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FINANCING BLACK ENTERPRISE

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ABSTRACT

Black capitalism is a vaguely defined notion, but two elements are usually embedded in it: (1) Black business ownership and (2) location of these enterprises in or near Black residential areas. Accordingly, data analyzed in this study have been collected from Black-owned firms operating in metropolitan areas having substantial Black populations.

In this study, multiple linear regression models will be used to explain loan amounts received from the Small Business Administration (SBA) by Black borrowers and a comparison group of White borrowers. The SBA states that loans to minority entrepreneurs are processed under relaxed eligibility criteria with emphasis on the applicant's character and his ability to repay the loan and other obligations from the profits of the business. Differences between the models explaining loan amount for the samples of Black and White businesses will help to reveal the nature of the "relaxed eligibility criteria" that Black borrowers are being subjected to. Policy statements from the SBA indicate that its programs for lending to minority businessmen are designed to substantially increase the number of minority-owned firms, but SBA objectives undoubtedly extend beyond this one goal. If SBA was exclusively concerned with increasing the number of minority enterprises, then it would not help existing minority-owned firms expand. A major objective of this study is to explain what the SBA is, in fact, seeking to accomplish when it lends to existing businesses. Is the SBA, for example, making larger loans to Black entrepreneurs who are more apt to create new employment opportunities in the course of expanding their business operations? Empirical evidence on this question and other possible SBA motives and policies will be considered here.

FINANCING BLACK ENTERPRISE

by

Timothy Bates

Developing a strong Black business community necessarily hinges upon finding sources of capital for existing and planned Black firms. This study will analyze responses to recent programs for making long-term credit available to Black entrepreneurs. Financial information has been collected from the Small Business Administration (SBA) for a sample of 286 existing Black-owned firms in Boston, New York and Chicago.

In July 1968, Howard Samuels was sworn in as Director of the SBA, "and charged by the President with the responsibility of greatly increasing loans to minority businesses."¹ Samuels believed in "compensatory capitalism": in order to develop the minority resources seeking to find expression in business, the SBA would have to accept the principle of less stringent requirements for loans to minorities. Higher risks would be accepted because higher priority social objectives were at stake.

The Small Business Administration, because of its programs for lending to minorities, possesses a most comprehensive collection of data on Black businesses. For samples of borrowers in Boston, New York and Chicago, extensive financial information was collected for Black firms and a matching sample of White firms. The appendix at the end of this article describes the relevant sampling procedures and exact definitions of variables on which data were collected.

In this study, multiple linear regression models will be used to explain loan amounts received by Black borrowers and a comparison group of White borrowers. The SBA states that loans to minority entrepreneurs "are processed under relaxed eligibility criteria with emphasis on the applicant's character and his ability to repay the loan and other obligations from the profits of the business."² Differences between the models explaining loan amount for the samples of Black and White businesses will help to reveal the nature of the "relaxed eligibility criteria" that Black borrowers are being subjected to. Policy statements from the SBA indicate that its programs for lending to minority businessmen are designed to substantially increase the number of minority-owned firms, but SBA objectives undoubtedly extend beyond this one goal. If SBA was exclusively concerned with increasing the number of minority enterprises, then it would not help existing minority-owned firms expand. A major objective of this study is to explain what the SBA is, in fact, seeking to accomplish, when it lends to existing businesses. Is the SBA, for example, making larger loans to Black entrepreneurs who are more apt to create new employment opportunities in the course of expanding their business operations? Empirical evidence on this question and other possible SBA motives and lending policies will be considered here.

A. The Variables

Symbols representing variables and definitions of variables used in this article are described in detail in section B of the attached appendix, Sample Selection and Description of Variables. The new variables introduced here are, in every case, simple transformations of variables described in

that appendix. Loan amount, X_{14} , divided by total assets, X_4 , will be the dependent variable in every multiple linear regression model under consideration. Variables stated in dollar amounts have been divided by total assets to adjust for the impact of firm size; this avoids problems of heteroscedasticity in the following regression models. Because one White firm and one Black firm each had zero total assets, these two observations were necessarily dropped from the samples for which loan amount is explained.

Business Liquidity	- quick assets, X_6 , minus current liabilities, X_7 .
Business Net Worth	- total assets, X_4 , minus total liabilities, X_5 .
Cash Flow	- net profits, X_1 , plus depreciation, X_3 .
Collateral	- assets pledged as security for loan repayment, X_9 .
Outside Net Worth	- refers to the owner's assets and liabilities that are not related to the business receiving the loan, X_{16} .
Labor-Capital Ratio	- number of business employees, X_{10} , divided by fixed assets, X_8 .
Experience	- years of managerial experience, X_{11} .
Credit Rating	- if the credit rating is bad, then $X_{12} = 0$; if not, then $X_{12} = 1$.
Loan Maturity	- number of months for which the loan has been granted, X_{15} .

New York SBA

- indicates that the loan has come directly from the New York City SBA office; dummy variable - $X_{16} = 1$ for N.Y.C. SBA loan.

B. Hypothesized Relationships

The SBA claims that its programs for lending to minority entrepreneurs have been lenient in the sense that minority borrowers have to meet less stringent eligibility requirements than White loan applicants; it is not clear, though, that minority borrowers automatically qualify for larger loans than identically endowed White entrepreneurs. The regression models presented on pages 10 and 11 are designed in part to test whether Black borrowers have, in fact, been receiving larger loans than Whites with equally strong loan applications. The SBA may be easing only one requirement or there may be no consensus on the definition of "requirements" within SBA.

The subsequent hypotheses assume that the SBA's determination of loan amount for businesses in general is based upon one or more of the following five interrelated objectives: 1) giving priority to expanding minority-owned businesses, 2) encouraging the expansion of profitable firms, 3) encouraging the expansion of labor intensive firms, 4) lending to firms that are not likely to encounter delinquency problems, and 5) protecting itself against losses of loan principal in the event of default and business liquidation. It is not rewarding to hypothesize a relationship between each variable and each of the five possible SBA objectives formally, so the hypotheses listed below are limited to describing the more plausible relationships between individual explanatory variables and the SBA objectives which may influence loan amount determination.

In determining loan amount, two or more of the possible SBA objectives may come into conflict in certain instances. Considerations of both supply by the SBA and demand by the borrower are relevant to loan amount decisions, and several of the stated hypotheses will therefore reflect judgments about which factor will dominate. While all hypotheses reflect the assumption of *ceteris paribus*, this assumption is not strictly valid when certain interdependent balance sheet items are considered.

1. The level of business cash and accounts receivable minus current liabilities will be inversely related to loan size because many borrowers will use part of the loan proceeds to improve the firm's liquidity position. This result is expected because linear regression models explaining profitability indicate that business profits are rather sharply reduced by illiquidity.³ Firms would naturally seek to replace short-term debt with long-term debt if the latter is cheaper. Regression coefficients of business liquidity variables appearing in Chapter II of my doctoral dissertation indicate that, at the margin, a Black firm would earn 23.02 cents and a White firm would earn 21.59 cents more each year if current liabilities are reduced by one dollar while cash and accounts receivable are held constant.⁴ Because a dollar of long-term debt from the SBA costs between 5.5 and 6.5 cents annually, it will clearly be profitable for most of the sample firms to trade short-term debt for long-term indebtedness to the SBA. While the SBA may view illiquid firms as bad credit risks, I am assuming that the demand effect described above will dominate possible SBA aversion to illiquid firms. If the SBA's goal is to encourage the expansion of profitable firms, then it might also be willing to incur "illiquid risks."

2. Firms having less business net worth will tend to receive larger loans because lower net worth indicates a greater desire for credit. This result will occur if some imperfection in the capital market has limited the availability of credit to entrepreneurs who are capable of earning high rates of return on net investment. I am asserting that a lower business net worth position is prima facie evidence that a firm is willing to assume high cost credit because it is profitable to do so⁵ and, when given access to low cost credit from the SBA, this firm will tend to borrow more than a firm having equal total assets but a higher net worth. As with business liquidity, I am assuming that the demand effect will dominate possible negative supply effects.

3. Higher cash flow will qualify firms for larger loans because high cash flow indicates strong business profitability and repayment ability. Since the SBA states that its eligibility criteria for Blacks emphasize the entrepreneur's "ability to repay the loan and other obligations from the profits of the business," it follows logically that firms having greater repayment ability, measured by cash flow, will tend to receive larger loans.

4. More collateral will qualify firms for larger loans because collateral protects the SBA from capital losses if the borrower defaults on the loan. Capital losses arising from defaults are a major concern of bankers and it is hypothesized that collateral will be an important determinant of loan amounts that the SBA approves since the SBA is believed to emulate the capital loss minimization strategy of bankers.⁶

5. Higher outside net worth will qualify firms for larger loans because SBA can possibly attach the borrower's personal assets in the event of default and high outside net worth may be accepted as evidence of the

loan applicant's reliability. As noted earlier, the SBA specifically states their criteria for judging minority loan applicants emphasize "the applicant's character."

6. A higher labor-capital ratio qualifies a firm for a larger loan because the SBA seeks to place loan funds in the hands of entrepreneurs who are most apt to create new jobs in the course of expanding their business operations. This result might arise because the urban areas where the samples of firms under consideration are located have large numbers of unemployed minority-group persons, and a government agency seeking to expand the inner-city business community could possibly have a secondary goal of financing firms that are particularly labor intensive and hence, most capable of helping to alleviate unemployment.

7. More experienced entrepreneurs will tend to get larger loans because SBA will view them as better risks and/or more capable of running profitable firms.

8. Entrepreneurs with clear credit histories will tend to get larger loans because SBA will view them as better risks. "Better risks" in hypotheses seven and eight refer to the likelihood of firms becoming delinquent in their loan repayment obligations; "risk" in this sense is broader than the concept of risk defined solely in terms of capital loss suffered by the lender as a result of default.

9. Loans having longer maturities will tend to be larger because SBA does not want to burden recipients of large loans with monthly loan payment liabilities that will be unduly high relative to the firm's cash flow available for meeting loan payments.

10. New York City SBA loans will not differ in size from Chicago and Boston SBA loans. This variable was included to test for differences in the loan amounts which various SBA offices will approve.

C. Multiple Linear Regression Models Explaining Loan Amounts Received by SBA Borrowers

1. For Black Borrowers:

Variable	Regression Coefficient	Standard Error	Mean Value of Variable	Derivation of the Explanatory Variables (symbols defined in appendix)
Constant	.25026	.42862		
Business Liquidity	.00688	.37371	-.123	$(X_6 - X_7)/X_4$
Business Net Worth	-.47801	.31502	.475	$(X_4 - X_5)/X_4$
Cash Flow	.95904*	.13021	.668	$(X_1 + X_3)/X_4$
Collateral	.36710*	.07353	1.139	X_9/X_4
Outside Net Worth	.42127*	.06567	1.045	X_{17}/X_4
Labor, Capital Ratio	47.57108	39.58354	.001	X_{10}/X_8
Experience	-.00890	.01301	8.453	X_{11}
Credit Rating	-.01064	.23448	.789	X_{12}
Loan Maturity	.00831*	.00336	87.284	X_{15}
New York SBA	-.77965*	.19555	.428	X_{16}

$\bar{R}^2 = .475$; F-ratio = 26.73; standard error of estimate = 1.577; n = 285

*Statistically significant at the .05 level

2. For White Borrowers:

Variable	Regression Coefficient	Standard Error	Mean Value of Variable	Derivation of the Explanatory Variables (symbols defined in appendix)
Constant	.10622	.26824		
Business Liquidity	-.21172	.22010	-.188	$(X_6 - X_7)/X_4$
Business Net Worth	-.39403*	.18779	.368	$(X_4 - X_5)/X_4$
Cash Flow	.29161*	.07871	.527	$(X_1 + X_3)/X_4$
Collateral	.36194*	.05987	.844	X_9/X_4
Outside Net Worth	.20064*	.05996	.812	X_{17}/X_4
Labor, Capital Ratio	30.18052	19.69733	.001	X_{10}/X_8
Experience	-.00899	.00690	10.789	X_{11}
Credit Rating	-.10823	.14113	.761	X_{15}
Loan Maturity	.00576*	.00214	83.081	X_{16}

$\bar{R}^2 = .441$; F-ratio = 19.26; standard error of estimate = .857; n = 209.

*Statistically significant at the .05 level.

D. The Findings

The superscript B will be used to denote explanatory variables appearing in the equation explaining loan amount for Blacks and superscript W will similarly be attached to variables used to explain loan amount for Whites.

Firms that are less liquid tend to qualify for larger loans, but this relationship is statistically quite insignificant. This finding supports the notion that SBA cuts loan size for financially illiquid firms. Business net

worth is inversely related to loan size and is statistically significant at the .05 level for Whites and at the .10 level for Blacks. Firms having little net worth want larger loans and this demand effect appears to be stronger than tendencies for SBA to cut back loan requests of borrowers judged financially weak because of the firm's net worth position.

The linear regression models strongly suggest that SBA loan officers' predominant concern is with cash flow and collateral. The cash flow variable and the collateral variable are significant at the .01 level for Blacks and Whites, but the coefficient for cash flow^B is significantly larger than the coefficient for cash flow^W. For a given stream of profits plus depreciation, the Black borrower qualifies for a far larger loan than the White borrower. Blacks also get more dollars of loans for each dollar of their outside net worth than Whites which, in conjunction with the above interpretation of the cash flow variable, strongly suggests that Black borrowers qualify for larger loans than Whites with equally strong loan applications.

Coefficients of the labor-capital ratio variable suggest that the SBA may tend to grant larger loans to firms that are relatively labor intensive, but this relationship is not statistically significant at the .05 level. Labor intensiveness, which is expressed below as number of employees per \$1,000 of fixed assets, varies widely across industry lines for the sample of existing Black firms:

Retailing	0.466 employees
Contracting services	0.847 employees
Professional services	0.342 employees
Other services	0.394 employees
Manufacturing, wholesaling	0.497 employees

Identifiable differences in the labor intensity of firms in the various industries clearly do exist which suggest that the SBA could, if it were so inclined, deliberately channel loan funds toward financing the expansion of Black businesses which are most likely to create additional employment opportunities.

Experience appears to be completely irrelevant for determining loan amount and credit rating is totally insignificant for explaining loan amount received by Blacks. For Whites, a bad credit rating tends to qualify one for a larger loan but this relationship is weak.

The insignificance of experience and credit rating is quite surprising and interesting; discriminant analysis exercises demonstrate that credit rating and experience are powerful explanatory variables for discriminating between delinquent and current loans.⁷ The relation between loan size and business net worth suggests, as stated earlier, that the SBA is not afraid to increase leverage; SBA will in fact, tend to lend more to firms with less net worth. One cannot conclude, though, that the SBA is heedlessly granting loan amounts which are inversely related to the probability of repayment. The facts suggest, instead, that SBA shows great concern about the short-run liquidity of a firm while the long-run soundness, measured by experiences, credit rating and business net worth is relatively minor.

The importance of the cash flow variable for explaining loan amount suggests that the SBA is trying to insure that borrowers will be able to meet their loan repayment obligations in the short-run. The complete insignificance of the business liquidity variable strongly supports this interpretation of the SBA's motives. Highly illiquid businesses are desperately in need of cash and, in the absence of deliberate SBA efforts to hold down loan amount to

these firms, one would expect that liquidity and loan amount would show a very strong, statistically significant, inverse relationship. The SBA appears to be operating with a time horizon which would be appropriate for a loan shark engaged in inter-temporal optimization with an incredibly high discount rate. The loan shark makes short-term loans and would rationally be preoccupied with a firm's short-term repayment ability when he determines loan amounts. The SBA makes long-term loans, though, so the conditions under which the SBA would optimally be most concerned with short-run repayment are not entirely clear. If the SBA is relying upon outside net worth and collateral as indicators that firms will avoid delinquencies over the period of the loan's maturity, they are focusing upon inappropriate factors. Discriminant analysis exercises reported in earlier research demonstrate that outside net worth has virtually no power for discriminating between current and delinquent loans and collateral performs similarly when it is added to the discriminant analysis as an explanatory variable.⁸

Loan maturity had the expected relation to loan amount and was statistically significant at the .01 level. The coefficient of maturity^B is larger than maturity^W which suggests that the SBA may grant noticeably longer maturities to Blacks. One should note that maturity is not entirely exogenous, but the inclusion of this variable is interesting because it permits further comparison of the loan terms which Blacks and Whites receive from the SBA.

The New York SBA variable produced an interesting result. While there is no a priori reason to suspect that different SBA offices would grant

vastly different loan amounts to similar populations of borrowers, Black entrepreneurs in New York City receive loans that are significantly smaller than loans received by Black borrowers with identical balance sheets and credit histories in Boston and Chicago. For the sample of White borrowers, the New York office approves loan amounts that are virtually identical to the amounts approved in the other cities. For reasons which are unclear, the Small Business Administration office in New York City apparently is less willing to make loans to Black businesses than its counterparts in Boston and Chicago. Indeed, in New York City Black businesses with low cash flows may have less access to SBA loan funds than their White counterparts, particularly if they are borrowing at short maturity.

To test the value of estimating separate models to explain loan size for the samples of White and Black borrowers, these samples were pooled and the model reported on page 10 of this article was estimated for all 494 observations. Comparison of the residual sums of squares from 1) the pooled equation and 2) the separate Black and White equations indicates that the separate models explain loan size significantly more accurately in an analysis of covariance.⁹

To illustrate the extent to which Black borrowers are favored over Whites when loan amount is determined,¹⁰ mean values for the explanatory variable (excluding dummies) have been multiplied by the corresponding regression coefficients reported on pages 8 and 9, and some of the results are shown in Table 1. In light of the surprising finding that Black borrowers with certain characteristics may receive loans from the New York SBA office which are smaller than the loans received by Whites with identical loan applications, it is worthwhile to consider examples of this phenomenon. Loan amount for New York

Table 1

(Loan Amount/Total Assets); Sizes for
the "Average" Black and White Firms

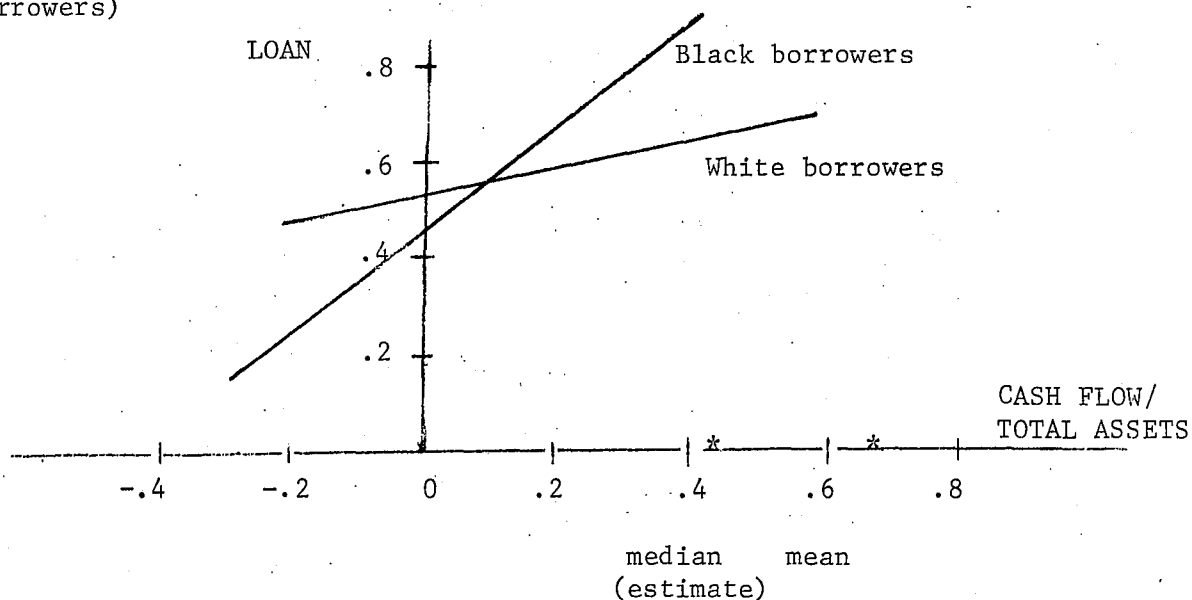
A. Black Firms: (Loan amount/total assets = LOAN for convenience)

1. Blacks borrowing at N.Y.C. SBA	LOAN = 1.47
2. Blacks borrowing at other SBA offices	LOAN = 2.25
Mean total assets for Black sample	\$34,652
Mean loan size for Black sample	\$28,220
Mean value of LOAN for Black sample	1.89

B. White Firms:

1. Whites with good credit ratings	LOAN = 0.95
2. Whites for bad credit ratings	LOAN = 1.05
Mean total assets for White sample	\$44,379
Mean loan size for White sample	\$25,169
Mean value of LOAN for White sample	0.97

C. Firms Receiving Three-Year Loans from the New York SBA:¹¹
(including mean and median values of cash flow/total assets for Black borrowers)



borrowers is plotted in Table 1 for various values of cash flow; loan maturity is fixed by assumption at 36 months and the mean values for all other explanatory variables (excluding dummies) have been multiplied by the corresponding regression coefficients given on pages 8 and 9. This hypothetical situation shows the loan amount that "average" borrowers having different cash flows should receive if they obtain a three-year loan from the New York office of the SBA. In general, for shorter term loans from the New York SBA average Black borrowers generating average levels of cash flow will receive larger loans than Whites with identical loan applications, and Black borrowers who are weaker than average will, in the absence of especially large cash flow, tend to receive smaller loans than identical firms owned by Whites. Because loan amount is quite sensitive to the level of a firm's cash flow extremely weak Black firms are considerably penalized and extremely strong Black borrowers are considerably benefited relative to Whites with comparable loan applications. One qualifying remark is needed at this point because in the samples of borrowers under consideration, business net worth and loan amount are inversely related. Confusion can best be avoided by associating higher business net worth with weakness on the part of borrowers; if the smaller businesses owned by New York City Blacks have below average net worths, the extent to which they have received unfavorable treatment in loan amount determination is lessened.

The analysis shown in section C of Table 1 and explained above is basically unaltered when models containing the same explanatory variables used on pages 8 and 9 are estimated using New York City data exclusively.

NOTES

¹Howard Samuels, "Compensatory Capitalism," in Black Economic Development, G. Douglas Pugh and William F. Haddad, ed. (Englewood Cliffs, New Jersey: Prentice-Hall, 1969), p. 71.

²Small Business Administration, SBA: What It Is . . . What It Does, Washington, D.C.: Government Printing Office, 1971, p. 13.

³Timothy Bates, An Econometric Study of Black Capitalism: Feasibility, Profitability and Financial Soundness, Ph.D. Dissertation, Madison: University of Wisconsin, 1972, pp. 81-100.

⁴Ibid., pp. 89 and 98.

⁵Firms with relatively low net worth positions are expected to have relatively high returns on investment because, as Duesenberry states, "As debt rises relative to earnings the risk premium required to cover the leverage of debt service on earnings fluctuations will increase. That opportunity cost increases the return required to justify investing in physical assets whether the investment involves taking on additional debts or failing to repay existing debt." See James Duesenberry, Business Cycles and Economic Growth (New York: McGraw-Hill, 1958), pp. 94-95.

⁶For a discussion of the importance in banking of avoiding capital losses from loan defaults, see Roland I. Robinson, The Management of Bank Funds (New York: McGraw-Hill, 1951), p. 102. The SBA's concern with capital losses does not stem from any desire to earn profits; it arises, most likely, because individual congressmen and senators have sharply criticized the SBA for having a ratio of dollar capital losses to dollar volume of loans outstanding that far exceeds similar ratios reported for the banking industry.

⁷Good credit rating and years of experience are directly related to the probability of loan repayment; see Bates, Econometric Study, pp. 127-131.

⁸Ibid., pp. 127-132.

⁹The F-ratio was 6.01 with 483 and 10 degrees of freedom.

¹⁰This general favoritism towards Blacks in determining loan amount may also be present when loans are approved for borrowers forming new firms but this cannot be established rigorously. Lack of information about new businesses made prediction of loan amount quite impossible for this category of borrowers; when linear regression models are used to explain loan amount, the resultant regression equations have very little explanatory power.

¹¹Over 90 percent of the firms under consideration reported values of cash flow/total assets lying in the range (-.4 to +.8) appearing in this graph.

Appendix: Sample Selection and Description of Variables

A. Sample Selection Procedure

In the spring of 1967 SBA ordered its regional offices to start classifying all loan applicants by race and ethnic background. Although loans then in process were generally not classified, by June 1967, racial designations were available for over 95 percent of the loans reaching final approval status. As the first step in selecting the sample of firms analyzed in this study, I received a listing (on tape) of all loan approvals originating in the Boston, New York and Chicago regional offices of the SBA. This listing covered all loans approved between June 1967 and June 1970; it specified racial and ethnic group affiliation of more than 3,000 borrowers. Six minority codes were being used by SBA: Eskimo, Indian, Puerto Rican, Spanish American, Asian and Negro.

This SBA data file was sorted according to race, ethnic group and geographic location and the following groups were extracted:

Loans to Blacks in Suffolk County, Massachusetts;

Loans to Whites in Suffolk County, Massachusetts;

Loans to Blacks in New York City;

Loans to Whites in New York City;

Loans to Blacks in Cook County, Illinois;

Loans to Whites in Cook County, Illinois.

Loans to Eskimos, Indians, Puerto Ricans, Spanish Americans and Asians were dropped from further consideration.

The extracted file includes 1074 loans to Blacks from which my final sample of Black businesses was drawn. The following series of steps illustrates the processes by which potential observations were dropped from consideration;

the same general pattern was maintained when drawing a White sample of businesses.

Initial extracted file of loans approved

1074

A. Automatic deletions:

- | | | |
|---|----------|------------|
| 1. loan proceeds were never disbursed | 90 | |
| 2. second or third loan to a business already in the sample; no business was included more than once | 69 | |
| 3. loan numbers listed by the SBA computer which corresponded to nothing listed with the regional offices; error in SBA records | 15 | |
| 4. loan file never located; these primarily consisted of new businesses that changed names between the date of loan application and final approval | 23 | |
| 5. loan repayment deferred; repayment status was therefore irrelevant | 10 | |
| 6. miscellaneous; included declined loans, borrowers that were not Black, and borrowers whose business had left the geographic area under consideration | <u>6</u> | <u>213</u> |

B. Relevant sample for data collection:

- | | | |
|--|-----------|------------|
| 1. 50% of the new businesses in New York and Chicago were randomly selected and dropped from further consideration | 202 | |
| 2. observations dropped because of missing or inadequate information: | | |
| a. personal financial statement | 38 | |
| b. profit and loss statement | 32 | |
| c. business balance sheet | 8 | |
| d. other | <u>16</u> | <u>296</u> |

C. Business for which data was collected from loan files and punched onto cards:	565
Observations having unexplainable inconsistencies	4
Non-profit educational institutions	2
Final sample size	<u>559</u>

This final sample contained 286 loans to Black existing firms and 273 loans to Blacks forming new businesses.

In addition to the sample of Black businesses receiving SBA loans, data have been collected on 210 White existing firms. The samples of White businesses were selected from Boston, Chicago and New York SBA offices in virtually the same manner as the Black firms. The White samples are designed though to resemble the Black samples regarding industrial classification and size of annual sales. If White firms had annual sales exceeding \$400,000, they were eliminated from the sample unless there were a corresponding Black firm in the same industrial category that also had sales exceeding \$400,000. Such correspondence existed in less than five instances; 51 White firms were dropped because their sales were too large.

For the samples of Black and White loan recipients, extensive financial information was collected over a four-month period by individually examining the loan files of Black borrowers in the local SBA offices of Chicago, Boston and New York. Data collected on each existing business included balance sheet and income statement items, personal financial statements of the firm owners, loan terms at the time the loan was made and loan repayment status on the date the file was coded. Data that I have collected from the Washington headquarters and from the regional offices of the SBA are by their nature confidential.

B. Description of the Variables

All of the variables defined and described in this section have been derived from data collected on the samples of Black and White borrowers discussed in section A of this appendix. Values of all 17 variables have been collected for every existing firm in the sample.

1. Business income statement (flow) variables: for these variables values in dollar amounts were recorded for the most recent full year prior to the filing of the SBA loan application.

Net profits, X_1	- the net profits figure, which measures annual profits of the firm under consideration, has most commonly been picked up from the borrower's income tax return. When corporations were encountered in the process of data collection and sample selection, owner's salary from the business was added back into net profits in order to make the "profits" figure comparable for proprietorships, partnerships and corporations. Net profits is therefore equivalent to returns to owner in this study.
Total sales, X_2	- measures total annual sales of the business under consideration.
Depreciation, X_3	- measures depreciation of buildings, machinery and equipment for the business under consideration.

2. Business balance sheet (stock) variables: for these variables, values in dollar amounts were taken from the most recent business balance sheet available at the time of the SBA loan application. All assets and liabilities are strictly business related; assets and liabilities of the

entrepreneur which are not directly related to the business receiving the loan are counted elsewhere under "outside net worth."

Total assets, X_4	- measures total tangible business assets.
Total liabilities, X_5	- measures total business liabilities
Quick assets, X_6	- measures total business cash plus accounts receivable minus accounts receivable whose collection is considered doubtful.
Current liabilities, X_7	- measures total business liabilities accrued at the date of the balance sheet which require payment during the next 12 months.
Fixed assets, X_8	- measures business-owned buildings, machinery and equipment net of accumulated depreciation.

3. Miscellaneous traits of the business and the entrepreneur: these variables are measured in the various units described below.

Collateral, X_9	- measures dollar value of the total tangible collateral which has been pledged as security against default on the borrower's SBA loan repayment obligations.
Employees, X_{10}	- measures number of people employed by the business; owners are not counted as employees.
Experience, X_{11}	- measures years of managerial experience in any capacity, not just the kind of business in which one is presently engaged; in cases of two or more owners, average experience was computed.

Credit rating, X_{12}

- refers to the credit history of both the business and the owner; a "good" credit rating means that no more than one instance of minor delinquency appears on the combined credit reports of the business and the owner. Credit reports used to determine credit rating did not cover information on transactions, litigation, etc. occurring more than 15 years prior to the date of the report. If the credit rating is good, then $X_{12} = 1$; if not, then $X_{12} = 0$.

Owners, X_{13}

- measures the number of owners in the firm under consideration; those holding business shares of 20 percent or more are included as owners.

4. Loan terms and traits: these variables are measured in the various units described below.

Loan amount, X_{14}

- measures dollar amount of the loan which the borrower has received through the SBA.

Maturity, X_{15}

- measures number of months for which the loan has been granted.

New York SBA, X_{16}

- dummy variable; if the firm under consideration has received a direct loan from the SBA in New York, then $X_{16} = 1$; if not, then $X_{16} = 0$.

5. Personal financial condition of the entrepreneur: for this variable, values in dollar amounts were taken from the personal financial statement of the owner which is typically compiled at the time of the SBA loan application. If the business under consideration had two or more owners, their respective net

worths were summed and divided by the number of owners. Instances of multiple ownership were rare; the sample of 286 Black existing firms, for example, had 319 owners.

Outside net worth, X_{17}

- refers only to the owner's tangible assets and liabilities that are not related to the firm receiving the SBA loan.

The terms "entrepreneur" and "owner" always refer to the primary owner-operator of a firm, and his or her spouse. Family businesses often require the labor input of husband and wife, and the form of the available data prevented distinctions between husband-wife operations and single-owner operator-businesses.