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Community Dividend

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Credit scoring and the credit-underserved population

By Ericca Maas

Credit scores play an increasingly important role in consumers' lives. Not only are they used to determine whether or not an individual has access to consumer credit and at what price; they also influence the price of insurance, the ability to rent an apartment, and the hiring decisions of employers, among other things.

Credit scoring helps determine the financing options available to the estimated 160 million Americans who participate in the mainstream credit market.[1] Consumers with high credit scores reap the benefits of paying low interest rates and having an array of credit options. For those with low credit scores, the options are fewer and costlier. However, if individuals with bad credit histories take steps to improve their scores, opportunities to access affordable credit will become available.

But what about the other American consumers? The millions of people who have little or no history at the major credit bureaus? These consumers, whom the financial services industry describes as *underscored* or *credit-underserved,* are meeting many of the same financial obligations that the majority of consumers meet. For example, credit-underserved consumers make payments for rent, utilities, or other necessities. But since the mainstream credit market does not collect complete data about those sorts of payments, mainstream lenders often have too little information about the credit-underserved to efficiently extend loans to them.

When these consumers need to borrow money, the options available to them are limited and expensive. Credit-underserved consumers often end up paying high rates, fees, and down payments. For example, many in the credit-underserved market turn to payday lenders and check-cashing services that charge effective interest rates as high as 500 percent.[2]

Fortunately, there are new means of credit scoring in development that can help underserved consumers enter the mainstream American credit market. A movement is under way to collect and score alternative data that reflect the many payments credit-underserved individuals routinely make for insurance, utilities, and other products and services. A survey of the movement reveals that the use of alternative data and scoring offers promise, but barriers remain.

A huge, diverse group

Who are the credit-underserved? Estimates of the group's size range from 35 million to 70 million adults, depending on the source of information and how the market is defined. (See the table on page 4.) Research shows that the credit-underserved market includes many immigrants who may have little or no credit history from their home countries; young adults who have had little time to build a credit history; recently divorced or widowed individuals who, having previously relied on their spouses to manage the household finances, have never borrowed money in their own names; and groups that are culturally averse to credit use, including retirees and ethnic groups that distrust banks and other credit granters.[3]

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Mad About Money schools kids on personal finance

By Emily Sachs

Fifth grade students in Garrison, N.D., might not face much consumer temptation now, but it's only a few short years before the youngsters become credit-card-toting teens and, soon after, home- and car-buying adults.

The future financial risk isn't lost on the North Dakota Department of Securities (NDDS), which has thrown its support behind a unique traveling theater show that makes the concepts of saving and spending educational and entertaining. NDDS has sponsored the show in communities across the state, including Garrison.

"We're very concerned about our young people and how they are going to handle their money in the future," says Diane Kambeitz, investor education coordinator for NDDS.

Hitting the funny bone

The show, *Mad About Money,* has become the most in-demand production of The National Theatre for Children (NTC), a Minneapolis-based theater company that specializes in

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New data analysis helps identify future foreclosure trouble spots

By Michael Grover and Andreas Lehnert

Nationally, foreclosure rates have steadily climbed to record levels. Recent research suggests that they may keep climbing for a year or more. According to information from the Board of Governors of the Federal Reserve System (Board), roughly 200,000 active subprime ARMs (adjustable rate mortgages) underwent their first rate reset in each quarter of 2007. Monthly payments for an average of 380,000 subprime mortgages are scheduled to undergo their first interest rate reset in each quarter of 2008. Weak housing prices are also contributing to foreclosures on these and other mortgages.

Concerned policymakers and financial regulators, including the Board, have encouraged mortgage lenders, servicers, and investors to increase efforts to mitigate foreclosures. Community organizations, counseling organizations, lenders, and loan servicers have formed local and national foreclosure-mitigation partnerships, such as Minnesota's Foreclosure Prevention Funders Council and the national HOPE NOW Alliance, to promote such efforts.

For the various stakeholders that make up these foreclosure-mitigation partnerships, the geographic distribution of mortgage-borrower distress is a matter of great concern. Timely and detailed information about borrowers who are in trouble and the number of vacant properties resulting from foreclosures is generally lacking. Useful

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COMMUNITY AFFAIRS STAFF

MINNEAPOLIS

Richard M. Todd
Vice President, 612-204-5864,
dick.todd@mpls.frb.org

Jacqueline G. King
Assistant Vice President and Community Affairs Officer, 612-204-5470,
jacqueline.king@mpls.frb.org

Michael Grover
Manager, 612-204-5172,
michael.grover@mpls.frb.org

Sandy Gerber
Senior Project Manager, 612-204-5166,
sandra.gerber@mpls.frb.org

Michou Kokodoko
Senior Project Manager, 612-204-5064,
michou.kokodoko@mpls.frb.org

Ericca Maas
Senior Project Manager, 612-204-6785,
ericca.maas@mpls.frb.org

Paula Woessner
Publications Editor, 612-204-5179,
paula.woessner@mpls.frb.org

HELENA, MONTANA

Sue Woodrow
Project Director, 406-447-3806,
susan.woodrow@mpls.frb.org

Community Dividend is published by the Federal Reserve Bank of Minneapolis, 90 Hennepin Avenue, P.O. Box 291, Minneapolis, MN 55480-0291; 612-204-5000. It covers topics relating to community development, reinvestment, and neighborhood lending. It reaches financial institutions, community-based and development organizations, and government units throughout the Ninth Federal Reserve District.

Executive Editor: **Jacqueline G. King**
Editor: **Paula Woessner**
Contributors: **Michael Grover, Andreas Lehnert, Ericca Maas, Emily Sachs**
Art Director: **Phil Swenson**
Graphic Designers: **Rick Cucci, Mark Shafer**

For address changes or additions, e-mail mpls.communityaffairs@mpls.frb.org or call 612-204-5074.

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Credit scoring and the credit-underserved population

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The credit-underserved fall into two main categories: *no-file* consumers, or consumers who have no credit history on file with the credit bureaus; and *thin-file* consumers, or consumers about whom credit bureaus have very little information. Thin credit files might contain only derogatory data that do not provide a balanced representation of a consumer's creditworthiness. For example, a thin file could include a record of missed payments for telephone service, but omit any record of regular, on-time payments for other services.

A system evolves

How did we arrive at a point where national credit reporting and scoring systems have such power over consumers' lives?

Prior to the nineteenth century, lenders in the U.S. used informal, locally gathered information to subjectively evaluate the creditworthiness of borrowers. Partly as a result, consumer lending was limited, expensive, and not always competitive. In the nineteenth century, formal credit reporting systems took root when groups of retail merchants came together to share information about their customers' financial habits and payment histories. These efforts grew into merchant associations, which later morphed into small credit bureaus, also called *credit reporting agencies* (CRAs).

By the late twentieth century, the advent of computerization enabled CRAs to efficiently amass enormous amounts of data, and lending institutions began to rely on CRAs as a major source of underwriting information. *Underwriting,* the process used to analyze and predict how a borrower manages credit obligations, was once performed manually and took between 30 and 60 days. Technological advances ushered in the era of *automated underwriting,* in which computerized systems analyze information from loan applications and arrive at near-instantaneous, logic-based decisions to approve or deny loans.

At the same time that CRAs and automated underwriting were evolving, two mathematicians, William Fair and Earl Isaac, began work that would help lenders better leverage the data held by CRAs. Fair and Isaac developed models that predicted lending risk by determining which factors were good and reliable predictors of a consumer's future debt-payment performance. Their models assigned numerical scores to indicate the creditworthiness of each borrower.[4] The Fair Isaac Corporation and its FICO (Fair Isaac Corporation) score would evolve to become the most well known and widely used credit score in the U.S.

While the emerging credit reporting and scoring system made underwriting more efficient, it posed some risks to borrowers. Early CRAs lacked safeguards for ensuring the privacy of the information they held. They collected data about the negative aspects of consumers' credit histories, such as delinquencies, defaults, and bankruptcies, while minimizing information about on-time payments. Also, they recorded "lifestyle" information, gathered from newspapers and other sources, that included personal details such as sexual orientation, drinking habits, and cleanliness. Moreover, consumers were blocked from viewing or correcting their files.

Controversy over the effects of this system on borrowers led to a congressional inquiry and passage of the Fair Credit Reporting Act (FCRA) in 1971. FCRA established a framework to protect privacy and promote accuracy in credit reporting. The act gave consumers the right to view, dispute, and correct their records, and the CRAs began to systematically collect and report information on consumers' positive financial histories. In 2003, FCRA was amended to allow consumers to request and obtain a free credit report and, for a "fair and reasonable" fee, a notice of their credit score.[5, 6] (For more on obtaining a free credit report, visit www.annualcreditreport.com.)

Credit reporting today

Today, CRAs and credit scoring models form the foundation of our credit system. The financial habits of most American consumers are monitored by one or more of the three large, national CRAs: Equifax, Experian, and TransUnion. Every month, creditors transmit more than 4.5 billion pieces of data to one or more of these organizations. The CRAs compile the data into the credit records of individual consumers. Lenders then use these records to perform the automated underwriting that has made the extension of instant credit possible.

Information reported to CRAs includes consumers' account numbers, the various types of credit held (mortgage loans, credit card loans, car loans, etc.), outstanding balances, and collection actions. Typically, creditors provide this information to CRAs in exchange for access to the credit records of other borrowers. In this way, creditors can efficiently target and market their credit products to more customers. In addition to information creditors provide,, public records like court judgments, claims of overdue child support, bankruptcies, foreclosures, and liens are also compiled by CRAs and included in credit reports. (For a detailed description of the information credit reports contain, see the February 2003 *Federal Reserve Bulletin* article listed in the "For more information" see box on page 4.)

Upon lender request, CRAs calculate credit scores, such as the FICO score, from the information they collect in an individual borrower's credit report. The scoring systems analyze this information and award points for each factor that predicts a high probability of an individual borrower repaying his or her debts on time. The total number of points—the credit score—is a tool for predicting how creditworthy a person is.[7]

The good, the bad, and the underserved

As the efficiency of the reporting and scoring system has increased, the applications for credit reports and scores have expanded dramatically. According to a Brookings Institution report, credit reports and scores are not only used to decide if a consumer can borrow money for a home or car. Businesses also use credit scores to evaluate prospective apartment renters; assess job applicants; and price mortgages, deposits for utility services, and various types of insurance.[8]

As noted earlier, the expanding influence of credit scoring on consumers' lives can have positive or negative results for an individual, depending on his or her financial history and habits. The robust reporting and scoring system in the U.S. has facilitated a credit market that allows lenders to screen potential borrowers efficiently, extend credit quickly, and manage risk. This development has historically provided a benefit to U.S. consumers—particularly consumers who traditionally would have had little or no access to credit—beginning with a vast expansion of the credit card market in the late 1980s. Later on, credit scoring made mortgage underwriting faster and cheaper, which helped broaden access to mortgages and homeownership.

The growing availability of credit has also expanded the resources available to new entrepreneurs launching businesses, and has given many families access to the funds they need to "smooth over" periods of financial challenge.[9] At the same time, competition among lenders for individuals with solid credit histories has reduced the price of credit for those consumers.[10]

Of course, there is also a downside to making credit more readily available. For example, a relatively high percentage of first-time borrowers will default on their credit cards, mortgages, and other loans. However, provided appropriate underwrit-

The use of alternative data and scoring to bring credit-underserved individuals into the mainstream credit market offers benefits for both lenders and borrowers. Many underserved borrowers would benefit from the opportunity to access credit more readily and at cheaper prices. Lenders would benefit from having the information they need to extend credit to a large and untapped market.

ing standards are maintained, the benefits of more efficient and objective underwriting and broader access to credit should outweigh the downside.

Whatever the effects of the credit reporting and scoring system, it can be argued that having a credit history—blemished or unblemished—is better than not having one. A consumer who repairs a blemished credit history can, through the power of automated underwriting, gain access to affordable sources of credit. In contrast, a credit-underserved consumer might never gain access to affordable credit, because his or her credit history is too scant to be processed by an automated underwriting system. These individuals are left with limited access to credit and the potential asset-building opportunities it offers. And, their access to necessities like rental housing, jobs, and home energy utilities is increasingly constrained.

While credit-underserved consumers have participated little or not at all in the traditional credit market, they are meeting other types of payment obligations. Like other Americans, credit-underserved individuals make monthly payments for rent and utility services. Many also regularly pay for insurance, savings plans, childcare, health care, or interest and principal on alternative loans, such as payday loans.

This final point has led many in the community development and financial services industries to look at the possibility of establishing or augmenting credit histories for credit-underserved consumers by collecting and scoring data related to alternative, non-credit-based payment obligations.

Alternatives in the works

The use of alternative data and scoring to bring credit-underserved individuals into the mainstream credit market offers benefits for both lenders and borrowers. Many underserved borrowers would benefit from the opportunity to access credit more readily and at cheaper prices. Lenders would benefit from having the information they need to extend credit to a large and untapped market. Fair Isaac estimates that reaching just 3 percent of this market would put in play an additional $2.3 billion for mortgage lenders, $750 million for automobile lenders, and $113 million for credit card issuers.[11]

A variety of organizations, both inside and outside the traditional credit reporting and scoring system, are working to collect and analyze data from sources not currently reported to CRAs. Alternative data sources under consideration include payments for energy and telecommunications, auto liability and homeowner's insurance, rental housing, childcare, payday loans, health care, and certain types of retail payments (e.g., furniture rental data). The goal is to identify sources that can be used with credit scoring models to reliably predict the creditworthiness of credit-underserved individuals.

The Center for Financial Services Innovation (CFSI) has compiled and published information on alternative data collection and analysis efforts that are currently under way.[12] Some highlights:

- Community Financial Services Association of America, the largest association of payday loan companies, is offering its customers the opportunity to have their repayment data reported to credit bureaus as part of a pilot project in select geographies.
- Fair Isaac has created the FICO Expansion Score, which uses historical data on utility and insurance payments, in combination with detailed information from loan applications, to calculate a credit score and recommend approval or rejection of a loan application.
- First American Corporation is marketing the Anthem (Assisting Nontraditional Homebuyers in Emerging Markets) report, which takes into account payment histories for rent, insurance, utility bills, and childcare expenses as well as traditional credit data to generate a credit report and score.
- Lexis-Nexis's RiskView uses more than 300 public record attributes, such as employment, previous addresses, and property and asset ownership, to verify consumers' identities and predict risk behavior.
- Link2Credit is a "credit decisioning platform" for wireless telecommunications carriers that uses historical phone payment records and other alternative data sources. Link2Credit is beginning to work with credit card companies and the mortgage industry.
- eFunds DebitBureau uses consumers' checking account histories as a basis for data about credit decisions.
- Payment Reporting Builds Credit (PRBC) is a new credit bureau that began by tracking self-reported rental payments. PRBC has expanded to include more general bill payment tracking and third-party verification.

The big question that these efforts are trying to answer is whether or not the alternative data and models used have strong predictive value. In other words, do the data accurately predict whether or not a

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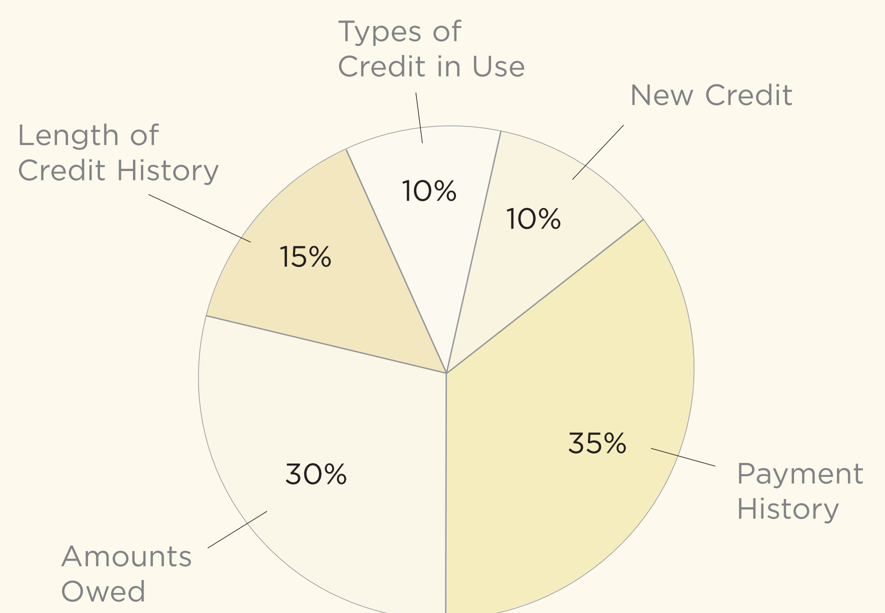
Understanding FICOs:

What's the score?



A credit score is a numerical representation of information in an individual consumer's credit report. Credit scores are point-in-time, "snapshot" calculations made when a lender requests a credit report from a credit reporting agency (CRA). Credit scores are fluid; they change over time as the elements in a given credit report change.

There are many different credit scores used in the financial services industry. Scores may vary from lender to lender and from loan type to loan type (e.g., mortgage loan to auto loan) depending on the scoring system used and which CRA's report is the basis for the calculation. Ultimately, the lender decides which score to use.

As our main article notes, the most widely used and well known credit score in the U.S. is the FICO (Fair Isaac Corporation) score. The FICO scoring system bases its prediction of a consumer's future behavior on a comparison between the credit history of the consumer in question and historical profiles of consumers with similar credit histories. For example, a borrower with two 30-days-late payments will be scored against a similar population of borrowers. That borrower will then be graded according to the risk-determining variables used by the scoring system, resulting in a ranking of the borrower within the group of similar borrowers. The FICO score considers five areas of a consumer's credit profile and assigns a relative weight to each. See the chart above for details.

FICO scores range from 300 to 850, with a median score of 723.* That means about half of the scores awarded are above this level and half are below it. The higher the FICO score, the more likely a person is to be approved for loans and receive favorable interest rates.

For complete information on the FICO score, visit www.myfico.com.

* Median FICO score as of March 3, 2008, as listed at www.myfico.com.

Credit scoring and the credit-underserved population

The use of alternative data could help millions access credit, but barriers remain

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borrower will repay his or her debts in a timely manner? Initial analysis suggests that the answer is yes.

A recent CFSI review of early test data on three of the projects listed above—FICO Expansion Score, RiskView, and Link2Credit—concluded that alternative credit scores can be generated for most individuals who lack traditional credit scores and that alternative scores have meaningful, predictive value for lenders who extend credit to individuals with little or no traditional credit histories.[13]

Additional analysis of alternative data offers further encouragement. An analysis of TransUnion credit files by the Political and Economic Research Council found that the inclusion of alternative data—in this case, energy utility and telecommunications payment data—in credit decisions decreased the risk to lenders while increasing access for borrowers. The use of alternative data made it easier for lenders to extend credit, with minorities and low-income individuals benefiting more, in terms of an increase in acceptance rates, than the other borrower subgroups analyzed.[14]

Objections and costs

Early results are positive, but barriers and objections to widespread use of alternative data exist. One of the most formidable barriers is getting reliable data on a large scale. While data furnishers stand to benefit from increased reporting, information sharing presents regulatory and economic hurdles.

In the case of energy utilities and telecommunications service providers, shown in at least one study to be the most promising alternative data source,[15] there is evidence that when customers know their payment history is being reported, they are more likely to make payments on time. However, the costs of implementing a data reporting system are high. Many data furnishers would face making extensive efforts to consolidate their reporting systems into a central system. These costs may be greater than the perceived benefits. Proponents of the use of alternative data and scoring will have to do more to make a strong business case to potential data furnishers.

Utility providers face potentially daunting regulatory issues. Several states have laws that prohibit regulated utility companies from sharing customer data. In these states, no customer data from telephone, electric, gas, or water companies can be shared with CRAs. In some other states, it is uncertain whether utility companies are permitted to report data. Advocates for alternative data are urging policymakers to resolve these issues by clarifying whether utility companies can lawfully share consumer data. In many cases, this will require legislative action.[16]

Alternative data reporting also faces objections from consumer advocates. While many advocates recognize and welcome the possibility that alternative scoring would offer more consumers an opportunity to participate in the mainstream credit market, some are concerned that alternative data would be used more often by high-cost lenders to target their services to vulnerable consumers.

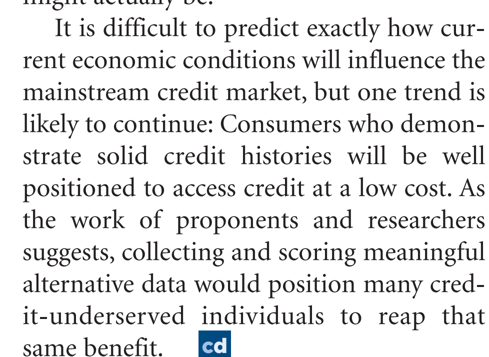
Consumer advocates also warn against moving too quickly. There is concern that alternative scores will begin affecting credit access and prices before there are sufficient data to reliably establish the predictive value of scores. A final set of concerns focuses on data sharing. Advocates are concerned that sharing alternative data may violate privacy rights and put consumers at increased risk of identity theft.[17]

The time is now

Proponents of alternative scoring would argue that helping 35 million to 70 million credit-underserved Americans enter the mainstream credit market is worth the expense, effort, and perceived risk. They would also argue that the time for creating a workable alternative is now, because the situation of the credit-underserved may worsen in the future. If the trends toward automation and efficiency that have shaped today's credit market continue, lenders and other businesses will become more dependent on credit scoring and automated underwriting. Consequently, the credit-underserved population will fall further behind in its ability to access affordable credit products and build assets.

If credit markets tighten in response to the subprime mortgage crisis, the challenges for credit-underserved consumers may compound. Assuming that lending standards would rise in a tightened market, lenders would be even less likely to extend credit to no-file or thin-file consumers, no matter how creditworthy those consumers might actually be.

It is difficult to predict exactly how current economic conditions will influence the mainstream credit market, but one trend is likely to continue: Consumers who demonstrate solid credit histories will be well positioned to access credit at a low cost. As the work of proponents and researchers suggests, collecting and scoring meaningful alternative data would position many credit-underserved individuals to reap that same benefit. cd



Ericca Maas is a Community Affairs senior project manager at the Federal Reserve Bank of Minneapolis.

The credit-underserved market: Estimates and definitions

Data Source	Estimated Size of Credit-Underserved Market	Data Source's Definition of "Credit-Underserved"
Experian	35 million adults	Not "credit active"
Fair Isaac	54 million adults	Having no credit files that can be scored, either because of no credit history (22 million adults) or thin credit files (32 million adults)
National Credit Reporting Association	70 million adults	Having no credit score or a lower credit score than their financial history and payment potential warrant

For more information

The following resources from the Federal Reserve System provide further discussion of credit reporting and scoring.

Robert B. Avery, Paul S. Calem, and Glenn B. Canner, "An Overview of Consumer Data and Credit Reporting," *Federal Reserve Bulletin,* February 2003. Available at www.federalreserve.gov/pubs/bulletin/2003/0203lead.pdf.

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Robert M. Hunt, *A Century of Consumer Credit Reporting in America,* Federal Reserve Bank of Philadelphia, Working Paper No. 05-13, June 2005. Available at www.philadelphiafed.org/files/wps/2005/wp05-13.pdf.

[1] Janice Horan, *FICO Scores and the Credit Underserved Market,* prepared for the Brookings Institution Roundtable on Using Alternative Data Sources in Credit Scoring, December 2005.

[2] *Give Credit Where Credit Is Due: Increasing Access to Affordable Mainstream Credit Using Alternative Data,* Political and Economic Research Council (PERC) and The Brookings Institution (Brookings) Urban Markets Initiative, 2006.

[3] Ibid.

[4] From the Fair Isaac Corporation's FIC 50 project. See http://image.fiids.com/fi/images/fi50/50anniversaryd.html.

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[6] Marvin M. Smith, Ph.D., *Recent Developments in Credit Scoring: A Summary,* Federal Reserve Bank of Philadelphia, October 2006.

[7] Wozniacka and Sen.

[8] Matt Fellowes, *Credit Scores, Reports, and Getting Ahead in America,* Brookings, May 2006.

[9] *Giving Underserved Consumers Better Access to the Credit System: The Promise of Non-Traditional Data,* Information Policy Institute (IPI), July 2005.

[10] *The Fair Credit Reporting Act: Access, Efficiency, and Opportunity,* IPI, June 2003.

[11] Horan.

[12] Katy Jacob and Rachel Schneider, *Market Interest in Alternative Data Sources and Credit Scoring,* Center for Financial Services Innovation (CFSI), December 2006.

[13] Rachel Schneider and Arjan Schütte, *The Predictive Value of Alternative Credit Scores*, CFSI, November 2007.

[14] PERC and Brookings, *Give Credit Where Credit is Due.*

[15] IPI, *Giving Underserved Consumers Better Access to the Credit System.*

[16] Ibid.

[17] Anna Afshar, "Use of Alternative Credit Data Offers Promise, Raises Issues," *New England Community Developments,* Federal Reserve Bank of Boston, Issue 1, Third Quarter 2005.

New data analysis helps identify future foreclosure trouble spots

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information on future foreclosure patterns remains even more elusive.

To help fill this knowledge gap, the Federal Reserve Bank of Minneapolis and the Board recently analyzed state- and ZIP Code-level reports on the aggregate performance of loans in Minnesota and the Twin Cities region that are securitized in subprime and alt-A pools. On a continuum that measures the likelihood or risk that a borrower may default on a mortgage over time, *subprime* refers to loans that are considered the riskiest, *alt-A* refers to loans that are less risky than subprime, and *prime* refers to loans that are considered least likely to enter default.

Our analysis uses data from First American LoanPerformance (LP), a firm that tracks and analyzes the performance of securitized mortgages. The aim of this and future analyses is to help foreclosure-mitigation partnerships better direct resources and bring public attention to neighborhoods and borrowers in the greatest need of some sort of assistance. Our analysis, described below, reveals which geographic areas are at greatest risk, by some criteria, as future mortgage trouble spots. Specifically, these potential trouble spots are the exurban and center-city areas of the metropolitan region.

Growth and fusion

First, some background on the data we used. This background discussion includes a brief overview of two recent and related changes in the mortgage market: namely, mortgage securitization and the use of risk-based pricing for mortgage loans.

In the past, lenders originated, serviced, and owned their mortgages. However, in recent years, it has become more common to separate these functions. Typically, mortgages are now pooled and sold to secondary market investors, while the rights to service the loans are sold to a servicer, a firm that specializes in conducting this activity for a fee. The share of U.S. residential mortgage debt in a mortgage pool or trust has grown in the past decade. As of the second quarter of 2007, it accounted for 57 percent of total mortgage debt.[1]

As the use of securitization expanded, lenders found that investors had a ready appetite for securities backed by nonprime (that is, subprime and alt-A) loans. By 2006, the number of nonprime mortgage originations increased substantially, accounting for 40 percent of all newly securitized mortgages, compared to only 9 percent in 2001.[2]

In retrospect, it appears as though the chain of securitization failed to align the interests of mortgage originators, who earned fees by making loans, and investors in mortgage-backed securities, who ultimately bore the credit risk of the loans. Why investors did not exert sufficient oversight to ensure the quality of securitized mortgages is beyond the scope of this article.

The data used in our analysis capture a good deal of information about the simultaneous growth in and fusion of nonprime lending and mortgage securitization. In particular, the data include a sizable proportion of all loans sold into subprime or alt-A securities. As noted above, alt-A and subprime loans are considered riskier than prime loans and more prone to default. The risk is due mainly to quality and size considerations that make these loans "nonconforming" in the eyes of Fannie Mae and Freddie Mac.[3]

Our understanding is that LP captures about 70 percent of subprime securities and 95 percent of alt-A securities. Still, it is important to remember that these data do not include any loans held on a bank's books. The data used in this article are from October 2007.

For our analysis, we began with a review of statewide statistics for Minnesota. We selected Minnesota because, of the six states in the Ninth Federal Reserve District, it currently has the largest share of loans that LP tracks. We then examined the data at the lowest level of geographic identification available: individual five-digit ZIP Codes. At the ZIP Code level, we examined the ways in which loans in one area differed from the loans in another.

We focused our geographic analysis on the sequence of mortgage distress, beginning with loans that are current on payments and ending with those that are foreclosed and bank-owned. Specifically, we examined the number of loans characterized by the following variables:

- loans with a current payment;
- delinquent loans;
- variable rate loans set to reset in 2008;
- loans in foreclosure; and
- loans classified as *real estate owned* or *REO,* meaning the borrower has lost the home to foreclosure and the home is now owned by the loan servicer.

Finally, we identified the geographic patterns of note from the resulting maps.

A snapshot of Minnesota's nonprime mortgages

From data tracked by First American LoanPerformance
(As of October 2007)

	Loan Type	
Loan Characteristic	**Alt-A**	**Subprime**
Total Loans	39,200	54,300
Owner-Occupied Loans	30,000	50,400
Average Interest Rate	6.9%	8.6%
Average Balance	$225,890	$177,309
Originated After 2004	76.0%	76.2%
Cash Out Refinances	34.2%	55.0%
Payments Are Current	86.9%	59.4%
In Foreclosure	2.5%	8.4%
Real Estate Owned	2.8%	10.8%
Number with a Variable Rate	15,400	39,200
Already Reset	30.7%	38.3%
Will Reset in 2008	10.1%	40.0%
Will Reset After 2008	59.2%	21.7%

Case study: A statewide view

As of October 2007, LP tracked approximately 39,200 alt-A and 54,300 subprime loans in Minnesota. These loans represent 2.7 percent and 4.5 percent of all mortgaged owner-occupied properties in the state, respectively. As the table above indicates, borrowers originated most of these loans after 2004. The newness of the loans is consistent with the view that the nonprime lending boom is a relatively recent phenomenon. Note also that alt-A loans, on average, had a higher balance and a lower interest rate than subprime loans. This is consistent with the view that alt-A pools largely contain loans that lenders perceived as less risky than subprime loans. Borrowers used more than half of the subprime loans to refinance an existing mortgage and pull cash out. This practice was less common for alt-A mortgages.

As of October 2007, 8.4 percent of the subprime and 2.5 percent of the alt-A owner-occupied loans in Minnesota were in foreclosure, and an additional 11 percent of subprime mortgages were REO. Some loans with variable rates (38 percent of subprime and 31 percent of alt-A mortgages) had already undergone their first rate reset; however, the majority of variable rate loans have yet to face their first reset. While the vast majority of variable rate subprime loans are scheduled to reset by the end of 2008, reset dates for six out of every ten alt-A loans will occur in 2009 and beyond.

While all of this statewide, aggregate information is useful intelligence to foreclosure-mitigation efforts, these groups have recently raised additional concerns about the last set of statistics—that is, future rate resets, which will create higher monthly payments that could limit borrowers' ability to repay their loans. To date, data on foreclosure patterns has focused, with a good deal of precision, on foreclosures that have already happened. While efforts to predict future foreclosure patterns using statistical models exist,[4]

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New data analysis helps identify future foreclosure trouble spots

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actual loan-based data may offer greater potential for targeting foreclosure-mitigation strategies.

Case Study: A ZIP Code-level view of nonprime loans

When mapped at the ZIP Code level using GIS (geographic information systems) software, information about the status of mortgage loans (if they are current, delinquent, will reset some time in the future, in foreclosure, or in REO) tell a more nuanced story.

For foreclosure-mitigation groups, each finding from the data presents a distinct problem that requires its own distinct strategy. In other words, groups focused on helping distressed borrowers will need to deploy different resources in different geographic areas, depending on whether the area has many properties that are already in foreclosure or many borrowers that are current on their mortgages but face significant payment increases. For example, areas where there are many homeowners facing rate resets may require a different form of assistance, such as one-on-one financial counseling, than areas where the majority of the properties have already been through foreclosure and are now classified as REO.

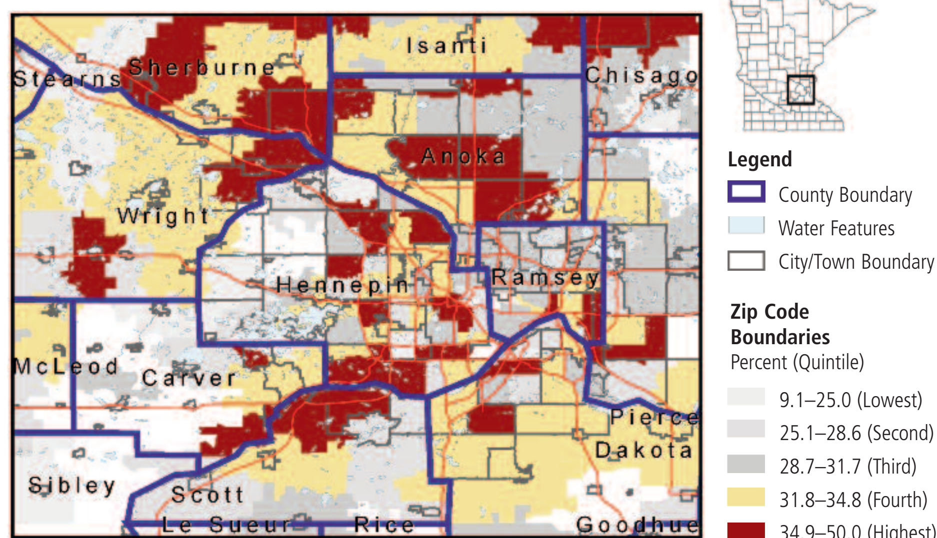
Overall, the geographic pattern of borrower distress for the Twin Cities indicates that some areas are already hard hit by delinquencies and foreclosures, while others are at risk of future increases in delinquency rates.[5] According to the LP data, the proportion of nonprime loans that are current ranges from 35 percent to 85 percent across Minnesota ZIP Code areas. In Hennepin and Ramsey counties, which encompass the Twin Cities of Minneapolis-St. Paul and many of their suburbs, the suburban ZIP Codes tend to have a relatively high proportion of current loans. In contrast, ZIP Codes in the exurban fringe to the north, west, and southwest of the two core counties show a lower proportion of loans that are current. These parts of the region have experienced significant population growth and new housing development since the late 1990s.

Portions of the two central cities also exhibited lower proportions of loans that are current. For example, ZIP Code 55411 in North Minneapolis had the lowest rate of current nonprime loans in the state, at 34.9 percent. Previous analysis has shown that this area has already experienced high rates of foreclosure.[6]

Loan delinquency patterns can often portend future difficulties. For example, four out of every ten loans in the U.S. that were 60 days delinquent in 2007 deteriorated further into delinquency and foreclosure. Our analysis of the Twin Cities area reveals that delinquency rates were highest in suburban ZIP Codes outside of the two central cities, in communities as geographically varied as Forest Lake, Oakdale, and Lakeville. In contrast, delinquency rates in the neighborhoods around downtown St. Paul and in portions of North Minneapolis were lower.

Prevalence of Variable Rate Securitized Subprime Mortgages that Will Reset in 2008

Variable rate, securitized, owner-occupied subprime loans that will reset in 2008 as a percent of all variable rate, securitized, owner-occupied subprime loans in the Twin Cities metropolitan area (October 2007).



Data source: Authors' calculations using estimates from the Board of Governors of the Federal Reserve System that are based on securitized subprime mortgage data from First American LoanPerformance, October 2007.
Map source: Community Affairs Department, Federal Reserve Bank of Minneapolis, March 2008.

So, does this mean nonprime mortgage loans in the central cities are in better shape than those in the suburbs? Not exactly. It is important to remember that the data used here are only a snapshot of loan activity. Lower *delinquency* rates in these areas may be deceptive, since a higher proportion of the areas' loans are already in foreclosure or REO and, hence, are no longer classified as delinquent. For example, in St. Paul's North End neighborhood (ZIP Code 55101), 20 percent of nonprime loans are delinquent, but 33 percent are in foreclosure or REO.

In addition, ZIP Codes in some of the hardest-hit areas of the central cities, including those on the east side of St. Paul and in North Minneapolis, have many loans scheduled to undergo their first rate resets this year. Thus, some of the communities that have already seen high rates of borrower distress and foreclosure are at risk for continued deterioration of credit quality.

In suburban areas of Hennepin and Ramsey counties, the distribution of scheduled rate resets shows the same geographic pattern as the distribution of borrower distress. Some suburban communities in other counties have a large number of loans scheduled to undergo their first rate reset in 2008. Suburban communities such as Ham Lake, Apple Valley, Shakopee, and portions of Woodbury will have high concentrations of rate resets this year on variable rate loans.

As expected, properties classified as REO tend to be concentrated in areas where, by all accounts, foreclosure rates have been highest. Such areas include North Minneapolis and nearby suburbs, as well as the neighborhoods around downtown St. Paul. For example, close to one-third of all LP-tracked loans in ZIP Code 55411 in North Minneapolis were classified as REO. This same ZIP Code has only 12 percent of the loans in foreclosure, suggesting that the crest of the foreclosure wave may have already passed through these neighborhoods. Higher rates of loans in REO, as compared to foreclosure, were also evident in suburban communities like Jordan and Belle Plaine in rural Scott County and along the Interstate 94 corridor between Minneapolis and St. Cloud.

A useful, but limited, contribution

Our analysis of the LP data presents a considerable amount of information about the geographic pattern of borrower distress in Minnesota and the Twin Cities, albeit among a select and relatively risky group of loans. We find that delinquency and foreclosure rates are highest in inner-city and exurban neighborhoods. We also find that relatively high proportions of loans in some suburban communities are scheduled to undergo interest rate resets this year.

Each geographic concentration of borrower distress requires a distinct approach by interested community groups. Unfortunately, our analysis cannot provide all the information required to help community groups target their resources. In particular, we cannot identify individual loans and properties in distress, nor do the data cover the entire residential mortgage market. Nonetheless, we believe the trends revealed in our analysis will be a useful contribution to foreclosure-mitigation efforts. cd

Andreas Lehnert is an economist with the Board of Governors of the Federal Reserve System. Michael Grover is the Community Affairs manager at the Federal Reserve Bank of Minneapolis.

For more information: Mortgage maps and data

The Federal Reserve System recently created a set of dynamic maps that illustrate subprime and alt-A mortgage loan conditions across the U.S. The maps are based on First American LoanPerformance data and will be updated monthly. To access the maps and related data, visit www.newyorkfed.org/regional/subprime.html.

[1] Source: Third Quarter 2007 flow of funds accounts in the U.S., Board of Governors of the Federal Reserve System. Of this 57 percent, 37 percent were prime conforming mortgages guaranteed by a housing-related government-sponsored entity such as Fannie Mae, and the remaining 20 percent were in so-called "private label" securities.

[2] Danielle DiMartino and John Duca, "The Rise and Fall of Subprime Mortgages," *Economic Letter,* Federal Reserve Bank of Dallas, November 2007.

[3] Frank Raiter and Francis Parisi, "Mortgage Credit and the Evolution of Risk-Based Pricing," *Working Paper Series,* Joint Center for Housing Studies, Harvard University, February 2004.

[4] Michael Grover, Laura Smith, and Richard M. Todd, *Targeting Foreclosure Interventions: An Analysis of Neighborhood Characteristics Associated with High Foreclosure Rates in Two Minnesota Counties*, Federal Reserve Bank of Minneapolis, June 2007. Available at www.minneapolisfed.org/community/pubs.

[5] The analysis excludes ZIP Codes with fewer than 25 owner-occupied loans.

[6] Jeff Crump, "Subprime Lending and Foreclosure in Hennepin and Ramsey Counties," *CURA Reporter,* June 2007, p. 14-18.

Mad About Money schools kids on personal finance

Continued from page 1

touring, in-school educational performances. The 40-minute production features two actors who perform four improvisational sketches that weave audience suggestions into preformatted scenarios about needs, wants, cash, credit, saving, and investing.

In one sketch, for instance, the actors portray a day in the life of one of their young audience members. They use the names of the student's favorite musician and best friend in the course of depicting the importance of developing a savings habit. The audience submits written suggestions prior to the performance and then waits eagerly to see what amusing reference comes up next.

"It's a time at which, if you can hit their funny bone, it works beautifully," says Ward Eames, president and founder of NTC. His company has created shows about everything from conservation and nutrition to the dangers of smoking. NTC developed the financial education production in 2003 after Eames read an article that said more people declare bankruptcy than graduate from college.

Since its debut in 2005, the show has been performed for more than 100,000 students across the country, including many in the Ninth Federal Reserve District. As the show travels from place to place, regional sponsors such as NDDS, Wachovia, Citibank, the State of Tennessee Securities Division, and the State of Washington Department of Financial Institutions underwrite the production costs and help determine new performance venues. Recently, support from sponsors enabled NTC to transport *Mad About Money* from the stage to the TV screen. A videotaped performance of the show was televised on the PBS affiliate in Seattle last December and is airing in additional markets in 2008.

Planting the seed early

Kambeitz first saw the show at a national conference for securities departments and invited NTC to perform at NDDS's Invest North Dakota Teachers Academy, a financial education training seminar for K-12 instructors. The performance sparked interest, and ten schools immediately signed up to request a visit from NTC. In the first year after *Mad About Money* debuted, NDDS brought the show to the western half of North Dakota. In 2006, the department sponsored performances in the eastern half of the state. Last fall, the show returned to the western half, including a return engagement at Bob Callies Elementary School in Garrison.

Callies Elementary Principal Michelle Fuller says that from the start of the first show, the 80 children in grades four through six were taken with the high-energy production.

"The investing part really got to me," Fuller says, "and I heard some of the kids talking about it."

Schools are inundated with requests from speakers, presenters, and performers. *Mad About Money* was ideal, however, because it was free to her school, came highly recommended by two of her teachers, and took only an hour of class time. Yet, in that hour, the children learned how to make the same kinds of high-stakes decisions about money that their parents make.

"It's important to plant that seed in elementary school, as much as we can. And the show presents it in a kid-friendly, easy-to-relate way," Fuller says.

The show's lessons are reinforced through colorful workbooks containing puzzles and exercises. The workbooks are distributed to every child in the audience. In North Dakota, where financial education is not a required part of the K-12 curriculum, the workbooks help sustain the message of the performance. According to NTC's figures, the workbooks go home with the children 92 percent of the time.

The show has become so popular, NTC has developed a sequel—*Mad About Money II: Pay Yourself First*—for schools where students have seen the first production already. The follow-up version features lessons on wages and deductions, investment risk, the impact of advertising, and the long-term consequences of financial choices.

In addition, the company is piloting a high school version called *Crazy About Credit,* says NTC Creative Director Jon Mikkelsen. However, it appears that the original target audience—elementary- and middle-school kids—benefits most from the show's lessons.

A study that looked at the effects of an early performance of *Mad About Money* in Chicago found that the youngest children in the audience—at that time, sixth graders—saw the most pronounced benefit, in terms of knowledge gained. Financial education researcher Lewis Mandell of the State University of New York at Buffalo suggests that younger students could benefit even more from the show,* a suggestion that is consistent with prevailing research about the capacity for learning in early childhood.

The 40-minute production features two actors who perform four improvisational sketches that weave audience suggestions into preformatted scenarios about needs, wants, cash, credit, saving, and investing. . . .

The audience submits written suggestions prior to the performance and then waits eagerly to see what amusing reference comes up next.

Mad About Money cast members use improvisational sketches to teach kids important lessons about personal finance.

A lesson for everyone

One hope for the *Mad About Money* shows is that the information will spread beyond the immediate audience. Perhaps children who attend an in-school performance will go home and ask whether their families have savings accounts, or even question their parents' reliance on credit cards. Callies Elementary teachers reported that several students went home on the day of the *Mad About Money* performance and told their parents about the program.

At the very least, educators hope the show will encourage kids to save their money rather than spend it on the next toy or gadget they see.

"Before they get a dollar in their pocket, we'd like them to think twice about how they'll spend it. That's a lesson we could all use," Fuller says. cd

For more information about The National Theatre for Children and Mad About Money, *visit www.nationaltheatre.com.*

Emily Sachs recently served as a Community Affairs intern at the Federal Reserve Bank of Minneapolis. She is pursuing a master's degree in public policy at the University of Minnesota's Hubert H. Humphrey Institute of Public Affairs.

* *Teaching Young Dogs Old Tricks: The Effectiveness of Financial Literacy Intervention on Pre-High School Grades.* Presented at the Academy of Financial Services 2006 Annual Conference, Salt Lake City, October 11, 2006.

News and Notes

Photo courtesy of the Montana Secretary of State's Office

Crow Nation Tribal Chairman Carl Venne (left) and Montana Secretary of State Brad Johnson sign the Joint Sovereign UCC Filing Compact on February 6.

Crow Nation, State of Montana sign UCC filing compact

In a ceremony at the U.S. Capitol on February 6, the Crow Nation and the State of Montana signed a historic compact that will facilitate lending and economic development on the Crow Reservation.

Through the Joint Sovereign UCC Filing Compact, the state will provide a crucial service that breathes life into the tribe's newly enacted secured transactions law. *Secured transactions* are loans or other extensions of credit in which personal property other than real estate is used as collateral. Examples include consumer installment loans for home appliances and business loans for equipment and inventory where collateral secures the loans.

The compact enables banks and other creditors to use a service of the Montana Secretary of State's Office to file liens that are made under Crow law in collateral that is located on the Crow Reservation. As required under Article 9 of the Uniform Commercial Code (UCC), which has been adopted by all 50 states and U.S. territories, a creditor perfects its secured interest in a borrower's collateral by filing a UCC financing statement with the state's UCC filing office. (Typically, a state's UCC filing office is located in the Secretary of State's Office.) This filing, called *perfection,* establishes the creditor's priority in relation to other creditors or third parties that may have an interest in the same collateral. Modern UCC filing systems are Internet-accessible databases that enable lenders to search for prior liens on the collateral offered by potential borrowers.

A publicly accessible UCC filing system is an indispensable component of secured lending. Without one, a tribal community's secured transactions law is incomplete. For this reason, an Indian tribe that enacts a secured transactions law must also ensure it has a publicly accessible UCC filing system. However, establishing such a system is prohibitively expensive for many tribes.

Under the Crow-Montana compact, the State of Montana will meet the Crow Nation's need for a modern, robust UCC filing system by serving as the tribe's UCC filing agent. On its UCC web site, the State of Montana has created a special filing page for liens made under the Crow Nation's secured transactions law. Through this arrangement, lenders and other creditors can use the state's existing, familiar filing system to perfect their liens under Crow law. By enabling creditors to file liens confidently and seamlessly under tribal law, this first-of-its kind compact has the potential to encourage more lending in Crow communities.

The compact is the final step in the Crow Nation's enactment of the Model Tribal Secured Transactions Act (MTA), which was drafted by a committee of the National Conference of Commissioners on Uniform State Laws (NCCUSL) over a period of four years, with input from many tribal advisors. The drafting committee completed the MTA in the summer of 2005. In April 2006, the Crow Nation became the first tribe to adopt the act. (For more on the MTA, see "A super model: New secured transaction code offers legal uniformity, economic promise for Indian Country," in *Community Dividend* Issue 1, 2006, at www.minneapolisfed.org/pubs/cd.) Similar tribal-state UCC filing agreements are now being considered by other tribes that have adopted the MTA, including the Chippewa Cree Tribes of Rocky Boy's Reservation in Montana and the Oglala Sioux Tribe of the Pine Ridge Indian Reservation in South Dakota.

Attendees at the February 6 signing ceremony in Washington, D.C., included Crow dignitaries; state officials; Montana's full congressional delegation; representatives from NCCUSL, the National Association of Secretaries of State, and the Federal Reserve Bank of Minneapolis; and staff from the Board of Governors of the Federal Reserve System and several other federal agencies. During the event, Crow leaders recognized Sue Woodrow, Community Affairs project director for the Minneapolis Fed's Helena Branch, for her contributions to the tribe's economic development efforts. Woodrow served as a legal advisor to NCCUSL's MTA drafting committee and worked closely with the Crow Nation as it considered and adopted the act.

Digital Inclusion Fund awards grants

In its inaugural round of grantmaking, the Digital Inclusion Fund awarded a total of $200,000 to nine programs that are designed to promote technology access, computer literacy, and information sharing in Minneapolis.

The fund was established in 2007 as part of the City of Minneapolis's contract with US Internet Wireless (USIW), the service provider that was selected to install a citywide broadband wireless network for Minneapolis residents and city employees. The contract included a first-of-its-kind community benefits agreement that directs a portion of the project's funding to programs that bridge the digital divide in the city. Total grant funding will increase to $300,000 this year, once the installation of the wireless network is completed. In 2009 and subsequent years, a percentage of USIW's revenue from the network will be directed to the fund.

A diverse group of 13 Minneapolis residents served as fund advisors and selected the nine grant recipients from a pool of 45 applicants. The grants were disbursed by The Minneapolis Foundation, which manages the fund. Various uses for the grants include technology training classes for Spanish and Somali speakers, computer access labs for low-income residents and disabled people, and digital inclusion for homeless youth.

Grant recipients and amounts are Minneapolis Public Library, $18,588; Phyllis Wheatley Community Center, $8,775; Plymouth Christian Youth Center, $22,500; Project for Pride in Living, $25,000; St. Paul Neighborhood Network, $20,000; The Bridge for Runaway Youth, $25,775; The Church of St. Philip, $30,000; TVbyGirls, $22,262; and Twin Cities Media Alliance, $27,100.

Rhein joins Fed Consumer Advisory Council

Kevin A. Rhein, division president and business manager of Wells Fargo Card Services, was recently named one of ten new members of the Federal Reserve's Consumer Advisory Council (CAC). The CAC, which was established in 1976, meets three times a year to advise the Board of Governors of the Federal Reserve System (Board) on matters related to consumers, communities, and the financial services industry. Members are appointed by the Board and serve staggered, three-year terms.

Rhein oversees Wells Fargo's consumer credit card, consumer and business debit card, prepaid card, consumer unsecured lines/loans, and consumer global remittance services. He is a member of Wells Fargo's Management and Fair Lending committees and serves on the board of the Chicago-based Center for Financial Services Innovation, an organization that helps the financial services industry identify, develop, and implement innovative ways to serve the underbanked. Prior to joining Wells Fargo, Rhein spent 15 years in retail and mortgage banking at Citibank/Citicorp.

Kevin A. Rhein

Rhein joins Dorothy Bridges as one of two CAC members from the Ninth Federal Reserve District. Bridges, who was appointed to the council in 2006, is the president and CEO of Franklin National Bank in Minneapolis.

President Bush creates financial literacy advisory council

In an effort to make financial education a national priority, President George W. Bush established the President's Advisory Council on Financial Literacy on January 22. As set out by President Bush and U.S. Treasury Secretary Henry Paulson, the goals of the council are to expand Americans' access to financial services, increase financial education for youth and adults, and promote research to measure the nation's level of financial literacy.

The council comprises 16 members who represent the various sectors involved in the delivery of financial education, such as the military, academia, nonprofit organizations, financial institutions and their regulators, and faith-based organizations. Charles Schwab of the Charles Schwab Corporation was named chairman of the council. John Bryant, CEO of Operation HOPE, Inc., was named vice chairman. The council held its first meeting on February 13 and will next meet on June 18. Prior to the June meeting, the council will name a liaison to the Financial Literacy and Education Commission, which was established by Congress in 2003 and released a national strategy for financial education in 2006.

Visit our online calendar

For the latest information on events and conferences in the Ninth District and beyond, visit www.minneapolisfed.org/community/events.