Formal and informal financing in a Chicago ethnic neighborhood

Philip Bond and Robert 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 minority sections of society to have access to banks and other mainstream financial institutions. The usual regulatory view rarely considers alternatives to the formal banking 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.

It is beginning to be noticed, both theoretically and empirically, that such an extreme view cannot be supported. In this context, we seek to document not only the actual use of banks, but also the widespread use of alternative financing mechanisms, using data from a survey of households and businesses in a Hispanic neighborhood of Chicago. Our purpose is to present the salient facts, together with what we view to be reasonable interpretations, and to clearly delineate the boundary of our existing knowledge. In broad terms, this article adds to the existing literature concerning the actual and potential role of banks in disadvantaged communities.

In recent years, there has been a surge of interest in the issue of whether banks and other formal financial institutions are effectively serving poor and ethnic minority sections of U.S. society. The associated empirical literature has tended to focus on the volume of bank lending in certain neighborhoods or to certain

groups. While this approach has value, it suffers, to some extent, from a failure to address the reasons why an individual would actually desire a bank loan. Given that informal alternatives to banks do exist, the volume of total bank lending may not be the best indicator of the availability of credit within communities. Starting with a theoretical examination of underlying motives for borrowing, we reconsider the issue of credit provision in a context that admits the existence of informal community-based alternatives. To achieve this, we make use of the extensive data set from the 1994-95 Little Village Surveys of households and businesses, conducted in South Lawndale (popularly known as the Little Village), a principally Hispanic community on the southwest side of Chicago.

Modern economic theory has done much to clarify why individuals borrow and save. Ideally, people would like to insure themselves against all fluctuations in income, paying out money when times are good and receiving money when times are bad. If insurance is unavailable (and clearly complete insurance against all fluctuations is *not* available), people can insulate themselves partially from income changes by borrowing and saving, effectively transferring resources from periods of high

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income to periods of low income. This also implies that individuals will generally prefer loan contracts that offer at least some provision for default, effectively giving limited insurance against bad times. Similar reasoning applies to a consideration of optimal loan contracts to finance one-time capital investments, such as those entailed in house purchase or business financing.

Related theories have shown the importance of information in actually implementing loan or insurance contracts in the face of moral hazard incentive problems. One branch of research has suggested that financial intermediaries essentially owe their existence to their role as "information machines" that effectively minimize the costs of information creation. However, this research has yet to produce compelling reasons why intermediaries should take the form of formal institutions. The role of credit in helping individuals to insulate themselves against periods of low income or high expenditure requirements makes effective access to credit an issue of considerable importance. Similarly, the potential for self-employment to provide a route out of poverty has led to fresh interest in the problems of small business financing. Working from the theoretical framework outlined above, we put forward the following research questions:

- (1) To what extent are individuals able to buffer themselves against changes in income?
- (2) How available is financing for small business enterprises?
- (3) What sources of credit are actually used?
- (4) Do individuals prefer some sources of credit over others, perhaps related to the type of loan contract offered? Or are some groups of individuals denied access to some sources?

These questions were central to the design and execution of the Little Village Surveys. Given the concern among the public as to whether banks are serving the poor and ethnic minorities effectively, these questions take on a heightened importance when addressed to a relatively poor urban Mexican community.

In this article, we use the results of the survey to attempt to answer these questions. We find that there is widespread use of credit by both households and incipient businesses. Nonetheless, many households are not fully

insulated from income fluctuations, and businesses appear credit-constrained, in the sense that higher start-up investments lead to more than proportionally higher profits. Moreover, most of the credit is provided by informal sources, such as families and friends. More contentiously, we find evidence that the small role of the formal financial sector is at least partly attributable to a lack of interest from the community. Reconciling this finding with the apparent lack of overall credit leads us to speculate that the loan instruments offered by the formal sector may not be particularly attractive, and that improvements may be possible by using or replicating informal community networks.

Below, we provide a more detailed summary of the theoretical background for the Little Village Surveys. This is followed by a two-part discussion of the actual findings of the survey—the first part dealing with the household section of the survey and the second dealing with the business section.

Theoretical overview

Why do individuals wish to borrow or save?

In a world of perfect information and completely specifiable and enforceable contracts (and without transaction costs), individuals would buy insurance against all noneconomywide risks such as an individual income drop or the death or illness of a family member.² In technical terms, marginal utility of consumption would remain constant even in the face of idiosyncratic shocks.³ In practice, such insurance may be offered in part through provisions (either explicitly stated or implicitly understood) for default or repayment rescheduling in loan contracts.4 The influential permanent-income model of Milton Friedman (1957) demonstrates then even if only noncontingent borrowing and saving are possible, individuals will be able to significantly insulate consumption from income fluctuations. In contrast, if only saving is possible, individuals will be forced to accumulate buffer stocks to guard against hard times, and are likely to suffer a financial setback when savings are low or nonexistent.⁵ We do not address here longer-term motives for saving, such as those suggested by bequest or life-cycle models (briefly, the latter postulates that individuals borrow when young, then repay and save for retirement when middle-aged and their income has peaked).

Aside from these insurance and smoothing motives, clearly people also borrow and save to finance lump-sum capital costs, such as those incurred in house purchase or business start-up. The complex questions of why and which individuals would want to engage in these activities are left undeveloped here, though it should be noted that credit constraints in business financing may have far reaching implications in terms of occupational choice, intergenerational mobility, and even economy-wide productivity and growth, as discussed by Evans and Jovanovic (1989) and by Lloyd-Ellis and Bernhardt (1993), among others.

Why does intermediation arise?

It is by no means obvious why institutions arise that specialize in the provision of lending and other insurance services. In a world of perfect information, individuals would simply write contracts directly with each other. Theories of intermediation typically depend on information being available only at a cost: Intermediaries arise either because they minimize the amount of information production (that is, not all individuals need to do it) or because they have lower costs of intermediation production than other agents. Key papers in this field include Diamond (1984), Krasa and Villamil (1991), and Boyd and Prescott (1986). However, the first two force a formal structure on the intermediary by allowing at most one central point of information collection per intermediary, while the latter does not distinguish convincingly between a formal structure and an informal network linking individuals. In summary, there are no established theoretical reasons for supposing that when intermediation exists it will take the form of a formal institution.6

Why might intermediaries have difficulty serving some communities?

If loan production requires resources other than the opportunity cost of capital, it might simply be too costly to lend to poor or marginalized individuals at standard interest rates. If such individuals are geographically clustered, this will translate into little lending activity within certain communities. However, it is not clear that loan production involves costs that are not proportional to loan value, nor is it clear that a lender could not recover such costs by charging higher interest rates for small loans or "costly" borrowers.

Some theories of intermediation predict credit rationing, in the sense that some individuals are denied loans even though other individuals with identical qualifications are granted loans, or that individuals would like to borrow more at posted interest rates.7 Clearly, if it existed, such rationing might take place along community lines, perhaps to economize on acquiring specific knowledge of different communities.8 Credit rationing may greatly exaggerate what would otherwise be marginal variables in the loan-application process—that is, if some essentially identical individuals must be rejected, tiny differences in the cost of loan provision could produce huge differences in outcomes. Aghion and Bolton (1992), Lehnert, Ligon, and Townsend (1996), and Piketty (1994), have exhibited models in which moral hazard problems may be more acute at low wealth levels and, consequently, poor individuals may face higher interest rates or even be cut out of the loan market completely. Finally, consideration must be given to the view that some lenders are closed-minded or racist and, hence, simply do not like to lend to minority segments of society.

We would note that no theory of bank unwillingness to lend can be supported or refuted by a simple count of bank rejections. If the application process is costly and people understand the process by which banks operate, applicants likely to be rejected will not apply. Theoretically, given the extensive selfselection and prescreening of actual bank applicants, only "information surprises" in the loan process should lead to rejections. In this sense, the emphasis on minority rejection ratios as reported in Home Mortgage Disclosure Act (HMDA) data, in the Federal Reserve Bank of Boston study (1992), and in matched-pairs regulatory analysis seems a little misplaced. More consideration must be given to who is actually applying for bank loans, an issue that is tightly connected with the existence of financing alternatives.

Why some communities may have less need of formal intermediation

A different explanation for the lack of formal financial intermediation in some environments is that individuals or groups outside the formal sector may have cheaper access to relevant information about a borrower and/or more effective enforcement mechanisms.

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In such cases, informal arrangements may offer more attractive loan/insurance packages than formal intermediaries. Capital from the formal financial sector may therefore be unnecessary. Another possibility is the use of explicit group lending schemes, either for screening or enforcement purposes.9 Capital may enter the community through a small number of individuals, who recycle the money through informal and semiformal networks. These theories suggest that far from being ignored by banks, poor and minority communities may be choosing not to use their services. A much improved understanding of credit markets and institutions, both formal and informal, is needed to study this class of theories.

Below, we begin our discussion of the results of the Little Village Surveys with the household survey. We detail sampling procedures and report summary statistics of the survey populations. We then address household financial shocks, consumption smoothing, and house-buying activity. This section is followed by a discussion of the survey findings for Little Village businesses. We report sources of small business start-up financing. We then attempt to relate start-up capital to profits and to explain cross-ethnic differences in start-up costs. A recurring theme throughout is that, with the important exception of house-buying, formal financial institutions play a very limited role.

The household survey

For the household segment of the survey, blocks from within the South Lawndale 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.

Of the primary respondents,¹⁰ 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 were single.

Respondents 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 big majority (78.2 percent) were born in Mexico, with most of the remainder (19.3 percent) born in the U.S. For those born in Mexico, the average length of time in the U.S. was 15.3 years. Of the whole sample, 21.9 percent described themselves as being very proficient in spoken English, 23.1 percent as being moderately proficient, and 54.9 percent as not being proficient. The comparable figures for Hispanics only are 18.0 percent, 25.0 percent, and 57 percent. For written English, the whole sample figures are 14.0 percent, 20.3 percent, and 65.7 percent, and for Hispanics only, 14.0 percent, 20.8 percent, and 65.2 percent.

Formal educational achievement appears low. Of the total sample, 23.9 percent have a high school diploma, 3.1 percent a degree from a junior college, 2.5 percent a BA, and 4.9 percent a technical degree. The low number having high school diplomas may partially reflect differences in the Mexican education system.

The principal occupational responses for men and women, respectively, were as follows: 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). The national figures for self-employment among Mexicans are 6.8 percent for men and 4.4 percent for women, compared with 10.8 percent and 5.8 percent for the whole population. The men and 5.8 percent for the whole population.

The distribution of reported household income is low, as shown in table 1. The median of \$18,720 is lower than the 1990 figure of

TABI	LE 1
Househole	d income
Minimum	\$1,500
Maximum	160,000
Mean	22,000
1st quartile	12,000
Median	18,720
3rd quartile	30,000
Note: Observations = respondents did not a	

TAB	SLE 2					
Principal sources of financial difficulties among households						
Problem	Number of households citing problem					
Death or illness of relatives	127 (38.8)					
Unemployment or unusually low income	163 (49.8)					
Increase in living expenses/dependents	125 (38.2)					
Total households citing at least one problem	210 (64.2)					
Notes: Number in parenthe whole sample.	eses indicates percent of					
Because multiple re sum of responses is households respond	•					

\$22,260 for the same neighborhood, cited in the 1992 Community Lending Factbook (1992). The same source gives the city-wide median as \$26,301. Mean income for the extended Chicago metropolitan area is considerably higher.

Use of consumer credit and savings

The survey results indicate that approximately two-thirds of households interviewed had suffered financial difficulties in the last five years. As predicted by theories such as the permanent-income model, there is widespread use of credit to reduce drops in consumption in these periods. However, despite widespread awareness of the possibility of bank credit, this option is little used in practice. We start by detailing these findings:

Fact 1: Financial difficulties are prevalent. Of the sample, 210 households (64.2 percent) reported having experienced a problem that caused financial difficulties in the last five years. Table 2 displays the principal problems cited.¹³

Fact 2: When faced with a hypothetical need to borrow money, obtaining a bank loan is the popular response. A total of 139 households cited this response, more even than "personal savings" (133) and "gifts and loans from

relatives" (114). Given these responses, it would be hard to argue that households are simply unaware of the possibility of obtaining a bank loan or that they regard bank loans as impossible to obtain.

Fact 3: In practice, when faced with actual financial difficulties, bank loans are little used compared to other options. Table 3 displays the full list of cited responses to the difficulties outlined in table 2. There is extensive use of existing savings and assets. There is also widespread use of "new" sources of finance, with 124 respondents (58.5 percent of those responding) using at least one such source other than transfer payments. However, only 25 of these households obtained credit from a source described as a "bank or individual". Of these responses, 14 refer to banks, four to finance companies, three to credit

TABLE 3	
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Response	Number of households
inancial response (new source)	
Borrowed from banks or individuals ^a	25 (11.8)
Gifts or other assistance from relatives ^a	68 (32.1)
Borrowed from friends ^a	59 (27.8)
Gifts or assistance from friends ^a	28 (13.2)
Borrowed from ethnic association ^a	17 (8.0)
Jsed credit cards	5 (2.4)
Transferred payments	28 (13.2)
Received money/food from community organization	1 (0.5)
inancial response (existing assets)	
Jsed cash or household savings ^a	76 (35.8)
Sold assets ^a	17 (8.0)
Delayed or failed to pay debts ^a	66 (31.1)
abor response	
Norked harder/increased hours ^a	88 (41.5)
Got other job to tide over ^a	46 (21.7)
Put other family members to work ^a	25 (11.8)
Consumption response	
Reduced household consumption expenditures ^a	97 (45.8)
Other	
Received nonmonetary help from relatives	2 (0.9)
Somebody else will pay	1 (0.5)
Other	20 (9.4)
None, because it did not cause economic problems	14 (6.6)
Migration	1 (0.5)
Total number of households responding	212

^aResponse explicitly mentioned as an option in the questionnaire.

Notes: Number in parentheses indicates percent of those responding.

Because multiple responses are considered, sum of responses is greater than total households responding.

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TABLI	4		
Additional use of fir	ancial responses		
	Borrowed from bank or individual lender	Did not borrow from bank or individual lende	
Gifts or other assistance from relatives	6 (24.0)	62 (62.6)	
Borrowed from friends	6 (24.0)	53 (53.3)	
Gifts or assistance from friends	1 (4.0)	27 (27.3)	
Borrowed from ethnic association	2 (8.0)	15 (15.2)	
Used credit cards	1 (4.0)	4 (4.0)	
Received money/food from community organization	0 (0)	1 (1.0)	
Only one new financial source	10 (40.0)	47 (47.5)	
Used cash or household savings	3 (12.0)	40 (40.4)	
Sold assets	1 (4.0)	9 (9.1)	
Delayed or failed to pay debts	4 (16.0)	99 (39.4)	
Total	25	99	
Notes: Restricted to those using at least one source of new final	nnce.		
Number in parentheses indicates percent of total.			
Because multiple responses are considered, sum of res than total households responding.	ponses is greater		

unions, one to an unrelated individual (charging an undisclosed interest rate on a \$4,000 loan), and one each to a mortgage company, workplace, and "other" source. Hence 19 of the 25 households are borrowing from what we would describe as a "formal" institution. Hence 19

Table 4 shows how the use of financial responses differs between those who use a bank or individual lender and those who obtain new finance from other sources. For both groups, it is common to obtain only one new financial source. It is comparatively rare for people borrowing more from a bank or lender to also be liquidating funds and defaulting on debt.

Table 5 shows that compared to those not making a "new" financial response and those

making a response but *not* from a bank or lender, those borrowing from a bank or lender are more likely to work harder but less likely to reduce household consumption. Hence, they are more likely to pass tests for consumption smoothing. The response patterns of the other two groups are broadly similar. A possible interpretation is that loans from a bank or lender are used only in the face of relatively severe financial difficulties and, in these cases, direct financial help must be supplemented with an increase in labor effort.

Table 6 gives details of loans and gifts by source. Note that the mean loan amounts from family and friends are small compared with those from other sources, but so are the interest

TABLE 5 Use of nonfinancial responses							
	No new financial response	Loan from bank or lender					
Worked harder/increased hours	32 (36.4)	41 (41.4)	15 (60.0)				
Got other job to tide over	18 (20.5)	22 (22.2)	6 (24.0)				
Put other family members to work	7 (8.0)	15 (15.1)	3 (12.0)				
Reduced household consumption expenditures	41 (46.6)	47 (47.4)	9 (36.0)				
Total	88	99	25				
Notes: Number in parentheses indicates percent of total.							
Because multiple responses are considered, sum than total households responding.	of responses is g	reater					

		1	TABLE 6					
Details of financial assistance								
	Immediat	e family	Other	Other family		end		
Response	Loans	Gifts	Loans	Gifts	Loans	Gifts		
Number	39	28	18	6	58	8		
Mean amount (dollars)	724	998	631	320	618	360		
Mean interest (percent)	.15		0		0			
Collateral required	0		0		1			
Mean collateral/loan	na		na		10			
	Other in	dividual	Community of	organization	Ва	nk		
Response	Loans	Gifts	Loans	Gifts	Loans	Gifts		
Number	3		2	3	15			
Mean amount (dollars)	3 1.572		2 1,250	3 75 (1)	8,960			
	0		1,250	75 (1)	7.0			
Mean interest (percent) Collateral required	0		0		7.0			
Mean collateral/loan	na		U		2.53			
Mean conateral/loan	IId				2.55			
Response	Credit	union	Finance c	ompany	Governme	nt agenc		
	Loans	Gifts	Loans	Gifts	Loans	Gifts		
Number	3		4			3		
Mean amount (dollars)	3,167		4,925			370		
Mean interest (percent)	11		22 (1)					
Collateral required Mean collateral/loan	1 5							
	Mortgage	company	Place of	f work	Otl	ner		
Response	Loans	Gifts	Loans	Gifts	Loans	Gifts		
<u> </u>								
Number	1		1		1	2		
Mean amount (dollars)	7,000		2,200		700	205		
Mean interest (percent)	7.9		0		0			
Collateral required	1							
Mean collateral/loan	7.1							

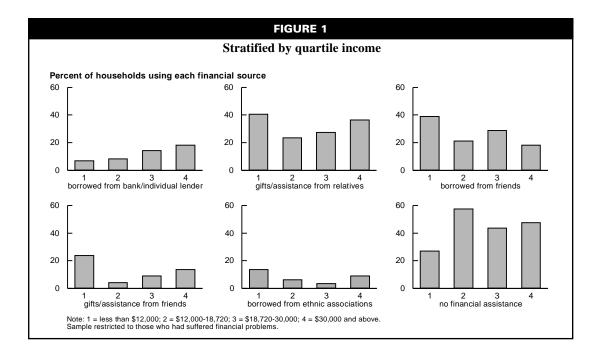
rates (many are zero). We would also note there is a general absence of collateral requirements. As we might expect, "formal" loans are bigger and have positive interest rates. This begs the question whether such loans are available only in large sizes (either because small ones entail excessive transaction costs or because the type of applicant who would want a small loan is excluded from the financial sector). Figure 1 displays how responses vary across groups defined using various characteristics. In all cases, the sample is restricted to those households that reported some form of financial difficulty.

Figure 1 stratifies respondents by quartile household income.¹⁹ The lowest income group has a markedly stronger tendency to receive at least one form of "new" financial assistance,

though it appears that the relatively poor are also less likely to obtain assistance from a bank or lender. On the other hand, the relatively well-off appear less likely to receive assistance from friends.

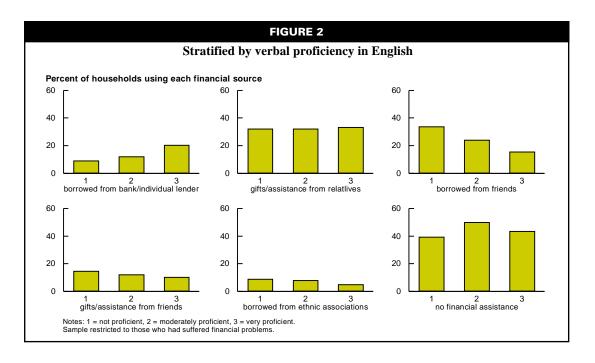
Figure 2 displays a stratification by verbal proficiency in English.²⁰ Incidence of bank or lender loans seems positively correlated with proficiency in English, and assistance from friends negatively correlated.

Figure 3 stratifies respondents by house-buying activity.²¹ Having used a formal-sector loan to buy a house markedly increases the incidence of borrowing from a bank or lender, but owning a house acquired without a formal loan appears to have little effect. Since one would imagine that a house provides ample

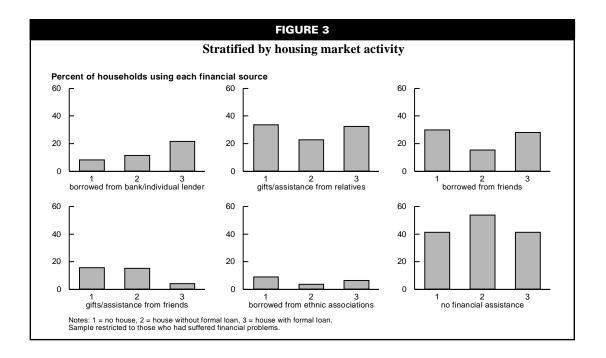


collateral with which to obtain a consumption loan, this finding gives evidence that at least some people may simply prefer not to borrow from a bank or other lender. However, those households that acquired a house without a formal loan also appear reluctant to take any form of financial assistance, suggesting that they simply have little need or willingness to borrow from anyone, whether formal institution, family member, or friend.

Figure 4 stratifies respondents by a "link" index, giving the use of services outside the neighborhood.²² The greater the value of this index, the more services are used outside the community, giving some indication of integration into "mainstream" Chicago. There is (perhaps) a small positive correlation of this index with the use of bank and lender loans and, intriguingly, a substantial negative correlation with the use of assistance from friends.



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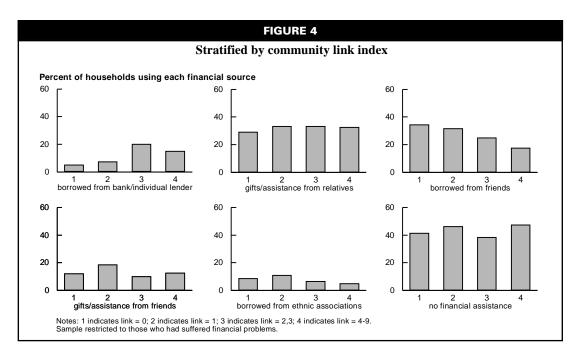


The fact that higher income, greater English proficiency, house ownership, and use of services outside the neighborhood all have more or less similar effects on the pattern of financial assistance reflects in part a substantial positive covariance in these variables. Nonetheless, the question remains why the group of people so defined (roughly, in fact, those who might be thought to most resemble white Americans) make more use of banks

and lenders and less use of loans from friends in periods of financial distress. We propose the following hypotheses:

Hypothesis 1: Only these people have access to the bank, for some subset of the reasons suggested earlier.

Hypothesis 2: These people would like to borrow from informal sources offering more flexible contracts, but cannot do so because



- (a) Informal loans are small because of a lack of lending funds within the informal network, whereas high-income people have greater borrowing requirements, and/or
- (b) Informal loans are not available to them because community funds are limited and the relatively well-off or integrated are given the lowest priority in their allocation, and/or
- (c) Informal loans are not available to them because the very act of becoming more wealthy or integrated has reduced their community links.

We have been unable decisively to accept or reject any of these hypotheses. Without a model of who is actually able to obtain formalsector assistance if desired, it is impossible to distinguish between individuals shunning the formal sector and the formal sector shunning individuals. The development of the necessary model would presumably require a probit-type estimation on a large sample of bank accept/ reject decisions, using detailed personal data on the individuals involved.²³ It is worth highlighting that only hypothesis 1 would justify intervention efforts to increase the volume of traditional bank lending activity in "marginalized" communities, whereas both (a) and (b) of hypothesis 2 would suggest that banks and

other lending institutions should attempt to channel capital through either existing or "constructed" community networks. We conclude that the task of explaining the stratification documented here is one of some importance.

More generally, with regard to involvement with the formal financial sector, we were surprised to find that only 70 households (21.3) percent) reported having a checking account.²⁴ As before, these households are likely to be of higher income and greater proficiency in English. Even among the 14 households that had obtained bank loans in times of financial difficulty, six reported not having a checking account. This finding gives some support to the view that Little Village residents may prefer to avoid using the formal financial sector, though other explanations are certainly possible.²⁵ In contrast, 50.5 percent of the sample reported having a savings account, suggesting that respondents are able to access the formal sector when it is beneficial to do so.26

House-buying credit

A total of 136 households (41.6 percent) live in houses that are either their own or belong to their family.²⁷ The current reported market values of houses range from \$32,000 to \$200,000, with a mean of \$95,442. For the

TABLE 7								
Sources of house financing								
Lender	No.	Mean interest	Range	Mean Ioan	Range	Mean income	Range	
		(percent)	(percent)	(dollars)	(dollars)	(dollars)	(dollars)	
Individual	7	4.0 (5)	0–11	34,500 (6)	5,000-70,000	25,786 (7)	9,000–38,000	
Bank	68	7.92 (52)	0-14	41,924 (65)	3,000-112,000	29,572 (64)	10,500-76,000	
Finance co.	5	8.8 (5)	5-14	62,900 (5)	19,500-129,000	25,500 (5)	8,500-39,000	
Seller's credit	1	7 (1)		105,000 (1)		36,000 (1)		
Mortgage co.	6	6.67 (6)	4–9	70,167 (6)	18,000-125,000	54,375 (6)	19,500-160,000	
Govt agency	2	7.5 (2)	6–9	75,000 (2)	70,000-80,000	29,600 (2)	19,200-40,000	
Credit union	1			15,000 (1)		20,000 (1)		
Workplace	1	11 (1)		3,000 (1)		50,000 (1)		
Tanda, etc.	2	5.5 (2)	0-11	14,000 (2)	3,000-25,000	15,250 (2)	13,500-17,000	
Undeclared	1	0 (1)		25,000 (1)		27,500 (1)		
Other	1	9 (1)		110,000 (1)		13,500 (1)		
None mentioned	d 23					27,494 (18)	8,000–75,000	
Total	118	7.39 (77)	0–14	44,625 (92)	2,000-129,000	29,847 (108)	8,000–160,000	

Notes: Number in parentheses indicates reported observations used to construct means.

Three household had substantial loans from two different sources:

Household 773 took loans of \$85,000 from a finance company and \$65,000 from a bank.

Household 826 took loans of \$48,000 from a bank and \$46,000 from another bank.

Household 660 took loans of \$59,000 from a bank and \$17,000 from a sibling.

Figures relate only to single largest loan used by each household.

TABLE 8							
Individual lenders							
Household ID Relation Loan size Interes							
		(dollars)	(percent)				
521	Agent	65,000	11				
559	Stepparent	Not revealed	0				
580	Sibling	15,000	0				
585	Sibling	5,000	Not revealed				
625	None	70,000	9				
664	Parent	35,000	0				
754	Parent	17,000	Not revealed				

118 households that had bought their house, table 7 displays details of the largest loan used in the financing process.

Clearly, the majority of house-buying activity is financed by banks or other formal institutions (such as finance or mortgage companies). There is also some use of smaller loans from individuals, presumably to finance required down-payments.²⁸ Ten households appear to fit this pattern. There is also some use of loans from individuals as the only credit source—table 8 gives details of the seven individual lenders involved.

Of the 23 households that did not mention any credit source, 15 appear to have financed their house purchase entirely from personal savings. ²⁹ Considering these 15 cases, together with the eight that obtained loans from individuals, it appears that at least some households are able to access large sources of funds without borrowing from the formal sector. It is not clear how widespread this ability is, nor whether personal savings and loans from the "informal" sector are the preferred options or merely the only options for households that face difficulties accessing the formal sector.

TABLE 9							
Racism in lending?							
	Accepted	Rejected	Rejection rate				
			(percent)				
Hispanic institution contact	16	5	23.8				
Non-Hispanic institution contact	10	2	16.7				
Total	26	7	21.2				

In a separate section of the questionnaire, respondents were asked if they had *applied* for a mortgage in the last five years. The reported rejection rate is seven out of 34 cases (17.9 percent). This appears relatively (though not exceptionally) high, compared with a 12.9 percent rate for whites, a 15.4 percent rate for Hispanics, and a 23.6 percent rate for African-Americans in Chicago overall, and an 11.0 percent rate for whites and a 30.7 percent rate

for African-Americans and Hispanics combined in Munnell et al. (1992).³⁰ For Hispanic applicants only, table 9 splits the rejection rates by reported ethnicity of the loan officer contacted: It offers no direct evidence to support a racial prejudice explanation of rejection. A serious consideration of this matter would be considerably more complicated. For instance, it has been suggested that those minority individuals with credit problems tend to apply to banks that they perceive to be "soft" on minorities. The result could be apparently high rejection rates for minorities at precisely those banks that have made the most effort to remove racial prejudice from the application process. We would emphasize that because a great deal of self-selection and sorting occurs before individuals formally apply for bank loans, any simple analysis of rejection rates is problematic.

Table 10 displays housing outcomes for the seven households that had experienced rejection when applying for a mortgage. Of these cases, five households had nonetheless succeeded in purchasing a house, and three of these appear to have successfully reapplied for a loan of the same size within the formal sector. Only the remaining two households were

> still renting when the survey was conducted. Evidently a mortgage rejection, while commonplace, does not preclude the applicant from later purchasing a house.

Business survey

In addition to households, the Little Village Surveys interviewed approximately one-third of all businesses present within the South Lawndale neighborhood.

	TABLE 10						
Final outcomes for households suffering rejection when applying for a mortgage							
Household ID	Own/rent	Application amount	Successful application to	Application amount			
			(dollars)		(dollars)		
513	Own	Bank	10,000	Workplace	3,000		
551	Own	Bank	57,000	Bank	57,000		
718	Own	Bank	67,000	Bank	67,000		
754	Own	Bank	120,000	Individual	17,000		
812	Own	Mortgage	44,000	Bank	44,000		
582	Rent	Finance	5,000				
778	Rent	Finance	3,500				

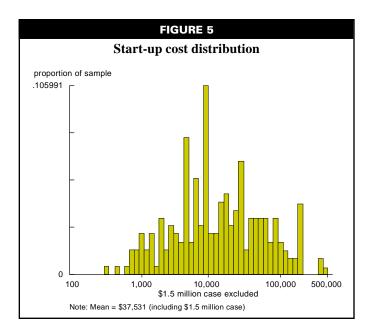
The survey sample was constructed by first (tediously) canvassing and enumerating all existing businesses. A stratified random subset was then drawn, including relatively common businesses at a rate of 35 percent, relatively uncommon businesses at a rate of 100 percent, and all other businesses at a rate of 50 percent.31 Note that professional services (such as legal and medical services) were excluded from the survey on the grounds that formal requirements result in the entrance and financing decisions for these sectors having little in common with those of other small businesses.³² The businesses in this selected sample were then surveyed by bilingual interviewers (Spanish-English and Korean-English as appropriate) and a 70 percent response rate achieved, yielding 204 completed interviews. Additionally,

31 of 120 booths in a discount mall were successfully surveyed, yielding a final sample size of 235 businesses. Note that in the findings we present here, we have *not* adjusted for the sampling ratios—such adjustments appear to have little impact and, in many cases, the cell sizes are so small as to make such adjustments conceptually problematic.

Table 11 details ownership ethnicity and type of business, and more or less supports the popular perceptions that strip mall and clothing stores are owned mostly by Asians, industries are small in number and owned by white Americans, and food businesses are owned almost exclusively by Hispanics.³³

Reported start-up financing costs vary widely. Figure 5 displays a histogram of start-up costs, revealing that they follow an

TABLE 11 Ethnic and business type composition of sample						
Clothing	3	1	1	6		11
Food/produce	21	4	1		2	28
Restaurant	13	6	1			20
Hair salon	7	10		1		18
Bar	7	1	2			10
Auto	6	8	1			15
Iron	2					2
Bridal	4	1				5
Bakery	2	3				5
Industry		1	2			3
Wholesale		2	1	1		4
Residual	39	27	9	5	3	83
Mall	6	5		15	5	31
Total	110	69	18	28	10	235



approximately log-normal distribution, with a mean of \$37,531, and a range from \$300 to \$1.5 million.³⁴

Business establishments surveyed are generally young, presumably reflecting the high turnover typically found among small businesses. Table 12 gives the age breakdown.³⁵

Sources of business start-up financing

Formal loans are used strikingly little in financing business start-ups. We would note the following:

Fact 1: Bank financing is little used, as indicated in table 13.

Fact 2: Of the 27 businesses that did use bank loans, only 10 used a loan from some other source. This may suggest that for those who actually obtain bank loans, such loans are the preferred option. Another interpretation would be that banks are reluctant to be one of several creditors, perhaps because of complications in recovering assets in cases of bankruptcy.

Fact 3: Rejection rates for bank loans are relatively high. The data in table 14 suggest that for resident Hispanics, it may be at least 12/28 (42.9 percent).³⁶ However, it is not clear whether rejection is a particularly bad outcome. Table 15 details the final business outcomes for those individuals whose bank loan applications had been rejected.

TABLE 12										
Start-up dates of current businesses										
	Resident Hispanic	Nonresident Hispanic	White	Asian	Arab	Total				
1955-59			1			1				
1960-64	1	1				2				
1965-69	5		4			9				
1970-74	3	4	1			8				
1975-79	9	6	5	1	1	22				
1980-84	10	5	4	1		20				
Total before 1985	28	16	15	2	1	62				
1985	2	4	1	1		8				
1986	8	6	1	1		16				
1987	5	4	1	2	1	13				
1988	5				1	6				
1989	14	4		1	1	20				
1990	8	7		2	1	18				
1991	12	6		11	1	30				
1992	12	6		4	2	24				
1993	8	9		2	2	21				
1994	7	7				14				
1995	1			2		3				
Total	110	69	18	28	10	235				

TABLE 13										
Bank loans in financing business start-ups										
	Resident Hispanic	Nonresident Hispanic	White	Asian	Arab	Total				
Number of cases	16.0	4.0	2.0	3.0	2.0	27.0				
Percent of sample	14.5	5.8	11.1	10.7	20.0	11.5				

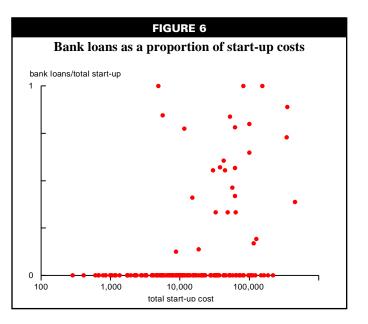
In many (but not all) cases, individuals appear to have succeeded in raising similar amounts of capital elsewhere. There is an extreme selec-

tion bias, however, in that only current business owners are considered. In contrast, table 16 details reasons for not starting a business by households that had previously taken steps toward starting a business but had not done so. Of these 57 households, 28 cite either lack of money or actual loan rejection, suggesting that financing constraints are in fact widespread.

Fact 4: When bank loans are used, they are relatively large.
Figure 6 shows that bank loans are only used for businesses with start-up costs close to \$10,000 and above. Even in this range, most businesses are still financed without bank capital. Moreover, there does not appear to be any systematic relation between proportion of start-up costs financed by bank capital and start-up costs.

Evidently then, the role of banks in small business financing is limited in the Little

Village.³⁷ So where are these businesses obtaining start-up capital? Table 17 displays sources of financing by ethnicity.



The striking result is that a minority of businesses (92 out of the 221 completing this section, or 41.6 percent) used *any* kind of loan to finance start-up costs. In contrast, as is

Bank loans and rejection incidence											
	Resident Hispanic	Nonresident Hispanic	White	Asian	Arab	Total					
No bank loan											
Suffered rejection	7	3	0	1	0	11					
Never applied	83	60	10	24	7	184					
Have bank loan											
Suffered rejection	5	1	O ^a	0	0	6					
Did not suffer rejection	11	3	1	3	2	20					
Minimum rejection ratio	12/28	4/8	0/1	1/4	0/2	17/43					
As percentage	42.9	50.0	0	25.0	0	39.5					

	TABLE 15									
	Outcomes for business respondents who suffered loan rejection									
<u>ID</u>	Ethnicity	Actual start-up cost	Rejected Ioan application	Outcome						
		(dollars i	n thousands)							
73	Hispanic	21.3	20	Gift of \$8K from immediate family, \$13.3K savings.						
48	Hispanic	0.62	10	\$620 savings.						
61	Hispanic	9.2	50	\$9.2K personal savings.						
206	Hispanic	4	?	\$4K savings.						
101	Hispanic	2.5	5	\$500 supplier's credit, \$2K savings.						
95	Hispanic	17	10	\$7K bank loan, \$10K savings.						
23	Hispanic	8	25	\$3K loan from friends/associates, \$5K supplier's credit.						
88	Hispanic	15	15	\$15K loan from immediate family.						
54	Hispanic	50	3	\$42K bank loan, \$3K loan from friends/associates, \$5K savings.						
72	Hispanic	60	160	\$34K bank loan, \$14K from friends/associates, \$12K savings.						
98	Hispanic	100	20	\$110K bank loan, \$20K mortgage, \$10K savings.						
5	Hispanic	515.6	180	\$200K bank loan, \$50K mortgage, \$20K loan from immediate family, \$20K loan from friends/associates, \$225.6 savings.						
188	Hispanic(NR)	30	25	\$15K gift from immediate family, \$15K personal savings.						
81	Hispanic(NR)	2.1	5	\$2.1K personal savings.						
104	Hispanic(NR)	13.1	10	\$5K supplier's credit, \$8.1K savings.						
67	Hispanic(NR)	59.4	25	\$25K bank loan, \$34.4K savings.						
65	Asiana	34	25	\$13K loan from friends/associates, \$6K supplier's credit, \$75K savings.						
165	Whiteb	383.7	?	\$280K bank loan, \$103.7K other gifts.						

^aInterviewers attempted to ensure that start-up funds and costs were within 10 percent. These efforts were generally successful. ^bFrom government agency.

 $[\]label{eq:NR} NR = Nonresident.$

TABLE 16						
Household reasons given for not starting business						
Response	Number of households					
Personal commitment/personal problem	4					
No money	26					
Lack of proper certificate/license	4					
Family commitments	5					
Family opposition	1					
Did not know how to start	1					
Always postpone a decision/fear of risk	5					
Wasn't serious	1					
Had another job	1					
Loan application denied	2					
Problems with prospective partners	2					
Other	1					
Legal problems	1					
Lack of family help	1					
Recession in economy	1					
Used money for something else	1					
Total	57					
Note: First response given to this question by each I	nousehold.					

shown in table 18, 49.5 percent of respondents used *only* personal resources, principally personal savings, to start their business.

Table 19 gives reasons given for not trying to get some kind of loan. The salient feature is that the majority response is "lack of need," with only 21 citing lack of credit-worthiness or information, or an expectation of denial. These responses suggest that the widespread absence of loaned start-up capital is of the respondents' own choosing. Consistent with this, only 16 business respondents from the whole sample cited lack of financing as their biggest problem in starting a business.

Nonetheless, the "lack of need" response seems surprising. We would expect bigger businesses

^{? =} no response.

		TABLE 17				
Number of busin	iesses rece	iving different f	forms of st	art-up fina	ance	
	Resident Hispanic	Nonresident Hispanic	White	Asian	Arab	Total
Loans						
Bank Ioan	16	4	2	3	2	27
Private lenders	2	1	0	1	0	4
Mortgage	2	1	1	1	0	5
Government program	1					1
Supplier's credit	7	7	1	5		20
Ethnic association				1		1
Other private sources	1					1
Borrowed from immediate famil	y 14	6	3	1	0	24
Borrowed from other relatives	8	1	1	4	0	14
Borrowed from friends or						
business associates	9	5	1	5	1	21
Total informal loans ^a	26	11	5	9	1	52
Total loans	45	22	9	13	3	92
Gifts						
From immediate family	5	3		2	1	11
From friends	2					2
Other gifts			1			1
Total gifts	6	3	1	2	1	13
Personal resources						
Personal savings	90	58	5	22	6	181
Credit cards	0	3	0	1	0	4
Loans from other						
businesses/inventory	2	3	0	2	1	8
Total personal resources	92	60	5	25	7	189
Partner's contribution	6	10	1	0	1	18
Other	4	3	1	1	0	9
Total responses	106	67	11	28	9	221

^aDefined here as borrowing from any family member, friend, or business associate.

Note: Because multiple responses are considered, sum of responses is greater than total households responding.

to be more profitable and would-be entrepreneurs to prefer to eliminate the "saving period" before going into business. We offer the following hypotheses to explain the predominance of this response:

Hypothesis 1: Business start-up is part of a long-term plan and entrepreneurs need to

accumulate experience, as well as physical capital. Hence, businesses either start very small to provide a training in business or business owners acquire the necessary training elsewhere, accumulating savings at the same time.

Hypothesis 2: The quantity of start-up capital is essentially irrelevant, because there

irces		
Asian	Arab	Total
13.0	5.0	109.0 49.3
2.0 18.2		
	13.0	13.0 5.0

18

Why did you not ask for financial assistance for business start-up?									
	Resident hispanic	Nonresident hispanic	White	Asian	Arab	Tota			
Lack of credit/bad credit	3	3	0	0	0	6			
Lack of information/bank contact	2	1	0	1	0	4			
Lack of need	40	24	2	10	3	79			
l wouldn't get it anyway	3	3	0	4	1	11			
Didn't want to owe money	3	4	0	1	1	9			
Preferred to start small	0	1	0	0	0	1			
Too risky	1	1	0	0	0	2			
There are a lot of problems trying to get a loan	1	2	0	0	0	3			
Interest rates too high	1	3	0	0	1	5			
Other	0	1	0	0	0	1			
Didn't want U.S. responsibilities	1	0	0	0	0	1			
Lack of property	1	0	0	0	0	1			
Did not occur to me	2	0	0	0	0	2			
Total	58	43	2	16	6	125			

are a variety of businesses, some of which offer high returns to human capital and require little physical capital.

Hypothesis 3: Business ventures are subject to considerable risk, and even with informal community-based loans, individuals are unable to obtain sufficient insurance (this will be especially difficult if the family is taken as the risk-sharing decision unit). Alternatively, informal loans, while theoretically capable of supplying the necessary insurance, are simply not available in the required quantities. In either case, the result is that individuals prefer to limit their exposure in the small business sector.

Hypothesis 1 has some support from the work of Tienda and Raijman (1996) on the Little Village Surveys. They interpret the widespread existence of part-time self-employment at the household level as acting in part as business training. In this regard, we add only that we find 46 business owners whose own employees have subsequently started their own business, 43 of them in the same business sector.

Hypotheses 2 and 3 are discussed further in the start-up costs section. We would note that limited amounts of capital in the informal sector appears the most compelling explanation. That is, individuals would like to borrow more, but only using contracts with a considerable degree of insurance. The only loans of sufficient size available are generally those

from the formal sector, but these come with too few contingencies. Consequently, individuals decide to limit their risk by starting small, and report "lack of need" when asked why they did not borrow funds. If this explanation is accurate, the implication is that instead of pressuring banks to increase existing business loans, legislation should instead encourage the adoption of more innovative lending schemes that use community monitoring and enforcement to mimic the informal lending sector.

Start-up financing, profit levels, and ethnicity

Table 20 summarizes start-up costs and profits of businesses surveyed. We would note that the profit data are likely to be very noisy, due to a possible lack of accurate accounting and to conceptual difficulties in separating out business from personal expenses (such as property or transportation used for both purposes).

At least across ethnic groups, start-up capital appears to be positively correlated with profit levels. These findings are supported by regressing profit levels on start-up costs and racial dummy variables. The results are displayed in table 21. 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 Asians, despite the latter having much higher start-up inputs. Hence, when profitability is considered,

TABLE 20										
Start-up costs and reported profit levels										
	Resident Hispanic	Nonresident Hispanic	White	Asian	Arab	Total				
Total start-up costs										
Number of observations	106	65	10	28	9	218				
25th percentile	\$3,500	\$4,500	\$10,000	\$8,500	\$15,000	\$4,700				
Median	8,845	10,500	59,100	30,000	25,000	10,000				
75th percentile	22,000	28,050	100,000	66,000	41,000	31,000				
Mean	22,800	24,500	224,000	46,500	69,800	37,500				
Reported profits, including owner's salary										
Number of observations	65	42	6	19	7	139				
25th percentile	\$15,000	\$30,000	\$22,000	\$25,000	\$31,000	\$20,400				
Median	28,000	44,900	43,000	30,000	42,000	35,000				
75th percentile	39,000	62,000	152,000	54,000	49,000	49,000				
Mean	32,600	54,947	249,000	47,000	40,100	51,000				
Reported profits, excluding owner's salary										
Number of observations	66	42	5	20	7	140				
25th percentile	\$10,000	\$15,000	\$32,000	\$20,200	\$19,000	\$12,000				
Median	15,000	25,000	54,000	26,000	25,000	20,000				
75th percentile	23,000	45,000	147,000	42,500	40,000	39,000				
Mean	20,400	30,900	251,000	40,900	30,100	35,200				
Number of businesses reporting no profits or losse	es 14	4	3	0	0	21				

Asians appear to fall back and nonresident Hispanics to move ahead, while other groups appear to maintain their relative positions. Note also that even though resident Hispanic profits are low compared with those of other groups, they are high compared with the household income figures reported in table 1.

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. We interpret this as a rejection of hypothesis 2 of the preceding section.

As shown in table 20, the cross-ethnic differences in size of start-up costs are striking.

Regression of reported profits on start-up costs									
Variable	Coefficient	T-statistics	95% confidence interva						
Start-up cost	.739	22.4	(.674, .805)						
Hispanic resident	19,233	.798	(-28,424, 66,891)						
Hispanic nonresident	35,891	1.48	(-12,053, 83,835)						
White, dummy variable set to	zero								
Asian	1,255	.450	(-38,240, 60,750)						
Arab	18,717	.655	(-37,843, 75,277)						
Constant	-1,367	058	(-48,351, 45,618)						

The order (ascending) is resident Hispanics, nonresident Hispanics, Asians/Arabs, and whites. Given the potential desirability of higher capital investment, this raises the issue of how some ethnic groups are able to obtain substantially larger funds than others. Table 22 itemizes the mean percentage contribution of each source of start-up capital, with averages taken over ethnic groups.

As in table 17, it is evident that whites depend to a much lesser extent than other groups on personal resources—whites obtain an average of only 25 percent from personal resources, whereas for other groups this source contributes between 58 percent and 68 percent of costs. A large amount of this difference is accounted for by the much larger amounts of financing that whites obtain from their immediate family. Somewhat contrary to popular

perception, bank loans play a larger role for resident Hispanics (8.9 percent) than for non-resident Hispanics and Asians (2.9 percent each). Close inspection also reveals that Asians obtain more funds from relatives outside the immediate family and from friends and business associates than Hispanics do, and less from immediate family. In general, though, the importance of different sources does not differ dramatically across ethnic groups.

Given the differences in start-up costs, the similarities in the use of different credit sources mean that Asians and Arabs are simply investing more personal savings and borrowing larger amounts than Hispanics. While it may be that these groups are just more willing to expose themselves to risk in the small business sector, either because of greater skill and/or experience or because of a greater

TABLE 22									
Mean proportion of start-up costs from each source									
	Resident Hispanic	Nonresident Hispanic	White	Asian	Arab	Tota			
Loans									
Bank loan	.089	.029	.115	.029	.21	.070			
Private lenders	.012	.014	0	.010	0	.011			
Mortgage	.002	.009	.08	.007	0	.009			
Government program	.009	0	0	0	0	.005			
Supplier's credit	.035	.067	.042	.079	0	.049			
Ethnic association	0	0	0	.006	0	.001			
Other private sources	.004	0	0	0	0	.002			
Immediate family	.059	.039	.273	.012	0	.055			
Other relatives	.031	.006	.083	.104	0	.035			
Friends or business associates	.033	.029	.024	.059	.098	.037			
Total informal loans ^a	.123	.074	.390	.176	.098	.127			
Total loans	.275	.194	.651	.307	.307	.275			
Gifts									
From immediate family	.023	.023	0	.056	.052	.027			
From friends	.005	0	0	0	0	.003			
Other gifts	0	0	.023	0	0	.001			
Total gifts	.028	.023	.022	.056	.052	.031			
Personal resources									
Personal savings	.648	.624	.247	.619	.470	.610			
Credit cards	0	.016	0	.005	0	.005			
Loans from other									
businesses/inventory	.010	.031	0	.065	.111	.027			
Total personal resources	.658	.672	.247	.688	.581	.643			
Partner's contribution	.025	.067	.042	0	.059	.036			
Other	.012	.024	.021	.012	0	.016			
Total responses	106	67	11	28	9	221			
Defined here as borrowing from any	f ! !								

TABLE 23

Attitudes to risk: How willing would you be to risk your home and all your possessions in borrowing money to start another business?

		Household survey ^a					
	Resident Hispanic	Nonresident Hispanic	White	Asian	Arab	Total (businesses)	Total (households)
Not at all willing ^b	22.7	33.3	38.9	17.9	60.0	28.1	58.2
Not very willing ^b	12.7	13.0	22.2	28.6	0.0	14.9	10.8
Neither willing nor unwilling ^b	2.7	2.9	5.6	17.9	0.0	4.7	16.0
Somewhat willing ^b	22.7	17.4	27.8	21.4	10.0	20.9	4.9
Very willing ^b	39.1	33.3	5.6	14.3	30.0	31.5	10.2
Total responding	110	69	18	28	10	235	325

^aHouseholds asked if they would risk their house and possessions to start a new business.

"entrepreneurial" spirit (much cited in the popular press, but receiving no support from our survey), it seems more likely that these groups simply have more personal savings and have connections with people with greater funds to lend. As supporting (but certainly not conclusive) evidence, we offer the findings that Asians appear more risk averse, make more use of own-ethnicity supply networks, and talk to a "wider" network of people before starting a business than do other groups. These findings are outlined below.

In the following discussion, we place relatively little emphasis on the Arab and white groups. The former sample is especially small, making generalizations difficult. Given the extreme underrepresentation of white-owned businesses in the Little Village relative to the ethnic composition of Chicago (around 40 percent of the Chicago city population is white), we conjecture those businesses are not representative of white-owned businesses in general. We also find it striking that our sample does not include a single African-American owned business, although nearly 40 percent of the Chicago population is black and the neighborhoods immediately to the north of South Lawndale are principally black.

Certainly, small businesses are a risky proposition. Of the 235 businesses surveyed, 62 reported having been in danger of failing in the last three years.³⁸ Responding to these downturns, 25 businesses had reduced *house-hold* consumption, 16 had delayed or failed to pay debts, and 27 had reduced input expenses.

Given this risk, would-be entrepreneurs certainly have reason to be wary of loan contracts with few contingencies. Nonetheless, as indicated in table 23, business respondents expressed a surprising willingness to risk everything in order to finance *another* business. Moreover, there is no evidence of greater risk aversion amongst Hispanics—indeed, Asians and whites appear considerably less willing to take risks. Although Asian business owners do appear more experienced in business, previous experience (like all other variables tested) had no significance in predicting total start-up investment.³⁹

Table 24 details the use of own-ethnicity supply networks. Clearly, Asian and white respondents are substantially more likely to deal only with their own ethnic group than are Hispanics and Arabs. We are inclined to interpret the white number as an artifact of the numerical superiority of whites in Chicago consistent with this, no white respondent with only white suppliers cites "language or trust" as the reason.⁴⁰ On the other hand, five of the Asian respondents and six of the resident Hispanics (though none of the nonresident Hispanics) give this response. Table 24 also details how many of the suppliers associated with each ethnic group of respondents are located in the Little Village. Fewer than 10 percent of the total number of suppliers used are located in the neighborhood. Also, the use of "local" suppliers is nonexistent among Asian- and Arab-owned businesses.41

^bFigures as percentages of total responding.

TABLE 24 Supply networks used by respondents										
All suppliers mentioned by respondent of same ethnicity as respondent	18	9	7	11	1	46				
As percentage of respondents	16.7	13.6	41.2	39.3	11.1	20.2				
Number of suppliers mentioned who are based in Little Village	23	18	3	0	0	44				
As percentage of total suppliers	9.0	11.2	7.0	0	0	7.9				
Total responding	108	66	17	28	9	228				
Total number of suppliers mentioned	255	161	43	72	25	556				

The findings on supply networks indicate that compared with other groups, Asians are more inclined to use suppliers of their own ethnicity and also favor a greater geographical dispersion of their suppliers. Because of the substantial stratification of ethnic groups into different business types, it is hard to dismiss the possibility that this merely reflects a tendency for Asians to operate businesses in sectors which *happen* to have Asian suppliers not located in the Little Village. Nonetheless, we are inclined to the view that Asians tend to be part of city-wide networks of Asian entrepreneurs.

A similar story emerges from the pattern of who business owners talked to before going into

business. Table 25 displays a summary of characteristics of these "contacts."

Asians tend to cite family members less than other ethnic groups and friends and associates more.⁴² The type of associate cited also appears a little different—whereas Hispanics refer to coworkers and employers (past and present), Asians cite a supplier and other business owners as their professional associates. All groups except for whites appear to strongly favor their own ethnic group, even when consideration is restricted to nonfamily contacts. There is some slight evidence that when whites and Asians depart from this pattern it is to consult Hispanics (presumably to gain specific "cultural"

TABLE 25										
Who did business owners talk to before going into business?										
	Resident Hispanic	Nonresident Hispanic	White	Asian	Arab	Total				
Family member	74	43	10	11	5	143				
Friend	19	8	3	6	3	39				
Professional associate	8	5	2	4	0	19				
Unspecified acquaintance	1	3	0	3	0	7				
Total responding	102	59	15	24	8	208				
Nonfamily contacts										
Contacts of same ethnicity	24	15	3	11	3	56				
As percentage	85.7	93.8	60.0	84.6	100	86.2				
Contacts of different ethnicity	4	1	2	2	0	9				
Of whom # Hispanic	na	na	1	1	0	na				
Contact lives in Little Village	15	8	1	2	1	27				
Contact lives in respondent's neighborhood	15	0	2	0	0	17				
Contact lives elsewhere	13	8	3	11	2	37				
Total nonfamily	28	16	5	13	3	65				

knowledge), but the numbers involved are very small. Only resident Hispanics show much evidence of restricting their contacts to those in close proximity.⁴³ However, this may be driven more by a desire to speak to people who live in the area of the planned business than to a greater tendency to talk to neighbors. Consistent with this explanation, nonresident Hispanics cite Little Village residents in about the same proportion as resident Hispanics. In contrast, there does not appear to be any geographic pattern in the residency of those cited by Asians.

The data appear to support the idea that Asians tend to belong to a (loosely defined) nonfamily business network that is geographically and occupationally dispersed, but ethnically restricted. As noted earlier, table 22 shows that individuals outside the immediate family (such as more distant relatives, friends and associates, and suppliers) are more important in financing start-up costs for Asian businesses than for those of other ethnic groups. Recalling the relatively high start-up costs of these businesses, we are inclined to think that Asian networks consist of a broader spectrum of contacts than the tighter family networks that Hispanics appear to use and, moreover, that these broader networks are able to mobilize larger amounts of capital.

We acknowledge two broad classes of potential criticism of this view. One, which we discussed above, is that either because of less experience or a culturally induced higher aversion to risk, Hispanics are simply less willing to make large investments in small business enterprises. As noted, however, we find no evidence of differing attitudes to risk. The second potential criticism is that for some self-selection reason, the Asians doing business in the Little Village have greater personal wealth than their Hispanic peers.⁴⁴ If, as seems likely, individuals tend to know people of similar wealth levels, the ability of Asians to acquire greater funds from personal networks may reflect more the advantage of being part of a generally wealthy network than of a diversified one per se. However, this would in no way change the desirability of attempting to inject larger amounts of formal sector capital into informal networks.

Conclusion

To summarize, we find that the formal financial sector is little used either for consumption smoothing or small business start-ups in the Little Village neighborhood of Chicago. In contrast, mortgages from formal sector institutions play a very significant role in financing house buying, though even here there is greater use of informal loans and personal savings than we might have expected.

There is evidence that a lack of financial instruments exists in the community. Large numbers of households appear able to respond to financial shocks only by reducing consumption or increasing labor effort. Businesses appear credit constrained in start-up financing, in the sense that the estimated returns to each dollar invested are very high. Yet this apparent lack of instruments coexists with a general lack of interest in the services of formal sector institutions. Our tentative interpretation of these findings is that formal sector financial instruments are insufficiently flexible, whereas informal sector funds are insufficient to meet all needs. We are inclined to view the small role played by the formal sector as stemming, at least in part, from community disinterest as opposed to formal sector negligence.

We have suggested that Asian business networks are more diversified geographically, occupationally, and outside the family than Hispanic business networks. In both cases, networks are ethnically homogeneous. On the household level, it appears that relatively poor and unintegrated households are the most likely to receive financial assistance from friends. For all households, family assistance plays an important role. We know nothing at present about the informal networks of Asians who are not business owners in the Little Village. Likewise, we know nothing about African-American informal networks of any kind, and next to nothing about white networks. Characterizations of these groups would be necessary to understand the extent to which our findings are specific to Little Village Hispanics and business owners.

With some caution, we suggest that formal sector institutions attempt to create more flexible financial instruments by either using or mimicking existing informal and semiformal structures. We are unable, at this point, to make specific suggestions as to how this might be achieved in practice.

In conclusion, we wish to stress the importance of moving away from narrowly focused discussions concerning the *quantity* of bank lending activity in marginalized communities toward a more careful consideration of the *quality* of loan instruments. While we do not doubt that improvements are possible in the accessibility of the formal financial sector to

poor and minority groups, we suggest there is much evidence for the view that at least as great a problem concerns the actual *desirability* of existing loan instruments.

NOTES

"The Little Village survey," conducted 1994-95 under the direction of Richard Taub, Marta Tienda, and Robert Townsend through the Center for the Study of Urban Inequality, University of Chicago.

²This framework was first considered by Arrow (1964) and Debreu (1959).

³This framework has been developed and tested by Altonji, Hayashi, and Kotlikoff (1992), Altug and Miller (1990), Cochrane (1991), Mace (1991), and Townsend (1994).

⁴See for instance Brewer and Genay (1994), Dubey, Geanakoplos, and Shubik (1989), Mueller and Townsend (1995), and Rashid and Townsend (1994).

⁵Discussed and empirically examined by Deaton (1989) and Zeldes (1989).

"There remains the interesting question of what is actually meant by the term "formal." Aside from physical requirements (such as offices), a characterization suggested by informational theory is that the lender have no costless information about the borrower's actions. Perhaps it is best to simply note that credit and insurance services can be provided by a diverse set of "institutions," ranging from immediate family through credit unions and rotating credit associations to formal banks.

⁷See for instance Stiglitz and Weiss (1981) and Williamson (1986). Of course the simplest rationale for credit rationing would be the existence of legal restrictions on interest rates. Although such restrictions do not exist in the U.S., one might conjecture that public pressure plays a similar role.

⁸Though as there are a large number of different banks, it is not clear why all would avoid certain communities.

⁹See for example Holmstrom and Milgrom (1990), Prescott and Townsend (1995), Rai (1996), and Varian (1990).

¹⁰That is, those interviewed.

¹¹In the same data set, Tienda and Raijman (1996) find that close to 20 percent of working age adults in households sampled are involved in some form of self-employment activity, though much of it part-time.

¹²These latter two census figures are percentages of *only those working*.

¹³Because multiple responses from each household are considered, the sum of the responses is greater than the total number of households responding. This is true for many of the tables presented.

¹⁴We have excluded transfer payments here because of concern that they are chronic rather than a response to particular shocks. Including them would increase the number obtaining new financial assistance to 139, or 65.6 percent.

¹⁵This category is not intended to include loans from family or friends, and any miscategorized responses were corrected. ¹⁶It is perhaps interesting that five of these households cited the bank contact as being a friend or relative.

¹⁷The exceptions are the workplace loan, the "other" source, the individual who appears to be operating as a private lender (a "loan shark"?), and the three credit unions (in some sense an intermediate case).

¹⁸An interesting interpretation suggested by the theories summarized in the first section is that formal loans enter the community through a relatively small number of individuals in relatively large amounts, to be subsequently distributed more widely through informal networks. However, tables 4 and 5 suggest that households obtaining different types of financial assistance do respond in different ways to shocks.

¹⁹The numbers of households suffering financial difficulty from each quartile are 59, 47, 55, and 44, respectively.

²⁰The numbers of households suffering financial difficulty from each proficiency level are 122, 50, and 39, respectively, compared with population numbers of 178, 75, and 71.

²¹The group sizes are 140, 26, and 47, respectively, with population numbers 205, 47, and 75.

²²Specifically, the services are (a) schools, (b) church/ temple, (c) grocery shopping, (d) clothes shopping, (e) movies, (f) dining, (g) medical services, (h) legal and business services, (i) banking, (j) financial services, (k) drug stores, (l) entertainment, (m) personal services, and each service used *outside* the neighborhood adds one to the index. The group sizes are 58, 54, 60, and 40, respectively, with population numbers 86, 70, 99, and 72.

²³Though even with such data the problem is not trivial, as illustrated by the heated debate that followed the Federal Reserve Bank of Boston study by Munnell et al. (1992), which essentially attempted to estimate just such a model. As noted earlier, at least part of the problem with such an exercise is that the very decision to approach the bank may reflect private characteristics unobserved by the econometrician.

²⁴This compares to a figure of 46 percent reported for greater Chicago area Hispanics by the Metro Chicago Information Center.

²⁵For instance, undocumented residents may either be unable to open bank accounts, or fearful of doing so. The survey deliberately avoided questions related to the legal status of residents, for fear of affecting the response rate/reliability.

²⁶The associated figure for greater Chicago Hispanics is 55 percent (Metro Chicago Information Center).

²⁷The Woodstock Institute (1992) reports a figure of 37.2 percent for the Little Village in 1990.

²⁸Details are not presented here.

²⁹Of the remaining seven, three previously said they had borrowed money from someone, three mentioned "revolving loans," one referred to an "other" source, and one mentioned receiving a repayment of a loan from an unrelated individual

³⁰See Essig, Grimes, and Woos (1995). The survey data also contain rejection rates loans for car purchase, appliances, home expansion, home equity, and education. With the exception of home expansion loans, the rejection rates in these cases are relatively low.

³¹For example, relatively common businesses include restaurants, bars, auto repair shops, and hair salons. Relatively uncommon businesses include bridal shops, bakeries, iron works, and factories.

³²Moreover, most health clinics located in the Little Village are affiliated with a major hospital or the City of Chicago.

³³Note that we have divided the Hispanic group into resident (in Little Village) and nonresident groups. There are strong grounds for supposing that these two groups may differ in motivation for business ownership, experience. integration into U.S. society, etc. To consider whether Asians are overrepresented in Little Village businesses, the following rough calculation is interesting: There are about 100,000 Asians in Chicago, so accounting for a business sampling rate of one in three, approximately one in every 1,200 has a business in the Little Village. Since there are 77 neighborhoods in Chicago, as defined by the Community Lending Factbook (The Woodstock Institute, 1992), if the Little Village were typical this ratio would imply that one in every 16 Asians has a business in some neighborhood. This is still a lower proportion than most estimates of Asian self-employment rates, indicating that compared with other neighborhoods the number of Asian businesses in the Little Village is not particularly high. In comparison, 15 out of 327 Little Village household respondents reported selfemployment (one in 22), of whom two owned businesses outside the Little Village (one in 166).

³⁴In figures, we will generally omit the \$1.5 million case in an effort to enhance readability.

³⁵Note that the survey was conducted mainly in 1993–94, which accounts for the smaller number of businesses dating from 1993 onwards.

³⁶To calculate the rejection rate, the number of households with a bank loan but who have previously experienced rejection is doubled to account for the fact they must have applied for loans at least twice.

³⁷Formal sector loans are a little more prevalent once businesses are established: for their last two years of operation, businesses reported receiving 30 loans from banks, three from finance companies, one from a mortgage company, two from credit unions, five from suppliers, two from credit cards, two from individuals, and one from a rotating credit organization. Associated rejections were six, one, one, zero, one, zero, and zero, respectively.

³⁸Moreover, since our sample does not contain any businesses that actually did fail, this clearly understates the risk. Even in the period between drawing the initial sample and interviewing, more than 10 percent of the selected businesses closed.

³⁹Approximately one-third of the sample had previous business experience, whereas two-thirds of Asian business owners reported having previously owned a business.

⁴⁰Though this raises again the issue of the complete absence of African-American business owners, despite the fact that they make up an almost equal proportion of the Chicago city population as whites.

⁴¹Interestingly, there are eight suppliers named by nonresident Hispanics who are located in the same neighborhood as the business owner, a pattern that is not found for the other ethnic groups.

 $^{\rm 42}{\rm In}$ fact, compared with other groups, Asians also appear to prefer to talk to siblings over spouses and parents.

⁴³Although two out of five contacts cited by whites live in the respondent's neighborhood, the sample is very thin.

⁴⁴This is clearly supported by the greater personal investments in Asian businesses.

REFERENCES

Aghion, Philippe, and Patrick Bolton, "Distribution and growth in models of imperfect capital markets," *European Economic Review*, Vol. 36, No. 2-3, April 1992, pp. 603–611.

Altonji, Joseph, Fumio Hayashi, and Laurence Kotlikoff, "Is the extended family altruistically linked? Direct tests using micro data," *American Economic Review*, Vol. 82, No. 5, December 1992, pp. 1177–1198.

Altug, Sumru, and Robert A. Miller, "Household choices in equilibrium," *Econometrica*, Vol. 58, No. 3, May 1990, pp. 543–570.

Arrow, Kenneth, "The role of securities in the optimal allocation of risk bearing," *Review of Economic Studies*, Vol. 31, 1964, pp. 91–96.

Boyd, John H., and Edward C. Prescott, "Financial intermediary coalitions," *Journal of Economic Theory*, Vol. 38, No. 2, April 1986, pp. 211–232.

Brewer, Elijah III, and Hesna Genay, "Funding small businesses through the SBIC program," *Economic Perspectives*, Vol. 18, No. 3, May/June 1994, pp. 22–34.

Cochrane, John, "A simple test of consumption insurance," *Journal of Political Economy*, Vol. 99, No. 5, October 1991, pp. 957–976.

Deaton, Angus, "Saving in developing countries: Theory and review," *Proceedings of the World Bank Annual Conference on Development Economics 1989*, 1989, pp. 61–96.

Debreu, Gerard, *Theory of Value: An Axiomatic Analysis of Economic Equilibrium,* New York: Wiley (for Cowles Foundation), 1959.

Diamond, Douglas W., "Financial intermediation and delegated monitoring," *Review of Economic Studies*, Vol. 51, No. 3, July 1984, pp. 393–414.

Dubey, P., and J. Geanakoplos and M. Shubik, "Liquidity and bankruptcy with incomplete markets: Pure exchange," Cowles Foundation, discussion paper, 1989.

Essig, George, Don Grimes, and Lorraine M. Woos, "Identifying underserved households and communities in the Chicago SMA: A report on Phase I of the Credit-Ready Borrower Project," Federal Reserve Bank of Chicago, unpublished paper, 1995.

Evans, David S., and Boyan Jovanovic, "An estimated model of entrepreneurial choice under liquidity constraints," *Journal of Political Economy*, Vol. 97, No. 4, August 1989, pp. 808–827.

Friedman, Milton, *A theory of the consumption function*, Princeton, NJ: Princeton University Press, 1957.

Holmstrom, B., and P. Milgrom, "Regulating trade among agents," *Journal of Institutional and Theoretical Economics*, Vol. 146, No. 1, March 1990.

Krasa, Stefan, and Anne P. Villamil, "Monitoring the monitor: An incentive structure for a financial intermediary," *Journal of Economic Theory*, Vol. 57, No. 1, June 1991, pp. 197–221.

Lehnert, Andreas, Ethan Ligon, and Robert M. Townsend, "Liquidity constraints and incentive contracts," University of Chicago, paper in progress, 1996.

Lloyd-Ellis, Huw, and Dan Bernhardt, "Enterprise, inequality, and economic development," University of Toronto, working paper, 1993.

Mace, Barbara, "Consumption volatility: Borrowing constraints or full insurance," *Journal of Political Economy*, Vol. 99, No. 5, October 1991, pp. 928–956.

Metro Chicago Information Center, "Community financial needs in the Chicago area: Survey data on the financial needs of residents of the 6-county Chicago metropolitan area," Chicago.

Mueller, Rolf, and Robert M. Townsend, "Cropping groups as firms in a semi-arid village economy," University of Chicago, manuscript, 1995.

Munnell, Alicia H., Lynn E. Browne, James McEneaney, and Geoffrey M. B. Tootell, "Mortgage lending in Boston: Interpreting HMDA data," Federal Reserve Bank of Boston, working paper, No. 92-7, 1992.

Piketty, Thomas, "The dynamics of wealth distribution and the interest rate with credit rationing," manuscript, 1994.

Prescott, Edward Simpson, and Robert M. Townsend, "The theory of the firm: Applied mechanism design," University of Chicago, manuscript, 1995.

Rai, Ashok S., "Efficient mechanisms to target the poor," University of Chicago, paper in progress, 1996.

Rashid, Mansoora, and Robert M. Townsend, "Targeting credit and insurance: Efficiency, mechanism design, and program evaluation," World Bank, Education and Social Policy Department, discussion paper, No. 47, 1994.

Stiglitz, Joseph E., and Andrew Weiss, "Credit rationing in markets with imperfect information," *American Economic Review*, No. 3, June 1981, pp. 393–410.

Tienda, Marta, and Rebecca Raijman, "Forging mobility: Immigrants' socioeconomic progress in a low-wage environment," University of Chicago, paper in progress, 1996.

Townsend, Robert M., "Risk and insurance in village India," *Econometrica*, Vol. 62, No. 3, 1994, pp. 539–591.

Varian, Hal R., "Monitoring agents with other agents," *Journal of Institutional and Theoretical Economics*, Vol. 146, No. 1, March 1990.

Williamson, Stephen D., "Costly monitoring, financial intermediation, and equilibrium credit rationing," *Journal of Monetary Economics*, Vol. 18, No. 2, September 1986, pp. 159–179.

Woodstock Institute, The, *The 1992 Community Lending Factbook*, Chicago, 1992.

Zeldes, Stephen, "Consumption and liquidity constraints: An empirical investigation," *Journal of Political Economy*, Vol. 97, No. 2, April 1989, pp. 305–346.