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By Eric Hangen and Jeffrey Lubell

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EXECUTIVE SUMMARY

Several studies have considered the impacts of homebuyer education and counseling in reducing mortgage default rates. However, relatively few studies have sought to document whether counseling and education are effective in increasing homebuyer purchasing power, and what the benefit is in increased purchasing power per program dollar invested. This question is particularly important in the wake of decisions by the major Government Sponsored Enterprises to significantly reduce requirements for homebuyer education and counseling.

The Center for Housing Policy worked with I Squared Community Development Consulting, Inc. to carry out a study of the effects of homebuyer education and counseling on homebuyer purchasing power using preexisting customer tracking data from three homeownership counseling and education nonprofits. The exact services received at each of the participating nonprofits differed across organizations and, to an extent, across program customers.

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However, all customers participated in a combination of homebuyer education classes – covering knowledge and skills needed to successfully navigate the homebuying marketplace – and one-on-one counseling sessions to identify individualized action steps to become "homebuyer ready." Homebuyer education curricula typically cover such topics as steps in the homebuying process, how to qualify for a mortgage, shopping for an appropriate mortgage, working with a Realtor®, maintaining a home, and related themes. One-on-one counseling sessions will typically cover issues such as cleaning up credit reports, creating a savings plan for a downpayment, discussing appropriate mortgage products for the consumer, and so forth.

The study team was able to obtain and evaluate data on changes in credit scores, debt levels, and liquid asset savings levels (i.e., checking accounts, savings accounts, etc.) for a nonrandom sample of customers receiving homeownership education and counseling services at each of the three agencies. Based on these data, the team made a rough estimate of the change in homebuyer purchasing power between the time the clients started receiving the services and the time they completed the services. It should be noted that the team made a concerted effort to identify other homebuyer counseling and education nonprofits with sufficient data for this study. The three participating organizations should be commended for their efforts to maintain accurate and complete customer tracking data.

In two of the three programs studied, the households that had participated in the homebuyer education and counseling services experienced substantial, measurable increases in their purchasing power – principally through improved credit scores. While some households in the third agency also experienced substantial increases in purchasing capacity, these gains were offset by apparent losses in purchasing power among other counseled clients, such that the aggregate results in this third agency showed no statistically significant improvement or decline.

It is important to emphasize that this study was not a randomized evaluation; nor can a claim be made that the samples for which data were collected are fully representative of all counseled clients at the studied agencies. Nevertheless, the results provide preliminary, suggestive evidence that homebuyer education and counseling services can produce substantial and quantifiable benefits for counseled clients.

These promising but preliminary results confirm the importance of conducting a more rigorous prospective evaluation to better understand and document the impacts of different forms of homeownership education and counseling and to determine whether there are particular types

of clients who are more or less likely to benefit. These analyses also suggest the value of collecting pre- and post-credit scores for all clients receiving homeownership education and counseling services – ideally even for clients who only attend one session and do not come back, through soft pulls arranged directly with credit score reporting agencies. Such data could be immensely useful in better understanding and documenting the impacts of homeownership education and counseling. Finally, there also may be opportunities to develop a more sophisticated methodology for quantifying the benefits of these services.

We very much hope that one outcome of our work will encourage a larger and more sophisticated data collection and analysis effort.

METHODS

The study team used customer tracking data from the three participating nonprofits to create paired observations of credit, debt, and savings variables, with the initial observation of these variables occurring at or near intake into the program. The program data provided a subsequent measurement of these variables at some point after the counseling and education program was completed. The lag between pre- and post-measurements was at least 90 days for each client included in the study, but the actual lag between measurements varied for any given client.

The data were cleaned of records with obvious typographical errors, and outliers were removed for savings and debt variables. The outlier ranges were as follows: only changes in savings of less than $20,000 (positive or negative) were considered; only changes in total debt of less than $60,000 (positive or negative) were considered; and only changes in monthly debt payments of less than $2,000 (positive or negative) were considered. This procedure resulted in the removal of only a small number of outliers.

To estimate changes in borrowing power between the times of the pre- and post-measurements, the team conducted a simplified and stylized underwriting analysis based on the estimated impact of the credit score change in reducing interest rates and the estimated change in monthly debt payments in freeing up funds for mortgage payments. The team used national average interest rates for 30-year fixed rate mortgages reported by Fair Isaac & Company on www.myfico.com by credit score range for March 2007. Those data are as follows:

FICO score range	Average national interest rate (as of 3/26/07)
760 to 850	5.79%
700 to 759	6.02%
680 to 699	6.20%
660 to 679	6.41%
640 to 659	6.84%
620 to 639	7.39%
580 to 619	8.73%
500 to 579	9.79%

The team then used interpolation to estimate an average interest rate for any given credit score. The same table of interest rates by credit score was used to estimate the interest rate available to the customer upon intake and upon the second measurement of credit score – in other words, the interest rate environment was held constant at the March 2007 level. The analysis further assumed a 30-year fixed rate mortgage, and that funds available to apply toward the mortgage principal and interest equaled the lesser of (28% of monthly income) or (45% of monthly income less the existing monthly debt payment). In order to preserve a clear focus on the impact of the credit score and debt change, income was held constant at the level reported by the customer at intake.

Changes in liquid assets were not considered in the borrowing power calculations, but purchasing power was assumed to change by the amount of the change in liquid assets. In other words, a family that had $1,000 more in its savings account at time 2 than at time 1 was assumed to experience an increase in purchasing power of $1,000.

The method as described above was successfully applied to Nonprofit #1 – HomeWise Inc. (HomeWise) in Santa Fe, New Mexico. For Nonprofit #2 – Indianapolis Neighborhood Housing Partnerships (INHP) in Indianapolis, Indiana – the method excluded consideration of monthly debt burdens, because paired data on this variable were not available. The borrowing power analysis was not conducted for Nonprofit #3, as no significant change in credit scores was observed and monthly debt burden information was not available.[2]

[2] Given the preliminary nature of this analysis, and the fact that the sites are not comparable to one another, we do not believe there would be substantial research value in identifying the third nonprofit.

LIMITATIONS

A key limitation of this study is that the samples are neither random nor completely representative of the entire customer base. This limitation is due to the fact that none of these agencies had paired observations of key financial variables for all counseled customers. The ideal database for such a study would have included paired observations of key variables for *all* customers who completed a homebuyer education class and had at least a certain number of counseling sessions during a certain time period, and would have tracked their subsequent progress in improving credit scores, increasing savings, and decreasing debt regardless of whether they were eventually determined to be "buyer ready" or bought a home. The databases actually provided by the three nonprofit programs studied were more limited:

- HomeWise provided records for 227 customers with paired observations pulled from its entire customer tracking database. However, the customers represent only a small proportion of all the customers counseled due to the fact that the software package used by the nonprofit (a standard industry program) overwrote initial financial variable information with subsequent information for many customers. The 227 records that did have paired observations were more or less a random subset of the overall data, insofar as staff at the nonprofit indicated that there were no procedures they were aware of that would have systematically resulted in certain types of customers having paired information. However, a limited analysis of the overall database by the study team did reveal some differences between the studied group and those for whom paired observations were unavailable. About 58 percent of customers with paired observations of financial data were declared to be "homebuyer ready" by counseling staff at some point in the process, compared with 45 percent of all customers in the database. About 28 percent of customers with paired observations were recorded in the database as having bought a home versus 23 percent of all customers.

- INHP provided 194 paired observations for all customers who entered the program within a defined period of time (April 1, 2005 through March 31, 2007) and were subsequently declared to be "homebuyer ready." This database therefore did not include customers who participated in education and counseling but whom counselors still do not consider ready to buy a home.

- Nonprofit #3 had the smallest number of paired observations and extensive limitations in the data provided. The program provided 110 paired observations. Customers with a second set of observations were generally only households who actually received a loan from the nonprofit program, which requires that the household buy within the nonprofit's target city. The data therefore excluded customers who did not buy a home, as well as customers who bought a home outside the target city or inside the target city without a loan from the program. (In general, the homes outside of the city limits are more expensive, raising the possibility that the exclusion of clients who bought outside the city may have excluded some of the most successful customers.) While the majority of paired observations were homebuyers through the program, about 30 percent of the paired observations were long-term participants in the program for whom counselors pulled a second set of observations so that the participants could observe their progress.

- Datasets for all three programs exclude customers who dropped out of the program, because the programs could not collect a second set of observations on households that were not participants.

Several other limitations should also be noted:

- It should be emphasized that there was no control group for the study, and thus no random assignment of people to the counseling and education program. People who decided to pursue (and subsequently complete) a homebuyer and education counseling program may have had more motivation to improve their financial situation than others, which could affect the observed results.[3]

- The analysis of how the improvement in credit scores impacts estimated borrowing power is clearly overly simplified and stylized. In the real world, interest rates may respond to certain credit score break points as opposed to the continuous curve generated by the interpolation; thus, people with small changes in credit score might not see any change in their interest rate, while others could see larger changes in rates if they are crossing a break point. In particular, certain mortgage products may have specific minimum credit scores that borrowers must satisfy, such that when a potential borrower raises his or her credit score above that level, their borrowing power increases considerably. To the extent homebuyer programs work to satisfy such minimum thresholds, rather than generate the largest possible increase in credit scores, our methodology may underestimate the programs' impacts. Also, savings levels may impact borrowing power by meeting cash requirements for certain loan products or altering the loan-to-value ratio. The full consideration of such complexities was outside the scope of this preliminary analysis.

- The projected increase in buying power as a result of increased credit scores may or may not have been actually realized by any given customer. In some cases, for example, borrowing power and savings may have increased, but not enough to enable the customer to buy a home. Other clients may have chosen not to purchase a home. (Informed decisions by clients not to pursue homeownership because they are not ready or would rather stay renters are widely viewed to be positive, though hard to measure, outcomes of homeownership education and counseling.)

- Finally, there are many other likely benefits to homebuyer education and counseling that this study did not attempt to measure. These benefits may include lower default and foreclosure rates, improved financial comprehension, lower borrowing costs for cars and lower car insurance rates (due to improved credit scores), and others.

[3] See Caskey, John (2006). "Can Personal Financial Management Education Promote Asset Accumulation by the Poor?" Indiana State University: Networks Financial Institute Policy Brief.

SUMMARY OF RESULTS

The study results provide preliminary evidence suggesting that homebuyer counseling and education may have a strong effect in boosting the credit scores and savings levels of the participants studied, thereby increasing their purchasing power. Two of the three nonprofits studied showed substantial, statistically significant results in boosting credit scores and borrowing power for participants. The third nonprofit did not show significant results. (One potential explanation for the lack of significant results for the third nonprofit relates to the data quality issues noted above. Another potential issue is that some of the more successful outcomes may have been screened out by the service limitations of the nonprofit.)

HomeWise Inc., Santa Fe, New Mexico

- Credit scores increased by an average of 23 points. For those customers who began with a credit score below 650, the average increase in score was greater, at 31 points.
- Levels of savings in liquid asset accounts increased by an average of $1,874. For those customers who began with a credit score below 650, the average increase in savings levels was $1,832.
- Monthly debt payment obligations were reduced by an average of $61. However, for customers who began with a credit score below 650, monthly debt payment obligations rose slightly, by $14.
- The average increase in borrowing power for the program participants studied was estimated at $7,017. For participants entering the program with lower credit scores, the increase was greater – participants entering the program with a credit score under 580 had an average estimated increase in borrowing power of $9,022.
- All of the observed results were statistically significant at the $p < .01$ level. The only exception was the slight increase in monthly debt payment obligations for customers entering the program with credit scores under 650, which was not statistically significant.
- As self-reported by HomeWise, the average cost per customer receiving homebuyer counseling and education is estimated at $230 per customer trained and $740 per customer counseled, or $970 total per customer. ("Training" refers to classroom education and "counseling" to one-on-one sessions to deal with customer-specific issues and questions.) Calculating the benefit to the average customer as $7,017 in increased borrowing power plus $1,874 in increased savings, the program created an estimated $9.16 in consumer benefits for every $1 it spent on the program participants studied.

Indianapolis Neighborhood Housing Partnership (INHP)

- Credit scores increased by an average of 22 points. For those customers who began with a credit score below 650, the average increase in score was greater, at 28 points. Both of these results were statistically significant at $p < .01$.

- Levels of savings in liquid asset accounts increased by an average of $309 and total indebtedness decreased by an average of $577. For those customers who began with a credit score below 650, the average increase in savings levels was $312 and the average decrease in indebtedness was $364. However, none of these results was statistically significant. Information on monthly debt burdens was not available.

- The average increase in borrowing power for the program participants studied was estimated at $4,515 considering only the change in credit scores. For participants entering the program with lower credit scores, the increase was greater; participants entering the program with a credit score under 650 had an average estimated increase in borrowing power of $5,675. Both results were statistically significant at $p < .01$.

- The average cost per customer receiving homebuyer counseling and education is estimated at $310 per customer trained and $1,065 per customer counseled, or $1,375 total per customer. Calculating the benefit to the average customer studied as $4,515 in increased borrowing power plus $309 in increased savings, the program created an estimated $3.51 in consumer benefits for every $1 it spent on the program participants studied.

Nonprofit #3

- Credit scores increased by an average of 4.2 points. This result was not statistically significant. For those customers who began with a credit score of under 650 points, the average increase was 15.6 points, which was statistically significant at $p < .05$. However, those customers who began with a credit score of 650 or greater actually had an average decrease in credit scores of 13.7 points, with the result significant at $p < .01$. This pattern of results is consistent with the regression to the mean that one would expect to observe in a test-retest scenario when there is no significant intervention in between tests.

- Insufficient information was available to determine changes in savings and debt levels and monthly debt burdens.

- Insufficient information was available on program costs.

FUTURE CONSIDERATIONS

Future studies should consider several strategies to build on this preliminary effort and provide more representative results. Three key areas for potential improvement, listed in order of importance, are:

- **Improved data coverage and quality.** Future research efforts in this area would benefit greatly from a data collection protocol where participating nonprofits receive a detailed, consistent format and procedure for collecting customer data, which they implement, in advance, to ensure they collect the necessary data for the full range of their customer base. In particular, nonprofits should consider adopting data collection procedures that ensure that key financial variables are tracked at regular intervals for *all* customers who receive homebuyer education and counseling services, regardless of the progress that they make. This expanded data tracking effort could be costly (at least at first) in terms of staff time and resources, but would also greatly reduce issues with any selection biases that might be present in the data and provide critical quantifiable data on the effects of homeownership education and counseling. Over time, the cost of such a data collection effort could drop considerably as it becomes automated and built into new versions of homeownership education and counseling software.

  In attempting to identify nonprofit programs for the study, the research team learned that relatively few programs maintain data of sufficient quality for in-depth analysis. Therefore, obtaining improved data for future study would depend on proactive efforts early in the process by the research team, possibly in collaboration with industry funders and software vendors. (In the course of this study, we learned that several of the most popular software packages overwrite older data on clients' financial performance with more recent data, rather than retaining it – a key limitation for this type of analysis.)

  The collaboration of credit agencies would be of enormous value to facilitate soft credit score pulls on program participants (and even program dropouts) for research purposes. Soft credit score pulls do not count as a credit inquiry and therefore do not impact the credit score of the person in question.

- **More detailed analysis of borrowing power.** Rather than the stylized analysis conducted of increased purchasing power, each customer record could be put through a more detailed underwriting exercise (perhaps run through an automated underwriting system, using common sense assumptions for any missing variables requested by the system) to estimate increased borrowing power. Additional data (such as data on monthly debt obligations, as well as detailed underwriting guidelines) would be required for such an analysis. In some cases, it may make sense to focus on the credit, debt, and savings thresholds of particular products available in that locality. Also, the exercise could focus on other metrics – for example, rather than estimating the increase in borrowing power, a study could seek to estimate the present value of savings in monthly payments on a fixed-price house due to improvements in borrower credit score, debt, and savings characteristics.

  Future studies might also try to quantify the other benefits of homebuyer education and counseling activities, such as increased knowledge with which to obtain the best possible deal on a mortgage (this study does not evaluate the possibility that before

counseling, customers may have been more willing to accept higher priced loans than they should have).

- **Controlled studies.** At the most ambitious level, nonprofits could participate in experimental study designs with randomly assigned control groups. One nonprofit, Community Development Corporation of Long Island (CDCLI), is participating in a study to measure changes in credit scores of financial fitness program participants that utilizes an experimental design.

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