reforms would restrict the access of some low-income families to exotic mortgages that expose them to undue risk and the possibility of devastating losses. But these reforms must be coupled

[29] The Reinvestment Fund, "Mortgage Foreclosure Filings in Pennsylvania" <www.trfund.com/resource/downloads/policypubs/Mortgage-Forclosure-Filings.pdf>.

[30] For more on these bills, see www.housingalliancepa.org/news/view.php?news_id=185

Box 3.
The Subprime Borrower Protection Plan

Under Dean Baker's Subprime Borrower Protection Plan, the federal government or Pennsylvania legislature would give homeowners facing foreclosure the right to rent their home indefinitely at the fair market rent. This rent would be determined by an independent appraiser, appointed by a court. The appraiser would determine the fair market rent in the same way that appraisers determine the market value of a home before a bank issues a mortgage. (Especially in markets where housing prices have risen much faster than rents, fair market rents could end up substantially less than the monthly payment on an ARM, so that the former homeowners could afford the rent even though they could no longer afford the original mortgage payment.)

In some cases, Baker's plan would ensure that current homeowners could at least keep a roof over their head. If they like the home, the neighborhood, and the schools for their children, they would have the option to stay in their home as long as they wanted. More importantly, this change in the foreclosure rules would give lenders a strong incentive to renegotiate the terms of mortgages. Most lenders will not want to become landlords. They would have the option to sell the home, but the buyer would remain bound by the commitment to accept the former homeowner as a tenant indefinitely, reducing the resale value. Since a lower resale value would make the foreclosure option less attractive, lenders will be more likely to negotiate terms that allow current homeowners to remain in their houses as homeowners.

According to Baker, his plan requires no taxpayer dollars or new bureaucracies. It would be administered by a judge in the same way that foreclosures are already overseen by judges. It simply changes the rules under which foreclosures can be put into effect. In addition, the proposal does not in any way bail out lenders who made predatory mortgages or risky gambles in the secondary market. The plan could be capped at the value of the median house price in a metropolitan area, so that it does not benefit high-income homebuyers but only the middle class. By allowing homeowners to stay in their house as renters, this plan also aims to prevent the sort of blight that often afflicts neighborhoods with large numbers of foreclosures.

with an expansion of affordable family housing—for example, through the creation of the Housing Trust Fund proposed by the Pennsylvania Housing Alliance. This fund could be financed by a 2% charge on homeowners' property insurance—an average cost of $1 or less per month that would raise an estimated $85 million. (If federal-state revenue sharing were re-instituted, that might also provide resources to set up a housing trust fund.)

Protecting Families Currently at Risk of Foreclosure

Reform to avoid future abuses is important, but reform should also include a plan to deal with the nearly 50,000 subprime mortgage holders who will face foreclosure by the end of 2009. The financial threat posed by these foreclosures extends well beyond individual homeowners losing their homes. It encompasses entire neighborhoods. The Joint Economic Committee (JEC) of the U.S. Congress estimates that foreclosures cost up to $80,000 for all stakeholders combined: $7,200 in administrative charges to the borrower, $50,000 to the lenders, $20,000 to the city or locality, and thousands of dollars in lost property values of neighboring homes.[31] Foreclosures can also be contagious, with "For Sale" signs at one or two foreclosed properties depressing nearby property values and leading to a wave of other foreclosures,

[31] The Joint Economic Committee of the Congress of the United States, *Report on the 2007 Economic Report of the President: Majority Staff Reports—Sheltering Neighborhoods from the Subprime Foreclosure Storm*, Washington D.C., December 18, 2007, pp. 39-41.

as has already happened in neighborhoods in Cleveland, Ohio.[32] The JEC estimates that foreclosure prevention costs about $3,300 per household, compared to the $80,000 cost of each foreclosure. In light of this, federal and state governments should not be penny-wise and pound-foolish; they should act wisely to help families avoid foreclosure.

The Bush administration has secured an agreement with mortgage lenders to freeze interest rates for up to five years for a subset of subprime loans that had low introductory interest rates but were set to adjust upward in 2008.[33] For those eligible to participate in this rate freeze, this proposal represents important relief. Estimates suggest, however, that the plan would benefit only some 90,000 of the two million people across the nation who need help. Many who benefit would still be at risk of foreclosure as soon as the freeze is lifted.

In Pennsylvania, at the end of October 2007, Governor Ed Rendell unveiled two new programs to help homeowners near foreclosure: REfinance to an Affordable Loan (REAL); and Homeowner Equity Recovery Opportunity (HERO). The REAL program offers refinancing to homeowners whose adjustable-rate or other exotic mortgage has become unaffordable. A network of 72 lending institutions handles REAL program loans for the Pennsylvania Housing Finance Agency (PHFA). HERO offers loans for homeowners who, because of credit or other issues, can't afford their current mortgage payments and are not eligible for other programs that could save their homes from foreclosure. Unlike the REAL program, HERO loans are directly made by PHFA, which may negotiate with current mortgage holders to reduce the amount owed on applicants' properties. But as currently funded, these programs are projected to help a total of only 500 homeowners, roughly 1% of those Pennsylvanians holding subprime mortgages and expected to suffer foreclosure between now and 2009.[34] REAL and HERO must be much more adequately funded to meaningfully cushion the impact of the mortgage crisis. (Again, perhaps, funding could come from federal-state revenue sharing.)

Another option whose legality should be explored at the state level is the "subprime borrower proection plan" proposed by Dean Baker of the Center for Economic Policy and Research (Box 3). The goal of this proposal is to create a situation in which lenders have an incentive to renegotiate mortgages at risk of foreclosure, but there is no government bailout of lenders. Baker's plan seeks to do this by giving homeowners in foreclosure the option to rent the home indefinitely at the fair market rent. He suggests that this would lead mortgage lenders and homeowners headed toward foreclosure to work out mortgage terms that reflect current market conditions, rather than the inflated prices that prevailed during the housing bubble.

Accelerating the Timetable for Public Construction

A common-sense response to falling construction employment would be for public agencies at the state and local levels to move up their planned construction so that more of it falls during the next several years of likely recession and slow job growth. Coordination of accelerated public construction could be overseen by a new statewide Construction Industry Partnership staffed by the Pennsylvania State Workforce Investment Board (see Box 4).

---

[32] Nelson D. Schwartz "Can the Mortgage Crisis Swallow a Town?" *The New York Times*, September 2, 2007

[33] Edmund L. Andrews and Vikas Bajaj, "Lenders Agree to Freeze Rates on Some Loans," *The New York Times*, December 6, 2007.

[34] WHYY reported on 11/30/2007 that the Pennsylvania Housing Finance Agency has received 1200 applications for assistance under its two programs designed to help homeowners heading toward foreclosure. The agency has refinanced 112 loans since the programs were announced at the end of October.

Box 4
Pennsylvania's Industry Training Partnerships: A Resource for Creative Responses to the Construction Industry Downturn and for Broader Skill Upgrading in Recession

Since the 2005-06 state budget, the Commonwealth of Pennsylvania has invested in building and delivering training through a network of 86 Industry Partnerships (IPs)—workforce training consortia connected to regional industry clusters (such as construction, health care, logistics and transportation, metals, and other manufacturing clusters) and governed by industry itself (sometimes with unions). These Industry Partnerships provide a vital and previously missing link between educators and trainers and the economy. They continually assess the real skill gaps and workforce challenges (e.g., high turnover, lack of career advancement opportunities) of key Pennsylvania industries and design training or other interventions to plug skill gaps or solve workforce challenges. About 10 of these Industry Partnerships link with regional construction industries. Some of these currently focus on recruiting and training diverse populations to qualify for construction apprenticeship programs, filling skill gaps created by the retirement of older workers.

As the construction industry confronts a possible recession, the state's Industry Partnerships could be a powerful tool for cushioning the impact on workers and the industry. Industry Partnerships could help with workforce planning to accelerate the timetable of public projects, in the process boosting a slow economy. IPs could develop and diffuse tools for assessing the skills of displaced residential construction workers and incorporating them, with credit for past work-based learning, into high quality apprenticeship programs. IPs could assist with skill development for energy conservation retrofits on Pennsylvania public buildings, businesses, and residences. They could work with community groups and local government to identify infrastructure improvement and community enhancement programs that can ramp up quickly to keep construction workers gainfully employed in socially useful work. To facilitate the collaboration of regional construction Industry Partnerships with recession response efforts the Commonwealth should establish a statewide Construction Industry Partnership staffed by State Workforce Investment Board personnel.

Industry Partnerships in other industries could also assist a comprehensive human capital initiative during a recession. IPs could get employer input on how to fund such an initiative. They could assist with implementing new programs once funded, enabling employers to end the recession with more of the skills they need for global competitiveness. If a deep recession requires direct public job creation, Industry Partnerships in many industries, not just construction, could help with the identification, planning, and implementation of projects that deliver social benefits and also upgrade workers' skills.

Maintaining stable construction demand is particularly important over the next several years because the construction industry faces a long-term shortage of skilled workers. A sharp downturn could decimate emerging new initiatives to attract and train a new and more diverse young workforce, leaving the industry with a more severe shortage of skilled labor when recovery takes place. Expanding near-term public construction could provide employment security for older workers while maintaining investment in new outreach, assessment, and pre-apprenticeship programs that target minorities and women and feed into high-quality apprenticeship programs. Another benefit of counter-cyclical construction for the public sector is that prices come down sharply during periods of slack demand—roughly 20% based on one large-scale national study of school construction costs.[35]

[35] Hamid Azari-Rad, Peter Philips, and Mark Prus, "Making Hay When It Rains: The Effect Prevailing Wage Regulations, Scale Economies, Seasonal, Cyclical and Local Business Patterns Have on School Construction Costs," *Journal of Education Finance* 27 (Spring 2002): 997-1012.

A Pennsylvania Commission for Investment in the Future

What if our national downturn turns into a deep recession, as an increasing number of economists predict?

To plan for this contingency, we propose the formation of a Pennsylvania Commission for Investment in the Future charged with assembling a list of key infrastructure, energy efficiency, and human capital investments that could be made over the next several years. Such investments would enhance the long term competitiveness of the state's economy while lowering the human costs of a deep downturn.

It is no secret that Pennsylvania's infrastructure is in disrepair and that additional investments in the future need to be made. According to a study released a year ago by the Pennsylvania Economy League (PEL), "Pennsylvania's transportation systems are in bad shape – both physically and financially." [36][37] The same is true of the state's water and sewer infrastructure in many parts of the state. The state also needs to repair dilapidated schools, upgrade the campuses of community colleges (and build new ones in rural areas), and invest in energy efficiency (as proposed in the Energy Independence Initiative). The case for increased infrastructure investment, in Pennsylvania and nationally, is outlined in the initial materials released by the Building America Coalition at its January 19, 2008 unveiling.[38]

As well as infrastructure and energy efficiency, a Pennsylvania Commission for Investing in the Future should consider how to fund expanded education and training during a recession, including income support for trainees. It makes no sense to have many Pennsylvanians who need to upgrade their skills sit at home during a recession. In the past, eligibility for unemployed benefits and for training programs have been handled separately. Many workers receiving unemployment benefits cannot access affordable training. Many workers eligible for training programs have no access to income during training. This often limits them to short-term programs less likely than one- or two-year programs to raise their incomes or improve their value to employers. The current disconnect between training and income for the jobless originated because many unemployed factory workers return to their old jobs after a downturn; they were thought not to need training. But what might have made sense in the 1930s does not make sense in a skill-intensive 21st century economy. Now is the time for Pennsylvania to serve as a laboratory for the policy innovations and programs that will replace "unemployment insurance" with "employment insurance"—skills training and income support, a trampoline rather than a safety net.

In light of the urgency of the current economic situation, the Pennsylvania Commission for Investment in the Future should form by the end of February and issue a first report by the end of April. This report should consider (a) how Pennsylvania government and the private sector can finance, in a recession, investments that will deliver a double benefit of economic stimulus and long-run improvements in productivity; (b) how to enable underemployed workers to access skills training *and* income support, avoiding the waste and psychological costs that result from traditional unemployment while positioning Pennsylvania's workforce to compete for the long term; and (c) what the federal government needs to provide—in the form of revenue sharing and innovative skills, energy, and infrastructure policies—to complement creative state action.

36

37 The Pennsylvania Economy League, *Investing in Transportation: A Benchmarking Study of Transportation Funding and Policy*, Harrisburg, October 2006

38 Building America's Future, *Building America's Future* and accompanying "Fact Sheets" on infrastructure needs in the United States, Pennsylvania, California, and New York City, January 19, 2008.

Be Prepared

Now, even more than in usual times, the economic picture is uncertain. The resilience of the Pennsylvania and U.S. economies, and the increased demand for U.S. exports, because of the decline of the dollar, may enable us to weather the housing storm without slipping into a recession.

On the other hand, a recession is a clear possibility. Given that reality, policy makers should, like the Boy Scouts, "be prepared."

They should put in place policy responses equal to the scale of the challenge.

They should put in place policy responses that leave Pennsylvania's infrastructure, workforce, and economy stronger at the end of an economic downturn—and poised to compete in ways that deliver to Pennsylvanians rising living standards, flourishing communities, and high profits for the next generation.

In this sense, a potential downturn presents an opportunity as well as a challenge—Pennsylvania can not only reduce the human cost of a recession but also bring more of the state's public policies and infrastructure up to date with the needs of a 21st century economy. A Pennsylvania Commission for Investment in the Future can help the Commonwealth to seize this opportunity.

APPENDIX A

Table A1. Subprime loans as a share of mortgages originated in 2006

% Subprime	County	% Subprime	County
22%	Adams	28%	Lackawanna
25%	Allegheny	18%	Lancaster
29%	Armstrong	31%	Lawrence
29%	Beaver	20%	Lebanon
32%	Bedford	25%	Lehigh
24%	Berks	30%	Luzerne
28%	Blair	26%	Lycoming
27%	Bradford	31%	Mckean
16%	Bucks	28%	Mercer
17%	Butler	35%	Mifflin
24%	Cambria	38%	Monroe
40%	Cameron	16%	Montgomery
30%	Carbon	19%	Montour
16%	Centre	22%	Northampton
14%	Chester	35%	Northumberland
35%	Clarion	22%	Perry
36%	Clearfield	36%	Philadelphia
33%	Clinton	35%	Pike
27%	Columbia	35%	Potter
29%	Crawford	35%	Schuylkill
17%	Cumberland	28%	Snyder
24%	Dauphin	30%	Somerset
24%	Delaware	22%	Sullivan
30%	Elk	29%	Susquehanna
25%	Erie	26%	Tioga
38%	Fayette	24%	Union
46%	Forest	39%	Venango
25%	Franklin	37%	Warren
27%	Fulton	26%	Washington
30%	Greene	29%	Wayne
29%	Huntingdon	25%	Westmoreland
30%	Indiana	25%	Wyoming
38%	Jefferson	23%	York
18%	Juniata		

Note. Data limited to first lien, owner-occupied mortgages
Source. KRC estimates based on Federal Financial Institutions Examination Council data