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Income Inequality
It's Not So Bad in the United States

Exports to China
District Tops Nation in Growth of Shipments

Community Colleges

Not So Junior Anymore

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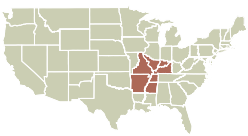
The Eighth Federal Reserve District includes all of Arkansas, eastern Missouri, southern Illinois and Indiana, western Kentucky and Tennessee, and northern Mississippi. The Eighth District offices are in Little Rock, Louisville, Memphis and St. Louis.



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Worry Less About Systemic Risk, More About Inflation

Over the past 16 months or so, there has been great concern in the U.S. over systemic risk—the possibility that the sudden failure of a financial firm may start a cascading effect among healthy financial firms, causing these firms to fail as well. The potential for lasting damage to the financial intermediation sector of the economy could be severe under such a scenario.

The worries over systemic risk have been used to justify much of the policy action of the Federal Reserve over the past 16 months. But systemic risk is a notoriously slippery concept and, so, may not provide the best foundation for sound monetary policy.

In principle, any large corporation that fails will affect its partners in business, including suppliers and customers. If a major automotive manufacturer were to fail, for instance, scores of businesses that supply the manufacturer would be impacted and might also close up shop. But generally, nonfinancial firms are not thought to pose a systemic risk. We can allow bankruptcy court to handle failures of nonfinancial firms.

Financial firms are thought to be more vulnerable because they have significant exposure to one another through interbank deposit markets, transactions in over-the-counter derivatives, and wholesale payment and settlement systems—connections that other businesses do not have. The speed with which transactions occur makes it difficult to accurately evaluate the riskiness of the assets. Financial institutions are vulnerable, too, because of their comparatively thin capital margins, which leave them less able than other types of businesses to absorb losses.

Systemic risk would not always be a concern even for financial firms. In the recent history of financial markets, there have been major failures that did not seem to have a systemic effect on the market. Among these are Drexel Burnham Lambert in 1990, Barings Bank in 1995, Long Term Capital Management in 1998, Enron in 2001 and Amaranth Advisors in 2006. Some of these failures involved a measure of government intervention; others did not. But none of these seemed to trigger a paralyzing domino effect.

More recently, the Federal Reserve facilitated the acquisition of Bear Stearns by JP Morgan Chase. The failure of a key investment bank was surprising, as these kinds of institutions are perceived to be both profitable and stable. The rationale for the intervention was that other financial institutions doing business with Bear Stearns might be caught by surprise, creating the possibility that they also would be put out of business. This might cause severe damage to the U.S. financial system.

> The financial crisis has gone on for too long—the surprise factor is gone.

An important part of this story is the unexpected, or surprise, component. But is it reasonable to assume that financial firms may still be surprised if a partner company goes out of business once the crisis has been rolling on for more than a year? Probably not. Instead, players are pricing the chance of failure into their business dealings with questionable firms, demanding higher interest rates on repayments, for example. If a shaky firm fails, its healthy business partners may lose money, but they have thought about and protected themselves against outright failure.

The premise of systemic risk is the unexpected failure. To the extent that the possibility of failure is anticipated, then it is priced into the market. That is, agents and institutions have adjusted the price of transactions to reflect the probability that a given institution may go out of business.

Systemic risk worries are having a large impact on monetary policy. Inflation problems are brewing as we wait for financial markets to repair. Evidence of systemic risk in recent U.S. financial history is weak, however. At this point, it does not seem likely that the failure of a major financial firm would be a significant, unpriced event. The financial crisis has gone on for too long—the surprise factor is gone. Some institutions may fail as part of a normal industry shakeout in reaction to the large shock originating in the housing sector. Those with better management will make changes and survive. But a failure by itself cannot be surprising at this point. Ω

U.S. Income Inequality: It's Not So Bad

By Thomas A. Garrett

FIGURE 1A

Movement to Higher Income Quintiles

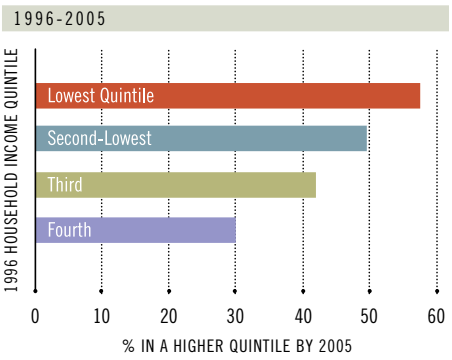
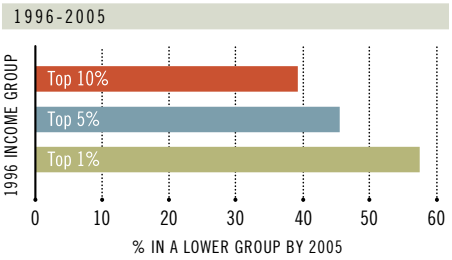


FIGURE 1B

Movement to Lower Income Group



SOURCE: Treasury Department

One problem with popular portrayals of the income gap is that they show income distribution at a single point in time. But for many households, income changes over time. The low-paying jobs from high school days usually give way to better-paying jobs later in life. Figure 1A shows the percentage of households that moved from one income group to another between 1996 and 2005. For example, nearly 58 percent of the households in the lowest income quintile in 1996 moved to a higher category by 2005. The reverse also happens, as shown in Figure 1B. Of those households that were in the top 1 percent in income in 1996, for example, more than 57 percent dropped to a lower income group by 2005.

Each year, the U.S. Census Bureau releases data on the income levels of America's households. A comparison of these annual data over time reveals that the income for wealthier households has been growing faster than the income for poorer households—real income for the wealthiest 5 percent of households rose by 14 percent between 1996 and 2006, while the income for the poorest 20 percent of households rose by 6 percent. As a result of these differences in income growth, the income of the wealthiest 5 percent of households was 8.1 times that of the income of the poorest 20 percent of households in 1996 and increased to 8.7 times by 2006. By these figures, a common conclusion is that income inequality in the United States has increased.

The apparent increase in U.S. income inequality has not escaped the attention of policymakers and social activists who support public policies aimed at reducing income inequality. However, the common measures of income inequality that are derived from the census statistics exaggerate the degree of income inequality in the United States for several reasons. Furthermore, although income inequality is seen as a social ill by many people, it is important to understand that income inequality has many economic benefits and is the result of, and not a detriment to, a well-functioning economy.

An Inaccurate Picture

The Census Bureau essentially ranks all households by household income and then divides this distribution of households into quintiles of equal size.[1] Finding the highest ranked household in each quintile then provides the upper income limit for each quintile.[2] Comparing changes in these income limits over time for different quintiles reveals that income for the wealthier households has been growing faster than the income for poorer households, thus giving the impression of an "increasing income gap" or "shrinking middle class."

One big problem with using the census income statistics to infer income inequality is that these statistics only provide a snapshot of the income distribution at a single point in time. The statistics do not consider the reality that the income for many households changes over time, i.e., incomes are mobile. The income of most people increases over time as they move from their first low-paying job in high school to a better paying job later in their lives. It is also true that some people lose income over time due to business cycle contractions, demotions, career changes, retirement, etc. The point is that individuals' incomes are not constant over time, which implies that the same households are not in the same income quintiles over time. Thus, comparing different income quintiles over time is the proverbial "comparing apples to oranges" because incomes of different people are being compared at different stages in their earnings profile.

The U.S. Treasury released a study in November 2007 that examined income mobility in the U.S. from 1996 to 2005.[3] Using data from individual tax returns, the study documented a household's movement along the distribution of real income over the 10-year period. As shown in Figure 1A, the study found that nearly 58 percent of the households that were in the lowest income quintile (lowest 20 percent) in 1996 moved to a higher income quintile by 2005. Similarly, nearly 50 percent of the households in the second lowest quintile (20 percent to 40 percent) in 1996 moved to a higher

income quintile by 2005. Even a significant number of households in the third and fourth income quintiles in 1996 moved to a higher quintile in 2005.

The Treasury study also documented falls in household income between 1996 and 2005. This is most interesting when considering the richest households. As shown in Figure 1B, more than 57 percent of the richest 1 percent of households in 1996 fell out of that category by 2005. Similarly, more than 45 percent of the households having the top 5 percent of income in 1996 fell out of that category by 2005.

The main point is that, over time, a significant number of households move to higher positions along the income distribution and a significant number move to lower positions along the income distribution. Common reference to "classes" of people (e.g., the lowest 20 percent, the richest 10 percent) is very misleading because income classes do not contain the same households and people over time.

Another problem with the inequality statistics is that they do not consider the noncash resources received by lower income households and the tax payments made by wealthier households to fund these transfers. Lower income households annually receive tens of billions of dollars in subsidies for housing, food and medical care. None of these is considered income by the Census Bureau.[4] Thus, the resources available to lower-income households are actually much greater than is suggested by their income. On the other hand, these noncash payments to lower income households are funded through taxpayer dollars, mostly from wealthier households since they pay a majority of overall taxes. One research report estimates that the share of total income earned by the lowest income quintile increases roughly 50 percent, whereas the share of total income earned by the highest income quintile drops roughly 7 percent when transfer payments and taxes are considered.[5]

The census statistics also do not consider the fact that the households in each quintile contain different numbers of people, and it is differences in income across people that provide a clearer measure of inequality. Lower income households tend to consist of single people with low earnings, while higher income households tend to be married couples with multiple earners.[6] Thus, lower income households have fewer people than higher income households, thereby skewing the income distribution. When considering household size along with transfers received and taxes paid, the income share of the lowest quintile nearly triples and the income share of the highest quintile falls by 25 percent.[7]

Is Policy Needed?

Income inequality will still exist even if these income inequality statistics are adjusted to account for the aforementioned factors.[8] Given the negative attention income inequality receives in the popular press, an important question is whether reducing income inequality is worthy of public policy. It is important to understand that income inequality is a byproduct of a well-functioning capitalist economy. Individuals' earnings are directly related to their productivity. Wealthy people are not wealthy because they have more money; it is because they have greater productivity. Different incomes, thus, reflect different productivity levels.

The unconstrained opportunity for individuals to create value for society, which is reflected by their income, encourages innovation and entrepreneurship. Economic research has documented a positive correlation between entrepreneurship/innovation and overall economic growth.[9] A wary eye should be cast on policies that aim to shrink the income distribution by redistributing income from the more productive to the less productive simply for the sake of "fairness."[10] Redistribution of wealth would increase the costs of entrepreneurship and innovation, with the result being lower overall economic growth for everyone.

Poverty and income inequality are related, but only the former and not the latter deserves a policy response. Sound economic policy to reduce poverty would lift those out of poverty (increase their productivity) while not reducing the well-being of wealthier individuals. Tools to implement such a policy include investments in education and job training.

Income inequality should not be vilified, and public policy should encourage people to move up the income distribution and not penalize them for having already done so. Ω

Thomas A. Garrett is an economist at the Federal Reserve Bank of St. Louis. For more on his work, see http://research.stlouisfed.org/econ/garrett.

ENDNOTES

1. See www.census.gov/hhes/www/income/histinc/inchhdet.html. All data referred to here are from Table H-1.
2. Except the upper 20 percent, which is unlimited. The upper income limits for 2006 household income were: lowest quintile –$20,035; second quintile –$37,774; third quintile –$60,000; fourth quintile –$97,032. To be in the top 5 percent of all incomes in 2006, a household needed an income of $174,012.
3. See the Treasury Department. The report is available online at www.treas.gov/offices/tax-policy/library/incomemobilitystudy03-08revise.pdf.
4. The Census Bureau only considers money income as income.
5. See Rector and Hederman.
6. See various data from the U.S. Census *Current Population Survey (2007)*, Table HINC-01, available at http://pubdb3.census.gov/macro/032007/hhinc/new01_001.htm.
7. See Rector and Hederman.
8. The degree of income inequality is also less if one considers the purchasing power of different income groups. Broda and Romalis (2008) argue that the purchasing power of lower income groups has increased relative to higher income groups due to the fact that the goods that lower income people spend a greater percentage of their income on, such as food and clothing, have increased in price at a much slower rate than the goods and services that higher income groups tend to consume.
9. See Baumol et al., Link and Siegel, and Lazear for recent examples.
10. The economist Martin Feldstein argues that economic policy to reduce income inequality would only be appropriate if the well-being of society increases when overall societal wealth falls.

REFERENCES

Baumol, William J; Litan, Robert E.; and Schramm, Carl J. *Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity.* New Haven, Conn.: Yale University Press, 2007.

Broda, Christian; and Romalis, John. "Inequality and Prices: Does China Benefit the Poor in America?" University of Chicago working paper, 2008.

Feldstein, Martin. "Income Inequality and Poverty." NBER Working Paper 6770, National Bureau of Economic Research, October 1998.

Lazear, Edward P. "Productivity and Wages." *Business Economics,* October 2006, Vol. 41, No. 4, pp. 39-45.

Link, Albert N.; and Siegel, Donald S. *Innovation, Entrepreneurship, and Technological Change.* New York: Oxford University Press, 2007.

Rector, Robert; and Hederman, Rea. "Two Americas: One Rich, One Poor? Understanding Income Inequality in the United States." The Heritage Foundation, Aug. 24, 2004. See www.heritage.org/research/taxes/bg1791.cfm.

Treasury Department. "Income Mobility in the U.S. From 1996 to 2005." Washington, D.C., 2007. See www.treas.gov/offices/tax-policy/library/incomemobilitystudy03-08revise.pdf.

Compared with a traditional four-year college, a community college has several important advantages for students.

Community Colleges

Not So Junior Anymore

By Natalia Kolesnikova and Luke Shimek

St. Louis Community College has four campuses, including the newest one (above), which opened in the suburb of Wildwood last year.

Joliet Junior College, the oldest community college in the nation, was founded in 1901. Since then, community colleges have become increasingly important for the U.S. education and training system. Today, 11.5 million students (6.5 million of whom are credit students) are enrolled in almost 1,200 community colleges, according to the American Association of Community Colleges. Of all U.S. undergraduates, community college students constitute a remarkable 46 percent.[1]

The original goal of two-year colleges was to prepare students, through an associate's degree program, to transfer to a four-year college. Over time, the purpose evolved to include work force training programs, schooling toward certification in areas such as nursing and other professions, and adult continuing education classes. Lately, some community colleges have started to offer bachelor's degrees in a number of fields.

However, there are big differences across states in how the community college system is used. Economist Cecilia Elena Rouse found evidence suggesting that states tend to focus their resources on either a community college or a four-year college system. California has the largest network of the former, with 66 percent of the state's current undergraduates attending community colleges. Nevada and Vermont have only 16 percent of their undergraduates in community colleges.[2]

Among the states within the Eighth District, Illinois and Mississippi have the largest proportion of undergraduates—about half—in community colleges. Indiana has the lowest percentage—19 percent. Table 1 summarizes enrollment and other relevant statistics for the Eighth District.

Advantages of Community Colleges

Compared with a traditional four-year college, a community college has several important advantages for students. To begin, the open admission policy makes it easier to enroll regardless of prior academic record.

The cost to attend community college is also less because of lower tuition and other fees than what four-year colleges charge. Community college students on average paid $2,017 in tuition and fees for the 2006-07 academic year, which is less than half of what students in public four-year universities paid ($5,685) and only about one-tenth of the tuition and fees for students in private four-year universities ($20,492), according to the U.S. Department of Education. In addition, most community college students live at home, thus saving room and board expenses incurred by students at other institutions.

Finally, community colleges offer a more flexible curriculum, and their schedule includes evening and weekend classes. That gives students an opportunity to attend college while working.

Community College Students

The population of community college students is diverse and is different from the population at four-year colleges. Community college students are 60 percent white, 15 percent black, 14 percent Hispanic and

TABLE 1
Comparisons for the Eighth District

			Average tuition and required fees 2006-07		
	Enrollment in community colleges, fall 2005	Percent of all undergraduates, fall 2005	Four-year public (in-state)	Four-year private	Two-year public
United States	6,184,000	41	$5,685	$20,492	$2,017
8th District States					
Arkansas	47,771	37	$ 4,937	$ 13,396	$ 1,890
Illinois	352,824	51	$ 8,038	$ 20,181	$ 2,252
Indiana	59,969	19	$ 6,284	$ 22,060	$ 2,713
Kentucky	84,669	39	$ 5,821	$ 14,739	$ 2,633
Mississippi	66,298	50	$ 4,457	$ 12,300	$ 1,709
Missouri	86,742	28	$ 6,320	$ 16,539	$ 2,284
Tennessee	74,829	31	$ 5,009	$ 17,576	$ 2,474

SOURCE: U.S. Department of Education, National Center for Education Statistics

5 percent Asian.[3] Forty-one percent of community college students are males. In comparison, students attending four-year colleges are more likely to be white (70 percent) and male (45 percent).

Because of the flexibility they offer, and the relatively low monetary and time costs of attending, community colleges have more so-called nontraditional students than four-year colleges have. Community college students are more likely to be older: 35 percent of them are 30 years old or older compared with 16 percent in four-year colleges. The average community college student is 28 years old, with a median age of 24. The corresponding ages for students in four-year colleges are 24 and 21.

Only 31 percent of community college students are enrolled full-time, in part because students attending community colleges are more likely to also be working. In contrast, 63 percent of students at four-year colleges are enrolled full-time. Only 21.4 percent of all community college students do not work, compared with 30.5 percent at four-year colleges. Furthermore, 40.8 percent of community college students work full-time, compared with 22.8 percent of their four-year college counterparts.

More students in community colleges are first-generation college students than are students attending four-year colleges. More than 40 percent of the former have parents with only a high school education or less. In contrast, only 27 percent of four-year college students have parents with a high school education or less.

Not surprisingly, most community college students attend an institution that is close to their home. They live on average 40 miles away from the college they attend. In comparison, students at four-year institutions attend colleges on average 230 miles away from their home. Over 95 percent of community college students attend colleges in their states compared with 83 percent of students at four-year colleges.

Along Different Paths

Community college students have various educational goals and intentions when they enter college. Although many of them plan to obtain an associate's degree, some students enroll to take just a couple of classes to improve their skills or aim at getting a certification in a certain field. Some intend to transfer to a four-year institution without any formal community college credential.

This ability of community colleges to offer students many options provides a unique opportunity to have postsecondary education for many students who would not have it otherwise. On the other hand, because the educational objectives of students, and, thus, their paths are so different, it is difficult to track their progress through college and to assess the effect of community college education on their educational attainment and labor market outcomes. The fact that most students attend community colleges part-time and take longer to complete their program adds another complication to the task.

Critics of the community college system often point out that a significant proportion of community college students complete relatively few college credits. Economists Thomas Kane and Rouse calculated that the majority of community college students complete one year or less and 35 percent complete one semester of study or less. The two economists also showed that less than one-half of community college students complete any degrees. In particular, about 15 percent receive a certificate, 16 percent complete an associate's degree and another 16 percent eventually receive a bachelor's degree or higher. Kane and Rouse point out that, among four-year college entrants, almost 60 percent receive at least a bachelor's degree.

Does this mean that enrolling in a two-year college somehow reduces an individual's educational attainment? One view is that easy access to community college sidetracks students from a four-year college, where they are more likely to obtain a bachelor's degree. On the other hand, many nontraditional students would not have attended four-year colleges. For them, community colleges provide a chance for a post-secondary education they would not have had otherwise. Therefore, researchers argue, even if attending community college instead of four-year college might lower educational attainment for some students, more students have access to higher education, which makes overall educational attainment in society higher.

To better answer a question about the effect of community colleges on educational attainment, it is necessary to consider students' intentions toward their educational objectives together with their outcomes. The problem is a lack of reliable data that measures students' goals and preparation.

The U.S. Department of Education is among those that attempted to study educational outcomes of community college students. Its report used data from several sources, including those tracking students over time.

The study found that about 90 percent of students entering community college intended to obtain a formal credential or to transfer to a four-year college. One could argue that it is more reasonable to consider completion rates only for those who intended to obtain a degree in the first place. The report estimated that between 51 and 63 percent (depending on data used) of these students had fulfilled their

expectations within 6-8 years after initial enrollment. In particular, about 11 percent had earned a certificate, 17-18 percent had earned an associate's degree, 11-28 percent (depending on data used) had attained a bachelor's degree or higher, and 12-13 percent had transferred to a four-year college without attaining a formal degree.

Keeping in mind that one of the main goals of two-year colleges is to prepare students for continuing their studies at four-year institutions, it is particularly important to evaluate their transfer rates. The U.S. Education Department report indicated that, overall, about 29 percent of community college students had transferred to four-year colleges. Interestingly, 51 percent of those who intended to complete a bachelor's degree when they first started had transferred. At the time data was collected, 80 percent of those who did transfer either obtained a bachelor's degree or were still working toward it.

What about the students who left community college without any formal credential? This amounts to more than half of them. According to the report, about one-third of this group said that postsecondary education improved their salary. For 47 percent, attending community college led to increased job opportunities. About 43 percent reported improvement in job performance, and 47 percent said they had more job responsibilities.

Students who did receive a certificate or a degree were more likely to be satisfied with their outcomes. About 80 percent of them said their salaries had increased. Almost 85 percent reported having a better job or more responsibilities.

Labor Market Returns

What is the economic payoff to attending community college? This turns out to be a rather complicated question to answer. One reason is the lack of available data. Until 1990, the U.S. Census Bureau recorded only the number of years of education, making it impossible to identify individuals attending specifically community college. In the 1990 and 2000 U.S. censuses, the highest educational attainment was recorded instead of years of education. This makes it possible to focus on individuals with a completed associate's degree. Still, this information does not make

A+

Missouri Students Have Chance To Attend Community College for Almost Nothing

The "A+" program of the state of Missouri makes it easy for residents to attend community college. The program provides funding for qualified high schools and for students enrolled in community colleges.

The program came about when two school districts sued the state of Missouri, accusing it of negligence and unfair practices in the education funding mechanism in place at the time (1990). That mechanism based funding on the district's prior enrollment and performance. The judge found the state's school funding plan did not "pass constitutional muster." As a response, on the last day of the 1993 session, the state legislature passed the Outstanding Schools Act of 1993, which included the provisions for the A+ Schools program. In 2006, the legislature expanded the program from strictly public institutions to include private technical colleges.

The program has had a strong response: 253 high schools have signed up. Since 1997, more than 77,000 students who enrolled in the A+ program graduated from those schools, with over 38,000 of them receiving financial incentives to go on with their schooling. According to the program's office, the high school dropout rate has decreased and the high school graduation rate has increased at those schools compared with the state averages.

The program provides funding for high schools and students in order to (1) discourage students from dropping out, (2) provide more challenging course work, and (3) help those students who are unlikely to attend a four-year institution proceed to a two-year public community college, technical school or other postsecondary course work.

For students who had enrolled in the A+ program while still in high school, the program provides reimbursement for the unpaid balance of the cost of tuition, general fees and up to half the cost of books at the community college. To obtain this funding, these students must have had a 95 percent attendance rate at a participating high school for at least three years, maintained a 2.5/4.0 grade point average, completed 50 hours of unpaid supervised tutoring/mentoring, signed an agreement with the participating high school concerning the program and have no criminal record. To maintain the grant, the student must try to secure funding from the federal government via the Free Application for Federal Student Aid (FAFSA), attend a community college or technical school fulltime and maintain a 2.5/4.0 GPA at that institution.

The program provides funding to high schools that submit themselves to the authority of the Department of Elementary and Secondary Education.

These A+ schools commit themselves to:

- establishing clear guidelines and measurement standards to which students must adhere,
- requiring rigorous course work,
- developing a partnership program with local businesses, community colleges, community leaders and technical schools to create a counseling and mentoring service for students as well as an apprenticeship/internship program,
- making available facilities and services for adult literacy training, and
- developing a procedure for evaluating the effectiveness of the program.

Missouri isn't the only state in the Eighth District that has a program to encourage students to attend community college. For example, Mississippi has the Tech Prep program, and Arkansas has Nex+ Step.

Community colleges draw more nontraditional students than do four-year colleges. For example, 35 percent of community college students are at least 30 years old, compared with 16 percent who are that old at four-year colleges. Whites make up 60 percent of students at community colleges but 70 percent of students at four-year colleges.

it possible to identify an institution students attended if they did not complete a degree.

Several available studies used data from surveys instead. Most of the surveys recorded data on various characteristics of respondents, starting with their teenage years and following them over the years.[4] One limitation of these studies is that, given the timeline of surveys, they include only students who enrolled in community college soon after graduating from high school.

Most studies found that students who attended community college, but did not complete a degree, earn 9 to 13 percent more than those with a high school diploma only. The estimation technique usually attempts to control for differences in academic preparation between the two groups as measured by test scores and class rank. Furthermore, researchers found that there is an increase in annual earnings of 5-8 percent associated with each year of education at community college. This finding is particularly interesting because it is very similar to the return to a year of schooling in a four-year college.

Economists Louis Jacobson, Robert LaLonde and Daniel Sullivan looked at a very different group—older, high-tenure displaced workers. Much of the retraining efforts for this group is done at community colleges. Researchers found that one year of community college schooling increases long-term earnings of displaced workers by about 9 percent for men and about 13 percent for women compared with earnings for similar workers who did not attend community college. Another important fact reported by the authors is that while there is a high return to technically oriented and math and science courses (about 14 percent for men and 29 percent for women), less technically oriented courses yield very low and possibly zero returns.

Returns to an Associate's Degree

Another way to think about a value of community college education is to ask how much more a person with an associate's degree earns compared with a similar person who has only a high school diploma.[5]

Studies done separately by researchers Kane and Rouse and by Duane Leigh and Andrew Gill estimated the labor market return to an associate's degree of about 16-27 percent.

Using the much larger data set from the U.S. 2000 census, more detailed questions can be answered.[6] For instance, are there differences in labor market returns to an associate's degree between different demographic groups? Are the returns the same across different cities? Data also allow looking at the differentials in hourly wages rather than annual earnings.

One immediate feature of the results, reported in Table 2, is that though the estimated average returns to an associate's degree are consistent with other researchers' findings, there are significant differences between demographic groups. Women of all races have higher returns to an associate's degree than men do, mostly because women are more likely to major in nursing and related fields. There is also variation in the return to an associate's degree among racial groups. Hourly wages of white men with an associate's degree are 18 percent higher than wages of white men who stopped their formal education at high school.[7] The returns are much higher for black and Hispanic men—25 and 27 percent, respectively.

Furthermore, the return to an associate's degree is not the same across different cities in the U.S. For example, white men with associate's degrees are paid only 4 percent more than white high school graduates in Seattle, but as much as 30 percent more in Miami. For Hispanic men, the return to an associate's degree is 16 percent in Washington, D.C., but it is more than twice as much, 39 percent, in Atlanta. Cross-city differentials for white women are not as big, but they are significant for minority women.

Table 2 also presents estimated returns to an associate's degree in four large metropolitan areas of the Eighth District. White men with an associate's degree earn on average 11 percent more in St. Louis, 16 percent more in Memphis, 22 percent more in Little Rock and 18 percent more in Louisville than similar men with only a high school diploma. For black men, returns to an associate's degree are 13 percent in St. Louis, 22 percent in Memphis and 17 percent in Louisville. Consistent with the rest of the country, women's returns are higher than men's. For example, black women in St. Louis with an associate's degree earn 43 percent more than black women with only a high school education.

Why is there such a big variation in

TABLE 2

Associate's Degree Pays Off

Someone with an associate's degree makes more money in every city listed than does the equivalent person with only a high school diploma. The numbers could be interpreted as percentage increases in wages. For example, a white man in Atlanta who has an associate's degree makes 21 percent more than a white man in Atlanta with a high school diploma.

	MEN			WOMEN		
	White	Black	Hispanic	White	Black	Hispanic
United States	0.18	0.25	0.27	0.29	0.30	0.29
20 LARGEST METROPOLITAN AREAS						
Atlanta	0.21	0.26	0.39	0.27	0.29	0.53
Baltimore	0.15	0.26	0.19	0.28	0.28	0.20
Boston	0.17	0.06	0.25	0.29	0.33	0.31
Chicago	0.10	0.21	0.19	0.25	0.23	0.21
Dallas	0.24	0.28	0.29	0.30	0.27	0.24
Detroit	0.21	0.22	0.34	0.32	0.19	0.25
Houston	0.19	0.21	0.27	0.24	0.45	0.20
Los Angeles	0.16	0.35	0.30	0.20	0.26	0.30
Miami	0.30	0.25	0.30	0.25	0.30	0.33
Minneapolis	0.17	0.27	0.32	0.23	0.28	0.24
New York	0.11	0.24	0.21	0.26	0.35	0.28
Philadelphia	0.15	0.17	0.32	0.28	0.24	0.38
Phoenix	0.18	0.42	0.24	0.24	0.33	0.18
Pittsburgh	0.16	0.17	–	0.29	0.19	–
Riverside-San Bernardino	0.20	0.15	0.24	0.31	0.40	0.36
San Diego	0.15	0.36	0.24	0.23	0.21	0.28
San Francisco	0.12	0.48	0.23	0.26	0.21	0.30
Seattle	0.04	0.22	0.17	0.25	0.29	0.39
St. Louis	**0.11**	**0.13**	**–**	**0.24**	**0.43**	**–**
Washington	0.18	0.22	0.16	0.23	0.26	0.37
OTHER 8TH DISTRICT LARGE METROPOLITAN AREAS						
Memphis	**0.16**	**0.22**	**–**	**0.23**	**0.31**	**–**
Little Rock	**0.22**	**–**	**–**	**0.37**	**–**	**–**
Louisville	**0.18**	**0.17**	**–**	**0.32**	**0.32**	**–**

NOTE: Author's calculation. Data from 2000 Public Use Micro Sample of the census. Results are missing if data were insufficient due to small sample size.

returns to an associate's degree across cities? Although no formal research has been done on this topic, possible explanations might be locational differences in labor market conditions and in industrial composition.

Conclusions

Community colleges play a significant role in U.S. higher education. They offer an opportunity to receive a postsecondary education to many students who would not have attended college otherwise. Today, the number of U.S. undergraduates is at all-time high as more and more people understand the necessity of having higher education in our technology-intensive world. Community colleges are very important in helping to absorb this increasing number of students. In addition, historically, college enrollments in general go up during times of economic downturns. Currently, community colleges have an additional appeal because tuition and fees at four-year colleges continue to increase while financial aid and student loans are getting harder to secure. For many students, community colleges offer the best chance to obtain a college education. Ω

Natalia Kolesnikova is an economist, and Luke Shimek is a research analyst, both at the Federal Reserve Bank of St. Louis. For more on Kolesnikova's work, see http://research.stlouisfed.org/econ/kolesnikova.

ENDNOTES

1 The term "junior college" originally referred to any two-year postsecondary school. The term "community college" became more popular to describe public two-year institutions as it better conveys their mission to serve local communities. The two terms are still often used interchangeably.

2 These are the latest state-level statistics available. Source: the U.S. Department of Education, 2005.

3 Data in this section are from the National Center for Education Statistics, 2003-04. See Horn and Nevill.

4 See Kane and Rouse (1999) for a survey of these studies and a more detailed description of data.

5 For more on nonparametric estimation of returns to schooling, see Black et al.

6 Data are from 2000 Public Use Micro Sample of the U.S. Census. See Ruggles et al.

7 Table 2 reports differences in mean log wages between associate's degree holders and high school graduates. They approximate percentage differences.

REFERENCES

Black, Dan; Kolesnikova, Natalia; and Taylor, Lowell. "Earnings Functions When Wages and Prices Vary by Location." *Journal of Labor Economics*, forthcoming.

Hoachlande, Gary; Sikora, Anna C.; and Horn, Laura. *Community College Students: Goals, Academic Preparation, and Outcomes.* NCES 2003-164. Washington, D.C.: U.S. Department of Education, National Center for Education Statistics, 2003.

Horn, Laura; and Nevill, James. *Profile of Undergraduates in U.S. Postsecondary Education Institutions: 2003-04: With a Special Analysis of Community College Students.* NCES 2006-184. Washington, D.C.: U.S. Department of Education, National Center for Education Statistics, 2006.

Jacobson, Louis S.; LaLonde, Robert J.; and Sullivan, Daniel G. "Estimating the Returns to Community College Schooling for Displaced Workers." *Journal of Econometrics*, March-April 2005, Vol. 125, Issues 1-2, pp. 271-304.

Kane, Thomas J.; and Rouse, Cecilia Elena. "Labor Market Returns to Two- and Four-Year College." *The American Economic Review*, June 1995, Vol. 85, No. 3, pp. 600-14.

Kane, Thomas J.; and Rouse, Cecilia Elena. "The Community College: Educating Students at the Margin Between College and Work." *Journal of Economic Perspectives*, Winter 1999, Vol. 13, No. 1, pp. 63-84.

Leigh, Duane E.; and Gill, Andrew M. "Labor Market Returns to Community Colleges: Evidence for Returning Adults." *Journal of Human Resources*, Spring 1997, Vol. 32, No. 2, pp. 334-53.

Rouse, Cecilia Elena. "Do Two-Year Colleges Increase Overall Educational Attainment? Evidence from the States." *Journal of Policy Analysis and Management*, 1998, Vol. 17, No. 4, pp. 595-620.

Ruggles, Steven; Sobek, Matthew; Alexander, Trent; Fitch, Catherine; Goeken, Ronald; Hall, Patricia; King, Miriam; and Ronnander, Chad. 2004. Integrated Public Use Microdata Series. Minneapolis, Minn: Minnesota Population Center. See http://usa.ipums.org/usa/.

Did Credit Scores Predict the Subprime Crisis?

By Yuliya Demyanyk

A credit score measures the creditworthiness of individuals or businesses. Lenders increasingly use these scores to assess credit risk; they also use them to calculate how likely it is that borrowers eventually will be delinquent (late with payments) or in default. By design, the higher the score, the less likely it is that a borrower will miss payments or go into default on a loan within one or two years after the score has been calculated.

Bill Fair and Earl Isaac developed the first commercial credit scoring system in 1958. A credit score based on this system has developed into a FICO (Fair, Isaac and Co.) score, and it became a standard measure of consumer credit risk in 1989. Fannie Mae and Freddie Mac recommended the FICO score for use in mortgage lending in 1995. The data for individual credit scores come from the three national credit bureaus and contain information—positive and negative—about how the potential borrower is using credit now and how he has used it in the past.

Given the nature of FICO scores, one might expect to find a relationship between borrowers' scores and the incidence of default and foreclosure during the ongoing subprime mortgage crisis. Analysis suggests, however, that FICO scores have not indicated that relationship: Default rates have risen for all categories of FICO scores and, moreover, higher FICO scores have been associated with bigger increases in default rates over time.

Delinquencies and Defaults in the Subprime Mortgage Crisis

The subprime mortgage market boomed during the first six years of the decade and collapsed in 2007. Many borrowers with subprime mortgage loans could not make timely monthly payments and defaulted on their loan contracts only months after their loans were originated in 2006 or 2007. More precisely, 18 percent of loans that were originated in 2006 and 14 percent of loans that were originated in 2007 were either past due for more than two months or were already in foreclosure within one year after the loans were originated. In comparison, only from 2 to 6 percent of loans originated in years from 2001 to 2005 were delinquent or in foreclosure during the first year after origination.

Researchers, policymakers and the media have offered many explanations for this crisis. The first explanation is the resetting of mortgage rates from low "teaser" rates into much larger adjustable rates for the hybrid mortgages. With higher interest rates, monthly mortgage payments became larger; borrowers could not afford the new payments and defaulted on their loans. The second suggested reason was a tendency for

Mortgage Loans Can Be Labeled Subprime for Many Reasons

The term "subprime" describes a loan that in some way is worse than a prime loan. Borrowers may find these loans worse because of high interest rates or high fees that lenders charge. Lenders also may charge exorbitant penalties for late payments or pre-payments. A subprime loan is worse in the eyes of a lender because it is considered riskier than a prime loan—riskier because there is a greater chance the loan will never be repaid—so lenders require those higher rates and fees to compensate for an extra risk, compared to prime loans. And, it can be worse for everybody and for the economy overall if the risk does materialize.

A loan can be called subprime if:

- it is made to a borrower with a poor credit history (such as a FICO score below 620);
- it is issued by a lender who specializes in high-cost loans;
- it became part of a so-called subprime pool of loans, to be traded on a secondary market; or
- it is made to a borrower with "prime" credit characteristics (e.g., a high FICO score) but is a subprime-only contract type, such as a 2/28 hybrid, a product not generally available in the prime mortgage market. (A 2/28 hybrid mortgage carries a fixed rate for the first two years; after that, the rate resets into an index rate [usually a six-month LIBOR] plus a margin.)

borrowers to refinance into larger loans and take out cash, basically taking out the equity from their homes and spending it. Negative equity could lead to default. A third popular explanation involved loosening the underwriting standards. If borrowers did not pay any down payments, they had nothing to lose in case of adverse personal or economic circumstances, which could make defaults almost costless.

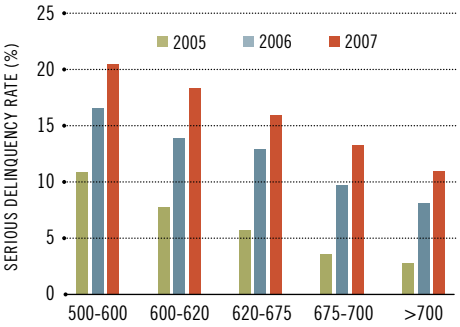
A paper written in 2008 by Yuliya Demyanyk and Otto Van Hemert shows that contrary to popular beliefs described earlier in this article, the subprime crisis did not confine itself to a particular market segment, such as no-documentation loans, hybrid loans, cash-out refinance loans, etc. It was a (subprime) market-wide phenomenon. For example, borrowers with mortgages that carried a fixed-interest rate—the rate that will not reset through the entire term of a loan—had very similar problems to borrowers with hybrid mortgages. Borrowers who obtained a subprime mortgage when they bought a home had the same problems in 2006 and 2007 as those who refinanced their existing mortgages to extract cash. Borrowers who provided full documentation and no documentation followed the same pattern.

Demyanyk and Van Hemert also show that throughout the boom and subsequent collapse of the subprime mortgage market, borrowers with low FICO credit scores were more likely to miss their mortgage payments or default on their loans. However, as the data show, borrowers who took out subprime loans in 2006 and 2007 had higher or similar FICO scores, not lower, than borrowers who took out their mortgages in earlier years.

The figure shows how the serious delinquency rate has changed for five groups of borrowers who had different FICO credit scores when their loans were made. Their mortgage loans were originated in 2005, 2006 and 2007. A mortgage loan is seriously delinquent if a borrower has missed more than two monthly payments, has defaulted on a loan or if the property has gone into foreclosure. Each bar on the graph represents an origination year. The height of each bar shows the percentage of loans that were seriously delinquent within the first year after the loans were originated.

Serious Delinquency Rate of Subprime Loans

ONE YEAR AFTER ORIGINATION BY FIVE CREDIT SCORE GROUPS



SOURCE: Author's calculations based on First American CoreLogic LoanPerformance data

For each group of borrowers, with low and high FICO scores, loans that originated in later years had larger serious delinquency rates one year after origination. Moreover, the higher the credit score, the larger the increase in serious delinquency rates between 2005, 2006 and 2007. For example, for borrowers with the lowest credit scores (FICO scores between 500 and 600), the serious delinquency rate in 2007 was twice as large as in 2005—an increase of nearly 100 percent over the two years. For borrowers with the highest credit scores (FICO scores above 700), the serious delinquency rate in 2007 was almost four times as large as in 2005—an increase of nearly 300 percent. In addition, the serious delinquency rate in 2007 for the best-FICO group was almost the same as the rate in 2005 for the worst-FICO group.

The evidence presented above seems to suggest that the credit score has not acted as a predictor of either true risk of default of subprime mortgage loans or of the subprime mortgage crisis. The subprime mortgage crisis is still a black box, and it requires more analysis to fully understand how the developments in the subprime mortgage market and a subsequent crisis have "subprimed" so many issues that used to be considered fundamental, like credit scoring. Ω

Yuliya Demyanyk is an economist at the Federal Reserve Bank of St. Louis. For more on Demyanyk's work, see http://www.stlouisfed.org/banking/PDFs/CVs/Demyanyk_vitae.pdf.

REFERENCES

Demyanyk, Yuliya and Otto Van Hemert. "Understanding the Subprime Mortgage Crisis." Working paper (2008), available at the Social Science Research Network. See ssrn.com/abstract=1020396.

Fishelston-Holstein, Hollis. "Credit Scoring Role in Increasing Homeownership for Underserved Populations." Working paper, Harvard University, 2004. See www.jchs.harvard.edu/publications/finance/babc/babc_04-12.pdf.

District Tops U.S. in Growth of Exports to China

By Cletus C. Coughlin

Everyone knows that imports of merchandise from China have been mushrooming over the past two decades. Little attention has been paid, however, to the increase in shipments going the other way, from the United States to China. Even less talked about is the fact that exports to China from the states in the Eighth Federal Reserve District have been growing faster than exports to China from the U.S. as a whole.

Recent History

Beginning in the late 1970s, China embarked on a series of market-oriented reforms, many of which contributed to it becoming the leading supplier of merchandise imports to the United States. These imports have attracted much attention, often in the form of criticism, zeroing in on such things as the safety of Chinese goods, the size of the U.S. bilateral trade deficit with China and the possibility of an undervalued Chinese currency.

Noteworthy, but less well-known, are developments related to goods produced in the U.S. for export to China. Last year, China was the third-leading market (after Canada and Mexico) for exports of U.S. merchandise, compared with 15th in 1989. The number of U.S. firms exporting to China jumped more than six times between 1992 and 2006, from 4,092 to 25,873, according to the International Trade Administration.[1] Most of these firms are relatively small; 90 percent of them in 2006 employed fewer than 500 workers.

Many exporters to China are located in states in the Eighth Federal Reserve District. (The District encompasses Arkansas and parts of Missouri, Illinois, Indiana, Kentucky, Mississippi and Tennessee.) Given the prospects for increased trade flows, leaders in St. Louis are pushing for the area to become a transportation hub for trade with China. A memorandum of understanding was signed in March by Chinese and Missouri officials to study the feasibility of developing an air freight hub at Lambert Airport in St. Louis.[2]

Reasons for Increased Exports

Two factors have fueled the rapid increase of U.S. exports. Both factors are directly related to the reforms begun by China in the late 1970s. One factor is that China has experienced substantial economic growth, which has increased the demand for goods from suppliers throughout the world. This growth has dwarfed that of many U.S. trading partners. For example, the compound annual growth rate of real GDP between 1980 and 2007 was 9.9 percent in China versus 2.8 percent in Canada, 2.6 percent in Mexico, 2.6 percent in the United Kingdom, 1.9 percent in Germany and 2.3 percent in Japan.

The second factor propelling U.S. exports has been a significant reduction in Chinese import barriers; this change has reduced the cost of buying goods from U.S. suppliers. Throughout the 1970s, the quantities of most Chinese exports and imports were tightly controlled as part of China's planned economy.[3] A small number of foreign trade organizations that were controlled by the Ministry of Foreign Trade executed the plans. Trade reforms during the 1980s and early 1990s involved the replacement of quantitative trade planning by tariffs, quotas and trading rights. But changes producing a significantly more open trading environment did not occur until the early 1990s. The average tariff rate of 43 percent in 1992 declined to roughly 15 percent in late 2001, when China became a member of the World Trade Organization.

Similar changes occurred for goods subject to either quotas or import licenses. During the 1980s, the range of goods subject to either quotas or import licenses increased. (By the late 1980s, roughly half of Chinese imports were so affected.) But in the 1990s, such restrictions declined markedly. The share of affected imports declined to 18 percent by 1992 and declined further to slightly more than 8 percent in 2001.

Finally, the number of firms with trading rights increased substantially throughout the 1980s and 1990s, from an initial level of 12 firms in the late 1970s to 35,000 in 2001.

To gain membership in the World Trade Organization, China committed to sweeping changes that further liberalized its import environment.[4] China committed to lower trade barriers throughout its economy, to treat foreign firms identically to domestic firms and to protect intellectual property rights according to international standards. The average tariff level dropped to less than 10 percent by 2005. Other changes involved reducing the impact of quotas, licenses and state trading; these changes liberalized substantially the importation of agricultural and other commodities. Foreign direct investment opportunities were opened up in a number of service sectors, such as telecommunications, distribution, banking, insurance, asset management and securities.

Exports from Eighth District States

Last year, merchandise exports from three states in the Eighth District exceeded $1 billion—Illinois ($2 billion), Tennessee

One of Missouri's top exports to China is scrap metal. At Grossman Iron and Steel in St. Louis, scrap is dumped onto a conveyor belt for processing. Once processed, the metal is loaded onto barges on the Mississippi River and shipped to China and elsewhere.

($1.1 billion) and Missouri ($1 billion). These sales are merchandise exports; so, only exports of goods that have been grown, produced or manufactured are included. Exports of services are not included.

A variety of goods are exported from District states. Leading export categories include machinery manufactures, chemical manufactures, mining commodities, and agricultural-related production, such as crops and processed foods. A few specifics:

• Frozen chicken cuts were the top export to China from Arkansas in 2006, with much of those coming from Tyson Foods.[5]

• Scrap copper, bronze and aluminum that can be recycled into materials for Chinese manufacturing and construction are a leading export for the District as a whole.[6]

• The leading category of exports from Missouri in 2007 was waste and scrap chemicals, foods and metals.

As shown in the table, states in the Eighth District have been able to take advantage of the rapidly expanding Chinese market. The most dramatic change has been experienced by Missouri, whose annual rate of growth in exports to China has exceeded 31 percent since 1989. China rose from being Missouri's 35th-leading export market in 1989 to its fourth-leading export market last year. Missouri's export growth to China has expanded faster than Missouri's overall income growth by a factor greater than six.

Figures for the other Eighth District states are not as dramatic as those for Missouri, but also show changes that often exceed what has taken place nationally. For example, every state has seen China become an increasingly important export market, jumping between 11 (Tennessee) and 19 (Arkansas) places for the period 1989-2007. China is now the third-leading export market for firms in Tennessee, Mississippi and Arkansas. For firms in Indiana, China is the sixth-leading export market; for firms in both Illinois and Kentucky, China is No. 8.

Export growth to China relative to income growth is not only booming in Missouri but is greater in each of the other Eighth District states than it is in the U.S. as a whole. Export growth exceeded income growth by a factor of five in Arkansas. Even though Mississippi had the lowest value in this measure, its value of 2.8 was still slightly above the U.S. value of 2.7.

Exports to China by Eighth District States

	Rank: Export Markets*		Annualized Growth		Exports ($m)
District State	**1989**	**2007**	**Exports**	**Income**	**2007**
Arkansas	22	3	27.72%	5.53%	307.5
Illinois	20	8	17.91%	4.73%	1,958.8
Indiana	24	6	20.46%	4.76%	758.1
Kentucky	21	8	20.16%	5.12%	578.3
Mississippi	16	3	15.38%	5.49%	349.2
Missouri	35	4	31.83%	4.82%	1,015.0
Tennessee	14	3	18.30%	5.60%	1,135.3
United States	**15**	**3**	**14.38%**	**5.33%**	**65,238.3**

* The countries used in this ranking are the top 50 U.S. export markets in 2005. Therefore, of these 50 countries, China was the 22nd leading export market for Arkansas in 1987 and third in 2007.

SOURCES: WISER/Haver Analytics; International Trade Administration; Bureau of Economic Analysis.

Looking Ahead

Prospects for increased exports to China are bright. Not only is China likely to continue to grow rapidly in the near future, but China appears to be on course to become increasingly integrated into the global economy as part of its accession into the World Trade Organization. As a result, foreign firms should find the Chinese market easier to penetrate.

The integration process, however, is far from complete.[7] Of the many simmering issues, two stand out. First, the ineffective

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ENDNOTES

1 See http://ita.doc.gov/td/industry/otea/sme_2006/SME_index_2006.html.
2 See press release from Missouri's governor on March 26, 2008, at http://governor.mo.gov/press.htm.
3 See Branstetter and Lardy for additional details and insights.
4 See www.brookings.edu/testimony/2001/0509foreignpolicy_lardy.aspx?p=1.
5 See Smith.
6 See Thimangu.
7 See *2007 National Trade Estimate Report on Foreign Trade Barriers.*

REFERENCES

Branstetter, Lee; and Lardy, Nicholas. "China's Embrace of Globalization." National Bureau of Economic Research Working Paper 12373, July 2006.

Smith, David. "China a Growing Market for State; Nation of One Billion Forming a Taste for Arkansas Goods." *Arkansas Democrat-Gazette,* Jan. 21, 2007, p. 7.

Thimangu, Patrick L. "St. Louis Companies Cash In as Missouri's Exports to China Top $1 Billion." *St. Louis Business Journal,* April 21, 2008. See http://stlouis.bizjournals.com/stlouis/stories/2008/04/21story2.html.

U.S. Trade Representative. *2007 National Trade Estimate Report on Foreign Trade Barriers.* See www.ustr.gov/Document_Library/Reports_Publications/2007/2007_NTE_Report/Section_Index.html.

At Grossman Iron and Steel in St. Louis, scrap metal is separated for processing before being shipped to China and elsewhere. Scrap food and chemicals are also among the more than $1 billion in exports to China from Missouri last year.

continued from Page 15

enforcement of intellectual property rights continues to be a major problem. The economic performance of many U.S. firms suffers because of unacceptably high levels of counterfeiting and piracy. Second, China continues to inhibit agricultural imports under the guise of safety standards by delaying or stopping shipments of agricultural products.

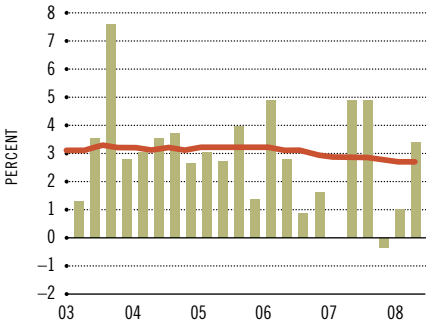
Despite the problems, the market opportunities in China for U.S. firms are abundant. Firms in Eighth District states appear to be well-positioned to continue to take advantage of the expanding export opportunities. Ω

Cletus C. Coughlin is an economist at the Federal Reserve Bank of St. Louis. For more on his work, see http://research.stlouisfed.org/econ/coughlin.

ECONOMY AT A GLANCE

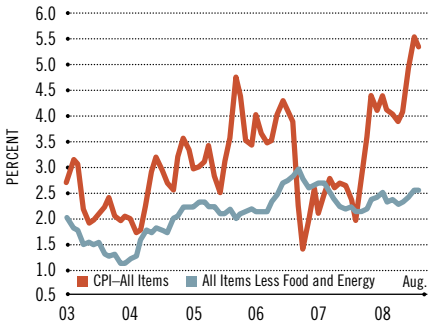
Eleven more charts are available on the web version of this issue. Among the areas they cover are agriculture, commercial banking, housing permits, income and jobs. Much of the data is specific to the Eighth District. To go directly to these charts, use this URL: www.stlouisfed.org/publications/re/2008/d/pdf/10-08-data.pdf.

REAL GDP GROWTH



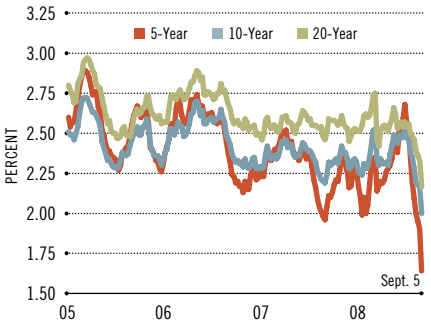
NOTE: Each bar is a one-quarter growth rate (annualized); the red line is the 10-year growth rate.

CONSUMER PRICE INDEX



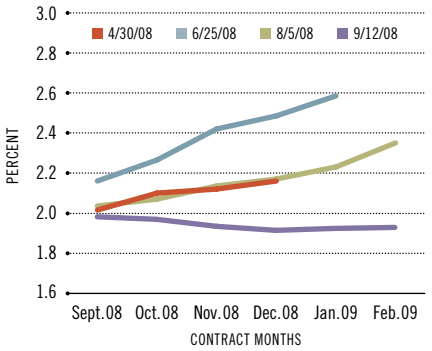
NOTE: Percent change from a year earlier.

INFLATION-INDEXED TREASURY YIELD SPREADS



NOTE: Weekly data.

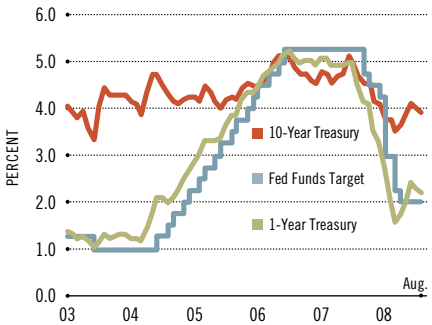
RATES ON FEDERAL FUNDS FUTURES ON SELECTED DATES



CIVILIAN UNEMPLOYMENT RATE

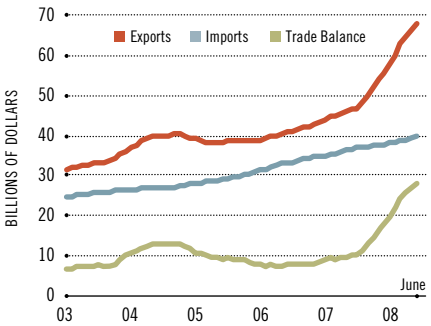
NOTE: Beginning in January 2003, household data reflect revised population controls used in the Current Population Survey.

INTEREST RATES



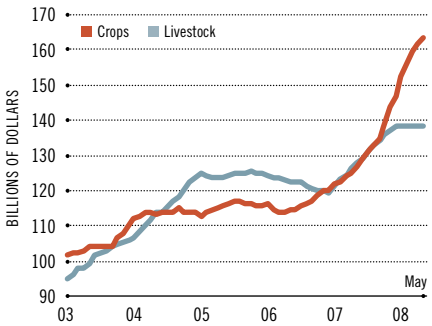
NOTE: Except for the fed funds target, which is end-of-period, data are monthly averages of daily data.

U.S. AGRICULTURAL TRADE



NOTE: Data are aggregated over the past 12 months.

FARMING CASH RECEIPTS



NOTE: Data are aggregated over the past 12 months.

Threats to the Economy Don't Let Up

By Kevin L. Kliesen

Despite the economic turmoil emanating from rising oil prices, the collapse in housing activity and financial market turbulence, the U.S. economy expanded at a modest pace over the first half of 2008. But larger-than-expected increases in inflation, continued declines in payroll employment and a marked slowing world economic growth have further raised the threat level facing the economy. Most Federal Reserve policymakers and forecasters expect that a gradual slowing in inflation will commence later this year, followed by a return to trend-like economic growth by mid-2009. But others warn that the cumulative effects of past actions to strengthen aggregate demand growth have the potential to further destabilize an economy being buffeted by rising price pressures and elevated inflation expectations.

Not Price Stability

Most of the inflation news is bad, not just in the United States, but globally. After increasing last year at a 17-year high of 4.1 percent, the all-items Consumer Price Index (CPI) has increased at about a 5.25 percent annual rate over the first eight months of this year. An important factor behind this acceleration was the more than 40 percent increase in the price of crude oil between January and June. Further compounding the economic woes facing U.S. households, prices of food and imported goods are accelerating at their fastest rates in several years. Accordingly, some measures of consumer inflation expectations have risen sharply this year.

Likewise, many firms, which are also battling higher fuel and transportation costs, have also been hit by sharp increases in the prices of commodities and certain finished products, such as steel and petrochemicals. Throttled by pressures on their profit margins, producers are increasingly willing and able to pass along input price increases to their customers, business surveys suggest. As a result, price increases outside of food and energy have started to accelerate. After increasing at a 1.8 percent annual rate over the first four months of 2008, the core CPI (minus food and energy) has increased at a 3.2 percent rate over the four months ending in August.

Many forecasters remain confident that both the headline and the core inflation rate will begin to moderate in the fourth quarter of this year. Moreover, a key inflation barometer—the yield on the 10-year U.S. Treasury security—remains relatively low and stable. Some favorable developments, if sustained, enhance the credibility of this forecast. First, crude oil and commodity prices have retreated significantly from their summer peaks. Second, the value of the dollar has posted an impressive rebound, which will help to reduce import price inflation. Third, labor productivity growth has been quite strong for the past several quarters, helping to constrain the growth of unit labor and nonlabor costs.

The Fed's Dilemma

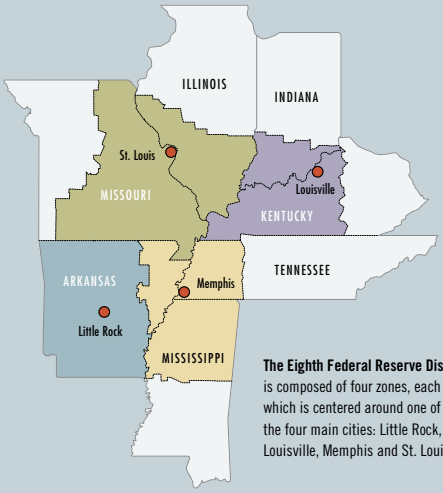
The pace of U.S. economic growth has gradually accelerated since the fourth quarter of 2007, when real GDP—according to newly revised estimates—declined at a 0.2 percent annual rate. Following a 0.9 percent rate of growth in the first quarter of 2008, the Bureau of Economic Analysis reported that real GDP grew at a healthy 3.3 percent annual rate in the second quarter—much stronger than expected. The consensus of most forecasters is that the second quarter will be the high-water mark for growth this year: The August Survey of Professional Forecasters projects that real GDP growth will slow to 1.2 percent in the third quarter and then slow even further over the final three months of 2008 (0.7 percent).

Much of the economy's recent strength stems from a robust export sector. But with the renewed strength in the U.S. dollar and weakening economic growth in Japan and many European countries, the outlook for exports is unsettled.

And then there is housing. Overall, residential housing construction and sales remain moribund, and national house price indexes continue to decline on a year-to-year basis. Most forecasters do not expect a rebound in construction to commence until next year, while the bottom in national home prices could extend even longer. With little or no lending in the nontraditional mortgage market and with the inability of some buyers to secure funding for higher-priced homes (jumbo mortgages), new and existing home sales this year are on a pace to be the weakest in more than a decade.

Federal Reserve policymakers face a dilemma: how to counter the threat from rising inflation in the face of an expected slowing in economic growth and unsettled financial market conditions. The consensus of most forecasters is that economic conditions may spur the Federal Open Market Committee to reduce its federal funds rate target by the end of this year. However, this outcome will most likely depend on a sharp slowing in the inflation rate. Ω

Kevin L. Kliesen is an economist at the Federal Reserve Bank of St. Louis. Joshua A. Byrge provided research assistance. For more on Kliesen's work, see http://research.stlouisfed.org/econ/kliesen/index.html.



The Eighth Federal Reserve District is composed of four zones, each of which is centered around one of the four main cities: Little Rock, Louisville, Memphis and St. Louis.

Eighth District States Weather the Mortgage Foreclosure Storm

By Yuliya Demyanyk and Michael Pakko

One of the symptoms of the ongoing problems in the nation's housing markets is a sharp rise in mortgage delinquencies and home foreclosures. From the second quarter of 2007 through the second quarter of 2008, homeowners with more than three missed monthly payments or in foreclosure rose from 2.5 percent to 4.5 percent of all outstanding mortgages.[1]

Table 1 summarizes the data for Eighth District states as of the second quarter of 2008. The data show that our region has suffered along with the nation. In fact, three Eighth District states—Illinois, Indiana and Mississippi—have had higher proportions of delinquencies than the national average. But the other states in the region—Arkansas, Kentucky, Missouri and Tennessee—have fared better than the national average. Arkansas, in particular, has experienced a much lower rate of delinquencies and foreclosures than the rest of the country has.

Historically, the leading factor in delinquencies and foreclosures is related to unemployment, with homeowners who lose their jobs falling behind in their mortgage payments. In contrast, a distinctive factor in the recent run-up in delinquency rates is falling house prices. Hence, some of the highest delinquency rates are in those states that have suffered the largest declines in house prices. For example, the comparable rates for delinquency and foreclosure combined in Florida and Nevada are 8.4 and 7.6 percent, respectively.

In the Eighth District, however, the run-up in house prices was more subdued and the subsequent slowdown has been milder than in the country as a whole. Consequently, the share of mortgages in the District that are delinquent or in foreclosure is less likely to be related to house price swings and is more likely to be related to job losses. This is particularly the case in those states that have suffered large losses in manufacturing employment.

For the nation and the District, there are distinct differences in the pattern of delinquencies across various types of mortgages. Fixed-rate mortgages (FRM) have lower delinquency and foreclosure rates than do adjustable-rate mortgages (ARM). Almost all ARMs in the subprime mortgage market are so-called 2/28 or 3/27 hybrid loans, i.e., the rates are fixed for either two or three years and then they reset to a higher rate. These types of hybrid loans are generally not found in the prime mortgage market.

Among prime mortgages, the rate of delinquency and foreclosure is nearly five times higher for ARMs than for FRMs. Moreover, the rate of delinquencies and foreclosure is much higher for subprime loans than for prime loans, and the rates for subprime ARMs are much higher than the rates for subprime FRMs. These patterns are clear in each of the Eighth District states. In fact, those states that have delinquency and foreclosure rates above the national average for all mortgages taken together tend to have rates above the national averages for each category of mortgage loans.

Subprime Mortgages Failing Faster

Not only have subprime mortgages shown higher delinquency rates than prime loans in general, but subprime mortgage loans have shown high rates of delinquency, foreclosure and default only months after origination. This has been true for borrowers across a range of credit scores (see Yuliya Demyanyk's article elsewhere in this issue) and has also held true for Eighth District states.

On average across the country, subprime loans that were originated in 2006 and 2007 showed, respectively, 14 and 17 percent serious delinquency rates within one year of origination.[2] In contrast, for subprime loans that were originated in 2002, 2003 and 2004, the serious delinquency rate was 5 percent.[3]

Analyzing serious delinquency rates for subprime loans within the first year of origination, there are again differences between the rates for FRM and ARM loans. Table 2 shows the percentage of subprime loans that became seriously delinquent within the first 12 months of origination. For every origination year, FRM loans had lower serious delinquency rates than ARM loans of the same ages. However, even within the relatively better performing FRM group, loans originated in 2007 performed much worse than those originated in 2005. The serious delinquency rate for 2007 FRM loans, 12 months after origination, is 2.7 times larger than that for 2005 loans.

Data for the Eighth District states show that this region's experience with subprime loans was quite similar to the nationwide trend. For both FRMs and ARMs, the national trend has shown rising delinquency rates over the three origination years from 2005 to 2007. However, Missouri, Illinois, Tennessee and Arkansas had higher serious

TABLE 1

Residential Mortgage Delinquency Rates For Eighth District States

PERCENT 90+ DAYS DELINQUENT OR IN FORECLOSURE, 2008–Q2							
	All	Prime			Subprime*		
STATE	Mortgages	Total	FRM†	ARM†	Total	FRM	ARM
Missouri	3.1	1.5	1.1	4.7	13.2	7.2	20.8
Illinois	4.7	2.3	1.4	6.3	20.1	11.3	27.9
Indiana	5.7	2.9	2.2	9.2	18.5	12.3	27.8
Kentucky	4.0	1.9	1.4	6.4	15.8	9.9	26.1
Tennessee	3.7	1.7	1.3	6.4	12.6	7.8	20.4
Mississippi	5.0	2.5	1.9	10.1	16.1	11.6	25.1
Arkansas	2.7	1.5	1.0	6.1	11.4	7.8	18.1
U.S. Total	**4.5**	**2.4**	**1.3**	**6.8**	**17.9**	**9.6**	**26.8**

* The Mortgage Bankers Association divides the sample of conventional mortgages into prime and subprime categories based on whether the servicer handles primarily prime or subprime loans. Therefore, there are some prime loans in the subprime sample and some subprime loans in the prime sample.

† FRM = Fixed-Rate Mortgages ARM = Adjustable-Rate Mortgages

SOURCES: Mortgage Bankers Association, National Delinquency Survey/Haver Analytics

TABLE 2

Subprime Securitized Loans, Serious Delinquency Rates (Percent) 12 Months After Origination*

	Fixed-Rate Mortgages			Adjustable-Rate Mortgages		
ORIGINATION YEAR	2005	2006	2007	2005	2006	2007
Missouri	4.5	9.7	14.6	12.3	17.3	22.0
Illinois	5.2	9.4	14.0	8.5	12.8	18.6
Indiana	7.2	11.0	10.2	12.3	17.1	14.2
Kentucky	7.7	12.3	9.4	12.4	14.2	14.4
Tennessee	12.0	10.0	16.0	11.6	16.1	21.1
Mississippi	5.6	9.7	10.7	18.1	17.4	23.2
Arkansas	5.7	10.0	16.3	9.1	13.6	12.2
U.S. Total	**4.2**	**7.7**	**11.2**	**8.1**	**15.0**	**18.7**

* A loan is called seriously delinquent if mortgage payments on it are past due for more than two months, a property is in foreclosure or the property is real-estate owned (taken over by a bank or trustee.)

SOURCE: Authors' calculations, based on FirstAmerican CoreLogic LoanPerformance securities data.

delinquency rates for 2007-vintage FRM loans than the national average. The ARM and FRM rates for Indiana and Kentucky and the ARM rates for Arkansas peaked for loans originated in 2006 and have fallen or leveled off in the next year.

On average in the U.S. and in every state in the Eighth District, more than half of all mortgages have rates that are scheduled to adjust at some point. About 30 percent of those are scheduled to reset before June 2009.[4] This can, of course, be problematic for borrowers whose rates (and payments) adjust dramatically. However, given the average initial mortgage interest for the states in the Eighth District and the current level of interest rates, the typical reset would mean an approximate increase in the average interest rate of only one percentage point. Ω

Yuliya Demyanyk and Michael Pakko are economists at the Federal Reserve Bank of St. Louis. For more on Demyanyk's work, see www.stlouisfed.org/banking/PDFs/CVs/Demyanyk_vitae.pdf. For more on Pakko's work, see http://research.stlouisfed.org/econ/pakko/index.html.

ENDNOTES

1 Mortgage Bankers Association. National Delinquency Survey/ Haver Analytics.

2 A loan is called seriously delinquent if mortgage payments on it are past due for more than two months, a property is in foreclosure or is real-estate owned.

3 Authors' calculations based on FirstAmerican CoreLogic LoanPerformance securities data, June 2008.

4 More information about subprime mortgages by state can be found at the web site of the Federal Reserve Bank of New York. See www.newyorkfed.org/mortgagemaps.

Heal Thyself

Focus on Health Care, Entrepreneurs and Tourism Rejuvenates Paris, Tenn.

The Henry County Medical Center is the heart of the burgeoning health-care industry in Paris. The county's decision to keep it and expand it ignited a boom in health-care services in this part of western Tennessee.

By Susan C. Thomson

In 1991, the Henry County Commission spurned bids from out-of-town chains for its county-owned, money-bleeding hospital in Paris, Tenn. In deciding to keep and expand it rather than sell it, the commission took a risk—one that, as County Mayor Brent Greer observes, has "paid off tremendously well."

The renamed Henry County Medical Center has gone on to become a powerhouse, economic as well as medical. The hospital—with twice its former space, patient capacity and physician staff—is now but one part of a complex enterprise. Also included are a cancer clinic, home health agency, hospice service, nursing home, wellness and rehabilitation center, and the county's ambulance operation.

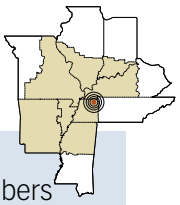
Thomas Gee, the center's chief executive, says Paris' location has been key to the center's success. For one thing, anyone who would want a larger medical facility would have to drive two hours, to either Nashville to the east or Memphis to the southwest. For another, just 17 miles away is Kentucky Lake, a draw for active, health-conscious retirees as well as high-quality physicians and other medical specialists.

The center has succeeded not just in operating in the black. It has also attracted to town a number of unaffiliated new medical clinics, pharmacies, home-health agencies, assisted-living facilities and other health-related businesses.

The emergence of health care as an industry has been a godsend for a community suffering a decline in manufacturing, which was its economic engine well into the last half of the 20th century. Then came the plant closings. In just the past four years, Emerson Tool Co. and Manar Inc. have closed up shop in town for a total loss of 450 jobs.

The next casualty could be Tecumseh Products' engine-making plant. It's for sale, the last plant standing in a division that its owner has been selling off in pieces since last year.

Carl Holder, executive director of the Paris/Henry County Economic Development Corp.,



Paris, Tenn., by the numbers

City Population	9,920 *
County Population	31,630 *
County Labor Force	13,976 **
County Unemployment Rate	8.5 percent **
County Per Capita Income	$25,880 ***

* Census estimate, July 1, 2007
** Haver/Bureau of Labor Statistics, June 2008
*** Bureau of Economic Analysis/Haver, 2006

TOP FIVE EMPLOYERS#

Henry County Medical Center	750
Dana Corp.	650
Wal-Mart	300 plus ##
Tecumseh Products Co	265
PML Inc.	175

\# Self-reported, July 2008
A company spokesman declined to provide a more specific number.

calculates that the remaining plants have shed up to half their jobs over the past decade.

Dana Corp., a unit of an Ohio-based auto parts maker, is the largest survivor. The parent company emerged shrunken from bankruptcy protection earlier this year, its Paris operation deposed from its long-time position as Henry County's largest employer.

Together with the medical center and its offshoots, a number of up-and-coming non-manufacturing businesses have served to stave off serious unemployment.

"We still have enough jobs here to support 31,000 people," says David Flowers, president of Commercial Bank and Trust Co. in Paris, referring to the county population. The new, more varied mix of employers is stabilizing, he says. "It's definitely better to have more smaller industries. That way, if you lose one, the economic impact is less."

Changing times have left the small city and surrounding county on their own for growth. Greer says it's been "at least 30 years" since the community has reeled in a major employer from beyond its borders.

Holder describes today's pickings as smaller and fewer than in the heydays of 1950s and 1960s, when Rust Belt companies were eagerly opening plants of several hundred employees across the South.

Many of the rural communities that prospered from the trend don't recognize that the era has passed, he says. "They're more conservative socially, tend not to let go of any old paradigm and are slow to embrace where the economy is moving. They want more of what they used to have."

Yet his organization keeps the welcome mat out for plants on the move. Earlier this year, an American manufacturer was poised to bring production and 150 jobs back from China in exchange for low rent on a 60,000-square foot, city-owned industrial building. Because the company was planning on buying its equipment in Italy, the deal snagged on the dollar's decline against the euro.

Meanwhile, a maker of all-terrain vehicles and a producer of kits for assembling small aircraft have arrived, both from Canada. Each employs just a handful of workers.

Entrepreneurial Spirit

In creating most of its own jobs, the area has built on a history embodied in Harold Plumley. He expanded the company that Dana bought in 1995. In 1988, he started auto-parts maker PML Inc. as a joint venture with the Japanese company that now owns all of it.

Plumley retired to Florida, but the entrepreneurial spirit flourishes in businesses created by the likes of Jim Arthurs, identical twin brothers Ronnie and Johnny Allen and husband-wife teams Barry and Tammy Revel and Lisa and Roggero Ciarrocchi.

Arthurs presides over Institutional Casework Inc., the reincarnation of a maker of school and laboratory furniture founded in Paris in 1951. After a tornado flattened part of the plant in November 2005, new owners decided to close the whole operation.

An employee for more than 20 years, Arthurs got a semblance of the company up

At Institutional Casework Inc. (lower left), Candace Steele works a machine that sizes, glues and trims the edging of doors and drawers.

At PML Inc. (below), Craig Moore inspects metal automotive parts after they've been coated with adhesive.

and running again. Sales have risen to two-thirds their previous high, while employment is back by half—to 150 people. Arthurs says the company can do more work with fewer people because it has invested in hi-tech machinery.

In their own ways, Four Seasons Sales & Service Inc. and Revel Enterprises are also technologically sophisticated. The Allen brothers began Four Seasons in 1984 to supply equipment and accessories to tanning salons. The company, now with 160 employees, takes orders through a call center and ships them from a computerized warehouse. The Revels started their company seven years ago, selling auto parts on eBay. Today, their 40 employees do more of the same, using an 800 number and a web site.

Nathan Young Jr. fills bottles at the newly opened Paris Winery, just part of the tourist destination that Lisa and Roggero Ciarrocchi are creating on the outskirts of town.

Holder points to Four Seasons and Revel as new-economy kinds of businesses—the sort that can sprout and prosper in isolated rural areas like Paris.

Revel, Four Seasons, Institutional Casework and other businesses have benefited from packages of individually tailored economic inducements put together for them by the Henry County Industrial Board. These have included no- and low-cost loans, deals on land, and infrastructure improvements. One of the board's favorite tools is forgiveness of local property taxes for employers that agree to maintain a certain number of jobs. The Ciarrocchis have not asked for any such incentives, just advice from the Tennessee Department of Agriculture, for the Paris Winery they are developing on 120 acres a few miles south of Paris.

The couple happened to land their two-engine Beech Bonanza at the Henry County airport a few years ago when they were out-flying a hurricane bearing down on their Florida home.

Smitten with what they saw on their Tennessee stopover, the Ciarrocchis returned to put down their personal roots and then to sink their retirement savings into their venture in viticulture. They planted 7,000 vines and around them created a working farm with pigs, cows, ducks and rabbits, as well as a stand of Christmas trees. They plan a restaurant, cabins and carriage tours of the premises—in Lisa Ciarrocchi's vision, "a tourist destination."

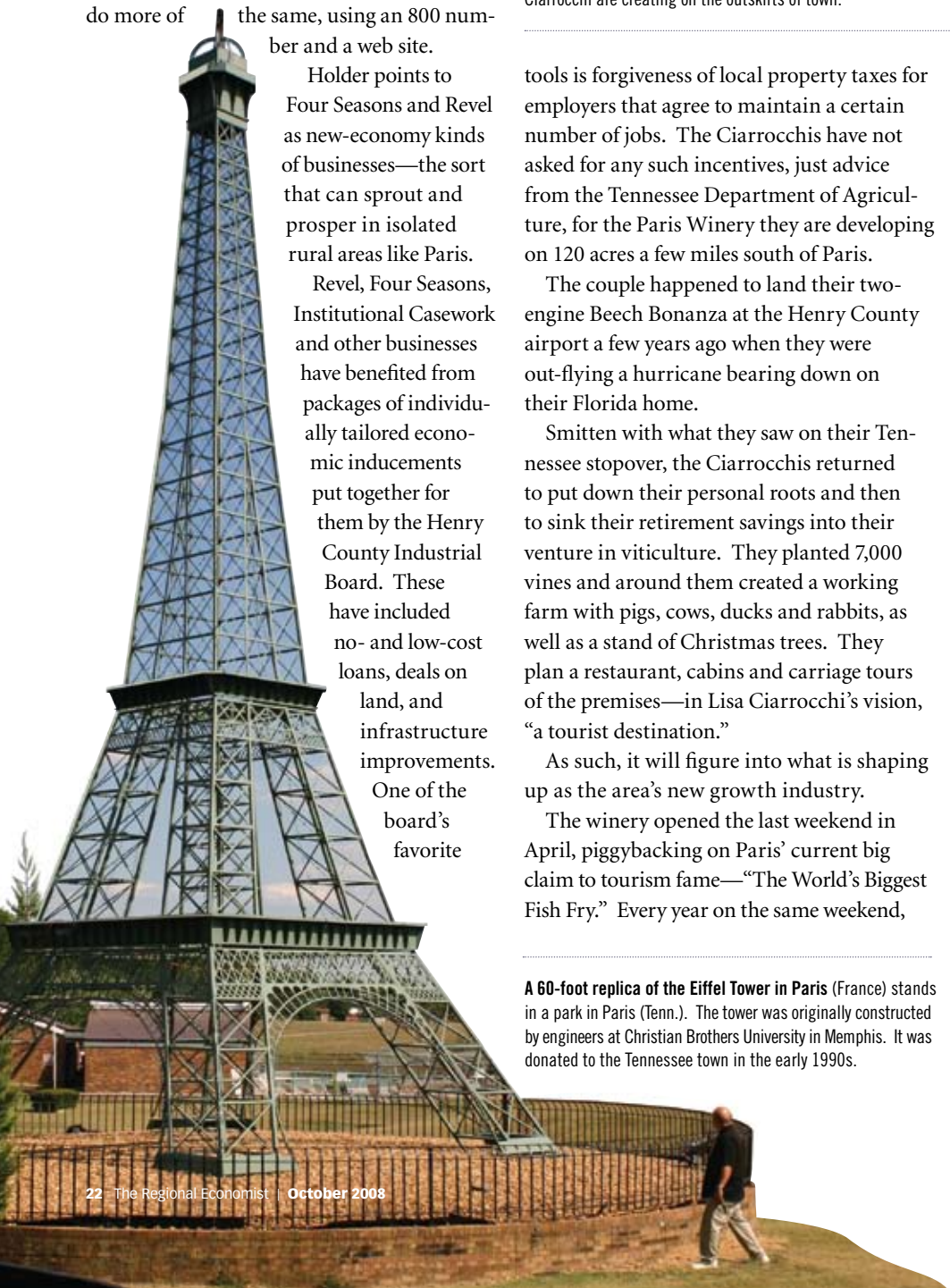
As such, it will figure into what is shaping up as the area's new growth industry.

The winery opened the last weekend in April, piggybacking on Paris' current big claim to tourism fame—"The World's Biggest Fish Fry." Every year on the same weekend, the Paris-Henry County Jaycees stage a parade, rodeo and carnival and fry five tons of catfish for crowds they've estimated at up to 85,000. Hotel and motel rooms book up for miles around months in advance.

Of those rooms, 130 are in the hotel at Paris Landing State Park on Kentucky Lake, Henry County's eastern boundary. The 841-acre recreational complex boasts 1.25 million visitors a year. Many come to fish a lake famous for bass, and many more are expected in coming years as the park plays host to more and bigger bass fishing tournaments.

These are being made possible by state sales-tax rebates, targeted to tourist areas and marked for tourism promotion. After starting the givebacks in the Smoky Mountain region, Tennessee extended them in 2006 to counties bordering Kentucky Lake. Henry became the first new county to qualify.

For two years in a row now, the county has received a $1 million refund. About half of it has gone to develop a new tourism plan, expand tourism marketing, improve the Paris Landing marina and promote attractions and events like the fish fry and the Fourth of July fireworks on the lake. The rest has gone to promote fishing tournaments for crappie, catfish and, especially, bass. Holder says the investment has already lifted the county into the tournaments' "regional big leagues" and, based on his research, holds promise of "a return of 20-, 30-, 40-to-one on the dollar." Ω



A 60-foot replica of the Eiffel Tower in Paris (France) stands in a park in Paris (Tenn.). The tower was originally constructed by engineers at Christian Brothers University in Memphis. It was donated to the Tennessee town in the early 1990s.

Susan C. Thomson is a freelance writer.

ASK AN ECONOMIST

Rubén Hernández-Murillo is an economist in the Research division at the Federal Reserve Bank of St. Louis. In addition to his general research responsibilities, he coordinates the production of the St. Louis section of the *Beige Book*. He is also a member of the team that compiles the *Burgundy Books*, a sort of *Beige Book* for each of the four zones in the Eighth District. In his spare time, he writes poetry; he also collects hats. For more on Hernández-Murillo's research, see http://research.stlouisfed.org/econ/hernandez/.

What is the Beige Book*, and how is it useful?*

The *Beige Book*, officially called the Summary of Commentary on Current Economic Conditions, is an anecdotal description of economic activity in each of the 12 Federal Reserve districts. To produce the *Beige Book*, each Federal Reserve Bank gathers information about its district through a network of business contacts across many industries, such as manufacturing, services, real estate, banking and agriculture. The contacts are promised anonymity in return for accurate, honest and current information. Staff members at one of the 12 Federal Reserve banks compile the district reports into the national summary of economic conditions. The *Beige Book* is released two weeks prior to every scheduled meeting of the Federal Open Market Committee. (See www.federalreserve.gov/FOMC/BeigeBook/2008.)

Although the Federal Reserve relies, for the most part, on formal data and sophisticated statistical methods for conducting monetary policy, anecdotal information—such as that collected for the *Beige Book*—is also used to confirm or to help understand trends that arise from the formal data. Formal statistics, such as the series on Gross Domestic Product (GDP) and the Consumer Price Index, do not provide a perfect picture of the economy, and informal or anecdotal information yields insight into the formal statistics to help fill the gaps. For example, except for financial indicators, most formal data are released with a lag and, therefore, do not necessarily present an up-to-date picture of the economy. The anecdotal information collected from the people who are actually making day-to-day business decisions provides timely information about some of the trends in the data that may be occurring.

In my own research, I have used econometric techniques to analyze the predictive power of the *Beige Book*. My co-authors and I found that the *Beige Book's* national summary and the district reports improve predictions of GDP and aggregate and regional employment.

At the Federal Reserve Bank of St. Louis, the Center for Regional Economics—8th District (CRE8) has taken this analysis to a new level. In March, the St. Louis Fed started publishing a quarterly summary of economic conditions for each of the District's four zones, which are centered around St. Louis, Memphis, Louisville and Little Rock. These reports, dubbed *Burgundy Books*, provide the same type of anecdotal information as the *Beige Book*, but the analysis is broken down to give a snapshot of local economic conditions. The *Burgundy Books* are available on the St. Louis Fed web site at http://research.stlouisfed.org/regecon/district.html.

Submit your question in a letter to the editor. (See Page 2.)
One question will be answered by the appropriate economist in each issue.

LETTERS TO THE EDITOR

This is in response to July's article titled "Ethanol: Economic Gain or Drain?" To read other letters, go to www.stlouisfed.org/publications/re.

Dear Editor:

The basic premise of the article is that increased ethanol production has sequestered corn supplies away from food and feed production; thus, it is bad. Interestingly enough, corn PRODUCTION increased right along with increased ethanol production; so on a net basis, there was no impact on the availability of corn for food or feed. One only has to look at the Federal Reserve Bank's failure to strengthen the dollar, the global dietary change that is demanding more protein (thus increasing demand for grain and other commodities) and the exponential increase in oil prices to see that a near perfect storm has developed to create the atmosphere of near panic. Release crude from the Strategic Petroleum Reserve and bump up the Fed discount rate by 1 percent, and you most likely would see $50 a barrel come out of the crude oil price, almost overnight.

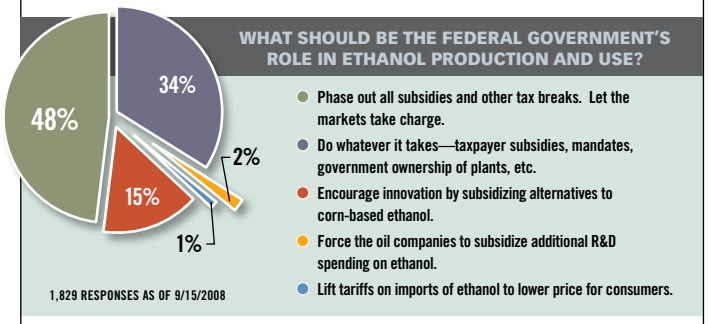
Terry Ruse, a consultant in Raleigh, N.C.

A NEW REPORT FROM THE ST. LOUIS FED

Now available online or in print is *Earnings Inequality within the United States, 2000 to 2006*. The report was written by Christopher Wheeler, until recently a St. Louis Fed economist. To read online, go to www.stlouisfed.org/community/assets/pdf/income_inequality_report.pdf. To receive a paper copy in the mail, call the Fed's Cynthia Davis at 314-444-8761. You can also e-mail her at communitydevelopment@stls.frb.org.

FED FLASH POLL RESULTS

Whenever a new issue of *The Regional Economist* is published, a new poll is posted on the Bank's home page, www.stlouisfed.org. The poll question is always pegged to an article in that quarter's issue. Here are the results of the poll that went with the July issue. The question stemmed from the article "Ethanol: Economic Gain or Drain?"



THIS ISSUE'S POLL QUESTION:

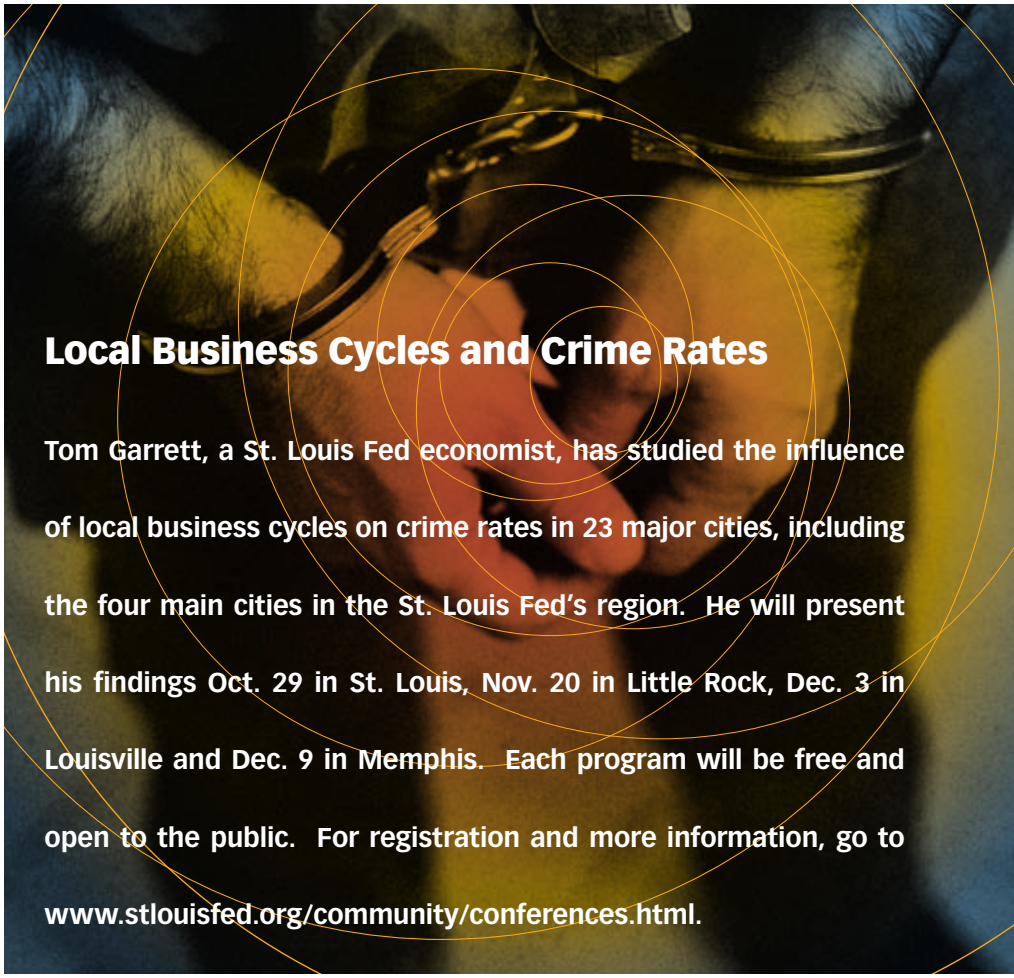
What would you do about the growing income gap in the United States?

1. Keep my mouth shut.
2. Shout from the mountaintop that income inequality has benefits and shows that our economy is working.
3. Cut tax breaks, subsidies and the like for those on both sides of the gap to allow the natural state of income inequality to surface.
4. Invest more in education and job training to lift the income of poor people at the expense of those with higher incomes.
5. Pass even more legislation to bring us closer to equal distribution of income.

To vote, got to www.stlouisfed.org. Anyone can vote, but please do so only once. (This is not a scientific poll.)

Mountains of Debt Await New Leaders

The federal budget deficit for fiscal year 2008 is expected to be one of the largest on record, and the outlook for 2009 is even worse. Meanwhile, the public debt continues to accumulate. As a new president and Congress take office, how will the deficit and debt affect public policy? What options are available to reduce the red ink? In the January issue of *The Regional Economist*, read about some of the economic implications of the federal budget.



Local Business Cycles and Crime Rates

Tom Garrett, a St. Louis Fed economist, has studied the influence of local business cycles on crime rates in 23 major cities, including the four main cities in the St. Louis Fed's region. He will present his findings Oct. 29 in St. Louis, Nov. 20 in Little Rock, Dec. 3 in Louisville and Dec. 9 in Memphis. Each program will be free and open to the public. For registration and more information, go to www.stlouisfed.org/community/conferences.html.

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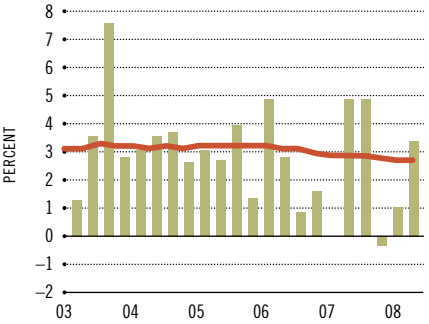
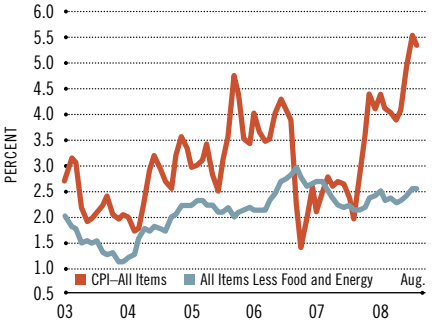
THE REGIONAL ECONOMIST
OCTOBER 2008 | VOL. 16, NO. 4

REAL GDP GROWTH



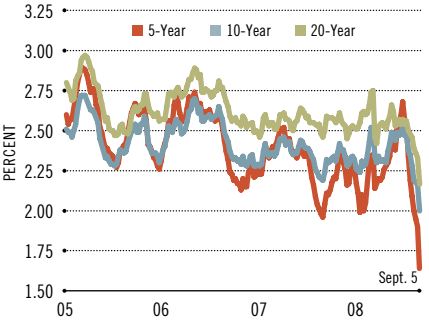
NOTE: Each bar is a one-quarter growth rate (annualized); the red line is the 10-year growth rate.

CONSUMER PRICE INDEX



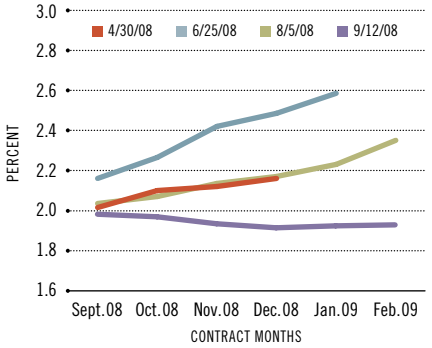
NOTE: Percent change from a year earlier.

INFLATION-INDEXED TREASURY YIELD SPREADS

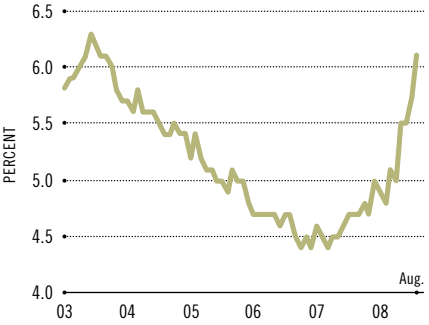


NOTE: Weekly data.

RATES ON FEDERAL FUNDS FUTURES ON SELECTED DATES

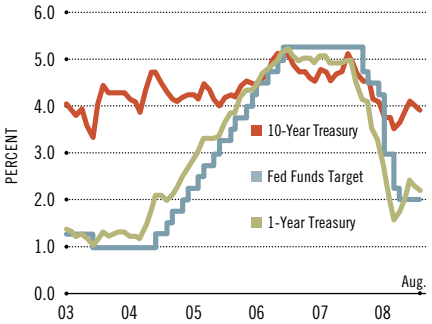


CIVILIAN UNEMPLOYMENT RATE



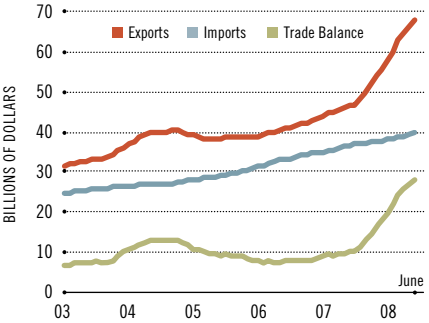
NOTE: Beginning in January 2003, household data reflect revised population controls used in the Current Population Survey.

INTEREST RATES



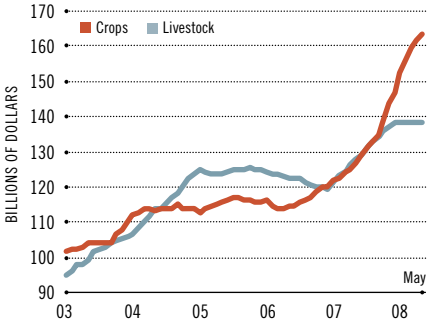
NOTE: Except for the fed funds target, which is end-of-period, data are monthly averages of daily data.

U.S. AGRICULTURAL TRADE



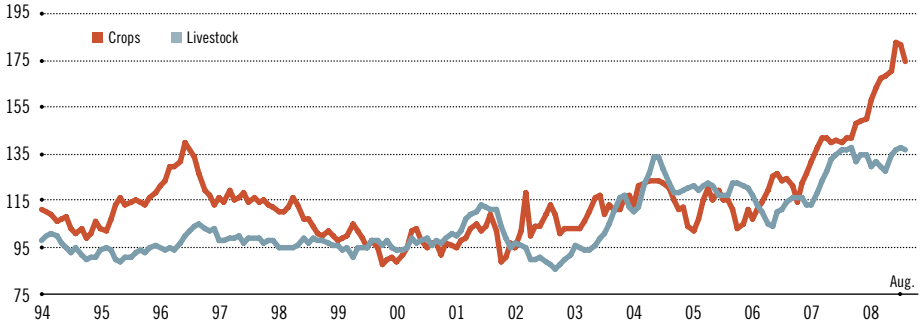
NOTE: Data are aggregated over the past 12 months.

FARMING CASH RECEIPTS



NOTE: Data are aggregated over the past 12 months.

U.S. CROP AND LIVESTOCK PRICES / INDEX 1990-92=100

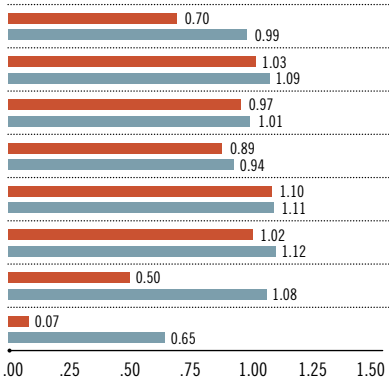


COMMERCIAL BANK PERFORMANCE RATIOS

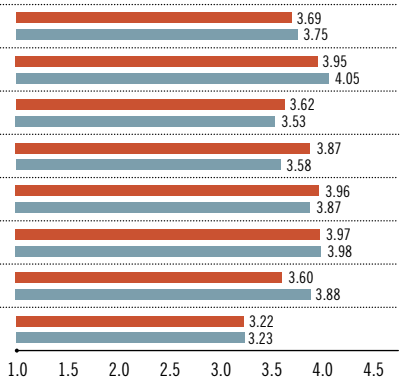
U.S. BANKS BY ASSET SIZE / SECOND QUARTER 2008

	All	$100 million-$300 million	Less than $300 million	$300 million-$1 billion	Less than $1 billion	$1 billion-$15 billion	Less than $15 billion	More than $15 billion
Return on Average Assets*	0.51	0.75	0.70	0.75	0.72	0.51	0.61	0.48
Net Interest Margin*	3.31	3.91	3.93	3.85	3.89	3.79	3.84	3.15
Nonperforming Loan Ratio	1.90	1.70	1.64	1.92	1.79	2.05	1.92	1.88
Loan Loss Reserve Ratio	1.79	1.31	1.32	1.37	1.34	1.53	1.44	1.93

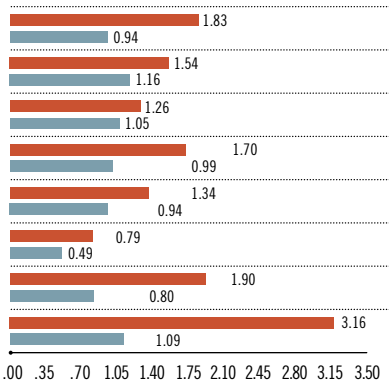
RETURN ON AVERAGE ASSETS*



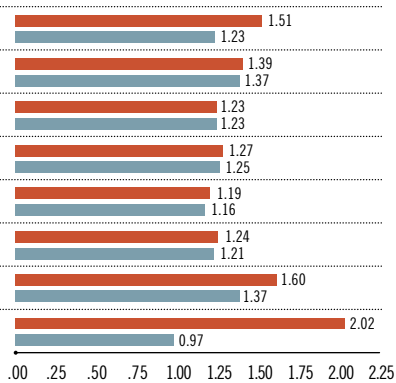
NET INTEREST MARGIN*



NONPERFORMING LOAN RATIO



LOAN LOSS RESERVE RATIO



Second Quarter 2008 Second Quarter 2007

NOTE: Data include only that portion of the state within Eighth District boundaries.
SOURCE: FFIEC Reports of Condition and Income for all Insured U.S. Commercial Banks
* Annualized data

For additional banking and regional data, visit our web site at: www.reserach.stlouis.org/fred/data/regional.html.

REGIONAL ECONOMIC INDICATORS

NONFARM EMPLOYMENT GROWTH* / SECOND QUARTER 2008

YEAR-OVER-YEAR PERCENT CHANGE

	United States	Eighth District	Arkansas	Illinois	Indiana	Kentucky	Mississippi	Missouri	Tennessee
Total Nonagricultural	0.1%	0.0%	0.2%	0.1%	–0.1%	0.4%	0.3%	–0.1%	–0.2%
Natural Resources/Mining	5.5	1.6	11.6	–3.2	1.4	0.6	1.0	–0.6	#NA
Construction	–5.6	–2.3	–2.7	–3.6	–2.6	1.6	0.5	–1.0	#NA
Manufacturing	–2.5	–2.4	–3.6	–1.0	–2.5	–3.1	–3.6	–3.7	–2.4
Trade/Transportation/Utilities	–0.6	0.3	–0.2	0.8	–0.5	1.3	0.5	0.0	0.1
Information	–1.0	0.2	0.5	0.1	2.1	–1.0	–1.3	1.1	–0.8
Financial Activities	–1.1	–0.8	0.9	–1.1	–0.5	1.0	–0.6	–1.2	–1.6
Professional & Business Services	0.3	0.4	1.8	0.8	–0.6	–0.2	1.8	0.7	–0.7
Educational & Health Services	3.0	1.8	1.9	1.7	2.5	0.0	2.2	1.6	2.4
Leisure & Hospitality	1.9	–0.2	1.7	–0.4	–0.3	0.4	0.7	–0.8	–0.2
Other Services	0.6	–0.3	1.2	–0.7	0.5	–0.2	1.6	–0.9	–1.2
Government	1.2	1.0	1.0	0.2	2.1	2.8	1.0	1.1	0.4

* NOTE: Nonfarm payroll employment series have been converted from the 1987 Standard Classification (SIC) system basis to a 2002 North American Industry Classification (NAICS) basis.

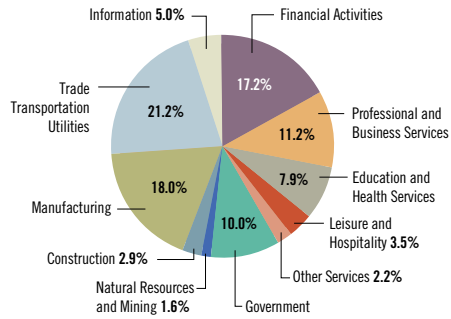
UNEMPLOYMENT RATES

	II/2008	I/2008	II/2007
United States	5.3%	4.9%	4.5%
Arkansas	4.9	5.2	5.4
Illinois	6.2	5.5	4.9
Indiana	5.3	4.7	4.5
Kentucky	6.0	5.4	5.5
Mississippi	6.6	6.0	6.3
Missouri	5.6	5.5	4.8
Tennessee	6.1	5.2	4.6

DISTRICT REAL GROSS DOMESTIC PRODUCT BY INDUSTRY–2007

UNITED STATES....$11,468 BILLION | DISTRICT TOTAL....$1,394 BILLION

CHAINED 2000 DOLLARS



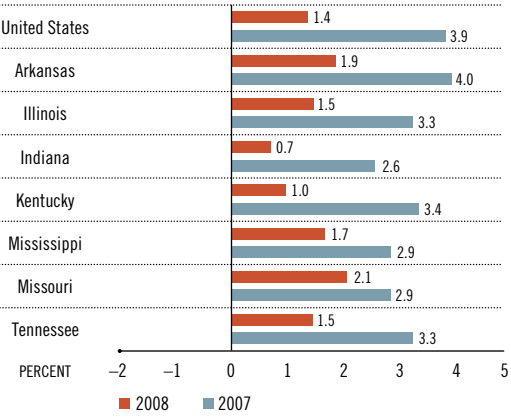
HOUSING PERMITS / SECOND QUARTER

YEAR-OVER-YEAR PERCENT CHANGE IN YEAR-TO-DATE LEVELS

All data are seasonally adjusted unless otherwise noted.

REAL PERSONAL INCOME* / FIRST QUARTER

YEAR-OVER-YEAR PERCENT CHANGE



*NOTE: Real personal income is personal income divided by the PCE chained price index.