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Estimating the potential supply of black entrepreneurship using the black university setting

Neal D. Reeves

Atlanta University

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ESTIMATING THE POTENTIAL SUPPLY OF BLACK ENTREPRENEURSHIP
USING THE BLACK UNIVERSITY SETTING

A THESIS
SUBMITTED TO THE FACULTY OF ATLANTA UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF ARTS

BY
NEAL D. REEVES

DEPARTMENT OF ECONOMICS

ATLANTA, GEORGIA
MAY 1988
ABSTRACT

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REEVES, NEAL D. B.A., Talladega College, 1983

Estimating the Potential Supply of Black Entrepreneurship Using the Black University Setting

Advisor: Dr. Fred O. Boadu

Thesis dated May 1988

The objective of this study was to identify factors that increase the potential supply of black entrepreneurs. We argued that blacks' ability to pursue entrepreneurial opportunities is related to their ability to obtain information and knowledge. The black university setting was selected as the stage to test this paradigm.

The data on which this study is based were obtained from the 1980-84 United Negro College Fund Statistical Reports.
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CHAPTER I

INTRODUCTION

Once again the subject of entrepreneurship has surfaced as a major social issue. Renewed interest is due to several factors, the most significant of which is the United States trade imbalance and the question of American competitiveness. To date, the trade imbalance has increased to a record of $17.6 billion,\(^1\) a 25.3 percent increase over the trade imbalance in September of 1987. One of the problems contributing to the trade imbalance is the need for entrepreneurs to become more competitive with foreign competition. Commerce Secretary, William Verity, recently echoed these sentiments by stating that "foreign products continued to attract U. S. consumers, which points to the need for American producers to improve the attractiveness and quality of their markets."\(^2\)

The question of entrepreneurship can be looked at from several perspectives—political, economic, social, ethical, historical, etc. Rather than straight jacket this study into one of these areas, we focus on two major opinions in this area:

\(^1\)"Trade Imbalance Worsens: Deficit Hits $17.6 Billion," Atlanta Constitution, 11 December 1987, p. Cl.

\(^2\)Ibid.
1) The consensus that the total involvement of all segments of the American society is needed to deal with the trade and competitiveness problem; and

2) The consensus that consistent with the American tradition the involvement of our teaching and research institutions is vital to the achievement of our national objective.

Regarding the first of these several opinions, many concede that minority-owned enterprises and minority entrepreneurs play a key role in a global space economy. On the involvement of teaching and research institutions, the proliferation of endowed chairs in entrepreneurship on the campuses of U. S. institutions and the constant interaction between industry and academic institutions are instructive indicators.

**Problem Statement**

The research problem addressed in this study must be understood within the context of the broader macroeconomy; specifically an area of restricted budget policies. How can black entrepreneurial skills be improved against a background of restricted budget policies? Will industry be able to fill the gap left by cuts in federal funding? In what specific ways do educational institutions contribute to the training of potential black entrepreneurs?

These questions are not new but we contend that the discussion and research on black entrepreneurship have been lop-sided. For example, it is easy to conclude erroneously that cuts in federal money will adversely affect the training of potential black entrepreneurs without
examining the elasticity of substitution between federal and private sources of funds. At the research end, most of the studies have focused on the growth of establishments (firms) and not the growth of entrepreneurs. Since Gary Becker's study, the use of the production function on the growth of human capital has been popular. This methodology can be meaningfully applied to the growth of black entrepreneurs. We attempt this in this study.

**Objectives**

The objectives of the study are:

1) To identify the factors that influence the potential supply of black entrepreneurship using information from selected black institutions;

2) To quantitatively estimate the impact of the identified factors and the interactions between them on the potential supply of black entrepreneurial growth; and

3) To determine the policy implications of the study.

The study takes a macro-approach and concentrates on determining the impact of the black university setting toward increasing the production of black entrepreneurship nationally. University setting variables like the number of faculty, number of students, resources and external factors like, federal funding and private funding are examined and their impact on the production of potential entrepreneurs quantitatively determined. Of special interest is the extent of substitutability between private and federal sources of funding and whether, indeed, the reduction in funding as a result of the deficit reduction plan will adversely affect the growth of potential entrepreneurs.
Methodology

The focus of this study is on black entrepreneurship using degrees conferred. We assume a direct correlation between students receiving these degrees at private black institutions and the likelihood of their pursuing entrepreneurial opportunities. This study uses cross-sectional data obtained from the 1980-84 United Negro College Fund Statistical Reports. The data set contains variables that measure blacks' ability to acquire information and knowledge in the university setting. The dependent variable in this study is the number of students graduating from private black institutions. Initially, the measure of the potential supply of black entrepreneurial growth posed some problems. A more restricted measure such as the number of students graduating from business schools was considered. Theoretically, there is no a priori basis for concluding that only business majors become entrepreneurs. Empirically, it was not easy to obtain a consistent data set. For these reasons, the total number of graduates was selected. The independent variables are the number of faculty, tuition cost, and government and private contributions to United Negro College Fund (UNCF) schools. The educational institution was hypothesized as a regular firm that seeks to maximize an environment conducive for academic learning. The popular educational production approach was used in this study. Ordinary least square procedures were used to estimate the parameters of the specified production function.

The results of this study will assist in determining the aspects of the university setting that may need emphasis in order to enhance
the production of potential entrepreneurs. The study will be useful to university development offices in terms of allocating efforts to fund-raising activities and finally as a theoretical matter, the study sheds a little light on the application of educational function analysis to the case of black institutions.

The study includes the following chapters. After a review of minority entrepreneurship in Chapter I, Chapter II presents a review of the relevant literature. The purpose of this chapter is to examine works on the origins of entrepreneurial growth and black economic development. Chapter III outlines the methodology used in the study. Chapter IV presents the major findings. A summary of the paper and policy implications is provided in Chapter V.

Black Entrepreneurial Growth

Studies by the U. S. Commerce Department indicate that black firms represented 4.6 percent of total firms in 1969 and by 1982 their representation had increased to only 7.3 percent of total firms (see Table 1). In a recent study by the Black Enterprise Board of Economists, it was noted that black firms in 1982 accounted for fewer than 2 percent of all sales receipts.3 Even though this figure is higher than the 1972 figure on black firms, the Board found that the average sales size of all black firms in 1982 was only $37,000 and that black firms continue

TABLE 1

COMPARISON OF BLACK-OWNED FIRMS WITH TOTAL NUMBER OF FIRMS: 1969-82

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>All</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969</td>
<td>163,000</td>
<td>3,533,987</td>
<td>4.6</td>
</tr>
<tr>
<td>1972</td>
<td>194,986</td>
<td>3,540,846</td>
<td>5.5</td>
</tr>
<tr>
<td>1977</td>
<td>231,203</td>
<td>4,352,295</td>
<td>5.3</td>
</tr>
<tr>
<td>1982</td>
<td>339,239</td>
<td>4,633,960</td>
<td>7.3</td>
</tr>
</tbody>
</table>


to locate in traditional industries (see Table 2). Former governor of the Federal Reserve Board, Andrew Brimmer, who is also a member of the BE Board, indicated,

If blacks are to take advantage of the new opportunities on the horizon, they need to raise a significant amount of capital, enhance their management skills, and must obtain a wide range of sophisticated technology and take risks.

Several experts have predicted that the growth of black entrepreneurship is directly related to blacks' ability to obtain formal education.

---


TABLE 2
DISTRIBUTION OF BLACK BUSINESSES BY INDUSTRY, 1982

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percent of GNP</th>
<th>Percent of Black</th>
<th>Percent of Black Receipts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>3.3</td>
<td>1.4</td>
<td>1.0</td>
</tr>
<tr>
<td>Mining</td>
<td>4.8</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>Construction</td>
<td>5.2</td>
<td>6.8</td>
<td>8.0</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>23.2</td>
<td>1.2</td>
<td>7.9</td>
</tr>
<tr>
<td>Transportation</td>
<td>10.6</td>
<td>7.2</td>
<td>6.4</td>
</tr>
<tr>
<td>Wholesale and Retail</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholesale</td>
<td>--</td>
<td>1.1</td>
<td>6.9</td>
</tr>
<tr>
<td>Retail</td>
<td>--</td>
<td>24.8</td>
<td>33.1</td>
</tr>
<tr>
<td>Finance, Insurance and Real Estate</td>
<td>17.4</td>
<td>4.4</td>
<td>6.0</td>
</tr>
<tr>
<td>Services</td>
<td>17.0</td>
<td>43.4</td>
<td>26.1</td>
</tr>
</tbody>
</table>


training and work experience. Studies by Foley,⁶ Coles⁷ and Strange⁸ have all stressed the importance of formal training and work experience.


experience as augmenting black entrepreneurship. The National Advisory Committee on Black Higher Education and Black Colleges and Universities, a now defunct committee organized by the Department of Education in the '70s, indirectly echoed these sentiments. They contended that government support to historically black colleges greatly enhanced blacks' chances of pursuing economic opportunities in all arenas.

But formal education, training and work experience programs are not having an easy ride these days, having been caught in the budget reduction plan. Black universities have been adversely affected by these plans. In the end of the '70s, government contributions to all historically black institutions represented, on the average, 4 percent of government contributions to all schools (see Table 3). While the total government aid increased to $625 million this year, an estimated 400,000 black students are expected to receive no aid or receive a reduction in their aid package. Whether the private sector can fill the gap is uncertain, especially given the fact that evaluation of private sector university relationship is not common data.


TABLE 3
FEDERAL FUNDS OBLIGATED TO BLACK COLLEGES AND TO ALL
INSTITUTIONS OF HIGHER EDUCATION, FISCAL YEARS 1970-1978

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Historically Black Colleges</th>
<th>All Institutions of Higher Education</th>
<th>Percent Obligated to Black Colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>$121,298,800</td>
<td>$3,667,923,000</td>
<td>3.3</td>
</tr>
<tr>
<td>1971</td>
<td>159,365,500</td>
<td>3,888,306,000</td>
<td>4.1</td>
</tr>
<tr>
<td>1972</td>
<td>242,226,400</td>
<td>4,637,637,000</td>
<td>5.2</td>
</tr>
<tr>
<td>1973</td>
<td>239,672,800</td>
<td>4,492,567,000</td>
<td>5.3</td>
</tr>
<tr>
<td>1974</td>
<td>266,896,000</td>
<td>4,852,814,000</td>
<td>5.5</td>
</tr>
<tr>
<td>1975</td>
<td>233,144,300</td>
<td>4,849,590,000</td>
<td>4.5</td>
</tr>
<tr>
<td>1976</td>
<td>264,754,000</td>
<td>5,380,022,000</td>
<td>4.9</td>
</tr>
<tr>
<td>TQ</td>
<td>84,614,000</td>
<td>1,710,760,000</td>
<td>4.9</td>
</tr>
<tr>
<td>1977</td>
<td>341,621,000</td>
<td>6,468,630,000</td>
<td>5.3</td>
</tr>
<tr>
<td>1978</td>
<td>361,297,000</td>
<td>7,051,424,000</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Note: For purposes deriving trend data, a constant universe of 100 black institutions has been identified as recipients of federal funds during the period 1970-1978. Amounts obligated to Alabama Lutheran Academy, Lomax-Hannon College, and Clinton Junior College have been omitted from the 1978 total, since these schools have not been consistently present in past FICE reports. TQ = Transitional quarter.

CHAPTER II
LITERATURE REVIEW

The Historical, Theoretical Literature

To highlight the theoretical and empirical ideas surrounding the issue of growth of entrepreneurship, it is better for analytical purposes to review the relevant literature under two main headings:

1) The historical, theoretical literature on entrepreneurial growth; and

2) Growth of black entrepreneurship.

To a very large extent, economic historians have served us better in formulating and organizing our thinking on entrepreneurship than any other group of writers.\(^1\) Among the first to write on the subject of entrepreneurship from a historical perspective was Harvey Leibenstein.\(^2\) Leibenstein noted that the study of entrepreneurship had been excluded from the production function and concentrated on suggesting variables which could contribute to a positive growth environment. He defined entrepreneurship as consisting of two

\(^1\)The classical school and the Richardians were unable to distinguish the entrepreneurship from the labor based on the wage-fuel theory.

activities: "routine and new entrepreneurship" or n-entrepreneurship. Routine entrepreneurship was defined as those "activities involved in coordinating and carrying on well-established, growing concerns in which parts of the production in use are well-known and which operate in well-established and clearly-defined markets."³ By n-entrepreneurship, he meant "those activities in the economy that had been excluded in the production function, and existed in imperfect markets."⁴ He indicated the latter had been excluded in the production function because "economists believed that the complete sets of inputs are specified and known to all actual or potential firms in the industry, and there is a fixed relation between inputs and outputs."⁵ He stated, as a result of this misconception, a deficiency occurred in the economy which created entrepreneurial opportunities.

Leinbenstein called the entrepreneurs who pursued these opportunities "gap-fillers." In addition to solving the imperfect conditions in the marketplace, their purposes were to connect different markets, create or expand markets and serve as "input-completers" (those who produce goods with limited resources). He noted these were scarce talents and stated the degree of gap-filling and input-completing was determined by the motivational state of society (he developed this

³Ibid., p. 73.
⁴Ibid.
⁵Ibid.
state from his x-efficiency paper). Listed as factors which determined the motivational state of a society were: 1) rewards for efforts; 2) rewards or punishments relating to production of new techniques; and 3) group approval to matriculate.

In addition to the motivational state, another area Leinbenstein noted which could engender opportunities was the development process. He noted per capita income and the "interaction between the creation of capacity and related demand" were significant variables for gap-fillers and input-completers to pursue opportunities. Listed as demand factors which contributed to the development process were: 1) maximum knowledge conceivable; 2) routine search activities; and 3) possibilities expected to yield a profit. The supply factors were: 1) self-capabilities; 2) sociocultural and political constraints imposed on the individual; 3) degree of entrepreneurial responses; and 4) behavior modes of others.

In summary, Leinbenstein concluded that a theory on entrepreneurship is inclusive because "we do not have, at present, a theory of obstructed, incomplete and 'relatively dark' economic system." But he suggested a model should show "the links between the marginal opportunity


8Here Leibenstein makes reference to the fact that information flow and knowledge are essential factors in enhancing entrepreneurship.

9Leibenstein, "Entrepreneurship and Development," p. 79.
set and opportunities that are perceived and pursued by entrepreneur-
ships."¹⁰

Alexander¹¹ is another scholar who examined the growth of entrepre-
neurship. He concluded that social values and psychological motivations
contributed to the growth in economic opportunities and, in this regard,
he discussed several models. The first model pertained to the theory
of social action. He concluded that actions cause people to interact
and develop role expectations; "societies where role expectations
favored entrepreneurship created a higher demand of entrepreneurial
activities."¹² The author stated that two variables influenced the
degree of role expectations: 1) ascription-achievement which is the
degree that certain expectations are imposed on a group without their
control; and 2) affectivity-neutrality which is the degree to which
individuals are willing to defer gratification vis-a-vis self-discipline.
In the second model, the author discussed the level of achievement in a
society.

William Glade,¹³ in later years, extended the work of Alexander.
As the author pointed out in the beginning of his study, "only in one

¹⁰Ibid.

¹¹Alec P. Alexander, "The Supply of Industrial Entrepreneurship,"
Explorations in Entrepreneurial History 4 (Winter 1967):136-149.

¹²Ibid., p. 140.

¹³William P. Glade, "Approaches to a Theory of Entrepreneurial
Formation," Explorations in Entrepreneurial History, second series
vol. 4, no. 3 (Spring 1967):245-59.
of two aspects, however, did Alexander begin to chart the way for significant new research in the field, and one is left wishing that more had been done to push the analysis explicitly towards a real theory of growth (or other entrepreneurship)."\textsuperscript{14} Glade noted Alexander used several of the variables used by Leinbenstein and McClelland, which had been discussed in the sociological model developed by Parson.\textsuperscript{15}

Glade found these models inadequate for several reasons. He points out that the models were for an "underdeveloped" and not a "developed" economy. Also, these models were static and he suggested that a dynamic model would be more appropriate in studying economic development.

Glade suggested approaching the theory of entrepreneurship at both the micro- and macroenvironment levels. He also indicated that new opportunities influenced the growth of entrepreneurship; however, he expected the response of these opportunities would vary among groups.

What emerges, therefore, as internal feature of any given situation are both an "objective" structure of economic opportunities and a structural or differential advantage in the capacity of systems participants to perceive and act upon such opportunities.\textsuperscript{16}

He concluded that any entrepreneurial model should study the origins of entrepreneurship in a particular ethnic group.

\textsuperscript{14}Ibid., p. 245.
\textsuperscript{15}Ibid., p. 246.
\textsuperscript{16}Ibid., p. 251.
Later, John Harris essentially combined the ideas of both Alexander and Glade to study entrepreneurial growth in developing countries. In this article, Harris explored the problems of entrepreneurship and their relationship to the Nigerian economy. In his analysis, he concluded that entrepreneurship was a function of: 1) perceiving productive opportunities; 2) gaining control over other factors of production; 3) organizing productive facilities; and 4) managing the continuing operation of the productive unit. Based on this function, Harris stated that it was important to identify demand (potential opportunities) and supply (response to opportunities) factors. He found this task difficult because of identification problems. Like Alexander, he suggested that social and psychological variables were important in formulating a model of entrepreneurship.

Harris suggested the following hypotheses about a model on entrepreneurship:

1) The higher the profits, the greater the expansion in an industry and vice versa.

2) Expansion will be low in technology industries.

3) Expansion will be great in areas with technological communications.

4) Capital will positively affect expansion.

5) Growth rate of entrepreneurship will vary among ethnic groups.

6) Location and occupational groups will affect the degree of entrepreneurship.

---

7) Occupational choice and education will positively affect entrepreneurship.

8) Successful entrepreneurs would not conform to traditional values.

Harris tested these hypotheses by conducting interviews with 269 Nigerian business leaders in 1965. However, many of his conclusions were questionable owing to identification problems. Nevertheless, he noted that the results from small industries supported most of the hypotheses. He asserted that their inability (Nigerian business leaders) to enter larger markets resulted from a lack of managerial talents, high level of consumption spending, lack of capital and their inability to invest.

He concluded, as a result of his poor methodological procedures, that,

What is needed is the opportunity to observe groups of individuals from diverse social or ethnic backgrounds having similar opportunities to obtain skills and experience and facing identical sets of potential entrepreneurial opportunities.  

He asserted that such opportunity should be contingent upon investigating social or psychological factors and that the more abilities a person has, the more the degree of the supply of entrepreneurship increases.

The point to be made is that economic development can begin with a cadre of entrepreneurs. As growth proceeds, changes will occur to draw additional groups into the nexus of the cash economy; and to increase the supply of potential entrepreneurs through which growth can be maintained or accelerated.

---

18Ibid., p. 367.

19Ibid., p. 369.
Even though Harris accurately distinguishes between the demand and supply for entrepreneurs, it is obvious from the selected hypotheses that he focused more on the microeconomic variables and the "macroeconomic," that is, those on the demand side, were not considered in the analysis.

**Studies on Black Entrepreneurial Growth**

Although economic historians are credited for formulating the theoretical premise that entrepreneurship is related to information flow and knowledge, black academicians recognized this relationship at the beginning of the 20th century. In fact, the subject was discussed in 1899 during the Fourth Atlanta Negro Conference.20 The items on the agenda at the Conference included:

1) How can we induce young men to go into business?
2) What hindrances have Negroes in business?
3) What help have Negroes in business?
4) What is the outlook?

Referring to the need for information flow and knowledge in enhancing black business development, Professor John Hope, at Atlanta Baptist College, pointed out:

> We must take some, if not all, of the wages, turn it into capital, hold it, increase it. This must be done as a means of employment for the thousands who cannot get work from old sources. . . . In fact, we can have very few really learned professional men, until we do have capital, for a professional man must have time and facilities for increasing his knowledge. These

---

can not be obtained "without" money. This money must come from Negroes. "Wage-earners" alone cannot supply enough money. I therefore regard it as a menace to the progress and utility of professional men that business enterprise among us increases so slowly. . . . In fact there is still room even under present conditions, for a few more lawyers. But none of these make sufficient money to supply them advantages necessary to their highest development and usefulness. . . . No field calls for trained minds and creative genius to a greater extent than does business.21

It is clear from the above observation that the key relationship between entrepreneurial growth, information and knowledge was very well recognized and, in addition, the need for some exogenous force (capital) to help promote this relationship was well recognized.

Although Hope expressed these ideas in the early 1920s, economists failed to focus attention on black entrepreneurship until the late 1960s, when the Small Business Administration (S. B. A.) and other programs were augmented to ensure minority participation in the full economy. One of the early studies completed during this time on black entrepreneurship was done by Brimmer and Terrell.22 Using data on black businesses in Washington, D. C., compiled by the National Business League, the authors cautioned blacks toward pursuing economic opportunities. They found, from their samples of 564 firms, that blacks lacked the technical and managerial training toward pursuing entrepreneurial opportunities, that financial capital allocated to black firms were in the traditional lines of businesses where excessive entry was already

21Ibid., p. 59.

occurring, and that blacks were better off pursuing salary and wage positions.

Another study completed during this period, on the various programs available to potential black entrepreneurs, was done by Strang. Strang found that in 1969 there were 5,000,000 businesses in this nation, while only 45,000 were black owned and operated. He noted the climate was favorable for blacks to pursue entrepreneurial opportunities because of commitments from government, universities and businesses to assist them.

In the private sector, groups such as the Urban League, the National Business League, and the Interracial Council for Business Opportunity began to work actively toward minority development. Several large corporations, including IBM, General Foods, and Xerox, attempted to assist minority businesses, often by purchasing minority products. Universities became involved, as schools of business around the country established scholarship programs for training black managers and consulting programs to provide advice for minority businesses.

Noting the efforts of the above groups, Strang sought to develop a plan where all groups could combine their resources toward enhancing minority development. In his final analysis, he suggested that groups should encourage black participation in the free-enterprise system; groups should provide opportunities for black entrepreneurs, groups should assist in providing start-up capital for black firms, and groups should

23Ibid.
provide management and technical training for potential black entrepreneurs.

Bates, in later years, shared similar views with Strang. Refuting the works of Brimmer and Terrell, Bates concluded, "when capital markets finally open up, blacks businesses will expand into fields in which they heretofore had been unable to compete on an equal basis." By using financial information compiled by the Small Business Administration of 559 black firms in Boston, New York and Chicago, Bates analyzed responses to recent programs making long-term credit loans to blacks. He found that these loans assisted blacks in entering non-traditional industries.

Osborne and Granfield later analyzed both the hypotheses proposed by Brimmer and Terrell and Bates. Using data from a minority enterprise small investment company, the authors examined the financial condition of the forty-five firms in California. Their major concerns were:

1) To determine if new firms entered traditional lines of businesses;
2) To determine if the marginal return on these businesses were low; and
3) To determine if subsidized capital advanced the profit margin for black firms.


26Ibid., p. 144.

Using descriptive analysis, the authors found that thirty-two of the firms were in the traditional line of business and the remaining thirteen were not. Of those in retail, 56 percent failed, while only 15 percent failed in the nontraditional industries. These results support the contention by both Brimmer and Terrell and Bates; mainly, there existed severe competition in the traditional industries and survival was possible in the nontraditional industries. To measure what variables were similar among the failed firms and those that survived, Osborne and Granfield used discriminant analysis. They found that capital was the most significant variable for both failure and marginal firms, and refinancing was a characteristic among those firms which failed.

Ong\textsuperscript{28} approached the study of black entrepreneurship from a different perspective. The author examined the growth of entrepreneurship within the framework of firm theory and even though he included some macroenvironment factors in his analysis, the specific impact of knowledge and information flow was not discussed in the study. Ong focused on the determinants of black entrepreneurship in urban ghettos. More specifically, the author conducted an analysis across 30 non-southern SMSAs to determine whether black economic development was constrained by demand or supply factors. He defined demand as a function of black/white earnings ratio as a proxy of racism. He

classified supply factors as the growth in black population, the change in percentage of black to total population, and the ratio of firms with paid employees.

Ong hypothesized that the growth in the black population and the change in the percentage of black to total population would have negative impacts on per capita sales in the black community. The ratio of employees was hypothesized as having a positive impact on per capita sales. His regression results revealed that black economic development is constrained by supply factors such as, growth in black population, percent of total population that is black, and the ratio of the sales by firms with employees to sales of firms without employees. He concluded that given financial support, black firms could become a more vital business force in the black community.

Swinton and Handy\textsuperscript{29} conducted a similar study analyzing supply factors only. Their study assessed determinants that influence the growth rate of black firms in 1972 and 1977 across SMSAs in the United States with 100 or more black-owned firms.\textsuperscript{30} In their theoretical framework, they asserted that black business development was a function of market demand, availability of resources, competitiveness of black business and government policy. They formulated an ad hoc macro model to test their hypotheses which were the following:

\begin{itemize}
\item[30]Growth rate was defined as the change in number of firms, the amount of sales receipts, and the number of employees.
\end{itemize}
1) A positive relationship existed between the local economy and growth of black firms.

2) A positive relationship existed between growth of black firms and access to capital and managers.

3) The degree of segregation would positively affect the growth rate of black firms.

4) The government policy which supported black firms would positively affect their growth rate.

Dependent variables (number of firms, gross receipts, and paid employment) for the study were obtained from the 1972 and 1977 Survey of Minority-Owned Business Enterprise. The independent variables came from a variety of sources. Their regression results concluded that market demand (local economic conditions and per capita income) and availability of resources (black managers, loans from black banks, and SBA loans) were the two most important variables in influencing the growth rate of black firms. The authors concluded that policies that promote different types of financing and those which encouraged the development of black managers could augment the growth of black business development.31

Another important study on black entrepreneurship was completed by Bearce.32 His study conducted an empirical analysis of minority entrepreneurship in the United States between 1975 and 1976. He concentrated his efforts on determining what type of minorities had entrepreneurial

31Again, these policies are contingent upon a black's ability to obtain information and knowledge.

traits, which individuals in the ethnic groups were likely to become entrepreneurs, and how the economic environment contributed to the growth of entrepreneurship. Again, the focus is on the supply side and very similar to the Glade-Harris line of studies.

Bearce associated standard demographic variables such as income, education, ethnicity and background with choice of type of business. Data in his procedures were obtained from the Survey of Income and Education of Individuals who reported themselves to be self-employed.33 He tested his hypotheses using an "econometric-choice framework" with micro-data on individuals operating in local environments. Bearce's initial finding was that entrepreneurship was less likely for blacks than other minority groups (Hispanics, Asians, and whites). Among those pursuing entrepreneurial opportunities, based on his sample, were the following: 1) white males = 16.5 percent; 2) white females = 6.3 percent; 3) black males = 5.1 percent; and 4) black females = 2.3 percent. The author made the following observations about black entrepreneurship:

1) Assets were a significant factor.
2) Sex was a slightly significant factor for blacks.
3) Opportunity cost was negative for blacks.
4) Age and family status were significant factors for black firms.
5) Part-time work was a positive factor for black firms.
6) Education was positive but only weakly so for black firms.

33Ibid., p. 52.
CHAPTER III

METHODOLOGY

The brief review of the literature in Chapter II shows that the question of what influences entrepreneurial growth is hardly resolved. Influenced largely by psychological and cultural factors so important in this area, scholars have tended to focus more attention on micro-individual choice concerns, issues of risk aversion, and the under-capitalization of black firms. In other words, the macro-environment has been held static and the concern has been what individuals will do given this static environment.

Another conclusion based on this survey is that there is a strong relationship between knowledge/information and entrepreneurial growth at least at a theoretical level. However, the empirical studies do not focus on this critical relationship. It is contended in our study that the availability of information and knowledge is an equally important factor in the development of black entrepreneurs. The parameters defining the knowledge/information matrix is a useful index of society's supply for black entrepreneurial growth. Also by identifying the effect of the public and private allocation decisions on the development of the knowledge/information matrix, we indirectly determine the potential supply of black entrepreneurs.
The likely place to examine blacks' ability to obtain information and knowledge is in the black university setting. To date, economists have failed in formulating a theory on black entrepreneurship from this perspective. This study attempts to fill this gap. Several theoretical approaches have been used to measure various groups' ability to obtain information. Among the more popular approaches is the use of the production function. In economic theory, the production function expresses a technical relationship of various input combinations toward producing a given output. Firms and academic institutions use this technical relationship toward obtaining the maximum possible output for a given cost outlay or toward selecting alternative inputs with a mind of optimizing a well defined production function. In general form, a production function is expressed as:

\[ Y = f(X_1, X_2 \ldots X_n) \]

where \( Y \) is the output and \( X_1, X_2 \ldots X_n \) are the input combinations used to produce the output.

The use of the production function in the educational setting has been common in several studies. Chizmar and McCarney,\(^1\) using a Cobb-Douglas type production function, examined what input factors enhanced the cognitive achievement of elementary students. A similar study of

this nature was completed by Summer and Wolfe. In this study, the authors measured what factors contributed to the educational growth of students in a Philadelphia school district. Another study by Brown and Sak used the production function to determine what input factors contributed to students' performance on achievement exams.

Perhaps the most popular study using the production function, which also relates to the framework of this study, was completed by Lebowitz. The author, adopting the Ben-Porath production function, measured what factors contributed to California students' learning prior to entry into school and what variables continued to contribute to their learning and income earnings over their adult life.

In conducting the study, Lebowitz examined the following questions:

1) Do home investments add to preschool stocks of human capital?
2) Is the amount of schooling achieved by early stocks of human capital?
3) Do home investments affect earnings if other forms of human capital are held constant?
4) Does an early measure of ability affect earnings if schooling and home investments are held constant?

---


Several variables were selected for the various regressions. They were:

1) Parental education,
2) Family size,
3) Birth order,
4) Parental attitudes toward schooling,
5) Quantity of reading in the home,
6) Parent's occupation,
7) Level of schooling, and
8) Experience.

Data for the sample were obtained from the Terman Sample, a sample collected from data of a select group of California preschool students in the early 1920s who had IQs of 135 and above. Information on these students was updated over a forty-year period. Overall, the results of the study suggested that:

1) Home investments contributed positively to students' IQs;
2) Parents' education was directly related to the level of schooling provided to students;
3) Family size also depended on the level of schooling provided to students; and
4) Men's earning at age 29, 39 and 49 were related to schooling and experience.

The framework and proxies used in the Lebowitz's study are analogous to the framework and proxies desired for this study. The only differences are that this study seeks to measure black students' learning in the university setting and to measure their abilities from a macro perspective. More importantly, the dependent variable, the IQ
measures, have been found to be a suspicious measure of the output of the school firm. Degrees conferred as a measure of the output of school firms avoids the controversial IQ measures. With these differences in mind, one can view Lebowitz's theoretical model and findings as an aid in formulating a model and identifying variables for this study. Below is a further discussion of three of Lebowitz's findings which aid in identifying similar macro variables in the black university setting.

Human Capital

Among one of the major findings of Lebowitz's study was that home investments available to students enhanced their learning abilities. One of the variables used to measure the relationship between students' IQs and home investments was parents' education. This variable was found to be highly significant. In the current study, the objective is also to determine what input factors enhance black students' ability to learn in the black university setting. Because this study concentrates on student's learning while matriculating on campus, the degree of human capital on campus is likely to be a meaningful proxy toward measuring its impact on enhancing students' abilities.

Family Size

Another finding of Lebowitz's study was that family size affected the degree of learning of those students in the sample. This was because as their families grew, parents focused more investments on other siblings in the family. For the current study, a direct measure
of the family size of students attending school at black universities is not important. However, a measure of the cost incurred by students to attend school is a meaningful variable. Student loan programs that utilize family size and income as considerations is in support of our contention that the cost of education is easily interchangeable with the microeconomic measure of family size.

Income

The amount of revenues available to black universities affect the quality and quantity of resources provided to students in the university setting. The type and amount of revenues received by institutions are of extreme importance today because of federal cutbacks in educational programs. Black universities have been traditionally supported by public funds and have received little support from the private sector. Because of the budget reduction plan, many contend that private funds to universities will not substitute for the revenues loss from public contributions, thus suggesting that a decrease in student enrollment and the quality of education at black universities will occur. A measure of this problem in this study is important because blacks' ability to obtain information and knowledge is directly related to the amount and type of revenues provided to black universities.

Economic Model and Estimation

Following the above discussion, we can now proceed toward developing an economic model for the black university setting. It is
assumed that a direct correlation exists between students receiving degrees conferred at black institutions and the likelihood of their pursuing entrepreneurial opportunities. It is also assumed that administrators at black universities seek to provide the best academic environment for students for a given cost outlay or seek to select various inputs with a mind of providing the optimum academic environment for students' matriculation. The variables discussed in the previous sections of this paper are likely to assist administrators toward achieving this objective. Thus, in this study, the economic model for the black university setting is specified as follows:

\[ DC = f(Fac, Tuit, Priv, Gov, Priv / Gov) \]

where,

- \( DC \) = Degree conferred;
- \( Fac \) = Faculty members at black universities;
- \( Tuit \) = Tuition cost at black universities;
- \( Priv \) = Private contributions to black universities;
- \( Gov \) = Government contributions to black universities; and
- \( Priv/Gov \) = Ratio of private contributions divided by government contributions.

The ability of blacks to obtain information is measured by degrees conferred.

**Hypotheses**

1) It is expected that the pool of human capital (measured by faculty) will positively affect degrees conferred at black
universities. This variable should be extremely significant because of the low faculty/student ratio in the black university setting.

2) Tuition cost (Tuit) is expected to have a negative impact on degrees conferred because the higher the cost incurred to attend school, the less likely students will graduate.

3) Both private (Priv) and government (Gov) contributions are expected to have a positive effect on degrees conferred.

4) The Priv/Gov measures the substitution effect between government and private contributions. Economic theory predicts that if the sign of this variable is negative, then the two revenues complement each other, and if the sign is positive, the two revenues serve as substitutes. We hypothesized that Priv/Gov will be positive.

The general model above may be expressed in mathematical form.

In this form the model is expressed as:

\[ DC = \text{Fac} \alpha_1 \text{Tuit} \alpha_2 \text{Priv} \alpha_3 \text{Gov} \alpha_4 \]

where all variables are previously defined and the \( \alpha \)'s are parameters to be estimated. The above expression is easily translated into a statistical model to estimate the substitution effect between the private and government contribution variables, with the additional stochastic error term and taking logarithms of both sides. The statistical model estimated in this case appears as follows:

\[ \log DC = \log_1 \text{Priv/Gov} + \log_2 \text{Priv} + \log_3 \text{Gov} + U \]

where \( U \) is a random error term with zero mean and constant variance, that is,

\[ U \sim N(0, \sigma^2). \]
Ordinary least squares procedures are used to estimate the parameters of the above equation.

By measuring blacks' ability to obtain information, we indirectly determine those factors that enhance their abilities to become entrepreneurs.
CHAPTER IV

STATISTICAL ANALYSIS AND RESULTS

The statistical equations below examined the two major concerns discussed in Chapter III. Equation 1 measures black students' ability to obtain information in the black university setting based on the various inputs. Equation 2 examines the substitution effect between private and government contributions.

\[ DC = A_0 + A_1 \text{Fac} + A_2 \text{Tuit} + A_3 \text{Gov} + A_4 \text{Priv} + U \quad \text{(1)} \]

\[ DC = A_0 + A_1 \log(\text{Priv/Gov}) + A_2 \log \text{Priv} + A_3 \log \text{Gov} + U \quad \text{(2)} \]

where,

\[ A_0 \ldots A_4 = \text{Parameters on the variables in each equation to be estimated.} \]

Several assumptions are made about the equations. It is assumed that the world is linear, suggesting linearity in the parameters. It is expected that the error terms are normally distributed with finite variances. Another assumption about the equations above is that the expected value of the disturbance terms equal zero, indicating absence of serial correlation. Last, it is assumed that the variables in all equations are independent of each other.
Data Sources

Data for this study were obtained from the 1980-84 United Negro College Fund Statistical Reports. This report included information on the forty-two predominantly black colleges. Degrees conferred (DC) represents the total number of bachelor, master's, professional and doctorate degrees awarded at these schools. Tuition cost (Tuit) is the sum of tuition, fees, room, board, books and supplies. The faculty variable (Fac) comprised both full- and part-time members on these campuses. Government contributions (Gov) represent total federal givings to schools and do not include state contributions. Private contributions (Priv) represent total private gifts to U. N. C. F. schools as outlined in the Percentage Distribution of Current Fund Revenues Chart during the above respective years.

Results

To compare the effectiveness of our model, we ran two sets of regressions for each of the above statistical equations. The regression results for the first statistical equation are provided in Table 4.

1Actually the number is forty-three with the addition of Morris College. This school was omitted from the sample because it became a U. N. C. F. school in the early '80s and information was not available on it in 1980.

2In some cases, multiplication was necessary to obtain numerical values for some of the data used in this study. For example, we had to multiply the percentage of private gifts given to each school by their respective revenues to obtain numerical values of total gifts.
**TABLE 4**

RESULTS ON GENERAL MODEL*

<table>
<thead>
<tr>
<th>Source</th>
<th>1980-81</th>
<th>1982-83</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>39.5</td>
<td>11.6</td>
</tr>
<tr>
<td></td>
<td>(38.31)</td>
<td>(39.37)</td>
</tr>
<tr>
<td>Faculty</td>
<td>1.4</td>
<td>2.4</td>
</tr>
<tr>
<td></td>
<td>(.26)</td>
<td>(.383)</td>
</tr>
<tr>
<td>Tuition</td>
<td>-.0073</td>
<td>-.0006</td>
</tr>
<tr>
<td></td>
<td>(.008)</td>
<td>(.0091)</td>
</tr>
<tr>
<td>Government Contributions</td>
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<td>-.0000078</td>
</tr>
<tr>
<td></td>
<td>(.00001)</td>
<td>(.000009)</td>
</tr>
<tr>
<td>Private Contributions</td>
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<td>-.0000038</td>
</tr>
<tr>
<td></td>
<td>(.000025)</td>
<td>(.00001)</td>
</tr>
<tr>
<td>R2</td>
<td>87</td>
<td>87</td>
</tr>
</tbody>
</table>

♦Numbers in parentheses are standard errors.

SOURCE: Researcher's own calculations.

The predictive power of both models was equally impressive with an R² of 87. However, the signs of some variables were different from what was expected. Although the variables in the 1980-81 model had all their expected signs, consistent with the hypotheses, only faculty and tuition cost had the correct signs in the 1982-83 model; both government and private contribution had unexpected negative signs.

The standard errors were examined to determine the importance of the variables. Here again, the results were different between the
models. The faculty variable was found to be important in both models, and both government and private contributions were found to be important only in the 1980-81 model. Thus, the results above indicate that our 1980-81 model performed very well based on our hypotheses. However, for the 1982-83 model, the results suggest that government and private contributions may have a negative impact on degrees conferred. Some may conclude that our model did not perform well overall because faculty was the most important variable in our model and because of the unexpected, though insignificant, negative signs of the government and private variables in the 1982-83 model. We think otherwise and give our explanation below.

First, the fact that faculty was the most important variable in explaining our model is not surprising and is consistent with several education production studies. Chizmar and McCarney,\(^3\) using a television series "trade-off," tested to determine what factors enhanced the cognitive achievement of elementary students. Using a model similar to the Cobb-Douglas production function, the authors found that teachers who attended longer "trade-off" series workshops contributed more to student learning. A similar study of this nature was completed by Summer and Wolfe.\(^4\) In this study, the authors examined what factors contributed to the educational growth of students in a Philadelphia school district. Their overall analysis was that teachers who graduated

\(^3\)Chizmar and McCarney, p. 17.

\(^4\)Summers and Wolfe, p. 644.
from major schools contributed greatly to the educational growth of their students. Another study by Brown and Saks\textsuperscript{5} asserted that quality in teachers play a significant role toward educational growth. In this study, the authors examined what input factors contributed to student performance on achievement examinations. Their conclusion revealed that teachers' attributes contributed to student performance. Thus, the fact that faculty was important in the findings of this study is consistent with previous studies.

Second, it is not difficult to explain why our 1982-83 model suggested that government and private contributions have a negative impact on degrees conferred. A thorough examination of the matrix of correlation indicated that multicollinearity was present between the faculty, government and private data. This is likely the reason why the government and private variables had negative signs in the 1982-83 model. To test this premise, four additional regressions were run.

The first regression excluded tuition as an independent variable to determine if it contributed to causing multicollinearity among the government and private data. The results are provided in Table 5. In both years, the explanatory power of the models remained the same with an $R^2$ of .87 respectively. Both models continued to show inconsistencies among the signs of their variables. Again, the variables in the 1980-81 model had all their expected signs, and the government

\textsuperscript{5}Brown and Saks, p. 588.
TABLE 5

<table>
<thead>
<tr>
<th>Source</th>
<th>1980-81</th>
<th>1982-83</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>11.2</td>
<td>11.6</td>
</tr>
<tr>
<td></td>
<td>(17.19)*</td>
<td>(39.37)</td>
</tr>
<tr>
<td>Faculty</td>
<td>1.44</td>
<td>2.45</td>
</tr>
<tr>
<td></td>
<td>(.26)</td>
<td>(.38)</td>
</tr>
<tr>
<td>Government Contributions</td>
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<td>-.0000078</td>
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<tr>
<td></td>
<td>(.000001)</td>
<td>(.0000078)</td>
</tr>
<tr>
<td>Private Contributions</td>
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<td>-.0000038</td>
</tr>
<tr>
<td></td>
<td>(.000024)</td>
<td>(.000011)</td>
</tr>
<tr>
<td>R²</td>
<td>87</td>
<td>87</td>
</tr>
</tbody>
</table>

*Numbers in parentheses are standard errors.

SOURCE: Researcher's own calculations.

and private contribution variables had unexpected negative signs in the 1982-83 model. Examining the standard errors, we found that all variables in the 1980-81 model were important and that only faculty was important in the 1982-83 model.

The second regression excluded faculty as an independent variable in both models (see Table 6). In both years, the R²s remained high explaining 76 percent of the predictive power in the 1980-81 model and 72 percent of the predictive power in the 1982-83 model. In both models, the government and private variables had their expected signs;
TABLE 6

<table>
<thead>
<tr>
<th>Source</th>
<th>1980-81</th>
<th>1982-83</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>42.36</td>
<td>-16.66</td>
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<tr>
<td></td>
<td>(-51.34)*</td>
<td>(39.37)</td>
</tr>
<tr>
<td>Tuition</td>
<td>-.003</td>
<td>.018</td>
</tr>
<tr>
<td></td>
<td>(.011)</td>
<td>(.012)</td>
</tr>
<tr>
<td>Government Contributions</td>
<td>.00056</td>
<td>.000029</td>
</tr>
<tr>
<td></td>
<td>(.000010)</td>
<td>(.000008)</td>
</tr>
<tr>
<td>Private Contributions</td>
<td>.000043</td>
<td>.000022</td>
</tr>
<tr>
<td></td>
<td>(.000032)</td>
<td>(.000014)</td>
</tr>
<tr>
<td>R²</td>
<td>76</td>
<td>72</td>
</tr>
</tbody>
</table>

*Numbers in parentheses are standard errors.

SOURCE: Researcher's own calculations.

only tuition had an unexpected positive sign in the 1982-83 model. Examining the standard errors, we found that all variables in the 1980-81 model were important and that only government contributions were important in the 1982-83 model.

The third regression that was run used only government and private contributions as independent variables (see Table 7). The purpose here was to measure whether the variables would have their expected signs. The predictive power of both models remained high with an R² of seventy-six and seventy respectively. All the variables had their expected
TABLE 7

<table>
<thead>
<tr>
<th>Source</th>
<th>1980-81</th>
<th>1982-83</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>26.96</td>
<td>64.53</td>
</tr>
<tr>
<td></td>
<td>(22.56)*</td>
<td>(15.54)</td>
</tr>
<tr>
<td>Private Contributions</td>
<td>0.000042</td>
<td>0.000026</td>
</tr>
<tr>
<td></td>
<td>(0.000031)</td>
<td>(0.000014)</td>
</tr>
<tr>
<td>Government Contributions</td>
<td>0.000056</td>
<td>0.000029</td>
</tr>
<tr>
<td></td>
<td>(0.000010)</td>
<td>(0.000008)</td>
</tr>
<tr>
<td>R²</td>
<td>76</td>
<td>70</td>
</tr>
</tbody>
</table>

*Numbers in parentheses are standard errors.

SOURCE: Researcher's own calculations.

signs. Examining the standard errors, we found that only government contribution was important in both models. From the above results, we can conclude that a high degree of multicollinearity is present in the 1982-83 data set.

Substitution Effect between Private and Government Contribution

The regression that measures the substitution and private contributions is provided in Table 8. The R²s for both models were low, explaining only 46 percent of the variation in the models. However, government and private contributions for both models had their expected
TABLE 8


<table>
<thead>
<tr>
<th>Source</th>
<th>1980-81</th>
<th>1982-83</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-1.9</td>
<td>-4.8</td>
</tr>
<tr>
<td></td>
<td>(1.5)*</td>
<td>(15.54)</td>
</tr>
<tr>
<td>Log P/G</td>
<td>-.235</td>
<td>-.142</td>
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<tr>
<td></td>
<td>(1669)</td>
<td>(2155)</td>
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<tr>
<td>Log Priv</td>
<td>.365</td>
<td>.189</td>
</tr>
<tr>
<td></td>
<td>(1669)</td>
<td>(2152)</td>
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<tr>
<td>Log Gov</td>
<td>.126</td>
<td>.189</td>
</tr>
<tr>
<td></td>
<td>(1669)</td>
<td>(2152)</td>
</tr>
<tr>
<td>R²</td>
<td>46</td>
<td>46</td>
</tr>
</tbody>
</table>

*Numbers in parentheses are standard errors.

SOURCE: Researcher's own calculations.

The substitution ratio was negative, indicating that both variables complement each other and disproving our hypothesis. Examining the standard errors, we found that the variables were highly unimportant and lead us to believe that the model was misspecified.

Summary

In this chapter, we examined the effectiveness of our model using data from two different time periods. The results revealed that our 1980-81 model performed well, with all the variables having their
expected signs. However, for the 1982-83 model, the results suggested that government and private contributions have a negative impact on degrees conferred at U. N. C. F. schools. The matrix of correlation was examined and multicollinearity was present among the faculty, government and private variables in the 1982-83 data set. The substitution effect between private and government contributions was estimated, and it was found that both variables complement each other.
CHAPTER V
CONCLUSIONS

The objective of this study was to identify factors that could enhance the participation of black entrepreneurs in the global space economy. We argued that the potential supply of black entrepreneurship was directly related to their ability to obtain information and knowledge. The black university setting was selected as the stage to test this paradigm. To identify important factors and possible recommendations, we asked three questions. Below is a summary of our findings and recommendations.

In addressing the question of how black entrepreneurial skills should be improved, we found several possible recommendations. The pool of human capital available to students had a direct effect on increasing degrees conferred at U. N. C. F. schools. It is recommended that those factors that enhance resources available to faculty members will also increase the potential supply of black entrepreneurs. Policies that lower the cost to attend black schools will also likely enhance the potential supply of black entrepreneurs. The cost to attend black universities had a negative effect on degrees conferred at these schools.

Another question addressed in this study was in what ways can educational institutions contribute to the training of black entrepreneurs. Although our study did not include a direct measure of this
relationship, it is safe to assume from the literature review that the supply of black entrepreneurs is directly related to their ability to obtain information, managerial skills and technical training. The initial stages of these skills are obtained in the educational setting. Therefore, we recommend that factors that increase the enrollment of black students at black universities also indirectly increase the potential pool of black entrepreneurs.

The issue of private funding vis-à-vis public funding on increasing degrees conferred in the black university setting was also addressed in this study. Our results indicated that the 1980-81 model had expected signs for both government and private variables; however, for the 1982-83 years estimated, both variables had unexpected negative signs. Upon investigation of the matrix of correlation, it was revealed that multicollinearity was present among the data in the 1982-83 model. The substitution effect of the two variables was also examined. The results indicate that both variables complement each other; however, the variables were found to be highly unimportant. These results suggest that perhaps our model was misspecified in capturing the effect of funding toward increasing degrees conferred.

The above results, suggesting that blacks' ability to pursue entrepreneurial opportunities is related to their ability to obtain information, are encouraging but not conclusive. We recommend that this study serve as a beginning report toward examining the growth of black entrepreneurship from this perspective.


