Minority Entrepreneurs in Bankruptcy

By Rafael Efrat*

BIO:

* Associate Professor, College of Business & Economics, California State University, Northridge. J.S.D., 2002, J.S.M., 1998, Stanford Law School; J.D., 1992 University of Southern California. I would like to express my gratitude to the National Conference of Bankruptcy Judges Endowment and the Kauffman Foundation for generous financial support for this empirical study. Also, I would like to acknowledge the vital cooperation I received from the Executive Office of the United States Trustee Office, the Clerk of the Court for the United States Bankruptcy Court in the Central District of California, as well as the Assistant United States Trustee for the San Fernando Valley Division of the United States Trustee Office, Jennifer L. Braun. Lastly, I would like to express my appreciation for the tremendous data gathering efforts in the field to my research assistants: Pilar Ahman, Joseph W. Berriman, Scott Cohn, Kiumars Irandal, Ryan McNicholas, Edward Morales, Collette Y. Schmidt, Cherilyn R. Teague, and Tanya Vannoy. I am particularly grateful to the invaluable contribution of my lead research assistant and project manager, Carlos Gallardo.

LEXISNEXIS SUMMARY:
... For example, in 1982 less than 7% of all businesses in the United States were minority-owned; by 1997 almost 15% of businesses in the United States were minority-owned. ... These gaps in homeownership rates contributed to the disparity in total value of assets between the two groups, where the total value of assets reported by the minority petitioners was less than half of the value reported by the White petitioners. ... Indeed, the self-employment rate among non-minority petitioners in the bankruptcy sample was 19%, more than twice the 8% self-employment rate among minority petitioners. ... Minority Entrepreneurs in Bankruptcy Just as Hispanics and Asians were underrepresented in the bankruptcy sample, minority entrepreneurs were also underrepresented in the bankruptcy sample. ... Similar to findings about minorities’ limited access to credit, minority bankruptcy petitioners in this study reported remarkably lower indebtedness than their non-minority counterparts.

HIGHLIGHT: Minorities join the entrepreneurial sector as an avenue of opportunity to address certain disadvantages they face in the labor market. Despite the increasing number of minorities becoming entrepreneurs, minority-owned businesses are underrepresented in the entrepreneurial sector in the United States. Furthermore, they also tend to have a higher failure rate relative to non-minority-owned businesses. Given the higher failure rate among minority business owners compared to non-minority business owners, one may hypothesize that minority-owned businesses would be overrepresented in the bankruptcy sample.

ABSTRACT
Data from this empirical research study, based on bankruptcy petitioners from the United States Bankruptcy Court in the Central District of California, however, do not support the hypothesis that minority entrepreneurs are overrepresented in the bankruptcy population. The data suggest that the challenges faced by minority entrepreneurs in the general population are mirrored by minority entrepreneurs in the bankruptcy sample. Minority entrepreneurs in the bankruptcy sample reported the same inferior human capital they report in the general population. Similar to the circumstances outside of bankruptcy, minority entrepreneurs in the bankruptcy sample were financially more fragile than their non-minority counterparts, with substantially lower levels of income and assets. Lastly, just as minority entrepreneurs outside of bankruptcy have less access to debt, they reported less debt in bankruptcy as well.

TEXT:
[*96] I. INTRODUCTION

With some limited exceptions, scholars have given little attention to the study of minority groups' financial well being at the point of ultimate financial distress—bankruptcy. n1 Moreover, no studies to date have examined minority entrepreneurs in bankruptcy. Such studies may shed some light on fundamental questions such as whether minority entrepreneurs tend to address their financial problems through the formal legal mechanism of bankruptcy to any greater extent than White entrepreneurs. Also, such studies would explore whether the reasons for resorting to bankruptcy are different for minority entrepreneurs when compared to White entrepreneurs. Further, such studies would enhance the understanding of whether minority entrepreneurs who do resort to bankruptcy are financially and demographically any different than White bankrupt entrepreneurs. This study attempts to shed some light on these questions by empirically examining minority and White bankruptcy entrepreneurs in the Los Angeles area.

Historically, a considerable number of disadvantaged members of minority groups have been prompted to become self-employed as a way of overcoming certain disadvantages in the labor market. Under the disadvantage theory, minorities join the entrepreneurial sector as an avenue of opportunity to address these labor market disadvantages. n2 There are more than three million minority-owned [*97] businesses in the United States today, generating close to $600 billion in gross receipts. n3 Twenty percent of the minority-owned businesses are employer firms, employing approximately 4.5 million employees with a combined annual payroll of just under $100 billion. n4 These minority-owned businesses have made important contributions to the United States economy. n5

Over the past twenty-five years, the number of minority-owned businesses has dramatically grown, increasing at an annual rate of 17% in the decade from 1987 to 1997. n6 As a result, the share of minority-owned businesses in the entrepreneurial sector more than doubled between 1982 and 1997. n7 For example, in 1982 less than 7% of all businesses in the United States were minority-owned; by 1997 almost 15% of businesses in the United States were minority-owned. n8 This swift growth took place across all minority groups. n9

The spectacular growth in minority-owned businesses in the United States over the past twenty-five years is partly a product of the growth of the minority population in society. Between 1982 and 2002 the percentage of minorities in American society rose from 21% to 32%. n10 However, even after taking into account the high minority population growth over this period, the rise in the number of minority-owned businesses is still significantly higher than the growth among White-owned businesses. n11

[*98] There is some debate as to why minority-owned businesses have increased in recent decades. Aside from population growth, minority-owned businesses increased partly because of the rapid growth in the 1970s of federal and state set-asides and preferential procurement policies targeting minority firms. n12 Others have contended that cultural and entrepreneurial values such as hard work, independence, thrift, family ties, and group solidarity of certain growing minority groups have contributed to the rise in minority-owned businesses. n13 Another plausible explanation for the rapid growth in minority-owned businesses is the significant rise in revenue growth for most minority-owned business owners, which may have attracted other minorities to join the entrepreneurial sector. n14 Lastly, the growth in minority-owned businesses may have been fueled by the corresponding rise of the minority consumer market, which has afforded more business opportunities for minority-owned firms. n15
Despite this recent growth among minority entrepreneurs, minorities remain significantly underrepresented in the self-employment sector. In 1997 minorities made up 27% of the general population in the United States but only 15% of the entrepreneurial sector and only 3% of the nation's gross business receipts. n16 However, the extent of the underrepresentation among the various self-employed minority groups is not uniform; certain ethnic minorities display higher rates of self-employment than others. The largest discrepancy exists among Blacks, who make up 12% of the general population but less than 4% of all businesses in the United States. Similarly, Hispanics make up almost 11% of the general population but less than 5% of all businesses. n17 In contrast, Asian Americans have representation in business greater than their proportion in the general population. n18

Minorities are similarly underrepresented in the self-employment sector in Los Angeles County. In 2002 the various minority groups made up almost 70% of the population in Los Angeles County. n19 In contrast, only 37% of the small business owners in Los Angeles County were members of minority groups. n20

There are a number of reasons for the underrepresentation of minorities in entrepreneurship. First, some have suggested that the underrepresentation is due to the absence of a robust tradition in the business sector among certain minority groups. n21 Specifically, some research has suggested that lack of entrepreneurial experience among parents play a pivotal role in determining whether minority individuals will become self-employed. n22 Additionally, some have contended that low levels of asset holdings have contributed to a lower entrepreneurial rate among minorities. n23 Similarly, others have pointed to the lack of access to debt financing as the central cause of the underrepresentation. n24

Minority-owned businesses not only are underrepresented in the entrepreneurial sector, but also tend to have a higher failure rate relative to White-owned businesses. n25 The success of a business is directly connected to the skills and qualifications of the entrepreneur. n26 The higher failure rate among minority entrepreneurs has been attributed in part to inferior human capital as certain groups of minority entrepreneurs have lower education and lower managerial experience. n27

Also, minority entrepreneurs' higher failure rate has been blamed on limited access to credit. n28 Previous research has demonstrated that higher levels of capitalization have a positive effect on survival rates of small businesses. n29 The limited access to financial capital is partly due to the lower asset levels the minority entrepreneurs have accumulated, the discrimination they face from some financial institutions, fewer ties to financial institutions, lower loan application submissions, and a higher financing rejection rate. n30 Those minority entrepreneurs who do obtain financing tend to rely on high-cost capital to operate their businesses, which tends to forestall their businesses' growth. n31

The higher failure rate among minority business owners is also the result of the limited market many minority-owned businesses face in their co-ethnic market. Under the ethnic enclave theory, many minority entrepreneurs are naturally inclined to open a business within their own ethnic community, hoping to capitalize on their awareness of unique local consumer preferences and to benefit from their ability to offer local consumers the comfort of conducting business in their own culture and language. n32 However, the low income of many consumers in the ethnic enclave, combined with the fierce competition displayed by other ethnic entrepreneurs in the same enclave, may actually result in greater vulnerability. n33

In addition, self-employed minorities may be prone to failure at a greater rate than White business owners because of their relatively small size (in terms of number of employees and gross receipts) and their chosen business entity. n34 In 1997 over one quarter of White-owned businesses in the United States had paid employees compared with only one fifth of minority-owned businesses. n35 Similarly, White-owned firms had an average of twenty-one employees; in contrast, minority-owned-firms had an average of between seven and nine employees. n36 Also, while minority-owned businesses represent 15% of all businesses in the United States, they employ only 4% of American employees and produce only 3% of business revenues in the United States. n37

The minority-owned businesses' relatively small size is likewise evident among minority entrepreneurs in southern California. Self-employed minorities in the southern California area tend to be small in size and are predominantly sole
proprietors. \textsuperscript{38} Almost 55\% of minority enterprises in the southern California area report that they have five or fewer employees. \textsuperscript{39} Also, almost two-thirds of minority enterprises in southern California are sole proprietorships. \textsuperscript{40} Studies have found that at least two factors are associated with whether some businesses grow and thrive: the small size of a business and whether the business is organized as a sole proprietorship. \textsuperscript{41}

\[ \text{Lastly, minority entrepreneurs would seem to be more prone to business failure compared to White entrepreneurs because minority entrepreneurs are underrepresented in the high-value and growth industry sectors. Several studies have found self-employed minorities to be significantly more likely to pursue business in the non-growth sectors, such as the service and the retail industries, as compared to White self-employed businesses.} \textsuperscript{42} \text{In southern California, for example, a significant portion of minority entrepreneurs is engaged in the retail and service industries.}\textsuperscript{43} \text{Studies have documented that businesses in the retail and service industries have lower growth rates and decreased profitability; they also suffer the highest business turnover rates.} \textsuperscript{44}

Given the higher failure rate among minority business owners compared to White business owners, one may hypothesize that minority-owned businesses would be overrepresented in the bankruptcy sample.

\textbf{II. METHODOLOGY}

Data for this research study were based on information obtained in 2005 and 2006 from surveys completed by bankruptcy petitioners in the Central District of California San Fernando Valley Division. \textsuperscript{45} The San Fernando Valley is a geographic area that includes several cities and a large portion of the City of Los Angeles. The San Fernando Valley has approximately 1.7 million residents; 45.2\% are White, 38\% are Hispanic, and 10\% are Asian; a third of the population is foreign-born. \textsuperscript{46} The Los Angeles area also has the greatest concentration of small businesses in the United States. \textsuperscript{47}

This study relied on information from surveys rather than bankruptcy schedules because vital data for this research project—such as ethnicity, education, cause of bankruptcy and various characteristics of petitioners’ businesses—would not be available in the bankruptcy schedules. The questionnaire was purposefully drafted to be only one and a half pages long to minimize the time necessary to complete it.

The questionnaire was composed of a list of twenty-one questions, with an additional supplement of ten questions for petitioners who had owned a business prior to their bankruptcy filing. Most of the questions in the survey solicited non-narrative answers and asked petitioners to check a box from among several options. However, questions concerning the cause of the bankruptcy filing or business distress were open-ended.

The questionnaire included questions concerning age, gender, educational background, marital status, country of origin, racial/ethnic background, religious affiliation, number of dependents, occupation, household income, home ownership, value of assets, amount and type of debts, cause of bankruptcy, and entrepreneurship background. Former business owners were also asked a number of questions about their business operation. Among other things, they were asked to identify the problems, if any, their business faced; the number of years they engaged in the business; the type of business entity they owned; the type of business financing; the number of employees; the number of family members working in the business; the nature of the business industry; the number of business ventures owned beforehand; and their plans for future business ownership.

Before commencing with the collection of the questionnaires in the field, we submitted the questionnaire and procedures to the California State University, Northridge's office charged with the protection of human subjects. As part of this procedure, we promised to maintain the respondents' confidentiality. Similarly, in asking for cooperation from the U.S. Trustee to conduct the study, we also promised confidentiality for our respondents. All of the personnel engaged in the research in any capacity also pledged to protect the confidentiality of the respondents.

In 2004, the Executive Office of the U.S. Trustee granted permission to access and distribute the questionnaire at the mandatory creditors' hearing in the Central District of California San Fernando Valley Division. \textsuperscript{48} The Assistant
U.S. Trustee in the Central District of California San Fernando Valley Division cooperated in facilitating the distribution of the questionnaires at the site. A total of ten student assistants attended the mandatory 341(a) hearing beginning in January 2005 and ending January 2006 for the purpose of distributing and collecting completed questionnaires from bankruptcy petitioners. The vast majority of petitioners surveyed had filed during 2005. Because the mandatory creditors' hearings are often scheduled sometime after the initial filing, some of the questionnaires that were collected were for petitioners who had filed for bankruptcy in late 2004.

Each student assistant was assigned to cover different hearing dates either in the morning or in the afternoon. The student assistants were given a script to address bankruptcy petitioners while they were attending their mandatory creditors' meeting. The student assistants arrived to the creditors' meeting approximately fifteen minutes before the beginning of each session and were instructed to approach petitioners as they entered the waiting area for the creditors' meeting hearing room. Each student was asked to identify him or herself, briefly describe the purpose of the research project, and ask the petitioner whether he/she would be willing to participate in the study by completing the survey.

The study was available in English and in Spanish due to the large Hispanic population in the local area. The English questionnaire was first translated by a research assistant who is fluent in both Spanish and English. That translation was then verified by another bilingual research assistant. It is possible that some petitioners, who are immigrants and speak neither Spanish nor English, did not complete the survey. However, based on feedback from the research assistants, there were very few petitioners who appeared not to understand the questions in the questionnaire.

Respondents were not asked for their names or case numbers. The student assistants were asked to mention to the petitioners that participation in the study [*105] was completely voluntary and anonymous. In addition, a statement to that effect was included at the top of each of the survey instruments provided to respondents.

Some debtors came to the creditors' meeting with their attorneys, and there was often a lengthy wait in a waiting area for their hearing to begin, during which the debtors had the opportunity to consult with their legal counsel about completing the questionnaire. The debtors were asked to return their completed questionnaires to the research assistant attending the hearing that day. Debtors in this study did not receive any monetary compensation in exchange for their services. Most debtors who completed the questionnaire did so while waiting, although some asked to take the survey home and mail it back upon completion.

We selected a bankruptcy court in Los Angeles County because the Los Angeles area has one of the highest concentrations of small businesses in the United States. n49 According to Census data, more than 37% of the firms in Los Angeles County are minority-owned. n50 This diversity makes the bankruptcy courts in the Central District an excellent setting for an empirical investigation of minority entrepreneurs in bankruptcy.

We received 1,500 completed questionnaires. The average response yield rate was approximately 21%. n51 The total number of surveys completed constitutes 12% of the total bankruptcy petitions that were filed during the period of this study. n52 The sample reflected the approximate composition of bankruptcy filings under Chapter 7, Chapter 13 and Chapter 11 in the Central District of California. n53 The original goal was to obtain at least 150 completed questionnaires from former small business owners. The final number of small business entrepreneurs in our sample was 208. This sample size is approximately the same as or larger than the sample sizes in similar studies of economic or financial [*106] issues. n54

The completed surveys that were collected during each session were sequentially numbered and tabulated into an Access database. Following the tabulation of the data, the ten student assistants participating in the data collection phase were paired and instructed to exchange the hard copies of the questionnaires they had collected. The paired students were then asked to validate the data tabulated by their counterparts and to identify and correct any detected data entry error or missing values. Those surveys that were completed in Spanish were tabulated and validated by one of the four Spanish-fluent research assistants.
For the questions asking about the cause of bankruptcy, the cause of the petitioner's business financial distress, and the type of business owned by the petitioner, we developed content codes based on the answers included in a random sample from the completed questionnaires. Analysis in this study was done using R and SPSS statistical packages. Analyses included frequencies of all variables. \( t \) tests were performed to investigate differences between minority and non-minority entrepreneurs. The statistical significance of the interaction variables was tested by the usual \( t \) test (\( p < 0.05 \)).

III. THE RESULTS

A. The General Population in Bankruptcy

Demographically, the bankruptcy petitioners in the sample were similar in many respects to the general population in Los Angeles. Similar to the population as a whole, males and females were roughly evenly represented in the bankruptcy sample. The median age of the bankruptcy petitioner was forty, compared to a median of thirty-eight in the San Fernando Valley. The education level of the bankruptcy petitioners also resembles the educational level in the general local population, with 62% of survey participants having at least some college education. Also, similar to the marital status of the population outside of bankruptcy, over 37% of the bankruptcy sample identified as single. Lastly, the entrepreneurship rate of 14% in the bankruptcy population mirrors the self-employment rate in the local region.

While the bankruptcy population in our sample is demographically indistinguishable in many respects from the general population, it is financially remarkably different. Its earnings are considerably lower, with a median annual household income of $33,600, compared to a median household income in the San Fernando Valley of $53,723. Reliance on public assistance is another important contrast between the general local population and the bankruptcy sample. Twelve percent of the bankruptcy petitioners that were surveyed reported receiving public assistance, while only 6.4% of the population in Los Angeles County received such benefits in 1999.

A more dramatic example of the differences between the two groups is reflected in homeownership rates. Outside of bankruptcy, almost half of the population of Los Angeles County owns a home, compared to a mere 8% in the bankruptcy sample. Similarly, the fair market value of the houses owned by the bankruptcy petitioners is remarkably low, with a median of $290,000, compared to a median of $600,000 in the local housing market.

Moreover, the bankruptcy petitioners were deep in debt, owing an average of over $86,000 and with a median outstanding debt of $35,000. A significant portion of the total debts consisted of credit card obligations. On average, the bankruptcy petitioner had more than $30,000 worth of credit card debts, with a median of $20,000. In fact, over two-thirds of the petitioners reported more than $10,000 in credit card debts. This heavy debt burden, when combined with particularly low income levels, has contributed to a large debt-to-income ratio for the households in the bankruptcy sample with a median of 1.2. Hence, at the median, a petitioner's family owed debts greater than one year's worth of income.

The heavy debt burden, along with the low homeownership rate, contributed to the large negative net worth in the bankruptcy sample. A debtor's net worth is a vital indicator used to assess his or her relative financial well being. The mean net worth of the bankruptcy petitioner in the sample was negative $54,504, and the median net worth was negative $29,840. An overwhelming 89.2% of the sampled population had a negative net worth compared to only 12.6% in the general population outside of bankruptcy.

B. Minorities in Bankruptcy

Before examining the data relating to minority entrepreneurs, we scrutinized whether minority petitioners in general were overrepresented in the bankruptcy sample. The data suggest that Hispanics and Asians are underrepresented in the bankruptcy sample, while Blacks and Whites are overrepresented in the bankruptcy sample.
As of 2004, there were at least 1,798,912 people residing in the San Fernando Valley: 42% of the population was Hispanic (759,611), 42.8% was White (774,989), 10.7% was Asian (193,520), 4.1% was Black (74,152), and 0.3% was Native American (5,425). The following table shows the actual and expected data on the racial make-up in the bankruptcy sample in Los Angeles:

<table>
<thead>
<tr>
<th></th>
<th>Actual Data</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>738 (49.2%)</td>
<td>616 (42.8%)</td>
</tr>
<tr>
<td>Black</td>
<td>123 (8.2%)</td>
<td>59 (4.1%)</td>
</tr>
<tr>
<td>Asian</td>
<td>99 (6.6%)</td>
<td>154 (10.7%)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>472 (31.5%)</td>
<td>605 (42.0%)</td>
</tr>
<tr>
<td>Native American</td>
<td>7 (0.5)</td>
<td>5 (0.3%)</td>
</tr>
<tr>
<td>Total</td>
<td>1439</td>
<td>1439</td>
</tr>
</tbody>
</table>

The expected numbers of people who filed for bankruptcy were calculated based on the null hypothesis that regardless of race, probability of filing for bankruptcy is the same. Given the Chi-square test statistic $\chi^2 = 140.44$ with four degrees of freedom, p-value is close to 0%. Thus, the null hypothesis is quite strongly rejected at a significance level of 99.9%, i.e., $[\text{alpha}] = 0.001$. To test the hypothesis whether Hispanics and Asians are equally or overrepresented in the bankruptcy sample, we employed the lower tail population proportion test to each one of these ethnic group's expected and observed frequency in the sample. Using the table of areas for the standard normal distribution, we found that the area between the mean and Z (7.3 for Hispanics and 4.7 for Asians) is larger than 0.4990. Thus, the p-value for both hypotheses is less than 0.001. Since the p-value is significantly lower than alpha, there is sufficient statistical evidence to reject strongly both null hypotheses that Hispanics and Asians are equally or overrepresented in the bankruptcy sample at the $[\text{alpha}] = 0.05$ (and $[\text{alpha}] = 0.01$) significance. Hence, we were able to adopt the alternative hypothesis that Hispanics and Asians are underrepresented in the bankruptcy sample.

In contrast, to test the hypotheses whether Whites and Blacks are equally or underrepresented in the bankruptcy sample, we employed the upper tail population proportion test to each one of these ethnic groups' expected and observed frequency in the sample. Using the table of areas for the standard normal distribution, we found that the area between the mean and Z (87 for Whites and 8.4 for Blacks) is larger than 0.4990. Thus, the p-value for both hypotheses was less than 0.001. Since the p-value is significantly lower than alpha, there is sufficient statistical evidence to reject strongly both null hypotheses that Whites and Blacks are equally or underrepresented in the bankruptcy sample at the $[\text{alpha}] = 0.05$ (and $[\text{alpha}] = 0.01$) significance. Hence, we were able to adopt the alternative hypothesis that Blacks and Whites are overrepresented in the bankruptcy sample. Previous studies of minorities in bankruptcy have similarly found that Whites and Blacks are overrepresented in bankruptcy, while all other minority groups are underrepresented.

Some of the demographics of these ethnic petitioners in the bankruptcy sample are consistent with their respective demographics in the local general population. For example, the gender make-up of the minority and non-minority bankruptcy petitioners is generally evenly divided, just as it is in the general population. Similarly, just as the minority population tends to be younger compared to the non-minority population, minority petitioners in the bankruptcy sample were on average four years younger than their non-minority counterparts. Likewise, the religious affiliation of the minority and non-minority bankruptcy petitioners corresponds to a large extent to their religious affiliation outside of bankruptcy, with the minority population tending to be more affiliated with Christianity. Nonetheless, unlike the general population, both minority and non-minority petitioners (with the exception of Blacks) in the sample reported a substantially higher divorce rate and a much lower marriage rate than their counterparts in the general population.

Just as minority groups face challenges in society at large, they also face similar challenges in bankruptcy. As a group, more of the minority bankruptcy petitioners were first-generation immigrants. Whereas almost 90% of the
non-minority bankruptcy petitioners were born in the United States, less than half of the minority bankruptcy petitioners were native-born. This disparity is particularly strong among Asian and Hispanic bankruptcy petitioners, with only a third of them being native-born.

Aside from the challenges of being largely a group of first-generation immigrants to the United States, minority petitioners in the bankruptcy sample reported significantly inferior human capital characteristics. For example, almost 40% of the White bankruptcy petitioners were classified as educated, with at least an Associate of Arts degree. In contrast, only a quarter of the minority bankruptcy petitioners have reportedly earned at least an Associate of Arts degree.

Despite being largely first-generation immigrants with limited educational backgrounds, a smaller number of minorities in the bankruptcy sample reported receiving government assistance. Also, significantly fewer minority bankruptcy petitioners were assisted by an attorney in the bankruptcy process.

By far the most conspicuous disparities between minority and non-minority petitioners in the bankruptcy sample relate to their financial condition. The household income of minority bankruptcy petitioners was almost a quarter less than their White counterparts in the bankruptcy sample. While minority petitioners had substantially lower household incomes, they also had significantly higher numbers of dependents to support. Similarly, minority petitioners reported significantly less ownership of capital. For example, the homeownership rate among minority petitioners was almost half the rate of that among White petitioners. Among the homeowners in the bankruptcy sample, White petitioners reported somewhat higher (but not statistically significant) home values than the minority petitioners. These gaps in homeownership rates contributed to the disparity in total value of assets between the two groups, where the total value of assets reported by the minority petitioners was less than half of the value reported by the White petitioners.

While minority petitioners displayed inferior income and wealth acquisition, they reportedly owed significantly less than their non-minority counterparts. On average, White petitioners in the sample owed well over $100,000 (with a median of $40,000), while minority petitioners owed less than $50,000 (with a median of $30,000). Both minority and non-minority petitioners disclosed sizable credit card debts. The non-minority petitioners reported greater credit card debt at an average of $36,261 ($24,000 median), compared to $22,574 ($17,000 median) among the minority. Nonetheless, relative to the non-minority petitioners, minority petitioners' credit card debt constituted a greater share of their total debt. The appreciably higher level of debt undertaken by the White petitioners was also manifested in their higher debt-to-income ratio, as well as in their lower overall net worth compared to the minority petitioners in the bankruptcy sample.

The higher level of debt reported by the non-minority bankruptcy petitioners may be due in part to minority groups' potentially limited access to credit. Also, the higher debt level among non-minority petitioners may be the result of their greater tendency to engage in entrepreneurship as compared to minority petitioners. Indeed, the self-employment rate among non-minority petitioners in the bankruptcy sample was 19%, more than twice the 8% self-employment rate among minority petitioners. Similarly, business failure was cited as the cause of bankruptcy much more often among non-minority petitioners than among minority petitioners.

C. Minority Entrepreneurs in Bankruptcy

Just as Hispanics and Asians were underrepresented in the bankruptcy sample, minority entrepreneurs were also underrepresented in the bankruptcy sample. Of the 341,295 self-employed people in Los Angeles County, 37% were minority-owned business owners. The following table shows the actual and expected data on minority and non-minority small business owners in the bankruptcy sample in Los Angeles:

<table>
<thead>
<tr>
<th></th>
<th>Actual Data</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-minority Small Business Owners</td>
<td>140 (67.3%)</td>
<td>123 (63%)</td>
</tr>
</tbody>
</table>
Minority Small Business Owners

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>72</td>
</tr>
<tr>
<td>(27%)</td>
<td>(37%)</td>
</tr>
<tr>
<td>195</td>
<td>195</td>
</tr>
</tbody>
</table>

The expected numbers of entrepreneurs who filed for bankruptcy were calculated based on the null hypothesis that the probability of a small business owner filing for bankruptcy is the same for minorities and non-minorities, regardless of race. Given the Chi-square test statistic $\chi^2 = 6.36$, with one degree of freedom, the p-value is close to 0%. Since the p-value is lower than alpha, there is sufficient statistical evidence to reject strongly the null hypothesis that minority entrepreneurs are equally represented in the bankruptcy sample at a significance level of 99.9%, i.e., $[\alpha] = 0.001$.

To test the hypothesis that minority entrepreneurs are equally or overrepresented in the bankruptcy sample, we employed the lower tail population proportion test to the minority entrepreneurs’ expected and observed frequency in the sample. Using the table of areas for the standard normal distribution, we found that the area between the mean and $Z$ (6.9) was greater than 0.4990. Thus, the p-value for the hypothesis was less than 0.001. Since the p-value was lower than alpha, there is sufficient statistical evidence to reject strongly the null hypothesis that minority entrepreneurs are equally or overrepresented in the bankruptcy sample at the $[\alpha] = 0.05$ (and $[\alpha] = 0.01$) significance. Hence, we were able to adopt the alternative hypothesis that minority entrepreneurs are underrepresented in the bankruptcy sample.

[*115] The White small business owners were similar in some respects to the minority small business owners in the bankruptcy sample. Both groups were made up primarily of men, and the business owners in both groups were mostly married. Nonetheless, the minority small business owners were different in most other respects. They were six years younger on average, almost seven times more likely to be immigrants, and twenty percent more likely to be spiritually affiliated with Christianity than their White counterparts. Minority entrepreneurs also relied less on government support and attorney representation in the bankruptcy process. Overall, minority small business owners were well-educated, with 37% of them possessing at least an Associate of Arts degree, but they were dramatically less educated than their White counterparts in the sample, with over half of the non-minority small business owners possessing similar educational background. This finding is consistent with the educational disparity between minority and non-minority entrepreneurs outside of bankruptcy.

Minority entrepreneurs most dramatically lagged behind their non-minority counterparts in terms of financial characteristics. Similar to the earnings disparity between minority and non-minority entrepreneurs in general, minority entrepreneurs in the bankruptcy sample reported on average less than half the household earnings of the White entrepreneurs. Also, minority entrepreneurs were two-thirds less likely to own a house than were White small business owners. This disparity contributed in large measure to the minority entrepreneurs’ noticeably lower capital ownership at the time of the bankruptcy filing, with their assets valued at less than a third of the value of assets held by the non-minority bankruptcy petitioners.

While not statistically significant, minority entrepreneurs in the bankruptcy sample were much less indebted compared to the non-minority entrepreneurs, with total debts less than half of the debts reported by the White business owners. Overall, while not statistically significant, the minority entrepreneurs exhibited a weaker financial condition in terms of a higher debt-to-income ratio, but a higher net worth as compared to non-minority entrepreneurs.

Similar to small business owners outside of bankruptcy, approximately half of both minority and non-minority small business owners in the bankruptcy sample were organized as sole proprietors. The typical business in the bankruptcy sample was in the retail or service industry, with minority business owners tending to operate a retail establishment and non-minority business owners operating a service establishment.

The main source of initial financing for the small business owners in the bankruptcy sample was credit card debt, which constituted over 40% of the business financing among the non-minority business owners and over 30% among