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Chapter 7

Networks and Finance in Ethnic Neighborhoods

Robert M. Townsend

The Community Reinvestment Act (CRA), the Equal Credit Opportunity Act, and the Fair Housing Act all assign a key role to the formal banking sector, based on the view that it is vital for poor and ethnic minorities to have access to banks and other mainstream financial institutions. The usual regulatory view rarely considers alternatives to this sector, contributing to the impression that rejected bank loan applicants and nonapplicants are left to fend for themselves, perhaps vulnerable to loan sharks and pawn merchants of dubious repute. Without fact-finding missions, this view would go unchallenged. Thus one goal of the research reported here is to measure the importance of the informal sector.

Theory might suggest in fact that the informal sector would be both prevalent and a perfect substitute for the formal. There would be no evident role for formal intermediaries per se. In a world of perfect information and enforcement, individuals could as easily write contracts directly with each other. Without measurement, this view might also go unchallenged. Specifically, there are a few basic questions that need to be answered. Do those without formal access suffer more in consumption from adverse shocks? Are those without formal access restricted in the funds they can use to start businesses?

But answers to these questions beg other questions. If there is an adverse impact to exclusion or to positive yet limited use of the formal sector, then what is it in theory and in practice that limits trade and gives rise to intermediation? Theories of intermediation begin

with the idea that information is available only at a cost: intermediaries arise because they minimize the amount of information production. Thus not all adverse events or contingencies are covered, not all individuals need be included, and for that matter not everyone should be an intermediary. Key papers that aid our thinking in this field include Douglas Diamond (1984) and Stefan Krasa and Anne Villamil (1992). However, these studies force a formal structure on the intermediary. Indeed, Philip Bond (1999) shows in such an environment that informal connections among borrowers may economize on transactions costs. But we know little about how such networks operate in practice. There is therefore little to guide the construction of models. We set out in these fact-finding missions to measure salient features of intermediation and networks.

It is by no means obvious from theory that networks should arise in all circumstances or that they should necessarily take the same form. The underlying ingredients of the theory matter. Some of the models emphasize a priori selection, that is, individual joint liability for loans helps to screen out bad apples, as in Maitreesh Ghatak (1999), or individuals choose to link to others from whom they can learn, as in Hal R. Varian (1990). Other models emphasize better internal risk contingencies due to better information on project returns or underlying effort (Holmstrom and Milgrom 1990; Itoh 1993; Prescott and Townsend 2002a), better internal enforcement of implicit or explicit agreements (Besley, Coate, and Loury 1993, 1994), or some combination of these. Christian Ahlin and Robert Townsend (2002) attempt to distinguish among these models. In a general equilibrium market structure we might see some households and business acting on their own, others joining with similar individuals (assortative matching, Becker 1973), while yet others join coalitions with deliberate and striking internal diversity (Prescott and Townsend 2002b). But what do we see in reality? Which networks are thick, lively, and homogenous and which are heterogeneous if not fragmented?

Our goal is to try to answer some of the factual questions. More generally, the purpose is to share what we have learned from a series of intensive fact-finding missions into some of the ethnic neighborhoods of two U.S. cities, and learned in particular from the research, which has used those data. We report on and synthesize here on papers by Daniel Aaronson, et al. (2000), Rebecca Rajman

and Marta Tienda (2000), Huck et al. (1999), Maude Toussaint-Comeau and Rhine (2000), Bond and Townsend (1996), Anna Paulson (2003), and Toussaint-Comeau et al. (2003). Our goal is not to report new facts but to draw attention to these papers, and how they fit together. (Readers who wish to see more of the details are urged to consult the original work.)

The primary finding is that there is widespread use of informal credit by both households and incipient businesses. Households use family and friends, or nonfamily partnerships to mitigate the consumption impact of sickness, unemployment, and increased expenses. Likewise, businesses use the informal sector to finance business starts. This may not come as a surprise to economists studying developing countries, but it may seem unusual to those thinking of the United States as an advanced country with a formal financial sector.

A second important finding is that many households are nonetheless not fully insulated against income fluctuations and other shocks, and businesses appear credit constrained in the sense that higher start-up investments lead to more than proportionally higher profits. Formal sector bank access does seem to help households and businesses overcome these consumption and investment effects.

The third finding is that the qualitative nature of networks seems to vary by ethnicity, geography and other factors. The networks among Hispanics are lively and informal, with relatively small transaction values. Yet higher income, greater English proficiency, house ownership, and use of services outside the neighborhood are associated with increased access to the formal sector and a diminished use of networks. In contrast, the networks among the Hmong do not seem to diminish with years of residence in the United States. The network connections among Koreans are formal, less among family, and associated with relatively large amounts of money changing hands. In contrast, the African American communities studied here seem to lack much of an ethnic-based network.

Ethnic Neighborhoods

The initial focus of the surveys was on small ethnic businesses, but collaborators Richard Taub, Marta Tienda, and Robert Townsend decided early on that a companion household survey would also be

needed. First, some nonlisted businesses show up in the households themselves. Second, there are barriers to entry into business, failures of existing businesses, and other possible links from households to businesses. So for all neighborhoods there is both a business survey and a household survey, and in most neighborhoods some so-called crossover surveys, to businesses that were also administered the household survey and households that were administered the business survey if a business was uncovered. The questionnaires are largely common across the neighborhoods but translated into or administered in the various languages of the ethnic groups.

The first neighborhood study was Little Village, Chicago, a Hispanic community surveyed in 1994 with Tienda and Taub, under the Center for the Study of Urban Inequality, at the University of Chicago. This community contained Korean and other ethnic businesses in addition to the predominant Mexican businesses. The second neighborhood was Chatham, Chicago, a predominately African American middle-income community surveyed in 1997 and 1998 with the collaboration of the Federal Reserve Bank of Chicago and the University of Chicago. Finally, third and most recently, the Hmong were surveyed in the Minneapolis–St. Paul metropolitan area in 2000 with the collaboration of the Federal Reserve Banks of Minneapolis and Chicago, as was a largely white control group with some blacks and members of other ethnic groups.

Little Village, a neighborhood on the south side of Chicago, is the largest Mexican community in the Midwest. It experienced considerable social and economic change between 1970 and 1990. In 1970, Hispanics constituted only 30 percent of the Little Village population, which numbered 62,895. During the next twenty years they became the predominant ethnic group, comprising 82 percent of all residents by 1990. The process of residential succession generated a crucial market condition for the development of a business sector—that is, a critical mass of ethnic consumers to support ethnic businesses. More generally, Mexican migration to the United States is a significant factor in current U.S. demographic change.

Chatham was chosen as the site of the second study for its distinct and well-recognized ethnic neighborhood. Located also on the south side of Chicago, Chatham became predominantly black during the 1950s (Chicago Fact Book Consortium 1995). According to the 1990 U.S. Census, it had a population of 36,779. All households

in the survey are black with a median family income of \$35,000, classifying Chatham as a middle-income community. It is not the low-income, crime-ridden community some typically associate with African American urban neighborhoods. Still, key informants tell us the neighborhood may have lost some of its earlier ethnic vitality. The waves of southern black migration to Chicago are well documented.

Hmong immigrants come from a tribal culture indigenous to areas of Laos, Vietnam, Thailand, Burma, and China. Between 1975 and 1991, more than 500,000 people fled Laos and became international political refugees. Most of the Hmong spent several years in refugee camps in Thailand; in our survey data, more than 20 percent of the 1,170 individuals of Hmong families in the United States were born in Thailand. Approximately one-quarter of the nation's Hmong population (41,800) lives in Minnesota. St. Paul is home to more than half of all Hmong living in Minnesota, with an approximate count of 24,389. Minneapolis has the next largest population, with 9,595. The Minneapolis–St. Paul area contains the largest Hmong community in the world outside of Thailand. The largest concentrations of households and businesses are located in the Payne-Phalen neighborhood and along the Penn Avenue North corridor in St. Paul and the Thomas-Dale neighborhood of Minneapolis. These neighborhoods contain well-established commercial strips of aging commercial, industrial, and mixed-use buildings surrounded by older housing stock. It is important to bear in mind that in studying the Hmong one is studying political refugees.

Sampling Issues

The surveys reported here must be understood as case studies. The neighborhoods are not chosen as representative of neighborhoods in general nor are they randomly selected. Likewise, we are not taking a random sample of ethnic groups. Finally, so little is known about networks a priori that it would in any event be difficult to select on that basis. Hopefully these drawbacks are balanced against the insights one gains from implementing an intensive, geographically concentrated instrument. Still, the numbers must be interpreted with some caution.

Within neighborhoods, however, rigorous sampling standards were maintained. The business survey in Little Village was based on a

stratified random sample of establishments that were in operation during the spring of 1994. Walking the streets and canvassing the neighborhood, an intensive process, yielded approximately 1000 business establishments. These were then stratified according to primary type of industry, product, or service. Relatively uncommon businesses, such as bridal shops, bakeries, and iron work products and factories were sampled at a rate of 100 percent. Relatively abundant enterprises, like restaurants, bars, auto repair shops, and hair salons, were sampled at a rate of 35 percent. All remaining establishments were sampled at 50 percent. But in the findings presented here, we have not adjusted for the sampling ratios because such adjustments appear to have little impact and, in many cases, the cell sizes are so small as to make such adjustments conceptually problematic.

We drew a sample of 340 establishments, of which 36 were closed by the date of the interview; 10 were franchises or not-for-profit operations, 5 were secondary businesses of respondents in the sample, and 3 were owned by Cantonese-speaking Chinese, which we excluded as it was not cost efficient to translate the survey instrument for these cases. Our target sample was 200; therefore we targeted 286 enterprises and successfully interviewed 204, a response rate of 71 percent.

In addition, Little Village houses a Korean-operated discount mall that accommodates 120 small booths rented by Koreans, Arabs, Asian Indians, Mexicans, and other Hispanic immigrants. We drew a stratified random sample of these booths and interviewed 35 percent of Korean and Hispanic businesses, and all booths rented by other groups. Of the 64 operators contacted for interview from the mall sample, 63 percent were successfully interviewed. This is a highly successful response rate given that we insisted on interviewing owners and not managers or other employees.

For the household segment of the survey, blocks from within the Little Village neighborhood were first drawn at random. A sample of households was then constructed by drawing randomly from a complete enumeration of dwellings within these blocks. Bilingual interviewers successfully conducted the survey in 73 percent of the households in this sample (allowing for vacancies), yielding a total of 327 completed interviews.

As the household and business survey instrument was developed for a multi-ethnic survey, it could be implemented in Chatham with

only minor modifications. Relatively common businesses in Chatham (including eating places and hair salons) were drawn at a rate of 22.5 percent and all other businesses at 45 percent. Note that in both surveys medical and legal professionals were excluded from the sample, on the grounds that the educational requirements for these fields result in entrance and financing decisions that have little in common with those of other small businesses. Interviews required about one and a half hours. The response rate for Chatham was 57 percent, lower than in Little Village. Enumerators reported some difficulties in gaining cooperation, and prior links to community leaders were less successful in overcoming difficulties. Chatham as a neighborhood may lack the cohesion of Little Village, though cohesion is difficult to gauge.

The household universe for Chatham was constructed by using a multistage full probability sample model based on the census block groups. The fieldwork resulted in the completion of 191 interviews. The overall response rate was 64 percent.

With less prior information and less-defined neighborhood boundaries, the survey in Minneapolis-St. Paul took a somewhat different form. For the businesses, a list of Hmong-owned businesses was compiled based on information from the Hmong Business Directory, members of the Hmong Chamber of Commerce, and lists provided by the Neighborhood Development Center and St. Paul Planning and Economic Development. The list was screened to verify that the businesses were Hmong-owned and operating. It was also screened to eliminate duplicate businesses. The resulting list consisted of 170 Hmong businesses, most of which were located along two primary commercial strips in St. Paul. Of this total, 121 completed the survey, 36 refused, and 13 were unable to complete the survey within the study period, yielding a final response rate of 71 percent. As it turns out, Hmong businesses are larger than those of the Chicago neighborhoods, leaving open the question of whether the sampling frame in Minneapolis-St. Paul missed existing small businesses. A staff member conducted a spot walking tour and discovered no small business that would have been missed.

The Hmong business locations were used to establish geographic boundaries for a control business sample. A random sample of 6,336 businesses was matched by zip code to the Hmong businesses. Hmong-owned businesses, nonprofits, and government agencies

were eliminated from this list. The remaining list was randomized and the first 342 businesses were contacted. Of these, 122 were no longer in business or were found to be nonprofits. Of the 220 remaining, 131 completed surveys, 41 refused, and 48 could not complete the surveys within the study period. The final response rate for this control group was 60 percent. Of this group 74 percent are white, 10 percent black, and 6 percent Asian.

To reach the sample size goal 200 Hmong households, a randomly selected group of 1,083 households was obtained from a sample of blocks with high concentrations of the Hmong population (based on school district and census data). Blocks with public housing developments were excluded. This exclusion seems likely to have biased the education and income numbers upwards, but the numbers for Hmong business owners are larger still. The large measured gap between Hmong households and businesses can only be an underestimate. Of the 1,083 household universe, 313 households were identified as Hmong and contacted. From this group, 202 Hmong households completed the survey. Sixty-six households refused and forty-five surveys could not be completed within the study period, yielding a final response rate of 65 percent. A control group of non-Hmong households was also surveyed. The control households were randomly selected from non-Hmong households living in the same neighborhoods as the Hmong sample. Of the 322 control households contacted, 202 completed the survey. Sixty-eight households refused and 52 surveys could not be completed within the study period, yielding a final response rate of 63 percent.

In summary, the sampling methods used were similar in the case of Little Village and Chatham and distinct from the Hmong and control sample in Minneapolis–St. Paul. The response rates for households are similar for Chatham and the Hmong, and higher for Little Village. The response rates for businesses for the Hmong and control lie between those Chatham surveys (on the low end) and Little Village (on the high end).

Household Characteristics and Risk-Response Networks

Respondents to the household survey in Little Village were overwhelmingly (92.3 percent) Hispanic. Of the remainder, 4.0 percent were white, 1.5 percent African American, and 1.8 percent Arab. A

large majority (78.2 percent) were born in Mexico and most of the remainder (19.3 percent) in the United States. For those born in Mexico, the average length of time in the United States was 15.3 years. Of the Hispanics, 18 percent described themselves as very proficient in spoken English, 25 percent as moderately proficient, and 57 percent as not proficient. For written English, the numbers are 14.0 percent, 20.8 percent, and 65.2 percent, respectively. Reported household income is low. The median of \$18,720 is lower than the 1990 figure of \$22,260 for the same neighborhood (Woodstock Institute 1992).

The principal occupational responses (for men and women, respectively): wage employment (78.2 percent, 39.3 percent), self-employed (8.4 percent, 1.6 percent), unemployed (5.6 percent, 4.9 percent), keeping house (0 percent, 44.3 percent), and retired (6.3 percent, 5.5 percent). The proportion of male respondents who described themselves as self-employed is high compared with the 1990 census figures for Chicago Hispanics—3.1 percent for men (and 1.7 percent for women).

Indeed, of the primary respondents to the household survey in Little Village, 43.6 percent were male and 56.4 percent female; ages ranged from 17 to 90, with a mean of 37.7; the majority (63.0 percent) were married, 8.9 percent were in married-like relationships, 4.0 percent were widowed, 16.0 percent divorced, 6.7 percent separated, and the remaining 12.5 percent single.

Financial difficulties are prevalent. In the sample, 210 households (64.2 percent) reported having experienced a problem that caused financial difficulties in the last five years. The principal problems include death or illness of a relative (38.8 percent), unemployment or periods of low income (49.8 percent), and increases in living expense and/or dependents (38.2 percent). In practice, when faced with actual financial difficulties, there is also widespread use of “new” sources of finance, with 124 respondents (58.5 percent of those responding). But bank loans and the formal sector more generally (finance companies, credit unions) were used by only 11.8 percent, low compared to other options. The formal sector provides a “low” back-stop technology. The informal sector looms larger, with 40 to 50 percent using gifts and borrowing from friends and relatives. Another 31 percent report they delayed or failed to pay debts, though unfortunately the question did not distinguish the source.

There is extensive use of existing savings and assets (35.8 percent). Finally, 41 percent and 45 percent report having to work harder or reduce consumption, an adverse impact.

Another key point: the adverse consumption impact is more severe for those who lack formal sector access. Those borrowing from a bank or lender are less likely to reduce household consumption (but more likely to work harder). Further, informal, network use seems inversely correlated with use of the formal sector, as if the two were substitutes. A perhaps related observation is that networks are less necessary or less effective for longer-term Hispanic residents. That is, assistance from family and friends declines with proficiency in English, quartile of income, house market activity, and links in the city outside the neighborhood, while use of the formal sector increases. In retrospect, with the outcome of the survey in hand, it would seem that this decline in apparent networks should be the object of further study, examining the relationship to age, history, and skill acquisition.

Chatham households are all African American. Median family income is \$35,000, and relative to Little Village, there are other sharp contrasts. Strikingly, 63.4 percent of the responding heads are female with only 37 percent of the sample married. Among the unmarried, 11 percent were widowed, 21 percent divorced, and 30 percent never married. Education is relatively high, with 47.9 percent having a high-school degree or the equivalent, 9.6 percent with no degree, and the rest with advanced degrees. Wage or salary employment was about half of the sample only, and professional and managerial occupations are common. The overall average age of forty-nine was also older than the corresponding Hispanic community. Thus a relatively high 22 percent were retired and a relatively high 10 percent were not in the labor force.

Of these Chatham households, only 29 percent had experienced a serious setback, less than Little Village. Still, the distribution among causes is familiar: 41 percent due to illness, 52 percent to unemployment, and 25 percent with increased expenses. Among the responses, the consumption and labor impact seem lower than in Little Village: 23 percent reduced consumption and 14 percent increased labor. More or less the same percent, 35, used existing assets. The number for formal finance at 14 percent is higher than in Little Village while the number for informal finance at 28 percent is

slightly lower. Thus black households, though reliant on the informal sector, appear to depend more on formal bank finance. Put another way, short falls in formal finance would impact these households more than in Little Village.

The Minneapolis-St. Paul survey of Hmong consists as well of an equal numbered control group (67 percent white and 20 percent black). Hmong households are more likely to have a male head, have more dependents, and have less education than in the other neighborhoods. Only 8.7 percent have a college degree. On the other hand, college degrees increase dramatically with the length of U.S. residence, reaching 28 percent for those living in the United States over fifteen years. Hmong households have a median income of \$30,000, lower than Chatham households and the control group (\$39,000). Fifty-seven percent are wage or salary earners, mostly in manufacturing, like their Little Village counterparts, although 11 percent are unemployed and 6 percent disabled. Even more notable, 8 percent of the Hmong are on some kind of community or government assistance.

Among the Hmong household respondents, 62 percent had experienced a financial setback, comparable to Little Village and higher than in Chatham. (This does fall with tenure in the United States.) Likewise, of those with setbacks, 38 percent had periods of increased expenditure, 34 percent faced unusually low income, and 29 percent faced substantial unemployment. Notable in the Hmong sample, 13 percent had substantial increases in dependents, and this too falls sharply with tenure. The responses of reducing consumption and working harder are, in contrast, lower than in Little Village, comparable to those of Chatham, and much lower than the control group, begging the issue of how this is accomplished. Hmong households are more likely relative to Mexican Little Village households to borrow from banks, 13 percent, which is comparable to Chatham but lower than the control group, and equally likely to use cash and savings, 35 percent, which is lower than the control group. The use of gifts and borrowing from friends and relatives seems comparable to Little Village and not much different from the control group. Notably, this resort to the informal sector does not decline with tenure. If there are networks, they are persistent, unlike those of the Mexicans of Chicago. Again, this should be studied further. On the other hand, government assistance (emergency cash from the county)

under adverse shocks stands out at 39 percent but does decline with tenure. It is hard to know how much of this has to do with the political status of the immigrants. Recall, again, that 8 percent are on more permanent government assistance. Thus formal, informal, and government assistance all seem to play a role in mitigating shocks.

To hazard a summary then, there is a financial sector response to adverse shocks in all these communities. Within this the informal sector is playing a non-trivial role. But the orders of magnitude and types of responses associated with networks seem to differ across the neighborhoods. There is a lively network of assistance among Hispanics in Little Village that declines with tenure in the United States. There is a lively network among Hmong households in Minneapolis–St. Paul that does not decline with tenure. Hmong households use informal assistance, banks, and government assistance to successfully mitigate shocks. Chatham residents seemingly also achieve a low adverse consumption response, but seem relatively more reliant on the formal sector. It must be remembered, however, that the household sample does not allow much stratification by other salient demographic characteristics, which may be helping to determine risk and response.

Small Businesses Finance

One source of variation on the business side is the type of business being run. In a pooled, Chatham–Little Village sample, only 5.3 percent of the businesses are in the manufacturing and wholesale category. For all ethnic groups combined, the bulk of the firms fall into some form of retail or service sector. But black owners are relatively concentrated in the service sector. Manufacturing firms are more common for white owners than for other groups, and Asians have a marked concentration in other retail. Hispanic firms are relatively balanced across industry types, with no single category containing more than 25 percent of the total (although total retail accounts for 68.9 percent of Hispanic businesses). The Hmong business sample differs in having fewer in retail and most in services. The Minneapolis–St. Paul survey did allow professional trades, and 20 percent of the Hmong had them. This is strikingly high relative to the counterpart control group.

For the most part, businessmen are more educated and speak En-

glish better than their neighborhood household counterparts. This may be an occupation, selection effect typically studied in the empirical literature. Still, the demographic characteristics of businesses move as one moves across neighborhoods similar to the way household characteristics do. As foreshadowed, an exception to this are the Hmong running business in the Minneapolis–St. Paul sample, in differing radically from their household counterparts.

In the pooled Little Village and Chatham sample, the average age of the business for all groups is about nine years, and firms owned by blacks (thirteen years) and whites (sixteen years) tend to be older than the firms in the remaining groups. Hmong businesses are notably younger (four years), also relative to the counterpart control group. Most firms in the pooled sample employ relatively few workers; the average is 4.5 employees for businesses in all groups. White-owned firms and, to a lesser extent, black-owned firms tend to employ more workers on average (9.2 and 5.1) than firms in the other groups, but even those numbers pale in comparison to the average 10.4 workers in the Hmong business sample and 19.8 in the associated white business control group. Again, this would suggest that the Minneapolis–St. Paul sample of businesses may be biased toward larger, more formal business, something to bear in mind in the discussion that follows.

The average age of the firm owner for all groups in the pooled Chicago sample is about forty-seven years, with black and white owners again tending to be a bit older than owners in the remaining groups. The Hmong at thirty-six are again younger (and younger relative to the corresponding control group). About one-third of all owners in the pooled sample are women. These are Hispanic and especially blacks. In contrast, 92 percent of Hmong owners are male. The majority of business owners are married, 72 percent overall; black proprietors are somewhat less likely to be married and Hmong proprietors more likely, at 91 percent.

Most business owners in the pooled sample are at least high school graduates, and about one-third have a college degree. However, educational attainment varies across racial-ethnic groups. The proportion of Hispanics in the pooled sample that do not have a high school diploma (42.5 percent) is more than twice as high as the proportion for blacks (18.1 percent), the group with the next highest figure. Likewise, Hispanic owners are the least likely to have a col-

lege degree (only 18.1 percent have a degree), followed by black owners (34.9 percent). Hmong business owners are the most educated, with 45 percent having at least a college degree.

Hispanic owners (71.2 percent) are moderately or extremely proficient in English, less than the Koreans (89.7 percent), in turn lower than Hmong (98 percent). Finally, an appreciable proportion of the entrepreneurs owned a business previously, ranging from 25.7 percent for blacks, 32 percent for Hmong, and up to 51.0 percent for the Koreans.

An important result from research into the pooled Chatham and Little Village sample is that Hispanic and especially black-owned firms have lower levels of total start-up financing than firms owned by individuals in the other racial-ethnic groups. This all the more striking when one recalls that Chatham is a higher income neighborhood than Little Village. The means of start-up funding are much higher than the medians, indicating that a few businesses with large amounts of start-up funding are pulling the mean away from the median. We avoid this problem by recognizing that start-up funding follows an approximately log normal distribution. Comparing the means of logged start-up funds converted to dollars, we see that the average start-up funding for our sample was fairly modest at \$14,737. Further, and much to the point, the amount of start-up funds varies widely by ethnic group. Hispanics (\$13,164) and African Americans (\$10,812) start their businesses with lower amounts of funds on average than the remaining groups, and Hispanics are higher than blacks. In contrast, the median start-up funding in the Federal Reserve Bank of Minneapolis–Federal Reserve Bank of Chicago study was approximately three times larger at \$35,000 for the Hmong, and a larger \$55,000 for a white control group. So there seems to be an ethnic effect, but levels seem exceptionally high relative to the Chicago data.

The level of start-up funding for firms in the pooled Little Village–Chatham sample that started their business from scratch is only \$10,743, compared with \$27,340 for firms that were bought or acquired. This gap holds for each of the ethnic groups. Black owners again start their businesses with about 25 percent less funding than Hispanic owners. In the FRB Minneapolis–Chicago study, the numbers are approximately doubled but come with a slight ethnic gap: from scratch at \$21,540 for the Hmong and \$22,814 for the control group (bought or acquired at \$108,529 and \$119,752, respectively).

Again factors beyond ethnicity may affect the level of start-up funding. For example, a grocery store with a requirement for an extensive stock of inventory on the shelves will likely require more start-up funding than a firm that provides a service largely based on the human capital embodied in the owner and key employees. Here we can report on efforts to control for some differences in demographics, human capital, and industry type, to see what ethnic differences emerge.

To account for systematic differences in the required levels of start-up costs across industries, we used a number of industry indicator variables, ranging from manufacturing and wholesaling to business and personal services, in a regression analysis. The ease with which business assets acquired at start-up may be used for collateral may also vary by industry type. Human capital differences might also account for differences in start-up funding. We would expect that more qualified entrepreneurs, all else being equal, would be able to attract more funding. The personal wealth available to entrepreneurs to start a business would also depend, in part, on their human capital. The variables we used to account for this human capital include education, English proficiency, previous experience owning a business, and age at start-up. We included a variable that measures how long ago the owner started the business to account for the possibility that there has been a shift over time in the level of start-up costs. Indicator variables for ethnicity and gender capture differences not due to the industry and human capital variables.

To illustrate the economic effect of regression coefficients in the pooled Chatham–Little Village sample, we calculated estimated levels of start-up funding for each ethnic group using the following baseline characteristics: eating-drinking place, high school education, proficient in English, no previous experience as an owner, thirty-seven years old, male, and business started twelve years ago. The estimated start-up cost for a Hispanic owner with these baseline characteristics is \$20,414. For owners in the other groups, the estimated costs are: \$11,104 for blacks, \$54,564 for whites, \$26,921 for Asians, and \$30,479 for others. Thus, a black owner with the baseline characteristics starts a business with an estimated 46 percent smaller pool of funds than a comparable Hispanic. The differential has actually increased. Likewise, a white owner with the baseline characteristics starts with 167 percent more funding than a comparable Hispanic. On the other hand, in the Minneapolis–St. Paul study

controlling for industry and demographic characteristics seems to eliminate the difference in start-up costs of the Hmong relative to the white control group. Again, as in the household sample, the Hmong appear to be escaping adverse impacts.

Start-up capital appears to be positively correlated with profit levels, controlling for other characteristics. These findings are supported by regressing profit levels on start-up costs and racial dummy variables, though limited at present to the Little Village sample. An interesting feature is that although nonresident Hispanics report start-up costs similar to those of resident Hispanics, their profits are actually higher than those of Koreans, despite the latter having much higher start-up inputs. Hence, when profitability is considered, Koreans appear to fall back and nonresident Hispanics to move ahead. Recall that the latter group seems less reliant on informal networks, and so again we might say there is a positive correlation in the Hispanic sample between networks and adverse effects. However, dropping the ethnic dummy variables has almost no effect on the results, scarcely surprising given the huge confidence intervals associated with them. Using a profits measure that excludes the owner's salary reduces the estimate of the coefficient on start-up costs by about 0.1, but otherwise has little effect. The main finding of the regression is that each extra dollar invested in the business increases annual profits by \$0.70, strong evidence that higher start-up costs are better.

The survey allows the calculation of the proportion of funding from each source for every owner in the sample. Personal savings, on average, are the most important source of funding, 64 percent of the total for all enterprises in the pooled Chicago sample and 60 percent among the Hmong. There are marked ethnic differences in the proportional use of personal savings, with Hispanic, black, Korean, and Hmong owners tending to depend more on personal savings than white and control group owners. Highlighting the importance of personal savings, 55 percent of black owners, 51 percent of Hispanic, and 45 percent of Korean in the sample started their businesses using only personal savings. By comparison, only 19 percent of white owners did. Self-finance via savings could be taken as a priori evidence of constraints, in which case the ordering is consistent with other patterns (that is, more constrained, talented households save more before entering business). Black owners are most con-

strained, Hispanics second most, then Koreans and Hmong, and finally the white and control group owners.

Formal financing from banks and other formal lenders, at 10.5 percent, is less important for all firms, on average, than personal finance. The ordering appears similar. For Hispanics, for example, only 11 percent (7.2 percent of start-up funding) report using any formal finance. In contrast, a relatively high proportion of white owners (35 percent) use formal financing. The Hmong are the exception, with 25 percent (50 percent of start-up funding) getting formal finance. There may be selection effects at work. Recall also that whites are more likely to enter manufacturing and larger businesses.

Informal financing is more typically the second most important source of funding, at 18.9 percent for all firms in the two Chicago neighborhoods, and this gives us a look at possible network effects. For example, Koreans obtain more funds from relatives outside the immediate family and from friends and business associates than Hispanics do, that is, less from immediate family. It seems likely that Koreans have more personal savings and more connections to other Koreans with greater funds to lend. As evidence, we offer the finding that Koreans talk to a "wider" network of people before starting a business than other groups do. For Koreans, networks are not synonymous with family. There is something more going on. One factor may be greater availability of funds in the Korean community.

Turning the focus to black versus Hispanic differences, black owners begin their businesses with a somewhat higher proportion of start-up funding from personal resources (69.6 percent) than Hispanics (66.0 percent). Black-owned businesses also begin with a lower proportion of start-up funding from informal sources (14.9 percent) than Hispanic-owned (19.0 percent). Black owners start their businesses with a lower proportion of funding from other sources (3.5 percent) than Hispanic owners do (7.4 percent). However, the average proportion of formal funding for black-owned businesses (12.1 percent) is higher than that of Hispanic-owned (7.2 percent). It thus seems that blacks rely more on personal savings and the formal sector relative to Hispanics, and blacks rely less on ethnic networks. This is a salient finding.

Ethnic differences in the level of start-up funding could be the result of differences in personal wealth, or due to some groups facing

greater funding constraints than others. But it seems doubtful that Hispanics of Little Village have more personal wealth than blacks in Chatham for a given level of human capital. Recall that blacks do have higher income on average (though they may have higher debt). In any event, some doubt is cast on the hypothesis that wealth differences explain our central finding that black owners begin their businesses with less start-up funding than Hispanic owners for a given level of human capital. It seems at least as likely that the shortfall might be attributed to lack of an ethnic network. The Hmong, though relatively well financed from banks, do seem to be helped by a network effect. Hmong rely more on informal sources than the control sample does.

Of course attitudes toward risk may also vary across the neighborhoods. Mexicans relative to African Americans and Koreans appear more willing to risk windfall gains in current or new businesses. There is no evidence in our surveys here of discrimination in lending.

Ethnicity, Geographic Proximity, and Trade Credit

The neighborhood surveys contain information for up to three suppliers for each business owner. Trade credit is available to many of the businesses in the Little Village and Chatham surveys, as 49.7 percent of the firms report at least a credit offer. Hispanics (32.9 percent) and black firms (30.8 percent) are about equally likely to work with a supplier of the same ethnicity. The questionnaire further elicits information on the supplier's geographic location. We found that a Hispanic-owned business working with Hispanic suppliers is significantly more likely to receive an offer of trade credit than other Hispanic-owned firms. The data show no statistically significant corresponding relationship for black-owned firms working with black suppliers. Indeed, black-owned firms dealing with a neighborhood supplier rather than one outside the MSA suffer a reduced probability of being offered trade credit by between 15 to 27 percent, statistically significant and robust against a battery of industry and socioeconomic controls. The opposite relationship is observed for Hispanic-owned businesses, as dealing with a supplier closer to home increases the likelihood of trade credit offers, between 26 and 35 percent more likely relative to having the supplier located out-

side the MSA, and there an additional positive effect for a supplier in the neighborhood itself. These results suggest that Hispanics benefit from some kind of ethnic and geographically concentrated business network, as was evident on the household side, while African Americans either suffer from fragmented communities or perhaps have network-like associations outside their own ethnic group. Given the shortfall in black finance it might seem the former is a plausible story.

One wonders of course if these neighborhood specialty results are representative of U.S. cities more generally. Again, the neighborhood studies suffer from various kinds of bias. Data from the National Survey of Small Business Finances shed some light on this issue. The presence of other Hispanic businesses in an MSA with more Hispanic-owned businesses is associated with an increased frequency of cash discount offers and usage and a reduction in the likelihood of being rejected for trade credit. For example, the difference for use of cash discounts would disappear if we compare a Hispanic-owned firm in a city with no other Hispanics versus an MSA with 10 percent Hispanic business base. For black-owned firms, as in the case of the neighborhood studies, only one trade credit measure suggests a benefit from concentration with other black-owned businesses, and for two other measures there is an apparent adverse effect.

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Chapter 8

Microcredit Repayment Insurance: Better for the Poor, Better for the Institution

Loïc Sadoulet

The "microcredit revolution" of the past twenty years has led to a shift of the image that many had of the poor. While previously they were seen as unproductive individuals who could only be helped through welfare programs and subsidies, microcredit programs have demonstrated that the poor can become economically viable actors in the economy. Repayment rates for well-managed programs are typically above 95 percent (Morduch 2000), and "commercially minded" programs tend to achieve operational self-sufficiency after two to three years, even when servicing a very poor clientele (for example, SafeSave in Dhaka slums, Génesis Empresarial in Guatemalan highlands). Consequently, microcredit initiatives have expanded at an exponential rate: twenty years after the birth of the Grameen Bank, the World Bank estimates that there are over seven thousand programs in more than sixty countries, serving more than fourteen million borrowers with US\$7 billion in outstanding loans.¹

However, as successful as microcredit programs have been in less developed countries (LDCs), the results to date in *developed* countries are far from being uniformly positive. Many institutions have failed, most are struggling to control costs, and only a few have managed to generate profits. For example, Calmeadow—an NGO focused on providing affordable financial services to low income self-employed individuals in Vancouver, Toronto, and Nova Scotia—abandoned its lending activity in 2000 because of lack of commercial viability. Similarly, the Good Faith Fund, a Grameen replica set up in rural